SEMINAR SERIES

International Institute for Carbon-Neutral Energy Research
Kyushu University

Title Perspective of progress of Energy Policy in Indonesia

Speaker Dr. Unggul Priyanto

Chairman, Agency for Assessment and Application of Technology (BPPT)
Indonesia

Abstract

Most of fuel in Indonesia is currently still dominated by fossil fuels, especially coal and oil followed by natural gas. Moreover, there is subsidies in utilization of fossil fuels, especially electricity and fuel. On the other hand, Indonesia has potential of renewable energy sources. In the future, the energy demand will have developed inline with growth rate. Energy demand calculation in the future is simulated by model developed at BPPT (Markal (Market Allocation). Indonesia will become a Net Energy Importer Country in 2027. This will be due to the rapid energy demand unbalanced by insufficient domestic energy production to suppy domestic energy demand. It is projected that there will be a shift in energy mix from oil dominated mix towards coal dominated mix which will contribute to almost half of total national energy supply and to a more increasing role of new and renewable energy. Among all new and renewable energy types, geothermal energy and biofules are estimated to experience the largest growth.

Title Biohydrogen Production Using Palm Oil Mill Effluent

Speaker Dr. Eniya Listiani Dewi

Deputy Chairperson of Technology for Agroindustrial and Biotechnology,
BPPT, Indonesia

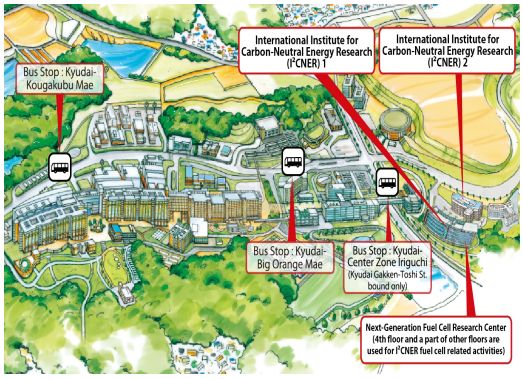
Abstract

Indonesia is the second largest producer of palm oil in the world. As a result, the waste produced from palm oil processing will be higher. The waste or palm oil mill effluent (POME) produced a huge of methane having 21 times Global Warming Potential (GWP) compared to the other gasses. Wastewater treatment facility is amongt the most important component in the palm oil mill system. This is because the facility is to treatment palm oil mill effluent (POME) that is being generated in large volume during the production of crude palm oil (CPO). It is a good way if it can be utilized as a clean fuel for power generation. Hydrogen is a cleanest fuel that can be produced from waste. BPPT, Indonesia has done the biohydrogen production from POME. Biohydrogen was produced from POME as carbon sources though bacteria metabolism. In this case, the bacteria was obtained from natural environment such as POME waste water sludge. POME having COD 20.000 – 40.000 mg/L and the sludge were fed to the fermentor. The biogas production was found that the biogas flowrate was 325 ml/L-POME/h with 30% hydrogen content.

Date & Time Tuesday, October 6, 2015 11:00 a.m.

Place Meeting room, 2nd floor, I²CNER Bldg., Ito campus, Kyushu University

Host: Assist. Professor Masamichi Nishihara



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http://i2cner.kyushu-u.ac.jp/

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