WORLD BANK GROUP
Energy & Extractives

ESMAP
Energy Sector Management Assistance Program

June 24-25, 2020

The World Bank Global Solutions Group on Hydropower and the ESMAP Hydropower Development Facility invite you to a four-part webinar:

Building back better and greener with sustainable hydropower

- International development and trends
- Research and innovation
- Safety, climate and sustainability
- Investment and finance

The energy mix is moving towards one made up predominantly of weather-dependent, variable renewable energy sources. This current time of reflection gives the opportunity to assess the best use of hydropower resources. Done right, hydropower's operational flexibility could be fundamental to achieving the green transition.

In four sessions, this webinar will congregate leaders from the World Bank Group, donors and partner organisations. Each will present their thoughts on key topics, and audience participants will have the opportunity to pose questions to enrich the discussion.

Register your interest

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(times given are Washington DC time, EDT, GMT-4)

Building back better and greener with sustainable hydropower – program

Wednesday, June 24, 08.30-10.00 hrs
Session1 - International development and trends

Welcome remarks by Makhtar Diop, Vice President, WBG

- Barsha Man Pun, Minister of Energy, Nepal
- *Goretti Kitutu, Minister of Energy & Mineral Development, Uganda
- Benoît Revaz, State Secretary and Director of the Swiss Federal Office of Energy
- Øivind Johansen, Assistant Director General, Ministry of Petroleum and Energy, Norway

Moderated by Pravin Karki, Global Lead, Hydropower and Dams, WBG

Wednesday, June 24, 10.30-12.00 hrs
Session 2 - Research and innovation

- Paolo Frankl, Head of Renewable Energy, International Energy Agency
- Dolf Gielen, Director, IITC, International Renewable Energy Agency
- Han Huang, Deputy Director-General, Economic & Technology Research, GEIDCO
- Alejandro Moreno, Director, Water Power Technologies Office, Department of Energy, USA
- Elana Vagnoni, XFLEX HYDRO Project, EPFL, Switzerland
- Sebastian Sterl, CIREG Project, VUB, Belgium

Moderated by Richard Taylor, Former CEO, International Hydropower Association

* = to be confirmed

Thursday, June 25, 08.30-10.00 hrs
Session 3 - Sustainability, climate and safety

- Julia Bucknall, Global Director, Environmental and Social Framework, WBG
- Eddie Rich, CEO, International Hydropower Association
- Jian-hua Meng, Senior Sustainable Hydropower Expert, WWF International
- Sean Kidney, CEO, Climate Bonds Initiative
- Craig Davies, Head, Climate Resilience Investments, EBRD
- Maria Guell Pons, Dams Specialist, WBG

Moderated by Demetrios Papathanasiou, Manager, South Asia, WBG

Thursday, June 25, 10.30-12.00 hrs
Session 4 - Investment and finance

- Pravin Karki, Global Lead, Hydropower and Dams, WBG
- Arturo Alarcón, Senior Energy Specialist, Inter-American Development Bank
- Maham Iftikar Warraich, Senior Investment Officer, IFC
- Anders Cajus Pedersen, Chief, Regional Power Systems, African Development Bank
- Paul O'Connor, Executive Director, Green Bonds, JP Morgan

Moderated by Gabriel Azevedo, Chief, Environmental, Social and Corporate Governance Division, IDB Invest

Interested to take part? Then let us know! Register your interest

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Building back better and greener with sustainable hydropower – context

The global pandemic has given time for reflection on many activities. This is now more relevant than ever in the energy sector. There remain key drivers: the renewables transition, energy access in developing countries, interconnection, regional collaboration, and so on. At the same time, system complexity and management challenges are escalating throughout the world, and there are new priorities for resources and their use. Increasing climate variability and economic recession further compound these challenges.

The situation is especially poignant for the hydropower sector, the forgotten renewable. Hydropower comes in all shapes and sizes. It plays different roles in the world's power systems – providing the backbone of generation in some, and playing a supporting role in others. Tools and standards exist to safeguard environmental, social and governance issues. There is an interest from the international community to invest in good projects, and to improve existing assets through modernisation. How then can we connect these parties and ensure that the projects that get financed are the right ones in the right place?

Many of the services that hydropower can provide are not incentivised by policy or markets; they can be built in, or out, at the design stage, but are not always easy to introduce retrospectively. This time of reflection gives the opportunity to assess the best use of hydropower resources. Recognising that the energy mix is moving towards systems made up predominantly of weather-dependent, variable renewable energy. Done right, hydropower's operational flexibility could be fundamental to achieving the green transition.

Uniquely, hydropower can contribute to system resilience and reliability through supporting services. It can provide inertia instantaneously, voltage control in less than a second, frequency regulation from seconds to minutes, and it can ramp output up and down to follow the system load throughout the day. As water batteries, pumped storage hydropower can absorb surplus energy in the system and then release it exactly when it is needed. Hydropower can also restart independently in the event of a system failure – if it is designed to do so.

Hydropower infrastructure can also help manage water resources, particularly in the light of climate change. Water reservoirs can have multiple uses to mitigate the impacts of drought and floods. It can regulate flows to deliver irrigation in the correct season, guarantee minimum downstream flows, and ensure supply to industrial, agricultural and domestic users – again, if it is designed to do so.

How do we make the right choices about hydropower at the onset of a new project, or for the appropriate modernisation of an existing asset? What technologies and services will be in demand over the long operating period of the plant? What standards should be required for resilience, reliability and sustainability? Who should develop what? Who will invest and what will be the financial model? What contribution can the WBG make to ensure that the hydropower that we utilise is developed and operated in the most beneficial and sustainable way?

Interested to take part? Then let us know! Register your interest