

Beyond Compliance : IP Local Community Empowerment to Utilize Municipal Solid Waste (MSW) Enrichment as Alternative Clean Fuel for Power Generation

**Sugeng Triyono, IGAN Subawa Putra, Tarwaji, Mochamad Soleh
Engineering Departement, PT Indonesia Power
Jakarta, Indonesia**

Keywords: (*Community, empowerment, municipal solid waste, alternative fuel*)

Abstract

PT. Indonesia Power (IP) always seek ways to fulfill its mission as an environmentally friendly energy company as well as fulfilling environmental national regulation to keep greenhouse gas emission low.

Bali Province has established itself as a green province, thus would align with IP mission. As a tourist destination island, Bali as well as other island, have problem with municipal solid waste. IP together with STT PLN proposed Bali Province Government especially Klungkung Region localized municipal waste processing plant (TOSS) as solution to solve Bali island municipal solid waste problem.

The solution comprehends from managing the municipal solid waste from the source, collection, sorting, enrichment and processing to used further as clean fuel in power generation plant.

This solution, for the government improve waste management cost effectiveness, for the local communities empowered by education, training and facilitation to manage the municipal solid waste, from collecting, enrichment and processing to become alternative fuel.

The alternative fuel resulted, is then used in power generation plant, in two schemes. First, used in distributed generation plant, using gasifier & diesel engine to provide electricity in local community through low voltage distribution lines. Second, used as clean bio energy coal substitution coal in grid connected coal fired power plant, to reduce greenhouse gas emission. This solution scheme is proved to successful, in all aspect, from local community empowerment to providing clean energy from alternative clean fuel, which then brings IP to be beyond regulation compliance.

note: This document will be opened to the participants on IERE website before the Workshop and opened to the public afterward.