Biomass Conversion Technology for Combined Heat and Power in the Philippines

Regional Workshop on Overcoming Critical Bottlenecks to Accelerate Renewable Energy Deployment in ASEAN+6 Countries

June 14, 2016 Bangkok, Thailand

Ruby B. De Guzman

Department of Energy

Philippines

Existing Biomass Conversion Technology for Combined Heat and Power

Technology	Feedstock	
1. Direct Combustion (Steam-Turbine-Generator)	• Rice Hull/Stalks • Bagasse • Sugarcane Trash • Woodchips/Saw Dust • Corn cobs/Trashes	• Coconut husk and shell • Palm shells/fruit fibers/empty fruit bunches • Bamboo • Napier Grass
2. Landfill Gas Extraction	• Landfill Municipal Solid Waste (MSW)	
3. Biomethanation	• MSW Organic Fractions • Animal Wastes • Food Processing Wastes • Distillery Wastes • Napier Grass	
4. Gasification	• MSW	

Opportunities and Challenges

OPPORTUNITIES	CHALLENGES

Enactment of Renewable Energy Act of 2008 (RA No. 9513)
• Fiscal Incentives
• Mandatory Utilization of RE Resources
  • FIT
  • RPS
• Other Market Options
  • Net Metering
  • Green Energy Options
• Priority and Must Dispatch
	Feedstock supply, sustainability, price and competing use

Opportunities and Challenges

OPPORTUNITIES	CHALLENGES
Available land for feedstock plantation areas	Conversion of agricultural land to energy crop plantation areas
High power demand due to increasing economy	Technology benchmark especially for emerging feedstock (napier grass/MSW, others)
	Awareness and social acceptance
	Streamlining of administrative processes
	Full implementation of policy mechanisms under RE Law

THANK YOU!!!

www.doe.gov.ph

ruby.deguzman@doe.gov.ph