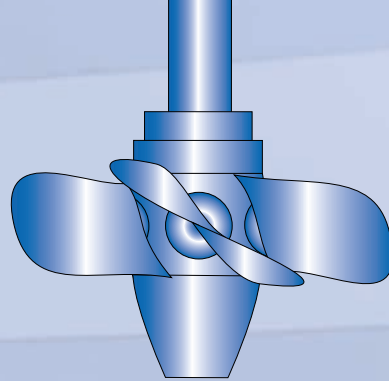


THE INTERNATIONAL JOURNAL ON HYDROPOWER & DAMS

AQUA~MEDIA INTERNATIONAL
is pleased to announce that

HYDRO 2025



Partnering for Global Solutions

will take place at Helexpo, Thessaloniki, Greece

22-24 October 2025

Local supporting Partner:



International supporting Organisations:



The elegant port city of Thessaloniki, overlooking the Aegean Sea, will be a perfect venue for HYDRO 2025, in a country entering a new era of hydropower and dam development. Both conventional new hydro schemes, and a number of pumped-storage projects, are planned in Greece, as well as some project upgrades.

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Greece as host country

Greece and hydropower

As Greece continues its journey in the energy transition, PPC (the Public Power Corporation, which is the country's largest electric power company) has underlined its strong commitment to more renewable energy development, including the planning of new hydro schemes, the addition of pumped-storage at existing hydro plants, exploitation of the synergy between various renewable energy sources, and acceleration of multipurpose schemes which had been suspended. Completion of the Messochora project is to resume, the 680 MW Amfilochia pumped-storage scheme is under way by a private developer (with more pumped storage planned), and the Metsovitikos hydro scheme is expected to start operating by the end of 2025.

The 156 MW Amari hybrid (wind and pumped-storage) scheme is under construction on the island of Crete; and meanwhile two large hydro projects, Sykia (12.5 MW) and Pefkophyto (160 MW) are under redesign, following a postponement. They are part of a scheme aimed at partial diversion of the Acheloos river to Thessaly.

The first development of hydro coincided with the establishment of PPC in 1950, and today Greece has 16 large hydro plants in operation, four cascade developments and two independent plants. Together they have an installed capacity of 3171 MW, and produce around 3800 GWh/year. There is also 699 MW of pure pumped storage, generating around 275 GWh/year, and there are more than 140 small hydro schemes contributing a further 300 MW.

Today PPC is prioritizing the implementation of more hydro and pumped storage to maximize available dispatchable clean energy.

Pumped-storage is planned to be added at the Pournari and Kastraki plants, and elsewhere in the country it is intended to repurpose disused lignite mines for pumped storage.

Following our very successful HYDRO 2006 conference in Porto Carras, Aqua~Media is delighted to be returning to Greece next year,



and the global hydropower community will have an opportunity to learn about Greece's 'new wave' of hydro and pumped-storage development, and to visit some of the schemes on post-conference tours, as well as experience warm Greek hospitality.

The Greek economy

In its recently published '2024 In-depth Review of Greece' the European Commission reports that: "net external borrowing is set to decline faster than the current account deficit, thanks to the increase in EU capital transfers, including the recovery and resilience fund grants. External borrowing is expected to decline to close to 3 per cent of GDP by 2025. Past and ongoing measures to improve the business environment and reduce legal and regulatory uncertainties, accompanied by Greece regaining its sovereign investment grade status, are expected to have a positive impact on FDI inflows.

Thessaloniki as host city

Thessaloniki is Greece's second largest city, and is easily accessible from numerous European cities, including the main hubs for international travel from other continents. It combines all the best features of a modern and elegant European city, with a thriving economic and commercial centre, museums and galleries, as well as fine examples of Byzantine architecture, historic relics from different eras, monuments, galleries, and a World Heritage Site in the centre.

National Geographic Magazine has included the city in its top tourist destinations worldwide, and the *Financial Times* has declared it as the 'best mid-sized European city of the future for human capital and lifestyle'. The spacious Helexpo Conference and Exhibition Centre will be an ideal venue for the conference; there are world class hotels in all categories nearby.

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Call for Papers

The topics below represent an outline of the planned conference programme, rather than precise session titles.

Abstracts on additional related topics may also be considered for acceptance.

Please see the guidelines for submitting an abstract on the next page.

Potential and development

Assessing national and regional potential
Site identification: new tools
Planning and development opportunities
Cross-border collaboration

Financial, legal and contractual aspects

Project financing and structuring
Risk allocation and management
Concession agreements
Valuing full economic benefits
Viewpoints from the development banks
Investment trends and long-term opportunities
Attracting private finance
The shift from BOOT to PPPs
Company, project and country risk management
Legal, contractual and insurance issues

Environment

Environment: impact assessment and mitigation measures
Environmental enhancements during upgrades
Innovative solutions for fish protection and transfer
Organizational ESG management
Innovative solutions for fish protection and passage
Management of greenhouse gas emissions
GHG emissions accounting

Sedimentation management

Hydraulic research and modelling
Monitoring sedimentation
Sediment removal systems
Design solutions for siltation and erosion
Catchment area management

Social aspects

Benefit sharing
Stakeholder consultation and support
Livelihood enhancement
Hydro heritage and historic sites
Post-implementation socio-economic assessments

Safety and risk

Dam and powerplant safety
Monitoring systems
Managing hazards and risk
Disaster risk management as part of design
Flood and drought management: research and case studies
Challenging site conditions
Warning systems and evacuation planning
Learning from incidents and failures

Climate

Modelling and hydrological research
Experience with climate adaptation strategies
Climate-resilient infrastructure projects
Challenges of seismicity, landslides, extreme floods and GLOFs

Electromechanical equipment

R&D for hydraulic and electrical machinery
Modelling and testing
Operational issues and condition monitoring
Environmentally friendly technology
Machinery design and safety
Turbine and generator upgrades

Civil works

Innovations in civil engineering
Materials for dams
Electronic and physical security of gates and spillways
Gate operation in hot and cold climates
Construction challenges and solutions
Tunnels and underground works

Emerging trends and technologies

Hybridization and floating solar PV
Flexible grid systems
Artificial intelligence and computer learning
Innovative techniques for site identification
Multiple uses of BIM
Cyber and physical security
Marine energy: wave and tidal power
Ultra-high voltage transmission
The role of hydro in post-conflict recovery

Pumped storage

Benefits of pumped storage for the grid
New developments in pumped-storage technology
Monetizing the ancillary benefits of pumped storage
Innovative pumped-storage projects
Financing pumped storage

Operation and maintenance

Retrofitting and upgrading
Hidden hydro
Timely refurbishment
Twin dam modelling

Small hydro potential and benefits

Rural electrification schemes
Innovative small hydro technology
Small-scale pumped storage

A major international Technical Exhibition will run alongside the event, with an opportunity for around 200 organizations in the industry to showcase their services and products. The Exhibition was launched at HYDRO 2024, and an on-line booking system, together with full details, will be available on our website by mid-January. For preliminary enquiries, contact: sales@hydropower-dams.com

Submission of Abstracts

Abstracts of up to 500 words, in English, are invited on the themes listed in the centre of this brochure or on related topics. Please email abstracts to hydro2025@hydropower-dams.com by **Monday 31 March 2025** at the latest. A short CV of each author/co-author should be included.

Abstracts should summarize precisely the scope and content of the paper proposed. No artwork is required at this stage. In the case of any project described, please mention its current status or date of completion. Please incorporate the author's name in the file name.

Abstracts **should only be submitted if the author would be able to attend the conference** (or send a representative). Please obtain any necessary clearance to present the work from project owners, and check availability to attend before submitting the abstract. If the paper is accepted, you will be asked to sign a form confirming willingness to attend; it is essential that we receive this undertaking before allocating time for an oral presentation.

Speakers are eligible for reduced registration fees (about 50 per cent of the full fees). This special rate is available to one author/presenter per paper. It covers attendance of the conference and exhibition, social networking events in the evening (speakers' reception, welcome reception, networking party in the exhibition and farewell dinner), as well as access to the conference papers.

Technical abstracts will generally be reviewed by two or more experts from our International Steering Committee, and authors may be asked to modify some aspects of the proposed paper before acceptance is confirmed.

Full papers will be required by **Friday 15 August 2025**, and format guidelines will be sent to all authors whose papers are accepted. Papers accepted for the conference will be made available to all HYDRO 2025 delegates.

- I am interested in attending the Conference as a delegate. Please send further details.
- I attach an abstract for consideration. If it is accepted, I (or a co-author or a representative) will attend the conference to present the paper.
- My organization may wish to participate in the Exhibition. Please send further details.
- I am interested in sponsorship opportunities. Please send further details.
- I would like to subscribe to *The International Journal on Hydropower & Dams*
(There will be reduced registration fees for subscribers to the journal)

Name: Position/Dept:

Company/Organization:

Email address:

Telephone Number (including country code):

Return to: hydro2025@hydropower-dams.com

