

Approximately JPY 5.7 Billion Invested to Promote CO2 Emission Reduction and Cost Reduction

Ajinomoto Co., Inc. Introduces Biomass Cogeneration System at Kamphaeng Phet Plant in Thailand

Tokyo September 20, 2022 – Ajinomoto Co., Inc. (“Ajinomoto Co.”) has invested THB 1.5 billion (approx. JPY 5.7 billion) to begin operation of a biomass cogeneration system^{*1} fueled by rice husks, a source of renewable energy^{*2}, at its key plant in Thailand (Ajinomoto Co., (Thailand) Ltd.’s Kamphaeng Phet plant, located in Kamphaeng Phet province), where such products as umami seasoning (AJI-NO-MOTO®) and nucleic acid are produced. Construction of the biomass cogeneration system began in August 2020, and full-scale operation of the system started on September 19, 2022 (local time) following an opening ceremony. All of the steam used to power the plant has been completely replaced by steam derived from biomass, which is, simultaneously used to power steam turbines to generate electricity, making it possible to realize the reduction of CO2 emissions as well as the reduction of energy costs by substituting a part of purchased electricity to in-house generated electricity.



Ajinomoto Co., (Thailand) Ltd.’s Kamphaeng Phet plant

★THB 1 = JPY 3.79 (Exchange rate at the end of August 2022)

Of the CO2 emissions (Scope 1 and 2^{*3}) generated by the Ajinomoto Group, three-quarters of such emissions are produced by plants located overseas. In particular, greater controls to suppress CO2 emissions in Southeast Asia, where economic growth has been remarkable and business is expected to grow in the future, is an important issue for the Group. Introducing this biomass cogeneration system will result in a reduction of the equivalent of 2 percent of the CO2 emissions of the Group. Moreover, the introduction of this system is expected to enable 40 percent of the electricity used by the Kamphaeng Phet plant to be generated in-house, making it possible to mitigate the risk of substantial increase in prices that is anticipated for purchased electricity in the future, and minimize the risk of opportunity loss resulting from power outages.

Kamphaeng Phet province is located in a leading grain-producing region of Thailand, which is one of the largest rice-producing countries in the world. As massive amounts of rice husks, which will serve as fuel for the system, are produced by the large number of rice mills located in this province, Ajinomoto Co. determined that the stable procurement of rice husks was possible. A rice husk-fueled biomass cogeneration system has been in operation at Ajinomoto Co., (Thailand) Ltd.’s Ayutthaya plant in Ayutthaya province since 2016, making the Kamphaeng Phet plant the second plant in Thailand to operate such a system. Furthermore, plans call for the company’s Pathum Thani plant in Pathum Thani province to switch its fuel for the cogeneration system, which currently uses coal, completely over to biomass fuel within FY2022. It is expected that the switch to biomass fuel will enable Ajinomoto Co., (Thailand) Ltd. to reduce its CO2 emissions in FY2023 to less than 50 percent of FY2018 levels, making it possible to achieve the goal set by the Group of reducing CO2 emissions by 50 percent by 2030 significantly sooner than initially planned.

The Ajinomoto Group has a track record of the usage of biomass fuels in Vietnam, Brazil, and France as well. Going forward, the Group will proactively expand technologies accumulated in various countries for using biomass fuels, and continue to engage in production activities that take into consideration the global environment.

- *1 Biomass cogeneration system: Biomass cogeneration system is a generic term given to a system that uses a heat source to produce and then supply electricity and heat (steam). In Japan, such a system is known as “*kojene*” or “*netsuden heikyu*,” and overseas it is referred to by such terms as “combined heat & power” or “cogeneration.”
- *2 Renewable energy: Because rice absorbs CO2 in the process of growing and is regarded as emitting zero CO2 emissions (carbon neutral) even when burned, energy obtained from biomass (rice husk) fuel is considered to be “renewable energy.”
- *3 Scope 1: This covers greenhouse gases that are emitted directly by the business entity itself (burning of fuel, in the manufacturing process); Scope 2: This covers indirect emissions resulting from the use of electricity, heat, or steam that is supplied by another company (Source: [Ministry of the Environment’s Green Value Chain Platform: For those starting “Supply-chain emissions accounting”](#))

< Profile of Ajinomoto Co., (Thailand) Ltd.’s Kamphaeng Phet plant >

- (1) Location: Kamphaeng Phet province, Thailand
- (2) Start of operation: April 1998
- (3) Product line: Umami seasoning [AJI-NO-MOTO®], nucleic acid-based seasonings
- (4) Production capacity: 63,000 tons
- (5) No. of employees: Approx. 350
- (6) Site area: 180 ha

< Profile of biomass cogeneration system >

- (1) Boiler: One boiler capable of supplying 85 tons of steam per hour
- (2) Fuel: Rice husks (able to handle multiple types of fuel)
- (3) Generator: One generator capable of producing 9,900 kW

The Ajinomoto Group, unlocking the power of amino acids, aims to resolve food and health issues associated with dietary habits and aging, and contribute to greater wellness for people worldwide.

Based on the corporate message “Eat Well, Live Well.”, we have been scientifically pursuing the possibilities of amino acids to aim for future growth by creating new value through sustainable and innovative solutions for communities and society.

The Ajinomoto Group has offices in 36 countries and regions, and sells products in more than 130 countries and regions. In fiscal 2021, sales were 1.1493 trillion yen (10.2 billion U.S. dollars). To learn more, visit www.ajinomoto.com.

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