

Following our very successful on-line Solar-Hydro conference in mid-2021,
we welcome international delegates to:



Floating Solar PV on Dam Reservoirs and Solar-Hydro Hybridization

International Conference and Exhibition
Antipolis Congress Centre, Antibes Juan-les-Pins, France
22 and 23 April, 2024

This will be an international forum for leading experts in the solar PV and hydropower/dam engineering sectors to discuss issues relating to this rapidly emerging technology. The vast potential and benefits for solar-hydro, and particularly FPV schemes, in the developing countries will be highlighted, as well as technical innovation and safety. Both presentations and panel discussions will feature in the programme, to allow for plenty of interaction between international participants. Background papers will be available for delegates to download.

The programme is almost full, but a few speaking slots are still available.

The working language will be English.

Organized by:

THE INTERNATIONAL JOURNAL ON
**HYDROPOWER
& DAMS**

In partnership with:



Supporting organizations:

Regular updates will be posted on our website and published in *Hydropower & Dams*

www.hydropower-dams.com/solar-hydro



BACKGROUND

Background: Floating PV and reservoirs

- Floating solar PV is among the fastest growing technologies in the renewable energy sector. While the very largest schemes are in the pioneering FPV countries, such as China, India, and Korea, projects are taking off throughout the world, particularly in Europe, Latin America, Africa, and the Middle East.
- The multiple benefits of combining the energy potential of the sun and water, saving vast areas of land in densely populated areas, and reducing evaporation from reservoirs in water-scarce countries, are combining to entice numerous countries to embark on research, launch prototypes, and then progress to commercial-scale systems.
- The largest manufacturer of PV systems recently reported having completed 280 floating solar projects in more than 30 countries, and having new projects totalling 1.5 GW in the pipeline. A speaker at our AFRICA 2023 conference in July commented that hydro schemes today should be designed from the outset to incorporate other renewables such as floating FPV.
- Dam-mounted solar panels are another important way of creating synergy between hydro reservoirs and solar power. A good example is Muttsee in Switzerland, where 5000 solar panels mounted on the dam produce around 3.3 GWh/year.



- Solar and wind powerplants can be hybridized with all kinds of reservoirs, such as those for hydropower and irrigation. There are various configurations of combinations, and some of them do not 'consume' any water in the process. Hybridized powerplants can be connected to the grid, or deliver electricity off-grid, or produce green hydrogen. They are suitable for all climates, including arid or semi-arid climates, where they also have the advantage of saving water.

Background: Hybridization of water reservoirs and intermittent renewables

- Beyond land surface pooling, combining the energy potential of the sun or the wind and water brings additional benefits, delivering dependable and dispatchable renewable electricity, reducing interconnection costs, and optimizing the use of water.
- The potential is immense. Researchers at the US National Renewable Energy Laboratory have estimated that adding floating solar panels to reservoirs that are already home to hydropower stations could provide as much as 7.6 TW of additional electricity. This figure, which represents an estimate of the technical potential, is probably optimistic. However, it illustrates the importance of the subject: in 2022 the world's total installed capacity was 8.5 TW.

Conference objectives

While events for the hydro industry and for other renewable energy sectors are not new, the mission of SOLAR-HYDRO 2024 will be to bring together experts from all relevant sectors on hybridization of water reservoirs with intermittent renewables, including hybridization configurations, energy management systems, grid services and water savings. The emphasis will be on floating solar PV systems, but broader aspects of hybridization will be included.

Speakers will disseminate knowledge on technological developments in FPV and hybridization, safety issues, environmental aspects, regulations and standards, and very importantly, where potential and prospects lie for new projects, large and small.



CHAIRPERSONS



*Luc Deroo,
chairing Session 1*



*Dr Aries Firman,
chairing Session 2*



*Felix Gorentin,
chairing Session 3*



*Atle Harby,
chairing Session 4*



*Bill Hakin,
chairing Session 5*



*Yann Le Bot,
chairing Session 6*



*Bente Brunes,
chairing Session 7*

SESSION ONE

Luc Deroo is Chief Technical Officer of ISL Ingénierie, a French design and engineering company in the fields of dams, hydraulic and maritime infrastructures, energy, floods and drought management. His expertise covers dams and hydropower engineering, with experience mainly in Europe and Africa, for greenfield projects, safety assessment and upgrading of structures. He is Chairman of the ICOLD Committee on Prospective and New Challenges for Dams and Reservoirs.

SESSION TWO

Dr Aries Firman graduated as a Civil Engineer from ITB, Indonesia, in 1977, and was awarded his PhD from Curtin University of Technology, Australia, in 2005. He has been working in the dam industry since 1981, serving as a member of the Indonesian Dam Safety Commission, at the Ministry of Public Works and Housing, since 2001. In this role he deals with all submissions relating to the design, construction, impounding, and maintenance of dams. Currently he is the Vice Chairman of INACOLD, and a member of ICOLD's Technical Committee on 'Emerging Challenges and Solutions of Dams in 21st century'. He is also Adjunct Associate Professor at ITB (Institut Teknologi Bandung), Indonesia.

SESSION THREE

Félix Gorentin is an offshore renewable engineer with 13 years of experience in floating systems development. He leads floating solar PV development at INNOSEA (>2100 MWp and 95+ projects to date) and has been active in the sector since 2017. He is responsible for market, technical and economic analysis, strategy advisory and techno-economic studies, as well as cost modelling (LCOE). Félix has a broad knowledge of project development in France and regulatory and techno-economic-related challenges.

SESSION FOUR

Atle Harby is a Senior Research Scientist at SINTEF Energy Research in Norway. He has more than 25 years of experience in research and development, with emphasis on environmental impacts of hydropower and river regulations, the role of hydropower in energy systems, hybrid energy solutions including floating solar PV and hydropower, water resources problems, greenhouse gas emissions from hydropower, climate change impacts and energy storage technologies. For the period 2009-2018, he was the Director of the Centre for Environmental Design of Renewable Energy. He is currently the Operating Agent of the IEA Hydro Task on 'Valuing Hydropower Services'. He is also a member of Norway's Nature Risk Commission, appointed by the government. He also works as a hydropower specialist for the World Bank as Short-Term Consultant. For the

coming four years, he will be coordinating the EU-project 'ReHydro' – Demonstration of Sustainable Hydropower Refurbishment.

SESSION FIVE

William (Bill) Hakin has more than 40 years of experience in delivering successful design and construction projects (from feasibility to commissioning) by successfully managing people and processes in often challenging environments. Broad and detailed civil engineering experience has been gained from both consulting engineering and construction management roles across the entire project cycle in four continents and predominantly in the dams and hydropower sector where Bill has been the project manager or project director for several small and major projects. With a keen interest in developing technologies, Bill has been instrumental in incorporating various new products and services into the construction industry and has successfully completed many dam and hydropower upgrade projects. He currently serves as the Project Director in the Liberian Electricity Corporation's Project Implementation Unit (PIU) on a number of energy projects funded by the World Bank.

SESSION SIX

Yann Le Bot is in charge of developing European energy transactions within the Energy Finance department of Société Générale, France. He has been most recently involved in multiple arranging and financial advisory roles for major European energy projects. He has especially acted as financial advisor to the NeuConnect UK to Germany interconnector and a variety of major European offshore wind projects. He has also been active in arranging and structuring a variety of European power projects. He graduated from Ecole des Ponts ParisTech, and also holds a 'structured finance' Master's Degree from Ecole des Ponts ParisTech. He is Managing Director of the Energy + group at SG.

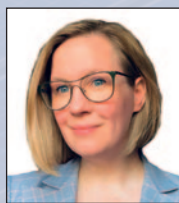
SESSION SEVEN

Bente Brunes works as a consultant and co-task team leader at the Hydropower Development Facility in ESMAP at the World Bank. She graduated from NTNU in Norway with an MSc in Mechanical Engineering and was inspired to pursue her interest in flexible renewable energy sources with a career in the hydropower sector. With more than 13 years of experience, she has been dedicated to shaping, developing, and implementing all sizes of greenfield, rehabilitation, modernization, and hybridization projects. Her specialization lies in project design and implementation, technical assistance, capacity building, project evaluation, and monitoring. One of the highlights of her career includes her key role in reconstructing the Mt. Coffee hydropower plant in Liberia and developing the concept and prefeasibility study for the hybridization of the same project.

PRESENTERS



*Luc Deroo
ISL Ingénierie
France*



*Bente Brunnes
World Bank/ESMAP
Norway*



*Elin Hallgrímsdóttir
World Bank/ESMAP
USA*



*Atle Harby
IEA Hydro and
SINTEF, Norway*



*Jean-Jacques Fry
ETIP
France*



*Surbhi Goyal
The World Bank
India*



*Philip T. Padi
Volta River Authority
Ghana*



*Marion Pinatel
Oréade-Brèche
France*



*Nicolas Gérard
EDF-CIH
France*



*Andrés Franco
Isigenere
Spain*



*Dr Ahmed Firdaus
Institut Teknologi
Bandung, Indonesia*



*Benoît Danglade
Innosea
France*



*Thanaphon Mathuravech
EGAT
Thailand*



*Musa Mukulu
UEGCL
Uganda*



*Nora Fjoesne
AFRY
Switzerland*



*Prince Aurora
Floatex
India*



*Marine Bernicot
ISL Ingénierie
France*



*Christoph Kutter
BayWa r.e.
Germany*



*Stéphane Prouvost
Ciel et Terre
France*



*Andy Kaufmann
Romande Energie
Switzerland*



*Dr Arndt Hildebrandt
Blue C
Germany*



*Lyu Kang
PowerChina Huadong
China*



*Jared McCully
Worthington Products
USA*



*Mario Kaufmann
Planttech Construction
Austria*



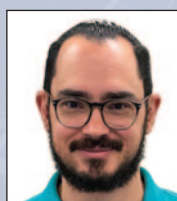
*Petter Grøn
Ocean Sun
Norway*



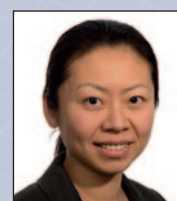
*Dmitrii Iakovlev
Sombroltaica
Spain*



*Ralph van Dijk
Floating Solar
Netherlands*



*Viktor F. Zwetkoff
Cemig GT
Brazil*



*Jiehong Kong
SINTEF Research
Norway*



*Martin Lacey
WestGlen Consult Ltd
UK*



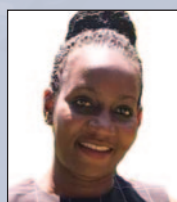
*Luigi Papetti
Frosio Next
Italy*



*Dr H. Mesnage
Supergrid Institute
France*



*Sebastian Hack
Multiconsult
Norway*



*Daphne Ayiekoh
Embassy of Sweden
Uganda*



*Joseph Kenfack
Solar HydroWatt
Cameroon*



*Daler Qubodbekov
Asian Development Bank
Tajikistan*



*Lars Brandt
Seaflex
Sweden*

TECHNICAL PROGRAMME

Monday 22 April - Morning

Opening addresses

- Welcome and preview - Alison Bartle, Aqua-Media International Ltd, UK
- Opening remarks - Luc Deroo, Conference Partner and Head of the Steering Committee, President, ICOLD Committee T, and ISL, France
- The World Bank report: 'Power with Flexibility: Facilitating the Energy Transition with Hybrid Hydropower Solutions' – Bente Brunnes and Elin Hallgrímsdóttir, World Bank/ESMAP

Session 1 - Integrating solar and hydropower: Global potential, benefits, environmental aspects

Chairperson: Luc Deroo, ISL Ingénierie, France

- Challenges, opportunities and benefits of hydro-solar hybrids – A. Harby, IEA Hydro and SINTEF Norway; Alex Beckitt, IEA Hydro and Hydro Tasmania
- The European Union ETIP initiative and its opportunities for collaborative projects – J-J. Fry, ETIP Hydropower, France
- Unlocking India's potential for floating PV – S. Goyal, World Bank, India
- The floating solar potential of the Akosombo reservoir for achieving the net zero agenda in Ghana – P.T. Padi, Volta River Authority, Ghana
- Key social and environmental aspects of floating PV panels on dam reservoirs – C. Lapeyre, A. Alvarado Vives and M. Pinatel, Oréade-Brèche, France; M-L. Petitpain, ISL Ingénierie, France
- Modelling environmental impacts of floating PV on the Magat hydropower reservoir, Philippines – F. Clayer and I. Nessheim, Norwegian Institute for Water Research (NIVA), Norway; A. Harby, SINTEF Energy Research, Norway

--- Refreshment break in the Exhibition hall ---

Session 2: Recent, on-going and planned schemes (FPV and hybrid)

Chairperson: Dr Aries Firman, Dam Safety Commission, Indonesia

- The 20 MWp Lazer FPV in France: Feedback from design and construction – E. Hougron and N. Gerard, EDF-CIH, France; and EDF Renouvelables, France
- Lessons from building and operating FPVs at hydroelectric dams: Cases in Portugal and Colombia – A. Franco and M. Redón, Isigenere, Spain
- Opportunities and challenges for floating PV on dam reservoirs in Indonesia: Cases on three reservoirs on the island of Java – A. Firman, Indonesian Dam Safety Commission, Indonesia;

Hendriyawan, Dr A.M. Firdaus and F.P. Bakti, Institut Teknologi Bandung, Indonesia

- Large FPV project on dam lakes: The case study of Cirata, Indonesia – B. Danglede, Innosea, France
- Optimal operation for integrating an FPV-pumped-storage system at Chulabhorn dam, Thailand – Thanaphon Mathuravech, EGAT, Thailand
- Floating solar project on the River Nile, Uganda – M-L. Petitpain and L. Deroo, ISL Ingénierie, France; M. Mukulu, UEGCL, Uganda
- Hydrological risk mitigation in Cameroon by floating PV plant installation – N.R. Fjoesne, J. Lalouette and S. Martin, AFRY, Switzerland; L. Podie, MINEE, Cameroon
- Design, engineering and execution challenges of floating solar powerplants: Case of the 600 MW FPV plant at the Omkareswar dam reservoir, India – P. Arora, Floatex Solar Pvt Ltd, India; S. Ahmad and B.P. Patel, IIT, Delhi, India

--- Lunch break in the Exhibition hall ---

Monday 22 April - Afternoon

Session 3 - Design issues, safety, risk and maintenance

Chairperson: Félix Gorintin, Innosea, France

- Towards a best practice guide for the realization of floating PV plants on dam reservoirs – M. Bernicot, ISL Ingénierie, France; N. Gérard, EDF, France; L. Peyras, INRAE, France
- How to design floating PV, and choose components for safety, reliability and performance – C. Kutter, BayWa r.e., Germany
- The main technical challenges of FPV on hydro reservoirs – S. Prouvost, Ciel et Terre, France
- FPV on Alpine hydro reservoirs: Balancing dam safety, risks and potential – A. Kaufmann, Romande Energie; N. Adam, Alpiq, Switzerland; and co-authors to be confirmed
- Reducing mooring design risks for challenging site conditions – J. Schlaak, Zimmermann PV-Stahlbau, Germany; and Prof Dr A. Hildebrand, Blue C, Germany
- Combining FPV arrays on a hydro reservoir: Ensuring safe mooring for a significant water level variation – Kang Lyu, Fuxin Chen and Xin He, Power China Huadong Engineering Co, China
- Be careful where you float: Safety and threat concerns at a solar-hydro site – Cpt J. McCully, P. Meeks, and S. Frattini, Worthington Productions Inc, USA

--- Refreshment break in the Exhibition hall ---

TECHNICAL PROGRAMME

Session 4 - What's new in floating solar PV?

Chairperson: Atle Harby, SINTEF Energy Research, Norway

- Innovative mooring design for flexible membrane FPV floaters – *Petter Grøn, Ocean Sun, Norway*
- A jumbo-size glass-free floatable solar concept – *Dmitrii Iakovlev, Sombravoltaica, Spain*
- Innovative solutions developed by Watopower, Bulgaria – *Mario Kaufmann, Planttech, Austria*
- Revolutionizing renewables with turnkey FPV solutions – *Prince Arora, Floatex, India*
- Solutions to meet challenging conditions for floating solar – *Julia Wang, Sungrow, China*
- Innovative solutions for FPV at hydropower dams: Expanding horizons – *Ralph van Dijk, Floating Solar, Netherlands*

Evening:

**19.00 - 21.30 hrs: Welcome reception with dinner
Exhibition Hall**

Tuesday 23 April - Morning

Session 5 - Hybridization: Potential, planning and challenges

Chairperson: B. Hakin, Liberia Electricity Corporation PIU

- Solar and hydro: when and why hybridize, rather than operate separately (which is often far simpler)? – *L. Deroo, ISL Ingénierie, France*
- CEMIG's hybrid hydropower and photovoltaic projects in Brazil – *V. Ferreira Zwetkoff, CEMIG, Brazil*
- The impact of the correlation of hydro inflow and solar availability on production schedules of hybrid plants in Western Africa, Eastern Asia, and Northern Europe – *Jiehong Kong (and co-authors), SINTEF Energy Research, Norway*
- Grid-scale solar-hydro hybrid optimization in Liberia – *B. Hakin and M. Captan, Liberia Electricity Corporation Project Implementation Unit, S. Lacroix, Artelia Group; M. Lacey, WestGlen Consult Ltd, UK*
- Coupling PV, EV and residual hydropower to reduce the environmental impact of earth dam construction: A model and case study – *L. Serra, Waterways, Italy; L. Papetti, A. Alberti and G. Ferrari, Frosio Next, Italy*
- Managing turbine fatigue while maximizing solar energy use: Adding a battery to the system – *Dr H. Mesnage, F. Grand-Perret, R. Guillaume and G. Amodeo, Supergrid Institute, France; B. Peltié, ISL Ingénierie, France*

--- Refreshment break in the Exhibition hall ---

Session 6 - Economic aspects and financial support for FPV and hybrid schemes

Chairperson: Yann Le Bot, Energy + Group, Société Générale, France

- How is development finance unlocking floating solar PV on Sub-Saharan Africa's hydropower reservoirs? – *S. Hack and S. Merlet, Multiconsult Norge AS, Norway*
- Sweden's contribution to unlocking Uganda's sustainable energy supply – *D. Ayiekoh, Embassy of Sweden, Uganda*
- Economic assessment of a new floating or ground mounted solar PV plant hybridized with an existing hydro plant – *M. Buchsenschutz, Nodalis, France*
- Issues raised by the development of solar-hydro projects in Cameroon – *J. Kenfack and B. Bignom, Solar HydroWatt, Cameroon; A. Bouba Oumarou, Arsel, Cameroon*
- Exploring the potential and economic feasibility of FPV on hydro reservoirs in Tajikistan – *D. Qubodbekov, Asian Development Bank, Resident Mission, Tajikistan*
- Hybridization projects of floating solar and hydro have reached commercial tech status, and are ready to 'go' – *L. Brandt, Seaflex, Sweden*

--- Lunch break in the Exhibition Hall ---

Tuesday 23 April - Afternoon

Session 7 - Roundtable discussion: 'The way forward - Research and development'

Chairperson: Bente Brunes, World Bank/ESMAP

- Topics will include research needs and plans, challenges, training and capacity building, safety issues, funding, etc.
- Panellists will take part from the Boards of UEGCL and the Ministry of Energy, Uganda; Baywa r.e., Société Générale, DNV (to be confirmed) and the Swiss Federal Office of Energy.
- *Interaction with international delegates will be encouraged*

--- Refreshment break in the Exhibition hall ---

Session 8: Summary and outcomes

- Final discussion and key points emerging from the Roundtable
- Message from ICOLD Secretary-General, Michel de Vivo
- Conclusions from the conference sessions from chairpersons
- Concluding remarks: Luc Deroo and Alison Bartle

Evening:

**19.30 hrs: Conference dinner by the sea
at Le Ruban Bleu Restaurant**

CONFERENCE VENUE

The stunning French Riviera, characterized by plenty of sun, as well as the Mediterranean Sea and plenty of nearby canals and reservoirs, seems an ideal backdrop for a conference on the synergy between solar PV and hydropower schemes.

France is also one of the world's major hubs for solar PV, hydropower, and dam engineering expertise, and has plenty of practical experience of hybrid schemes and floating solar PV.

The modern and elegant **Antipolis Congress Centre** is located in Juan-les-Pins, close to Antibes on the Côte d'Azur. It is easily accessible from all parts of the world, with a transfer time of about 40 minutes from Nice International Airport.

There are hotels in all categories within walking distance of the venue (see Accommodation for more details).

The French utility, EDF, as well as the French National Committee on Dams and Reservoirs, are strongly supporting the event, and major players in the PV sector, such as, Ciel et Terre, Innosea,



Nodalis and others, based in France, will be participating in the technical programme, along with some leading French consulting engineers in the field of hydropower and dams.

ACCOMMODATION

Hotel rooms in various categories, all in easy walking distance of the Antipolis Congress Centre in Juan-les-Pins, have been reserved for SOLAR-HYDRO 2024 participants.

Options will include:

- The **4* superior AC Ambassadeur (Marriott) hotel**, which is adjacent to the Congress Centre. This will serve as the main conference hotel, in view of its proximity to the conference, luxury accommodation at reasonable prices, and a focus on sustainability issues. There is a fitness centre and both indoor and outdoor swimming pools, and a restaurant as well as a bar with snacks. All rooms have balconies offering views of the sea, the outdoor pool, or the town of Juan-Les-Pins. There is free WiFi throughout.

- The comfortable **4* Helios**, about six minutes' walk from the Congress Centre, and close to the station, beach and shops. Some upper rooms offer a sea view. Free WiFi, cable TV and mini bars are available. Buffet breakfast and snacks are available at other times in the bar. It has a private beach nearby.

- The **3* Best Western Hotel Astoria**, a comfortable hotel in a quiet area of town, about seven minutes' walk from the Congress Centre. All rooms have balconies, tea/coffee making equipment, satellite TV and free WiFi. Close to the railway station and beaches.

Accommodation should be booked using the registration website (via www.hydropower-dams.com), where hotel rates can be found. Accommodation queries should be addressed to: ems-solarhydro2024@ems-ltd.org

Please beware of scam accommodation bureaux claiming to represent SOLAR-HYDRO 2024, who may contact you and request credit card numbers. Those wishing to reserve accommodation through our event management company (EMS) should do so through our on-line registration system. EMS will not contact you by phone or request credit card details.



EXCURSIONS



LOCAL EXCURSION (21 APRIL)

For participants arriving prior to Sunday 21 April or early that day, a local excursion is being arranged to provide an opportunity to experience some of the stunning landscape of the French Riviera, take a leisurely lunch together, and then visit some places of interest. The trip will last about four hours, departing mid-morning, and returning mid-afternoon to Juan-les-Pins. The morning will comprise a drive around the **Cap d'Antibes**,

passing the Hotel Belles Rives (former home of Francis Scott Fitzgerald), and the Villa Mitoyenne which belonged to Frank J Gould. The trip will continue past the **Garoupe lighthouse**, from where there is a spectacular view, before arriving in Antibes. Following a guided tour of **old Antibes**, including the historic harbour and city ramparts and the Nomade statue by Jaume Plensa, the group will stop for lunch. There will then be a visit to the world-famous **Picasso Museum**, before the return to Juans-les-Pins in the afternoon.

POST-CONFERENCE TECHNICAL TOUR (24 April)

After some unavoidable complications which led to cancelling the study tour originally planned, we are pleased to announce a technical visit which will include two main elements:

- A small floating solar PV installation, at **Lac de la Madone**, developed as a pilot project by CNR, with a capacity of 230 kW. It is located in the southern French Rhône Département, about 450 km from Antibes.
- A unique telecontrol system in Lyon, which optimises the production of renewable energy from renewable sources. Known as the '**Cocpit**', developed by France's major renewable energy producer **CNR** with 3000 MW of hydropower on the Rhône, the centre is a unique platform bringing together three operational skills to act in synergy:
 - meteorological forecasting and the optimization of production, which works in close harmony with the hydropower plants to

make the energy produced as profitable as possible;

- remote control of 19 hydro plants on the Rhône to control production reactively and precisely; and,
- a 'front office' to sell the electricity produced on the wholesale market.

When CNR began to invest in wind and solar power, it developed a new activity within the Cocpit to forecast these 'meteorological energies' and to anticipate their future management on the wholesale electricity market.

Delegates will depart after breakfast for a journey by coach taking them through the stunning landscape of Provence, stopping for coffee and lunch en route, and travelling first to Lac de la Madone, and then on to Lyon to the Cocpit.

Optional dinner and overnight stay in the Lyon region.



TECHNICAL EXHIBITION

A major Technical Exhibition will run alongside the SOLAR-HYDRO 2024 Conference, showcasing the latest developments in floating solar hydro, and other renewable energy hybrid systems, as well as the services of specialist consultants, contractors and equipment suppliers.

All lunch and refreshment breaks will be in the exhibition hall, directly below the conference rooms. **The Welcome Reception on Monday 22 April will also take place in the Exhibition Hall**, to provide an additional opportunity for the international delegates to meet the exhibitors. A conference app will facilitate the arrangement of meetings. A special session will be held on Monday afternoon for the major PV specialists taking part in the Technical Exhibition to present highlights of their products or services to the plenary international audience.

For further information, please contact:

Mr Richard Henley, Mrs Melanie Ganz or Miss Tanita Chondrunaiko

Tel: +44 20 8773 7252/ 7251/ 7250

Email: Sales@hydropower-dams.com . website: www.hydropower-dams.com



A CONVENIENT HUB FOR BUSINESS MEETINGS

Make the most of your presence at SOLAR-HYDRO 2024: By reserving an exhibition space, you will have a base for meetings, and to welcome international delegates from an estimated 45+ countries to discuss your activities. If you have presented a talk in one of the technical sessions, delegates will easily be able to find you, to continue discussions.

Three exhibition packages are available:

BASIC EXHIBITOR PACKAGE

- Chance to present your products, services to the conference delegates in a special Exhibitor Plenary Session. (Subject to availability)
- A 3 × 2 m shell scheme stand to meet delegates, distribute information about your products and services, and brand your organisation.
- One complimentary delegate pass and two at a discounted rate
- Networking opportunities with conference delegates at the Welcome Reception in the Exhibition Hall.
- Possibility to organise one-to-one meetings during the event using the Conference App Meeting Scheduler.

The Basic Exhibitor Package fee is €2400 to include all of the above

STANDARD EXHIBITOR PACKAGE

- Chance to present your products, services to the conference delegates in a special Exhibitor Plenary Session. (Subject to availability)
- A 3 × 2 m shell scheme stand to meet delegates, distribute information about your products and services, and brand your organisation.
- One complimentary delegate pass and two at a discounted rate
- Networking opportunities with conference delegates at the Welcome Reception in the Exhibition Hall.
- Organise one-to-one meetings during the event using the Conference App Meeting Scheduler.
- Promotion of your company with a quarter-page advertisement in the Event issue of *The International Journal on Hydropower & Dams*. (Exclusively provided to each delegate and 28 000 readers from the global hydropower/water management community).

The Standard Exhibitor Package fee is €3600 to include all of the above

PREMIUM EXHIBITOR PACKAGE

- Chance to present your products or services to the conference delegates in a special Exhibitor Plenary Session. (Subject to availability)
- A 3 × 2 m shell scheme stand to meet delegates, distribute information about your products and services, and brand your organisation.
- One complimentary delegate pass and three at a discounted rate
- Networking opportunities with conference delegates at the Welcome Reception in the Exhibition Hall.
- Organise one-to-one meetings during the event using the Conference App Meeting Scheduler.
- Promotion of your company with a half-page advertisement in the Event issue of *The International Journal on Hydropower & Dams*. (Exclusively provided to each delegate and 28 000 readers from the global hydropower /water management community).
- Promotion of your company's projects or products on a Poster Display situated in the exhibition area

The Premium Exhibitor Package fee is €4700 to include all of the above

SPONSORSHIP OPPORTUNITIES

Sponsorship of an item to enhance the conference will make your company stand out from the crowd. It also associates your organisation with the key themes of the conference. It highlights your brand, and positions you among the leading companies. It also maximises networking and business development opportunities. You will be recognised publicly in conference speeches, a rolling powerpoint, on the banners, signage, on the conference App, and in all publicity in-print and on-line before, during and after the SOLAR-HYDRO 2024 event.

The main categories include:

1. **Headline Sponsor**
2. **The Networking Reception Sponsor**
3. **The Delegate Bag Co-Sponsor**
4. **Business Lounge Sponsor**
5. **Lunch and Drinks Sponsor (6 sessions)**
6. **Water Cooler Sponsor**
7. **Conference App Sponsor**



BOOKING CONDITIONS

The Conference SOLAR-HYDRO 2024 - Floating solar PV on dam reservoirs and solar-hydro hybridization, is being organized by *The International Journal on Hydropower & Dams* with Event Management Services (EMS), UK.

On-line Registration

You can register on-line via the *Hydropower & Dams* website at: www.hydropower-dams.com.

This is a secure site. Registrations are handled by EMS on behalf of Aqua~Media. You will receive an acknowledgement of registration on completion of this process; however, this is not a confirmation (until payment is received).

We encourage all delegates to register on-line; the registration site provides more information about the event. Pre-registration is required. In the unlikely event of any difficulties using this system, please contact EMS (see contact details below).

Picking up conference documents and badges

The registration desk will be open from 08.00 hrs on Sunday 21 April 2024, at the Antipolis Congress Centre, in Juan-Les-Pins, and delegate bags can be collected from 08.30 to 12.00 hrs, and from 14.00 to 19.00 hrs.

Payment

Payment for all services (fees, hotels, tours) must be made in Euros (€) and received in advance of the Conference. Payment is possible by the following methods:

- On-line by Visa or Mastercard; or,
- By bank transfer (see details on the registration form).

All fees paid by credit card will be charged in Euros (€).

Accommodation

Beware of scam accommodation bureaux who operate falsely claiming to represent SOLAR-HYDRO 2024. We recommend that you do not pass credit card details to them. Descriptions of the hotels are given on the registration site.

Disclaimer

Best endeavours will be made to present the programme as printed. The SOLAR-HYDRO 2024 organizers and their agents reserve the right to alter arrangements, timetable, plans or other items relating directly or indirectly to SOLAR-HYDRO 2024 for any cause beyond its reasonable control. The Conference and Tours are subject to minimum numbers. Tour places are subject to availability on a first-come-first-served basis. Full payment for tours must be received at the time of registration.

Cancellations

Cancellations must be made in writing to EMS. Cancellation charges will be payable as shown in the Table below. Substitution of delegates, speakers or exhibitors after a reservation has been made is acceptable before the conference, and no extra fee is payable. Any necessary refunds (see Table below) will be made after the conference.

As soon as a registration is confirmed, a number of expenses are incurred by the organizers; therefore the cancellation conditions below apply.

Date cancellation received	From 14 to 31 March 2023	On or after 1 April 2024
Registration for the Conference	50% of fee will be forfeited	No refund
Technical Excursions (Study Tours)	No refund unless place can be resold	No refund
Accommodation	No refund unless place can be resold	No refund

A reduced registration fee is available for speakers, current subscribers to *Hydropower & Dams*, and those taking a new subscription.

Liability/Insurance

The registration fees do not include the insurance of participants against personal accidents, sickness, cancellations by any party, theft, loss or damage to personal possessions. The organizers accept no responsibility for death, injury, loss or accident, delays arising from any act or default of any person, or any other matter arising in connection with Conference services or transport. The organizers make no warranty in this connection.

All services provided are subject to local laws. Arrangements for the Conference have been made in accordance with French Law.

Delegates, exhibitors and tour participants are strongly advised to take out adequate personal insurance to cover risks associated with travel, accommodation, cancellation and theft or damage to personal belongings.

In the unlikely event that it is necessary to cancel any of the conference arrangements or postpone the conference, a refund will be made, and thereafter the liability of the organizers will cease. Alternatively, fees could be carried forward for a postponed conference on new dates.

The organizers reserve the right not to accept applications for attendance (for example, but not exclusively, if applicants are not working in the field of renewable energy, or if there could be a conflict of interest with the mission of the conference, the organizers, or any policy of the host country).

Passport and Visa Requirements for France

It is the responsibility of all participants to check their own passport and visa requirements. Please contact the French embassy or consulate in your country if in doubt about requirements, or visit:

<https://france-visas.gouv.fr/en/web/france-visas/home>

Applying for a letter of invitation to support a visa application

In some cases, letters of invitation from Aqua~Media may be necessary, to support visa applications. If you require a letter of invitation to facilitate your visa application, please let us know at the time of registering.

The process could take several weeks, so we strongly urge participants requiring visas to start the application process in good time.

Please note that letters to assist with obtaining visas can only be provided to registered or invited participants, and these letters do not imply an invitation to the conference without payment of registration fees, unless this is specified. If you need a supporting letter, please notify us as soon as possible and supply your full name, date of birth, passport details, and proposed dates of arrival and departure.



BOOKING INFORMATION

The online SOLAR-HYDRO 2024 registration system is open , and bookings can be made via:

www.hydropower-dams.com

For any queries, please contact:

solar-hydro2024@hydropower-dams.com ~ Tel: +44 (0) 20 8773 7244

Prices for each delegate category and conference activity are given below.

NB: Accommodation details are available on the registration system. Rooms have been arranged in various price categories in Juan-Les-Pins, within walking distance of the Antipolis Congress Centre.

DELEGATE FEE: Includes attendance of the conference and exhibition; documentation; lunches and refreshments during the conference; and receptions. (until 1 March) € 790 (from 2 March) €850

REDUCED DELEGATE FEE : For current personal subscribers to Hydropower & Dams (until 1 March) €720 (from 2 March) €780
(Subscription number will be required when registering)

FEE INCLUDING NEW SUBSCRIPTION TO H&D: Six issues from No. 4, 2024+ Atlas + Maps (until 1 March) €925 (from 2 March) €985
(This represents a saving of about 40 per cent on the normal H&D subscription rate)

SPEAKER FEE :Includes all facilities described above for full delegates, plus an additional reception on Sunday 21 April. NB: This fee applies to one person per paper (main author or presenter). € 450

FIRST EXHIBITOR FEE: (One full participant fee is included with exhibition booking). €0

SECOND + THIRD EXHIBITOR FEE: (Fee per person for up to two additional exhibitors). €575
This includes all benefits available to full delegates

ACCOMPANYING PERSON FEE: (For family members, partners or friends, not colleagues attending the conference or exhibition). The fee includes the excursions each day, with lunch, and the evening social events. €380

HALF-DAY EXCURSION AROUND CAP D'ANTIBES: (on Sunday 21 April; includes lunch). Cost per person: €165

DONATION TO THE AMI HYDROPOWER FOUNDATION: There is an opportunity when registering to make a donation to the AMI Hydropower Foundation, a charitable foundation, set up by Aqua-Media and governed by a board of international trustees. It exists to facilitate the participation of delegates from less developed countries at the international and regional conferences organized by Aqua-Media.

DIETARY REQUIREMENTS: These may be specified on the online registration system (including, for example, vegetarian, vegan, kosher, halal, gluten free, etc).

VISA REQUIREMENTS: You can apply for an invitation letter to support your visa application during the on-line registration process.

NB: Attendance of the Welcome Reception is included within the registration fees for all participants. However, we request a nominal contribution of €15 for those wishing to attend, to encourage a firm commitment to participate. This is important to enable us to assess numbers for catering, and avoid food wastage.

CONTACT DETAILS

For enquiries concerning registration and accommodation, please contact:

SOLAR-HYDRO 2024 Secretariat, Event Management Services (EMS)

ems-solarhydro2024@ems-ltd.org • Tel: +44 1225 258013

For enquiries about the programme, please contact: Mrs Maria Flintan, c/o Hydropower & Dams

PO Box 285, Wallington, Surrey SM6 6AN, UK

Email: Solar-Hydro2024@hydropower-dams.com

For the latest information and online registration, visit: www.hydropower-dams.com/solar-hydro

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