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Korea adopts a sustainable system to produce renewable biofuel energy

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Local firm Kinava launches green-waste-to-biofuel business and implements Hybrid Hydrothermal Carbonization technology



Korea's Green New Deal Policies focuses on realizing the sustainable growth in economic, social, and environmental sectors under the paradigm change for eco-friendly energy city. As witnessed in several large cities, a circular economic cooperation model is being established to overcome waste problems in overcrowded cities and industries.

The Korean government is trying to establish a society where waste is recirculated as a resource and their environmental abuse is decreased through the "Recirculation Resource Certification System". Established in 2018, the program minimizes the volume of wastes and manages the wastes to reuse them. Moreover, many organic wastes such as wood waste, livestock manure, food waste, sewage sludge, and industrial sludge that used to be dumped in the ocean are now being converted in many different ways to fertilizer or dried biofuel.

Kinava Co. and Korea East-West Power Co. launches a new technology of Hybrid Hydrothermal Carbonization (HTC) that costs only 1/3 of utilities and energy compared to conventional drying technology. The collaboration supports Hybrid Hydrothermal Carbonization Green Pellet Pilot Project, which demonstrates to convert sewage sludge and wood wastes to biosoild fuel at Dangjin Power Plant. High interest in renewable energy by the utility companies is accelerating waste to the energy business and investment from various investors including venture capitals. The government is investing hugely to support green energy projects both domestically and internationally.

The demands for the volume reduction of organic wastes, such as sewage sludge, food wastes, and livestock manures, are expanding in the United States as well as conversions to biosolid fuels. Therefore, employing the Hybrid Hydrothermal Carbonization with catalyst developed by Kinava's research team leads to effective treatment processes and outstanding high-caloric and eco-friendly biofuel businesses. It matches perfectly with conventional drying technology if the Hybrid HTC reactor is installed as a pre-processor of the dryer. It actually gives the same effect of double or triple up the capacity of dryer.