

Japanese Renewable Energy Industry's First Solar-Powered Data Center for GPU Cloud Services Achieves Stable Operations

Eco-friendly data center shows potential for decarbonization of the cloud computing industry while simultaneously supporting technological innovation.

TOKYO, JAPAN, May 9, 2023 /EINPresswire.com/ -- Japan Renewable Energy Corporation ("JRE"; headquartered in Minato-ku, Tokyo; CEO: Kazuhiro Takeuchi) is pleased to announce that stable operation has been achieved at the data center constructed on the grounds of its solar power plant in Nagano prefecture, thereby supplying computing power through 100% renewable energy. The data center will be used by distributed cloud computing solutions provider Morgenrot Inc. ("Morgenrot"; headquartered in Minato-ku, Tokyo; CEO: Hirotaka Inoue) to provide its M:CPP (Morgenrot Computing Power Pool) GPU cloud service.

This project is based on the partnership between JRE and Morgenrot announced in the press release dated June 27, 2022 (release), and is the first example of a renewable energy provider in Japan launching a computing business located outside Japan's large metropolitan areas that is attached to a solar power plant. In December 2022, the data center



JRE x Morgenrot Green Data Center Exterior



JRE x Morgenrot Green Data Center Interior

commenced commercial operation, primarily for CG rendering, and once stable operation was verified, it was adopted for the M:CPP service in April 2023, and will support additional applications such as AI and simulation. This containerized data center accommodating 40 AMD and NVIDIA GPU servers installed within the JRE Nagano Omachi Solar Power Plant in Omachi, Nagano prefecture, has to date achieved a high rate of capacity utilization and stable operations for a green data center with zero CO2 emissions. The data center employs a "chiller-less" cooling system that uses water drawn from a well for the server cooling equipment, with no need for CFCs refrigerants that emit greenhouse gasses. Thus, it operates as an environmentally-friendly and exceptionally energy-efficient installation (designed to deliver PUE [power usage effectiveness] of 1.1).

Both JRE and Morgenrot will continue to work across industrial boundaries to construct new business models that will lead to decarbonization of critical social infrastructure, thereby using renewable energy for transitioning existing businesses to carbon-neutrality.

JRE will further promote renewable energy and related businesses with a mission to go beyond kilowatt-hour-based value to create new service-based value by using renewable energy not only for providing value in terms of power generated, but also for delivering value-added services.

About JRE

Founded in 2012 with a mission "Changing the world with renewable energy." With the understanding of the local community, JRE currently has 95 renewable power plants (including solar, wind, and biomass) either in operation or under construction, plus a number of large-scale offshore wind farms and other projects at the planning stage. JRE is committed to addressing environmental and social challenges through renewable energy and working towards a decarbonized and fully sustainable society. Find out more at: www.jre.co.jp/english.

About Morgenrot

Morgenrot is an engineering driven startup that offers cloud-based computing solutions which allow end users to access high performance computing power anytime, anywhere as needed. Our proprietary algorithm Excalibur[®] platform distributes computing tasks across our global network of thousands of servers, significantly reducing project lead time and overall cost. Morgenrot aims to provide democratized supercomputing services across all industries powered by renewable energy sources to build an earth-friendly digital social infrastructure. Find out more at: <u>www.morgenrot.net</u>.

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