Generation Performance in Sri Lanka
2014 (First Half)

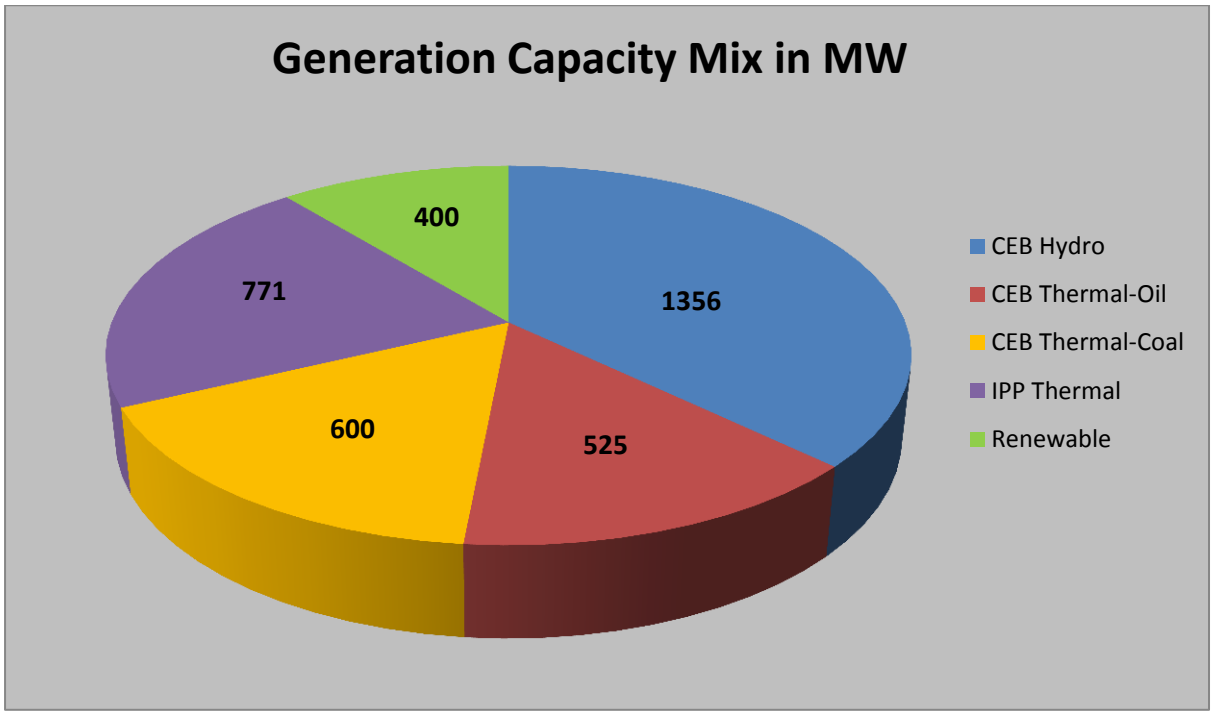
PUBLIC UTILITIES COMMISSION OF SRI LANKA

Content

1. Introduction

During the first half of year 2014, maximum recorded electricity demand in Sri Lanka was 2151.7MW (excluding the contribution of SPP Mini Hydro, Solar and Biomass) which is a slightly lower value compared to the maximum demand of 2164.2MW in year 2013. In order to reach this demand and to cater the electricity requirement in Sri Lanka, altogether 187 Grid connected power plants with total installed capacity of 3652MW have been operated in the first half of 2014. Out of these power plants 26 have been owned and operated by Ceylon Electricity Board including 17 hydro plants, 8 thermal plants and 1 wind power plant. Withal, 7 thermal power plants have been operated by Independent Power Producers (IPPs) and 154 renewable power plants have been operated by Small Power Producers (SPPs) including mini hydro plants, solar power plants, wind power plants and biomass power plants. Out of the above one coal power plant (Puttalam Coal Stage II) and 12 renewable power plants have been commissioned in the first half of 2014 to strengthen the generation capacity of the country.

The chart below shows the existed installed capacities in MW of each type of power plants by the end of June 2014.



This Generation Performance Report contains a summary of information and performance statistics of the generation units and electricity network in Sri Lanka for the first half of year 2014.

All the index and other calculations in this report have been done based on the data received through Licensee Information Submission System (LISS) and details obtained from CEB Monthly Operational Data Reports.

2. Energy Generation

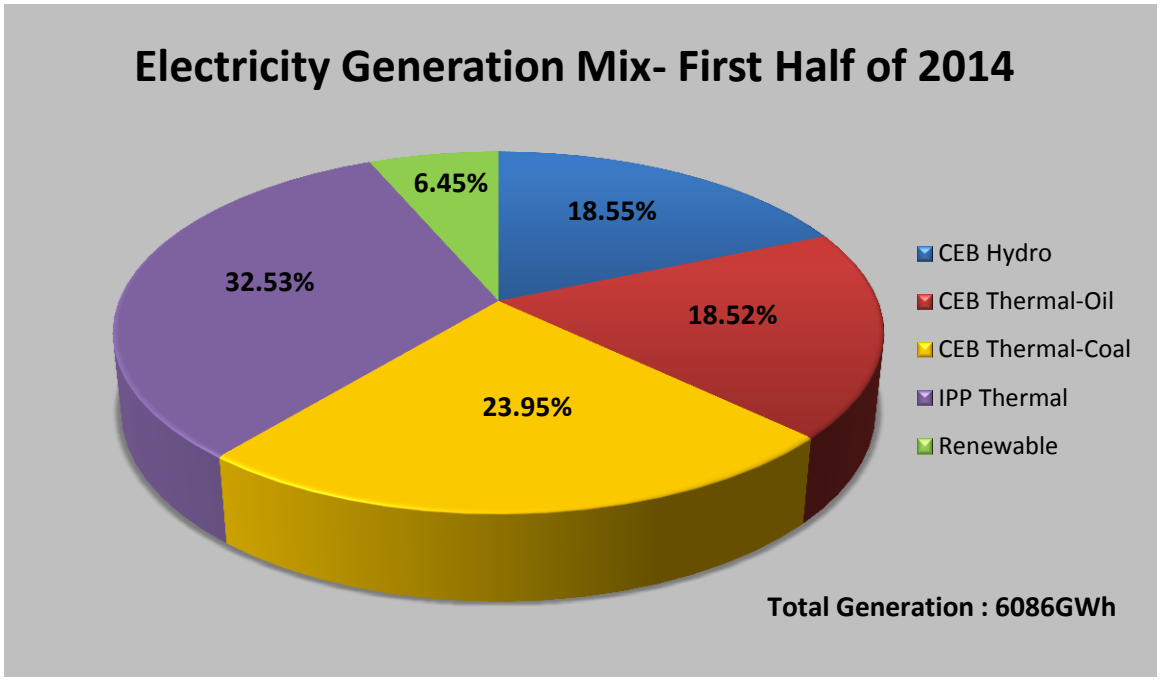
All grid connected generation plants sell their power to the only transmission licensee in Sri Lanka to deliver the power to the consumers through distribution licensees.

The chart and graph below shows the semiannual generation figures in 2014 in MWh.

	Jan	Feb	Mar	Apr	May	Jun	Total
CEB Hydro	267,006	213,114	163,191	128,294	138,434	218,773	**1,128,812**
CEB Oil	211,749	190,628	206,610	191,166	164,565	162,641	**1,127,359**
CEB Coal	36,180	111,600	234,060	363,630	368,630	343,768	**1,457,868**
IPP	424,342	368,235	426,402	265,179	312,452	183,349	**1,979,959**
Renewable	58,319	33,706	37,616	41,399	93,688	127,840	**392,569**
Total	**997,596**	**917,283**	**1,067,879**	**989,668**	**1,077,769**	**1,036,371**	**6,086,566**

Source :LISS

The chart below shows the generation mix in Sri Lanka for the first six months of 2014.



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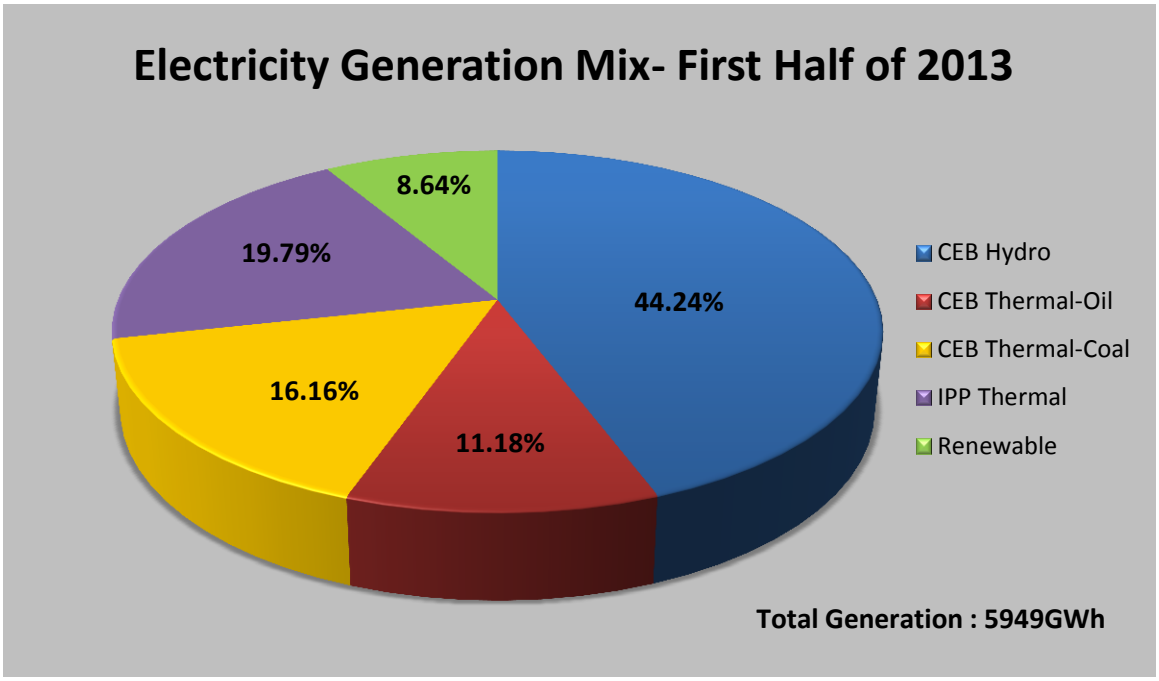
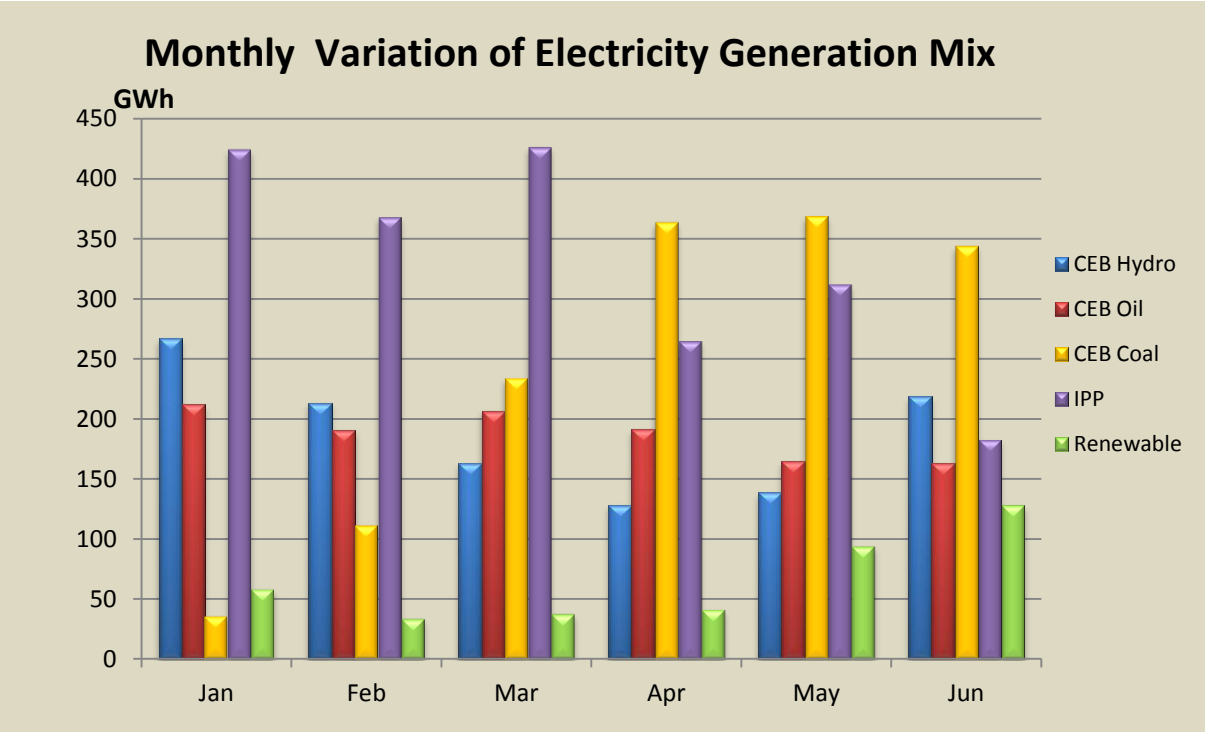
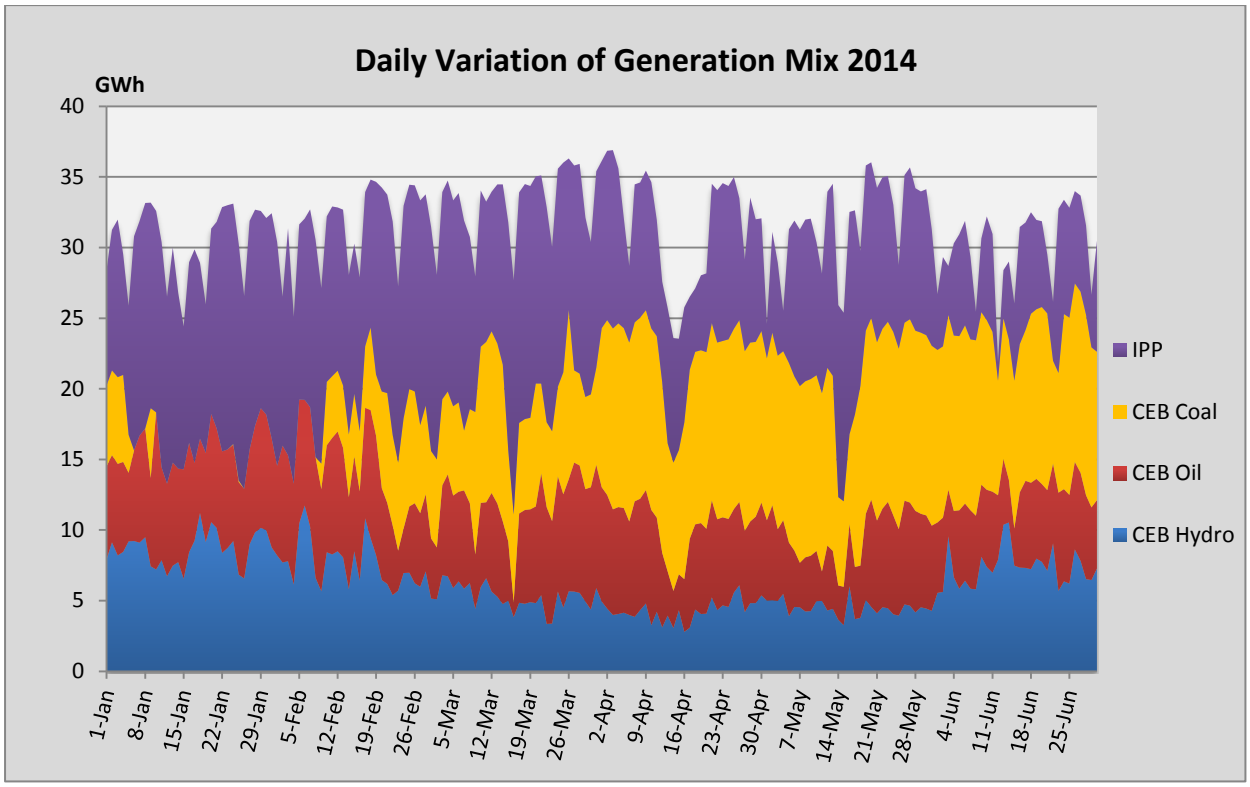


The chart below shows the monthly variation of generation mix in Sri Lanka during the first six months of 2014.

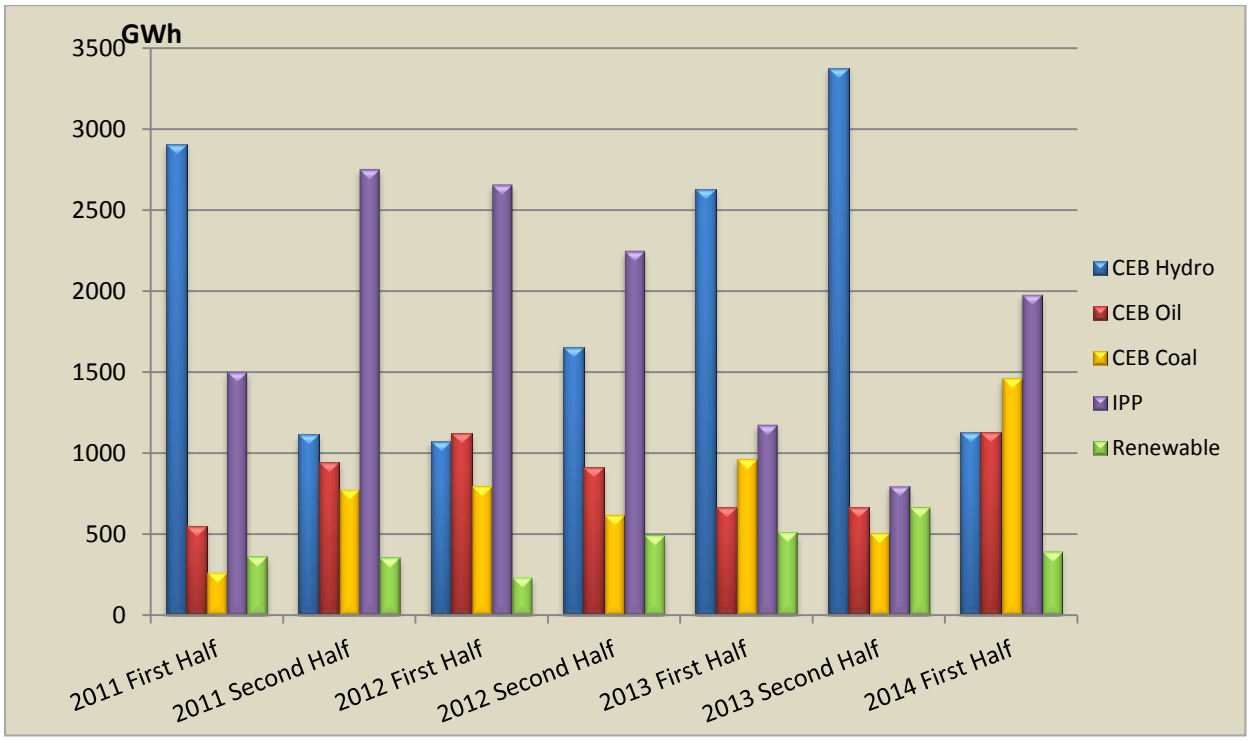


The following chart shows the daily variation of generation mix in Sri Lanka during the first six months of 2014.



Note: *Daily generation data of renewable power plants is not included.*

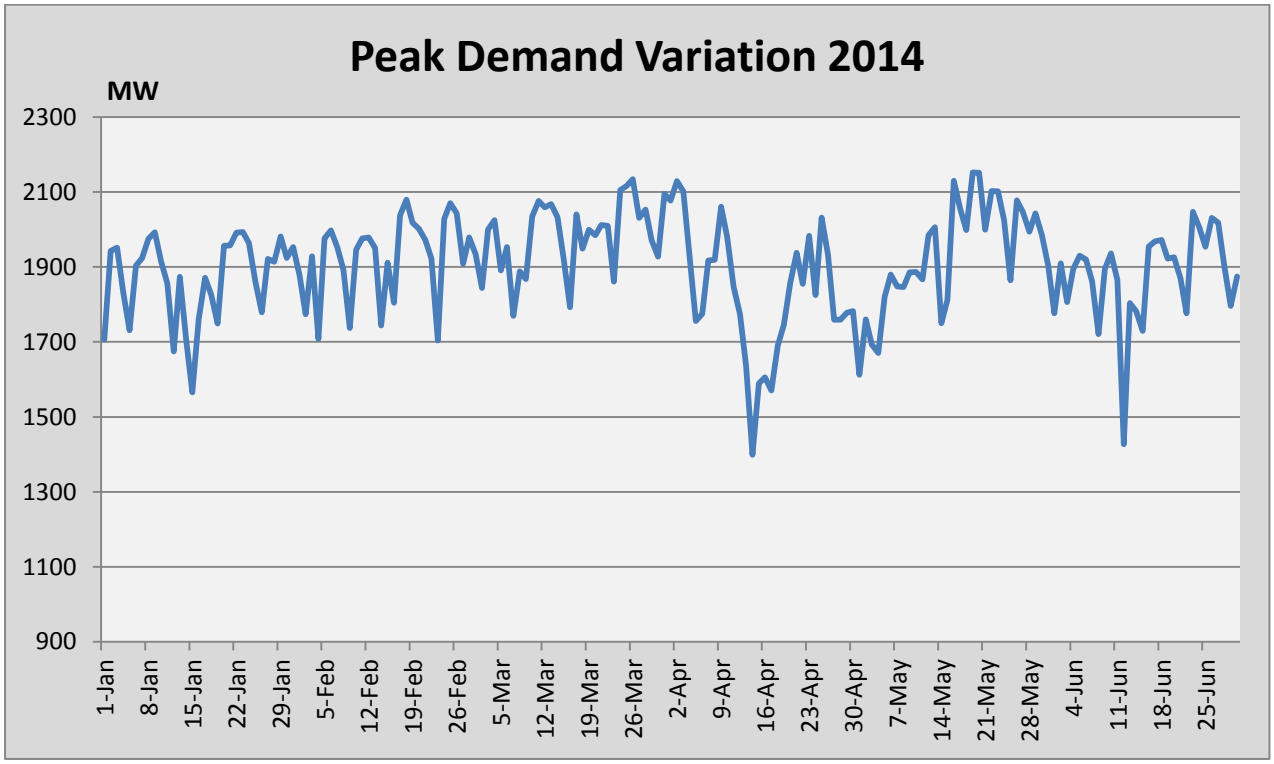
The following chart shows the variation of generation mix in Sri Lanka over the past few years.



3. System Peak Demand

CEB System Control records the daily peak power demand of the country.

Daily variation of country's system peak demand during the first half of the year 2014 is depicted by the following graph.



Highest Peak Demand: 2151.7MW on 19th May 2014

Lowest Peak Demand: 1399.2MW on 14th April 2014

Note: *NCRE contribution of SPP Mini Hydro, Solar and Biomass is not included for the peak demand.*

4. Load Factor

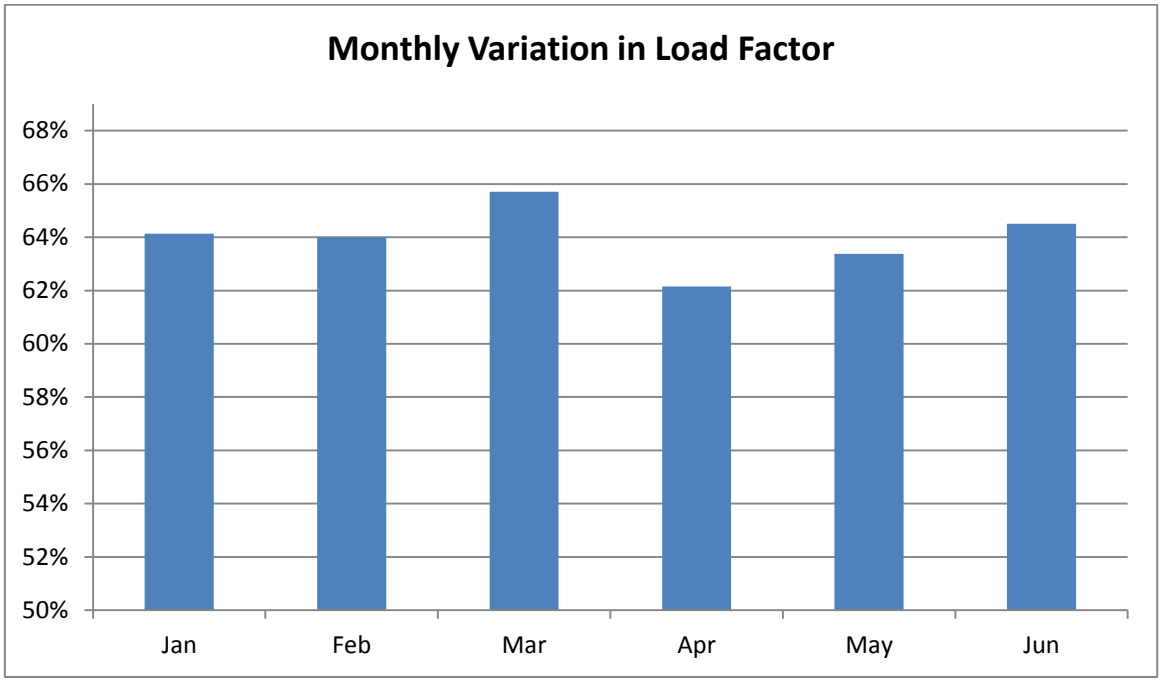
Load Factor is an indicator which shows how steady an electrical load over time. It is simply the average load divided by the peak load in a system over a period of time. But normally load factor is calculated subjected to the produced energy according to the following formula.

$$Load\ Factor = \frac{Total\ Generation\ During\ the\ Nominal\ Period}{Maximum\ Demand\ \mathrm{x}\ No.of\ hours\ in\ the\ report\ period}$$

Calculated Load Factor for the total system for first half of year 2014 = **62.12%**

Calculated Load Factor for the total system for first half of year 2013 = **57.81%**

Load factor of any system must be tried to keep in its maximum by pulling down the concentrated maximum demand and shifting the loads to periods of otherwise low usage. Load factor maximization is essential in maintaining the security of supply of the countries in which, meeting the concentrated maximum demand is critical. Countries which have a flat load curve own a higher load factor.



Sri Lanka has a load curve with a steep peak in the night, where starting from about 6.00 pm the load grows to about 2,000 MW by 7.30 pm and starts falling off after about 08.30 pm. Therefore the system must be comprised a substantial additional generation capacity only to meet that abrupt sharp night peak; hence the load factor in Sri Lanka is comparatively low. As a solution for that, CEB has introduced a three tier tariff plan for the industrial electricity consumers with low off peak rates and penal peak rates to smoothen the daily peak load and push some industrial activities to low demand hours, and this time-of-day tariff scheme is expected to be facilitated for the domestic consumers as well in near future.

***Note**: Load Factors were calculated excluding NCRE contribution of SPP Mini Hydro, Solar and Biomass component of the system*

5. Plant Factor

The plant factor of a power plant is the ratio of the actual energy output of the power plant over a period of time to its potential output if it had operated at full nameplate capacity the entire time.

Plant Factors vary greatly depending on the type of power plants and it is calculated according to the following formula.

$$Plant\ Factor = \frac{Actual\ Energy\ Production\ During\ the\ Nominal\ Period}{Potential\ Energy\ Production\ During\ the\ Period}$$

Calculated plant factors for all grid connected power plants in Sri Lanka during the first half of the year 2014 are listed below.

CEB Hydro

Old Laxapana	42.32%
Kukuleganga	36.55%
Ukuwela	30.16%
Inginiyagala	30.06%
Samanalawewa	29.24%
Rantambe	27.48%

Polpitiya	23.87%
Udawalawe	23.29%
Randenigala	23.10%
Victoria	20.73%
Wimalasurendra	17.51%
Upper Kotmale	13.62%

Nilambe	9.25%
Kotmale	8.94%
Bowatenna	6.87%
New Laxapana	5.86%
Canyon	4.07%

CEB & IPP Thermal

Plant Factors of thermal power plants are listed below in the order of calculated unit cost for the first half of year 2014.

1	Puttalam Coal I	68.41%
2	Puttalam Coal II	63.52%
3	Heladhanavi	70.74%
4	Sapugaskanda 2	75.63%
5	Uthura Janani	77.03%
6	Colombo Power	79.60%
7	ACE Embilipitiya	76.28%
8	Sapugaskanda 1	60.60%

9	AES Kelanitissa	60.97%
10	KPS CCY	63.08%
11	Asia Power	63.55%
12	Northern Power	40.40%
13	Westcoast	43.82%
14	GT 7 - Kelanitissa	32.27%
15	Small Gas Turbines	7.77%

CEB Wind – 7.47%

SPP

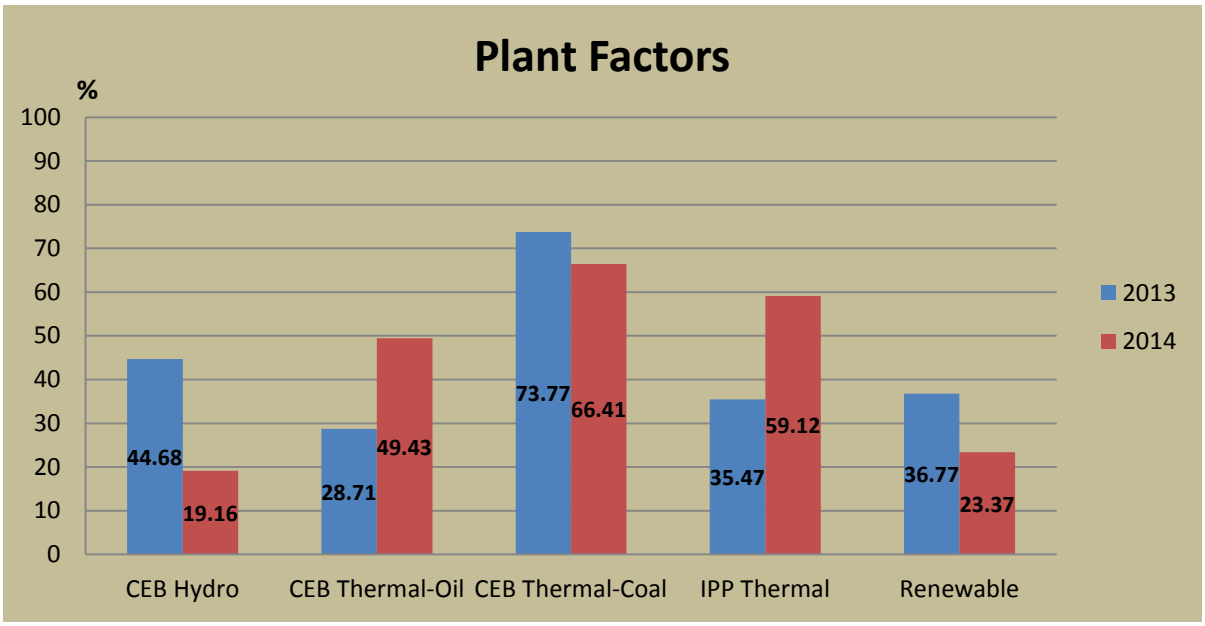
Mulgama MHP	50.98%
Green Energy (Kiriweldola) MHP	44.98%
Hapugastenna - 2 MHP	44.52%
Rathganga MHP	44.30%
Batatota MHP	42.55%
Kirkoswald MHP	40.74%
Ranmudu Oya MHP	40.68%
Hapugastenna - 1 MHP	39.69%
Denawak Ganga MHP	37.06%
Seetha Eliya MHP	36.79%
Lower Neluwa MHP	36.44%
Lenadora MHP	36.14%
Delgoda MHP	35.86%
Waverly MHP	35.80%
Kiriwan Eliya MHP	35.63%
Kaduruwan Dola Athuraliya MHP	35.49%
Kandadola MHP	34.46%
Badulu Oya MHP	34.39%
Kalupahana Oya MHP	33.42%
Belihul Oya Oya MHP	33.25%
Watakelle MHP	32.60%
Gampola Walakada MHP	32.15%
Koswatta Ganga MHP	31.74%
Erathna (Waranagala) MHP	31.59%
Loggal Oya MHP	31.45%
Madugeta MHP	31.29%
Alupola MHP	31.08%
Kokawita 1 MHP	30.48%
Guruluwana MHP	30.44%
Bogandana MHP	30.25%
Rajjammana MHP	29.56%
Wembiyagoda MHP	29.28%
Kotanakanda MHP	28.29%
Wee Oya MHP	28.06%
Gomala Oya MHP	27.90%
Sithagala MHP	27.18%
Maduruoya II MHP	27.16%
Halathura Ganga MHP	26.80%
Koladeniya MHP	25.82%
Galaboda (Denawak Ganga) MHP	25.25%
Manelwala MHP	25.25%
Watawala B Estate MHP	25.21%
Karawila Ganga MHP	25.11%
Labuwewa MHP	25.07%
Carolina MHP	24.57%
Kumburuteniwela MHP	24.52%
Amanawala Oya MHP	23.96%
Bambarabatu Oya MHP	23.85%
Punugala MHP	23.84%
Barcaple II MHP	23.52%
Maduruoya MHP	23.50%
Gangaweraliya MHP	23.30%
Bowhill (Kadiyanlena) MHP	23.04%
Indurana MHP	22.49%
Lemastota MHP	22.37%
Magal Ganga MHP	22.11%
Bopekanda MHP	21.90%
Henfold (Agra Oya) MHP	21.66%
Kabaragala MHP	21.48%
Lower Hemingford MHP	21.10%
Upper Magal Ganga MHP	20.65%
Branford MHP	20.45%
Adavikanda MHP	20.07%
Miyanawita Oya MHP	19.86%
Devituru MHP	19.85%
Way Ganga MHP	19.68%
Pathaha MHP	19.64%
Bambarabotuwa III MHP	19.45%
Kadurugal Dola MHP	19.34%
Mandagal Oya MHP	19.27%
Monaraela MHP	19.01%
Coolbawn MHP	18.95%
Giddawa MHP	18.94%
Barcaple I MHP	18.89%
Niriella MHP	18.87%
Kotapola (Kiruwana) MHP	18.61%
Waltrim MHP	18.49%
Somerset MHP	18.12%
Palmerston MHP	18.02%
Ritigaha Oya II MHP	17.63%
Sheen MHP	17.41%
Rakwana Ganga MHP	17.22%
Mille Oya MHP	16.95%
Watawala (Carolina ii) MHP	16.86%
Wellawaya MHP	16.60%
Soranathota MHP	16.56%
Upper Ritigaha Oya MHP	16.52%
Minuwanella MHP	16.42%
Ganthuna Udagama MHP	16.11%
Aggra Oya MHP	16.05%
Bambarabotuwa II MHP	14.95%
Nugedola MHP	14.81%
Brunswic MHP	14.72%
Pathanahenagama MHP	14.59%
Nakkawita MHP	14.59%
Glassaugh MHP	14.58%
Kalupahana MHP	14.25%
Upper Hal Oya MHP	14.23%
Kehelgamu Oya MHP	14.03%
Werapitiya MHP	13.31%
Huluganga MHP	13.15%
Black Water MHP	13.06%
Dunsinane MHP	12.93%
Atabage Oya MHP	12.66%
Nandurana MHP	12.20%
Ellapita Ella MHP	11.67%
Baharandha MHP	11.66%
Falcon Valley MHP	10.95%
Kolonna MHP	10.77%
Deiyanwala MHP	10.66%
Asupiniella MHP	10.64%
Upper Korawaka MHP	10.55%
Stellenberg MHP	10.19%
Kudah Oya MHP	9.88%
Kadawala I MHP	9.75%
Sanquahar MHP	9.57%
Gonagamuwa MHP	9.45%
Bulathwaththa MHP	9.12%
Galatha Oya MHP	8.95%
Gurugoda Oya MHP	8.83%
Delta MHP	8.82%
Kolapathana MHP	8.68%
Dick Oya MHP	8.39%
Nilambe Oya MHP	7.48%
Lower Atabage MHP	6.46%
Radella MHP	6.40%
Forest Hill MHP	5.87%
Dunsinane Cottage MHP	4.98%
Gampola MHP	4.73%
Mul Oya MHP	3.86%
Kadawala I MHP	3.79%
Weddemulle MHP	3.42%
Kalugala-Pitawala MHP	3.26%
Battalagala MHP	0.61%

Madurankuliya WPP	45.08%
Nirmalapura WPP	34.66%
Erumbukkudal WPP	30.90%
Vidatamunai WPP	29.46%
Mampuri WPP	26.59%
Kalpitiya WPP	26.57%
Seguwantivu WPP	25.49%
Uppudaluwa WPP	24.08%
Mampuri III WPP	22.69%
Mampuri II WPP	22.21%
Ambewela WPP	10.96%
Willwind WPP	9.54%

Ninthaur BMP	57.11%
Badalgama BMP	29.01%
Bathalayaya BMP	20.97%
Tokyo BMP	19.63%
Kottamurichchana BMP	7.32%
Embilipitiya BMP	3.38%

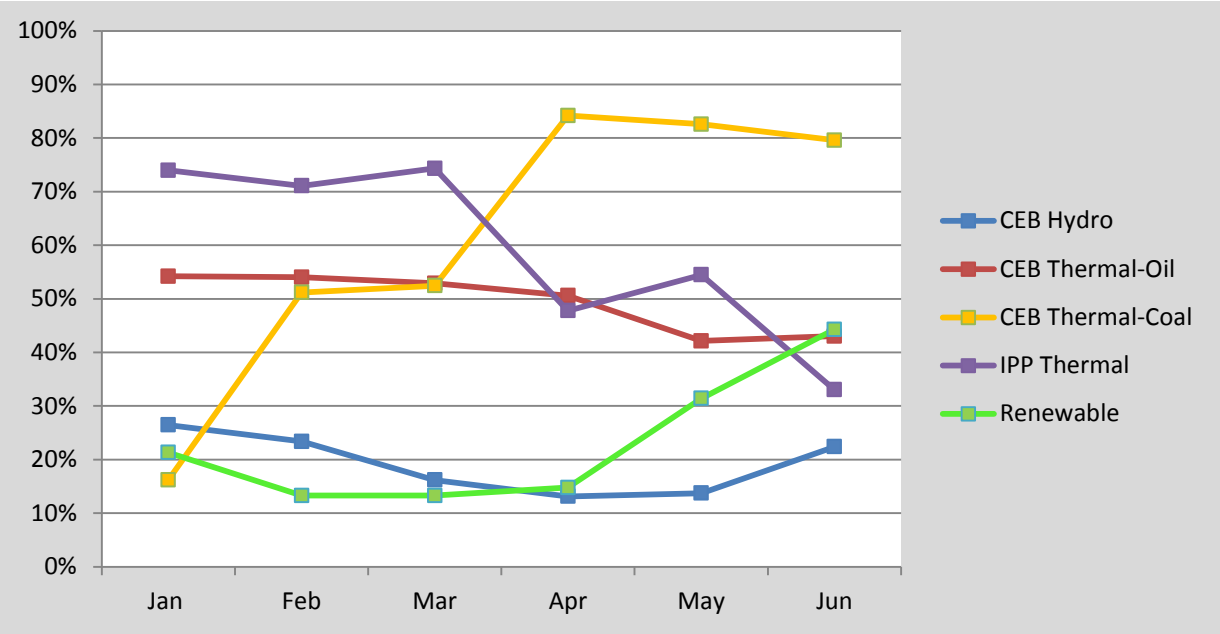
Gonnoruwa II SPP	14.57%
Gonnoruwa I SPP	4.91%

First Semi Annual Overall Plant Factors for the major types of generation options in 2013 & 2014 are given below.



Overall plant factors of CEB hydro plants and Renewable plants have been dropped down due to low rainfall, which has highly impacted towards increasing of thermal oil plant dispatch.

The chart below shows the variation of plant factors during the first 6 months of different types of generation plants operated in 2014.



6. Running Plant Factor

The running plant factor of a generation unit is the ratio of the actual energy output of a generation unit over a period of time to its potential output if it had operated at full nameplate capacity during the period in which it has been operated.

Running Plant Factor shows the extent to which the generation units have been operated when they are running out of their nominal capacities.

Calculated running plant factors for CEB owned generation units in the first half of the year 2014 are listed below.

CEB Hydro

Nilambe	Unit 1-2	97.89%
Ukuwela	Unit 1	96.74%
	Unit 2	96.82%
Kukule	Unit 1	90.06%
	Unit 2	94.36%
Upper Kotmale	Unit 1	53.44%
	Unit 2	99.60%
Kotmale	Unit 1	58.13%
	Unit 2	60.82%
	Unit 3	82.14%
Udawalawe	Unit 1-3	78.41%
Randenigala	Unit 1	77.12%
	Unit 2	79.35%
Rantambe	Unit 1	74.01%
	Unit 2	73.61%
Old Laxapana	Unit 1	67.18%
	Unit 2	57.61%
	Unit 3	67.16%
	Unit 4	54.85%
	Unit 5	58.93%

Wimalasurendra	Unit 1	62.51%
	Unit 2	62.91%
Victoria	Unit 1	52.46%
	Unit 2	57.41%
	Unit 3	62.94%
Inginiyagala	Unit 1-4	58.03%
New Laxapana	Unit 1	59.12%
	Unit 2	44.56%
Samanalawewa	Unit 1	55.06%
	Unit 2	55.17%
Canyon	Unit 1	48.38%
	Unit 2	40.66%
Polpitiya	Unit 1	38.00%
	Unit 2	45.02%
Bowatenna	Unit 1	31.15%

CEB Thermal

Puttalam Coal	Unit 1	84.46%
	Unit 2	80.00%
Sapugaskanda B	Unit 5	94.44%
	Unit 6	94.93%
	Unit 7	90.62%
	Unit 8	93.85%
	Unit 9	95.16%
	Unit 10	95.78%
	Unit 11	97.49%
	Unit 12	83.77%
Uthuru Janani	Unit 1	100.72%
	Unit 2	98.84%
	Unit 3	99.16%

Sapugaskanda 1	Unit 1	80.67%
	Unit 2	76.86%
	Unit 3	78.30%
	Unit 4	86.79%
KPS CCY	Unit 8 (GT)	87.56%
	Unit 8 (ST)	94.75%
KPS GT7	Unit 7	83.12%
KPS(Small) GT	Unit 1	0.00%
	Unit 2	75.81%
	Unit 3	0.00%
	Unit 4	92.16%
	Unit 5	89.33%

***Note**: Running Plant Factors for IPPs and SPPs were not calculated since the operation durations of those plants were not available.*

7. Generation Cost

Power Station	Semi Annual Generation (GWh)	Total Cost to CEB (Mn.LKR)	Average Unit Cost(Rs/kWh)
Asia Power	141	4,410	31.32
AES Kelanitissa	422	11,923	28.25
Colombo Power	204	5,198	25.47
Heladhanavi	307	7,381	24.02
ACE Embilipitiya	329	8,465	25.76
Westcoast	476	16,858	35.41
Northern Power	45	1,440	32.04
Sapugaskanda A	166	4,440	26.72
Sapugaskanda B	233	5,714	24.49
Kelanitissa Small GTs	29	1,625	56.76
Kelanitissa PS GT 7	161	7,708	47.88
Kelanitissa Combined	452	13,991	30.94
Puttalam Coal	1,457	12,267	8.42
Uthura Janani	80	1,995	24.84
Victoria	189	973	5.15
Ukuwela	52	383	7.31
Kotmale	78	948	12.15
Upper Kotmale	89	681	7.67
Randenigala/Rantambe	181	885	4.89
Bowatenna	12	251	20.98
Nilambe	1	55	46.00
Old Laxapana/New Laxapana	117	549	4.68
Polpitiya	78	270	3.47
Wimalasurendra	38	172	4.53
Canyon	11	330	31.15
Samanalawewa	152	696	4.57
Kukule	111	387	3.48
Inginiyagala	13	96	7.32
Udawalawe	6	56	9.16
Renewable	391	6,133	15.67
All Hydro	**1,129**	**6,732**	**5.96**
All CEB Thermal	**2,578**	**47,739**	**18.51**
ALL IPP Thermal	**1,924**	**55,674**	**28.94**
All Plants	**6,022**	**116,278**	**19.31**

Source: *LISS Data*
Note: Cost of operating Hydro plants were obtained through estimated BST (Bulk Supply Tariff) values

7.1 Amount Paid in Excess of Capacity and Energy Charges

CEB has paid to Independent Power Producers (IPP) in excess of capacity and energy charges according their Power Purchase Agreements (PPA). The amounts which have been paid are summarized below.

Power Plant	Start/Stop Charge (Mn.LKR)	Reimbursement Claim (Mn.LKR)	O & M Charge (Mn.LKR)	Total (Mn.LKR)
Asia Power	20.38	64.08		**84.46**
AES - Kelanitissa	215.63	62.83		**278.47**
Colombo Power	24.98	73.37		**98.35**
Heladhanavi	28.26	285.83		**314.09**
ACE Embilipitiya	1.57	197.57		**199.14**
Westcoast	385.66	325.23		**710.89**
Northern Power	0.00	81.78	132.36	**214.13**
Total (Mn.LKR)	**676.48**	**1090.68**	**132.36**	**1899.52**

8. Comparison of Scheduled Dispatch and Actual Dispatch

CEB implements a generation dispatches schedule every 6 months prior operation. It contains the amount of energy to be produced by each power plant for the forthcoming months. Due to numerous reasons the actual dispatch could be deviated from this schedule and, the comparison between actual and scheduled dispatches for the first six months of year 2013 is given below.

	Capacity MW	Scheduled GWh	Actual GWh	Variation GWh	Scheduled PF	Actual PF
Puttalam Coal	600	1,797	1,457	-340	68.95%	55.89%
Heladhanavi	100	366	307	-58	84.14%	70.74%
Sapugaskanda B	72	237	233	-3	75.62%	74.60%
Uthura Janani	24	89	80	-8	85.11%	77.03%
Colombo Power Barge	60	212	204	-8	81.18%	78.30%
ACE Embilipitiya	100	282	329	47	64.89%	75.65%
Sapugaskanda 1	64	191	166	-25	68.74%	59.77%
AES Kelanitissa	163	41	422	381	5.73%	59.60%
KPS CCY	165	277	452	175	38.69%	63.08%
ASIA Power	51	127	141	14	57.28%	63.55%
Northern Power	27	59	45	-14	49.88%	38.33%
Westcoast	270	145	476	331	12.40%	40.59%
KPS GT 7	115	35	161	126	6.93%	32.23%
KPS Small GT	85	4	29	25	0.97%	7.75%
Total Grid Con. Thermal	1,896	3,859	4,502	643	46.86%	54.66%
Renewable energy	400	311	390	78	17.92%	22.43%
CEB Hydro	1,356	1,861	1,129	-732	31.59%	19.16%
Total Generation	3,652	6,032	6,021	-11	38.02%	37.95%

9. Availability Factor

The evaluation of availability of a power plant is one of the most important tasks at any power station. To analyze plant availability performance, generation unit outages should be scrutinized to identify the causes of unplanned or forced energy losses and to reduce the planned energy losses. Reducing outages increases the number of operating hours, therefore increases the plant availability factor.

Availability Factor of a generation plant can be calculated using the formula given below.

$$Availability\ Factor = \frac{Duration\ in\ which\ the\ generation\ unit\ was\ available\ for\ opertaion}{Total\ length\ of\ the\ period}$$

Total Availability Factor for all CEB generation Units in first half of 2014 = **78%**

Availability Factor for CEB hydro generation units in first half of 2014 = **80%**

Availability Factor for CEB thermal generation units in first half of 2014 = **77%**

Availability Factor for CEB wind generation units in first half of 2014 = **68%**

Calculated availability factors for CEB owned generation plants in the first half of year 2014 are listed below.

CEB Hydro

Rantambe	97.74%
Bowatenna	96.91%
Upper Kotmale	96.38%
Nilambe	95.57%
Samanalawewa	95.46%
Old Laxapana	95.14%
Kotmale	94.57%
Randenigala	93.37%
Polpitiya	91.89%

Victoria	91.07%
Ukuwela	91.00%
Wimalasurendra	90.52%
Kukule	87.23%
Canyon	75.82%
Inginiyagala	51.97%
Udawalawe	27.73%
New Laxapana	6.89%

CEB Thermal

Puttalam Coal II	96.43%
Uthura Janani	91.51%
KPS GT7	84.49%
Sapugaskanda 2	82.69%
Puttalam Coal I	81.60%
Sapugaskanda 1	77.33%
KPS CCY	74.56%
KPS(Small) GT	54.44%

Note: *Interruption data is available only for CEB owned power plants*

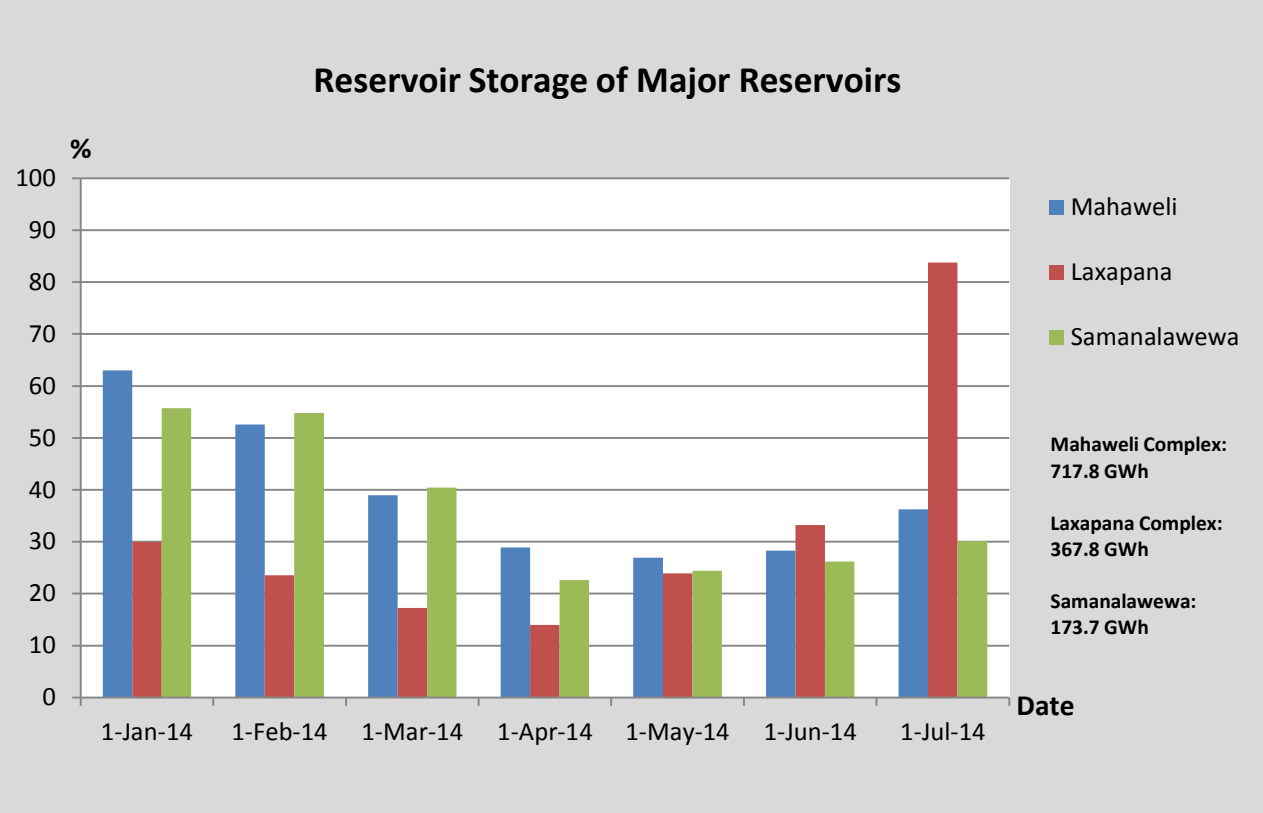
10.Reservoir Storages

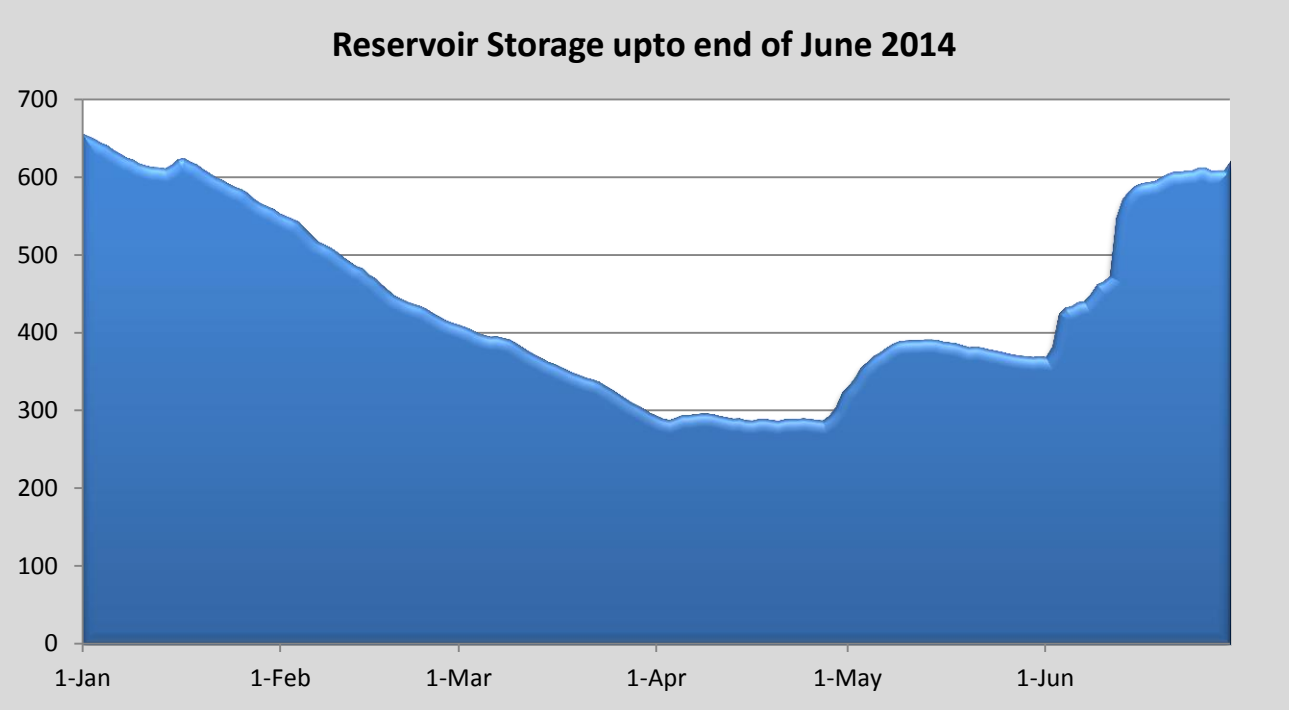
Hydro power is one of the major sources of electricity generation in the Sri Lanka and most of the large scale hydro projects have been developed by CEB. In 2014 approximately 37% of the total existed capacity by the end of June was covered by 17 CEB hydro stations and a contribution of 19% has been given out of total generation.

The major hydropower schemes already developed are associated with Kelani and Mahaweli river basins. Laxapana complex comprises five hydro power stations which have been built associated with the two main tributaries of Kelani River; Kehelgamu Oya and Maskeli Oya. Castlereigh and Moussakelle are the major storage reservoirs in the Laxapana complex. Mahaweli complex comprises seven hydro power stations and three major reservoirs; Kotmale, Victoria and Randenigala. In addition to above mentioned reservoirs Samanalawewa, which is on Walawe River, is also can be considered as a large reservoir. And all the other small reservoirs which contribute to power up the run-of-river type plants are considered as ponds.

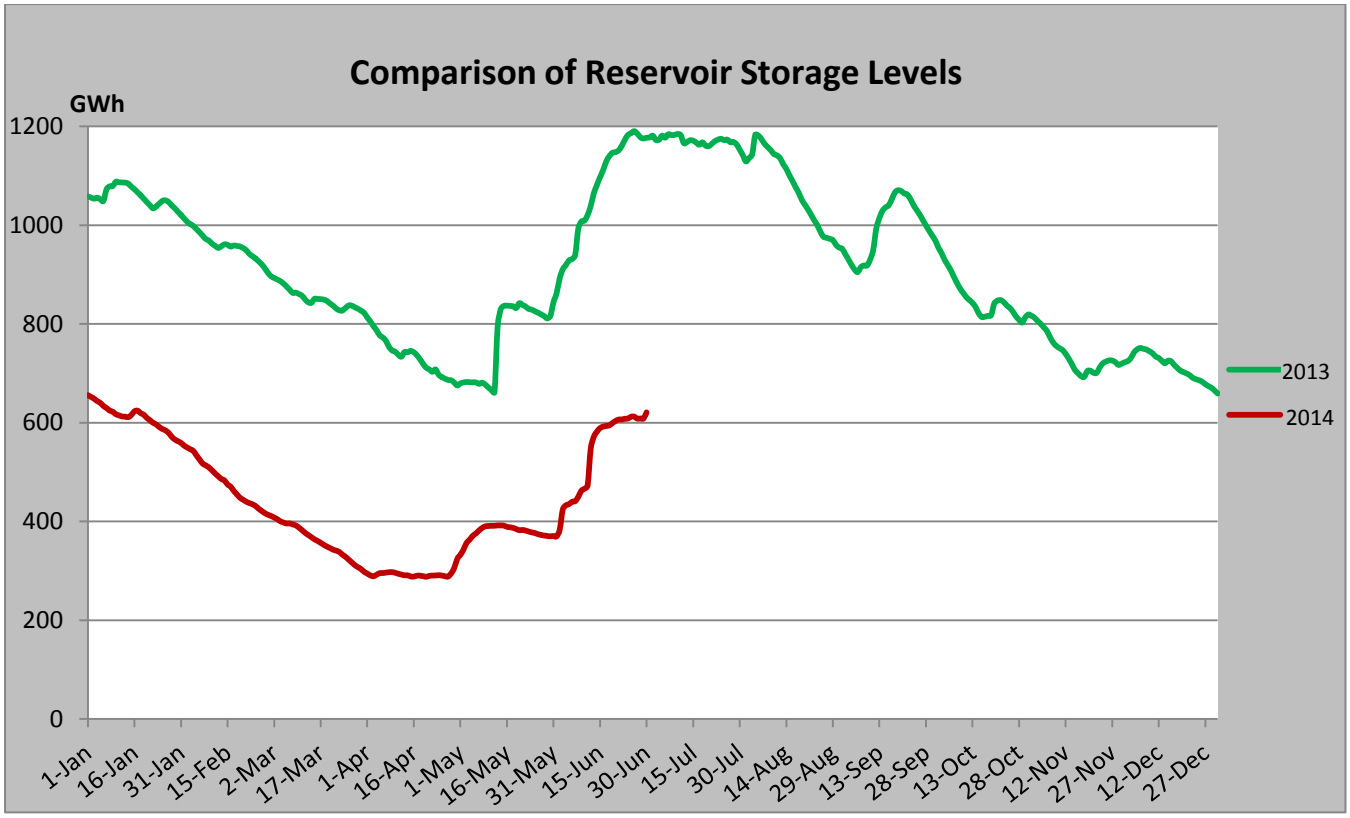
Therefore having a satisfactory capacity of water in these reservoirs throughout the year is essential to dispatch the hydro power to a significant amount.

The major reservoir storage levels prevailed during the first half of the years 2014 are depicted below.





Note: Only Mahaweli, Laxapana and Samanalawewa Complexes' reservoirs are considered in total reservoir storage profile.



11.Conclusion

Compared to the generation figures in first six months of year 2013, it can be perceived that hydro generation contribution of 44.26% has been dropped down to 18.75% during the first half of year 2014 as a result of the low levels of hydro storage conditions. Also the contribution of renewable energy component has been dropped to 6.5% which was 8.6% in year 2013, due to low rainfall. Therefore IPP thermal generation (32% of total generation) has been improved during first six months of 2014.

The Report has described and calculated a number of key performance indicators for total generation system and individual generation plants operated in Sri Lanka. And it moreover gives a comparison of the generation statistics between first halves of year 2013 and 2014. The indicators for the present technical performance of the generation system are useful when planning the future developments and taking the corrective actions if necessary to improve the efficiency of generation.

Maximum electricity demand recorded in the year 2014 is 2151.7MW and it is expected to be risen to 2311MW in 2015 subjected to the peak demand growth rate of 7.4% as specified by the Long Term Generation Expansion Plan (2013-2032). To achieve this demand a system capacity of 3353MW (excluding NCRE contribution, including Puttalam Coal phase III) is available to dispatch during the year 2015. Therefore there will be a Reserve Margin of 45% when the peak demand of year 2015 is reached, assuming that all the power plants are readily available to dispatch with their full capacities. But when it comes to the practical state it is obvious that all the plants will not be available fully at every time.

Therefore, even though the available dispatchable total capacity is dropped by 810MW the Reserve Margin can be maintained above 10%, which is the minimum allowed Reserve Margin by the Least-Cost Generation Expansion Planning Code. And it is to be noted that the phase 3 of the Puttalam Coal Power Plant has been commissioned in August 2014 to enhance the generation capacity of Sri Lankan electricity network.

Improving the performance of existing power plants is the most cost effective way to increase the energy producing capabilities of them. Performance indicators are very useful in identifying the areas where the improvements are needed. Among generation plants' performance measures plant factor, availability and auxiliary consumption are critical performance indicators, both in technical and commercial terms. Nevertheless, generator outages' details and auxiliary consumption data of IPPs are not available to assess the availability and percentage of auxiliary consumption of them. And individual auxiliary consumption data of CEB owned power plants are also not available to measure their individual performances. Therefore the availability details and auxiliary consumption data of all CEB and Private power are intended to be received in future through LISS in order to measure their performance.