

## **ENECHANGE announces investment in Eavor Technologies Inc., a pioneer in the field of advanced geothermal energy solutions**

ENECHANGE Ltd. (Head Office: Chuo-ku, Tokyo; Representative Director & CEO: Yohei Kiguchi) is pleased to announce that it has invested in [Eavor Technologies Inc.](#) (“Eavor”) through Japan Energy Fund’s (JEF) Decarbonized Tech Fund managed by Japan Energy Capital. Eavor, based out of Calgary, Canada, is a pioneer in the field of advanced geothermal energy solutions. With its patented closed-loop technology—the Eavor-Loop™—Eavor is unlocking new sources of consistent, resilient, and cost-effective clean energy.

This 182M CAD (131.5M USD) financing round was led by [OMV AG](#) with participation from [Canada Growth Fund](#), [Monaco Asset Management](#), and Microsoft’s [Climate Innovation Fund](#). Existing investors [BDC](#), [bp Ventures](#), [Eversource Energy](#), [Temasek](#), and [Vickers Venture Partners](#) also contributed, and [Chubu Electric Power Co.](#) participated through the completion of their debentures.



*Image: Eavor*

### ■Background

Geothermal energy is an energy source that is abundant and renewable, and has advantages over solar and wind generation in that it is non-weather dependent and requires a significantly lower surface footprint. However, it has struggled to gain widespread utilization due to the cost of accessing.

New developments in the field of “enhanced” geothermal offer a pathway to making the resource more accessible. Advancements in drilling techniques reduce the cost of drilling to depths where geothermal energy can be

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efficiently extracted. Additionally, new plant designs and well flow controls allow for the “flexing” of geothermal, making such resources flexible to apply to the needs of the energy grid.

Japan in particular has strong potential for geothermal energy generation and views it as a clean baseload power source to help the country reach its net-zero target by 2050. Japan has the third largest geothermal resources globally at ~23GW, which is thought to be able to provide 10% of its electricity if developed (1). The government has set an ambitious target to install 1.5GW of geothermal power by 2030 (2). Globally, Japanese companies are the largest supplier of geothermal turbines and Japan is one of the largest developers of geothermal projects outside of the country. However, geothermal currently only provides 0.3% of electricity in Japan, due to high upfront costs and regulatory processes for incumbent technologies that have limitations including exploration risk. Some of this is eased by new government policies to streamline approvals and for higher feed-in-tariffs (1).

(1) Source: [International Renewable Energy Agency](#)

(2) Source: [Agency for Natural Resources and Energy](#) (資源エネルギー庁)

## ■About Eavor’s technology breakthroughs

The Eavor-Loop™ is a connection of two vertical wells with multiple horizontal wellbores, creating a closed, sealed underground system akin to a radiator. Working fluid is circulated through the system, bringing heat from deep underground to the surface where it can be used to generate electricity or for commercial heating/cooling applications. The flow rate of this fluid can be changed, allowing for energy to be generated and dispatched flexibly.

Eavor-Loop™ is made possible from multiple breakthrough advancements in critical components. These include a patented Rock-Pipe™ well completion technology; Insulated Drill Pipe used to cool drilling components and increase drilling speed and depth; Magnetic Ranging Technology used to accurately intersect wells at depth; and more.

In 2020, Eavor completed construction on the Eavor-Lite™ Demonstration Project near Rocky Mountain House, Alberta. In early 2023, Eavor completed its Eavor-Deep™ project in New Mexico, where it demonstrated drilling to 18,000 feet (~5480m) in total vertical depth. The next major milestone is Eavor’s first full-scale project in Geretsried, Germany, which is being developed to supply the local region with district heating and electricity within the next four years. The Eavor-Loop™ in Geretsried is anticipated to reach a drilling depth of approximately 4.5km, with approximately 8.2MW of gross electric energy yield and 64 MW of gross thermal energy yield. The equivalent CO<sub>2</sub> savings is 44,000 tons.

## ■About Eavor

Eavor (pronounced “Ever”) is a technology-based energy company led by a team dedicated to creating a clean, reliable, and affordable energy future on a global scale. Eavor’s solution (Eavor-Loop™) represents the world’s first truly scalable form of clean, dispatchable, baseload capable, and flexible heat and power. Eavor achieves this by mitigating or eliminating many of the issues that have traditionally hindered geothermal energy. Eavor instead circulates a benign working fluid that is completely isolated from the environment in a closed-loop, through a massive subsurface radiator. This radiator simply collects heat from the natural geothermal gradient of the Earth via conduction. Eavor has been supported by equity investments made by several leading global energy producers, investors, developers, and venture capital funds including Vickers Venture Partners, bp Ventures, Chubu Electric Power, BDC Capital, Chevron Technology Ventures, BHP Ventures, Helmerich & Payne, Precision Drilling, OMV and now the Canada Growth Fund (CGF) and Microsoft.

Website: [Eavor.com](https://eavor.com)

## ■Comment from John Redfern, President & CEO of Eavor Technologies Ltd.

We are delighted to have the support of our new investing partners and the continued commitment of existing partners while we advance the commerciality of our Eavor-Loop™ technology, beginning with our first full-scale project already in construction at Geretsried in Germany. The funding received here today emboldens our efforts to deploy Eavor-Loop™ systems worldwide helping to drive us all towards a sustainable, reliable, and bright energy future.

## ■Comment from Yohei Kiguchi, PhD, CEO and Representative Director of ENECHANGE Ltd.

We are excited to announce our investment in Eavor, our portfolio of innovative companies that will help our efforts to accelerate the energy transition in Japan and beyond. Geothermal is a significantly underutilized source for energy generation and breakthrough technologies like Eavor’s show tremendous promise for the future, especially in Japan.

## ■Japan Energy Fund - Summary

Fund name	Japan Energy Capital 2 L.P. (“Decarbonized Tech Fund”)
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Date of establishment	September 30, 2021
Investment method	Capital call method
Investment target	Energy tech ventures from overseas
Fund target size	50 million US dollar
Operation period	Until September 2031
General partner	Japan Energy Capital limited liability company
Limited partners *As of December 1, 2022	ENECHANGE Ltd. BIPROGY Inc. (formerly Nihon Unisys Limited) Toshiba Energy Systems & Solutions Corporation Sumitomo Mitsui Trust Bank, Limited

## ■ENECHANGE Ltd.

ENECHANGE is an energy technology company that promotes a net zero society through digital technology with the mission of Changing Energy For A Better World. We offer services based on data utilization in the field of the 4Ds of Energy: Deregulation, Digitalization, Decarbonization, and Decentralization. Our company's roots come from an energy data lab at the University of Cambridge in the UK, a country where liberalization is mature. ENECHANGE has a UK subsidiary, ENECHANGE Innovation Limited, as well as a global network and analytical technology for energy data.

Website: <https://enechange.co.jp/en/>

## ■For inquiries

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