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2nd Edition

HYDRO POWER ASIA

VIRTUAL CONFERENCE

Progress and Challenges; New Technologies and Opportunities

August 17-18, 2021

11:00 AM-4:00 PM (SGT) | 8:30 AM-1:30 PM (IST)

Sponsors so far:



MISSION

Hydro power remains Asia's largest source of renewable power generation. Despite the ongoing pandemic, the installed capacity in the region continued to grow, reaching 566.7 GW in 2020, clocking a growth of about 3 per cent over the previous year. Hydro accounts for the largest share of 44 per cent in the region's total renewable energy capacity.

While the Covid-19 pandemic led to temporary halts in hydro power construction activity in the region, hydro is expected to remain a key source for reliable power generation, offering stable returns to investors. It not only allows countries to produce cheaper electricity, but it is also expected to help countries meet their ambitious decarbonisation targets and achieve energy transition owing to the unique flexibility services it provides to the grid when intermittent renewables are added.

To enhance the role of hydro power in the region, modernisation is now becoming a critical area for hydro power plant operators. As per estimates, by 2030, over a third of existing hydro power capacity across Asia will have undergone, or be due for, modernisation.

To optimise the current assets, new and advanced digitalisation tools and O&M best practices are being adopted under modernisation programmes for extending the lifespan of hydro projects and maintaining or increasing their output. Digital controls, intelligent condition monitoring systems, remotely operated systems, and supervisory control and data acquisition systems are some of the key technologies enabling this plant upgradation. Further, updates to plant controls, communication and computer systems are also being applied in larger-scale projects and across entire fleets.

O&M performance is critical for maintaining the longevity of plants. Hydro power owners have been migrating toward reliability-centred maintenance (RCM). RCM seeks to optimise reliability levels through the prioritisation of maintenance tasks and utilisation of resources.

Also, selecting the best sediment management techniques for design, construction and operation is crucial for power plant operators. For several run-of-the-river projects, sediment management can help remove sediments that can cause abrasion of turbines and clog cooling water intakes.

Hybrid technologies are also gaining traction, enabling different renewable technologies including hydro to work together to complement each other and work more efficiently. Floating solar PV plants installed on existing reservoirs are also being considered for providing additional renewable generation.

Further, strengthening cross-border hydro power trading is one of the key efforts being made in the region for sharing hydro power resources and ensuring energy security. The expansion of cross-border transmission interconnections is expected to gather pace over time.

The mission of this virtual conference is to provide a platform to discuss the key trends and outlook for hydro power in Asia, highlight new opportunities, showcase new technologies, best practices and experiences in hydro power project construction and O&M, as well as noteworthy projects in the region.

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.
- The participants in each conference receive a concise report outlining the key facts, trends and issues in the sector.
- A recap of the conference is also made available to reinforce the key takeaways.

TARGET AUDIENCE

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

- Hydro power projects across Asia
- Electric and hydro power utilities
- Small hydro power developers
- O&M service providers
- Government and regulatory agencies
- Financial institutions
- Technology providers
- Equipment manufacturers
- Civil work contractors
- Consultancy organisations
- Etc.

AGENDA (Tentative)

Tentative Agenda

Live session	Topics
Key Trends and Outlook	- What is the status of hydro power development in Asia? - What have been the key trends? - What are the key issues and barriers? What is the region's hydro power outlook?
Country Plans and Perspective	- What is the current status of hydro power development? - What have been the actions and initiatives taken to scale up hydro power? - What is the upcoming capacity? What have been the issues and concerns?
Financiers' Perspective	- What is the perspective of investors and lenders on hydro power in Asia? - What have been the experiences in attracting public and private financing? - What is the investors' outlook for the next few years? What are the investment opportunities?
Focus on Pumped Storage Technologies and Flexibility	- What has been the experience so far in harnessing pumped storage hydro power? - What are the advantages for using hydro power for balancing renewables? - What are the challenges in developing pumped storage plants? What is the outlook?
New Turbine Technologies	- What have been the recent advances in hydro turbine technologies? - What are the upgrades being considered for improving efficiencies, maximising generation, etc.? - What has been the experience so far?
Best Practices in O&M	- What has been the performance of existing hydro power projects? - What are the key O&M-related challenges faced by projects? - What are the best O&M practices? What are the new and promising tools and solutions?
Asset Management	- What are the key challenges that utilities and operators face in managing hydro assets? - What are some of the new technologies and solutions to overcome these challenges? - What are the benefits?
Digitalisation of Hydro Power Plants	- What are the areas in hydro power plant operations where digital solutions can be leveraged? - What are new and promising digital technologies and solutions? - What has been the uptake and experience so far?
Cross-border Interconnections	- What is the potential of cross-border power interconnections for hydro in the region? - What have been the key cross-border trading trends? - What are the issues and concerns that must be addressed to promote hydro for regional trading?
Small Hydro Power Opportunities	- What have been the key trends in the development of small hydro power projects? - What are the issues and challenges? - What is the outlook? What are the opportunities?
Control and Automation Solutions	- What are the control and automation systems and solutions for modernising ageing hydro facilities? - What are the key factors to be considered while deploying such solutions? - What has been the uptake and experience of plant operators?
Civil Engineering, Design and Construction	- What are the civil construction work related challenges for hydro projects? - What are the best practices for design and construction? - What are the noteworthy projects?
Focus on Tunnelling	- What are the key challenges faced in tunnelling and underground works? - What have been the technological advancements in this area? - What are some of the noteworthy projects?
Hybrid Technologies (Floating Solar, etc.)	- What are the potential advantages of photovoltaic-solar hybrid plants? - What has been the experience so far? - What are the issues and concerns?
Sediment Management	- What is the impact of sedimentation on the performance of hydro projects? - What are the various approaches and strategies to mitigate these challenges? - What are the new technologies and solutions available?
Project Showcase	- What have been some of the successful hydro projects? - What were their innovative features? What were the benefits delivered?

PREVIOUS PARTICIPANTS

The conference elicited an excellent response last year and the participating organisations in the first edition of “Hydro Power Asia” (August 26-27, 2020) included: Aboitiz Power Corporation / HEDCOR, Accelerating Investment and Infrastructure in Nepal, AECOM, AIIB, Alampart, Almana Power Corporation, ALT Energy, Andritz Hydro, Arkora Indonesia, ATB Riva, Bajaj Reinforcement LLP, Berkeley Energy Indonesia & Singapore, Bersaudara Group, Bhutan Automation & Engineering,, Bhutan Electricity Authority, Carpi India Waterproofing Specialists, CEPAD hydro Consultants, Chodai, Citra Multi Energy, Electricity Generating Authority of Thailand, ELC, FMG, GE, Gilbert Gilkes & Gordon, Global Business Power Corp, GMR, Greenko, Himachal Pradesh Hydro Power Producers Forum, Hydro Tasmania, Hydropower Investment and Development Company, Hyundai Engineering, IFC, IIT, INDAR ELECTRIC, S.L., International Energy Agency (IEA) Hydropower group, Industrial Processors & Metallisers, Jacobs Engineering Group Malaysia Sdn Bhd, Jade Consult, Kohn Crippen Berger, KPMG, LEA Associates South Asia, Lentera International, Malakoff Corporation Berhad, Markham Resources Corporation, Meccamidi, Mekong River Commission, Ministry of Energy, water Resources and Irrigation- Nepal, Mott Macdonald, MYK Arment, NEEPCO, Nelumbo, Newjec, Nexwave Technologies, NHPC, North Hydro and Engineering, Nupche Likhu Hydropower Project, Paesa Pasindo Engineering, Paschim Hydro, Premier Electric Marketing LLP, PT AsriPower Prima, PT Bersaudara, PT Dharma Agung Wijaya, PT LAPI ITB Joint Project Freeport Indonesia Company, PT PJB, PT PLN, PT Poso Energy, PT Voith Hydro Indonesia, PT. Adimitra Hidro Nusantara, PWC, Rastriya Prasaran Grid Company Limited, San Miguel Global Power Corporation, Sarawak Energy Berhad, Sarawak SESCO Berhad, Segmental Consulting & Advisory, SMEC, Snow Fountain Consultants, Statkraft, Summit Bibiyana Power Company, Syarikat SESCO Berhad, Symantec Technology, Tamaris Hydro, Tanggamus Electric Power, Tenaga Nasional Berhad, Terregra Asia energy Tbk Group, THDC, UJVNL, UNIDO, Vidullanka, Voith, Wapcos, Wells Engineering LLC, World Bank, Worthington Products Inc, WWS Wasserkraft GmbH, etc.

ABOUT THE ORGANISER

India Infrastructure Publishing is a company dedicated to providing information, analysis and insight on infrastructure sectors in India, through magazines, conferences, newsletters, research reports and websites.

We have product and service offerings in power, oil & gas, coal, roads & bridges, ports & shipping, airports, railways, urban mass transit, smart cities, water & waste, mining, construction, telcom and infrastructure finance sectors.

We publish six magazines - Indian Infrastructure, Power Line, Renewable Watch, tele.net, Smart Utilities and Gujarat Infrastructure. Each of the magazines is a market leader in its segment.

The group also publishes eight electronic weekly newsletters, over 30 annual research reports, more than 14 directories and six websites (www.indiainfamonitor.com, www.indiapowerregulation.com, www.tele.net.in and www.indianinfrastructure.com, www.renewablewatch.in, www.smartutilities.net.in), and organises close to 50 conferences.

PowerLine magazine (<https://powerline.net.in/>), a premiere magazine for the Indian power sector. It covers all segments of the sector - generation, transmission and distribution. It tracks key developments, analyses major trends, profiles noteworthy organisations, interviews top managers, features opinions of industry experts, tracks financing, covers technology developments, profiles people of interest and provides key data and statistics.

Our clients include multinationals, top Indian corporates, commercial and investment banks, consulting companies, public sector companies, government agencies, multilateral agencies and legal firms. They include GE, ABB, Siemens, Ramboll, JCB, Toshiba, Hitachi, Gamesa, First Solar, BHEL, REC, NTPC, NHPC, Power Grid, Tata Power, Reliance Energy, Airtel, Vodafone, Sify, Nokia, Idea Cellular, Huawei, Indus Towers, American Tower Corporation, NHAI, Adani Ports, JNPT, JSW, PMI, Dredging Corporation of India, Bentley, Autodesk, Tata Steel, Exide, IREDA, Cisco, HP, Tata Bluescope, Tata Projects, Case New Holland, Aveva, Caterpillar, L&T, Finolex, Sterlite, Airport Authority of India, CRISIL, E&Y, PwC, SAP, Oracle Utilities, Accenture, DuPont, IL&FS, ITNL, Citigroup, IFC, JICA, Japan Research Institute and The World Bank, among others.

SUPPORTED BY

Southeast Asia Infrastructure magazine (www.southeastasiainfra.com), a leading source of information on infrastructure development in Southeast Asia. It tracks key developments, analyses emerging trends, features industry players, perspectives, highlights key initiatives, and profiles exemplary projects.

DELEGATE FEE

	Standard price
1 Logins	USD 250
2-3 Logins	USD 400
4-5 Logins	USD 550
6-9 Logins	USD 700
10-20 Logins	USD 850

There is a special fee for hydro power generation organisations - USD 100 for one participant/login, USD 175 for two to three delegates/logins, USD 250 for four to five delegates/logins, USD 325 for six to nine delegates/logins and USD 400 for 10-20 delegates/logins.

REGISTRATION FORM

☐ I would like to register for the conference

☐ Please send me more information

NAME/DESIGNATION _____ COMPANY _____

MAILING ADDRESS _____

PHONE _____ MOBILE _____

FAX _____ EMAIL _____

PAYMENT OPTIONS

1. To make payments by credit card, please send an email on mansi.taneja@hydrpowerasia.com

All credit card payments will be subject to standard credit card charges

2. Wire Transfer:

Beneficiary: India Infrastructure Publishing Private Limited
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Bank Address: R-47, Greater Kailash – 1, New Delhi - 110048
Bank Account No: 094179587002
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TERMS AND CONDITIONS

Payment Policy

- Full payment must be received prior to the conference.

Cancellations

- Cancellations received in writing **30 days** before the date of the conference will receive a full refund, minus a service charge/administration fee of USD 30.
- Substitutions/name changes are welcome at no extra charge. Please send these in writing at least two days prior to the conference.
- Powerline shall assume no liability whatsoever in case the event is postponed or cancelled due to a fortuitous event or unforeseen occurrence that renders the performance of this conference impracticable, illegal or impossible. For purpose of this clause, a fortuitous event shall include, but not be limited to: war, fire, labour strike, extreme weather or other emergency. India Infrastructure's responsibility is limited to return of the registration fee only and is not liable for any cost in relation to travel and accommodation.
- Please note that it may become necessary for reasons beyond the control of the organisers to make alterations to the content and timing of the programme or speakers.

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