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## FOR IMMEDIATE RELEASE

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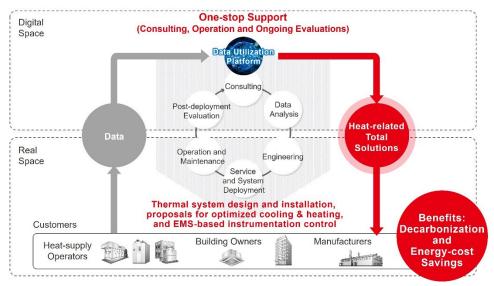
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# Mitsubishi Electric to Provide Heat-related Total Solutions to Reduce Energy Costs and Support Decarbonization

One-stop service will optimize electricity and heat-energy usage



Total heat-related solution system

TOKYO, May 22, 2024 – Mitsubishi Electric Corporation (TOKYO: 6503) announced today that it will begin offering heat-related total solutions as a service from May 31 to enable manufacturers, building owners and heat-supply operators to reduce their electricity and heat-energy costs and achieve greater decarbonization. As one of the company's newest Energy & Facility (E&F) solutions, the one-stop service will combine customized consulting, heat-system designing as well as the provision of hot-water and industrial cooling and heating equipment that contribute to electrification, and operational support for electric power and thermal energy in energy management systems (EMS).

Through the service, Mitsubishi Electric will carefully analyze each customer's needs to propose ideal solutions based on data analysis and use digital simulations to estimate expected effects. The one-stop solution will include the designing of facilities incorporating advanced heat-engineering technologies, such as heat pump chillers, EcoCute hot water, industrial cooling and heating equipment, and EMS-based instrumentation

control. Over the long term, the company will continue to analyze and evaluate operational data to support the ongoing decarbonization initiatives. Customers will also be supported in managing the environmental value of their electricity and optimizing procurement plans to transition to decarbonized operations.

#### **Features of New Solutions**

# 1) One-stop support, from consulting to energy operations and ongoing support

- Comprehensive support, from analysis and planning to post-deployment evaluation, operation and maintenance, will lower the customer's burden in deploying advanced equipment.
- Wide ranging needs will be met in a one-stop manner by proposing equipment not only from Mitsubishi
  Electric, such as heat pump chillers, Eco-Cute and other hot-water/industrial chillers and induction-heating
  inverters, but also from other manufacturers.
- Support will be provided for long-term decarbonization, such as improvements through ongoing review and analysis of operational data and comprehensive measures for achieving carbon neutrality.

# 2) Power ICT solution to support environmental value management of electricity and procurement plans

- Mitsubishi Electric's BLEnDer<sup>®1</sup> Power ICT solution package will be used to support strict environmental
  value management by calculating the environmental value of electricity at each base in 30-minute
  increments, and optimizing plans for power transfer between bases, battery operation and procurement of
  environmental value certificates.<sup>2</sup>
- For hard-to-reduce Scope 1<sup>3</sup> emissions, economically rational decarbonization will be supported with strict environmental value management and optimization of procurement plans as well as the deployment of optimal electrification equipment.

# 3) Comprehensive energy savings through EMS-optimized uses of electricity and heat

- Electricity and heat systems will be optimized by using EMS to predict energy demand to achieve energy savings throughout entire facilities.
- Modeling will be used to simulate the effects of renewals to optimize existing fossil-fuel equipment and lower related Greenhouse Gas (GHG) emissions, and to estimate the effects of introducing high-performance equipment and electrification.

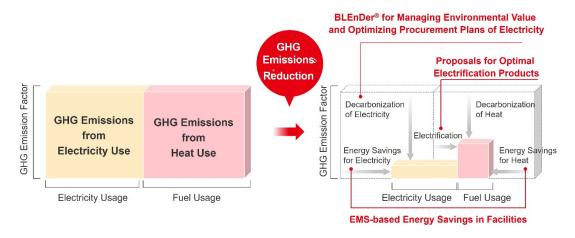
Packaged software products used in electricity market to comprehensively handle electricity trading and supply and demand control

<sup>&</sup>lt;sup>2</sup> The environmental value and greenhouse gas emission reduction effects generated by renewable energy generation are formalized as "certificates" by agencies using certification systems such as GO in Europe, RECs in North America, and I-REC in other regions

<sup>&</sup>lt;sup>3</sup> Direct emissions of GHGs, such as through fuel combustion, by an operator

#### **Predictive Factors** Digital Space Simulations for introducing high-performance and electrification-compatible equipment Simulation Conditions Optimization Simulation Equipment Model Equipment Model System Modeling Optimal Control Values **Deployment Effect Estimation Facility-wide Energy-saving Operations Heat Source Equipment** Steam Flectricity **Heat Energy** Hot Water Equipment Cold Water Boiler Heat Pump

Energy management technologies of Mitsubishi Electric



GHG emission-reduction methods and solutions concept

In the global quest for a sustainable, carbon-neutral world in which GHG emissions are reduced to zero by 2050, there is an increasing demand to reduce Scope 1 emissions as defined by the GHG Protocol.<sup>4</sup> Japan's revised Energy Conservation Act, which came into effect in April 2023, mandates companies to set targets for transitioning from fossil to non-fossil energy. The transition to decarbonization is expected to be particularly challenging for manufacturers, building owners and heat-supply operators that use large amounts of heat for production and air conditioning.

# **Future Plans and Prospects**

With this new solution, Mitsubishi Electric expects to help manufacturers, building owners and heat-supply operators reduce their energy costs for electricity and heat as well as achieve decarbonization. At the same time, Mitsubishi Electric will continue to leverage its digital technologies for the development creation of E & F Solutions to further support carbon neutrality.

<sup>&</sup>lt;sup>4</sup> International standard for calculating and reporting GHG emissions

#### **About E&F Solutions**

As part of Mitsubishi Electric's commitment to Circular Digital-Engineering, these solutions integrate everything from optimal energy procurement and management to efficient operation and maintenance of facilities, with the aim of achieving economically rational carbon neutrality.

BLEnDer is a registered trademark of Mitsubishi Electric Corporation.

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## **About Mitsubishi Electric Corporation**

With more than 100 years of experience in providing reliable, high-quality products, Mitsubishi Electric Corporation (TOKYO: 6503) is a recognized world leader in the manufacture, marketing and sales of electrical and electronic equipment used in information processing and communications, space development and satellite communications, consumer electronics, industrial technology, energy, transportation and building equipment. Mitsubishi Electric enriches society with technology in the spirit of its "Changes for the Better." The company recorded a revenue of 5,257.9 billion yen (U.S.\$ 34.8 billion\*) in the fiscal year ended March 31, 2024. For more information, please visit <a href="https://www.MitsubishiElectric.com">www.MitsubishiElectric.com</a>

\*U.S. dollar amounts are translated from yen at the rate of \pm 151=U.S.\pm 1, the approximate rate on the Tokyo Foreign Exchange Market on March 31, 2024