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2 CONTENT

1. Supporting Regulation
2. PLN Policy
3. Business Process Flow
4. Business Aspect

3 GOV. REGULATION

- ❖ President Decree No.5/2006
For : Primary Energy Consumption Targets in 2025
 - 17% from Alternative energy :
 - Biofuel 5%
 - Geothermal 5%
 - Biomass, Nuclear, Hydro Solar, **Wind** 5%
 - Coal liquifaction 2%

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- ❖ Ministry of Energy & Mineral Resources Decree No.1122.K/30/MEM/2002 for :
The Scattered Small Scale Power Plant Business Guidance
- ❖ Ministry of Energy & Mineral Resources Regulation No.002 / 2006 for :
Renewable Medium Scale Power Plant Business Guidance
- ❖ Ministry of Energy & Mineral Resources Regulation No.05 / 2009 for :
Guidance of Electricity Purchasing Price by PLN from Cooperation and Private Company

5 PLN REGULATION

- ❖ Directors Guidance No.009E/DIR/2008 for:
Decentralization of Authorities to PLN Units for Electricity Purchasing from RE and Non Oil Power Plant
- ❖ Directors Decree No. 022 K/DIR/2008 for :
Socialization Tim for Implementation of Electricity Purchasing from RE and Non Oil Power Plant.

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2. PLN POLICY

7 PLN POWER PLANT DEVELOPMENT POLICY

- **Non oil power plant development**
- **Non oil primary energy utilities (coal, natural gas etc) for PLN power plant**
- **Alternative-renewable energy sources utility (hydro power, geothermal, biomass, biofuel, solar, wind etc.) as long as in technical & financial feasible**

- **Reduce of oil consumption for power plant operation composition from 33 % (2007) to 3 % in 2012**

8 **OIL TO ALTERNATIVE ENERGY CONVERSION PROGRAM**

Alternative Energy

- Renewable Energy utilities (geothermal, hydro, solar, **wind**)
- New Energy utilities (biomass, biogas etc)
- Coal gasification
- Biofuel/Biodiesel utilities

9 **UTILITIES OF RENEWABLE-ALTERNATIVE ENERGY FOR POWER PLANT**

- Technical, economical and financial feasible
- As a substitution of diesel PP, to reduce oil consumption
- Majority from small scale, from rural areas, especially for outside of Java island
- Developing by private participation and PLN as a partnership
- Availability of infrastructure support to reduce investment cost

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3. BUSINESS PROCESS FLOW

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PLN INTERNAL PROCESS AND ITS ISSUANCE PERMEN ESDM NO.05/2009

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4. BUSINESS ASPECTS

14 **The RE Progress**

1. More private company participation since applied the IPP policy in RE. Several PP already operation by IPP scheme, especially Mini/Micro Hydro
2. Most developed in IPP scheme for RE are Mini & Micro Hydro PP. Biomass is ready to developed (EFB, Shell & Fiber, Rice Husk etc)
3. Wind : Pilot Project

15 **Price Policy (1)**

For IPP Developing :

- Capacity classification :
 - Up to 1 MW
 - 1 MW to 10 MW
 - > 10 MW
- The price is Average Ceiling Price for up to 10 MW
- Price for > 10 MW based on Project Estimated Price
- Staging Price applied as incentive for :
 - Up to 10 MW : 5 years first & 10 yrs second
 - > 10 MW : 10 years first & 20 yrs second
- The first 5 (up to 10 MW) and 10 years (>10 MW) prices are higher to speed up the investment pay back

16 **Price Policy (2)**

- **Regional Tariff Applied for :**

- Java, Madura & Bali
- Sumatra & Sulawesi
- Kalimantan, West Nusatenggara & East Nusatenggara
- Maluku & Papua
- **Currency for Tariff :**
 - Up to 10 MW in Rupiah
 - > 10 MW in US \$
- **Final price in contract through negotiation adjusted to the project location condition**

17  **Wind IPP Prospect**

- **Great opportunity for RE to IPP Scheme include Wind.**
- **Wind Problems :**
 - Tropical area wind resources
 - Capacity factor
 - Investment cost
 - Economically tariff

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