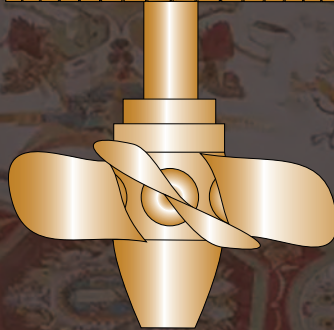


HYDRO 2026



Adapting to change ~ Embracing opportunities

will take place in

Bologna, Italy

14 - 16 October 2026

Host and organiser:

THE INTERNATIONAL JOURNAL ON
**HYDROPOWER
& DAMS**
www.hydro-power-dams.com

National supporting organizations:



International supporting organizations:

Aqua-Media International is pleased to welcome the global hydropower and dams community to HYDRO 2026 for three days of sessions and an exhibition, preceded by training workshops, and pre- and post-conference study tours. The elegant city of Bologna will provide a perfect backdrop for discussions on global issues: challenges and opportunities of the energy transition; new technology; AI; safety and risk; project finance; environmental protection; helping developing countries to unlock their hydro potential... and more.



ITALY AS HOST COUNTRY

Italy and renewable energy

Italy has a total installed capacity of 150 GW, of which about 51 per cent is from renewable sources. Hydro capacity totals nearly 26 GW (as of the end of 2024), including 4351 MW of pumped storage.

As more than 50 per cent of the hydro plants in the country are now more than 40 years old. ENEL Green Power is now carrying out a large-scale repowering and refurbishment campaign, currently involving around 20 powerplants.

Hydropower production of 54 236 GWh (in 2024) contributed nearly 20 per cent of national electricity.

Around 10 GW of energy storage, including 6 GW of utility-scale storage (from pumped storage and batteries) is required to be implemented by 2030, to meet Italy's decarbonization targets. Edison and Webuild are planning the Pescopagano scheme, in the Basilicata region of the south, and the Villarosa scheme in Sicily. Both would use existing reservoirs which will require restoration work.

A law introduced in mid-2024 by the Ministry of the Environment establishes an incentive mechanism for renewable energy schemes which demonstrate innovation or have high operating costs. FPV schemes are covered by this legislation. In July this year (2025) a tender was launched for the deployment of about 50 MW of floating solar capacity.

Bologna as a meeting point

Bologna, in northern Italy, is in a region which can be considered a 'hydro hub' of Europe, with Austria, Switzerland, France and Slovenia quite close by; and it is easily accessible from all parts of the world. Its Guglielmo Marconi Airport, located only about 6 km from the centre of town, has direct flight connections with around 35 countries and a central train station connects with major European cities.

Several comfortable 4* and 5* business hotels are located just 2-3 minutes walk from the Bologna Congress Centre, and many more hotels in all styles and categories are available in the centre of town, with excellent tram and bus links.



Bologna is the capital of the Emilia-Romagna region of northern Italy. The city's famous porticoes, spanning a total of 62 km and reflecting different architectural styles, have the status of a UNESCO World Heritage Site.

The University of Bologna is renowned as the oldest university in continuous operation in the world, and the first institution of higher learning to award degrees (and the first to award a degree, and a doctorate, to a woman). Teaching began there in 1088.

Tours

On 13 October delegates will be offered a local tour, with the chance to view some of Bologna's most iconic landmarks and historic squares. Participants will also have the option of visiting the Municipal Palace in Piazza Maggiore, (seat of the municipal government since 1336); and view the Municipal Art Collections.

A package of three tours is being organized for accompanying persons, including an excursion to Modena, featuring a visit to the Pavarotti Museum; a trip to the picturesque village of Dozza, renowned for its beautifully painted murals; plus a visit to Palazzo dell'Archiginasio, one of Bologna's most significant and historic landmarks.

Technical tours to some of Italy's major dams, reservoirs, and pumped-storage plants are being planned, in collaboration with ITCOLD and the leading Italian power authorities.



ACCOMMODATION IN BOLOGNA

As usual, our event management team has blocked rooms in a number of hotels in Bologna, at special conference rates, for HYDRO 2026 participants. Details of three of these (expected to be the most popular) are given below: two modern business hotels very close to the Conference and Exhibition Centre, and one of a more classical style a little further away. Details of some additional hotels will also be announced, and details will be available on the registration site.



Savhotel Fiera Bologna

The newly renovated 4* Savhotel Fiera Bologna is just a 4-minute walk from the Conference and Exhibition Centre where HYDRO 2026 will take place, and 6 minutes from Piazza Maggiore, the main square in the historical centre of town.

The hotel has a pleasant garden, a restaurant, and a bar with a terrace offering nice views over the city (see photo); this is an excellent place to watch the sun go down while enjoying a drink with colleagues and friends. Many reviewers on line comment on the high standard of the buffet breakfast.

There are 24 hour fitness facilities for guests. Some parking is available, and there are good public transport (bus/tram) connections into the centre of town from a point very close to both the Savhotel and Una Hotel.

Una Hotel Bologna Fiera

Located in the Bologna Fiera district, the Una Hotel Bologna Fiera is a comfortable modern 4* business hotel, just a 2-minute walk from the Conference and Exhibition Centre.

All rooms have minibars and LCD televisions.

The memory foam beds have down comforters and premium bedding. There is complimentary WiFi, and rooms are equipped with 32-inch screen Smart televisions.

Other amenities include complimentary wireless internet access and concierge services, and 24 h front desk services.

The hotel has a restaurant (Il Bolognese), and a bar/lounge. There is also a garden where guests can relax with a drink after a long day.

The hotel's electricity is all from renewable sources, and within the hotel complex there is a charging station for electric cars.

Royal Hotel Carlton

This is an elegant superior 4* hotel, in the historic centre of Bologna, so a little further from the Congress and Exhibition Centre (about 15 minutes by taxi or a pleasant 30-40 minute walk).

The comfortable and spacious rooms offer smart TVs with Sky channels, air conditioning and minibars, as well as free Wi-Fi. The hotel is located in a quiet street.

The Planetario bar is a relaxing area for snacks and drinks, and the Spoon restaurant offers refined gastronomic cuisine. The buffet breakfast is excellent, with plenty of variety. The hotel's Monrif Spa includes a Finnish sauna, bio-sauna, Turkish bath, Aromarium and Calidarium.

More energetic guests also have free access to a 150 m² 'technogym'.

INTERNATIONAL CONFERENCE STEERING COMMITTEE

M. Abebe, Ethiopia
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A. Noorzad, Iran
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M.A. Oliveira, Portugal
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P.J. Rae, Canada

J. Reynolds, UK
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S. Sparkes, Norway
M. Teal, USA
J. Teysieux, France
M. Wieland, Switzerland
D.A. Williams, UK
Xu Zeping, China
K-T. Yum, Republic of Korea
G. Zenz, Austria

BOLOGNA CITY TOUR

To provide all international participants with an opportunity to discover the rich history and unique character of Bologna, we have once again organized a city excursion, taking place on Tuesday, 13 October.

A private bus transfer will take participants from the Bologna Congress Centre to the city centre for a guided walking tour. During the excursion, participants will explore some of Bologna's most iconic landmarks and historic squares, including:

- ▶ Piazza del Nettuno and the Neptune Fountain
- ▶ Biblioteca Salaborsa
- ▶ Piazza Maggiore
- ▶ Basilica di San Petronio
- ▶ The Archiginnasio Courtyard
- ▶ Via Farini
- ▶ Piazza Minghetti
- ▶ Piazza Santo Stefano
- ▶ Piazza della Mercanzia
- ▶ Due Torri (Two Towers)

Following the guided tour, participants will enjoy a traditional three-course lunch at a local restaurant.

After lunch, the private bus transfer will depart back to Bologna Congress Centre.

Participants may also choose to join an optional visit to the Municipal Art Collections and the Clock Tower. There are panoramic views of Bologna from above. Palazzo d'Accursio can be explored with a smart-phone audio guide before climbing the steps to the Clock Tower for stunning views of the city from its two terraces. The visit proceeds through courtyards and staircases, from the splendid Sala Farnese to the heart of the tower, the mechanism that makes the clock work. Participants will also have access to the Municipal Art Collections, home to an exceptional collection of paintings, objets d'art, furniture, porcelain and textiles, some dating back to the Middle Ages.



ACCOMPANYING PERSONS' EXCURSIONS

A programme of three tours is in preparation for registered accompanying persons (partners, family members and friends attending HYDRO 2026 with delegates, and not attending sessions).

Day 1 - Wednesday 14 October 2026

This begins with a visit to a cheese factory in Modena. The tour covers the cheese-making process, ending with a view of the ageing warehouse and a tasting of Parmigiano Reggiano of two different ages.

The excursion continues with a visit to the Casa Museo Luciano Pavarotti, set in scenic countryside near Modena. This former home of the world-famous opera singer has been transformed into a museum celebrating his life, career and legacy in the world of opera.

After lunch, participants will explore Modena's historic centre on a guided walking tour.

Return by coach to the Bologna Congress Centre.

Day 2 - Thursday 15 October 2026

On the second day, participants will visit the medieval village of Dozza where there will be a guided walking tour. Renowned for its well

preserved medieval urban layout, the village retains its distinctive spindle-shaped historic centre. At its highest point stands the impressive Rocca, a former fortress now housing a museum.

On the return trip from Dozza, there will be a visit to a winery including a wine tasting.

Day 3 - Friday 16 October 2026

A hands-on leather workshop is being planned (subject to confirmation), where participants will discover Italian craftsmanship through an interactive introduction to traditional leather-making techniques. Guided step by step by expert artisans, they will create their own leather keychain, from selecting the leather colour to shaping and assembling the final piece.

After lunch there will be a visit Palazzo dell'Archiginnasio, one of the most significant and historic buildings in Bologna and the former seat of the ancient University of Bologna. The visit includes the renowned Anatomical Theatre, an extraordinary wooden lecture hall built in 1637 by Antonio Levanti for the teaching of anatomy, featuring the famous 'skinned' statues by Ercole Lelli.



CONFERENCE SESSIONS

WEDNESDAY 14 OCTOBER - MORNING

Plenary opening

- ▶ Welcome addresses and programme preview

Refreshment break and opening of the Exhibition

Session 1: Finance (Panel discussion)

- ▶ Hydro financing: The role of a transaction advisor – *S. Deschler, CrossBoundary, USA*
- ▶ What a PPP is seeking in greenfield hydropower projects – *A. Karmali, Agha Khan Foundation, IPS, Kenya*
- ▶ The role of the public sector in a public-private partnership – *M. Shérif, Liberia Electricity Corporation, Liberia*
- ▶ The role of the private sector in a public-private partnership – *J. Dumas, EDF, France*
- ▶ Challenges of large-scale hydro development – *D. Croft, IFC, USA*
- ▶ Financial evaluation of long-life hydropower assets: Limitations of conventional discounting methods and the case for an alternative approach – *M. Lacey and S. Kaleb, WestGlen Consult, UK*

Session 2: Dam safety and monitoring - I

- ▶ Enhancing dam safety through monitoring innovation, safety upgrades and risk management: Experience from Morocco – *M. Ben Tahar and E.H. Loukili, Ministry of Equipment and Water, Morocco*
- ▶ Feasibility analysis of multi-method detection for termite hazards in earth dams – *K. Chen, H. Huang, and Y. Ma, IWHR, China; and X.M. Zhang, IWHR Haili Engineering Tech, China*
- ▶ Smart dam monitoring: Real-time dashboard monitoring dam conditions in remote areas with limited communication infrastructure – *A. Prasetyo, PT. Vale, Indonesia; and Y. Astuti, Indra Karya, Indonesia*
- ▶ Safety assessment of Ridracoli dam – *A. Ullah, N. Cavalagli, D. Salciarini, P. Manciola and F. Ubertini, University of Perugia, Italy; S. Pereira, University of Porto, Portugal; G. Buffi, Romagna Acque Società delle Fonti SpA, Italy*
- ▶ Study on emptying model for high dams over 200 m and practical application – *X.Y. Zheng, J.X. Yang, Z.G. Zhan, H.Z. Zhang, and H.Y. Mu, PowerChina, China*
- ▶ Modern geodetic methods for dam deformation monitoring: A case study of vertical and horizontal displacements at Tavropos arch dam, Greece – *G. Pantazis, K. Nikolitsas and S. Ioannidou, NTUA, Greece; P. Bourbourakis, E. Kaltsi and N. Anastopoulos, PPC, Greece*

Session 3: Hydraulic Machinery - I

- ▶ Replacement of a Francis with a Pelton turbine in abrasive water conditions: Challenges and benefits – *P. Berger, Hydrostadium, France; F. Rossini, EDF, France; P. Pisterman and R. Yvard, HPP, France*
- ▶ Field demonstration of an additively manufactured Francis turbine runner at the Yomuragawa hydropower plant – *S. Yamada, K. Okude, M. Ogahara, G. Yoshida, T. Arai, and K. Miyagawa, KEPCO, Japan*
- ▶ A summary of guarantee fulfilment in turbine performance: Analysing 15 years of turbine efficiency measurements – *H. Hulaas, I. Lunder and E. Nilsen, Norconsult Norge AS, Norway*
- ▶ Overview of the new technical specification IEC 63111 hydraulic transient analysis, design considerations and testing for hydropower plants – *C. Nicolet, Hydropower Dynamics, Switzerland; B. Boyer, Hydro Québec, Canada; D. Bernard, Tetra Tech, Canada; J. Kahler, Fichtner, Germany; Y. Vaillant, GE Vernova, Switzerland; W. Michler, Andritz, Switzerland; T. Foggia, CNR, France; W. Yang, Wuhan University, China; P. Grillot, EDF-CIH, France; J. Foust, Voith, USA; and J. Dai, CTG, China*
- ▶ Runner instability caused sand erosion effects on labyrinth seals of low specific speed Francis turbines – *P. Caretti, Hydro Mechanical Specialistic Support, Italy; A. Fumagalli and M. Prandi, Edison SpA, Italy*
- ▶ Root cause analysis of hydraulic imbalance in a double-runner Pelton turbine using multi-parameter monitoring – *E. Lima, P. Silva, A. Tristão and T. Kleis, AQTech Power Prognostics, Brazil*
- ▶ Confined-area robotic thermal spraying for sediment erosion protection of a Francis runner: Application to the Kurobe River No. 2 hydropower plant – *T. Mukai, S. Kuboya, M. Nakazono, K. Tezuka, K. Yamamoto, and S. Tasaki, Toshiba, Japan*
- ▶ Monitoring of the operating profile, efficiency and energy loss of turbines within selected time ranges – *A. Abgottspon, T. Staubli, and N. Gloor, Etaeval, Switzerland*

Session 4A: The Andean region. Hydropower as a strategic driver for the energy transition - 1

This two-part session will comprise two high-level panel discussions. The first will deal with public policy and strategic leadership in the Andean countries, and will cover national strategies and investment opportunities. Confirmed panellists so far include Ximena Rucón, Energy Minister of Chile, Fernando Rubén Pullupaxi, Vice Minister of Electricity and Energy of Ecuador, and Alberto Pérez, Executive Director of the energy regulatory commission of Peru. Ministerial participants from Colombia and Bolivia are to be confirmed.

Lunch break in the Exhibition Halls

WEDNESDAY 14 OCTOBER - AFTERNOON

Session 4B: The Andean region. Hydropower as a strategic driver for the energy transition - 2

The second panel will be entitled 'From vision to implementation: Business leadership driving hydropower development in the Andean region'.

Participants (to be announced) will include leading developers, utilities and technology providers from across the Andean nations, including Colombia, Chile, Peru, Ecuador and Bolivia.

Session 5: More and better jobs (Panel discussion)

This session will focus on training and the development of skills in the field of hydropower, and will highlight current initiatives by the World Bank Group in harnessing opportunities and supporting more and better jobs around the world in key sectors.

Discussions will be led by Dr S. Valessi and B. Brunes, World Bank Group, and panellists will include Prof O. Bruland, NTNU, Norway, Prof C. Bragalli, University of Bologna, Italy, Prof H. Habersack, BOKU, Austria and P.A.F. Braschi, Brazil.

Session 6: Dam safety and monitoring - II

- ▶ A comprehensive methodology for the seismic safety assessment of an existing dam applied to the case of the Vaiont dam, in accordance with Italian dam safety guidelines – *D. Battaglia, Georisk, Italy; E. Catalano, Lombardi Engineering Ltd., Switzerland; F. Maugliani, Lombardi Ingegneria Srl, Italy; F. Fornari, A. Bonafé and A. Torre, Enel Green, Italy*
- ▶ Anti-overtopping protection of embankment dams with CSGR: Research and practice – *Zheng Cuiying, Jia Jinsheng and Xing Shuai, IWHR, China*
- ▶ Lagdo dam: flood reanalysis based on satellite rainfall data and measures to enhance dam safety – *A.N. Pinheiro, A.C. Santos, F.E. Albuquerque and F.C. Dias, Aqualogus, Portugal*
- ▶ Seismic and structural health monitoring of Cahora Bassa dam: 2010–2026 – *E. Carvalho, HCB, Mozambique; P. Mendes, ISEL, Portugal; R. Ramos, IST-CERIS/LNEC, Portugal; S. Oliveira, LNEC, Portugal; J. Proença, IST-CERIS, Portugal; and A. Alegre, Kinematics Inc, USA*
- ▶ Post-landslide repair and rehabilitation of dam instrumentation for dam integrity performance monitoring: A case study of Kenyir dam, Malaysia – *I. Faruq, TNB, Malaysia*
- ▶ Intelligent parameter calibration of the liquefaction cycle constitutive model based on machine learning – *Y.F. Zhang, Y.S. Yang, G. Deng, S. Yu, P.H. Yin, and Y.J. Wang, IWHR, China*
- ▶ Performance of two dams since the first impounding in April 2018 to post-impounding seven years on: The Moragahakanda hydro project, Sri Lanka – *Eng. S.R.K. Aruppola and P.S. Bandara, Mahaweli Authority of Sri Lanka, Sri Lanka*
- ▶ Managing the risk of dam foundation scour through time: case studies – *L. Labrosse, Lombardi SA, Switzerland; and P. Manso, MHYD Sarl, Switzerland*

Session 7: Hydraulic machinery - II

- ▶ Surge tank dimensioning for stable constant power operation – *A. Lechner, Andritz Hydro, Austria*
- ▶ Enhancing reliability and maintainability of hydro turbine main shaft sealing: Modern sealing concepts for retrofit and operation – *H. Dekker, AW Chesterton Co, USA*
- ▶ Predictive maintenance and AI-enabled operational decision systems for distributed hydropower: Insights from hydrokinetic turbine fleets – *C.M. Niebuhr, J. Gruber, and A. Walz, Energyminer GmbH, Germany*
- ▶ Enhancing turbine fatigue life through transient optimization – *F. Hars, F. Cuaz, C. Cadieux, and J. Héraud, EDF, France; P.Y. Lowys, G. Ciocan, F. André and B. Guilhot, GE Vernova, France*

CONFERENCE SESSIONS

- Investigating radial, tilt-pad, and spring-pad bearing behaviour in Kaplan turbines using acoustic emissions – V.V. Shanbhag, S.T. Kandukuri and R. Schlanbusch, Norce Research, Norway; and G. Olimstad, Å Energi, Norway
- Noise and vibration challenges in Pelton turbines: Experience from the Lang-Sima power plant – H. Meland, Aker Solutions, Norway
- Interaction of swirl, pressure recovery, and cavitation in draft tube flow instability – M. Hamaguchi, K. Kodama and Kazuyoshi Miyagawa, Waseda University, Japan; T. Nakashima and Y. Enomoto, Toshiba, Japan
- Design modification of pressure balancing holds of an existing Francis turbine runner to mitigate identified shaft surface damages – M. Wanigasooriya, C. Dehikumbura and U. Manchanayake, Vidullanka, Sri Lanka

Session 8: Hybridization

- Hybridization experience at a hydro plant in Italy – M. Verzillo, Enel Green Power, Italy
- Lesson learnt on the integration of 50 MWac Batang Ai floating solar to the 40 year-old Batang Ai hydro plant for hybrid operation – A.A.H. bin Abang Ibrahim, R. binti Roslani, A.S.A.P. Ahbui and M.A. bin Aman, Sarawak Energy, Malaysia
- Contribution of CNR hydropower generation to the decarbonization of the French electricity mix thanks to hybridization with batteries – V. Dumeril, 3D Energy, France; and B. Graff, CNR, France
- Unlocking new value in hydropower through floating PV hybridization – E. Hjetland and G. Grimsrud, Fred. Olsen 1848, Norway
- Photovoltaic integration on hydropower dam surfaces: Engineering design and PV: hydropower hybridization case studies in Italy (Alpe Gera and Ancipa, Enel GP) – A. Giusti and F. Maugliani, Lombardi, Italy; and M. Verzillo, Enel Group, Italy
- Utility-scale hybrid energy storage system: Integrating 1000 MW pumped storage with 500 MW floating solar in peninsular Malaysia – M. Kunasegaran and M.L.H. Ramli, TNB, Malaysia

Session 9: Dam engineering (Design, construction and materials)

- Dam heightening as a strategic tool for increasing hydropower storage and flexibility – B. Quigley and A. Wornlich, Gruner Stucky, Switzerland
- Artificial intelligence and smart dam technology: From concept to operational application and China's latest progress – G.F. Chen, PowerChina, China
- Formwork, scaffolding and digital execution support for complex pumped-storage structures: The case of Snowy 2.0 – M.P. Bolzoni and A. Talajouy, Doka GmbH, Austria
- NOCTULE and concrete swelling in dams: Leveraging 80 years of EDF DTG monitoring expertise and data – J.B. Guaus, T. Glasser, and V. Guihard, EDF Hydro – DTG Grenoble, France
- Design of the foundation cutoff for Koysha RCC dam in Ethiopia – G. Pittalis and A. Albori, Studio Ing. G. Pietrangeli, Italy; and P. Mastrofini, WeBuild, Italy
- Use of rocks as replacement in concrete dams – B. Brårvik, NTNU, Dr. Techn. Olav Olsen, Norway; J.S. Moe, Statkraft Energy, Norway; L. Lia, NTNU, Norway
- Barbellino and Chambon dam case studies: The only two dams where a geomembrane system was removed and reinstated – G. Vaschetti, Carpi Tech, Switzerland; M. Canci, Enel Green Power, Italy; and R. Mosconi, Mosconi Srl, Italy
- Long-term mechanical performance and design of exposed HDPE geomembrane lining in hydraulic engineering applications – M. Meissner and J.K. Pries, Naue GmbH & Co. KG, Germany
- Erosion resistant concrete at Pont-Ventoux dam: 30 year performance – F. Saucier, IMERYS, France and N. Brizzo, IREN Energia, Italy
- Material ropeway systems and innovative cable crane logistics for the construction of sustainable dams and reservoirs – C. Ludescher and P. Koch, LCS Group Austria
- Hydro-mechanical simulation of seepage-induced uplift instability in concrete dam joints – N. Hussain, G.X. Zhang, and S.H. Li, IWHR, China

Session 10: Hydraulic machinery - III

- Benefits of cam curve continuous optimization for the operation of Kaplan turbines: A case study – H.A. Menarin, L.A. Weiss and F. Rosini, Reivax, Brazil
- From wear to wear-free: radar-based Kaplan blade position feedback to increase availability and reduce maintenance – A. Rubbert and A. Jung, Voith Group, Germany
- Efficient FCR support in Kaplan turbines using a very small battery system: Impacts on wear reduction and operational reliability – D. Dolenc, J. Pekolj and A. Hribar, Litostroj Power d.o.o., Slovenia; and V. Poljančič, Končar, Croatia
- APK: A pneumatic Kaplan blade adjustment system for oil-free hydropower applications – D. Turcato and R. Migliorini, ZECO SpA, Italy

- Vertical bulb turbine as camelback replacement: Presentation of the technical solution and case study of a recently implemented project – M. Kovačič, S. Krotec and D. Dolenc, Litostroj Power, Slovenia; J.-X. Denis, Litostroj Hydro, Canada
- Comparative investigation of actuation systems for butterfly valves and spherical valves in hydropower applications – P. Schurtenberger, Adams Schweiz, Switzerland
- Unsteady numerical investigation of wake-induced dynamic loads on a biplane butterfly valve for hydropower applications – G. Zanetti, M. Siviero and G. Cavazzini, University of Padova, Italy; A. Santolin, 45 Engineering Srl, Italy; and A. Zoli and I. Merli, Vortex Hydra Srl, Italy
- Needles and seat rings with artificial defects: Effect on the efficiency of Pelton turbines – F. Fahrni, T. Staubli and E. Casartelli, HSLU, Switzerland
- Experimental investigation of cavitation structures and pressure pulsations in Francis turbines under off-design conditions: From deep part-load to overload – D. Heel, P. Meusburger and H. Benigni, TU Graz, Austria

Session 11: Gates

- 15 years of Fusegate operation at Kastraki dam: Storage and efficiency gains – E. Rabias, I. Mavros, and G. Lappas, Hydroplus, France
- Ice mitigation: The use of inflatable crest gates – H. Obermeyer, Obermeyer Hydro Inc., USA
- Hydro heritage and historic sites: Rehabilitation of spillway gates at the Beaumont Montoux hydropower project – G. Garavelli and P. Zenocchini, ATB Riva, Italy
- Reliability assessment of Fusegates under extreme flood conditions: North fork dam case study – F. Del Rey and H. Kocahan, Hydroplus, France
- Optimization and finite element analysis of a collapsible lifting mechanism for hydraulic gates – K. Li, ZhanWang, L. Dou and Y. Geng, IWHR, China
- Pneumatic crest gates for structured flood management and hydropower operation – C. de Ferranti, Hydro Air Bank, Italy

THURSDAY 15 OCTOBER - MORNING

Session 12: Risk management

- Geological structures, landslide identification and monitoring: a case history of the Upper Bhote Koshi, Nepal, using InSAR – J.M. Reynolds, Reynolds Geo-Solutions Ltd., UK and C. Gerosa, Tre-Altamira s.r.l., Italy
- Lava protection barriers in Southwest Iceland: How hydropower engineers have battled with nature – H. Hrafnisdóttir, S.K. Sigurðardóttir and E.S. Guðgeirsdóttir, Verkis Consulting Engineers, Iceland
- Catastrophic supra-glacial lake drainage events: Implications for hydropower development – J.M. Reynolds, Reynolds Geo-Solutions Ltd, UK
- Evaluating slope stability and structural integrity in the Drin river basin with multi-temporal InSAR analysis – S.R. Presezi, Tre-Altamira s.r.l., Italy
- Formation and reactivation mechanisms of large-scale reservoir landslides in steep canyon regions – G. Ju, X. An, W. Yang and J. Fu, PowerChina, China
- Leveraging AI hydrological forecasting for enhanced dam safety and early warnings during extreme events – H. Johnson, Upstream Tech, USA
- Implementing emergency preparedness: Lessons from the Volta River Authority's emergency preparedness plan for the Akosombo and Kpong dams in Ghana – A.O. Effa, P.T. Padi and C.A. Dagbui, VRA, Ghana
- Framework for climate-resilient warning systems combining adaptive software, long-term reliability and future-proof expandability for hydropower dam safety – S. Munk, Hörmann Warnsysteme GmbH, Germany

Session 13: Pumped storage - I

- From modelling to on-site testing of hydraulic short-circuit operation at the FMHL pumped storage plant – C. Landry, M. Dreyer, and C. Nicolet, Hydropower Dynamics Engineering SA, Switzerland; M. Boden and J.-D. Dayer, Alpiq SA, Switzerland
- Comparative assessment of shaft layouts, linings, and grouting strategies in pumped-storage projects – M. Marenc, S. Pausz and S. Güven, AFRY, Austria
- Development of a dynamic simulation tool to evaluate cooling water temperatures in closed-loop pumped-storage facilities – A. Bridgeman, M. Gilbert and M. Morgenroth, Stantec, Canada
- Integrating pumped storage in nascent energy transition markets: Lessons from Ecuador – F. Saba Bonilla, Lombardi Ingeniería Perú S.A., Peru; B. Tapia, Lombardi Engineering Ltd., Switzerland; F. Vintimilla, CELEC EP, Ecuador

CONFERENCE SESSIONS

- Challenges and recommendations for the Italian pumped storage regulatory and market framework – G. Donghi, G. Palma, M. Terzi, S. Liverani, Edison SpA, Italy
- An application of PumpIT Tool : Automated identification of optimal pumped- storage project locations in Sicily – P. Thapa, S. Schroers, P. Schäfer and S. Palt, Fichtner, Germany
- Roadmap for pumped-storage development in Cyprus – P. Manso and S. Tietz, MHYD Sàrl, Switzerland; E. Kyriakides, WDD, Cyprus; and U. Laumanns, Deutsche GIZ, Germany

Session 14: Dam refurbishment

- From retaining wall to groynes system: An innovative slope rehabilitation at the Pergau power-station – G.C. Rao, S.A. Sulaiman, J.L.L. Alexander, M.M. Omar, and A.T. Borhan, TNB, Malaysia
- San Nicolao dam rehabilitation: A case study of cross-border hydraulic infrastructure retrofit – A. Giusti, Lombardi Ingegneria Srl, Italy; C. Piccinin, A. Chizzoli and M. Melis, Lombardi SA, Switzerland; R. Lezzi, Enel Green Power, Italy
- Monitoring the real-time response of the dam during the works at Kariba dam – I. Fent, L. Tardieux and B. Quigley, Gruner Stucky Ltd., Switzerland; M. Munyaradzi, S. Mhlanga, A. Nkweendenda, and S.D. Mukuwe, Zambezi River Authority, Zambia
- Rehabilitation of the Kleinmünchen hydro plant headrace canal in Linz, Austria – A. Gerstgrasser, AFRY, Austria; A. Jackson, S. Krahberg and G. Vaschetti, Carpi Tech, Switzerland; J. Aichinger, Linz Strom Gas Wärme, Austria; and J. Pichler, Management Service Linz, Austria
- Underwater solutions for intake rehabilitation without reservoir drawdown: Two international case studies – D. Calderón Villegas, A. Van der Pennen, A. Bol, J. D. Rodriguez and J. Van Dijk, DCN, Colombia

Session 15: IEA-Hydro's tasks and priorities

Presentation are planned (details to be announced shortly) to give updates and achievements on some of the Technical Collaboration programmes of the International Energy Agency's Hydropower division. Contributions are planned from those leading the TCPs, in Europe, North America and Asia.

Session 16: Climate issues and hydrology

- Impacts of climate change on hydrology: a model-based case study from Hungary – I. Zsuffa, I. Gresz and A. Juhász, Vituki Hungary Engineering Office Ltd., Hungary
- Coupled hydrological and machine-learning modelling of climate-driven inflows at the Kenyir reservoir – M.E.F. Othman, IEI and TNB, Malaysia; L.M. Sidek and H. Basri, IEI, Malaysia; A. El-Shafie, UAE University, UAE; A.N. Ahmed, Sunway University, Malaysia, J.L.L. Alexander, M.M. Omar and S.A. Sulaiman, TNB, Malaysia
- Adapting to a drier climate: Climate risk management for the Vorotan cascade – P. Stanzel, C. Libisch-Lehner and L. Vogelsang, AFRY, Austria; S. Amirkhanyan and T. Oganezov, Armenia Branch - AFRY, Switzerland; Z. Khachatryan, Controur Global Hydro Cascade CJSC, Armenia; F. Zaman and A. Bhalla, World Bank Group
- Kariba dam: Semi-quantitative risk assessment and update of the rule curve of the reservoir – C. Chibvura, ZRA, Zambia; N. Avisse and V. Jouve, Tractebel, France
- Hydropower scheduling in a changing climate: Case study of the Surna hydropower system in Norway – L.E. Schäffer, A. Arvesen, SINTEFF Energy Research, Norway; K. Alfredsen, NTNU, Norway
- Flow modelling for effective water resources management – O. Riabenko and A. Panasenko, PJSC UKRHYDROENERGO, Ukraine
- Effective utilization of reservoirs through advanced inflow forecasting – I. Sada, T. Nomura, K. Hirota, and T. Araki, KEPCO, Japan
- Robust and systematic evaluation of methods to assess extreme rainfall events – N. Avisse and M. Ghulami, Tractebel Engie, France

Session 17: Pumped storage - II

- Extensive rebuilding of the most powerful hydro powerplant in the Czech Republic – M. Mička, Litostroj Engineering a.s., Czech Republic
- Prospects and opportunities for the development of pumped storage in Ukraine to increase Unified Energy System and ENTSO-E manoeuvring capabilities – M. Levytskyi, Ukrhydroproject PJSC, Ukraine
- Instability phenomena in transient operating sequences of reversible machines: Case studies – M. Lewandowski and B. List, Voith Group, Poland
- Early detection of performance degradation on a 90 MW pumped storage system with a predictive maintenance approach based on digital twins – Y. Jacquat, D. Nicoulaz, A. Rüegg and F. Ravet, Gradesens AG, Switzerland; T. Maximilian, Kraftwerk Oberhasli AG, Switzerland
- The Forbach pumped-storage plant in southern Germany: A case study – F. Bubel, Andritz Hydro, Germany

- Powerplant uprating and refurbishment: Adding pumped storage at an existing plant – S. Amodeo, A. Frattini, L.L. Papetti, Frosio Next Srl, Italy
- Derisking the development of the 400 MW Muswellbrook pumped-storage project within a former coal mine – E. Guillemot, Mott MacDonald, New Zealand

Session 18: AI applications for hydropower

- 3D BIM modelling of existing concrete dams aided by 360° camera-derived point cloud generation – C. Serra, H. Fernandes, D. Ferreira and J. Silva, LNEC, Portugal
- Delivering BIM on a megaproject: 3D model delivery during FEED for the Coire Glas pumped-storage scheme, Scotland – H. Crackett, Stantec, UK
- Pushing the envelope in complex hydropower plants with digital twins – B. Svingen, FDB, Norway; H. Hanisch and K. Gjevik, Aker Solutions, Norway
- Application of machine learning-based digital twins to the monitoring of existing dams – P. Vymřítal, J. Ekr and J. Hodak, Designtec, Czech Republic
- AI Driven automation for hydropower engineering: A controlled and traceable approach – Y.F. Lin, L. Boone, I.S. Ginju, Tractebel Engie, France
- Earth observation for hydropower and dams – T. Heijmann and C. Smith, Evenflow, Belgium
- A digitalized hydropower forecaster – S. Mellot and R. Taylor, Mott MacDonald, UK

Session 19: Hydro plant operation

- Revision of transient water levels in the surge chamber of the Robert Bourassa generating station – M. Kamali Nezhad, Hydro Québec, Canada
- Analysis of safe operational limits of a complex large hydro powerplant system following primary auxiliary intake collapse – S. Di Bona and L. Papetti, Frosio Next Srl, Italy
- Modification in design of the tailrace system at Arun-3 (900 MW) for efficient tandem operation with Lower Arun (669 MW), Nepal, based on numerical and physical hydraulic transient analysis – R. Raman and V. Chand, SJVN Ltd., India
- The digitization of PPC's generation in Greece: Hydro inflows modelling and trading – N. Kanakis, C. Karanis, A. Adamakos and M. Kontogiorgi, PPC, Greece
- Flow equalization in run-of-river plants at the Austrian-German border – P. Poier, C. Hartl, B. Lengyel, S. Mai and P. Allmer, Verbund Digital Power GmbH, Austria
- A multi-objective optimization operation and intelligent decision-making model of cascade reservoirs in the Yellow River – D.L. Li and Y.J. Wang, Yellow River Institute of Hydraulic Research, China
- Maintaining an ice-free stoplog system in extreme Arctic conditions (down to -42°C) – R.A. Ravndal, Norconsult, Norway
- Resilient hydropower expansion: Dynamic operation strategies for Cahora Bassa in a variability driven climate system – S. Schroers, Ö. Beser, and S. Palt, Fichtner GmbH, Germany; and J. Matola and M. Mahunguana, HCB, Mozambique
- Enabling real-time sediment observations for predictive hydropower operation in extreme river conditions – J. Droujko and M. Bosch, Riverkin AG, Switzerland

Lunch break in the Exhibition Hall

THURSDAY 15 OCTOBER - AFTERNOON

Session 20: Flood discharge works - I

- Operational feedback from the design, manufacture and early service life of the grand renaissance dam bottom outlet (Ethiopia) – S. Renaud, O. Julien, F.V. Vidal and N. Crocheton, Tractebel Engie, France
- Revisiting artificial aeration on high velocity spillways chutes – P.J. Mason, Damsolve Ltd, UK
- Research and application of real time online monitoring technology for safety of flood discharge buildings – B.H. Pang and C. Liang, Tianjin University, China
- Spillway structure failure mechanism induced by external geotechnical conditions during extreme weather conditions: Case study of the Kenyir dam – J.L.L. Alexander, M.M. Omar, S.A. Sulaiman and M.E.F. Othman, TNB, Malaysia
- Spillway capacity upgrade and structural safety enhancement of the Dumbéa dam (New Caledonia) – G. Milési, S. Delmas and N. Crocheton, Tractebel, France
- Spillway design and meeting the needs of spillway capacity deficiencies in an innovative way – A. Hughes, Reservoirs and Dams Ltd, UK and S. Shakespeare, Welsh Water Ltd, UK
- Early-age thermal and restrain effects in spillway chute slabs: Field evaluation with instrumented full-scale mock-ups (the case of Koysha, Ethiopia) – A. Bezzi and V. Martinelli, Studio Ing. G. Pietrangeli Srl and P. Mastrofini, WeBuild S.p.A., Italy

CONFERENCE SESSIONS

Session 21: Pumped storage - III

- ▶ Salt river pumped-storage project: A case study of de-risking and use of advanced procurement models – *J. Alvoeiro and D. Erpenbeck, Stantec, USA*
- ▶ Reconstruction of the Forbach pumped-storage plant, adding 200 000 m³ of underground storage volume – *R. Achatz, Tractebel Engie, Germany*
- ▶ Case studies on the evolution of ground models for pumped-storage schemes in the Scottish Highlands – *P. Eaves and G. Hughes, AECOM, UK*
- ▶ Inlet guide vanes in the draft-tube cone for reversible pump turbines: Novel technology for regulation of fixed speed RPTs – *I. Iliev, P. Oetsby and L.O. Husby, Aker Solutions, Norway*
- ▶ Digital twin integration in hydro and pumped storage: Methodology and benefits from the rehabilitation of PSP Happurg's upper reservoir – *M. Smesnik, A. Bauer, M. Ausweger and I. Spyropoulos, AFRY, Austria*
- ▶ Loch Kemp storage, a new large, pumped-storage hydro: Designing today for a complex tomorrow – *C. Murphy and K. Cassie, Statera, UK*
- ▶ The Olai–Cumbidanovu pumped-storage plant: A case study in reversible hydropower engineering – *A. Giusti and C. Cr  mer, Lombardi Ingegneria s.r.l., Italy; C. Piccinin, Lombardi SA, Switzerland; A. Pinter and G.F. Corbella and L. Rech, Dolomiti Hydro Storage s.r.l., Italy*

Session 22: Electrical engineering

- ▶ Comparative structural analysis of straight and oblique rotor spider designs in vertical hydro generators – *M. Mlinari  , D. Kraljevi  , and I. Kne  evi  , Kon  ar, Croatia*
- ▶ CMS-based detection of multiple concurrent faults in a hydro generator: Shaft verticality deviation, bearing clearance irregularity and stator deformation – *E. Lima, P. Silva, A. Trist  o and T. Kleis, AQTech Power Prognostics, Brazil*
- ▶ An advanced real-time monitoring and control system for hydropower stability and flexibility – *V. Knazkins, A. Lopes, B. Barbero, G. Cavallini, F. Sultan Ahmed, R. Moussa and R. Wieser, ABB Switzerland*
- ▶ Development of a hybrid-excitation axial-flux exciter – *K. Mati  , Miroslav Petrini  , B. Tomi  i  , M. Br  i  , and I. Triplatt, Kon  ar, Croatia*
- ▶ Screw length influence on rotating-trough Archimedes screw generator performance – *X. Brunissen, P. Fran  ois, and N. Dellinger, Strasbourg University, France; G. Dellinger and L. Duarte, Strasbourg University and National School of Water and Environmental Engineering of Strasbourg; F. Scott Simmons, University of Guelph, Canada; and R. Mignolet, Heliogreen Industrie, France*
- ▶ Research on flexible complementary and optimized dispatch mechanism of hydropower and new energy under China's 'dual carbon' goals – *X. Zhou, Y.P. Gao, Z.G. Wu and T. Ai, China Electricity Council, China*
- ▶ Performance measurement of a refurbished generator with an air cooled open ventilation circuit – *N. Devillers, T. Auzolle, S. Bruna, and A. Allemann, BH2M, France*
- ▶ The reasons and advantages of observing shaft currents in synchronous generators – *V. Poljan  i  , I. Poljak, N.I. Hudin, and F. Hleb, Kon  ar, Croatia*

Session 23: Hydro rehabilitation and safety - I

- ▶ Enhancing safety of hydropower: Critical discharge assessment and valve behaviour from CFD and experimental studies – *O. Pacot, J. Decaix, C. M  nch-Allign  , L. Rapillard, HES-SO Valais-Wallis, Switzerland; S. Alligne and C. Nicolet, Hydropower Dynamics Engineering SA, Switzerland; E. Droz and S. Stojanovic-Roth, Hydro Exploitation SA, Switzerland; O. Chene, Alpiq SA, Switzerland*
- ▶ Construction of integrated structures for the protection of hydro plant personnel and equipment in wartime conditions – *V. Kraynyk and V. Ryzhyi, UKRHYDROPROJECT PRJSC, Ukraine*
- ▶ Restoration works on the upstream face of the main dam and the secondary dam and integration of the waterproofing barrier – *G. Vanoni, Macko Srl, Italy*
- ▶ Value-oriented overhaul planning for sediment-affected small hydropower plants under flexible operation: A case study of Kanidera power station – *K. Noguchi, M. Ichimura, K. Inada, K. Yamamoto, and T. Onishi, Toshiba, Japan*
- ▶ Fatigue life assessment of a Francis spiral casing – *M. Saurwein, ILF Consulting Engineers GmbH, Austria*
- ▶ Quantifying the flexibility and sustainability value of hydropower projects in Switzerland through a systemic approach – *A. Mascaro, H. Yann, M. Boden, Y. Le Cahain, and B. Valluy, Alpiq AG, Switzerland*

Session 24: Flood discharge works - II

- ▶ Innovative spillway upgrade using automatic TOPS gates and auxiliary piano key weir at Stettynskloof dam – *L. Swart, G. Basson and E. Bosman, ASP Technology (Pty) Ltd, South Africa*
- ▶ Methods of hydraulic simulation in spillways and their comparison: Physical and CFD models – *J. A. Ni  o Taboada, D. L  pez L  pez and M. Mart  nez Fern  ndez, AIN Active, Spain*
- ▶ Three-dimensional CFD modelling and hydraulic design optimization of spillways and dam bottom outlets – *D. Polverelli, L. Massera and C. Cr  mer, Lombardi Ingegneria S.r.l., Italy*
- ▶ Filling of the Kinguel   Aval reservoir: Managing environmental releases and first spillway operation on a new piano key weir – *B. Hasnaoui, F. Verrier, J. Jost, and A. Vandel, Artelia, France*
- ▶ Estimates for potential rock scour in hard rock spillways – *L. Haukanes, NTNU/Sweco Norge AS, Norway; J.K. Kvinlaug, Otteraaens Brugseierforening, Norway; O.M. Egeland and T. Konow,    Energi, Norway; L. Lia, NTNU, Norway*
- ▶ Enlarging spillway tunnels for future higher capacity – *C. Bj  rgum, and B. Helland, NTNU/Norconsult ASA, Norway; E.A. Garberg, NTNU/Tr  nderEnergi, Norway; N. Solheim, NTNU/Sweco Norge AS, Norway; D.R. Utne, A. Bor and L. Lia, NTNU, Norway*
- ▶ New bottom outlet of the Spitalamm dam: Design, construction and prototype field campaign – *A. Koch, IUB Engineering, Switzerland; S. Pagliara, Laboratory of Hydraulics (VAW), Switzerland; and B. Schwegler, Kraftwerke Oberhasli, Switzerland*

Session 25: Pumped storage - IV

- ▶ Applying experience to modern pumped storage by design paradigms – *W. Richter, G. Thek and S. Haun, TU Graz, Austria*
- ▶ Lessons learned on rotor winding overhang design for doubly fed induction machines (DFIM) for pumped storage applications – *G. Klaus and L. Meier, Voith Hydro Germany*
- ▶ Online and offline end-winding vibration analysis on 135 MW pumped-storage motor generators – *O. Ore  kovi  , O. Husnjak, D. Cerinski, V. Derv  i  vi   and E. Ha  ek, Veski d.o.o., Croatia; D. Boji  , D. Maga  , and Z. Marinkovi  , HEP Proizvodnja, Croatia*
- ▶ Repurposing mine pits for pumped storage: Opportunities, challenges and lessons from the Kidston scheme, Australia – *C. Berry and B. Henry, GHD, Australia*
- ▶ Contribution of traditional and seawater pumped storage to flexibility and renewable integration in Sicily – *J. Alterach and A. Abbate, Ricerca sul Sistema Energetico - RSE SpA, Italy*

Session 26: Tunnels and underground works

- ▶ Closed-form solutions for the design of segmental linings in hydropower pressure tunnels – *H. Wannenmacher, M. Entfellner and M. Friedrich, Implenia AG, Switzerland; and F. Amann, Aachen University, Germany*
- ▶ Modern drip-shield solutions for hydropower caverns – *S. Lemke, G. Lilliu and E. Pavese, Renesco, Switzerland*
- ▶ Adapting the shape and the design of large and deep hydropower plant caverns to challenging ground conditions – *O. Gastebled, X.S. Nguyen, and P.L. Tonioni, Tractebel Engie, France*
- ▶ Air-water mixture and degassing at tunnel junctions: Findings from a 1:25 physical model test of a shaft spillway – *G. Thek, W. Richter and S. Haun, TU Graz, Austria*
- ▶ Snowy 2.0 pumped-storage project: Innovative single pass segmental lining for high pressure tunnels – *N. Valiante, H. Elgarhi and R. Gallera, Webuild SpA, Italy; F. Lazzarin, Future Generation JV, Australia; R. Bremen, Lombardi SA, Switzerland; and D. Miller, SHL, Australia*
- ▶ Mitigating public safety risks in high-interaction reservoirs: A technical case study of the Lairg dam safety upgrade – *T. Deprez and M. Sims, Ecocoast, UK*
- ▶ Performance-based approach to the design of concrete linings for waterways – *C.N.   nal and D. Litsas, Mott MacDonald, UK*
- ▶ Assessment and rehabilitation of dam instrumentation system at Susu dam – *M.H. Rosni, TNB, Malaysia*

Session 27: Hydro rehabilitation and safety - II

- ▶ Real application of FPC in an existing hydro plant: Conversion of a fixed-speed unit to variable speed, improving hydropower plant performance and increasing operating time – *D. Etxebarrieta, Ingeteam, Spain*
- ▶ Brownfield hydropower modernization in a Natura 2000 river system: Insights from the Reutte cascade – *G. Pojer and S. Burger, ILF Consulting Engineers, Austria; and Sebastian Haller, Elektrizit  tswerke Reutte AG, Austria*
- ▶ The Sigalda extension hydro project: Improved efficiency and flexibility in the supply of electricity in the Icelandic electricity infrastructure – *D. Georgsson, D.P. J  nsson and E. Einarsson, Landsvirkjun, Iceland*

CONFERENCE SESSIONS

- ▶ The role of hydropower in 'Build Back Better' for the energy sector of Ukraine – *O. Yakovleva-Havryliuk, Ukrhydropower PJSC, Ukraine*
- ▶ Refurbishment of hydropower schemes equipped with Francis turbines and pressure relief valves – *J.P. Saade, G. Aubin and F. Delgado, Artelia, France*
- ▶ Revitalizing a historic hydropower plant: Upgrading from Francis to Kaplan turbines – *J. Schiffer, Jaberg & Partner, Austria; H. Benigni, TU Graz, Austria; and Braun, J.3, and I. Giersemehl, Kochendorfer Hydro, Germany/Turkey*
- ▶ Rehabilitation of the Kleinmünchen hydropower plant headrace canal in Linz, Austria – *M. Smesnik, A. Gerstgrasser, AFRY, Austria; A. Jackson, S. Krahberg, and G. Vaschetti, Carpi Tech, Switzerland; J. Aichinger, Linz Strom Gas Wärme, Austria; J. Pichler, Management service Linz, Austria*

FRIDAY 16 OCTOBER - MORNING

Session 28: Small Hydro I

- ▶ Refurbishment of a small-hydro powerplant set on treated wastewater within a residential area on the shores of Lake Geneva – *V. Denis, A. Bullani and A. Choulot, Mhyllab, Switzerland*
- ▶ Harnessing minimum flows: Gaia turbine modular approach to efficient hydropower – *I. Malavasi, F. Tommasini and C. Amato, Gaia Turbine SA, Switzerland; A. Bullani and D. Vincent, Mhyllab, Switzerland; P. Pedrol, AMB, Switzerland*
- ▶ The Vallabrégues small hydro plant: Management of civil and mechanical interfaces in a restrained space – *N. Riviére and R. Landel, CNR, France*
- ▶ Unlocking energy potential in drinking water networks: 1:1 Scale experimental and SPH-based numerical analysis of a low-specific-speed Pelton turbine – *H. Benigni, D.R. Reiterer, and D. Heel, TU Graz, Austria; and P. Tschurtschenthaler, Tschurtschenthaler Turbinenbau SRL, Italy*
- ▶ Integration of a new small hydro plant to an existing infrastructure on the Rhône river – *C. Curzi and L. Orsel, CNR, France*
- ▶ The Norwegian approach to cost-efficient small hydropower development – *J.A. Melheim, T. Zwartjes and I.A. Welde, Bystøl AS, Norway*

Session 29: Environmental and social aspects

- ▶ Ecodesign of hydraulic structures: Feedback from the Saut-Mortier project – *S. Domitile and A. de Becdelievre, EDF, France*
- ▶ Who closes the pit? Phytocapping as a humanitarian engineering and life-cycle sustainability response to borrow pit abandonment in dam construction – *N.W. Bulathge, S. Jinadasa, K. Suntharavadevel, B. Taylor, CQ University, Australia; and C. Handagala, Transport for NSW, Australia*
- ▶ A terraced landscape strategy for ecological restoration of slopes in high-altitude hydro projects: A conceptual framework – *J.J. Wang, Y.T. Mei, C.X. Fan, J.H. Zhang, X.P. Zhang, C.W. Lu, Z. Li, B.L. Min and Z. Chen, Huaneng Lancang River Hydropower Inc, China*
- ▶ Community involvement as a catalyst for sustainable hydropower: Bakun's journey as sustainable hydropower – *C. Landon and I. Borhan, Sarawak Energy Berhad, Malaysia*
- ▶ Balancing river restoration and hydropower: 3D flow simulation of instream measures in the Enz river – *H. Tebben, Flow Science Deutschland GmbH, Germany*
- ▶ Accounting for emissions in reservoir infrastructure projects: BIM via IFC meets LCA upper reservoir at Happurg, Germany – *J. Lehel, M. Smesnik and A. Bauer, AFRY, Austria*
- ▶ Receptor-led environmental flows, going beyond compliance: Experience from a proposed reservoir in Pambukovica Serbia – *T. House and L. Parry, Arup, UK; M. Petkovic and M. Despotovic, Arup Belgrade, Serbia*
- ▶ Beyond offsetting: Planning for biodiversity net gain and nature-based solutions for a flood-control reservoir in Serbia – *M. Petkovic and M. Despotovic, Arup Belgrade, Serbia; T. House and L. Parry, Arup, UK; and L. Lodenkemper, Arup Cork, Ireland*

Session 30: Sedimentation management - I

- ▶ Numerical estimation of the reservoir stage-volume curves variation of Sicilian hydropower plants caused by progressive silting: an application of the CRHyME model – *A. Abbate, J. Alterach, Ricerca sul Sistema Energetico - RSE SpA, Italy*
- ▶ Continuous monitoring of sediment build-up at intake structures of hydropower facilities – *A. North, Kongsberg Discovery, Canada*
- ▶ Experimental investigation of suction head design for automated sediment transfer in reservoir applications – *L. Gehrman, Hülshens Sediments GmbH, Germany*
- ▶ Digital tools for catchment monitoring – *F. Trentini and K. Schenk, EOMAP, Germany*

- ▶ Innovative compact dredging solution for maintaining deep irrigation reservoirs and hydropower dams – *O.P. Marcus and I. Yilmaz, Damen, The Netherlands*
- ▶ Acoustic transit time (ATT) flow meters in penstocks: A practical method for suspended sediment monitoring – *D. Felix, Aquased GmbH, Switzerland; A. Abgottsson, and U. Gerold, Etaeval, Switzerland*
- ▶ Integrated sediment management for hydropower reservoirs: A cascading check dam system at Susu dam, Malaysia – *A.T. Borhan, S. Amri Sulaiman, J.L.L. Alexander, M.M. Omar, G.R. Chandra Rao, and A.F. Mamat, TNB, Malaysia*

Session 31: Small hydro - II

- ▶ Phased planning and climate adaptation in small-scale hydropower: The Mandrare hydro plant, Madagascar – *M. Silva, B. Oliveira and A.C. Santos, Aqualogus, Portugal*
- ▶ Unlocking hidden flexibility in run-of-river hydropower: Field validation at the Mörel hydropower plant within the SmallFLEX Goms project – *V. Hasmatuchi, J. Decaix, C.L. Hurter, J. Schmid, C. Nicolet, and C. Münch-Alligné, HES-SO, Switzerland*
- ▶ Additional small hydro as environmental upgrade at a large hydro plant – *L. Lia, NTNU, Norway; and A. Harby, SINTEF Energy Research, Norway*
- ▶ Experimental investigation of confinement effects on vertical-axis turbines – *E. Vittoz, N. Dellinger, and P. François, ICube Laboratory, France; G. Dellinger, L. Duarte and J. Vazquez, ICube Laboratory and National School for Water and Environmental Engineering, France*
- ▶ Rehabilitation of Guyana's first hydropower plant after two decades of abandonment for efficiency improvement and capacity upgrade in a remote mini grid region under challenging conditions – *C. Dehikumbura, Vidullanka, Sri Lanka*
- ▶ Splitter vane optimization in a Francis turbine runner for improved efficiency and debris passage – *G. Yoshida, N. Ogai, K. Miyagawa, Waseda University, Japan; K. Okude, M. Ogahara, and K. Omori, Toshiba, Japan*

Session 32: Environmental and social aspects - II

- ▶ Intercepting the flow: Hydropower's role in tackling riverine plastic pollution worldwide – *J. McCully and P. Rollins, Worthington Products, USA*
- ▶ The Balliemanoich pumped-storage scheme: A comprehensive landscape strategy – *C. Morton and R. Mauritzen, AECOM, UK*
- ▶ Challenges related to biodiversity impacts, scope and mitigation for the Mpatamanga hydro project in Malawi – *S. Sparkes, Multiconsult, Norway*
- ▶ Managing submerged timber in hydropower reservoirs: Turning underwater forests into safety, performance and ESG opportunities – *M. François, T. Avery, E. Delonca and J. Bradshaw, Triton Timber Group, France*
- ▶ Turning hydropower assets into local opportunity: The ENTAMA programme as an energy transition tool – *A. Soeiro and A. Menendez Moran, EDP, Portugal*
- ▶ Developing measures to limit the impact from the early stages of dam design – *N. Tomczak, Tractebel Engie, France*
- ▶ Operationalizing free, prior and informed consent in large hydropower development: The Upper Arun experience under the World Bank's IDA Framework – *F.R. Joshi, Nepal Electric Authority, Nepal*

Session 33: Sedimentation management - II

- ▶ Sediment management through structural design and optimised drawdown flushing at the proposed Empuluzi diversion weir – *G. Basson, L. Swart and E. Bosman, ASP Technology (Pty) Ltd, South Africa*
- ▶ Hydrosuction dredging of gravel and rocks from a 50m submerged intake tunnel – *T. Jacobsen, Sedicon, Norway; Tor Åmdal, Å Energi AS, Norway*
- ▶ Integrated sediment management strategies for sustainable operation of Himalayan run-of-river hydro projects – *R. Sehgal, A. Prabhakar, and K. Thakur, SJVN Ltd., India*
- ▶ Fine sediment venting from a weekly storage reservoir via Francis turbines: innovative concept and monitoring – *C. Friz, V. Weitbrecht and R.M. Boes, VAW-ETH Zurich, Switzerland; S. Pfeifer, Sediment Solution, Austria; D. Felix, Aquased GmbH, Switzerland*
- ▶ Reuse of dam sediments for the construction industry – *R. Saccone and R. Caruana, ITCOLD, Italy; and C. Zanelli, CNR-ISSMC, Italy*
- ▶ Two pilot projects provide insights into innovative solutions for sediment management in storage and run-of-river hydro plants – *V. Brunnsteiner, Voith Hydro, Austria*
- ▶ Establishing a sediment and water quality monitoring framework on the St Paul river, Liberia: Implications for sustainable hydropower development and reservoir sedimentation under artisanal gold mining impacts – *S. Pessenhleher, BOKU University; and V. Massah, LEC, Liberia*

Lunch break in the Exhibition Hall

CONFERENCE SESSIONS

FRIDAY 16 OCTOBER - AFTERNOON

Session 34: EU initiatives supporting hydropower

- Water storage provided by dams: Policy context, controversies and opportunities in the European Union – E. Quaranta, F. Moschini, and A. Pistocchi, European Commission, Joint Research Centre (JRC), Italy
- Best practice for hydropower sustainability – J.-J. Fry, J.-J. Fry Consulting, France; J. Garcia, Zabala Innovation, Belgium; M. Morris, Samui France Sarl, France; and A.J. Schleiss, EPFL, Switzerland
- Assessing the potential of pumped-storage schemes in saltwater environments using the sea as the lower reservoir in European territories – A. Presas, UPC, Spain; J. Torres, NGLS, Australia; R. Subirà and J. Manuel Clamagrand, SENER, Spain
- From hydraulic design to implementation: Development of the At-Bashy shaft hydropower plant – B. Alapfy, Technical University of Munich, Germany
- HydroPlan-CA: A GIS-based decision support system for hydropower planning in central Asia – J. De Keyser, BOKU University, Austria
- The SHERPA project: Technical progress on advanced refurbishment solutions for flexible and sustainable hydropower operation – A. Suárez Carrio and D. Castejón Contreras, Iberdrola, Spain
- Demonstration of sustainable hydropower refurbishment: Updates from the ReHydro project – A. Harby, SINTEF, Norway
- ReHydro modernisation survey: Empirical insights into European hydropower refurbishment practice – Q. Boucher, SuperGrid Institute, France; M. Bianciotto and B. Marler, IHA, UK; B. Graff, CNR, France; M. Boden and Y. Le Cahain, Alpiq, Switzerland; L. Estrellado, vge Energy, Germany; and A. Harby, SINTEF, Norway

Session 35: Fish protection - I

- Re-conceptualization of a Kaplan turbine for safer downstream fish passage: Design and field verification – P. Romero-Gomez, Andritz, Austria; E. De Oliveira, EDF, France and D. Sonny, Profish, Belgium
- Beyond enumeration: Advancing real-time species classification and American Eel monitoring in hydropower fishways with artificial intelligence – J.P. Quirion, M. Richard, C. Burliuk, and P. MacLeod, Innovasea, Canada
- Upgrading a small hydropower project: A case study in harmonizing modernization with advanced fish protection – H. Driscoll, Natel Energy, USA
- Development and field validation of self-powered acoustic fish deterrent devices – H. Thatcher and P. Kibel, Fishtek Marine, UK
- Empirical evidence of fish compatibility in hydrokinetic river energy systems and its implications for environmental permitting – J. Gruber, C.M. Niebuhr, and A. Walz, Energyminer GmbH, Germany
- Cost-effective retrofit of bar screens with electrodes for hybrid fish protection – M. Aufleger, University of Innsbruck, Austria and B. Brinkmeier, HyFish GmbH, Austria

Session 36: O&M

- A digital twin approach to predictive maintenance for early detection of performance loss in a 90 MW pumped-storage unit – Y. Jacquat, D. Nicoulaz, A. Rüegg, F. Ravet, Gradesens AG, Switzerland; T. Maximilian, Kraftwerk Oberhasli AG, Switzerland
- HydroAssist: A large language model-based diagnostic and maintenance assistant for hydropower plants – S.T. Kandukuri, K. Tangrand, L.K. Vognild and G. Olimstad, Norce Research, Norway
- Condition-based maintenance for hydropower: Data-driven diagnostics at RWE's Herdecke US – A.D. Neto, Voith Hydro, Germany; T.Z. Penteado and A. Jung, Voith Hydro Holding, Germany; and H. Fabinski and D. Berhard, RWE Generation SE, Germany
- Underwater robotics for hydropower structures maintenance in constrained environments: 2025-2026 field feedback (LISIE) – L. Pailhous and L. Benoit, Watertracks, France
- Underwater anomaly detection and predictive repair and maintenance – R. Pandey, Dynasore Concrete Treatment Pvt. Ltd., India
- Modernizing daily hydropower operations and maintenance with AI: Lessons from the field – E. Ngue, EN Solutions Hydro, Canada
- Subsea digital twins for dam and hydro infrastructure: Enhancing inspection and maintenance – B. Still, Voyis Imaging Inc., Canada
- IEC 61850 Top-down engineering for new hydro automation control – M. Verzillo, Enel Green Power, Italy and A. Api, ABB, Italy

Session 37: Penstocks

- Rehabilitation of an aging penstock: Feedback on the Grandrif penstock works, France – L. Besombes, M. Malsert and N. Angebault, Aventron, France; A. Chapuis and A. Guibert, and B. Peltié, ISL Ingénierie, France; M. Buji-Duval and F. Gabriel, Bluetech-Distribution, France
- From tender design to on-site execution: Rehabilitation of the Chivor II high-pressure penstock – P. Zenocchini, M. Pujol and D. Delpero, ATB Riva, Italy
- Smart monitoring for aerial penstocks – L. Rapillard and S. Rey-Mermet, HES-SO Valais, Switzerland; E. Bircher, Hydro Exploitation, Switzerland; O. Chène, Alpiq Holding SA, Switzerland; and B. Dussex, FMV, Switzerland
- Engineering the penstock bifurcations of Snowy 2.0 PSP: from hydraulic design to on-site installation – M. Comelli, Tractebel Engie, France

Session 38: Fish protection - II

- An experimental investigation of downstream fish migration at run-of-river hydro plants with innovative approaches – S. Kucukali, C. Ozbey, C. Şengül and B. Yoğurtçuoğlu, Hacettepe University, Türkiye; A. Alp, Fisheries Department, Türkiye
- Efficacy monitoring of the fishway at the Lower Sesan II hydropower station using intelligent fish recognition – Li Jianyuan, Li Rui, Wang Luhai, and Liu Chunna, IWHR, China
- Design of nature-like fish passages for restoring river connectivity: Practical experience from the Vouga and Mondego river basins (Portugal) – P. Marques, A. Pinheiro and S. Costa, Aqualogus, Portugal

Session 39: Seismic design and behaviour

- Seismic design of the Pyrgos dam as part of the Amfilochia pumped-storage project – Q.H.W. Shaw, ARQ Consulting Engineers, UK; R.O. Cassells, ARQ Dams, South Africa; Y. Tsiknakou and E. Peitsini, Terna Energy, Greece
- Seismic behaviour of the Aguieira dam considering contraction joints and concrete damage – S. Oliveira, LNEC, Portugal; R. Ramos, IST-CERIS/LNEC, Portugal; J. Proença, IST-CERIS, Portugal; and P. Mendes, ISEL, Portugal
- Rapid post-earthquake safety assessment for concrete dam-foundation coupling system – C.L. Yan, J. Tu, Z.Y. Li, S.Q. Wang, S.S. Guo, and D.Y. Li, IWHR, China
- Case studies on the seismic behaviour of embankment dams – G. Buffi, Romagna Acque Società delle Fonti S.p.A., Italy; R. Caruana, ITCOLD, Italy; A. Balsamo, Enel Green Power SpA, Italy; M. Cenci and R. Figini, Enel Green Power Italia S.r.l., Italy; G. Farronato and Previtali R., ISMES SpA, Italy; M. Palmieri, (freelance), Italy; E. Taffini, Ministero II. e TT. – D.G. Dighe e Infrastrutture Idriche, Italy; and E. Zacchei, USAL, Spain

Closing plenary session

- Session outcomes, reported by some chairpersons
- Welcome to ICOLD 2027, ASIA 2027 and HYDRO 2027
- HYDRO 2026 Conclusions



TECHNICAL EXHIBITION & SPONSORSHIP

A major Technical Exhibition will run alongside the HYDRO 2026 Conference, showcasing the latest developments in the hydro, dam, and related renewable energy sectors, as well as the activities of professional associations, and the services of specialist consultants, contractors and equipment suppliers.

Lunch and refreshment breaks will take place in the exhibition pavilion, next to the conference rooms. A networking party will be held in the exhibition after the conference sessions on 15 October.

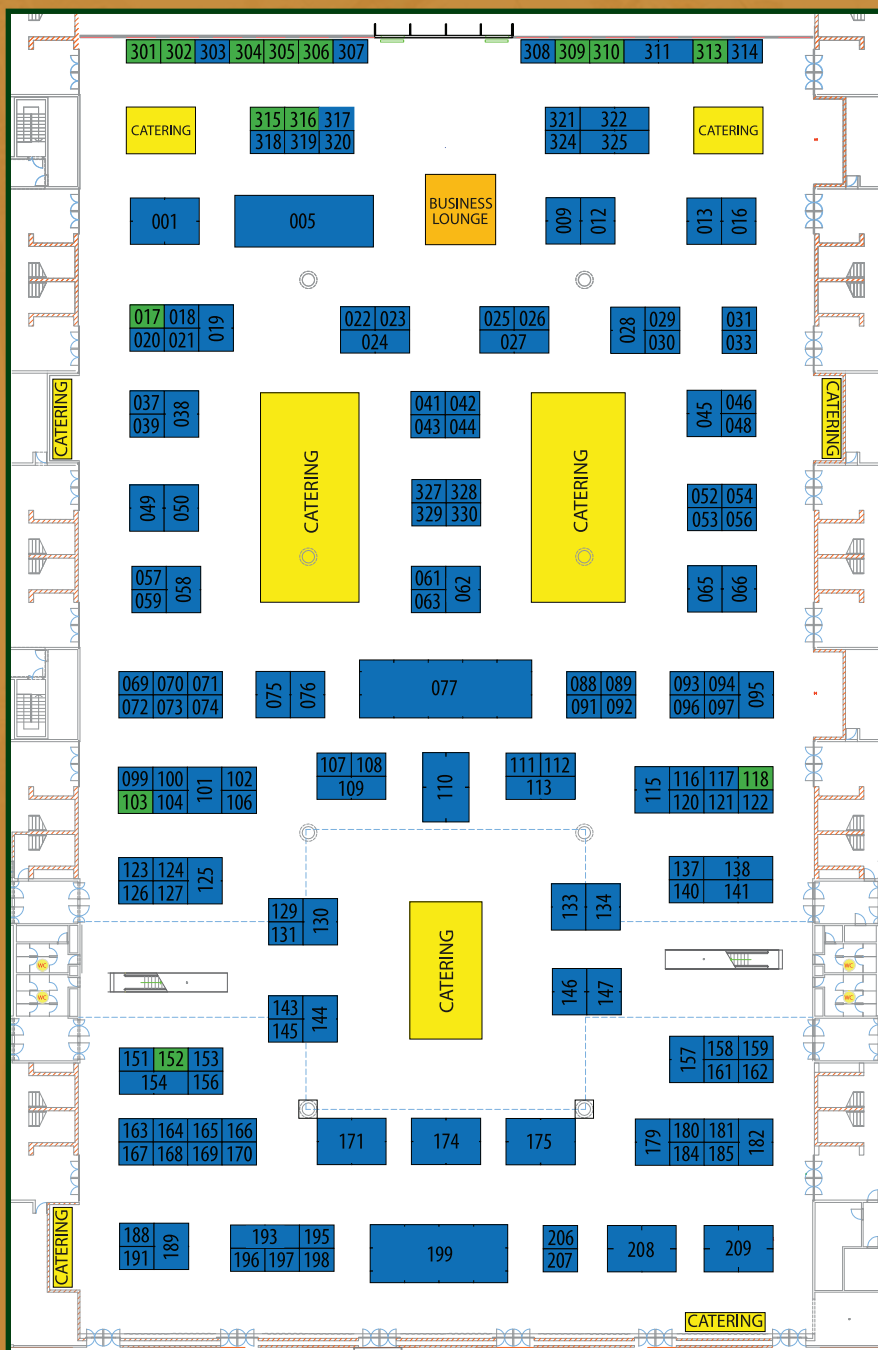
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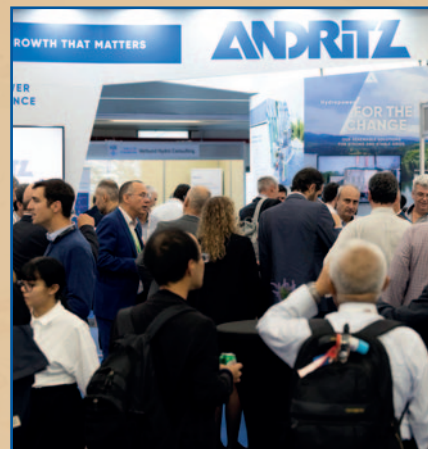
- €3700 per 6 m² for stands 6-12 m²
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ACM Bearings, UK	acmbearings.co.uk	56	Ikon Idea, Romania	ikonideea.ro	164
Adams Schweiz AG, Switzerland	adams-armaturen.de	199	ILF Consulting Engineers Austria GmbH, Austria	ilf.com	59
AFRY, Thailand	afry.com	182	Imerys, France	imerys.com	57
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AIN active OM SL, Spain	ain-active.com	12	Industrias Metalúrgicas Esgueva SA (IMESA)	imesa.es	328
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Aker Solutions AS, Norway	akersolutions.com	107	Innovasea, Canada	innovasea.com	111
Alpiq SA, Switzerland	alpiq.com/de	199	International Committee on Large Dams (ICOLD)	icold.it	329
Ampo Foundry, Spain	ampofoundry.com	134	International Commission on Large Dams (ICOLD)	icold-cigb.org	330
Andritz Hydro GmbH, Austria	andritz.com/hydro-en	175	Ioze Hydro, Poland	hydro.ioze.pl/en	207
API Spa, Italy	apispa.net	69	KK Group, Denmark	kk-group.com	318
AQTech, Portugal	en.aqtech.com	157	Kochendörfer Hydro, Germany	kochendoerfer.de	49
Aqualogus, Engenharia e Ambiente, Lda, Portugal	aqualogus.com	198	Končar, Croatia	koncar.hr	110
Aquarius Systems, USA	aquarius-systems.com	196	LCS Cable Cranes GmbH, Austria	lcs-cablecranes.com/en	46
Aratz Group Engineering Fabricated Technology SL, Spain	talleresaratz.com	120	Litostroj Power, Slovenia	litostrojpower.com	101
Artelia, France	arteliagroup.com	48	Lombardi, Italy	lombardi.group	21
ATB Riva Calzoni SpA, Italy	atb.group/en	133	LST GmbH, Germany	lst-bremen.de/B	322
ATP Spa, Italy	atpgroup.it	117	Macko SRL, Italy	macko.it	127
Auma Riester GmbH & Co. KG, Germany	auma.com	28	Mapei SpA, Italy	mapei.com	129
AVK - ACMO, Italy	avkvalves.eu/en	38	Marelli Motori Srl, Italy	marellimotori.com	97
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Bavarian Pavilion (including Dega)		77	Megger, UK	megger.com	157
Benzlers Italia srl, Italy	benzlers.com	1	Metalna Senovo, Slovenia	metalna-senovo.si	72
BH2M, France	en.bh2m-hydro.com	73	Metalvar New Srl, Italy	metalvarnew.com/en	93
Bilfinger Industrial Services GmbH, Austria	bilfinger.com	92	Milsa Trillo Galicia SA, Spain	milsatrillo.es	113
Beijing IWHR Corporation (BIC), China	bic-iwhr.com	99	MJ2 Technologies, France	vlh-turbine.com	158
Beijing IWHR Technology Co., Ltd., China	bitc.net.cn	102	Mokveld, Netherlands	mokveld.com	50
Braun Maschinenfabrik GmbH, Austria	braun-tech.com	71	Montanhydraulik GmbH, Germany	montanhydraulik.com	88
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CEERA, Colombia	ceera.co	005	Nivus GmbH, Germany	nivus.com	37
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Çiltuğ İsi Sanayi ve Ticaret AŞ, Turkey	ciltug.com	321	Oiles, Germany	oilesglobal.com	89
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Dasotec S.r.l., Italy	dasotec.it	159	RBC Bearings, USA	rbcbearings.com	13
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Di Nicola Infinam Srl, Italy	dinicolavalves.com	25	SAS ROV Expert, France	rov-expert.com	162
Dolsar Engineering Inc Co., Turkey	dolsar.com.tr	112	Schiebel actuators, Austria	schiebel-actuators.com/en	31
Dongfang, China	dfem.dongfang.com	208	Schwartz NDT Sarl, Switzerland	schwartz-ndt.com	199
Dyrhoff Ltd, UK	dyrhoff.co.uk	24	SediCon AS, Norway	sedicon.no	74
Ecocoast Ltd, UK	ecocoast.com	206	Seik GmbH/srl, Italy	seik-cableway.com	314
Elastocomp/Rubberart, Brazil	elastocomp.com.br	143	Sesan Hydro, Turkey	sesanindustry.com.tr	76
EMCE Winches BV, Netherlands	emce.com	191	Sevčik Hydro s.r.o., Czech Republic	sevčik-hydro.cz	165
Emerson	emerson.com	16	Sevinç Machinery, Turkey	sevincmakina.com.tr	41
Emis s.r.l., Italy	emisweb.it	308	Sogea Satom, France	sogea-satom.com	130
Encom Metal GmbH, Austria	encom-metal.com	126	Solétanche Bachy, France	soletanche-bachy.com	130
Enerquip AS, Norway	enerquip.no	104	Sparks Instruments SA, Switzerland	sparksinstruments.com	66
EPE Process Filters & Accumulators Pvt Ltd, India	epe-india.com	311	Specialized Engineering Against Leakage GmbH, Austria	industrialseals.com	96
EPFL-PTMH, Switzerland	epfl.ch/en	199	Stahlhandel Groeditz GmbH, Germany	stahlportal.com	153
ESI Engineering & Services Italy Srl, Italy	esiserviceitaly.it	322	Stantec, UK	stantec.com	19
Etaeval, Switzerland	etaeval.ch	199	STM Industriale SPA, Italy	stm.group/en	18
Eurobearings srl, Italy	eurobearings.com	324	Studio Ing. G. Pietrangeli Srl, Italy	pietrangeli.com	52
Federal Mogul Deva GmbH, Germany	deva-bearings.com	65	Sub-C Marine, France	subcmarine.com	167
Fichtner GmbH & Co KG, Germany	fichtner.de	54	Supergrid Institute, France	supergrid-institute.com	168
Flovel Energy Private Limited, India	flovel.net	327	Swiss Pavilion (group of companies)	latis-service.com	199
Flow Science Deutschland GmbH, Germany	flow3d.com	62	T.I.S. Service SPA, Italy	tbhydro.net	66
Franke-Filter GmbH, Germany	franke-filter.com	70	TB Hydro Sp. z o.o., Poland	tdcluk.net	307
Fred. Olsen 1848, Norway	fredolsen1848.com	42	TCL, UK	cadam3d.com	29
Freyssinet, France	freyssinet.com	130	Technologie MLT inc., Canada	tes.cz	122
Fugesco Inc, Canada	fugesco.com	189	TES Vsetin a.s., Czech Republic	thordonbearings.com	131
Gaia Turbine SA, Switzerland	gaiaturbine.com	199	Thordon Bearings, Canada	tractebel-engie.com	116
Ganz Transformers & Electric Rotating Machines Plc, Hungary	ganzelectric.com	75	Tractebel Engie, France	site.tre-altamira.com	33
Glebus Alloys s.r.o., Czech Republic	glebusalloys.com	125	Tre Altamira srl, Italy	troyer.it	108
Global Hydro Energy GmbH, Austria	global-hydro.eu/en	58	Troyer, Italy		193
Glual Hydraulics, Spain	glual.com	166	UK Pavilion		147
Gruner Stucky Ltd., Switzerland	gruner.ch	199	UW-tech AB, Sweden	huw-tech.se	320
HES-SO, Switzerland	hes-so.ch	199	Valmet	valmet.com	9
Hibbard Inshore, LLC, USA	hibbardinshore.com	151	Valvotubi Ind. Srl, Italy	valvotubi.it	26
Howa-Tech Bearings GmbH, Germany	howatech-bearings.com	91	Van Halteren Technologies, Netherlands	vanhalteren.com	61
Hülskens Sediments GmbH, Germany	huelskens-sediments.com	156	Verbund Hydro Consulting, Austria	verbund.com	195
Hydac International, Germany	hydac.com	43	Veski doo, Croatia	veski.hr	53
Hydro Air Bank Srl, Italy	hab.it/en	145	Vexve / Armatury Group a.s., Czech Republic	vexve.com/en/vexve-armatury	124
Hydro Maintenance Service, Spain	hmservice.biz	44	vibro-consult AG, Switzerland	vibro-consult.ch	185
Hydromea SA, Switzerland	hydromea.com	199	Voith Hydro, GmbH & co KG, Germany	voith.com	171
Hydro-Construct GesmbH, 'The Rubber Dam Co', Austria	hydroconstruct.at	23	Vortex Hydra Srl, Italy	vortexhydra.com	179
Hydrogrid GmbH, Austria	hydrogrid.ai	197	Watertracks, France	watertracks.fr	170
Hydrokarst, France	hydrokarst.fr	140	WestGlen Consult Ltd, UK	www.westglenconsult.com	148
Hydroplus, France	hydroplus.com	130	Whessoe Sdn Bhd, Malaysia	whessoe.com.my	147
Hydropower & Dams (Aqua~Media International), UK	hydropower-dams.com	95	Worthington Products, Inc, USA	tuffboom.com	144
Hydropower Dynamics Engineering SA, Switzerland	hdynamics.ch	199	Zeco Spa, Italy	zeco hydropower.com	94
HyFish GmbH, Austria	seilrechen.at	188			

Reserved stands (as of 23 July)



Online HYDRO 2026 registration is via the website: www.hydropower-dams.com/hydro-2026/
The system is simple to use, but in the event of any difficulties, please contact EMS.
Email: EMS-hydro2026@ems-ltd.org ~ Tel: +44 1225 258 013
Prices for each delegate category and conference activity are given below.

	(Before 21, August)	(After 21, August)
FULL DELEGATE FEE: Includes attendance of the conference, exhibition, welcome reception, exhibition networking party, final dinner, access to the conference app, and all conference materials	€ 1520	€ 1635
REDUCED DELEGATE FEE: For existing subscribers to <i>Hydropower & Dams</i> .	€ 1430	€ 1545
FEE INCLUDING NEW SUBSCRIPTION TO H&D: (6 issues from No. 6, 2026 + Atlas + Maps) (This represents a saving of about 35 per cent on the normal <i>H&D</i> subscription rate).	€1680	€ 1795
SPEAKER FEE: Includes all conference activities and materials, and an additional reception on Tuesday 13 October. Please note : This fee applies to <u>one</u> person per paper (main author or presenter).	€ 690	
FIRST EXHIBITOR FEE: (One full participant registration is included with exhibition booking).	€ 0	
SECOND + THIRD EXHIBITOR FEE: (Fee per person for up to two additional exhibitors). (Includes all benefits available to full delegates).	€ 985	
SMALL HYDRO WORKSHOP: (Full day on Tuesday 13 October)	€ 150	
PUMPED STORAGE WORKSHOP: (Full day on Tuesday 13 October)	€ 150	
EARTH OBSERVATION FOR HYDRO POWER AND DAMS (What EO can do) (Half day on Tuesday 13 October)	€ 75	
ACCOMPANYING PERSON FEE: (For family members, partners or friends <u>not</u> colleagues attending the Conference or Exhibition). The fee includes the excursions on each day with lunch, and evening social events.	€ 485	
HALF DAY EXCURSION: (Sightseeing around Bologna with lunch included, on 13 October)	€ 120	

NB: STUDY TOURS are planned to Italian dams and hydro plants. We are awaiting further details before announcing them.

OPTIONAL DONATION TO THE AMI HYDROPOWER FOUNDATION: As in past years, there is an opportunity when registering online to make a donation to the AMI Hydropower Foundation. This is 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 the less developed countries at the annual Hydro Conferences or the biennial regional conferences.

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

VISA REQUIREMENTS: Please let us know, during the online registration process, if you need an invitation letter to support a visa application for travel to Italy.

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