Power sector Policy ,Legal and regulatory Frame work
Sri Lanka

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Out Line

- Country information
- Overview of Sri Lankan Power Sector
- National Energy Policy
- Regulatory frame work
- India-Sri Lanka Electricity Grid Interconnection Project

Sri Lanka

- Population : 20 million
- Area : 65610 sq km
- Population density : 326 persons/sq km
- Literacy rate : 91.3%
- Life expectancy : 70 yrs (M), 78 yrs (F)

Power Sector Overview

- Hydro, Wind, Biomass, Solar - only indigenous resources
- No proven oil, gas or coal resources
- Large hydro resources developed to a great extent

Electricity Data for 2012

- Installed capacity - 3312 MW
- Peak Demand - 2146 MW
- Energy Generated - 11801GWh
- Energy Mix - Hydro 42% Thermal 57%
- Demand growth - 6.5%
- System losses (Trans.and Dis.)- 10.67%
- Access to Electricity - 94%
- Per Capita Elec. Consumption - 515kWh

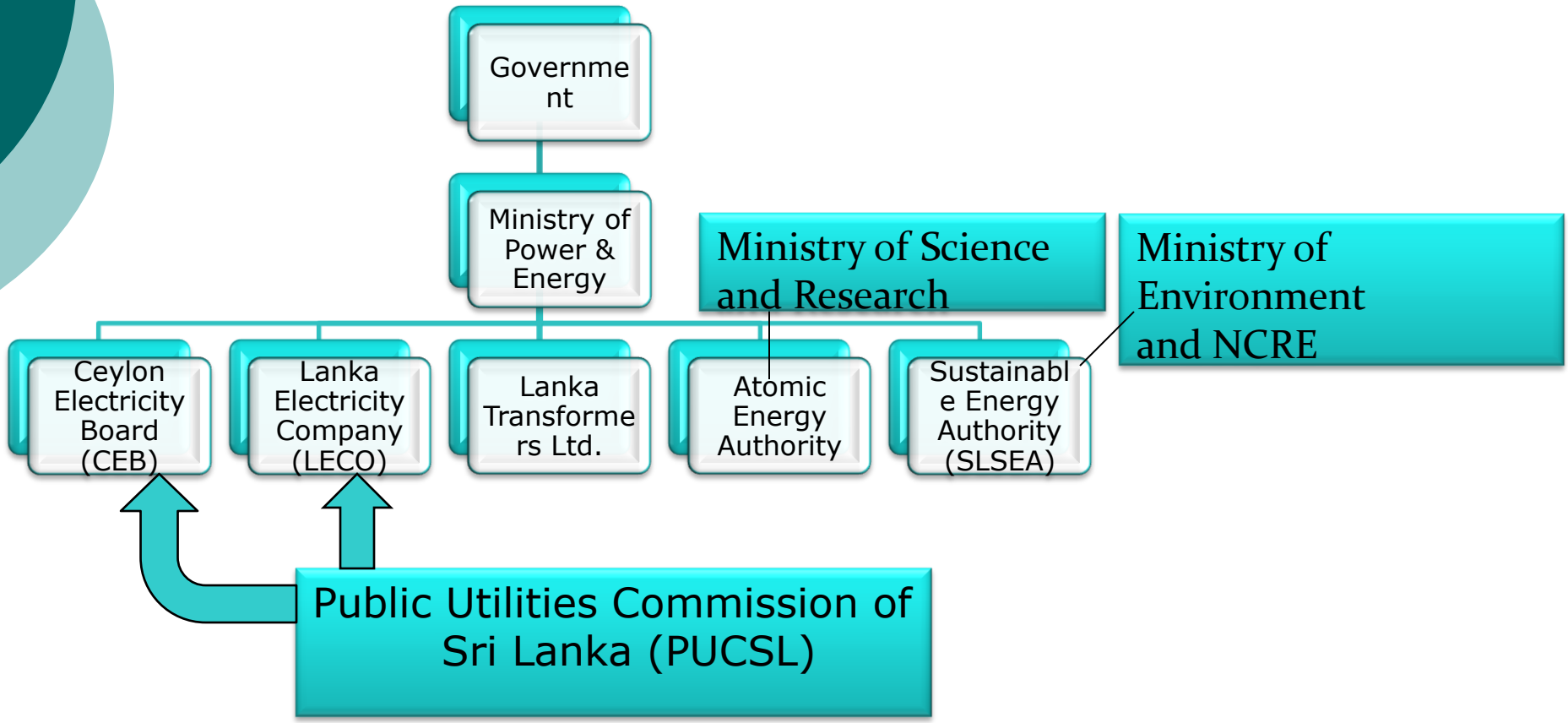
Capacity of the Power System

- Hydro 1357MW
- Thermal 1638 MW

  (CEB :854, IPP: 784)
- Non Conventional Renewable Energy : 300MW

(Mini hydro 215MW, Bio mass11.5MW, wind 73MW,Solar 1.4MW)

Structure of the Sri Lankan Power Sector



General Policy Guidelines

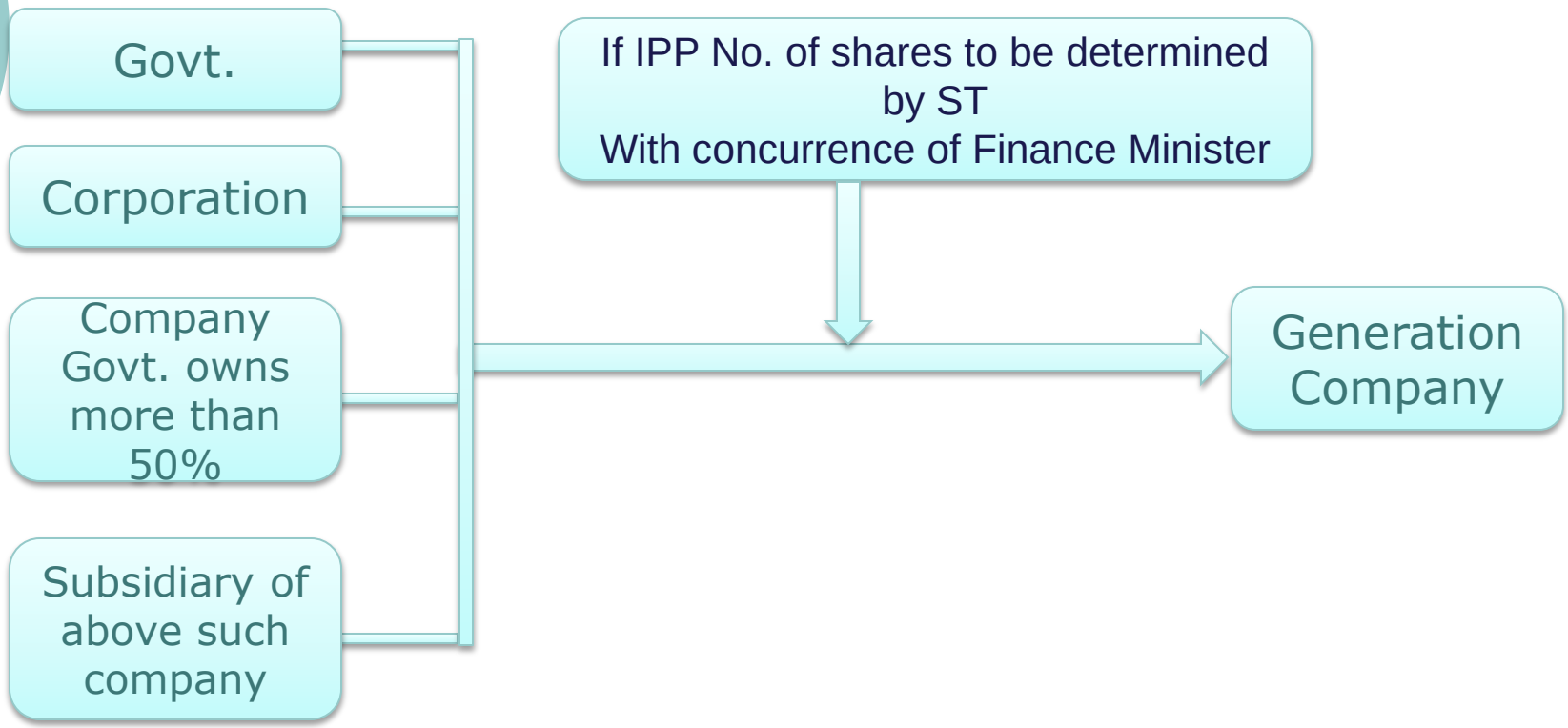
a) Minister to formulate-National Energy Policy- Existing policy was published in 2008
b) Consider
    a. Requirements of electricity in respect of,
        i. Different geographical areas, including rural areas
        ii. Different socio – economic groups
    b. Fuel diversity & Renewable Energy generation
    c. Pricing policy
    d. Energy Conservation and efficient usage

Licensing under Sri Lanka Electricity act 20/2009

a) Generation
b) Transmission
c) Distribution

Eligibility for License

- Generation
  - i. CEB
  - ii. Local Authority



Eligibility for License *Cont…*

b) Transmission
   i. CEB

c) Distribution
   i. CEB
   ii. Local Authority
   iii. A company in which government holds more than fifty per centum
   iv. A society registered under the co-operative societies law No: 50 of 1972

Electricity Exchange Between India and Sri Lanka

- The transmission system between India and Sri Lanka will involve a submarine cable as the Indian Ocean separates India and Sri Lanka. This interconnection would be different from any other electricity interconnections planned in the South Asia Region.

- Asynchronous type ie HVDC interconnection is considered to be the best option for the interconnection of two grids.

Background

- Under consideration since mid 1970's
- Pre-feasibility study conducted with the assistance of USAID in 2002 by Nexant Inc.
- Review of the Pre-feasibility study with assistance of USAID in 2006 by Nexant/ Power Grid Corporation of India
- Considered under SAARC and BIMSTEC Regional Grid
- Feasibility Study is presently being conducted
  - ✓ A MOU on Feasibility Study was signed among GOSL, GOI, CEB and Power Grid Corporation of India Limited (PGCIL) on 9th June 2010.
  - ✓ Executing Agencies; CEB and PGCIL are jointly carrying out the feasibility study

Benefits and Opportunities for Sri Lanka

- Meeting growing power demand with imported power
- Improved load profile - valley filling
- Improved system reliability and security
- Access to electricity from cheaper sources of power generation in the South Asia Region

Benefits and Opportunities for Sri Lanka Conts.

- Opportunity to enter into India Power Exchange for energy trading
- Avoiding hiring of emergency generation

Proposed Interconnection Option

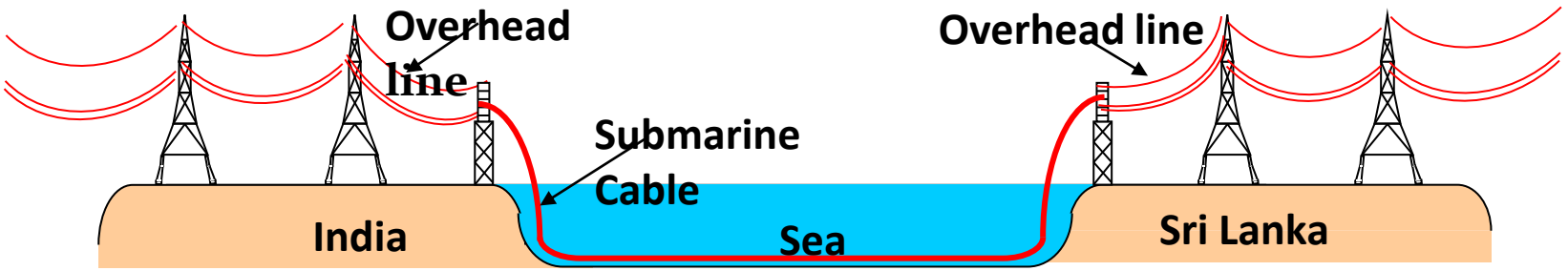
± 400kV HVDC line from Madurai to Anuradhapura

- Part-I (Land Route - Indian Territory)
  - Madurai to Indian Sea Coast Pannaikulam HVDC overhead line 150km
  - HVDC Terminal at Madurai

- Part-II (Sea Route)
  - India Sea Coast Pannaikulam to Sri Lankan Sea coast Thirukketiswaram, Mannar HVDC Submarine Cable 120km

- Part-III (Land Route - Sri Lankan Territory)
  - Sri Lankan Sea Coast Mannar to Anuradhapura HVDC overhead line 110km
  - HVDC Terminal at Anuradhapura

Proposed Interconnection Option



Transmission System in Submarine Cable


Madurai
150 km
Pannaikulam
120km
Mannar
110 km
New Anuradhapura
Laccadive Sea
Gulf of Mannar Marine National Park
Kalpitiya

Thank you