

4th Annual Conference on

PUMPED HYDRO STORAGE IN INDIA

Organisers:

RenewableWatch | PowerLine

Towards 100 GW by 2035-36

June 23, 2026 | Le Méridien, New Delhi

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MISSION

- Pumped storage project (PSP) uptake is showing renewed momentum. As per the CEA, as of December 31, 2025, India has a total of 82 PSPs aggregating 105.46 GW at various stages of development. India's PSP roadmap is clearly defined, with storage requirements expected to rise sharply over the next decade. A roadmap recently released by the CEA envisages the commissioning of PSPs with an aggregate capacity of 100,810 MW by 2035-36, including 11,620 MW of projects currently under construction. This will entail an investment of Rs 5,813.16 billion by 2035-36. The country's identified PSP potential stands at 266,846 MW across 248 projects, which remains largely untapped.
- PSPs have long been the traditional solution for large-scale energy storage. They offer many advantages, including long discharge durations of 6-10 hours or more, a high round-trip efficiency of 75-80 per cent and the ability to provide various ancillary services to the grid. As costs continue to decline and revenue opportunities expand, the PSP market is poised for significant growth.
- Recognising the crucial role of PSPs in renewable energy integration, various policy measures have been introduced to encourage adoption. The introduction of competitive bidding guidelines, budgetary support, waiver of transmission charges, speeding up of approvals, faster clearances and CEA's roadmap with clear plans and targets are the key interventions at the central level. In addition, several states have introduced dedicated policies to promote PSPs.
- The policy support and the rising storage requirements driven by the rapid expansion of renewables have renewed interest in PSPs among policymakers, utilities and developers. PSPs have provided a much-needed push to India's hydropower sector, increasingly becoming an integral part of the country's clean energy transition. They are gaining uptake among utilities as well as commercial and industrial consumers seeking reliable, round-the-clock renewable power. While stakeholder interest is strong, actual progress will be driven by faster execution. Going forward, project risks related to land acquisition, environmental and forest clearances, geological uncertainties, and long development timelines must be addressed.
- The mission of this one-day conference is to discuss the key growth trends, policy developments, opportunities, cost economics, early experiences, challenges and outlook in India's pumped storage market. This conference will serve as a platform for policy makers, regulators, utilities, project developers, manufacturers and technology providers, EPC contractors, O&M service providers, financiers, and consultants to share their insights and experiences in this growing sector.

Target Audience

The event is expected to draw participation from executives, managers and decision-makers from:

- Hydropower Producers
- Technology Providers
- Regulatory Boards
- Interstate Hydro Projects
- State Electricity Boards
- Consultants
- Civil Work Contractors
- Legal Firms
- State/Central Government Agencies
- Financial Institutions
- Central Public Units
- Etc.

AGENDA

Market Potential, Growth Trajectory and Outlook

- How large is the addressable market for PSPs in India, and how has the segment evolved in recent years in terms of project pipelines, developer interest and state-level initiatives?
- As India scales up round-the-clock (RTC) renewable power and green hydrogen production, what strategic role can PSPs play in firming supply and managing intermittency? How do PSPs compare with battery energy storage systems in terms of duration, economics and system value?
- What are the key regulatory, financial and implementation challenges facing PSP development today, and what is the realistic near- and long-term outlook for capacity addition and market integration?

Central and State Level Policy Initiatives

- What are the key policy and regulatory measures introduced by the central and state governments to accelerate PSP deployment, and which provisions in the current PSP guidelines are the most consequential for project viability and risk allocation?
- What additional reforms - such as market design changes, tariff mechanisms, environmental clearances or hydro policy alignment - are being considered to address bottlenecks and crowding in private investment?
- In the government's broader storage strategy, how does the policy emphasis on pumped storage compare with that on battery energy storage systems, and what does this signal about the long-term technology pathway for grid-scale storage in India?

Regulatory Approvals and Environmental Clearances

- What are the key regulatory approvals and environmental clearances required for PSPs, and where do developers typically face the most significant delays or uncertainty?
- How can the clearance process be streamlined without diluting environmental safeguards and community engagement?
- What reforms in land acquisition, forest clearance, water-use permissions and rehabilitation frameworks are necessary to improve predictability, reduce project risk and accelerate PSP commissioning?

Developer Perspectives: Project Pipelines, Execution Challenges and Strategic Priorities

- How are private developers and state gencos positioning their pumped storage portfolios? What key applications (peak balancing, RTC renewables, ancillary services, merchant markets, green hydrogen integration) are these projects being designed to serve?
- What does the current project pipeline look like across states, and what are the major execution challenges that are shaping timelines and investment decisions?
- What policy, regulatory and market interventions are most urgently required to unlock scale, ensure bankability and accelerate PSP deployment over the next decade?

Engineering Strategies and Performance Optimisation

- What engineering, design and construction best practices with respect to site selection, tunnelling methodologies, electro-mechanical configuration and digital modelling are critical to improving efficiency, reliability and long-term asset performance in PSPs?
- Given the long asset life of PSPs, how can O&M strategies—predictive maintenance, turbine modernisation, automation, flexible dispatch optimisation, AI uptake - enhance availability, reduce lifecycle costs and maximise revenue streams?
- From an EPC and operations standpoint, what are the most pressing sectoral challenges? How can risk-sharing and contract design evolve to improve project bankability and execution certainty?

Cost Economics and Financings

- Given the capital-intensive and long-gestating nature of PSPs, what are the key considerations for achieving financial closure?
- What policy, regulatory and market reforms are required to strengthen the financing ecosystem and attract both domestic and international capital?
- How do lenders and investors currently view PSPs relative to other storage technologies? What is the near- to medium-term outlook for funding availability, cost of capital and project bankability in this segment?

Use Case for Grid Operators and Utilities

- From a utility standpoint, what system-level benefits do PSPs deliver in terms of grid stability, peak management, renewable integration, ancillary services and black-start capability?
- How are utilities evaluating the cost economics of long-term PPAs for PSPs and other storage solutions?
- What is your procurement strategy for storage going forward? How are emerging risks, such as cybersecurity vulnerabilities in digitally controlled hydro and storage assets, being addressed?

Project Case Study

- What are the key characteristics the project? Who are the offtakers? What primary challenge does the project address?
- What is the cost viability of the project? Who are the key financiers?
- What are the key best practices from the project that other players can imbibe? What were the key operational challenges faced by the developer? How can these be addressed?

PREVIOUS PARTICIPANTS

ACB (India), Adani Green Energy, Afcons Infrastructure, AFRY India Private, Andritz Hydro, Aqua Machineries, AVAADA, B Fouress, BA Prerna Renewables, Bauer Engineering India, Bauer Kompressoren India, C&S Electric, Capital Fortunes, Carpi India Waterproofing Specialists, Chenab Valley Power Projects, Chenab Valley Power Projects, Dineshchadra R. Agrawal Infracon, DRAIPL, Ecologic Power Development, EDF, Entura, Ernst & Young LLP, Federation of Indian Small Hydropower (FISH), Flowmore, Forum of the Hydro Power Producers & Other Stakeholders in Satluj Basin (HPPF), GE Power India, GE Power India Limited, GMR Energy, Greenko, Greennew Urja Private, HPDCAPL, ICICI Bank, IIT Roorkee, Jindal Power, Jindal Steel & Power, Lombardi Engineering India, M&I Materials India, Mosh Varaya Infrastructure, MYK Arment, NCC Limited, NHPC, NTPC, Oil and Natural Gas Corporation Limited, Polyplex Hydro, REMC Limited, Rittmeyer, Sangamam Power Projects, SBI Capital Markets Limited, Splash Power, State Bank of India, TD Power Systems, The Tata Power Company, The Tata Power Company, Torrent Power Limited, TRILEGAL, WEG Industries (India), Yog Infra, Yooil Infrastructure.

DELEGATE FEE

	Fee			
Delegates	**INR**	**GST@18%**	**Total INR**	**Total USD**
One delegate	17,500	3,150	20,650	252
Two delegates	29,500	5,310	34,810	425
Three delegates	41,500	7,470	48,970	597
Four delegates	53,500	9,630	63,130	770

- Registration will be confirmed on receipt of the payment.
- To register online, please log on to http://indiainfrastructure.com/conf.html

ORGANISERS

The conference is being organised by **India Infrastructure Publishing**, the leading provider of information on the infrastructure sectors. The company publishes the **Power Line, Indian Infrastructure** and **Renewable Watch** magazines. It also publishes a series of reports on the energy sector including **Pumped Hydro Storage in India; Hydropower in India; Renewable Energy in India; Floating Solar Projects in India;** and **Green Hydrogen in India.** Moreover, the company publishes the **Power Line Directory and Yearbook.**

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