

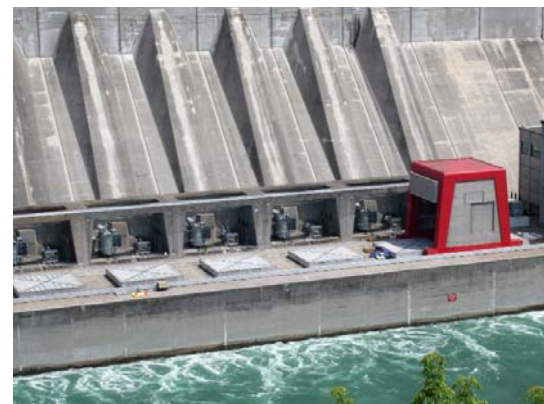
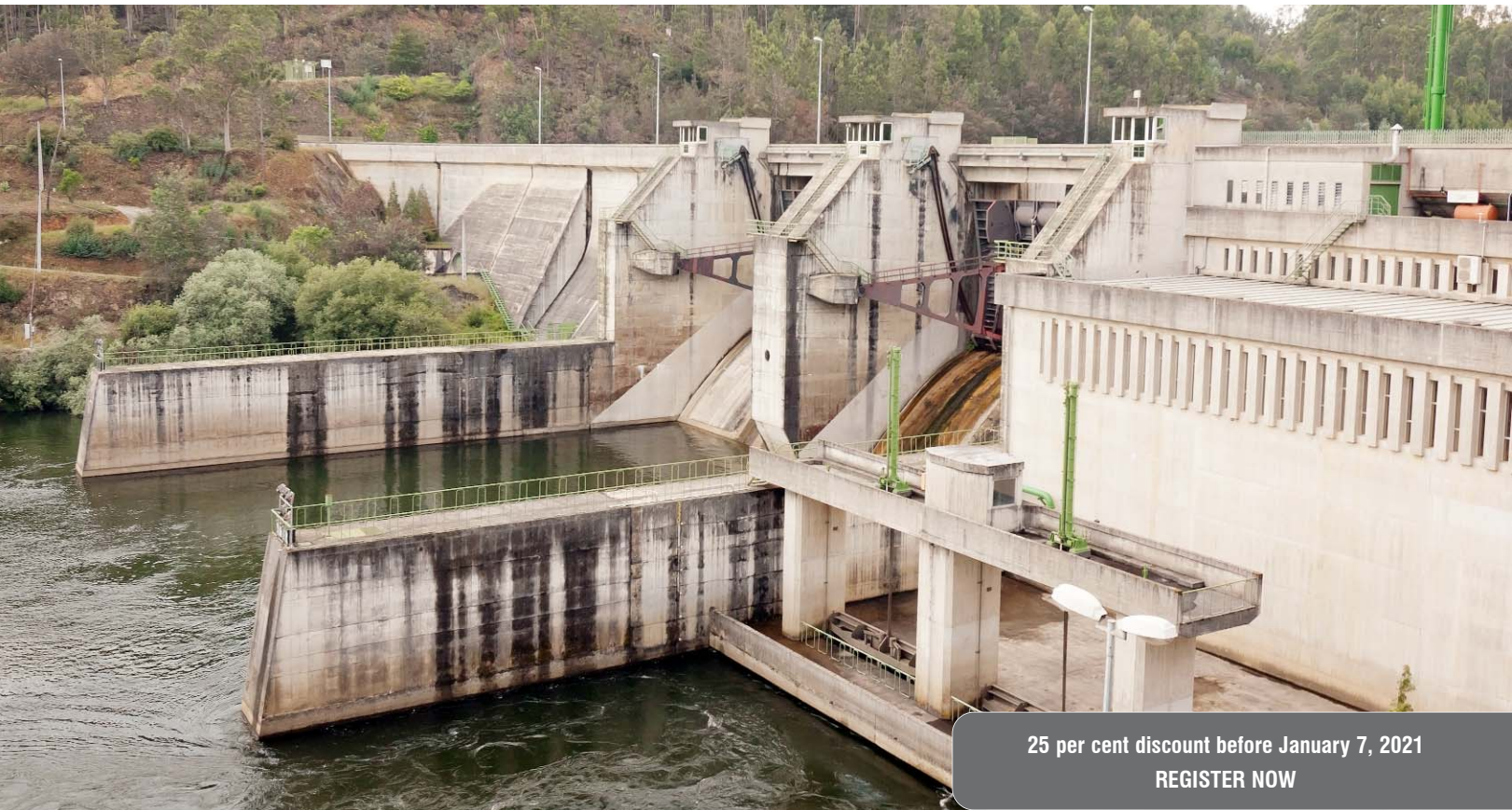
18th Annual Conference on

HYDRO POWER IN INDIA

A VIRTUAL CONFERENCE

Growth Strategies, Promising Technologies and Market Outlook

January 28-29, 2021



Organisers:

**Indian
Infrastructure**

POWERLINE

Co-sponsors:

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Hydro Power in India

Mission

- Despite a recent slowdown in capacity additions, the hydro power segment is still growing. The country added 300 MW of hydro power capacity during 2019-20, nearly 46 per cent higher than the capacity added in 2018-19. The country now has an installed base of over 45.6 GW (above 25 MW) with hydro power stations being the second largest contributor to power generation. In 2019-20, 156 BUs of hydro power was generated, almost 14 per cent higher than the target.
- Hydro is seen as a valuable resource in India's energy mix, especially given its role in flexibilisation and load balancing. This was best demonstrated recently in April 2020, when India achieved a unique feat, recording a staggering load reduction of almost 32 GW during the 9PM-9 minutes lights-off event during the lockdown, with hydro power plants playing a key role.
- In 2019, the sector received an impetus when the central government announced measures such as the inclusion of large hydro in renewables, tariff rationalisation and budgetary support for the flood moderation and infrastructure components of hydropower projects. This was followed by recent amendments to the hydropower obligation provision in the draft Electricity Act Bill, 2020, which was notified in April 2020. The central government is likely to issue guidelines, setting hydropower procurement targets for states on the lines of renewable energy purchase obligations.
- Further, as the country looks to integrate a greater amount of variable renewable energy into the grid, pumped storage hydro is the only commercially proven technology available for grid-scale energy storage at present. There are around 63 sites in India with a PSP potential of over 96 GW. However, the implementation of PSPs remains a challenge owing to their impact on the ecology and the high capex involved. So far, nine PSPs (above 25 MW) with a total capacity of 4.7 GW have been constructed and three PSPs aggregating 1,580 MW are under construction.
- Meanwhile, hydro has helped further regional energy cooperation and expand cross-border power trade in South Asia, especially in the India-Nepal-Bhutan-Bangladesh sub-region. Hydro power imports and exports constitute a major share of cross-border trade in the region. This share is expected to go up in the coming years with a number of hydro projects and transmission interconnections currently under construction in the region. Apart from this, India has notified its cross-border trading guidelines.
- In terms of the future pipeline, by 2029-30, the CEA has projected the installed hydro capacity to reach 72 GW. There are nearly 13 GW of hydropower projects, which are currently under various stages of execution. However, to accelerate development, the segment needs to overcome various challenges including the unavailability of low-cost finance, stressed assets, geological surprises, contractual disputes, public resistance, delays in environmental clearances, and limited off-takers. Further, the segment saw disruptions due to Covid as schedules of under-construction projects were impacted due to labour and material supply constraints, and receivables by generators piled up due to discom liquidity issues.
- The government is cognisant of these challenges and has been trying to address them. For instance, last year, the MoP issued guidelines for hydropower developers, mandating a quick resolution of contractual disputes. These guidelines are binding on the CPSUs. Further, on the ministry's advice, the states are now coming forward to promote investments in the hydro segment by reducing or waiving their free power commitments, bringing down GST, reducing water cess, etc.
- **The mission of this virtual conference is to analyse the key issues, challenges, opportunities and outlook for the hydropower segment in India. The virtual conference will also provide a platform to showcase new technologies, construction methods and noteworthy projects.**

Target Audience

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

- Central Public Units
- Private Power Producers
- Regulatory Boards
- Civil Work Contractors
- Interstate Hydro Projects
- Cross Border Hydro Projects
- Financial Institutions
- Technology providers
- Consultants
- State Electricity Boards
- State/Central Government Agencies
- Equipment Manufacturers
- Legal Firms
- Etc.

AGENDA/STRUCTURE

KEY TRENDS AND OUTLOOK

- ❖ What have been the key trends in the hydro power segment?
- ❖ What have been the recent developments? What has been the impact of Covid?
- ❖ What are the key issues and challenges? What is the future outlook?

GOVERNMENT PERSPECTIVE

- ❖ What is the central government's perspective on the hydro power segment?
- ❖ What are the issues hampering the growth of the segment?
- ❖ What have been the recent initiatives? What is the outlook for the segment?

CPSU PERSPECTIVE

- ❖ What is the perspective of CPSUs on the hydro power segment?
- ❖ What are the issues and challenges?
- ❖ What are their future plans? What is the outlook?

PRIVATE DEVELOPERS' PERSPECTIVE

- ❖ What are the views of private players on the hydro power segment?
- ❖ What are the issues and concerns?
- ❖ What is their future outlook? What are the industry expectations?

STATE INITIATIVES

- ❖ What has been the trend in hydro power development by hydro-rich states?
- ❖ What have been the initiatives taken?
- ❖ What is the upcoming capacity? What are the issues and concerns?

FINANCIERS' PERSPECTIVE

- ❖ What is the lenders' perspective on the hydro power segment?
- ❖ What are the key issues and concerns?
- ❖ What is their outlook?

FOCUS ON DIGITALISATION

- ❖ What are the new and emerging requirements of hydro power generators?
- ❖ Which digital applications are the most relevant for hydro power plants?
- ❖ What has been the trend in the uptake of such solutions so far?

TARIFFS AND COSTS

- ❖ What has been the trend in costs, tariffs and power procurement of new and old hydro power plants?
- ❖ What is the likely impact of the recent measures to promote hydro power on tariffs?
- ❖ What is the outlook?

FOCUS ON PSP AND HYDRO STORAGE FLEXIBILITY

- ❖ What role can PSPs play in power system operations?
- ❖ What has been the trend in the development of PSP capacity so far?
- ❖ What is the outlook for the PSP segment?

REGIONAL COOPERATION

- ❖ What is the status of cross-border hydro power projects?
- ❖ What has been the experience so far?
- ❖ What are the key issues and concerns? What is the outlook?

ADVANCES IN TURBINES AND GENERATORS

- ❖ What are the new trends and developments and advancements?
- ❖ What are the best practices related to O&M?
- ❖ What are the key issues and challenges?

TUNELLING AND UNDERGROUND WORKS

- ❖ What are the key challenges involved in tunnelling and underground works? What are the methods to tackle these?
- ❖ What have been the advancements in technologies?
- ❖ What are some of the noteworthy projects?

BEST PRACTICES IN O&M

- ❖ What has been the performance of existing hydro power stations?
- ❖ What are the best practices for O&M?
- ❖ What has been the impact on performance? What are the costs involved?

PROJECT SHOWCASE

- ❖ What are some of the successfully commissioned hydropower projects?
- ❖ What are their key features?
- ❖ What has been the experience in execution?

Hydro Power in India

Previous Participants

Our 17th annual conference on **Hydro Power in India** had B with **150 plus participants**, which included: ABB, Afcons Infrastructure, Antriksh Technosys, ARH Technologies, B C Technomation, Bajaj Reinforcements LLP, Bauer Kompressoren , BBMB, BHEL, Bhutan Hydropower Services , Bosch Rexroth, C&S Electric, Carpi India Waterproofing Specialists, Chenab Valley Power Projects, Coral Coil, Dans Energy, Ecologic Power Development, EGIS, EKI Energy, Entura Consultants, Envecon Global Solutions, EXIM Bank, Gammon Engineers And Contractors, GE Power, GE Renewable Energy, GSECL, Haryana Power Gen Corporation, HBPCL JSW Energy, HIDCL, NEPAL, Himachal Baspa Power Company, Himachal Pradesh Power Corporation, Himachal Pradesh State Electricity Board, HydroVision India, Hyosung Corporation, ICICI Bank , IFCI, India Ratings & Research, Industrial Processors & Metallizers, J&K State Power Development Corporation, J.B. Boda Insurance Brokers, JSW Energy, JSW Power Trading, Karnataka Renewable Energy Development, KEI Industries, KfW , Khaitan & Co, Kholongchhu Hydro Energy Limited (A Joint Venture of SJVN (India) & DGPC (Bhutan), Khutani Company , Kreate Energy, Maharashtra Electricity Regulatory Commission, Maharashtra State Power Generation, Marsh India Insurance Brokers, Matcos Consulting Services, Mecon, MPGENCO, MPPGCL, National Power Training Institute, NEEDO (New Energy and Industrial Technology Development Organization), NEEPCO, Neora Hydro , Nepal Electricity Authority, NHPC, NMB Bank, NPTI (Nangal), NTPC, Odisha Hydro Power Corporation, Om Energy Generation, Omega Icehill, PFC, PHPA-I, Bhutan, PHPA-II, Bhutan, Poyry Switzerland, PSPCL, PTC, PTCUL, Remit Hydro, RotoTech Engineering Services, Sai Disha Engineers & Consultants, SBI Capital Markets, Sharika Enterprises, Shri Saravana Industries, SIKA, SJVN, SMEC, Statkraft , STP, Tanahu Hydropower, Tangsibji Hydro Energy , Tata Power, Teest Urja, Telangana State Power Generation Corporation (TSGENCO),Toshiba, Tranter, Tuffboom India Products LLP, UJVNL, Uttarakhand Electricity Regulatory Commission, Voith Hydro, Volvo, Wapcos, etc.

We had over **100 plus organisations** with **180 plus participants** at our successfully concluded “**Hydro Power in Asia**” conference held on August 26-27. The participants included: Accelerating Investment and Infrastructure in Nepal - (AIIN), AECOM, Alampart, Alternergy, ANDRITZ Hydro, Asian Infrastructure Investment Bank, AIIB, ATB Riva Calzoni, Bajaj Reinforcement LLP, Bhutan Automation & Engineering, Bhutan Electricity Authority, Capital Region Development Authority, Carpi India Waterproofing Specialists, CARPI TECH BV AMSTERDAM BALERNA BRANCH, CEPAD hydro Consultants, Coastal Projects, Deloitte Consulting, Electricity Generation Authority of Thailand, Fluid Logic Systems Pvt. Ltd. (JV company of VOITH TURBO Germany), FMG Laos, GE Power, GE Renewable Energy, Gilbert Gilkes & Gordon, Global Business Power Corp.GMR Energy, Greenko Budhil Hydro Power, Hydro Tasmania, Hydropower Investment and Development Company - Nepal, Hyundai Engineering, IFC, INDAR ELECTRIC, S.L., Industrial Processors & Metallizers (P) Ltd, International Energy Agency (IEA) Hydropower group, J.kumar-CRTG infraprojects, Jacobs Engineering Group Malaysia Sdn Bhd, Jade Consult, Klohn Crippen Berger, KPMG, LEA Associates South Asia, Lombardi Engineering Makarigad Hydro Power, Mekong River Commission, Ministry of Energy, water Resources and Irrigation- Nepal, MYK Arment, NEEPCO (Kameng hydro project), Nelumbo Icona Controls, Nepal Engineering Council, Nepal Power Exchange Limited, Newjec, Nexwave Technologies, NHPC, North Hydro and Engineering, Nupche Likhu Hydropower Project, Paschim Hydro, Premier Electric Marketing LLP, PT LAPI ITB Joint Project Freeport Indonesia Company, PT POSO ENERGY, PT. Adimitra Hidro Nusantara, PT. Sumberdaya Sewatama (part of Tiara Marga Trakindo Group), PwC, RADD Engineering Analytics, San Miguel Global Power Corporation, Sanima Hydro And Engineering, Sarawak Energy Berhad, Siemens, Sipradi Trading, SMEC India, Snow Fountain Consultants, Soilex Consultants, Solar Energy Research Institute of Singapore (SERIS), Statkraft, Summit Bibiyana Power Company, Super Dordi Hydro Electric Project Kha, Syarikat SESCO Berhad, Symantec Technology, Terregra Asia energy Tbk Group, Tehri Hydro Development Corporation, Tenaga Nasional Berhad, TRACTEBEL, UJVNL, UNIDO, Vidullanka Energy, Vilas Patil & Associate, Voith Hydro, Wells Engineering, LLC, World Bank Group, Worthington Products, Inc, WWS Wasserkraft GmbH, etc.

What differentiates our conferences?

- The **agenda** is developed by our researchers, who track the sector round the year. It is thus **relevant** and **topical**. It is not driven by a particular organisation and does not have a particular slant.
- The **speakers** are **professionals** and **experts** involved in the sector, not a mix of ambassadors, ministers, celebrities and business owners.
- The conferences do not just comprise panels and speeches; they provide a good mix of **expert presentations** and **case histories**, and of course **panel discussions**.
- We have **representation** from **across the country**, as is the case at our physical conferences too.
- Each **stakeholder group** – **policymakers**, **developers**, **financiers**, **consultants** and **relevant NGOs** – is represented at our conferences.
- The moderators merely ask the questions. The **stars** are the **speakers** themselves.
- The **sessions begin and end on time**.
- There is adequate time for a **Q&A session** with **each speaker**. These are not “hit and run” speeches.
- The **delegates** are **professionals** who are vested in the sector, and are not just assembled through social media.
- A **recap** of the conference is also made available to reinforce the key takeaways.

Delegate benefits (Virtual Conference)

- Direct interaction with senior speakers (Q&A facility)
- Easy connectivity to geographically dispersed delegates (click of a mouse)
- Cost effective (lower ticket price as compared to a physical conference)
- Offers flexibility and convenience
- Access to conference recording
- Recap of conference sessions
- Contributes to sustainability and lower carbon footprint

Benefits of sponsorship (Virtual Conference)

- E-Meet influencers and decision-makers/
- Reach out to and engage with new or active prospects
- Generate high quality sales leads
- Increase brand recognition
- Target a captive and engaged audience
- Drive website traffic through social media promotions
- Position your company as the thought-leader in your industry

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Registration Fee

	INR	GST@18%	Total INR	Total USD
1 Login	9,000	1,620	10,620	150
2 - 3 Logins	15,000	2,700	17,700	250
4 - 5 Logins	21,000	3,780	24,780	350
6 - 9 Logins	27,000	4,860	31,860	450
10 - 20 Logins	33,000	5,940	38,940	550

- There is a 25 per cent discount before January 7, 2021
- GST @18 per cent is applicable on the registration fee.
- Registration will be confirmed on receipt of the payment.

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Payment Policy:

- Full payment must be received prior to the conference.
- Payments for “early bird” registrations should come in before the last date of discount. Discount offers cannot be combined with any other offer.
- Conference fees cannot be substituted for any other product or service being extended by India Infrastructure Publishing Pvt. Ltd.

Organisers

The conference is being organised by **India Infrastructure Publishing**, the leading provider of information on the infrastructure sectors. The company publishes **Power Line**, **Indian Infrastructure** and **Renewable Watch** magazines. It also publishes a series of reports on the energy sector including **Hydropower in India**, **Power Transmission in India**, and **Power Distribution in India**. The company also publishes the **Power Line Directory and Yearbook**.

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