Sri Lanka
Country Presentation

Transmission and Generation Planning Branch
Transmission Division
Ceylon Electricity Board
Sri Lanka
August 2017
INTRODUCTION

- Total Area: 65,610 km²
- Land Area: 62,705 km²
- Population: 21.2 million
  - Urban: 18.3% Rural: 81.7%
- Population Density: 338 per sqkm
- Labour Force: 8.311 million
- Unemployment rate: 4.4%
- Literacy rate: 93.3%
- Life expectancy: 72 yrs (M), 78 yrs (F)
- Monetary Unit: Sri Lankan Rupee
  (1 USD = 151.9 LKR at January 2017)
- Gross Domestic Product: 11,839 billion LKR (Market Prices)
- GDP per capita: 3,835 US$ (Market Prices)
- GDP structure 2016
  - Agriculture – 7.1%
  - Industry – 26.8%
  - Services – 56.5%
  - Taxes less subsidies on products – 9.6%
SRI LANKAN POWER SECTOR

- Installed capacity: 4,018 MW
- Peak Demand: 2,483 MW
- Energy Demand: 12,785 GWh
- Electricity Generated: 14,249 GWh
- System Losses: 10.28%
- Elec. Consumption per Capita: 603 kWh
- Level of Electrification: 98.71% (June 2016)
PRESENT CAPACITY & ENERGY MIX AS AT DECEMBER 2016

Total Installed Capacity & Energy

<table>
<thead>
<tr>
<th>Source</th>
<th>Capacity (MW)</th>
<th>Energy (GWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renewable - CEB &amp; SPP</td>
<td>1,903</td>
<td>4,659</td>
</tr>
<tr>
<td>CEB Thermal - Coal</td>
<td>900</td>
<td>5,067</td>
</tr>
<tr>
<td>CEB Thermal - Oil</td>
<td>604</td>
<td>2,360</td>
</tr>
<tr>
<td>IPP Thermal</td>
<td>611</td>
<td>2,164</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4,018</strong></td>
<td><strong>14,249</strong></td>
</tr>
</tbody>
</table>

**Capacity Share (MW)**
- CEB Thermal - Coal: 23%
- CEB Thermal - Oil: 15%
- IPP Thermal: 15%
- Renewable - CEB & SPP: 47%

**Energy Share (GWh)**
- CEB Thermal - Coal: 33%
- CEB Thermal - Oil: 17%
- IPP Thermal: 15%
- Renewable - CEB & SPP: 35%
RENEWABLE ENERGY AS AT DECEMBER 2016

Renewable Energy Contribution

- Major Hydro
- Other RE
- Total RE Percentage

[Bar chart showing energy contribution from 2006 to 2016, with years on the x-axis and energy (Gwh) on the y-axis. The chart displays a trend over the years, with peaks in 2013 and 2015.]
Average Cost per Unit for Generation Technologies
AS AT DECEMBER 2016

Average cost at selling point in 2016 = 18.09
Average cost at selling point in 2015 = 15.06
TYPICAL LOAD CURVE OF SRI LANKA

Daily Load Curve as at 17th May 2017

Demand (MW)

0 500 1000 1500 2000 2500 3000

0:30 1:30 2:30 3:30 4:30 5:30 6:30 7:30 8:30 9:30 10:30 11:30 12:30 13:30 14:30 15:30 16:30 17:30 18:30 19:30 20:30 21:30 22:30 23:30

Time
TYPICAL LOAD CURVE OF SRI LANKA

Daily Load Curve as at 17th May 2017 – Generation Mix

CEB - Coal  CEB - Thermal  IPP  Renewable  Hydro
THANK YOU