

NYK Idemitsu Green Solutions Co., Ltd.

Development Completed on BAIOMIX™, a System Designed for Use by Coal Power Plants to Optimize Biomass Mixture Ratios

NYK Idemitsu Green Solutions Co., Ltd.*¹ (Head office: Shinagawa-ku, Tokyo; President & Representative Director: Keiji Tsuchiya) has recently completed development of BAIOMIX™, a system whose chief function is to calculate the optimal mixed combustion ratio of any biomass fuel used in coal-fired boilers, with commercial release set for August 2021.

By installing this new system on ULTY-V plus*², which is another system offered by NYK Idemitsu Green Solutions for boiler control optimization, it is possible to optimally perform automatic control of any coal-fired boiler that uses biomass in its fuel mixture.

Along with the intensifying global shift toward a low-carbon economy, the use of biomass as an alternative fuel to coal is spreading rapidly. However, as biomass fuels are still inferior to coal in terms of ease of pulverization and calorific value, the amount of biomass used is still limited in large boilers that burn pulverized coal.

As this newly developed system calculates the economic costs and other effects of biomass-mixed boiler operations involving biomass pellets on boiler facilities and power generation efficiency, it is able to pinpoint the optimal mixed combustion ratio under any given set of conditions, based on previous mixed combustion data and extrapolation by artificial intelligence (AI).

BAIOMIX™ can be used not only with boiler facilities where coal and biomass are premixed at an existing facility before the mixture is fed to the furnace for combustion but also other types of boiler facilities, including ones where biomass is fed to the furnace through a dedicated line for mixing with coal and combustion.

NYK Idemitsu Green Solutions will continue to strive to understand and meet each customer's unique needs and create products that help reduce carbon footprints globally.

*¹NYK Idemitsu Green Solutions Co., Ltd. is a joint venture company that was established in March 2019 to mainly promote the sales of ULTY-V plus in Japan and overseas including China, Taiwan, and Vietnam.

Shareholders: Idemitsu Kosan Co., Ltd., NYK Trading Corporation, and Nippon Yusen K.K.

Business description: Sales, development, and improvement of boiler control optimization systems and provision of related consulting services, etc.

[URL:https://nyk-idemitsu-gs.co.jp/](https://nyk-idemitsu-gs.co.jp/)

*²ULTY-V plus is a fully self-contained boiler control system that utilizes artificial intelligence (AI) to independently measure, analyze, and determine a whole range of boiler operations including fuel feed adjustment and steam pressure adjustment. ULTY-V plus has been implemented at over 100 different power stations globally.

Contact information for inquiries:
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