



Jiratpattana Biogas Energy



Carbon offset funds enabled the construction of a biomass based power generation plant in the province of Kalasin, Thailand, which represents a sustainable alternative to conventional, fossil fuel electricity generation. The project achieved Voluntary Carbon Standard certification in 2008.

HOW IT WORKS

Waste water from Jirapattana Agriculture's mustard processing plant was flowing through 9 nearby lagoons, releasing methane gas as organic material broke down.

A Covered In-Ground Anaerobic Reactor (CIGAR) removes organic material from waste water and uses it to produce biogas, which then fuels a biomass-based power generation plant with an installed capacity of 2 x 1.05 MW. Energy is used for the factories' energy demands, replacing over 6 million litres of fuel oil. Excess biogas energy provides electricity for the Thai National grid and any additional methane is flared rather than released into the atmosphere.

CARBON OFFSETS MADE IT HAPPEN

Without offset funds the financial payback for this installation would not have been viable. The installation yields savings in GHG emissions compared to the traditional approach of burning fuel for electricity generation. This also stands as a model for energy innovation and a switch to a lower carbon future.

OTHER BENEFITS OF THE INSTALLATION



Biomass-based power generation increases the diversity and security of Thailand's energy supply, reducing the need to import energy from overseas, with a positive effect on Thailand's balance of payment. The project also creates temporary employment opportunities during construction and new, permanent employment opportunities throughout operation.

PROJECT AT A GLANCE

Project Location:	Kalasin, Thailand
Project Type:	Biomass-based power generation
Standard:	Voluntary Carbon Standard
Credits generated per year:	25,000 tCO ₂ e
Equivalent # of cars removed from the road annually:	4,336 (Based on EPA GHG Equivalency Calculator)
Verifier:	SGS United Kingdom Ltd
Project Start:	2005
Technical Longevity:	10 years