

Technical Information Sheet

1. Name of technology	Waste biomass power generation facility
2. Type of technology	This technology is used to directly burn sewage sludge and wood biomass with a fluidized bed boiler to generate electricity.
3. Description of technology Objective, application, characteristics, delivery record, and price of technology	<p>[Characteristics of the technology]</p> <p>Low-calorie sludge and high-calorie wood chips are burned well by a circulating fluidized bed boiler with high thermal efficiency to allow them to burn by themselves and to generate electricity efficiently. When 40 tons of sludge with a lower calorific value of 1 MJ/kg and 40 tons of wood biomass with a lower calorific value of 12.5 MJ/kg are burned together in one day, 980 kW of electricity can be generated.</p> <div data-bbox="628 611 1278 965" data-label="Diagram"> <p>The diagram, titled 'System concept', illustrates the process flow. On the left, 'Sewage treatment plant' and 'Effluent treatment plant, etc.' produce 'Sludge'. 'Biomass resources' also provide 'Wood chips'. 'Conversion to wood chip' is shown as a process. Both 'Sludge' and 'Wood chips' feed into a 'Biomass combustion boiler'. A thought bubble above the boiler says 'Stable treatment of sludge and wood resources'. The boiler produces 'Steam', which drives a 'Steam turbine' to generate 'RPS power'. A thought bubble next to the turbine says 'Contributing to reducing greenhouse gas emissions'. The power is sent to a 'Transmission network'. Another thought bubble at the bottom says 'Creation of a new biomass industry'. A final thought bubble at the bottom left says 'Effective utilization of biomass resources'.</p> </div> <p>[Price and other inquiries]</p> <p>Engineering Planning Department (Tokyo), Planning and Development Center, TAKUMA Co., Ltd. Person in charge: Susumu Uno TEL: 03-5822-7894 (Direct) FAX: 03-5822-7895</p>
4. Classification of technology	
(1) Applicable fields	Municipal solid waste treatment, Industrial waste treatment, Recycling (thermal)
(2) Target waste	Other (sewage sludge and wood biomass)
(3) Services provided	Plant construction, Sales of machinery and equipment, Waste treatment service, Technical cooperation/licensing, Environmental impact assessment, Survey/data processing, Other
5. Countries to which this technology can be provided	No limitations have been placed on country or region.
6. Keywords	Sewage sludge, wood biomass, power generation
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