

ITOCHU ENEX Concludes Joint Research Memorandum with Tokuyama Aimed at Effective Utilization of Biomass Combustion Ash and Implementation of CCS¹

ITOCHU ENEX CO., LTD. (Headquartered in Chiyoda-ku, Tokyo; Kenji Okada, Representative Director, President and CEO; hereinafter referred to as "the Company") announces that the Company and Tokuyama Corporation (Headquartered in Shunan-shi, Yamaguchi; Hiroshi Yokota, President; hereinafter referred to as "Tokuyama") have agreed to conduct joint research on the effective utilization of combustion ash produced from biomass power stations.

Combustion ash (fly ash) produced by biomass power stations has recently been growing in volume, posing disposal issues because it contains substances like potassium and is difficult to recycle into cement due to constraints. ITOCHU Group manufactures and sells a construction material (Trade name: Recycle Beads)² made of fly ash produced from thermal power stations. Leveraging its know-how, the Company aims to make effective use of fly ash produced from biomass power stations and improve the added value of Recycle Beads.

In this joint research, the two companies' goal is the effective utilization of fly ash originating from biomass and the implementation and ubiquitization of carbon dioxide capture and storage (CCS) using the fly ash which is bound to CO₂ molecules using technology being developed by Tokuyama to make the Recycle Beads sold by the ITOCHU Group in order to bind CO₂ molecules even during the manufacturing of Recycle Beads and use them as raw materials.

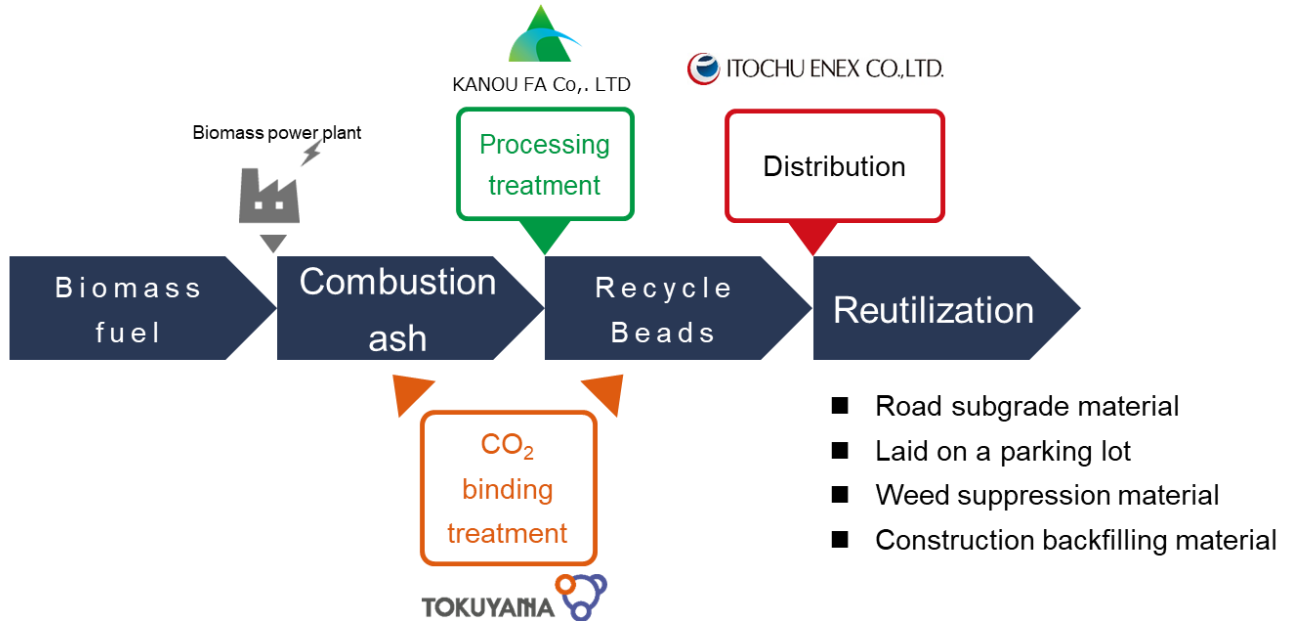
The initial study by the two companies clarified that it is possible to bind CO₂ particles to the calcium oxide (CaO) contained in fly ash and Recycle Beads and to fix more CO₂ than the amount emitted during the manufacturing of Recycle Beads.

The research will be continued aiming to bind and fix as much CO₂ as possible at a low cost and to develop construction materials with an amount of CO₂ equivalent to 10% or more of the total volume of the product bound to it. Moreover, the two companies will contribute to the establishment of a carbon-free recycling-based society through these initiatives.

1. CCS (Carbon dioxide Capture and Storage)

■ Value chain for recycling ash

Note: 49% owned by ITOCHU ENEX CO., LTD.



2. Recycle Beads are subgrade material and weed suppression material products manufactured by KANOU FA CO., LTD., a company 49% owned by ITOCHU ENEX CO., LTD.

Recycle Beads

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