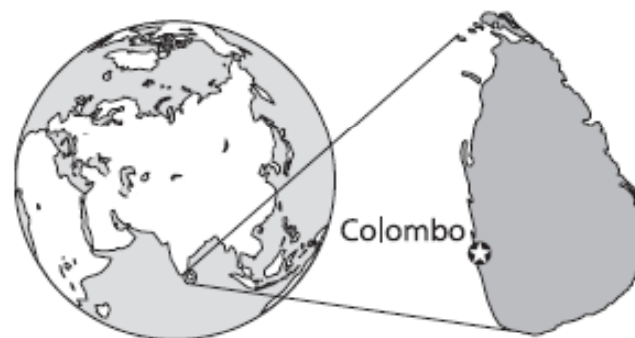


# Over View of the Power System

## Power Sector Reforms in Sri Lanka





## Sri Lanka Electricity Industry - Present Status

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- **Virtually a government owned monopoly:**
  - Ceylon Electricity Board (CEB)
    - owns 72% of the generation sector
    - owns entire transmission network
    - owns 89% of the distribution network
  - Lanka Electricity Company (LECO)
    - owns balance of distribution network (11%)
  - 8 no. of Independent Power Producers (IPPs)



# Demand Growth 2007 to 2017

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- 2007
- Maximum Demand - 2000 MW
- Generation - 10160 Gwh
  
- 2017
- Maximum Demand - 4250 MW
- Generation - 20550 Gwh



# GENERATION SYSTEM

## 2007

### Number of Power Stations

<u>CEB</u>	-	Hydro	-	16	1205	MW
		Thermal	-	6	528	MW
		Wind	-	1	3	MW

### Private Power-

		Thermal	-	8	550	MW
		Mini-Hydro	-	50	35	MW

# Demand Forecast

Year	Demand (GWh)	Growth Rate (%)	Gross* Losses (%)	Generation (GWh)	LF (%)	Peak (MW)
2005	7113		16.8	8547	55.2	1768
2006	7614	7.0	16.4	9112	55.2	1884
2007	8191	7.6	16.1	9764	55.2	2019
2008	8827	7.8	15.8	10482	55.2	2168
2009	9548	8.2	15.5	11295	55.2	2336
2010	10327	8.2	15.2	12172	55.2	2517
2011	11166	8.1	14.9	13114	55.2	2712
2012	12070	8.1	14.6	14127	55.2	2921
2013	13040	8.0	14.3	15210	55.2	3146
2014	14079	8.0	14.1	16390	55.2	3389
2015	15190	7.9	14.1	17683	55.2	3657
2016	16378	7.8	14.1	19066	55.2	3943
2017	17654	7.8	14.1	20552	55.2	4250
2018	19019	7.7	14.1	22141	55.2	4579
2019	20480	7.7	14.1	23842	55.2	4931
2020	22040	7.6	14.1	25658	55.2	5306
2021	23708	7.6	14.1	27600	55.2	5708
2022	25497	7.5	14.1	29682	55.2	6138
2023	27412	7.5	14.1	31912	55.2	6599
2024	29459	7.5	14.1	34295	55.2	7092
2025	31648	7.4	14.1	36843	55.2	7619

Gross losses include losses at all levels, Gx., Tx. and Dx. and any non-technical losses.



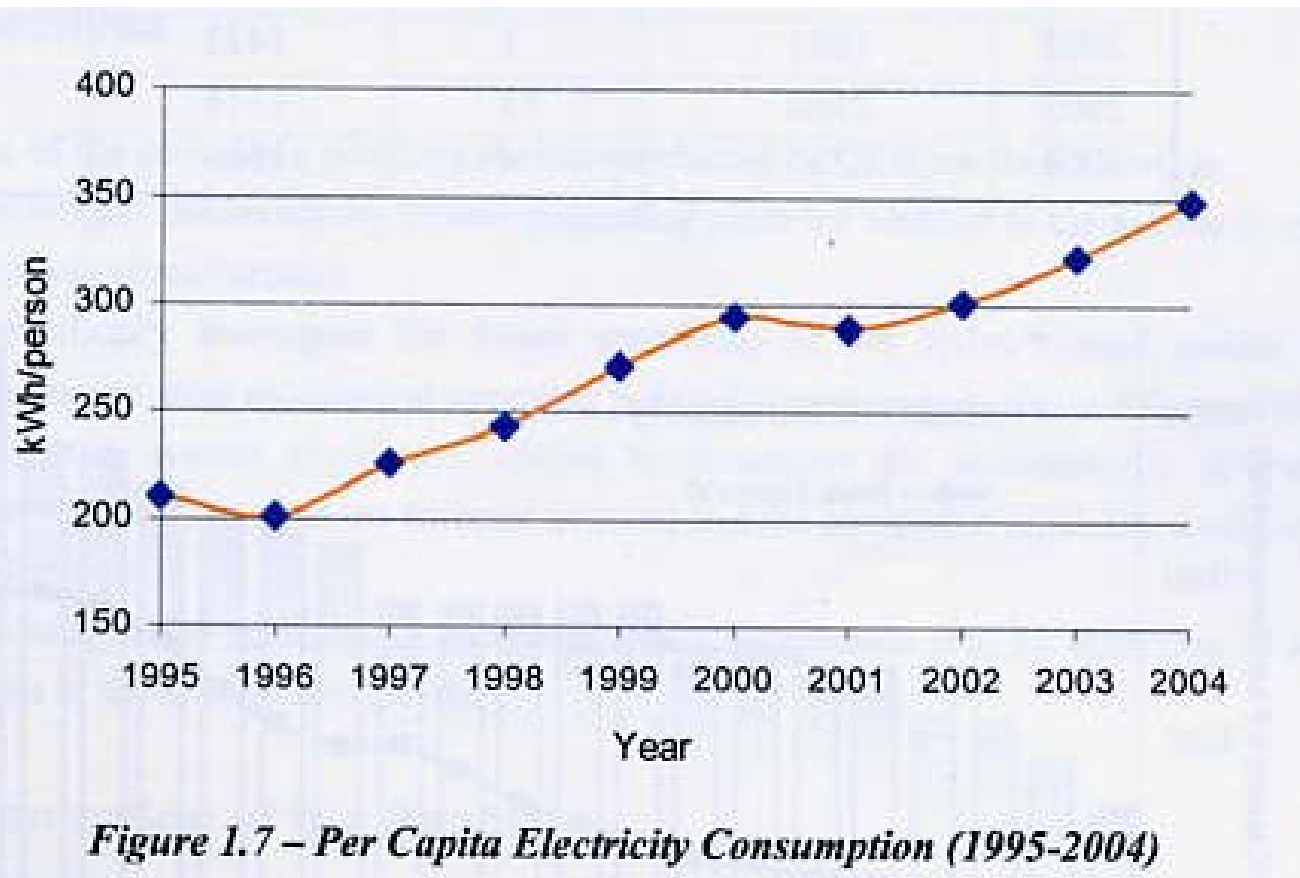


## Sri Lanka Electricity Industry – Present Status (cont...)

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- Total installed generation capacity 2,321 MW
- Maximum demand about 2000 MW
- 4.1 million consumers
- 15,700 employees
- 75% of the population has access to the grid

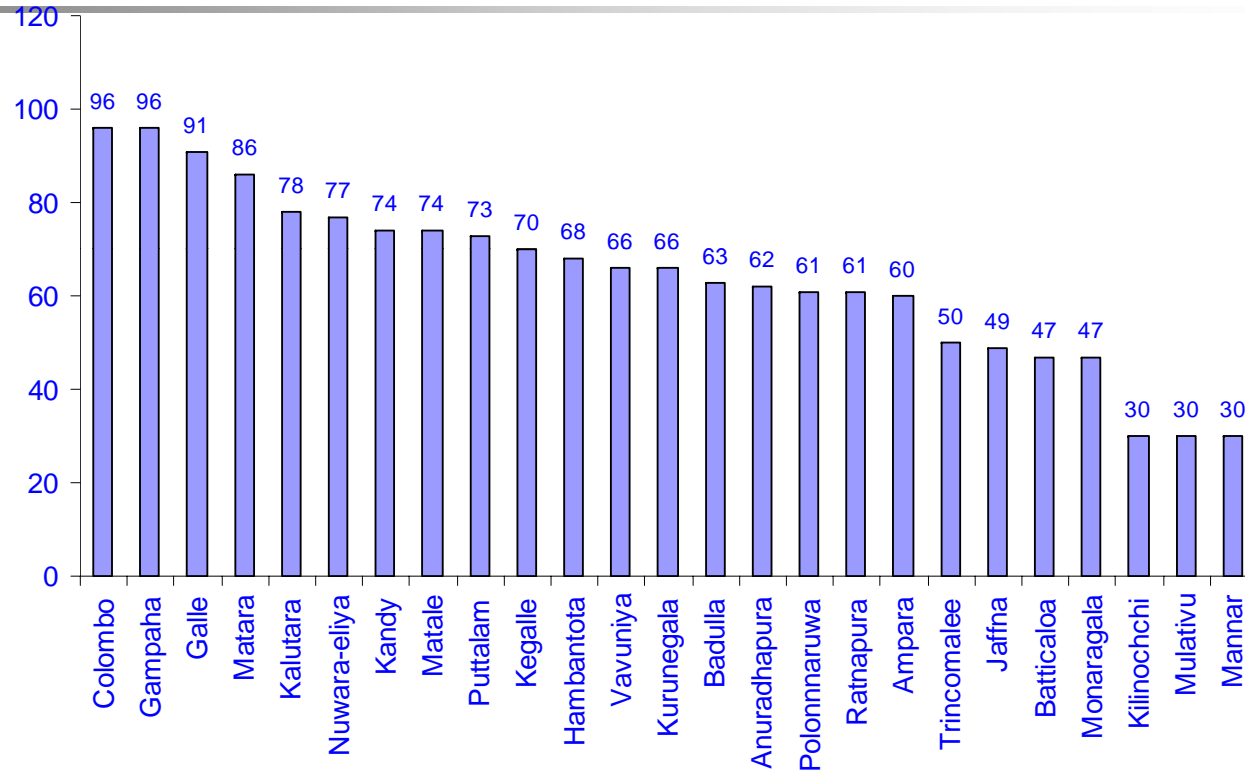
# Per Capita Electricity Consumption



Source : Long Term Generation Plan 2006, CEB



# Electrification



- National grid serves electricity to an estimated 77% of the households,
- off-grid systems based on solar power or community small hydro/wind/biomass power plants serve 3% of the households

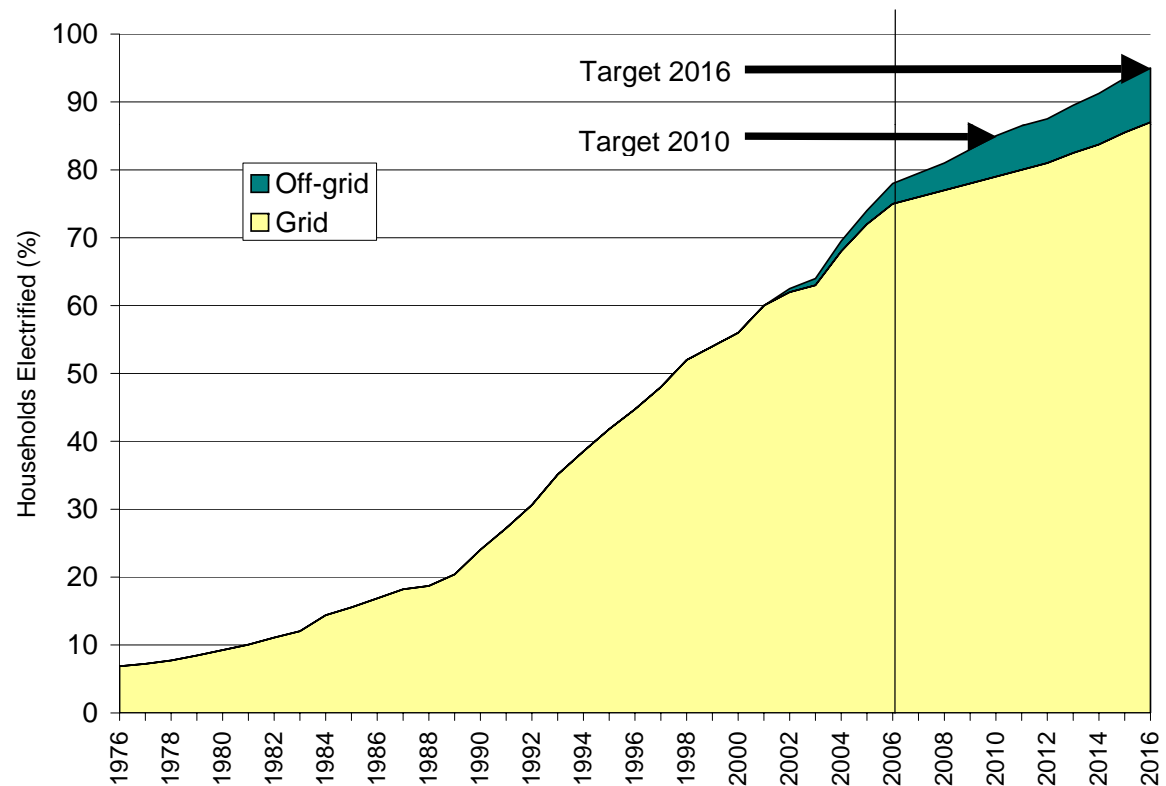
# Current Status, Baseline Indicators and Strategic Targets for 2016

## Household Electrification Achievements and Targets

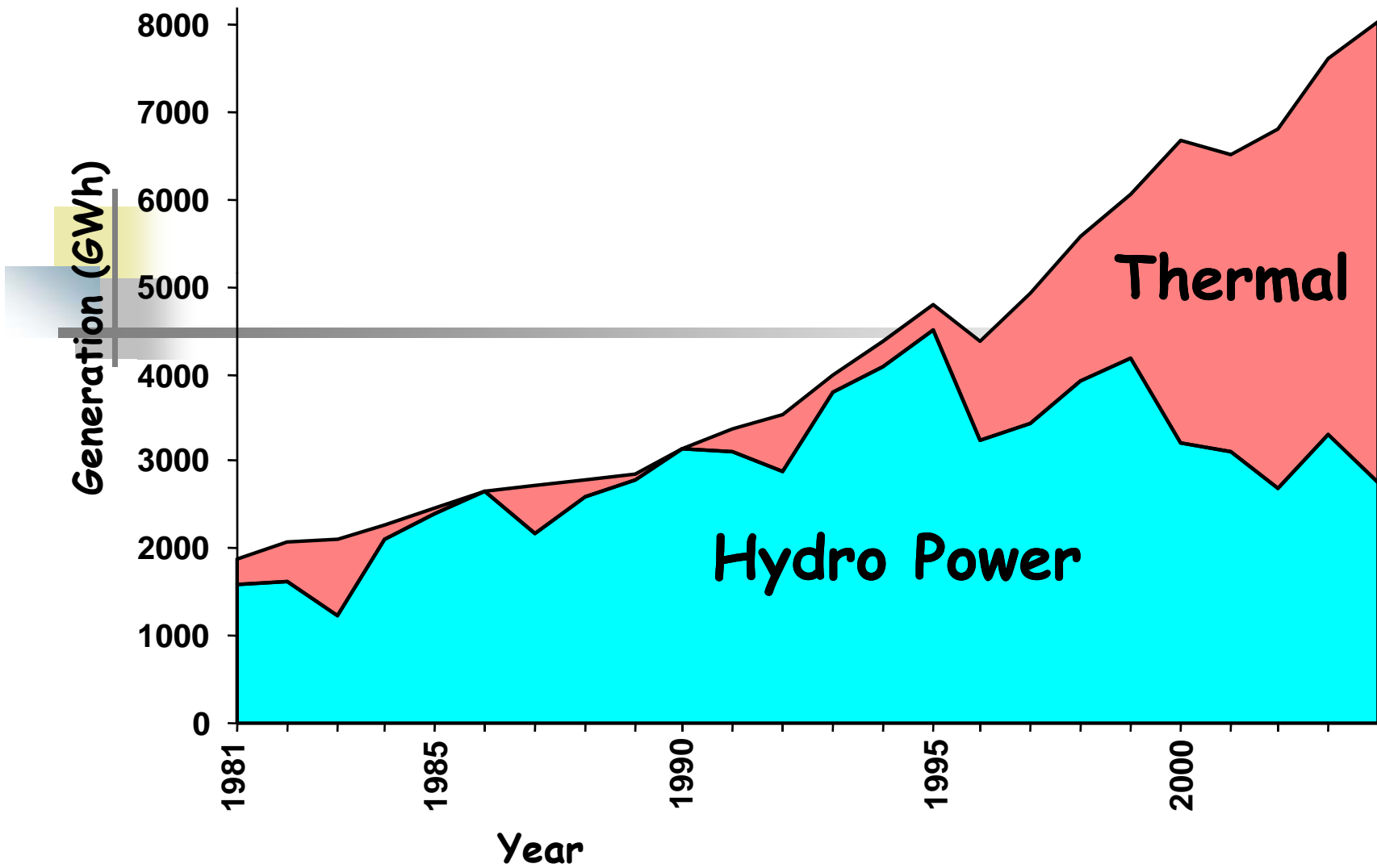
### Strategy:

86 % of households by 2010

95% of households by 2016



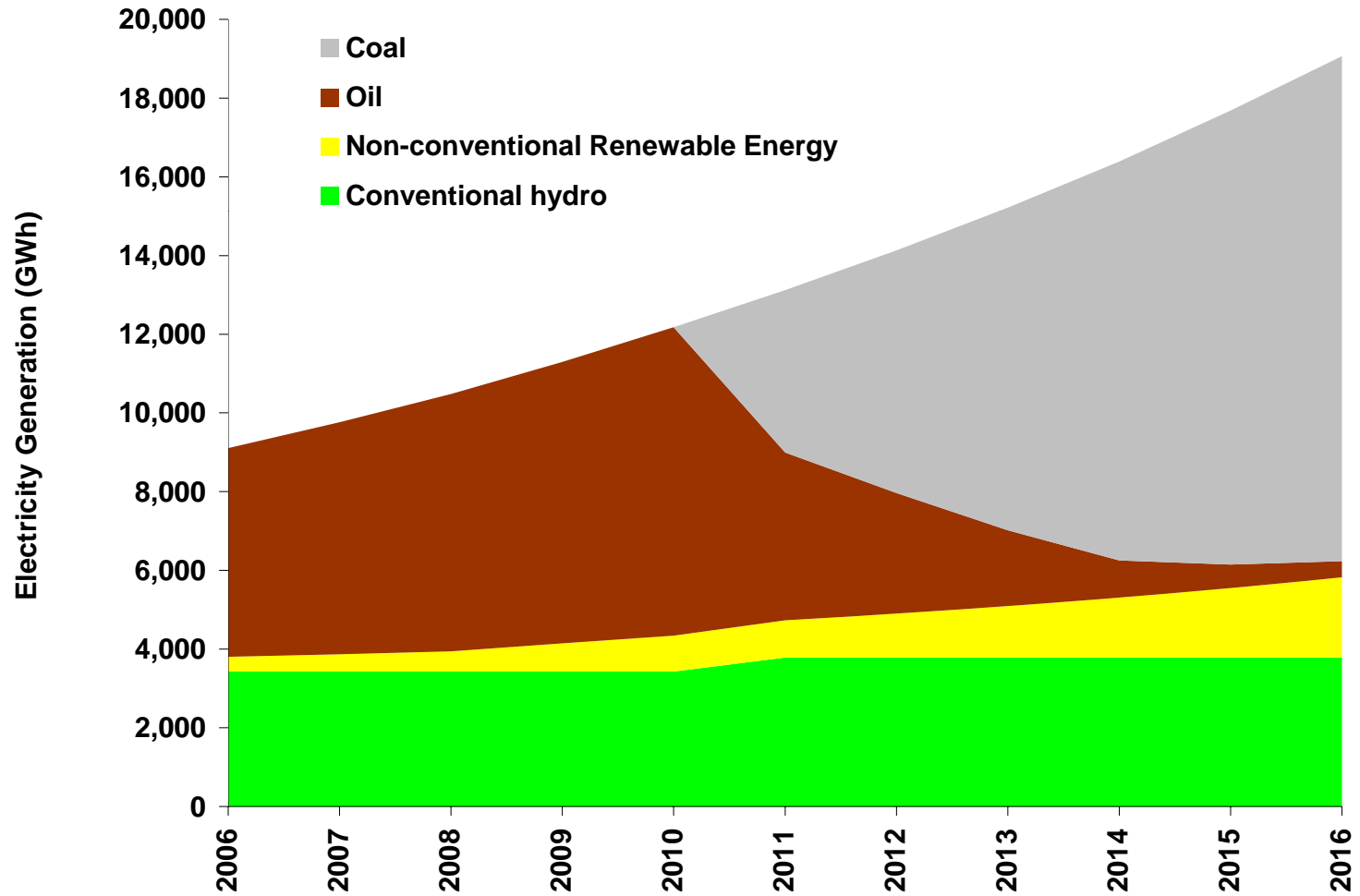
# Hydro & Thermal Mix





## Electricity

# Targeted Fuel Diversification in Electricity Generation





# Power Sector Reforms

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- Institutional Reforms
- Regulatory Reforms

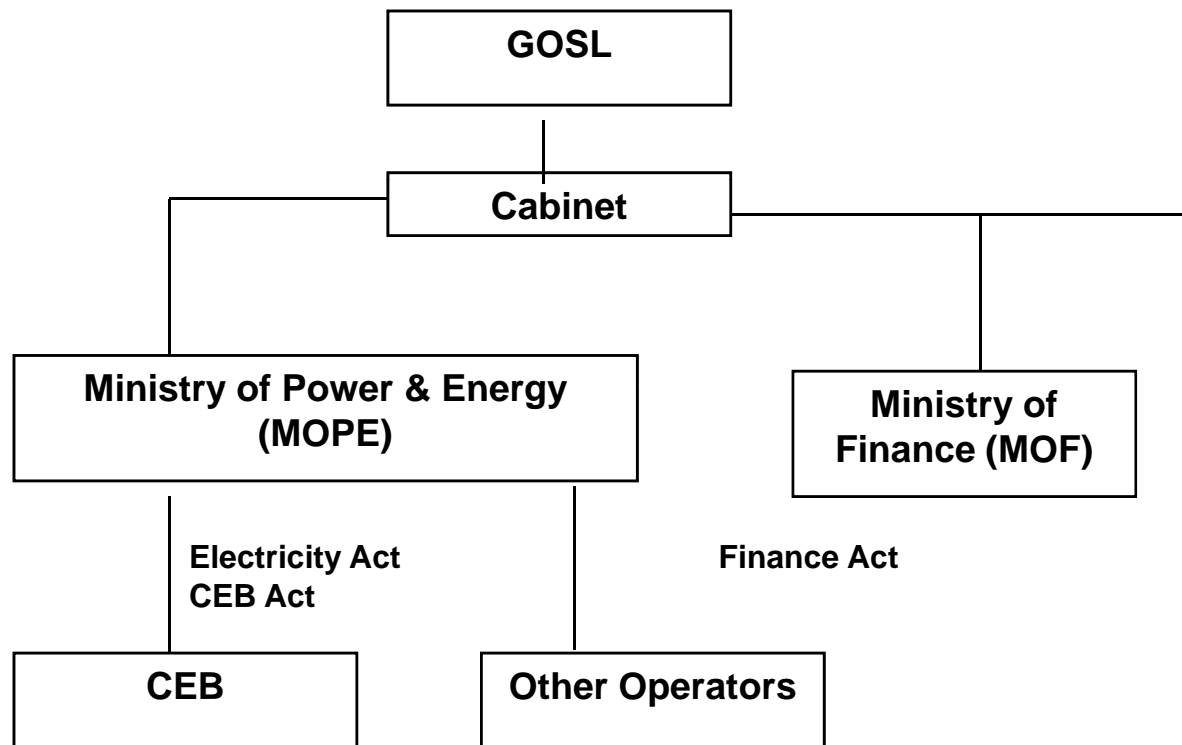
Presently Governed by:

Electricity Act

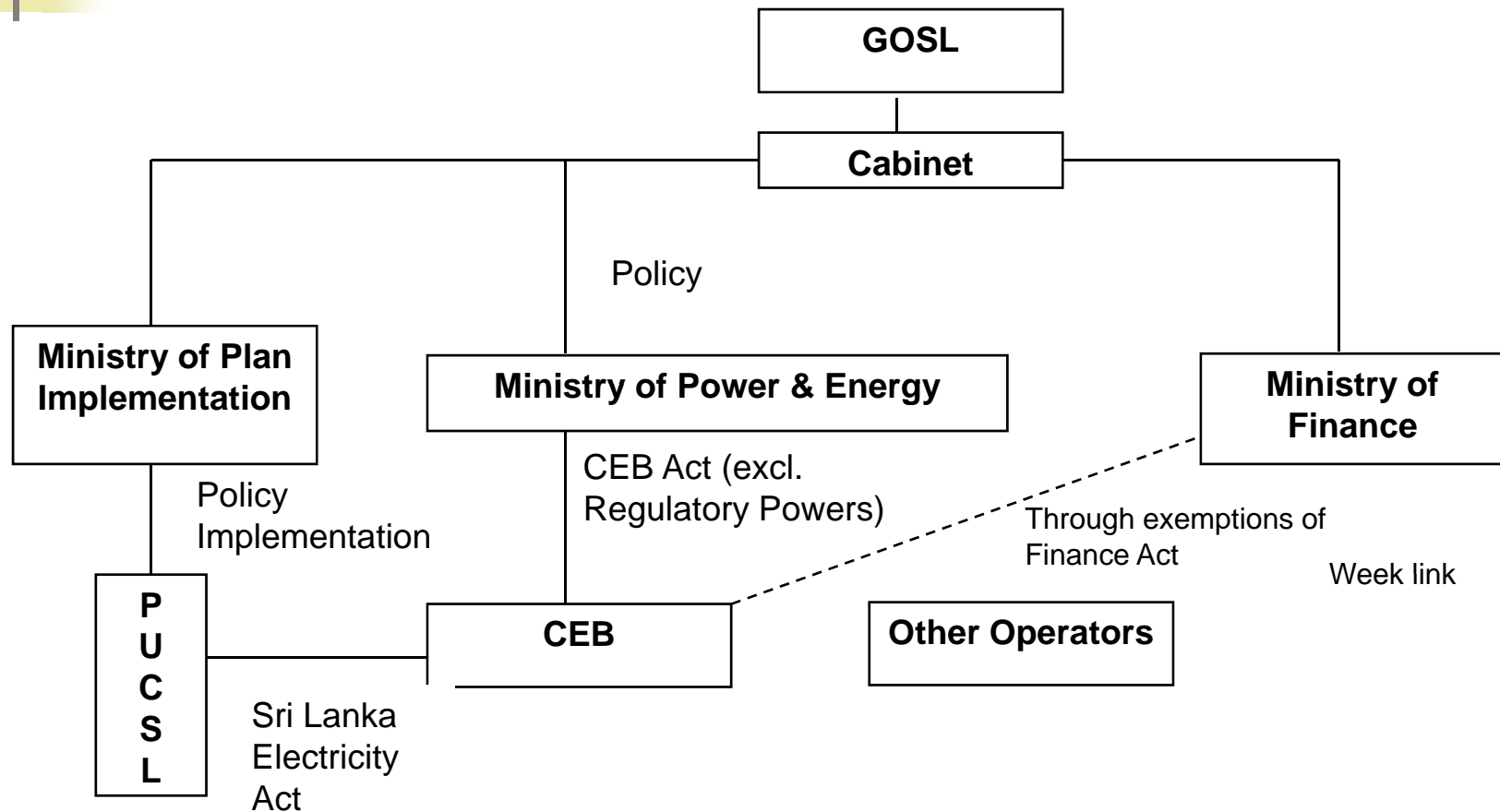
Ceylon Electricity Board Act of 1969

Finance Act

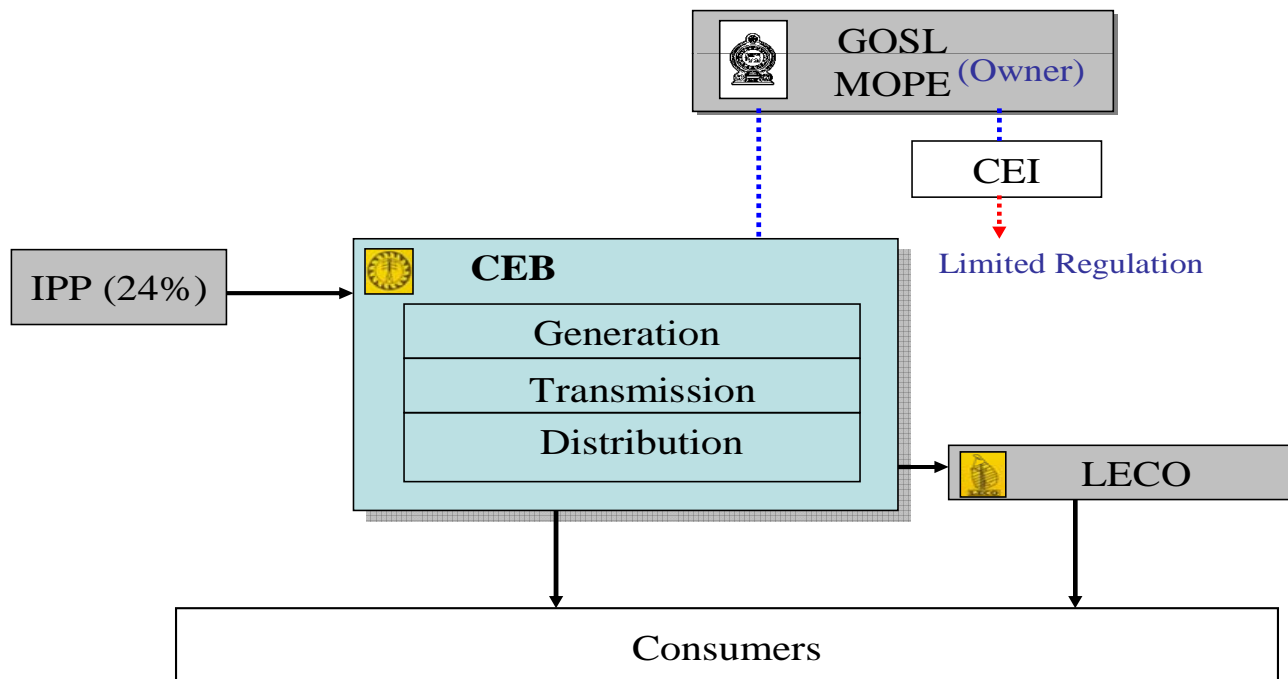
# Existing Ownership and regulatory Structure



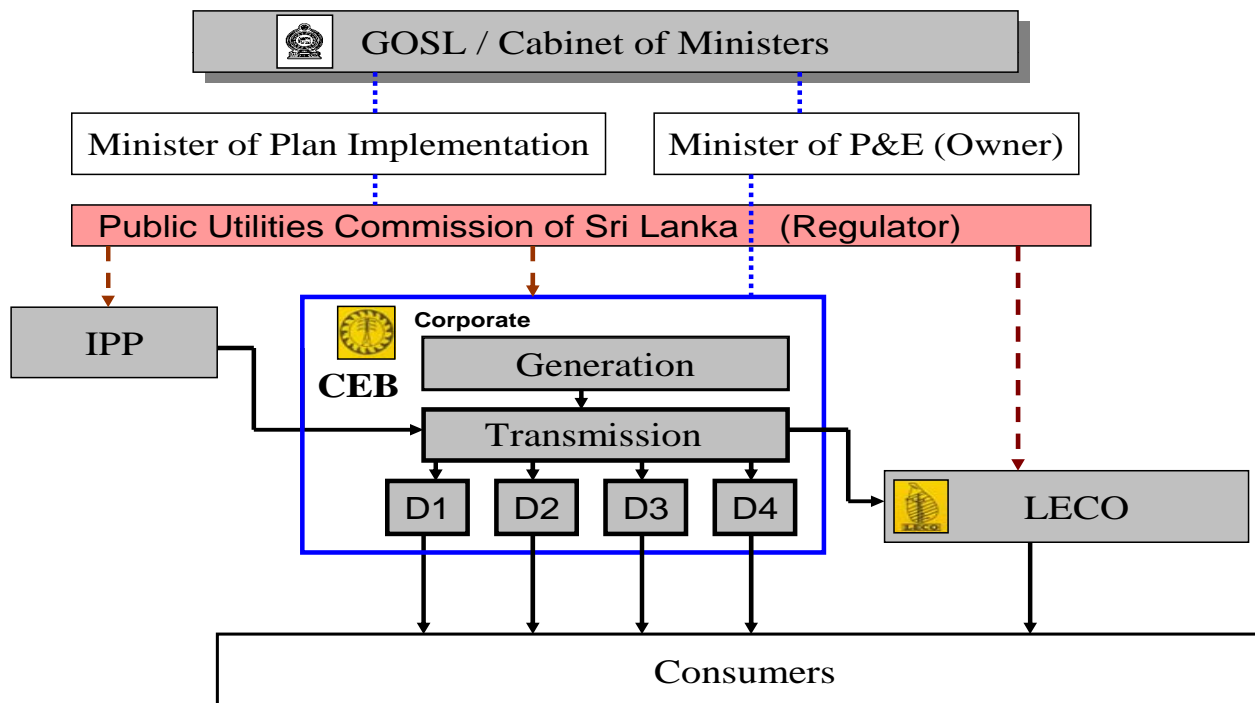
# Proposed Ownership and Regulatory structure



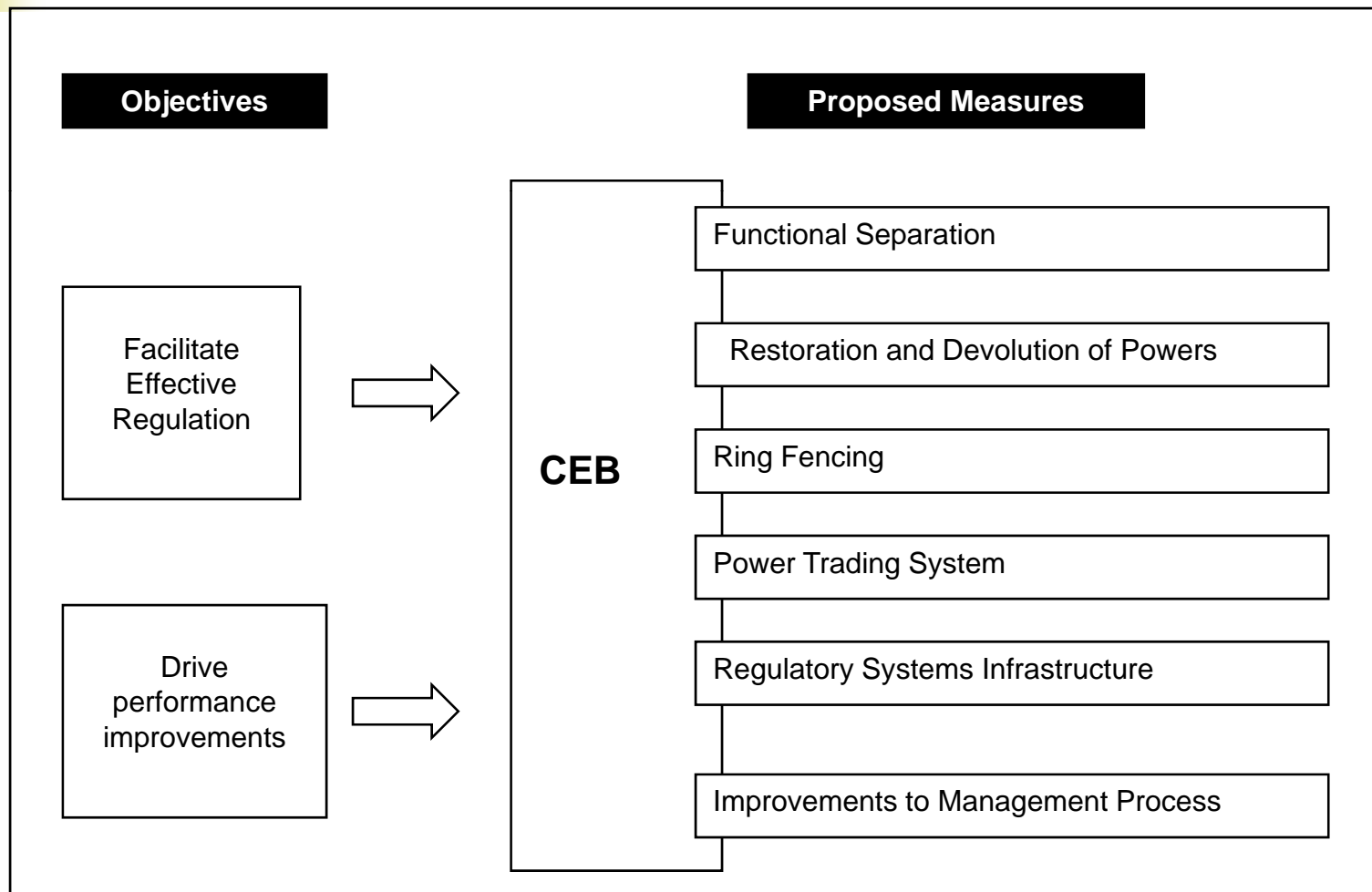
# Functional Structure of Existing Power Sector



# Proposed Functional Structure of the Power Sector



# Overview of Functional Arrangements





## Overview of Functional Arrangement (cont...)

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### ■ Functional Separation

- Licensed functions to be assigned to respective Functional Business Divisions (FBD) of CEB
- Corporate and non-core activities to be assigned to Corporate Division

### ■ Restoration and Devolution of Powers

- Establish CEB autonomy
- Devolve power to FBDs



## Overview of Functional Arrangement (cont...)

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- **Ring Fencing**
  - Each FBD to be ring fenced to achieve decision making independence and financial accountability
- **Power Trading System**
  - Implement power trading system to establish financial accountability of FBDs
- **Regulatory Systems Infrastructure**
  - Establish necessary infrastructure and systems to facilitate regulatory process
- **Improvements to Management Process**



## Present Status of Reforms Process

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- Draft Sri Lanka Electricity Bill is to be presented to the Parliament
- Electricity Act of 1951 to be repealed
- Ceylon Electricity Board Act of 1969 to be amended



# Grid Interconnection

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- Plans for an electricity link between India and Sri Lanka under consideration since late 1970s
- In 2002, first technical feasibility of an interconnection followed by another recent study on the same
- Both studies point to the possibility of a short term link of 500MW and a medium and long term link of 1000MW
- Located between the Southern part of India and the West Coast of Sri Lanka
- Significant benefits to both India and Sri Lanka expected through such power exchanges using an interconnection



# Present Status

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- First high level meeting between the two countries in December 2006
- Steering Committee consisting officials from both countries appointed
  - Chaired jointly by the secretaries
- Task Force appointed
- Working committees to be formed for
  - Technical
  - commercial and
  - legal and regulatory
- ADB has expressed interest in funding the feasibility study
- Awaiting formal clearance from the Government of India