

Japanese company seeks licensing and commercial partners in the EU for its micro hydropower systems

Summary

Profile type

Technology offer

Company's country

Japan

POD reference

TOJP20261006015

Profile status

PUBLISHED

Type of partnership

Research and development cooperation agreement
Commercial agreement with technical assistance
Investment agreement

Targeted countries

• All countries

Contact Person

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Term of validity

9 Oct 2026
9 Oct 2027

Last update

9 Oct 2026

General Information

Short summary

A Japanese SME developed an open-type micro hydropower unit fitting agricultural irrigation canals and other water infrastructure that can efficiently convert unused hydropower energy into electricity. The company is looking for licensing and commercial agreements.

Full description

This Japanese SME designs, manufactures, installs and provides technical support for open-type micro-hydropower systems. Its turbine technology is designed to generate electricity in low-head and high-flow water channels, including agricultural irrigation canals and other water infrastructure.

The main benefit is to effectively convert unused hydropower energy into electricity while reducing debris management issues and being environmentally friendly to aquatic biodiversity. The company also offers site assessment, system planning and remote monitoring services.

The technology has been commercialised and is in operational use in various sites in Japan. The company continues to improve the system, including mechanisms that adjust turbine positioning to changing water levels and flow rates. It is available for deployment at suitable sites, subject to site-specific assessment and design. For more information, please see the following link: <https://waterweco.com/en/index.cgi>

The company technology fits partners and customers such as engineering firms, water-infrastructure operators, agricultural organisations, renewable-energy developers, municipalities and national government agencies. The company is seeking cooperation through local sales or agency arrangements, technical assistance, export or OEM partnerships, and licensing of its turbine technology.

Advantages and innovations

The company's open-type turbine uses a blade shape and blade configuration optimised through numerical analysis, fluid analysis and model testing. The system is designed to maintain stable generation as water flow changes, including seasonal variations in irrigation canals. Its adjustable turbine position helps match the inflow conditions, while the open structure allows debris to pass through and supports easier maintenance. The design also incorporates fish passage to help protect aquatic biodiversity. Joint testing with academic and engineering partners reported power-generation efficiency of 50% or more.

The company focuses on the large-flow, low-head segment of micro-hydropower potential, which is distinct from the small-flow, high-head segment. Its target conditions are typically a flow rate of 2–7 m³/s, a recommended flow velocity of at least 2 m/s, and an effective head of approximately 1.1–2.5 m.

In turbine-selection charts used by specialist organisations, spiral and propeller turbines partly overlap with this operating range. However, installations using these turbine types can require costly debris-removal measures and extensive civil works, and may face a higher risk of water overflow. The company's system is designed for this range with a structure that can simplify debris management and reduce the need for large-scale construction. Its layout can also facilitate fish passage and support upstream fish movement.

Technical specification or expertise sought

Stage of development

Already on the market

Sustainable Development goals

• Goal 7: Affordable and Clean Energy

IPR Status

IPR granted

IPR Notes

The company holds patents covering its turbine technology in Japan and multiple overseas markets, including the United States, Europe, China, South Korea, Bhutan, Brazil and Mexico. Trademark and design registrations have also been obtained in several jurisdictions. Further details on the applicable patents and territorial coverage can be provided to prospective partners.

Partner Sought

Expected role of the partner

The company is seeking partners in the EU with experience in hydropower, water infrastructure, irrigation, renewable energy or engineering. Suitable partners may include equipment manufacturers, engineering and construction firms, local distributors, utilities and organisations working with municipal or national infrastructure projects.

The preferred arrangements include sales agency or distribution agreements, OEM or local assembly partnerships, technical cooperation, and licensing of the turbine technology. The company can provide technical information, support for site assessment and system planning, and guidance on installation and operation.

Type of partnership

Research and development cooperation agreement
Commercial agreement with technical assistance
Investment agreement

Type and size of the partner

- **SME 11-49**
- **SME 50 - 249**
- **SME <=10**
- **Big company**

Dissemination

Technology keywords

- **04005009 - Energy from wastewater**

Market keywords

- **06003004 - Marine energy**

Targeted countries

- **All countries**

Sector groups involved

- **Renewable Energy**

Media

Images



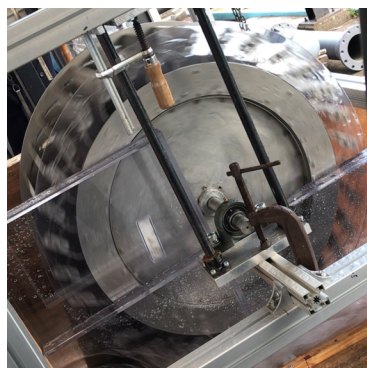
[Application example](#)



[on site test 1](#)



[on site test 2](#)



[on site test 3](#)