

Addressing technical, environmental and social challenges for hydropower as a catalyst for the clean energy transition in Europe

Due to its flexibility in generating, storing and releasing energy, hydropower can be a catalyst for the clean energy transition in Europe. However, hydropower faces a complex set of policy, environmental, societal, technological and market challenges. While hydropower is a catalyst for a carbon-neutral economy and a boost to regional development, its benefits are currently not valued in the market. Therefore, hydropower needs to become more cost-competitive and find novel and acceptable approaches to future development in accordance with evolving environmental and social demands.

The HYDROPOWER EUROPE (HPE) project is built on the ambition to achieve a Research and Innovation Agenda (RIA) and a Strategic Industry Roadmap (SIR) for the hydropower sector, based on the synthesis of technical fora and transparent public debates through a forum that gathers all relevant stakeholders of the hydropower sector. Through a detailed consultation process (expert workshops, online consultations, regional workshops), HYDROPOWER EU-ROPE already collected views and inputs from a wide range of stakeholders.

This Interactive Workshop is the last opportunity for hydropower stakeholders to engage in the current HYDROPOWER EUROPE consultation process. The workshop aims to bring together EU policymakers, hydropower industry and civil society organisations to discuss key points and preliminary conclusions of the consultation findings to date. This will allow participants to share different opinions on policy and regulatory issues, technical challenges, and environmental and social issues, which will be used to help finalise recommendations for the future direction and role of hydropower in Europe.



Participation in this event is free of charge, but registration is required. For more information and to register: https://hydropower-europe.eu/upcoming-events

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MONDAY, 12 OCTOBER 2020 - 9:00 - 12:00 Is hydropower ready to be a catalyst for the clean energy transition?

9:00 – 9:25 **Opening remarks**

Introduction to HYDROPOWER EUROPE and aims of the workshop

9:25–10:10 Session 1 – Policy and regulatory issues: Designing a supportive EU framework for the hydropower sector

This session will tackle the policy and regulatory issues hydropower is facing. Speakers will share their views on **solutions to bottlenecks**, **barriers**, **and breaks** as well as how hydropower can contribute to EU energy system transformation, enable the integration of volatile renewables, and provide system stability and flexibility. Presentations will identify which policies, funding schemes and market mechanisms the hydropower sector currently needs to tap into the promising part of its flexibility and storage, comply with environmental targets, and gain support in the EU market. The impact of the Water Framework Directive on hydropower development will also be addressed. Three keynote speaking slots will be followed by a 15 min discussion.

10:10-10:20 Coffee Break

10:20–11:05 Session 2 – Technical challenges and R&I priorities: Developing innovative concepts and technologies to boost hydropower potential

Following the second HPE online consultation, a list of key technical hydropower issues will be identified as primordial by the consultees. This session dedicated to technical challenges will address R&I priorities, including the following three aspects:

- Innovative technologies and components (innovative turbines' design, digitalisation issues, new materials);
- Performance and resilience of infrastructures (refurbishment of power plants, innovative optimisation and upgrading of hydro infrastructures, optimisation of operation and maintenance costs); and
- New concepts and applications (hybrid power plants, PSP at existing infrastructures, new monitoring systems, multi-purpose schemes)

The three keynote speaking slots will be followed by a 15 min discussion.

11:05–11:40 **Parallel groups**

Three parallel groups will be created to discuss hydropower policy as well as regulatory and technical issues. Each group will be chaired by a member of the HPE Team and introduced by one to three short presentations prepared by external experts to aid the discussion. Participants from the industry andcivil society as well as policymakers will be represented in each group to facilitate the sharing of varied opinions. The objective of these discussions will be to define concerted recommendations on the hydropower policy framework and/or about the main technical areas where investment is needed to support innovation in the hydropower sector.

11:40–11:55 Concerted recommendations on the hydropower policy framework and the main technical priorities

Three parallel groups will be created to discuss hydropower policy. The chairs of each parallel group will report the conclusions from the group discussion in a 5 min presentation, summarising the main recommendations that emerged from the group. After these presentations, a 10 min discussion will enable participants to react to the results and agree on final outcomes.

11:55–12:00 **Closing Remarks**

TUESDAY, 13 OCTOBER 2020 - 9:15 - 12:00 Hydropower: A missing piece in the Green Deal?

9:15–9:20 **Opening remarks**

Introduction to the workshop 2nd day

9:20–10:05 Session 3 – Hydropower impacts on the environment: Best practices and solutions to make hydropower energy more environmentally-friendly

This session will discuss the different positive and negative environmental impacts of hydropower (including on wildlife habitats, migratory paths, land use, CO2 emissions), the environmental-friendly solutions to mitigate these impacts, and the advantages that hydropower can bring to the new challenges emerging from climate change. Presentations will focus on different impacts of hydropower plants (including residual flow and hydro-peaking on hydro morphological changes, biodiversity, habitats, rivers, ecosystems, and others), water flow and sediment management as well as environmentally-compatible solutions, fish-friendly technologies, eco-labelling, life cycle analysis and measures to mitigate climate change effects. Three keynote speaking slots will be followed by a 15 min discussion time.

10:05-10:15 **Coffee Break**



10:15–11:00 Session 4 – Social acceptance of hydropower: Bridging the gap between industry and civil society

This session will discuss the main social issues linked to hydropower, including social acceptance, conflicts of interest in particular areas and multipurpose projects, and solutions to these issues, including consultation, involvement of local communities, understanding and recognition of wider project benefits, and others. Thematic presentations will help to understand conflicts with fishing lobbies and other civil society organisations, social acceptance of hydropower by local communities, and best practices to creating win-win situations for all stakeholders (e.g. with multi-purpose projects) will also be presented. Three keynote speaking slots will be followed by a 15 min discussion time.

11:00–11:35 Parallel groups

Three parallel groups will be created to discuss hydropower policy as well as regulatory and technical issues. Each group will be chaired by a member of the HPE Team and introduced by one to three short presentations prepared by external experts to aid the discussion. Participants from the industry and civil society as well as policymakers will be represented in each group to facilitate the sharing of varied opinions. The objective of these discussions will be to define concerted recommendations on the most urgent environmental and social measures to mitigate the impact of hydropower on environment and populations.

11:35–11:50 Concerted recommendations on environmental and social measures to mitigate hydropower impact

The chairs of each parallel group will report the conclusions from the discussion in a 5 min presentation, summarising the main recommendations emerging from the group. Following this, a 10 min discussion will enable participants to react to the results and agree on final outcomes.

11:50–12:00 **Closing Remarks**

REGISTER FOR THE EVENT:

Participation in this event is free, but registration in advance is required. Register now to receive programme updates and reminders prior to the event.

For more information and to register: https://hydropower-europe.eu/upcoming-events

