British Hydropower Association

For the perfect energy mix—just add water...

www.british-hydro.org
The British Hydropower Association is the only non-governmental professional trade membership organisation solely representing the interests of the UK hydropower industry and its associated stakeholders at regional, national and global levels. Our vision translates into a number of key aims and objectives, which include:

- Effective lobbying and liaison with the national and devolved governments and other agencies.
- Providing a technical, regulatory and political information source.
- Providing detailed guidance, expertise and industry knowledge.
- Facilitating access to overseas markets.
- Organising events and networking opportunities.
- Supporting and providing guidance to members.

Hydropower is the most reliable, predictable and least environmentally intrusive of all renewable energies. The BHA strives to ensure that its potential is fully realised.
Hydropower – the pioneer of renewable energy

Hydropower supports clean development and is recognised as being fully renewable and sustainable.

- Hydropower is the world’s leading renewable energy resource and the oldest method of harnessing clean power; the first waterwheels were used over 2,000 years ago.
- Hydropower currently produces around 20% of the world’s electricity and 90% of the world’s renewable power.
- Over 25 countries depend on hydropower for 90% of their electricity.
- Less than one third of the world’s practical hydropower capacity has been developed, which presents significant opportunities.
- Hydropower is a flexible and proven technology, improved and refined over many years. Its site-specific features make it highly innovatory in application.
- Hydropower makes best use of the wide range of resource available: large or small, storage or run-of-river, tidal range, tidal stream, canals and water treatment works.
- Over 150 years ago hydropower revolutionised electricity generation in the UK and it remains one of the most inexpensive ways to generate power, playing an important role in the UK electricity system stability.
With a focus on microgeneration and renewed interest in redeveloping many disused mill sites and small off-grid projects, micro hydropower development in the UK continues to be popular.

There are still opportunities for sensitively sited microhydro installations (up to 100kW installed capacity) that can supply low cost, reliable generation, with minimal visual and environmental impact.
Small-scale hydropower (up to 1MW installed capacity) is highly efficient and where suitable sites are available, it remains one of the cheapest forms of renewable electricity.

On a global basis, small-scale hydropower has a key role to play in the development of the world’s renewable energy resources. Clean and reliable, it is a valuable resource waiting to be tapped into.
Large scale hydropower, run-of-river and storage
Hydropower solutions can be more reliable than other renewable options, and with their generating components engineered to last many years, they can be simpler to maintain and service.

Large scale hydropower (including run of-river, reservoir and dam storage) can also help to develop a whole range of infrastructure facilities, including:

Multi-purpose dams, which besides providing electricity, also ensure potable water and irrigation that can bring significant improvements to local economies.

Hydropower facilities can also contribute to enhanced shipping conditions on rivers and improving river conditions (e.g. removing waste).

Hydropower schemes can reduce flooding and provide recreation and tourism opportunities.

Reservoirs act as perfect energy storage – the only commercially viable way in which this can be done – and the power can be generated when it is required.

The industry continues to raise the bar as to what constitutes excellent stewardship and acceptable practices in utilising resources for hydropower development.
Pumped storage is the oldest kind of large-scale energy storage. Two reservoirs at different altitudes are required and when the water is released from the upper reservoir to the lower reservoir, energy is created by the down flow. The water is then pumped back to the upper reservoir.

Pumped storage provides dynamic response and offers critical back-up during periods of excess demand by maintaining grid stability.

However, pumped storage is a net user of power—but used in conjunction with other forms of renewable generation to pump the water back to the top reservoir, this can help to resolve intermittency issues associated with other renewable technologies.

Despite current electricity market mechanism challenges, such as the absence of reward for capacity, the role of pumped storage will become critical in the future.
Tidal power provides predictable and secure generation capacity. There is ongoing research into a number of tidal range technologies and there are plans for offshore hydropower to proceed at a number of sites around the UK.

Tidal range is energy created by the difference in head between high and low tides.

Tidal stream is kinetic energy created by fast flowing tidal currents in specific areas around our coasts where tidal flows are greatest.

The barrage method involves building a barrier that traps water levels inside a basin or lagoon. The head is created when the water level outside the lagoon changes relative to the water level inside, which drives the turbines.

The massive potential carbon reduction savings and increased electricity generation, not to mention job creation and infrastructure improvements, that can arise as a result of developing these technologies, must not be ignored.

The BHA welcomes, supports and encourages the development of offshore hydropower in the UK.
Waterwheels, although not as efficient as turbines, are still a viable proposition for producing electricity for domestic purposes. They are simple to control and aesthetically pleasing.

Although they run relatively slowly and require a high ratio gearbox to drive a generator, for low power (e.g. below 5kW) and below 3m, they are worth considering.

Much hydropower potential can be found at water and wastewater treatment plants and on the network of inland waterways.

The BHA aims to ensure that this valuable resource is not overlooked and many members are actively involved in this area.
Hydro in the UK

The UK has benefited significantly from hydropower for well over a century and there is currently an installed capacity of 1835 MW, generating over 5395 GWh/year. In addition to this is there is around 2800 MW capacity of existing pumped storage.*

However, there does remain potential for further development, as independent surveys have identified a remaining practical potential for a future 2GW of capacity.

Government incentives, such as the Renewables Obligation and the Feed-in Tariff, have been a stimulus to past development, though new development has certainly slowed due to tariff reductions. The Feed-in Tariff is due to close to new entrants from the 31st March 2019.

The BHA works closely with the UK’s regulatory bodies to ensure that best practice is observed and future development can continue, where economically feasible.

A third of Britain’s electricity plant will be retired by 2025. The UK is committed to increasing renewable generation to 15% by 2020 and hydropower has a prominent role to play in the future energy mix.

Exports: the global market
Worldwide installed capacity is estimated at 1170GW (generating 4049 TWh/yr) with a further 145GW under construction and up to 688GW planned*

Increasing efforts to achieve water and food security and access to reliable electricity supplies have led to a recognised need for further development of clean reliable hydropower on a global scale. This provides the UK hydro industry with significant business opportunities worth millions of pounds per year.

Hydropower has the largest renewable energy technology export potential, with a wide range of UK companies offering extensive capability, experience and expertise to the global supply chain in both services and product/equipment supply.

The BHA works with the Department for International Trade to try and identify export opportunities for our members world-wide.

The BHA can be involved in worldwide hydropower events, where members may have an opportunity to raise their profiles in foreign markets.

Where we are able, working with UKTI and others, we endeavour to optimise exporting opportunities for members.

British Hydropower Association

The BHA was established as a trade association in 2001 and it is now recognised as the leading representative of the hydropower industry in the UK.

The BHA plays a major role in representing the sector by working closely with the Department for Business, Energy and Industrial Strategy, Ofgem, the devolved governments, all the regional environment agencies, the Valuation Office Agency and many other government departments.

We also play a vital role in many of the UK industry working groups.

We work with many other associations and organisations, including Energy UK, Scottish Renewables, the Renewable Energy Association, the CLA and the Solar Trade Association. We also have close links with many other professional and academic institutions.

The BHA website is an essential resource. Here there is helpful, informative and valuable content. This includes the latest news and events, facts, resource studies, a database of UK hydropower installations, a members listing, updates on legislation and policy and a mini-hydro guide aimed at the novice.
Our Annual Conference, open days, Hydro Network, Annual Dinner and other networking activities bring together the industry to share experiences. This helps forge relationships, strengthening our position and promoting growth.

We encourage our members to be active within the association ensuring we maintain a focused and strategic direction.

The BHA holds a pivotal position and we will continue responding to the political challenges and pressures, securing support for key initiatives and delivering an essential service to our members.

The BHA works to promote and protect hydropower for this and future generations.
Membership is open to a wide range of developers, businesses, commercial organisations, academia, charities, community groups and individuals involved in or with an interest in hydropower. Our membership is diverse, covering all sizes and types of hydropower.

BHA members benefit directly from our lobbying activities because we act as a unified voice on behalf of a large group of stakeholders when negotiating with and influencing policy-makers and regulators.

Suppliers of services and products/equipment benefit from the networking opportunities we create and the support we provide.

On behalf of our members, the BHA operates in a variety of ways including:

- Acting as a unified voice for the industry, providing opportunities to influence our responses to industry consultations and participate in work groups which address specific issues in order to formulate solutions.
- Assisting in the delivery of key initiatives, developing industry standards, guidance and best practice and providing specialist advice and expertise.
- Facilitating research, disseminating commercial and market intelligence, and providing news bulletins quickly and effectively.
- Providing excellent networking opportunities for an effective dialogue between the industry and other stakeholder groups.
- Creating opportunities to promote businesses and services amongst members.
- Each of our membership categories offers a range of benefits and service levels to suit differing requirements, and the fees payable reflect this.
Other benefits of membership include, but are not limited to:

- The opportunity to contribute to BHA responses to government, industry and public consultations
- Weekly news bulletin.
- Triannual members magazine, Spotlight.
- Monthly CEO newsletter, Spotlight Plus.
- Access to CEO and board members.
- Discounted rates at BHA events.
- The following pages will provide all the details required to decide on the membership package best suited for you or your business.
- If you have an interest in the future success of the hydropower industry, then join the BHA today.
- Lend your support to enable us to continue to promote and protect hydropower for this and future generations.
Membership packages

“Joining the BHA was the best sales and marketing decision we have made in many years. The BHA helped us to quickly grow our market understanding as well as our sales. I would certainly recommend BHA membership for all those with an interest in the hydro market”
**Principal Company Member** (hydro related turnover > £2m)  
**Annual Fee:** £2,650 + VAT

**Additional Benefits & Services:**
- The opportunity to contribute to and influence BHA responses to government, industry and public consultations
- Use of BHA logo on your Company’s corporate materials
- Spotlight, the BHA triannual magazine to unlimited number of recipients
- CEO monthly newsletter, Spotlight Plus to unlimited number of recipients
- BHA CEO available for meetings
- Weekly bulletins and industry press releases to an unlimited number of recipients
- Access to commercial and market intelligence
- Information and guidance on exporting and supplying products and services to overseas markets
- Unlimited number of staff at member delegate rates at BHA events
- 15% discount for exhibition space at BHA events
- Access to Members Area on BHA website
- Inclusion in the Hydro company listings on the BHA website in as many category listings as requested with company logo
- Free advertising of current vacancies in the Careers page on the BHA website
- Two votes at the BHA AGM

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**Sponsoring Member**  
**Annual Fee:** £7,500 + VAT

**Additional Benefits & Services:**
- Raised profile by having your company logo on BHA promotional materials and the BHA website
- Raised profile by having the opportunity to contribute to regular features in the BHA magazine, Spotlight and on the BHA website
- The opportunity to contribute to and influence BHA responses to government, industry and public consultations
- The opportunity to join BHA industry working groups
- Use of BHA logo on your Company’s corporate materials
- Spotlight, the BHA triannual magazine to unlimited number of recipients
- CEO monthly newsletter, Spotlight Plus to unlimited number of recipients
- BHA CEO available for meetings
- Weekly bulletins and industry press releases to an unlimited number of recipients
- Access to commercial and market intelligence
- Information and guidance on exporting and supplying products and services to overseas markets
- Unlimited number of staff at member delegate rates at BHA events
- 20% discount for exhibition space at BHA events
- Access to Members Area on BHA website
- Inclusion in the Hydro company listings on the BHA website in as many category listings as requested with company logo
- Free advertising of current vacancies [boxed with colour logo] in the Careers page on the BHA website
- Five votes at the BHA AGM
### Company Member (hydro related turnover < £2million)

**Annual Fee:** £950 + VAT

**Additional Benefits & Services:**

- The opportunity to contribute to and influence BHA responses to government, industry and public consultations
- Use of BHA logo on your Company’s corporate materials
- Spotlight, the BHA triannual magazine to up to five recipients
- CEO monthly newsletter, Spotlight Plus to unlimited number of recipients
- Weekly political bulletins and industry press releases to an unlimited number of recipients
- Regular BHA newsletter to an unlimited number of recipients
- Access to commercial and market intelligence
- Information and guidance on exporting and supplying products and services to overseas markets
- Up to five members of staff at member delegate rates at BHA events
- 10% discount for exhibition space at BHA events
- Access to Members Area on BHA website
- Inclusion in the Hydro company listings on the BHA website in up to two category listings with company logo
- Free advertising of current vacancies in the Careers page on the BHA website
- Two votes at the BHA AGM

### Associate Member

**Annual Fee:** £450 + VAT

**Additional Benefits & Services:**

- The opportunity to contribute to and influence BHA responses to government, industry and public consultations
- Use of BHA logo on your Company’s corporate materials
- Spotlight, the BHA triannual magazine to two recipients
- CEO monthly newsletter, Spotlight Plus to two recipients
- Weekly political bulletins and industry press releases to an unlimited number of recipients
- Access to commercial and market intelligence
- One member of staff at member delegate rates at BHA events
- Access to Members Area on BHA website
- Inclusion in the Hydro company listings on the BHA website in one category listings [without company logo]
- Free advertising of current vacancies in the Careers page on the BHA website
- One vote at the BHA AGM
Academic Institutions & Charities
Annual Fee: £200 + VAT

Additional Benefits & Services:
The opportunity to contribute to and influence BHA responses to government, industry and public consultations
Use of BHA logo on your Company’s corporate materials
Spotlight, the BHA triannual magazine to one recipient
CEO monthly newsletter, Spotlight Plus to one recipient
Weekly bulletins and industry press releases to one recipient
One member of staff at member delegate rates at BHA events
Access to Members Area on BHA website
One vote at the BHA AGM

Private Member
Annual Fee: £100 + VAT

Additional Benefits & Services:
Spotlight, the BHA triannual magazine to one recipient
CEO monthly newsletter, Spotlight Plus to one recipient
Weekly bulletins and industry press releases to one recipient
One delegate rate at BHA events
Access to Members Area on BHA website
One vote at the BHA AGM

Please feel free to contact us to discuss the many benefits of BHA membership

Email: info@british-hydro.org
Phone: 01258 840934

www.british-hydro.org
### Membership application form

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### Type of organisation:

- [ ] Supplier (Products/services)
- [ ] Generators (including developer/owners)
- [ ] Other (please specify):

### Do you already export your products/services to overseas markets?

- [ ] Yes
- [ ] No
- [ ] Would you like to?
- [ ] Yes
- [ ] No

### Description of products/services supplied:

- [ ]

### Number of employees:  
Annual turnover:

- [ ]

### % of turnover associated with hydropower:

- [ ]

### How did you hear about us?

- [ ]

### Membership level selected:

- [ ] Sponsoring
- [ ] Principal Company (hydro turnover >£2M)
- [ ] Company (hydro turnover <£2M)
- [ ] Associate
- [ ] Academic Institution/Charity
- [ ] Private (individual with no commercial interest)

### Please provide any further details or information on a separate sheet

(See additional benefits & services for criteria)

### In order to keep costs to a minimum we will send communications and newsletters by email. When signing this form you are accepting these terms.

### Signature:

- [ ]

### Printed name:

- [ ]

### Position:  
Date:

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### Office use only:

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Hydropower – the pioneer of renewable energy

The BHA would like to thank all those who contributed to the brochure.

www.british-hydro.org

The British Hydropower Association sponsoring members: