December 12, 2025

Press Release

Electric Power Development Co., Ltd.

Ceremony to Mark the Completion of Construction of a Mass Production Verification Facility for Environmentally Friendly High-Performance Recycled Fiber BASHFIBER®

Upcycling Coal Ash into a Material with New Value

Electric Power Development Co., Ltd. (J-POWER, headquartered in Chuo-ku, Tokyo; President and CEO: Hitoshi Kanno) and Nippon Fiber Corporation KK (Nippon Fiber Corporation, headquartered in Abiko City, Chiba Prefecture; CEO: Hiroshi Fukazawa) held a ceremony to mark the completion of construction of a mass production verification facility for BASHFIBER®, an environmentally friendly high-performance recycled fiber. The facility was built at J-POWER's Chigasaki Research Institute (Chigasaki City, Kanagawa Prefecture) with a grant from the Deeptech Startups Support Program of the New Energy and Industrial Technology Development Organization (NEDO, headquartered in Kawasaki City, Kanagawa Prefecture; Chairman: Tamotsu Saito).

BASHFIBER®, developed by Nippon Fiber Corporation, is a continuous filament fiber made using coal ash and other byproducts from coal-fired power generation and coal gasification combined cycle power generation. BASHFIBER® provides high strength, heat resistance, and

chemical resistance, making it a potential substitute for existing glass fiber. Furthermore, another fiber, BASHFIBERUS®, which is resistant to radiation and is the world's first fiber with a radiation-shielding function, has potential applications in the space industry, the medical field, and nuclear power production.

In March 2023, J-POWER invested in Nippon Fiber Corporation. Subsequently, in March 2024 the company was selected through a public solicitation to be a part of NEDO's Deeptech Startups Support Project in March 2024, and received a grant for research and development aimed at mass production of BASHFIBER®. During construction of the mass production verification facility, J-POWER supported the research and development by inviting Nippon Fiber Corporation to conduct R&D at J-POWER's Chigasaki Research Institute. Construction of the facility commenced in June 2025, and the completion ceremony was held after completion was confirmed.

The effective use of coal ash, a byproduct of coal-fired power plants, is essential to ensuring the stable operation of the power plant, and is a challenge that J-POWER has been working on for many years. BASHFIBER®, which can aid in solving this challenge, is made by converting coal ash into a material with new value as an upcycled material.* In addition, by serving as a substitute for glass fiber, it also contributes to solving social issues, such as reduction of supply chain risk in the industrial sector.

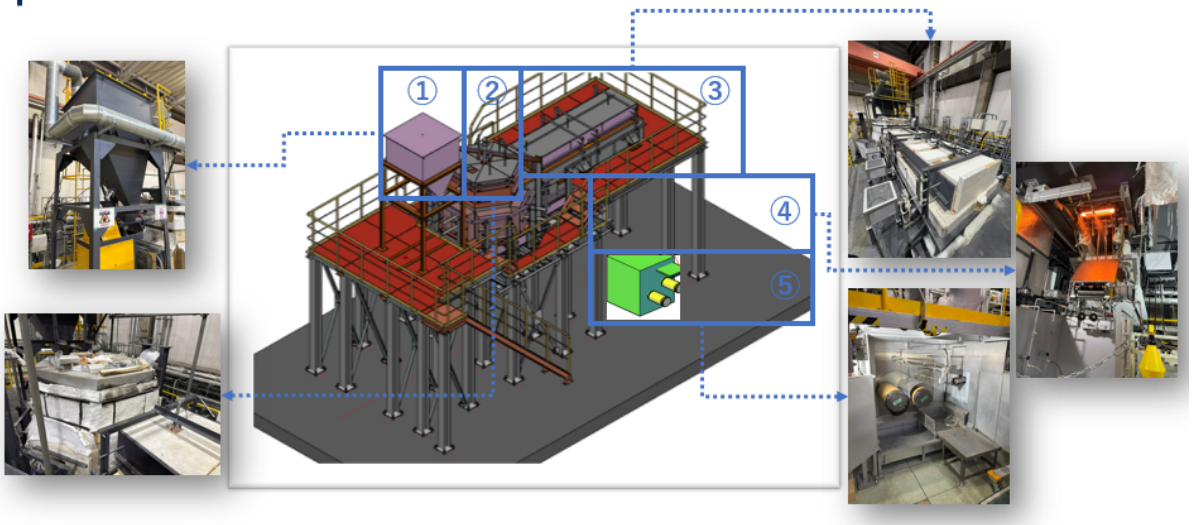
* Upcycled material: A material that reuses waste and unnecessary materials and adds new value beyond the original material value.

J-POWER, guided by the J-POWER BLUE MISSION 2050 vision announced in February 2021, will contribute to carbon neutrality across industries by developing and promoting environmentally friendly and new sustainable products.

BASHFIBER® Mass Production Verification Facility: Schematic Diagram

BASHFIBER® -The Upcycled Fiber made by coal ash-

Overall diagram of Electric melting furnace and other equipment



① Hopper/Feeder : A device for feeding coal ash (raw material of BASHFIBER®)
② Electric Melting Furnace (Kiln) : Melts the fed raw material at approx. 1,350℃ by electricity
③ Forehearth : Equipment for pouring molten raw materials
④ Bushing Device : A device for spinning molten raw materials into thread
⑤ Winding Device : A device for winding up BASHFIBER® generated through Bushing Device