



The 5<sup>th</sup> Workshop of Petroleum Policy and  
Management Project Cambodia Case Study

**National Policy on Energy and  
Supply- Demand Scenario**

By

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**Outline**

1. The government Institution and Policy
2. Energy Demand and Supply
3. The Challenges
4. Conclusion



## The Government Institutions

- Four government institutions directly in charge for energy sector:
- 1- Cambodian National Petroleum Authority (CNPA)  
(established in 1998 by the Royal decree) is responsible for
  - Managing the development of petroleum industry
  - Licensing
  - Regulator
  - Policymaker



## The Government Institution

- 2- **Electricity Authority of Cambodia (EAC)**
  - Regulator (Enforce regulation, procedures and standards for investment program)
  - Pricing (Approval tariff rate)
  - Licensing

Electricity Law, Chapter III, Article 6 (The Electricity Authority of Cambodia is the legal public entity, being granted the right by the Royal Government to be an autonomous agency to regulate the electric power services and to govern the relation between the delivery, receiving and use of electricity).



## The Government Institution

### 3- Ministry of Industry, Mines and Energy (MIME).

- Policy maker
- Planning
- Strategy Frameworks

Electricity Law, Chapter II, Article 3

(The Ministry of Industry, Mines and Energy shall be responsible for setting and administrating the government policies, strategies and planning in the power sector. The electricity Authority of Cambodia shall ensure that the provision of services and the use of electricity shall be performed efficiently, qualitatively, sustain ably and in a transparent manner).



## The Government Institutions

### 4- National Energy and Gas Development Working Group (established on 8 August 2001 by the Government decree)

Key responsibilities

- Devise and document an appropriate national policy for development and operation of Cambodia' energy sector.
- Co-ordinate consultation on these matters between the Royal Government and the private sector.
- Evaluate Cambodia's capacity to supply gas to power plant.
- Advise the Government on the appropriate technical financial, legal and other arrangements.



## The Government Policy

- To provide an adequate supply of energy throughout Cambodia at reasonable and affordable price,
- To ensure a reliable, secure electricity supply at prices, which facilitate investment in Cambodia and development of the national economy,
- To encourage exploration and environmentally and socially acceptable development of energy resources needed for supply to all sectors of the Cambodian economy,
- To encourage efficient use of energy and to minimize detrimental environmental effects resulting from energy supply and use.



## The Government policy

- Interconnections with neighbouring countries and ASEAN Power Grid.
- To create a legal, fiscal and regulative environment which encourages and rewards international investment in Cambodia sector, including necessary infrastructure
- Commercialisation of state-owned corporations,
- Private sector participation in Provincial and Rural Electrification.
- Raising rate access to reliable and good quality electricity services.
- Encourage domestic energy sources exploration. (open for private sector).



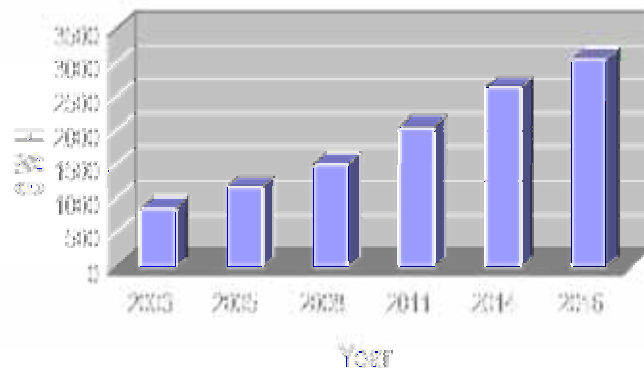
## Demand and Supply

- 84% of the primary energy consumption is contributed by fuel wood.
- Totally less than 15% of households have access to electricity.
- Less than 9% of rural households have access to a grid-quality electricity services.
- Per capita consumption is only about 48 kWh / year
- IPPs- producer and Electricité du Cambodge (EDC)- producer and distributor.
- Electricity supply from power plant of IPPs and EDC.
- Power import from Viet Nam 80 MW for the first step and from Thailand 20 MW.



## Demand and Supply

Power Demand in Cambodia 2003-2016





## Demand and Supply

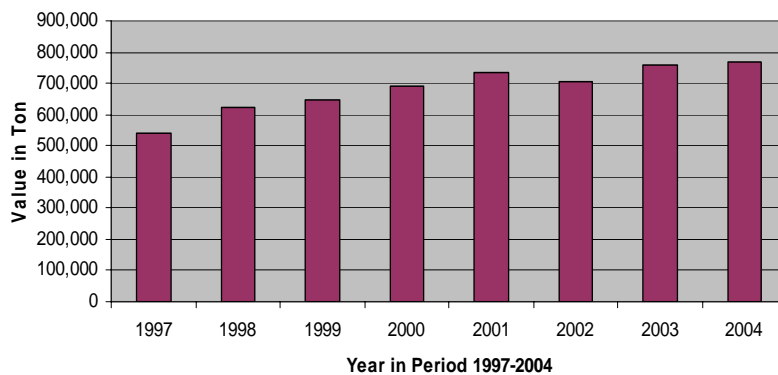
### Petroleum Sector

- All commercial fuels in Cambodia are imported in the form of LPG, gasoline, diesel and other petroleum products.
- Petroleum products demand growth by 9-10% per year in recent year and the same trends continue in coming several years.\*
- Diesel and Gasoline are the major imported petroleum products



## Demand and Supply

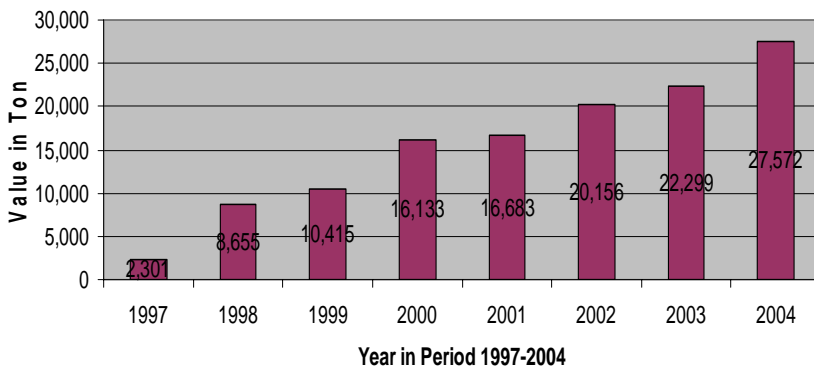
Value of Imported Petroleum Products in Cambodia 1997-2004





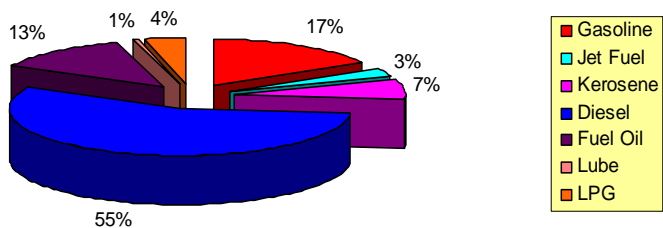
## Demand and Supply

### LPG Imported in Cambodia 1997-2004



## Demand and Supply

### Volume % of Individual Petroleum Products Imported in 2002





## The Challenges

### Power Sector

- High price (average tariff US\$16cents/KWh, in rural area US\$25 cents/KWh )
- Economic growth (ranging 4%-6% )
- Finance (for exploration, infrastructure..... )
- Increase demand (12.1% for power sector)
- Technical (transmission line loss 14%, poor maintenance, small system size with no national grid )
- Competition (Small-scale diesel-based generation used by EDC is not competitive with the self generation used by some industrial, commercial customers and hotels )
- Human Resource (skill, experiences...)
- Poor data and management (Lack of coordination among concerned stakeholders such as government, donors, NGOs, private sector, financial institution)
- Policy and legal framework (law, regulations..... )



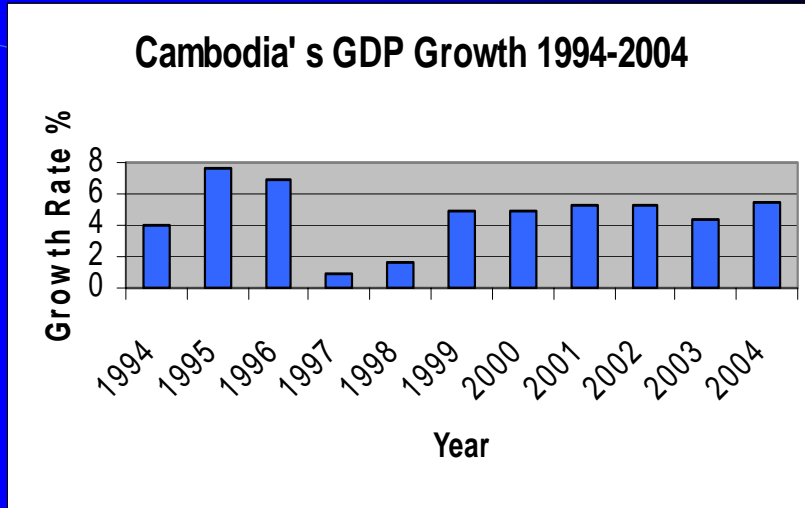
## The Challenges

### Petroleum Sector

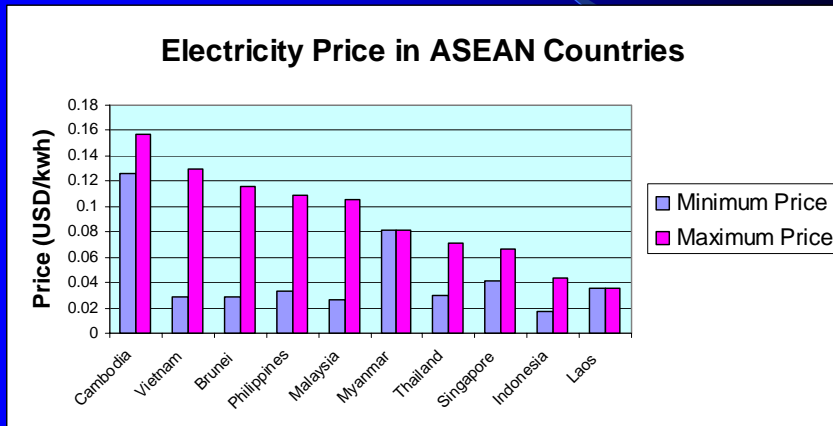
- High price (world oil price and Import Tax).
- Economic growth (ranging 4%-6% )
- Finance (for exploration, infrastructure..... )
- Increase demand (growth industry, increased the vehicles number..... )
- Human Resource (in CNPA most of technical persons are more than 35 years old, skill, experiences...)
- Poor data and management (Lack of coordination among concerned stakeholders such as government, donors, NGOs, private sector, financial institution)
- Policy and legal frameworks (petroleum law, regulation.. )
- No refinery



## Cambodia Real GDP Growth



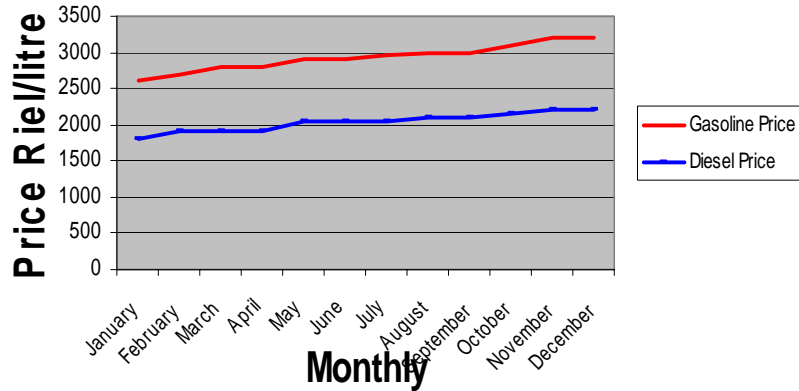
## Regional Electricity Price





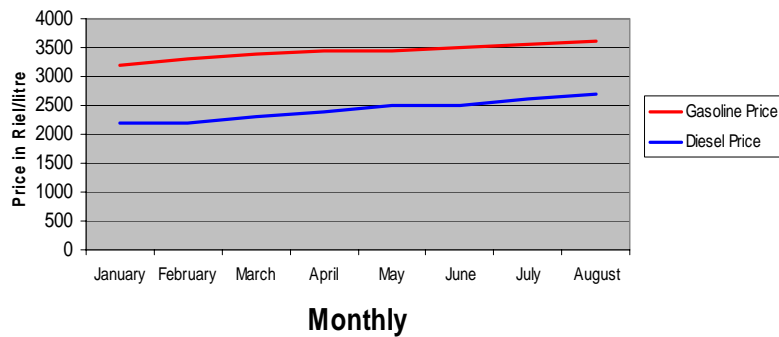
## Fuel Price in Cambodia

### Cambodia Fuel Price in 2004



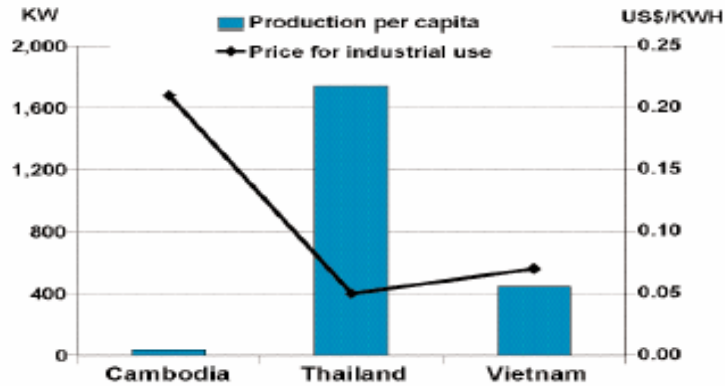
## Fuel Price In Cambodia

### Cambodia Fuel Price in 2005



## Comparison of Production of Electricity per Capita and Price for Industry Use

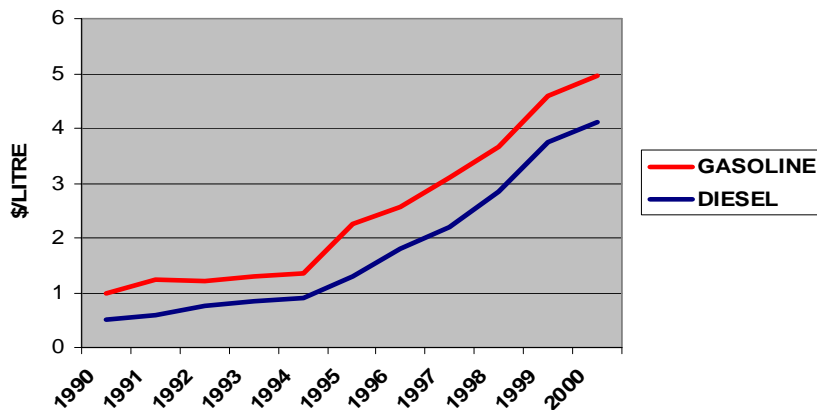
Figure 1: Production of Electricity per Capita and Price for Industrial Use, 2002



Source: EIC, compiled from various sources

## Gasoline Price in Developing Countries

MEXICAN FUEL PRICES 1990-2000





## Conclusion

- Recruit right companies.
- Policy and strategy have to be tailor made
- Legal Frameworks (Incentive Regime for Renewable Energy).
- Refinery
- Infrastructure
- Fiscal Regime