



# Sri Lankan Energy Outlook

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**SAARC Workshop "Techniques on Energy  
Conservation & Efficiency in Buildings"**

**26-28 August 2019**





# Sri Lanka at a Glance

Civilization established in 6<sup>th</sup> century BC

**Population:** 22 million

**Languages:** Sinhala/Tamil/English

**Commercial capital:** Colombo

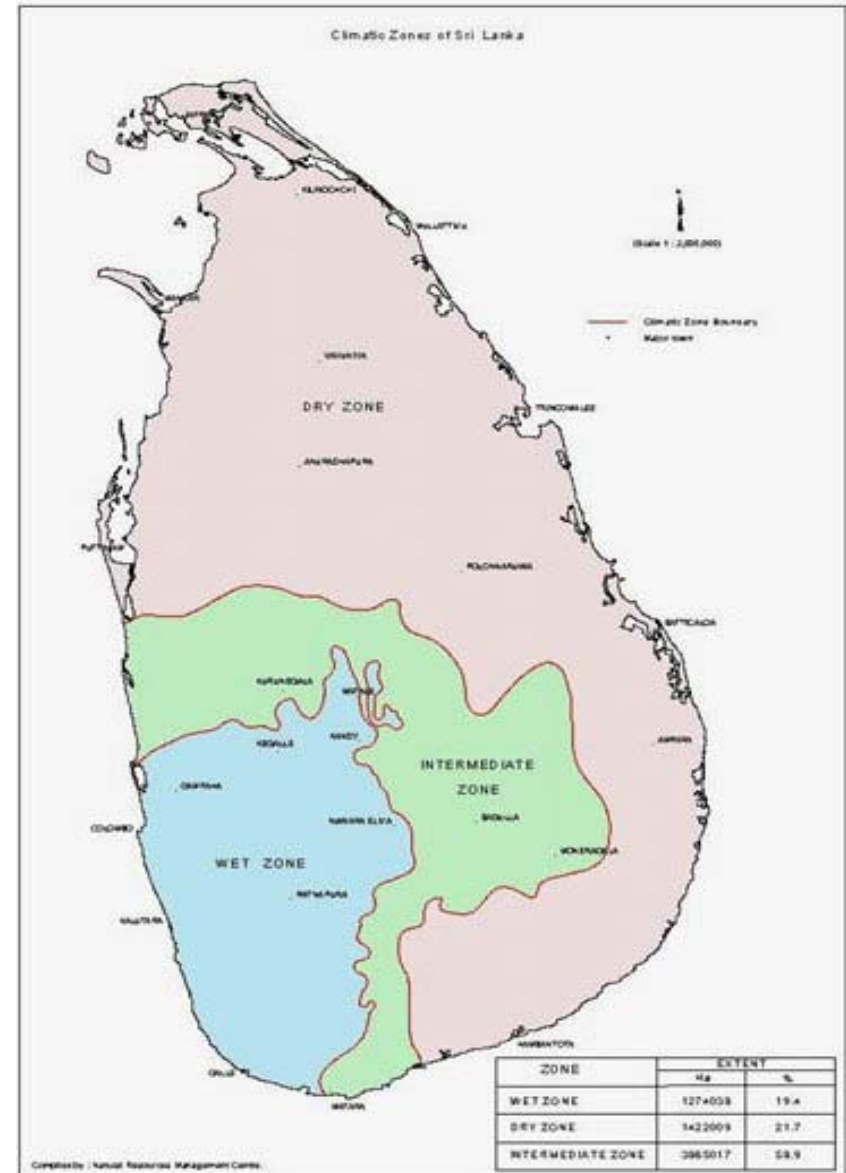
**Climate:** tropical, 3 climatic zones

**Geography:**

Land area: 65,000 km<sup>2</sup>

The central part of the island is mountainous, complex topographical features such as ridges, peaks, plateaus, basins, valleys and escarpments.

Low land of the island is practically flat, abruptly rising small hills in some areas.

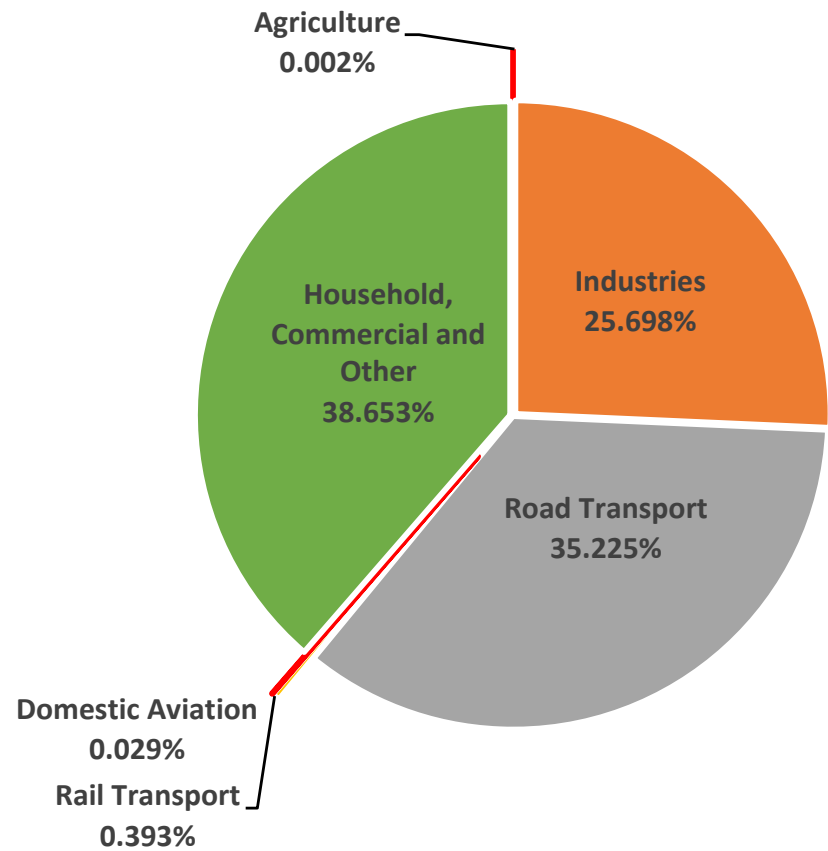
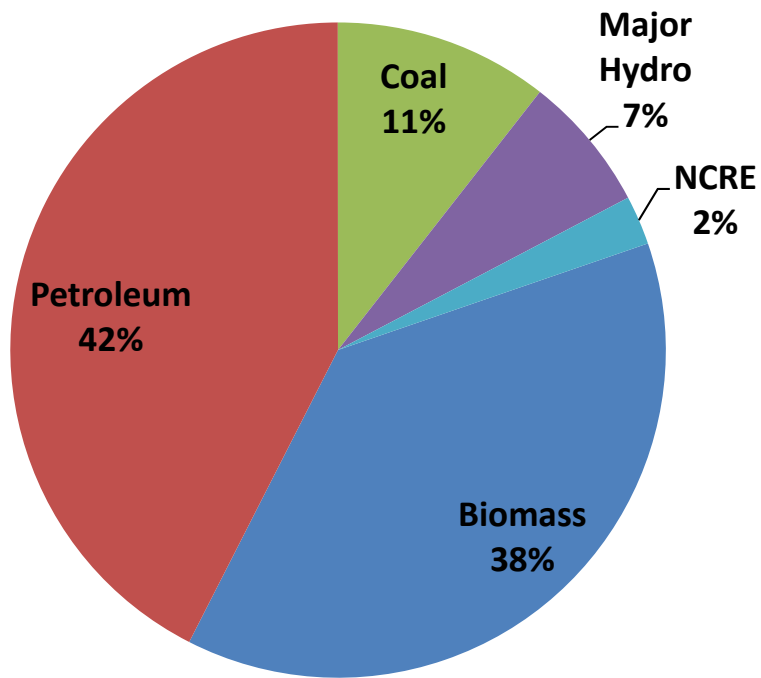


# Energy Sector in Sri Lanka

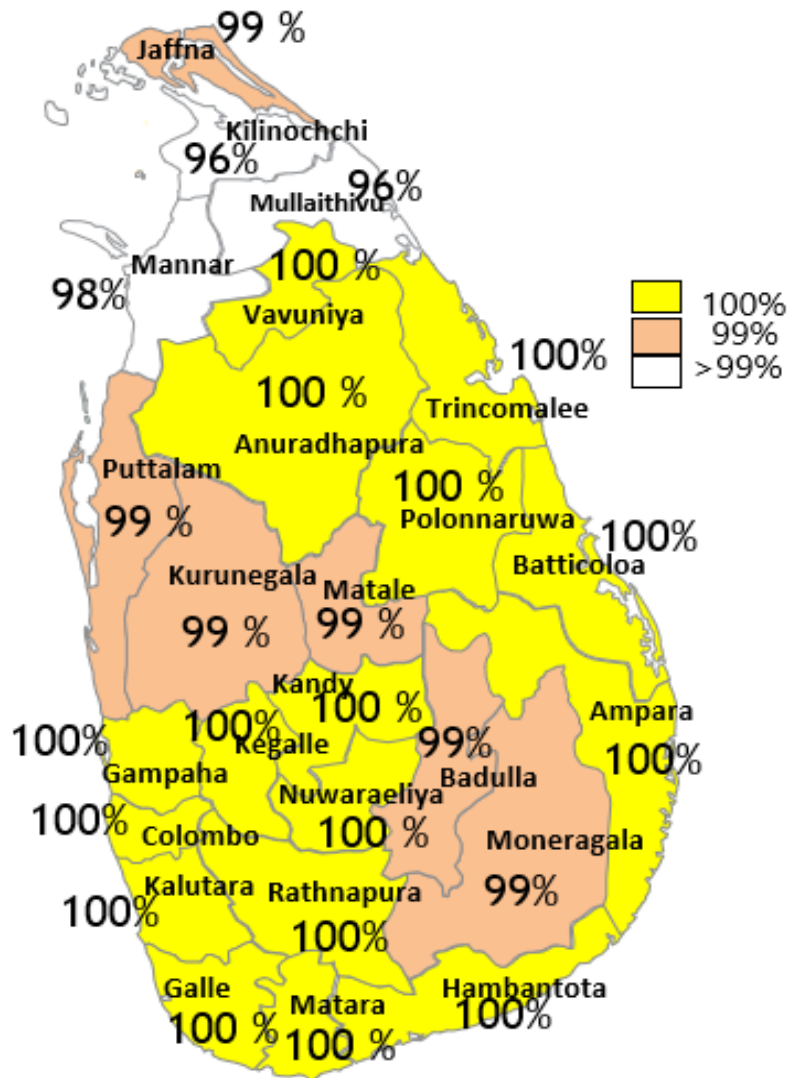
- **Regulatory role:** Public Utilities Commission of Sri Lanka (PUCSL)
- **Policy and decision making role:** Ministry of Power, Energy & Business Development
- **Statutory boards:**
  - Sri Lanka Sustainable Energy Authority (SLSEA), Ceylon Electricity Board (CEB), Lanka Electricity Company (LECO), Lanka Coal Company (LCC), Ceylon Petroleum Corporation (CPC), Ceylon Petroleum Storage Terminals Limited.
  - Petroleum exploration is carried out by the Petroleum Resources Development Secretariat (PRDS), Petroleum Distribution Company, Lanka Indian Oil Company (LIOC) and two LP Gas companies.

# Energy Sector in Sri Lanka contd...

# Energy supply and Use



# Power System of Sri Lanka at a Glance



## Distribution

- Almost 100% Electrification (99.8%)

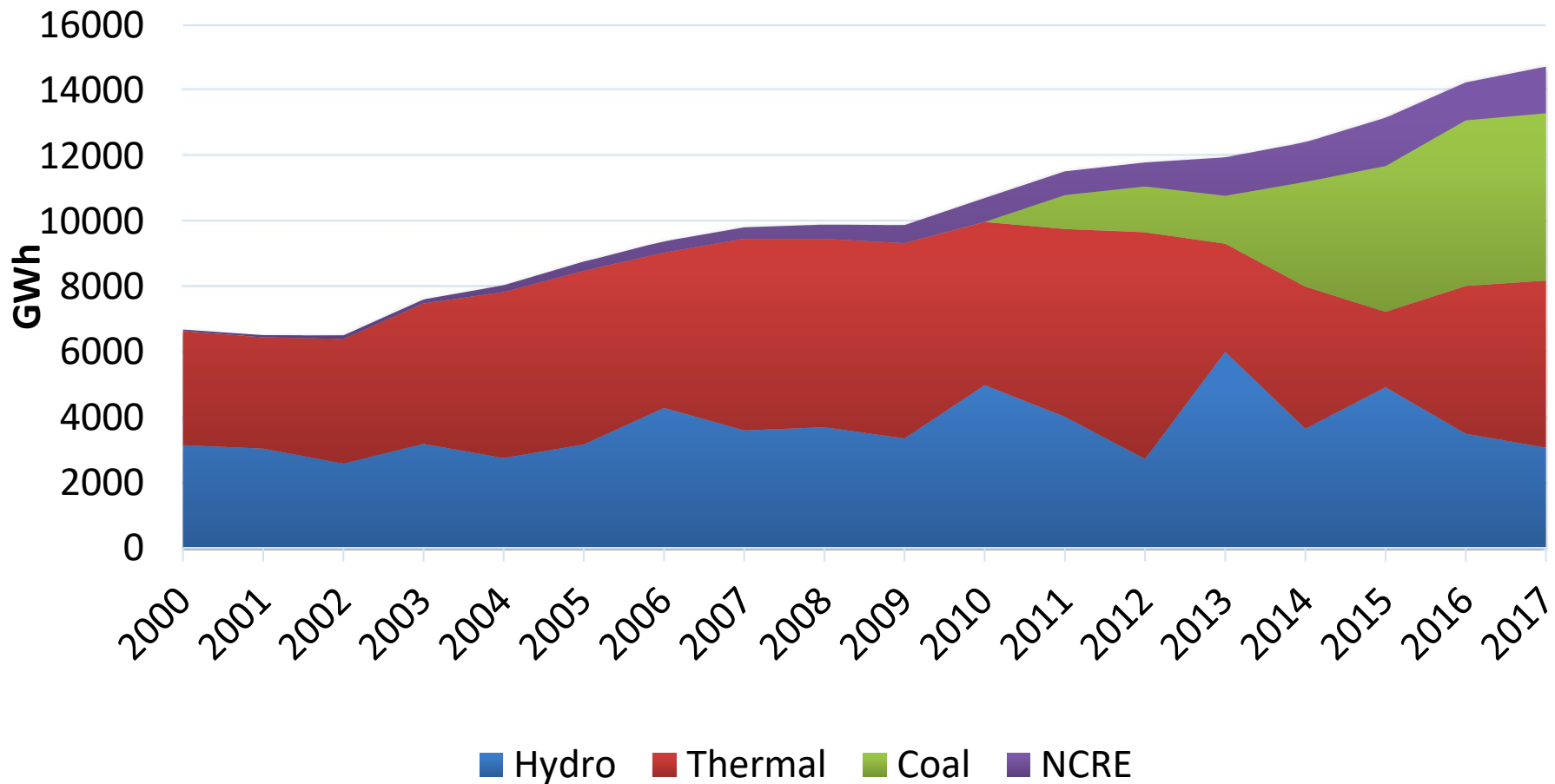
## Generation

- Predominantly depended on hydro in the past (100% RE)
- Thermal, hydro, new RE at present
- Gradually shifting towards more RE with a target of 100% carbon neutrality in 2050

# Historical Energy Mix Pattern in Electricity Generation

31% Renewables  
in the Energy Mix  
(2017)

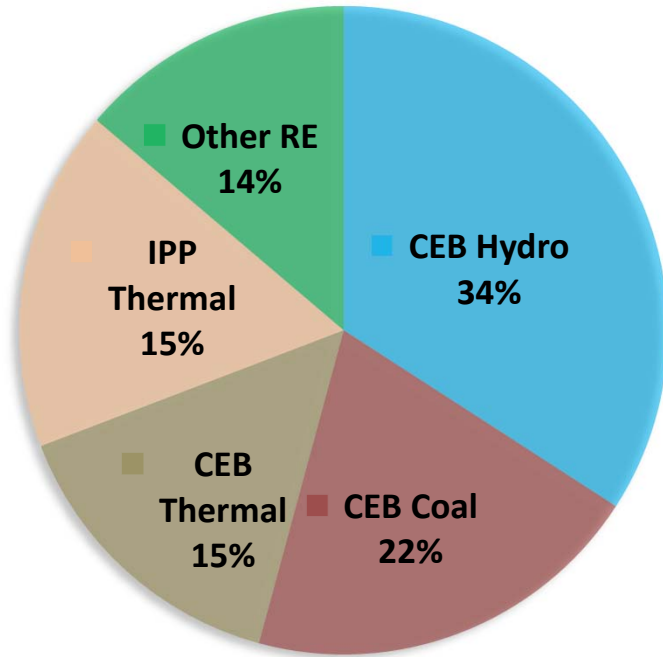
### Generation Mix



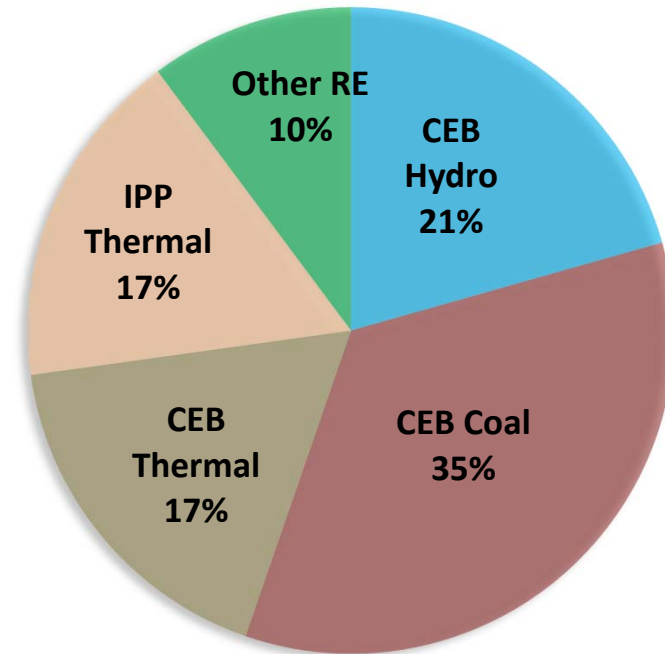


# Capacity Mix and Energy Mix 2017

Capacity Share (%)



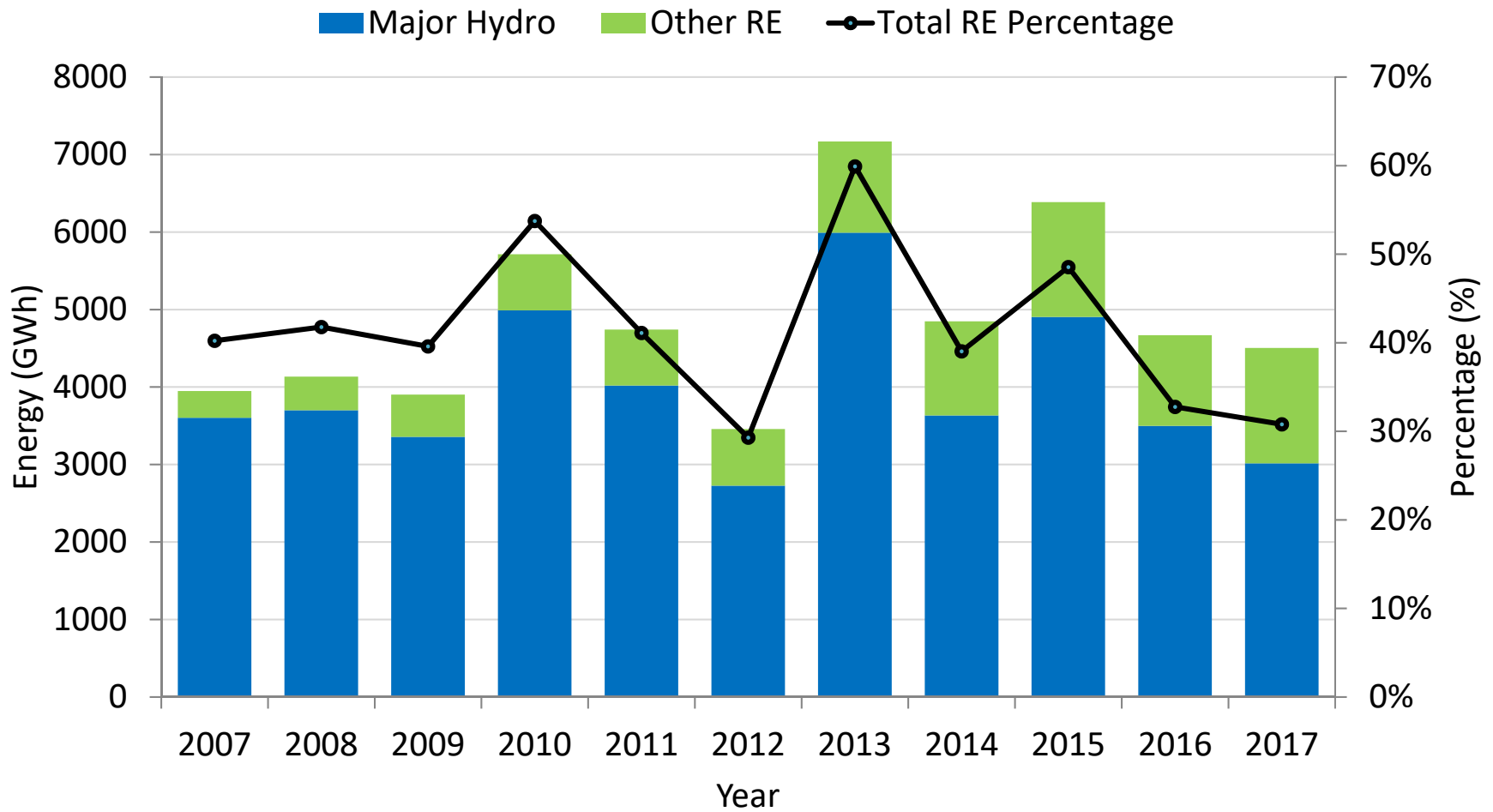
Energy Share (%)



Plant Name	Total Installed Capacity (MW)	Generation (GWh)
CEB Hydro	1,391	3,075
CEB Thermal - Coal	900	5,120
CEB Thermal - Oil	604	2,598
IPP Thermal	629	2,516
Other Renewable Energy (ORE)	562	1,464
<b>Total</b>	<b>4,086</b>	<b>14,773</b>

# Renewable Energy- Present Status

## Renewable Energy Contribution



# Non-conventional Renewable Energy

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## (Except Major Hydro)

Technology / Source		No. of Projects	Capacity (MW)
1	Mini Hydro Power	189	368.71
2	Biomass - Agricultural & Industrial Waste	4	13.08
3	Biomass - Dendro Power	7	20.53
4	Solar Power- Parks	8	51.36
5	Wind Power	15	128.45
<b>Total</b>		<b>223</b>	<b>582</b>

# Future Capacity Additions

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Capacity Additions During the planning horizon of next 20 years:

## LTGEP 2018-2037

### Thermal Based Power Plants

**4625 MW**

Coal = 2700MW

LNG = 1500MW

GTs = 105MW

Reciprocating Engines = 320MW

**Thermal**

### Major Hydro

**240 MW**

### Other Renewable Energy

**2800 MW**

(Wind, Solar, Mini Hydro and Biomass)

**Renewable**

### Pumped Storage Hydro

**600 MW**

Wind	Solar	Mini Hydro	Biomass
1200 MW	1300 MW	220 MW	100 MW



**THANK YOU**

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