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Non-technical summary of the project: "Metro Group Energy WWT Project"

"Metro Group Energy WWT Project" is being implemented by Metro Group Energy Co., Ltd at the Chaophyapeuchrai 2999 (Kamphaengphet) Co., Ltd., a tapioca starch processing plant in the north of Thailand (Prankatai district, Kamphaengphet province). The starch plant has a design starch production capacity of 250 tonne per day.

At present, the wastewater from the starch plant is treated through open lagoons. There is a suitable anaerobic environment with the ponds that will result in the breakdown of organic compounds in the wastewater. This consequently leads to methane generation from the organic content. Methane is one of the greenhouse gases which cause global warming. In addition, this system can also lead to odour.

The proposed project activity entails the installation of an anaerobic wastewater treatment facility, based on "Up flow Anaerobic Sludge Blanket" (UASB) system, to complement the existing open lagoon based system. The implementing system enables recovery of methane that would have been released into the atmosphere and utilize it for thermal and electricity generation. In the case of thermal energy generation, the captured methane will be fired in existing heat generating device for the process of drying the wet starch (displacing fuel oil under the previous system). In addition, the power produced by the captured methane may not only facilitate the electricity requirement of the plant but can also be fed to national grid under the power purchase agreement with the Provincial Electricity Authority (PEA).

Not only the project activity contributes to a reduction of anthropogenic GHG emissions, it also delivers a number of other benefits e.g. biogas utilisation, reducing odour etc.

Project progress and timeline

Project Progress	When
Letter of intention to Thai DNA (Thai Greenhouse Gas Management Organisation)	October 2008
Contract with the biogas contractor	May 2009
Local Stakeholder Consultation	Sept 2009
Stakeholder Feedback Round (open for comments for at least 2 months from December 2010 to January 2011)	Jan 2011
The biogas system is expected to finish and start commissioning	Jan 2011