



E46250

**ESTABLISHMENT OF PROTOTYPE NETWORK OF COMMUNITY
COOPERATION FOR ENERGY PRODUCTION FROM BIO-WASTE**

MR. KITTINUN BOONROD

ID: 50920102

**A THESIS SUBMITTED AS A PART OF THE REQUIREMENTS
FOR THE DEGREE OF DOCTOR OF PHILOSOPHY
IN ENVIRONMENTAL TECHNOLOGY**

**THE JOINT GRADUATE SCHOOL OF ENERGY AND ENVIRONMENT
AT KING MONCKUT'S UNIVERSITY OF TECHNOLOGY THONBURI**

1st SEMESTER 2010

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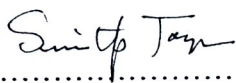
Mr.Kittinun Boonrod
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The Joint Graduate School of Energy and Environment
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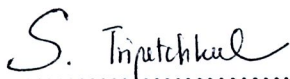
1st Semester 2010

Thesis Committee




.....
(Assoc. Prof. Dr. Sirintornthep Towprayoon)

Chairman



.....
(Asst. Prof. Dr. Sudarut Tripetchkul)

Member



.....
(Dr. Sebastien Bonnet)

Member



.....
(Prof. Dr. Chongrak Polprasert)

External Examiner

Thesis Title: Establishment of Prototype Network of Community Cooperation
for Energy Production from Bio-Waste

Student's name: Kittinun Boonrod

Organization: JGSEE KMUTT

Telephone: 66-2-5837742

Email: Kittinun.b@gmail.com

Supervisor's name: Assoc. Prof. Dr. Sirintornthep Towprayoon

Organization: JGSEE KMUTT

Telephone: 66-2-4708309

Fax number: 66-2-8726736

Email: Sirin@jgsee.kmutt.ac.th

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Student's name: Kittinun Boonrod

Organization: JGSEE KMUTT

Telephone: 66-2-5837742

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Organization: JGSEE KMUTT

Telephone: 66-2-4708309

Fax number: 66-2-8726736

Email: Sirin@jgsee.kmutt.ac.th

Topic: Establishment of prototype network of community cooperation for energy production from Bio-waste

Name of student: Mr. Kittinun Boonrod

Student ID: 50920102

Name of Supervisor: Assoc. Prof. Dr. Sirintornthep Towprayoon

ABSTRACT

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This study mentions on enhance separation at sources practice especially by Bio-waste which as obstacle for Bio-waste to energy project. The result as information for appropriate management plan in sustainably which could decrease investment cost of waste disposal but rise on efficiency. The methodologies are divided in to 2 steps. (1) Survey research, to analysis influential factor of waste management behavior i.e. Bio-waste separation and acceptance with Bio-waste to energy project which applied by Binary Logistic Model for analyzed. The result is implemented to assign campaign for improving waste management behavior. (2) Operational research, to create a network of Bio-waste separation at source, supporting the electricity generation by anaerobic digestion method. Motivate mechanisms which based on economic incentives are implemented i.e. voluntary, reward and community business, to investigate efficiency for management plan in future.

According Survey research, the effectiveness campaign which importance and suitable to strongly promote such as Campaign for improving economic incentive. This is able to enhance acceptance with Bio-waste to energy project and Bio-waste separation practice especially on commercial city, which as a target to analysis in operational research.

According Operational research, motivate mechanism can be increasing volume of Bio-waste separated at sources from voluntary mechanism significantly. The efficiency of incentive mechanism is 46.00% by reward mechanism and 66.0% by community business mechanism. Meaning that, the potency of incentive mechanism has increase opportunity for promote Bio-waste to energy model with small scale area, not need budget for created of separation mill which highly cost for set up. So, Bio-waste to energy project has been popular for more implementation around this country in future

Key word: Prototype community, Bio-waste to energy, Public participation, Motivate mechanism, Enhancing waste management practice and Scheme for Bio-waste separation.

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