

Public Consultation on the Long-term Generation Expansion Plan 2018-2037

Presentation by
Tilak Siyambalapitiya

15 June 2017

Least cost planning is enshrined in the Electricity Act.

How Government Policy should be made, and communicated to utilities is stated in the Act.

How PUCSL should advice the Govt (on behalf of the electricity customer (no one else) is also stated in the Act.

I begin with the last two slides of my
presentation at the hearing on

25 September 2015

on the same subject

Generation Expansion Plan 2015-2034

Request to PUCSL (1): Sep 2015

- There is no benefit of stating **40 references** in the report, to which the public have no access.
 - Situation is the same this time
 - Essential for **approved Generation Plan** too, to be placed in the public domain.
 - PUCSL requires to explain what happened to the plan
 - Utilities are independent and PUCSL is independent
 - Hence no opportunity to **blame Governments** for inaction on new generation projects.
-

Request to PUCSL (2): Sep 2015

- **Severe situation building-up:** The generation mix is again gradually tilting heavily towards oil-fired generation.
 - There is no sense of urgency displayed by CEB or the Government in getting base load or even renewables on line, fast.
 - Looks like the **drama over 1995-2005** is being re-enacted again, over 2015-2025. Oil, oil and more oil, and blackouts, then begin on base load power plants.
 - This time it is different. We have an **independent regulatory commission**, to ensure, this plan or a its approved variant is implemented on schedule.
 - The responsibility on the Commission is **enormous**.
-

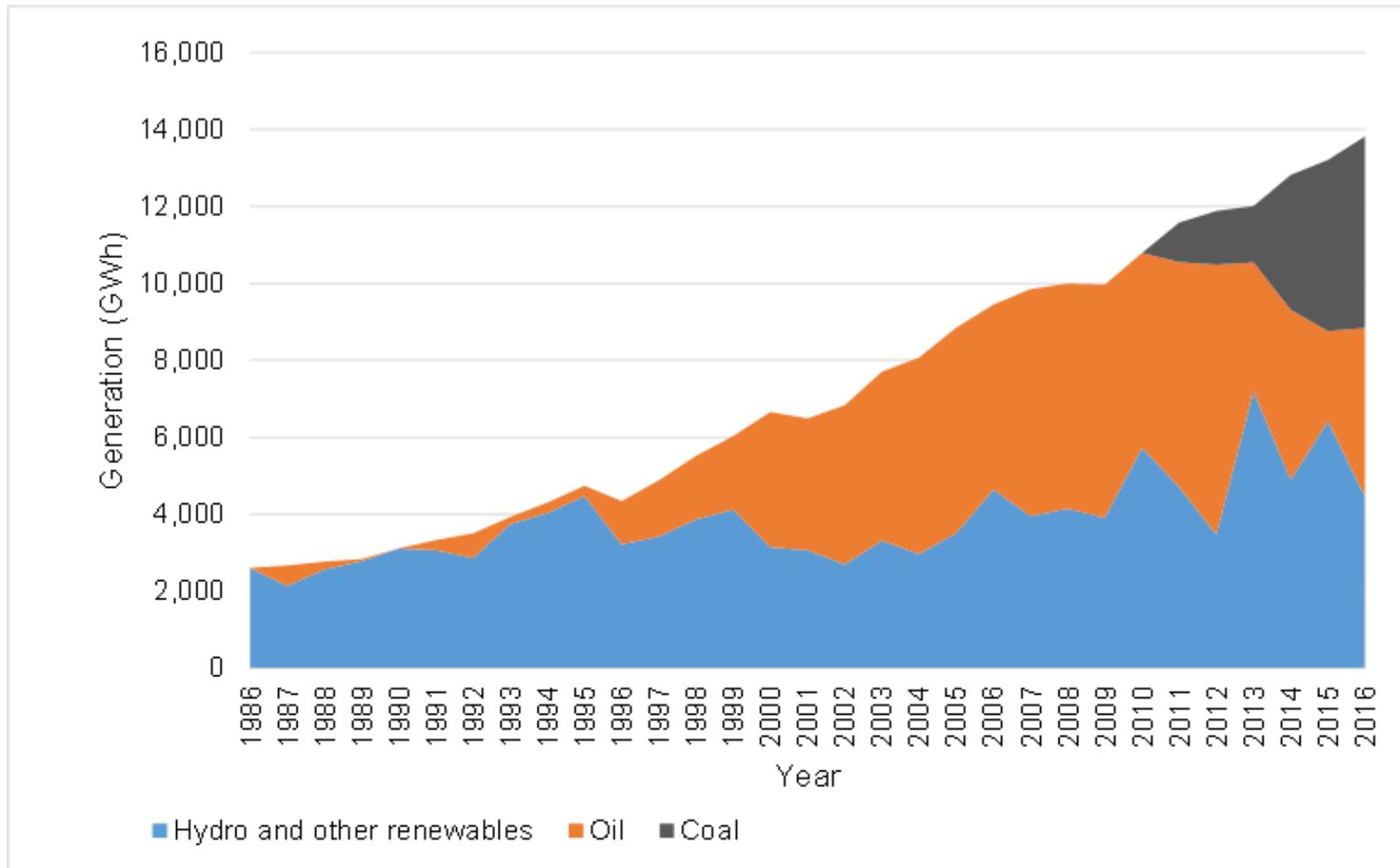
Golden Rules in Plans, Planning and Decision-making

- Decisions for longer-term solutions: First
 - Decisions for shorter-term solutions: Second
 - Energy efficiency, demand response: Third
 - Emergency power: Last
-
- **PUCSL does it exactly in the reverse:**
 - CEB follows it happily

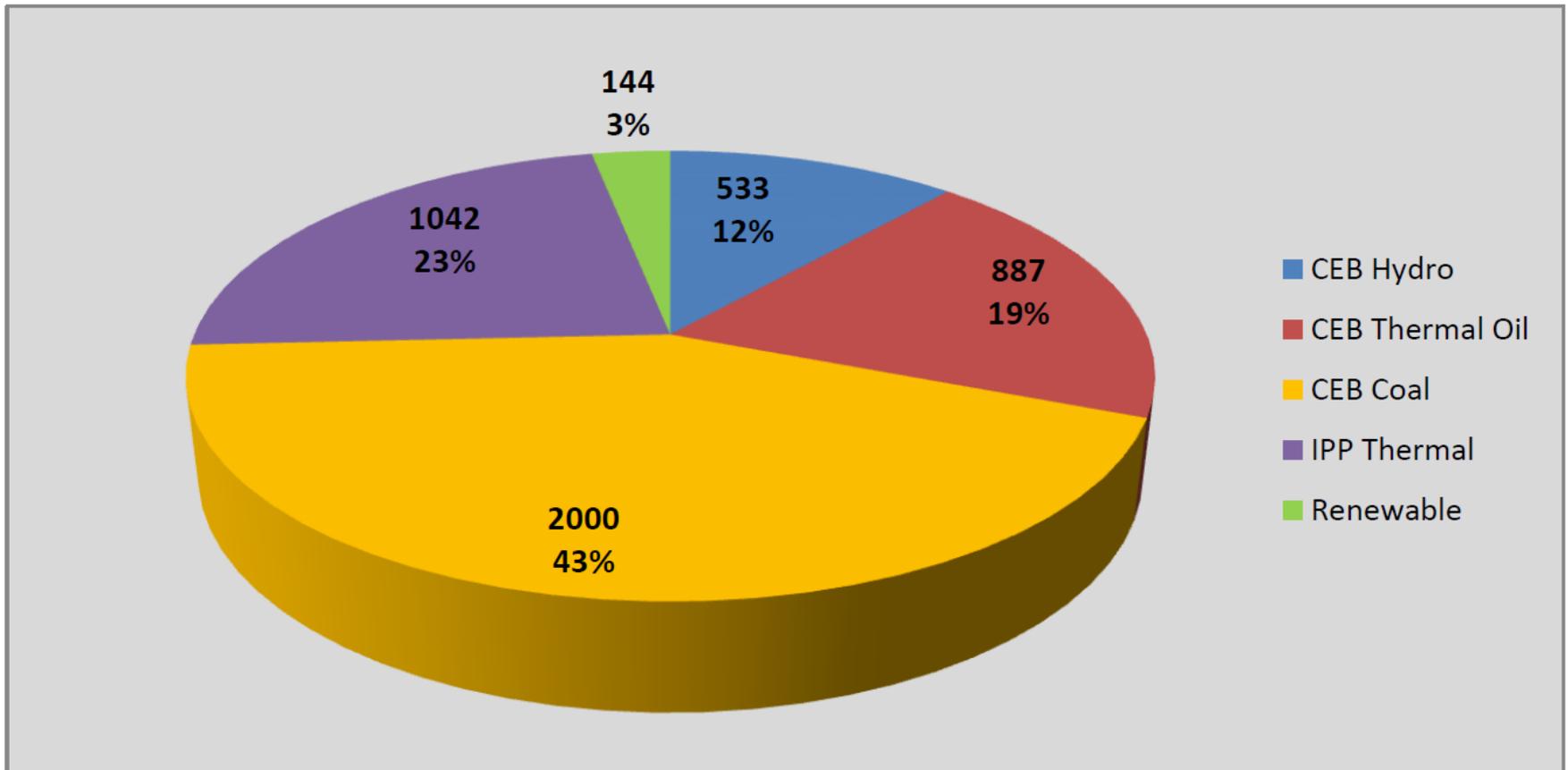
Golden Rules in Plans, Planning and Decision-making, in reverse

- Decisions for longer-term solutions: last, cancel if possible (As of now, all cancelled)
- Decisions for shorter-term solutions: If possible
- Energy efficiency, demand response: Try
- Emergency power: First (60 MW already running)

The Country is Surely Drifting Towards more and more use of Diesel, much to the delight of a few, much to the pain of the majority



The share of electricity generation from all forms of oil up to end April 2017 was a staggering 42%. Indecision on the long-term, decisions only on the short-term (ie diesel) is doing its job, precisely as approved by PUCSL



Source: PUCSL

**Already USD 160 million extra spent on
diesel, fuel oil
between Jan – Apr 2017**

Tell us: When will the Commission stand-up to Government pressure (to build more diesel power plants), and order CEB not to build any more diesel power plants?

When will Sri Lanka reach the 10% limit on diesel/fuel oil in the national policy ?

Key Highlights of the Study Report

- T&D loss targets are incorrect. If Sri Lanka cannot reach 7.5% of net generation by 2020 (PUCSL loss target for tariff analysis),
 - There is no professional loss management
- Forecasts need to indicate whether they exclude embedded/distributed generation at customer premises.
- The time is right to give-up the arbitrarily fixed real discount rate of 10%
 - Higher discount rates favour projects with quick returns, lower investments

Key Highlights of the Study Report

- The stability criteria used in assessing the ORE absorption capacity is not stated.
- Spinning reserve of 5% allowed to account for intermittency is unclear. Was frequency stability assessed with the support of the provision of spinning to account for (a) largest unit, plus (b) 10% load, spinning, plus (c) 5% of ORE. In this case, what is the frequency response? Would UF load shedding occur or not ?
- The LOLP figures in the near term indicate serious reliability problems until 2024
- **Fuel price forecast** used for sensitivity analysis are on the high side. See the World Bank Commodity price forecast which predict much lower fuel price growth rates.

Key Editorial Comments: Repeated from 2015

- Annex 5.2 on **feed-in tariffs, is outdated** and no longer offered. Hence should be referenced in the correct perspective, as a historic document.
- **“Stability”** is a very general term. Without proper definition of the term with the correct adjectives, it is unsafe to make statements such as “Base Case plan must be implemented on schedule to ensure the stability of the power system.”
- Glad that losses now exclude power plant auxiliary consumption. They should also exclude step-up transformer loss. **“Gross” loss**, is undefined and not relevant. (Figure 3.1).
- **Load factor** calculations still seems to be incorrect (Table 3.1 and Figure 3.2). When calculating load factor the numerator and denominator should both have embedded generation or should not. THERE CANNOT BE A MIX.
- Wherever capacity, heat rate and efficiency are stated, it must be identified either as “gross” or “net”.
- Energy cannot be **generated** (occurs 17 times). Energy can ONLY be **converted**.

Shortcomings and possible improvements apart,

CEB's Long Term Planning Report is unique and
has no parallel
among all utilities in South Asia, and perhaps
the entire developing world;

As a comprehensive and regular publication
since 1990, in the public domain.

The problem to discuss is:
Who is preventing its implementation ?