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Panasonic Environment Vision 2050: Panasonic Realizes Its First Zero CO₂ Factory*¹ in China

Osaka, Japan - Panasonic Corporation today announced that it has realized its first Zero CO₂ factory in China at Panasonic Energy (Wuxi) Co. Ltd. (PECW) adding to its list of facilities that emit virtually no carbon dioxide.

Panasonic has been carrying forward environmental activities in accordance with the Panasonic Environment Vision 2050, a long-term vision of environmental management formulated in June 2017 with clearly defined direction for the company to pursue for 2050. As one of the activities to promote businesses aiming for a sustainable society, the company is working globally to establish Zero CO₂ factories that do not emit the greenhouse gas during operations. The company had already realized six Zero CO₂ model factories and a Zero CO₂ showroom*² among its facilities in the world. By leveraging its know-how gained through this experience, Panasonic has now realized a Zero CO₂ factory in China.

The factory in Wuxi City, Jiangsu Province, makes secondary batteries, mainly lithium-ion batteries and nickel-metal hydride batteries. It has worked on innovation in high-quality and highly efficient manufacturing. For example, in 2018, the factory introduced an automated assembly line that replaces conventional manual and visual inspections with a dual-arm robot and an image inspection system. Specific measures to achieve a Zero CO₂ factory in China include the promotion of manufacturing with minimum energy, which uses less energy in manufacturing through innovations in manufacturing methods and processes, advanced energy-saving technologies and LED lighting. Also introduced are solar power generation systems, purchase of International Energy Certificates (I-RECs), use of carbon credits that offset CO₂ emissions from fossil fuels, and utilization of rental roof scheme. Through these measures, the factory in Wuxi is able to bring approx. 44,000 tons of CO₂ emissions to net zero in the fiscal year 2021 that ends in March 2021, the largest CO₂ reduction among the Panasonic Zero CO₂ factories that have been realized to date.

By rolling out these activities to Panasonic group companies on a global scale, Panasonic will steadily implement manufacturing without emitting CO₂, aiming for a sustainable society as set forth in the Panasonic Environment Vision 2050.

<Specific PECW's activities toward realizing a Zero CO₂ factory>

1. Promotion of manufacturing with minimum energy

- Establishment of an automatic production line driven by mainly dual-arm robot (from FY 2019): This increased the production capacity by 10% with the same amount of energy consumption as before, and also contributed to the reduction of the number of defective products.
- Introduction of the smart EMS (Energy Management System) automatic energy-saving control utilizing artificial intelligence (from FY 2020): This increased energy saving by 14% at most in the processes where it was introduced.
- Use of inverters for dust collectors, pumps, and exhaust fans (10 units completed since FY 2017): This reduced the number of operation frequency by approx. 10 Hz, and reduced 330 tons of CO₂ per year.
- Introduction of inverter-type compressors and vacuum pumps (3 units completed since FY 2018): This resulted in energy saving and reduced 330 tons of CO₂ per year by using inverters.
- Introduction of LED lighting (since FY 2019): At a total of 13,725 locations, fluorescent lamps, metal halide lamps, and down light lamps were replaced with LED lamps.

2. Introduction of solar power generation systems (since FY 2017, power generation capacity: 1.6 MW)

3. Purchase of I-RECs (International Renewable Energy Certificates)

4. Use of carbon credits that offset CO₂ emissions from fossil fuels

Going forward, Panasonic will also implement measures that utilize in-house developed technologies, e.g. strengthening the energy-saving activities, further utilization of renewable energy such as geothermal heat, and introduction of technologies to absorb, separate, and utilize CO₂ emitted from fossil fuels.

Notes:

*1: Zero CO₂ factory: a factory with virtually zero CO₂ emissions through measures such as promoting energy saving, introducing renewable energy and utilizing carbon credits.

*2: Realized Zero CO₂ model factories and a Zero CO₂ showroom: Panasonic Eco Technology Center (PETEC), Panasonic Energy Belgium N.V. (PECBE), Panasonic do Brazil Limitada (PANABRAS: total 3 factories in Sao Jose, Extrema, and Manaus), Panasonic Centroamericana SA (PCA), and Panasonic Center Tokyo.

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About Panasonic

Panasonic Corporation is a worldwide leader in the development of diverse electronics technologies and solutions for customers in the consumer electronics, housing, automotive, and B2B businesses. The company, which celebrated its 100th anniversary in 2018, has expanded globally and now operates 528 subsidiaries and 72 associated companies worldwide, recording consolidated net sales of 7.49 trillion yen for the year ended March 31, 2020. Committed to pursuing new value through innovation across divisional lines, the company uses its technologies to create a better life and a better world for its customers. To learn more about Panasonic: <https://www.panasonic.com/global>.

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