

Stepping through PLN's strategy for solar rural electrification

Vickner Sinaga

Director of Operation on East Indonesia, PT. PLN (Persero)

Bali

14 – 16 May 2012



DIVISION OF THE OPERATION AREA



EASTERN INDONESIA

Land	1,157,536 km ² (62% of the National)
Population	42,094,607 (17% of the National - 2010)
Government	15 Province (of the 33 National)
	205 Regency
	27 City
Electrification	62% (Dec. 2011)
Customers	5,818,000 (12% of the National, Dec 2011)
Sales	12,546 GWh (8% of the National - 2011)
Peak Load	2,600 MW

Road Map to 1,000 Islands of Solar Power

2010	2011	2012	2013	2014 / 2015
<ul style="list-style-type: none">- Concept- Modeling, 5 kWp Bunaken Solar Power.	<p>Pilot projects (1 MWp):</p> <ol style="list-style-type: none">1. Bunaken2. Derawan3. Raja Empat4. Gili Trawangan5. Naira6. Tomia <p>+ 1,234 Solar Home System.</p>	<p>100 Islands (23 MWp)</p> <p>+ 200,000 Solar Home System</p>	<p>400 Islands (60 MWp)</p> <p>+ 300,000 Solar Home System</p>	<p>1,000 Islands (160 MWp)</p>
Eastern Indonesia			Indonesia	

Site Selection Criteria

- 1. Transportation difficulties:**
 - a. Fuel*
 - b. Sparepart*
 - c. Weather Condition*
- 2. Island/Area without other resources.**
- 3. Specific location:**
 - a. The outer islands*
 - b. Government administration*
- 4. Solar Irradiance**

Strategic Issues

1. Demand Side Management
2. Off grid vs Hybrid:
 - a. *Miangas 85 kWp Off grid*
 - b. *Bunaken 340 kWp Hybrid:*
 - *Optimization of the Existing Grid*
 - *From 12 hours to 24 hours services*
 - *Extendable*



The end