

ABSTRACT

Heat and power energy from biomass resources was conducted under a joint research project between Thai-Japanese scientists to investigate thermal conversion of biomass materials for an alternative energy. Research module deals with an innovative concept on pyrolytic conversion laboratory apparatus and pilot scale (upflow system) adapted from Japanese scientist's original concept. Efficiency and performance tests were evaluated for future appropriated technology transfer on potential utilization of thermally produced energy by integrated rural systems.

Experimental results (R&D) reported in this report indicated that heat and power energy from biomass were appreciated at laboratory scale. Efficiency tests with proper equipments on economical and practical aspects need more furthered investigation.