

Hydropower: How to avoid potential pollution sources and to mitigate environmental impacts by innovative measures and concepts

Partner Event at the EU GREEN WEEK 2021

Hydropower and energy transition

Hydropower already plays an important role today, and will become even more important in the coming decades, since hydropower can be a catalyst for the clean energy transition.

The ambitious plan for energy transition in Europe seeks to achieve a low-carbon climateresilient future in a safe and cost-effective way, serving as a worldwide example. The key role of electricity will be strongly reinforced in this energy transition. In many European countries, the phase out of nuclear and coal generation has started with the transition to new renewable sources comprising mainly of solar and wind for electricity generation.

However, solar and wind are variable energy sources and difficult to align with demand. Hydropower already supports integration of wind and solar energy into the supply grid through flexibility in generation as well as its potential capacity for energy storage. These services will be in much greater demand in order to achieve the energy transition in Europe, and worldwide.

Hydropower, with its untapped potential, has all the technical characteristics to serve as an excellent catalyst for a successful energy transition. However, successfully increasing efficient and flexible hydropower production, to complement wind and solar energy production, will require a more environmentally and socially acceptable approach based on innovative concepts and mitigation measures.



Participation in this event is free of charge, but registration is reguired. For more information and to register: https://hydropower-europe.eu/upcoming-events/ european-reen-week-2021/

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THEME: Hydropower: how to avoid potential pollution sources and to mitigate environmental impacts by innovative measures and concepts?

TYPE OF EVENT: A roundtable discussion preceded and motivated by a keynote as well as short statements from experts

TARGET AUDIENCE: NGOs, policymakers, public, academia, hydropower industry, stakeholders involved in the SET-Plan

HYDROPOWER AND ENERGY TRANSITION

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POTENTIAL POLLUTION SOURCES AND ENVIRONMENTAL IMPACTS OF HYDROPOWER

Looking at pollution in a narrow sense, one may recognize that this is not the main problem and challenge for hydropower deployment. Nevertheless potential pollution sources have to be avoided in a hydropower project from the design to construction to operation to refurbishment and finally decommissioning by the timely implementation of protection and mitigation measures.

The main challenge is how to handle harmful environmental and socio-economic impacts, which may be seen as a "pollution" in a wider sense. Hot topics like biodiversity, river continuity and sediment dynamics, aquatic and terrestrial ecosystems, land use and landscape, amongst others, have to be addressed with innovative concepts and mitigation measures during the whole lifecycle of a hydropower plant. Furthermore, wide acceptance can often be achieved only within the framework of multipurpose projects which create a 'win-win' situation for all stakeholders and which have to be involved from the early design stages. Finally benefit sharing with local communities is also an important issue.

ABOUT THE ROUNDTABLE

At the EU Green Week 2021, HYDROPOWER EUROPE (<u>www.hydropower-europe.eu</u>) aims to organise a Partner Event raising the issue of how to avoid potential pollution sources and to mitigate environmental impacts through innovative measures.

Around this question, the roundtable will openly discuss the challenges regarding potential pollution in a narrower sense and environmental as well as social-economic impacts in a wider sense.

Consequently, by sharing the interdisciplinary experience of the participants through discussion, this should highlight good practice and approaches which will help to avoid terrestrial and aquatic pollution and help mitigate **harmful impacts**. The round-table will further consider how **innovation** can eliminate and/or reduce these sources of pollution and impacts.

The objective of this roundtable is also to make a contribution to improving the quality and the continuity of European rivers and to shed light on good practice that should serve as the basic standard for hydropower deployment.

The outcomes of the roundtable discussion will also provide a rich source of ideas and suggestions for the Hydropower Europe Forum to consider when finalizing its main documents, which comprise the **Research and Innovation Agenda and Strategic Industry Roadmap** for hydropower in Europe.

The roundtable discussion shall bring together NGO representatives, academia, major utilities, policymakers, and the wider audience including consumers and future entrepreneurs working on a transition towards a clean energy society.

SESSION OVERVIEW

The roundtable discussion will be introduced by **Mark Morris** from the HYDROPOW-ER EUROPE FORUM who will set the scene and introduce the agenda of the session.

Next, Claire Descourtieux, Head of the environment department of one of the Europe's largest electricity company will present a keynote speech on various types of

pollution that hydropower may cause at certain times. Descourtieux will introduce potential sources of pollution and harmful environmental impacts which can arise, and which have to be handled during the whole lifecycle of a hydropower plant. She will show best-practice examples of how sources of pollution and impacts can be eliminated, minimized ou mitigated.

Then, a series of short **experts' statements** will be provided by representatives from NGOs, academia, policymakers, and major utilities, which will motivate and enrich the stage for the wider **roundtable discussion with all participants**. Experts (see the Provisional Agenda) will highlight their thoughts and views in a very short statement on the question: How to avoid potential pollution sources and to mitigate environmental impacts by innovative measures in order to make hydropower more environmentally acceptable? Each expert will be given approx. 3 min for a short statement with the purpose of triggering discussion.

A round table discussion of one hour with all participants will be moderated by the coordinators of the HYDROPOWER EUROPE Forum.

To conclude the session, coordinators of the **HYDROPOWER EUROPE** Forum, (currently representing more than 550 members of different stakeholders from across the whole hydropower sector) will summarise the key points and lessons that should be learnt from the roundtable discussion and subsequently close the event.

PROVISIONAL AGENDA:

The roundtable is planned for the 8th June 2021 from 2 pm – 4.15 pm CET.

14:00 - 14:05 Setting the scene

Hydropower: from pollution to impact?

Mark Morris, HYDROPOWER EUROPE

14:05 - 14:25 Keynote speech: Potential sources of pollution and main environmental impacts during the lifetime cycle of a hydropower plant: examples to manage them

Claire Descourtieux, Head of the environment department, EDF Hydro Engineering Centre

- 14:25 14:55 Short experts statements as a triggering input for the roundtable discussion: How to avoid potential pollution sources and to mitigate environmental impacts by innovative measures and concepts?

 Facilitated by HYDROPOWER EUROPE FORUM
- 14:55 16:05 Roundtable discussion with all particpants Moderated by Anton Schleiss & Jean-Jacques Fry, Coordinators of HYDRO-POWER EUROPE
- 16:05 –16:15 **Closing remarks** HYDROPOWER EUROPE

