



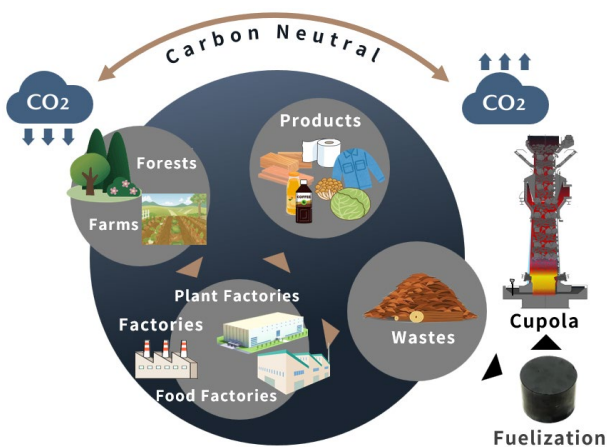
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Mazda Conducts Demonstration Operation of Cupola Melting Furnace using Biomass Fuel 100%

-Community-wide challenge to achieve carbon-neutral, fossil fuel-free operations -

HIROSHIMA, Japan - Mazda Motor Corporation (Mazda) has announced that it conducted a demonstration operation of a cupola melting furnace (cupola), the core casting facility installed at its Hiroshima Plant, by fully replacing fossil fuels that emit CO₂ during combustion with bio-coal briquettes, a biomass fuel derived from coconut shells, and confirmed the stable operation.

The operation of a cupola that uses biomass fuel 100% has not been confirmed for social implementation in the world, and the company took on the challenge of conducting the demonstration experiment in collaboration with the foundry industry and local partners. In the future, Mazda will expand the circle of regional cooperation and promote an energy circulation scheme for local production for local consumption, aiming for carbon neutral (CN) operation of cupolas using waste-derived biomass fuels such as bio-coal briquettes by fiscal year 2030.



Schematic diagram of energy circulation scheme for local production for local consumption



Bio-coal briquettes derived from coconut shells

Mazda has been promoting various initiatives to achieve CN at its global plants by 2035 based on the three pillars of "energy conservation," "shifting to renewable energies," and "introducing CN fuels, etc.," with the goal of achieving CN throughout its entire supply chain by 2050.

Stable domestic procurement of raw materials is essential for a full conversion to biomass fuels which is in line with "introducing CN fuels," as one of the aforementioned initiatives. In March 2023, Mazda established the Cupola CN Co-creation Working Group by inviting volunteer companies and organizations to conduct research and development for the shift to biomass fuels, the establishment of production methods, and studies on the local procurement of raw materials. While bio-coal briquettes

derived from coconut shells were used in the demonstration experiment this time, Mazda has been working to establish a locally produced, locally consumed energy circulation scheme in Hiroshima and neighboring areas, from biomass waste collection to production, with the aim of revitalizing local industries and contributing to the local communities. As part of such activities, Mazda has been collecting spent coffee bean husks from Tully's Coffee Shop^{*1} (operated by Tully's Coffee Japan Co., Ltd.) and vending machines^{*2} in the premises of Mazda Headquarters since November 2024, and confirmed through demonstration experiments that it is possible to produce bio-coal briquettes from these bean husks.

Going forward, the company will work together with the local community to develop the local production for local consumption energy circulation scheme into a cooperative effort among industry, government, academia, and the private sector to realize stable raw material procurement of and implementation of fuel conversion.

Mazda, together with the local communities, will steadily advance its challenge toward the achievement of CN throughout the supply chain in 2050, and contribute to the creation of an affluent society.

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*1: Franchisee: CULE Co., Ltd., Franchiser: Tully's Coffee Japan Co., Ltd.

*2: Operated by Apex West Japan Co., Ltd.

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