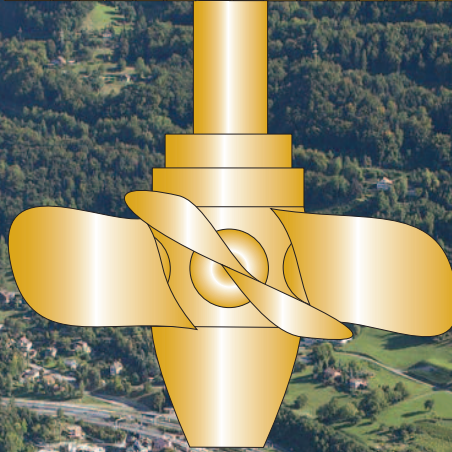


HYDRO 2016



Achievements, opportunities and challenges

**International Conference and Exhibition
Montreux, Switzerland
10 - 12 October 2016
PROGRAMME UPDATE**

The beautiful town of Montreux, overlooking Lake Geneva, will provide a perfect setting for the world hydro community, policy-makers and practitioners, to meet in October to discuss topical aspects of global hydropower development.

There will be opportunities to visit major projects under construction in the region.

Organized by:

THE INTERNATIONAL JOURNAL ON
**HYDROPOWER
& DAMS**

International supporting organizations include:



Swiss supporting organizations include:



Schweizerischer Wasserwirtschaftsverband
Association suisse pour l'aménagement des eaux
Associazione svizzera di economia delle acque



HYDRO 2016 AND SWITZERLAND AS HOST COUNTRY



THE ANNUAL HYDRO CONFERENCES

The annual conferences in this series are the most international gatherings for the hydropower profession, bringing together experts in the various inter-related disciplines in the field of hydropower development. Emphasis is on encouraging the advancement of carefully planned hydro schemes in the less developed countries, and equally maximizing the benefits of existing hydro installation, by maintenance and timely upgrading.

Three main tracks of sessions cover technical, economic/financial and environmental issues, with much emphasis on emerging topics, such as climate resilience, cyber security and capacity building/succession planning.

The events also provide a bridge between policy-makers and practitioners, highlighting topical issues and encouraging balanced debate.

Past events have taken place in Budapest (1994); Barcelona (1995); Lausanne (1996); Portoroz (1997); Aix en Provence (1998); Gmunden (1999); Bern (2000); Riva del Garda (2001); Kiris (2002); Dubrovnik (2003); Porto (2004); Villach (2005); Porto Carras (2006); Granada (2007); Ljubljana (2008); Lyon (2009); Lisbon (2010); Prague (2011); Bilbao (2012); Innsbruck (2013); Cernobbio (2014); and Bordeaux (2015).

Today the conferences attract around 1500-1600 participants, representing more than 80 countries. The main water- and energy-related professional associations, such as ICOLD and the International Energy Agency, play a major role in sessions and often host side events.

SWITZERLAND AS HOST OF HYDRO 2016

With 33 hydro and pumped-storage schemes under construction (at both new and major upgrade projects), which will provide more than 2100 MW of new capacity,

WHO SHOULD ATTEND:

- All those active in advancing world hydropower development, whether through research, planning, project financing, design and construction, operation and maintenance, refurbishment or equipment supply.
- Others advising on specific aspects such as environmental protection, social aspects, safety enhancement, legal and contractual issues, climate science, etc.
- University lecturers and students, who together will ensure that expertise in the field of hydro and water resources development is sustainable. The conferences include sessions of special interest and relevance to students.

Switzerland is one of Europe's most active countries for hydro development at present. It is also one of the continent's original major hydropower developers, having based much of its industrial development on exploitation of its hydro resources during the 1950s. Today hydropower produces about 60 per cent of Swiss electricity.

Western Switzerland is a major centre of activity today, with schemes such as the major Nant de Drance, FMHL and Linthal 2015 pumped-storage schemes under way (two of which can be visited on post-Conference study tours).

The Swiss Government (through the Federal Office of Energy) is promoting the future use of hydropower through a variety of measures, as part of its 'Renewable energy action plan'. As well as new developments, existing plants are being renovated and expanded, taking related ecological requirements into account. There is a target to increase production by at least 2000 GWh/year through these measures.

Swiss utilities, academic institutes, professional associations and industrial companies have expressed strong support for HYDRO 2016, and are waiting to welcome the international hydropower community, and to share their long-term experience of hydro development.

MONTREUX AND THE RIVIERA

As a result of its mild micro-climate, the Montreux-Vevey region has become known as the Montreux Riviera. HYDRO 2016 will take place against a background of stunning scenery, including vineyards, mountains, and medieval buildings.

The conference and exhibition will take place in the modern and spacious 2m2c Congress Centre, overlooking Lake Geneva, which is also home to the world famous Montreux Jazz Festival in the summer. The centre, with a total area of 18 000 m² and equipped with state-of-the-art technology, has a flexible layout and a total of 23 modular meeting rooms, all offering panoramic views of the lake and the Alps.

ACCESS AND REGIONAL TRANSPORT

The nearest airport to Montreux is Geneva, which has direct flights from 120 cities. From Geneva, the journey takes approximately one hour by train, coach or car, with much of the route offering spectacular views of the lake.

Zurich airport, with direct flights from 150 cities, is 2.5 hours from Montreux by train. All HYDRO 2016 registered participants will receive a complimentary 'Montreux Riviera Card' allowing free use of all local public transportation in the area. Discounts are also available for some train journeys from neighbouring countries.



HIGHLIGHTS FROM THE CONFERENCE PROGRAMME

A record number of abstracts (more than 450) were submitted for HYDRO 2016, making the task of the International Steering Committee challenging. The review process was recently completed, and the full programme will be published shortly. In addition to the paper presentations, a number of specialists will be invited to join panel discussions on key topics. The outline below presents a few highlights from the programme. Several sessions will be led by experts from the International Energy Agency and ICOLD.



POTENTIAL AND DEVELOPMENT OPPORTUNITIES

- One of the sessions on the first day will focus on global opportunities for hydropower development, with special emphasis on studies, plans and identified projects in Africa, Asia and Latin America.
- Opportunities for innovative development will also feature on the programme, including prospects for marine energy, and new approaches to upgrading capacity at existing installations.

SMALL AND LOW HEAD HYDRO

- Innovations in machinery components, design optimization, model testing and retrofitting SHP at existing water infrastructure will be among many topics covered. One talk will focus on private investment in small hydro in Africa.

FINANCIAL, LEGAL AND CONTRACTUAL ISSUES

- Risk mitigation and management will be the subject of a session, including a panel discussion, with input from experts from the insurance sector.
- A session on contractual issues will address the question of how responsibilities should be shared between employers and contractors.

CIVIL ENGINEERING

- Innovative designs of dams and appurtenant works will be covered, with case studies from many parts of the world.
- Safety and new monitoring methods, will be a key topic, including lessons from past incidents, the seismic vulnerability of a high arch dam, and dealing with alkali silicate reaction. Ageing infrastructure will be the topic of several presentations.
- The design and construction of tunnels, underground power caverns and flood discharge works will also be on the agenda.

FOCUS ON SWISS HYDRO EXPERIENCE

- The expertise behind the Swiss achievements in the fields of hydro and pumped storage development will be reflected in a special session devoted to the HYDRO 2016 host country. Presentations will focus on Swiss competence in research and engineering, with speakers from some of the world renowned centres of excellence in Switzerland. The session will also include some selected case studies of recent and on-going projects in the country.

SUCCESSION PLANNING

- One session will look at training activities available for young people entering the field of hydropower, as well as succession planning, capacity-building needs, and some success stories. Inter-active discussion between students and experienced engineers will be encouraged, and a students' social event is being organized.

MARINE ENERGY

- Several papers will look at regional and global prospects for various forms of marine energy, and case studies will focus on schemes such as the Swansea tidal lagoon scheme.

CLIMATE ISSUES

- Topics will include practical steps towards climate resilience, new hydrological forecasting methods, and flood mitigation and hazard management.

HYDROPOWER EQUIPMENT

- Research, new developments, modelling, testing, operational issues and upgrading of hydro machinery will be covered, with emphasis on innovation, efficiency improvements and economy.

International Steering Committee

D. Aelbrecht, France
H.I. Aker, Turkey
S. Alam, France
J. Antunes Sobrinho, Brazil
I. Araki, Japan
A. Asnake, Ethiopia
M. Aufleger, Austria
F. Avellan, Switzerland
E. Bellendir, Russian Federation
L. Berga, Spain
P. Boeriu, UNESCO-IHE
H. Brekke, Norway
R. Bucher, Germany
J.M. Buil Sanz, Spain
A. Carrère, France
R.C. Charlwood, USA
V. Denis, Switzerland
R. Derungs, Switzerland
D. Develay, Belgium
J-M. Devermay, France
M. De Vivo, France
O. Didry, France
M.R.H. Dunstan, UK

I. Ekpo, Nigeria
P. Erbisti, Brazil
P. de Félix, France
J. Freitas, Portugal
D. Fritsch, France
M.A. Gómez Balandra, Mexico
B. Gondouin, France
M. Gospodjinački, Slovenia
R. Grether, Germany
F. Griffin, UK
S. Grigatti, Italy
K. Grubb, UK
P. Gruber, Switzerland
J. Gummer, Australia
C.R. Head, UK
M. Heiland, Germany
A. Hughes, UK
F. Isambert, France
R.E. Israelsen, USA
Jia Jinsheng, China
Ø. Johansen, Norway
C. Kayitenkore, Burundi
H. Kreuzer, Switzerland

A. Kumar, India
T. Kunz, Switzerland
U Myo Myint, Myanmar
R. Lafitte, Switzerland
F. Lempérière, France
B. Leyland, New Zealand
Lin Chuxue, China
Liu Heng, China
P. Mason, UK
L. Mouvet, Switzerland
N. and L. Nielsen, Australia
A. Nombre, Burkina Faso
A. Noorzad, Iran
H. Obermoser, Switzerland
J. Palacios Saiz, Spain
A. Palmieri, Italy
D. Paschini, France/Lao PDR
B. Pelikan, Austria
J-P. Person, France
B. Petry, The Netherlands
J. Plummer, UK
C.G. Plüss, Switzerland
P. Pradhan, Nepal

J. Polimon Lopez, Spain
Do Doc Quan, Vietnam
V. Radchenko, Russian Federation
P.J. Rae, Canada
M. Rogers, USA
J.R. Rojas Morales, Costa Rica
G. Ruggeri, Italy
F. Coellha da Rocha e Silva, Portugal
D. Roulit, France
J. Rupčić, Croatia
A. Schleiss, Switzerland
J-J. Simond, Switzerland
S. Sparkes, Norway
B. Tardieu, France
J. Teysseix, France
J. Thanopoulos, Greece
B. Trouille, USA
C.V.J. Varma, India
J.G. Warnock, UK
J. Weise, Switzerland
O. Westberg, Norway
D.A. Williams, UK
G. Zenz, Austria

TOURS AND SOCIAL PROGRAMME

TECHNICAL STUDY TOURS

A choice of three tours will be offered following the HYDRO 2016 conference, to give international participants the opportunity to visit a variety of Swiss dams, hydro plants, and major pumped-storage developments.

Provisional plans are under way with the relevant Swiss authorities, and in collaboration with the Swiss National Committee on Dams, for two- and three-day trips, which will offer the opportunity to visit the 900 MW Nant de Drance pumped-storage scheme and the Emosson dam and reservoir, the Hongrin double curvature arch dam and the FMHL pumped-storage scheme under construction close to Montreux, the Bieudron powerplant and Grande Dixence, the world's highest gravity dam; Les Toules and Schiffenen arch dams; and some low head run-of-river hydro installations on the river Aare.

The technical visits will be complemented by some cultural and touristic activities, such as a visit to the world famous Gianadda Foundation Museum and Gallery in Martigny (for participants of two of the tours), sightseeing in Bern, and a chance to see the spectacular mountain scenery around Zermatt.

Visits are also planned during the week of the conference to EPFL's Laboratory of Hydraulic Construction (LCH) and Laboratory of Hydraulic Machines (LMH) in Lausanne, and to MhyLab in nearby Montcherand.

HALF DAY EXCURSION

On Sunday 9 October, after registering at the conference centre and collecting badges and conference documentation, participants will have the opportunity to join a half-day trip, including lunch, with a first chance to enjoy the picturesque little town of Montreux, and the spectacular lake.

ACCOMPANYING PERSONS' TOURS

Accompanying persons attending HYDRO 2016 will have opportunities to participate in tours to some of the most scenic parts of Europe, in the Montreux-Geneva region, over three days.

The three-day package this year will provisionally include: a visit to the medieval hilltop village of Gruyère, renowned not only for its cheese but also its castle; a demonstration of chocolate making - another speciality of Switzerland (along with hydropower and cheese!); a visit to the Château de Chillon (see photo below); and, a trip into the mountains. Participants will become familiar with the



Lavaux region, known as the 'Swiss Corniche', with its vineyards and small villages. The area was recently designated as a UNESCO World Heritage site. A tasting is planned at one of the wine cellars on the Corniche.

SOCIAL PROGRAMME

A full social programme will be arranged, as always, including: a reception for chairpersons and speakers, on the evening before the conference begins; a welcome reception, to which all participants and accompanying persons are invited, in an elegant setting close to Lake Geneva; a Networking Reception in the Exhibition halls; and, a Conference Gala Dinner in a historical building, full of local character. In view of the HYDRO 2016 Conference venue, renowned both for the Montreux Jazz Festival and for world class classical concerts, there will be no shortage of good music.

ACCOMMODATION

Hotel rooms have been reserved for delegates in a wide range of categories, from 3* to luxury 5*. Student accommodation can also be arranged on request. Within Montreux, the selected hotels are all within easy walking distance of the 2m2c congress centre. For others nearby, free public transport can be used.

Hotel rooms are also available in nearby Vevey, and nearby villages, which are just a few minutes away by tram or bus (Montreux Riviera Cards will allow for free travel on this journey).

Accommodation bookings can be made at the time of registration.

CONTACT DETAILS:

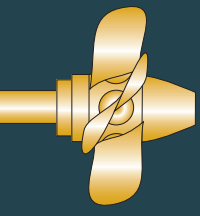
Full details of tours and social activities will be published in the Final Bulletin, which will be available in June, and will include the conference registration form. Meanwhile, for more information, contact:

Aqua~Media International Ltd,
PO Box 285, Little Woodcote, Wallington, Surrey SM6 6AN, UK
Tel: + 44 20 8773 7244 • Fax: + 44 20 8773 7255
Email: hydro2016@hydropower-dams.com

Updates will be posted on our website: www.hydropower-dams.com



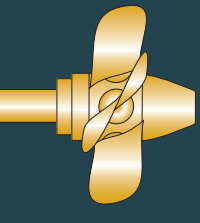
HYDRO
2016



EXHIBITION PLAN

10 to 12 October 2016 ~ Montreux, Switzerland

HYDRO
2016



- The Technical Exhibition will be an important part of HYDRO 2016, bringing together experts from the manufacturing industry, consultants, developers and professional associations.
- All lunch and refreshments will be served in the Exhibition Halls. Delegates are encouraged to move around the whole exhibition area over the three days, to have a comprehensive overview of the exhibits on display, and to make new contacts among the international hydropower community.
- A Networking Party will take place in the Exhibition Halls after the conference sessions on Tuesday afternoon. The Exhibition Hall therefore will have extended opening hours on Tuesday.

Technical Exhibition Pricing:

3 x 2 m (6 m²) = € 3085

3 x 3 m (9 m²) = € 4625

RESERVED



Height Max: 2.5 m Catering Business Lounge Pillar


HYDRO 2016 TECHNICAL EXHIBITION STANDS BOOKED BY MAY

Adams Schweiz AG, Switzerland	100	Hobas Rohre GmbH, Austria	139	www.hobas.com	111	Schaaf GmbH & Co. KG, Germany	www.schaaf-gmbh.com
ABM Dessau GmbH, Germany	122	HPP, France	119	www.hydroplant.com	56	Schmiedewerke Grödtz GmbH, Germany	www.stahl-groeditz.de
AF-Consult-Switzerland Ltd	136	Hubei Hongcheng, China	74	www.hbbc.com.cn	149	Seamtec, Austria	www.seamtec.at
Albia, France	64	Hydac International, Germany	86	www.hydac.de	182	Sedfon, Norway	www.sedfon.no
Amaniti Service GmbH, Germany	39	Hydro Exploitation SA, Switzerland	88	www.hydroenergie.it	168	Sevck Hydro s.r.o., Czech Republic	www.sevck-vz.cz
Andritz Hydro GmbH	79	Hydro Exploitation SA, Switzerland	178	www.hydro-exploitation.ch	141	Siemens, Austria	www.siemens.com/hydro
Andritz Engineering Sarl , Switzerland	65	Hydrokarst, France	142	www.hydrokarst.fr	179	SKF Sealing Solutions, Austria	www.skf.com/seals
Amatury Group, Czech Republic	116	Hydroplus, France	30	www.hydroplus.com	174	Soralentz Metal Industries SAS, France	www.soralentz.com
Arrelia, France	17	Hydro Construct Ges.m.b.H., Austria	114	www.hydroconstruct.at	62	www.sparkinstruments.com	www.sparkinstruments.com
ATE Riva Calzoni, Italy	16	Hydrovision GmbH, Germany	38	www.hydrovision.de	57	www.stahlportal.com	www.stahlportal.com
AUMA Rieger, Germany	37	ICOLD Czech Republic	175	www.icold2017.cz	126	www.ste-energy.com	www.ste-energy.com
Ballard Marine Construction, USA	162	Idreco, The Netherlands	143	www.idreco.nl	108	www.stucky.ch	www.stucky.ch
Barre c Spycorn, Switzerland	62	IB Electric, Bulgaria	138	www.ibelectric.com	14	www.pietrangeli.com	www.pietrangeli.com
Bc Consulting Engineers, Switzerland	92	Icon Vreemac Cylinders BV, Netherlands	44	www.iconvreemac.com	51	www.swissdetech.com	www.swissdetech.com
Biflunger VAM Anlagentechnik, Austria	164	IKN Ideea, Romania	135	www.wikomideea.ro	72	www.tacquet-industries.fr	www.tacquet-industries.fr
BKW Energie SA, Switzerland	71	IMHP, Spain	102	www.imhp.es	77	www.tallears-aratz.com	www.tallears-aratz.com
Bornflex, France	201	IMP Baitecs AG, Switzerland	52	www.impbaitest.ch	76	www.tamanni.it	www.tamanni.it
Braun Maschinenfabrik, Austria	73	Inbar Electric, Spain	132	www.inbar.net	208	www.tencate.com	www.tencate.com
Bruel & Kjaer Vibro, Austria	46	Institute of Hydraulic Fluid Machinery, Austria	112	www.hfm.tugraz.at	166	www.tes.cz	www.tes.cz
Camuna Idroelettrica Spa, Italy	36	International Commission on Large Dams	199	www.icold-cigb.org	137	www.thordonbearings.com	www.thordonbearings.com
Carpi Tech, Switzerland	144	INTPOW (Norwegian Pavilion), Norway	195 & 196	www.intpow.com	173	www.troyer.it	www.troyer.it
CEA Sarti, Italy	176	IS Ingénierie, France	29	www.is.fr	134	www.ultraflux.net	www.ultraflux.net
CEC, Switzerland	84	ISU Engineering AG, Switzerland	115	www.isu-ag.ch	113	www.vag-armaturen.com	www.vag-armaturen.com
CG Electric Systems, Hungary	163	Jeumont Electric, France	78	www.jeumontelectric.com	177	www.valmet.com	www.valmet.com
ChinaValves Technology Inc., China	190	KGAL, UK	50	www.kgal.co.uk	124	www.vaptech.bg	www.vaptech.bg
CKD Blansko Small Hydro, Czech Republic	60	Köncar Turbinstitut d.o.o., Slovenia	54	www.turbinstitut.com	185	www.vaptech.com	www.vaptech.com
CNC Trar.s.r.o., Czech Republic	11	Köncar, Croatia	127	www.koncar.hr	96	www.verkis.com	www.verkis.com
Costonic, Switzerland	209	Kiinz Austria	147	www.kiinz.com	80	www.voithhydro.com	www.voithhydro.com
C.V.A. S.p.A., Italy	34	Landis+Göry Power, Iceland	96	www.lgpower.is	35	www.vortexhydradams.com	www.vortexhydradams.com
DaeYang Hydro, Korea, South (Rep of)	98	Latis Service, Italy	43	www.latis-service.com	19	www.walo.ch	www.walo.ch
DZFC Energy Valves, France	38	Leroy Somer, France	20	www.leroy-somer.com	109	www.watgenpower.eu	www.watgenpower.eu
Di Nicola Infiamm srl, Italy	210	Litostroj Power, Slovenia	194	www.litostrojpower.eu	93	www.werpoweinindustrial.com	www.werpoweinindustrial.com
Dolsar Engineering Inc Co, Turkey	193	Lloyd Dynamowerke GmbH, Germany	121	www.ldw.de	24	www.willkouv.com	www.willkouv.com
Dource Hydro, France	90	Lombardi Engineering, Italy	15	www.lombardi.ch	157	www.willowstick.com	www.willowstick.com
DSO Noell GmbH, Germany	190	M.A. Industrie, France	110	www.ma-industrie.fr	148	www.wms-wasserkraft.at	www.wms-wasserkraft.at
Dynhoff Ltd, UK	66	Manovit, Iceland	96	www.manovit.is	159	www.yoolleng.co.kr/eng	www.yoolleng.co.kr/eng
Elettromeccanica Adriatica, Italy	210	Mapei, Italy	1	www.mapei.com	53	www.zeco.it	www.zeco.it
Elledi, Italy	120	Mavel a.s., Czech Republic	107	www.mavel.cz			
Emiliana Asfrati, Italy	28	MC-Monitoring SA, Switzerland	62	www.mc-monitoring.com			
Enequip, Norway	200	Meggett, Switzerland	186	www.meggettsensingsystems.com			
EDMAP, Germany	156	Mhylab, Switzerland	91	www.mhylab.com			
EPEL-LMH, Switzerland	65	Montanhydraulik, Germany	138	www.montanhydraulik.com			
Ergonbluenergy, Italy	133	Nord-Lock, Switzerland	67	www.nord-lock.com			
Ergonbluenergy.com	89	Mort MacDonald, UK	32	www.mortmac.com			
Ergonbluenergy.com	177	Muhr, Germany	106	www.muhr.com			
Ergonbluenergy.com	181	National Electric Coil, USA	69	www.necol.com			
Fanavary Novin Nitroo, Iran	181	Nuova Oleodinamica Bonvicini, Italy	33	www.oleodinamicabonvicini.it			
Farab, Iran	94	Obermeyer Hydro Inc, USA	165	www.obermeyerhydro.com			
Federal Mogul Deva GmbH, Germany	184	Oiles Deutschtand GmbH, Germany	101	www.oiles.de			
Ferry Capitain, France	82	Opal-RT Technologies, Canada	187	www.opal-rt.com			
FGTI, France	26	Ovivo Water, UK	58	www.ovivowater.co.uk			
Fishtek Consulting, UK	118	Pan Italia, Italy	153	www.panitalia.com			
Flame Spray SpA, Italy	55	Panolin International, Switzerland	169	www.panolin.com			
Flow Science Deutschtand, Germany	130	Parker Hannifin, Germany	192	www.parker.com			
Flow34.de	81	Power Vision Engineering Sarl, Switzerland	65	www.powervision-eng.ch			
Frankle-Filter GmbH, Germany	31	Povy, Thailand	42	www.povy.com			
Gamma Electric, Spain	59	PXL Seals, France	75	www.pxlseals.com			
GE Bentley Nevada, USA	146	Ramus Industrie SAS, France	99	www.ramus-industrie.com			
GE Renewable Energy	188	Repack-S, France	68	www.repack-s.com			
Geppert Hydropower Austria	198	Rittmeyer, Switzerland	170	www.rittmeyer.com			
GGB Bearing Technology, Brazil	87	Rubena a.s., Czech Republic	125	www.rubena.eu			
Gibb, South Africa	183	Rubifus Systemhydraulik, Germany	104	www.rubifus.de			
Global Hydro Energy, Austria	88	Saint-Gobain PAM, France	202	www.pamlme.fr			
Global Hydro Energy, Austria	70	Sanborn, a.s., Czech Republic	75	www.sanborn.cz			
Grimmel Hydro, Switzerland							
Grupp Fit, France							
HAWE-Hydratec AG, Switzerland							
Hibbard Inshore, USA							

INDUSTRY SPONSORS



ANDRITZ
Hydro



VOITH



ABB



MAVEL



KONČAR



WaterGenPower



mhylab

To receive further details of the exhibition and/or sponsorship opportunities, please contact: Mr Lukas Port, Mrs Maria Loreda or Miss Melanie Ganz

Tel: +44 20 8773 7250/7251/7252 • Email: sales@hydro-power-dams.com

Alternatively we invite you to book exhibition space on-line via our website: www.hydro-power-dams.com