

Kyowa Hakko Bio to Boost Sustainability Through Renewable Energy Certificates at its Strategic Hub in Thailand

Reducing GHG^{*1} emissions from electric power consumption by about 25%

TOKYO, Thursday November 26, 2020 - KYOWA HAKKO BIO CO. LTD. (Kyowa Hakko Bio), a subsidiary of Kirin Holdings Company, Limited (Kirin Holdings), announced that its subsidiary Thai Kyowa Biotechnologies Co., Ltd. (Thai Kyowa) will introduce renewable energy certificates^{*2} (I-REC) acquired from TEPCO Energy Partner International Co., Ltd. (a member of the TEPCO Energy Partner Incorporated Group). Under this initiative, 25% of the electric power used in Thai Kyowa's production will be switched over to renewable energy, reducing GHG emissions from electric power consumption. Kirin Holdings will become the first Japanese pharmaceutical and food & beverage company to do enact such measures in Thailand (annual GHG reduction of 5,300t).

*1: Greenhouse gases

*2: Renewable energy certificates certified by I-REC Standard in Thailand

● **Boosting Eco-friendly Business at Strategic Hub**

Kyowa Hakko Bio is building a new HMO^{*3} manufacturing facility at Thai Kyowa, - located in Rayong Province, Thailand - set to open in the summer 2022 in order to cater to the growing global demand for HMOs. As the first company in the world to establish an industrial-scale HMO production system^{*4}, the commercialization of this business will form a core part of the company's medium to long-term growth strategy. Through the introduction of I-RECs at Thai Kyowa, a strategically important production site, Kyowa Hakko Bio aims to grow its business reducing negative impact to the environment.

*3: HMO = Human Milk Oligosaccharides

*4: Tetsuo Endo et. al., Appl. Microbiol. Biotechnol. 53, 257-261 (2000)

● **Other Environmental Commitments**

In 2017, Kirin Holdings set the lofty goal of reducing the sum of Scope 1 and Scope 2 of the Group by 30% by 2030 compared to 2015 levels and Scope 3 by 30% as well, and in 2017, these goals were approved by the *Science-based Targets (SBT)^{*5} Initiative (SBTI)^{*6}*. In addition, in 2018, Kirin Holdings became the first Japanese food company to endorse the *Climate-Related Financial Information Disclosure Task Force (TCFD)^{*7}* recommendations, and Kirin Holdings is actively engaged in scenario analysis and other information disclosure.

*5: Greenhouse gas emission reduction targets set by companies for five to 15 years in the future, consistent with the levels required by the Paris Agreement (which aims to limit the global temperature increase to well below 2 degrees Celsius above pre-industrial levels and to limit it to 1.5 degrees Celsius).

*6: An initiative established in 2015 by the CDP, the United Nations Global Compact, the World Resources Institute and WWF.
<https://sciencebasedtargets.org>

For reference: <https://www.kirinholdings.co.jp/english/csv/env/climatechange.html>

*7: Or "Task Force on Climate-related Financial Disclosures" <https://www.fsb-tcfd.org>

● **Other Environmental Initiatives**

Along with conducting far-reaching energy conservation activities, the Kirin Group is promoting initiatives to reduce GHG emissions throughout the value chain, including installing highly-efficient heat pumps, reducing the weight of containers, promoting joint deliveries of products, and switching

from traditional energy sources to renewable energies. This includes increasing the use of renewable energies such as solar power, wind power, hydroelectric power and electric power generation using biogas from wastewater treatment processes. Outside of Japan, Lion Pty Ltd, a Kirin Group company, acquired Australia's first large-scale carbon neutral certification in May 2020.

Furthermore, in June of this year, the Kirin Group signed the United Nations Global Compact's *Business ambition for 1.5°C*^{*8}. This is a declaration of its commitment to revise upward its mid-term GHG reduction targets to achieve net zero GHG emissions in the long term. Kirin Holdings plans to obtain SBTI's approval for this new target during 2020.

*8: <https://www.unglobalcompact.org/take-action/events/climate-action-summit-2019/business-ambition>

In addition, the Kirin Group recently joined the RE100 Initiative^{*9} in November and is aiming to achieve 100% renewable energy use by 2040. The introduction of I-RECs at Thai Kyowa is one of the initiatives for achieving RE100.

*9: RE100 is an international initiative for the environment that is made up of companies aiming to achieve 100% renewable energy use. The Kirin Group joined the RE100 initiative in November of this year and has set forth the goal of shifting to 100% renewable energy use by 2040.

● **Kirin Group To Achieve Zero Carbon Emissions Commitment by 2050**

In February 2020, the Kirin Group announced the new *Kirin Group Environmental Vision 2050* aimed at strengthening the resilience of the Group and the global community. In the area of climate change, the Kirin Group will aim to achieve net zero GHG emissions throughout the entire value chain by 2050. The current initiative is one step forward in achieving this goal, and through further initiatives such as this, the Kirin Group will lead the way toward the establishment of a carbon-free society.

Also, this renewable energy initiative in Thailand will strengthen business sustainability of Kyowa Hakko Bio as a global specialty fermentation manufacturer and contribute to achieve the Kirin Group environmental vision.

For reference:

- Kirin Group Environmental Vision 2050
https://www.kirinholdings.co.jp/english/news/2020/0210_01.html
- New facility in Thailand to Supply Human Milk Oligosaccharides Worldwide
(Press release dated November 4, 2020)
https://www.kirinholdings.co.jp/english/news/2020/1104_03.pdf
- Kirin Group Joins RE100 Renewable Energy Initiative
(Press release dated November 18, 2020)
https://www.kirinholdings.co.jp/english/news/2020/1118_02.pdf

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