COGENERATION's STATUS in CAMBODIA

Country paper for the COGEN 3: Cogeneration Seminar

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Introduction

- Cambodia is one of the South East Asia country, bordered by Lao PDR in the north-east, by Thailand in the west and the north-west and by Vietnam in the east and south;
- Area:181,035Km^2;
- Population: 11.4 million,85% living in rural area;
- Capital: Phnom Penh with 1.2mio. Population;
- GDP per Capita: US$ 260 in2000.

Map of Kingdom of Cambodia

Energy Situation

- **Cambodia power infrastructure just improve after several damage by year of wars;**
- **The country has indication of deposit of energy resources such as oil and gas and coal but need more detailed studies;**
- **Wood fuel contributes about 84% of the primary energy consumption;**
- **At present electricity supply are fully relying on imported fuel oil, tariff is very high in the region 15-50USCents/kWh;**
- **Less than 10% of rural household has access to electricity.**

Energy Situation “cont’e”

- **Biomass: no electricity production from fuel wood at present;**
- **Support from NEDO will construct 1 biogas (2X35kW) combined with 50kWp PV system;**
- **The exploited hydropower potential is still very low 13MW among 10,000MW;**
- **PV system just start the application with total installed capacity of 700kWp;**
- **Wind energy potential has not yet been assessed;**
- **in order to promote Renewable Energy Development the Government has formulated Rural Renewable Electricity Policy, Strategy and Plan;**

Energy Situation “cont’e”

- **Next 5 years goal are:**

- 6 MW generating capacity will come from Renewable Energy technology;
- 10,000 solar home systems installed;
- At least 50 to 100 persons technically trained to promote and support RE development;
- 3 commercially economic, grid connected mini-hydropower projects;
- economically profitable and growing, private sector operated RE businesses

Cogeneration's Status

- **Cogeneration technology is relative new to Cambodia;**
- **Thanks EC-ASEAN Cogen Programme Phase 3 for introducing us since August 2002;**
- **Through COGEN3, we expecte that 1 project will be complete at the end of this year which will use the rice husk with 1.5MW installed capacity;**
- **Other cogeneration projects are expeted to be developed in the future base on rice husk, waste from wood, from cashnut and palm oil factories and sugar cane bagasse.**

Barriers for Cogeneration

- **Lack of awareness;**
- **Lack of policy and framework;**
- **Lack of data and information on market characteristics;**
- **Lack of experiences and funds.**

Conclusion

- **The cogeneration development is still at the beginning stage and need more support from the Royal Government to overcome serious barriers to promote its technologies and to facilitate private sector participation;**
- **Need assistance from other countires in training, study and develpment of this kind of technology.**