

Hampanan: Transforming the Agricultural Value-Chain with the Power of Biogas

Indonesia / Asia



PLN



PROJECT DESCRIPTION

- In Indonesia, over 90% of food processors lack modern systems to treat wastewater and reduce methane emissions.
- The lack of wastewater treatment systems contributes to water pollution and produces greenhouse gas emissions equivalent to the emissions of 10 million cars each year.
- The Hampanan cassava starch factory extracts tapioca flour - a key ingredient in Indonesian cuisine - from casava roots and generates substantial fugitive methane emissions and water pollution, equivalent to that of a 300,000-person city.
- Gree Energy developed a biogas solution at the Hampanan mill to treat the industrial wastewater and capture and transform methane into renewable energy that provides power to 19 nearby villages.

RESULTS ACHIEVED

- Avoids 30,000 tCO₂e/year, equivalent to removing 6,000 cars from the road/year.
- Avoids 4,000 tons of hydrogen sulfide emissions and 1,800 tons of methane emission per year, contributing to clean air.
- Generates 10.1 gigawatt hours (GWh) of net electricity per year, enough to supply 18,000 people with clean and reliable energy.
- Removed more than 97% organic pollution and achieved 93% net energy efficiency of biogas-to-energy systems to date.

PARTNERS INVOLVED IN PROJECT

- Gree Energy
- PT Hampanan Bumi Mas Abadi
- Cenergi
- PT. PLN
- Agence Française de Développement (AFD)
- French Facility for Global Environment (FFEM)

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