

ADTech-SAB2018 Excursion, 07 June, 2018:

Solid Waste to Energy for Agro-processing Use

Project of Chiang Mai MSW Management, Baan Than Landfill Gas Energy Site, Chiang Mai,
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Municipal solid waste (MSW) landfills are a major man-made source of greenhouse gas [CH₄] emission. With a global warming potential more than 25 times greater than CO₂ and a short [12-year] atmospheric life, methane is a potent greenhouse gas that is a key contributor to global climate change. Given that all landfills generate methane; it makes sense to use the gas for the beneficial purpose of energy generation rather than emitting it to the atmosphere. A reduction of methane free emissions from MSW landfills is one of the best ways to achieve a near-term beneficial impact in mitigating global climate change. In this case, anaerobic digestion both of landfill itself and/or leachate digestion is an emerging technology.



Top-view of Baan Than Landfill Gas to Energy Site

Baan Than landfill gas energy site locates in Hod district, about one and a half hour from Chiang Mai city. This LFGS is harnessing the power of landfill gas [LFG] energy provides environmental and economic benefits to landfills, energy users, and the community in Hod district. LFG is a natural by-product of the decomposition 600 tons/day of organic material in municipal solid waste [MSW] from Chiang Mai city in anaerobic conditions. LFG contains roughly 50 percent methane and 50 percent carbon dioxide, with less than 1 percent non-methane organic compounds and trace amounts of inorganic compounds. After collection, LFG can either be flared or used in an energy recovery system to combust the methane and other trace contaminants. Using LFG in an energy recovery system usually requires some treatment of the LFG to remove excess moisture, particulates, and other impurities. The recovered LFG was used for generating both electricity and heat. The number and diversity of direct-use LFG applications for longan drying is developed.



Baan Rai Pai Kham is a traditional Lanna folk museum located in Hod district, Chiang Mai Thailand. This is a village of traditional hand-woven cotton fabric production, collected and transported the wisdom of 'aunt Dana light Artists' rights, the national record



Wat Phrathatsrijomthong, formerly Wat Phra Chao Chom Si. Located in Chiang Mai-Hod Moo 2, Tambon Ban Luang, Chom Thong, Chiang Mai. Away from the city of Chiang Mai, about 58 kilometers. Wat Phrathatsrijomthong a royal temple of Wat grade area since 2506 started. A mound about 10 meters high, known in the past as Doi Thong. The temple is built around. 20th century.

Excursion program*

07.30-9.00

Start the program, leave the Empress hotel

09.00-12.00

Site visit (landfill station & gas station)

12.00-14.00

Lunch at folk museum "Baan Rai Pai Kham"

14.00-15.00

Visit Prathatsrijomthong

15.00-16.00

Visit Wat Ton Kwen

16.00-17.00

Back to the empress hotel

* subject to change depending on the weather condition.

