

The Fifth International Conference and Exhibition on Water Storage and Hydropower Development for Africa





8 to 10 July 2025

Organizer:

THE INTERNATIONAL JOURNAL ON HYDROPOWER & DAMS

in partnership with:



The technical programme, now taking shape, will have strong input from ICOLD Officers, National Committees and the African Regional Club, the International Energy Agency, the World Bank, and other international financing institutions, the Volta River Authority and Bui Power Authority, and the major players in the global hydropower industry.

## **MISSION AND VENUE**

### Africa...

continues to be the region of the world with the greatest need for more clean renewable energy, multipurpose reservoirs, infrastructure that is resilient to climate change, and capacity building to help exploit the vast potential available. At least 36 African nations have annual per capita electricity consumption of less than 500 kWh, according to World Bank data; for several countries it is less than 100 kWh. It is well recognised globally that this has to change.

### Aqua~Media and ICOLD...

through these regional African events, are committed to bringing together international experts in hydropower, hybrid renewable schemes, dams, reservoirs, finance, climate, and regional development, to focus on issues of specific relevance to Africa right now, and thus to help advance developments where they are most urgently needed.

#### Ghana...

is an ideal venue for AFRICA 2025, with experience to share of its large-scale dams and hydro plants in operation (Kpong, Akosombo and Bui), mini and micro hydro schemes, floating solar hydro at Bui, with plans for upgrading FPV to a larger scale. Our African regional events have progressively moved around the continent (Ethiopia in 2013, Morocco in 2017, Namibia in 2019 and Uganda in 2023). It is now the turn of a West African nation to be host country. Delegates will hear of Ghana's future plans, including studies for pumped storage, more FPV and more conventional hydro; Liberia's major hydro and hydro-solar hybrid plans along the St Paul river; progress with regional developments on the Senegal and Gambia rivers; as well as policies, plans and projects across the whole of the African continent.

### The conference venue...

will provide a tranquil and picturesque backdrop for three days of focused discussion, preceded by workshops and training seminars. The Labadi Beach Resort, on the shore of the South Atlantic Ocean, and just two hours' drive from Ghana's major hydro plants on the Volta river, offers a modern Congress Centre and Exhibition Pavilion, luxurious 5\* accommodation at discounted prices for delegates, and sumptuous international cuisine. A number of hotels nearby in various categories will also offer special rates.

### Networking...

will be encouraged at the AFRICA 2025 International Exhibition, where lunches and refreshments will be served, and a reception among exhibitors will be held on the second evening. The first welcome event will take the form of a beach party and there will also be a farewell dinner with entertainment.





### Cultural and technical excursions...

are being planned, as always, to give all participants an opportunity for some local sightseeing, on the day before the conference begins. A programme of additional excursions will be offered for accompanying persons during the event. Provisional plans are underway with the relevant authorities in Ghana for post-Conference technical study tours.

#### Join us...

if you have technical, financial, environmental or other relevant expertise to share, which could, in any way, help African nations to unlock more of their vast untapped renewable energy potential, or to maintain/upgrade their existing water infrastructure. We especially encourage utilities, government policy makers, private developers and partners, specialist researchers, international consultants, contractors and suppliers of equipment.

#### What to do next:

If you would like to contribute to the technical programme, please review the topics on next the page, and contact us as soon as possible with a short abstract.

Originally it had been planned to hold this conference next year, but we are pleased to have been encouraged by the hydro industry, several IFIs, and others, to proceed with the event this year. Therefore we would be pleased to receive abstracts *as soon as possible* so that all who would like to present papers can be considered in good time.



## **CONFERENCE THEMES**

The topics below represent a broad range of themes that we aim to cover at the conference, but they are not final session titles, which will be determined later, depending on the level of interest in the various subjects. If you would like to suggest a related topic not listed below, please feel free to do so, and it can be considered for a session, or incorporated in a workshop.

If you would like to submit a paper, please contact us as soon as possible. See submission details on the next page.

# Future plans for water resources and hydro development in Africa

- I Potential and planned developments across Africa
- Focus on West Africa
- The role of hydro in regional development
- The roles and challenges for river basin authorities and power pools
- The Programme for Infrastructure Development (PIDA)
- I Transmission systems for regional schemes
- Hydro in synergy with other renewables: hybridization, FPV

### Addressing risk and project financing

- Support for Africa from the major IFIs
- I Project structuring and risk management
- Regulatory and policy frameworks
- Innovative financing and contractual issues
- Financial sustainability

### Climate, environment and social aspects

- Climate change: research, adaptation and mitigation
- Reassessing design criteria of old dams to enhance resilience
- Environmental impact assessment and mitigation
- Social aspects: benefit sharing and livelihood improvement
- Capacity building and training

## Civil engineering: innovation and challenges

- Innovations in dam engineering
- Safety of dams, spillways, gates and powerplants

- Monitoring and surveillance systems
- Design of flood discharge works
- Hydrological monitoring of rainfall and runoff
- Sedimentation of reservoirs and irrigation canals
- Upgrading of dams and associated structures
- Complicated construction and challenging sites
- Materials for dams
- Dealing with AAR and ASR

### **Multipurpose schemes**

- Multipurpose dams and reservoirs
- Water resources management, including irrigation
- I Planning for combined hydro and irrigation schemes
- Reservoir operation and cascade developments
- I Small dams for irrigation and community water supply
- Hydropower and tourism

# Hydropower, large and small: the role, benefits and technology

- Hydro machinery (research, design and operational issues)
- Innovations in powerplant design
- Expansion and upgrading of existing schemes
- Small hydro and rural electrification
- Physical and cyber security
- Innovative low-cost technology
- Planning and development of pumped storage
- Operation and maintenance

Website: www.hydropower-dams.com • Email: africa2025@hydropower-dams.com





## **SUBMISSION OF ABSTRACTS**

If you would like to present a paper in one of the sessions, please submit an abstract of up to 500 words, outlining the scope and suggested session. Please email abstracts in **Word** format, **not PDF**, incorporating the author's name in the file name, to the address below. Please also include a short CV of the author(s), full contact details, and confirmation that if the paper is accepted, the author or co-author would attend to make the presentation. In the case of any project to be described, please mention its current status or date of completion; research papers should make clear the future application of the results.

Abstracts will be reviewed by our International Steering Committee and authors will be notified whether the paper has been accepted for presentation or publication in the proceedings during April and May.

Please submit abstracts by 20 March 2025 at the latest. Full papers will be required by 14 June 2025.

NB: Some panellists and keynote speakers will be invited, and some sessions will be organized by collaborative organizations (IEA, ICOLD, World Bank, etc, so places will be limited for submitted contributions.

If you would like to propose a panel discussion or pre-conference workshop, you should use this form to indicate your area of interest.

Poster presentations will also be considered.

Please note: abstracts should only be submitted if the author would be able to attend the conference (or send a representative). Please obtain any necessary clearance, and check availability to attend, before submitting the abstract.

Reduced attendance fees will be offered to speakers. These fees will include everything featured in the full delegate fee including meals, social events and event documentation.

# Water Storage and Hydropower Development for Africa - V

Labadi Beach Resort Congress Centre, Accra, Ghana ~ 8 to 10 July 2025

I enclose an abstract of a proposed paper. If it is accepted, I or my representative will attend the conference to present the paper.
Proposed paper topic:
I would like to propose a panel discussion or side event/workshop on a topic related to those listed.
Please specify the topic and let us know your role/experience in this field.
Proposed discussion topic:
Experience in the subject/region:
I am interested in attending the Conference as a delegate. Please send further details.
My organization may wish to participate in the Exhibition. Please send further details.
I may be interested in sponsorship opportunities. Please send details.
Name: Position/Dept:
Organization:
Address:
Country: Email:
Tel: (+int. code)
I propose a workshop or panel on the topic:
tonic: