

## CALL FOR PAPERS

### HydroES 2021

#### Hydropower and Environmental Sustainability

« L'hydroélectricité, un catalyseur de la transition énergétique en Europe »

«Hydropower as a catalyst for the energy transition in Europe »



**Ecole Normale Supérieure de Lyon**



**September 22<sup>th</sup> – 24<sup>th</sup>, 2021**

## 7<sup>th</sup> European Summit

**Société Hydrotechnique de France**

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## BACKGROUND

**HydroES 2021** is one of a series of conferences organised by SHF over the past decade with the support of French and European sponsors and partners.

In the area of energy production, hydropower is an important tool supporting the energy transition process and the fight against global warming. It accounts for three quarters of the world's renewable energy production and still has substantial growth potential. The hydropower industry will make a major contribution to decarbonising electric power generation systems and will continue to play an important role in regional economic development. Regardless of the benefits, there is no denying that the expansion of hydropower is encountering obstacles and resistance due to concerns relating to potential impacts on the environment and society.

## PURPOSE/OBJECT

The purpose of this conference is to show how the hydropower sector has innovated and evolved technologically and scientifically to address these concerns and obstacles. It will highlight the role and advantages of hydropower in an energy system that is undergoing profound change.

The conference seeks to shed new light on the following issues:

- As the use of intermittent energy sources (wind, solar, etc.) increases, will the flexibility of hydropower give it a dominant role in regulating the power grid?

## PRELIMINARY PROGRAMME AND TOPICS

A one-and-a-half-day main session will examine the five following topics covering the concerns of the hydropower industry in general and small-scale hydro in particular:

1. Hydropower and climate change (impact on production, use assessment, extreme events, resilience, etc.);
2. Hydropower, innovation and services to intermittent renewable energies (smart grids, artificial intelligence, metadata, performance, digitalisation);
3. Optimisation of operating and maintenance tools;
4. Environment and society (technical and regulatory assessments, monitoring protocols, lessons learnt);
5. New development projects (tidal power, hidden hydro, e-mobility, etc.).

A special one-day session will be allocated to the presentation of the work of the **HYDROPOWER EUROPE** Forum set up by the European Union's HORIZON 2020 Research and Innovation Programme. It will introduce:

1. A Research & Innovation Agenda: Prioritised research and innovation needs for the coming decades, as expressed by the hydropower profession through a programme of open consultation.
2. A strategic industry roadmap: Identifying and prioritising suggested industry action to address issues affecting operation and development of the hydropower industry and implementation of the research and innovation agenda to improve the performance and acceptability of new projects while reducing their environmental footprint.

**The presentations in this session will be exclusively in English.**

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**Deadline for abstract submission**

**7 décembre, 2020**

1 to 2 pages to

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