

Generation and Reservoirs Statistics

November 17, 2023



PUBLIC UTILITIES COMMISSION OF SRI LANKA

1. Daily Generation Mix in MWh

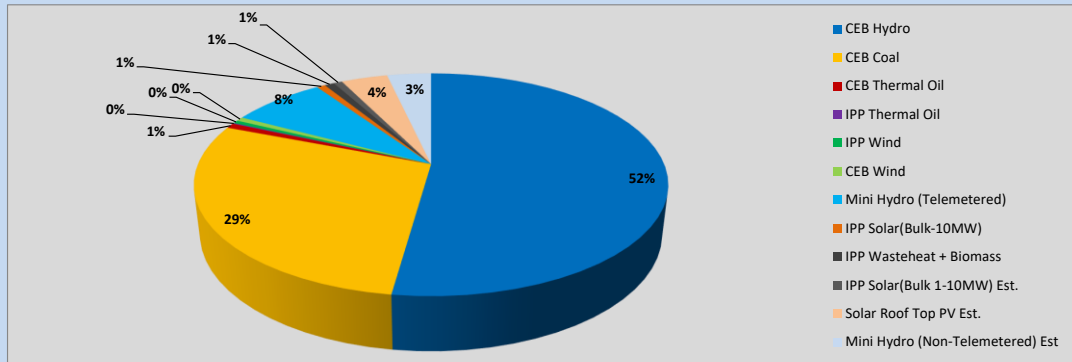


Table 01

	Generation (MWh)
CEB Hydro	22,628
CEB Coal	12,421
CEB Thermal Oil	317
IPP Thermal Oil	54
IPP Wind	199
CEB Wind	259
Mini Hydro (Telemetered)	3,317
IPP Solar (Bulk)	301
IPP Waste heat + Biomass	339
Total Generation (Excluding estimated figures)	39,835
* Estimated unserved energy	0
* Estimated Mini Hydro (Non telemetered)	1553
* Estimated IPP Solar PV (Bulk 1-10MW)	304
* Estimated Solar Roof Top PV	1640
Total Generation (Including estimated figures)	43,332

* Estimated figures of CEB generation report

Table 02

	Installed Capacity (MW)
CEB Hydro	1409
CEB Coal	810
CEB Thermal Oil	781
IPP Thermal Oil (West Coast, ACE Matara and ACE Embilipitiya)	387
IPP Wind	148
CEB Wind	100
Mini Hydro	422
IPP Waste heat + Biomass	50
IPP Solar	136
Rooftop Solar (Ordinary)	277
Rooftop Solar (LT Bulk)	263
Rooftop Solar (HT Bulk)	70

Data Source - Monthly Review Report [Aug-2023]

2. Cumulative Dispatch

Following data excludes the contribution from roof top solar, non telemetered solar and mini hydro plants

Table 03 - Current Month

Category	Dispatch (GWh)	
CEB Hydro	388	56.53%
CEB Coal	157	22.82%
CEB Thermal Oil	5	0.66%
IPP Thermal	2	0.24%
SPP Wind	5	0.73%
CEB Wind	6	0.88%
Mini Hydro *	83	12.05%
IPP Solar *	37	5.40%
IPP Waste heat + BMP	5	0.69%
Total	687	

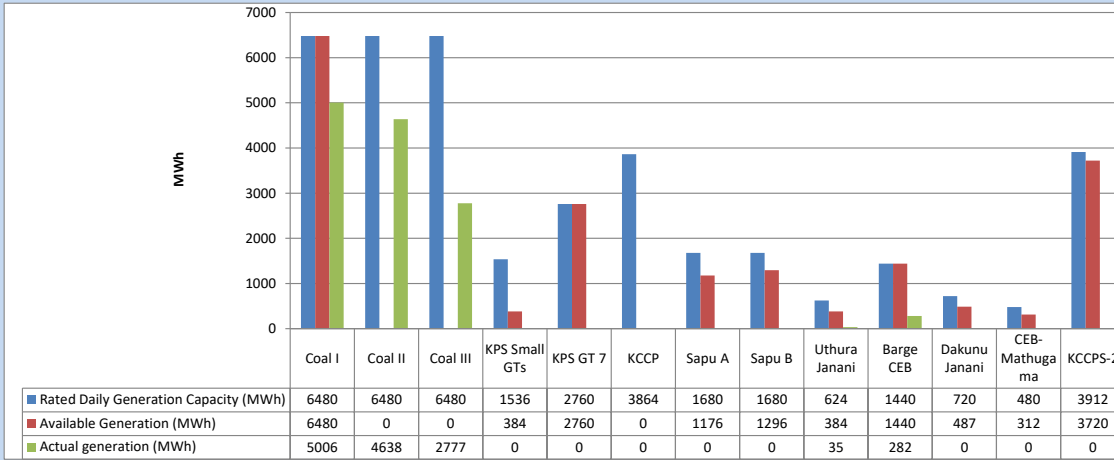
Table 04 - Current Year

Category	Dispatch (GWh)	
CEB Hydro	3,490	25.62%
CEB Coal	4,422	32.46%
CEB Thermal Oil	1,949	14.31%
IPP Thermal	1,115	8.19%
SPP Wind	370	2.71%
CEB Wind	358	2.63%
Mini Hydro *	1,009	7.41%
IPP Solar *	774	5.68%
IPP Waste heat	135	0.99%
Total	13,624	

*Including estimated contribution from non telemetered plants

3. CEB owned Thermal Plant Dispatch

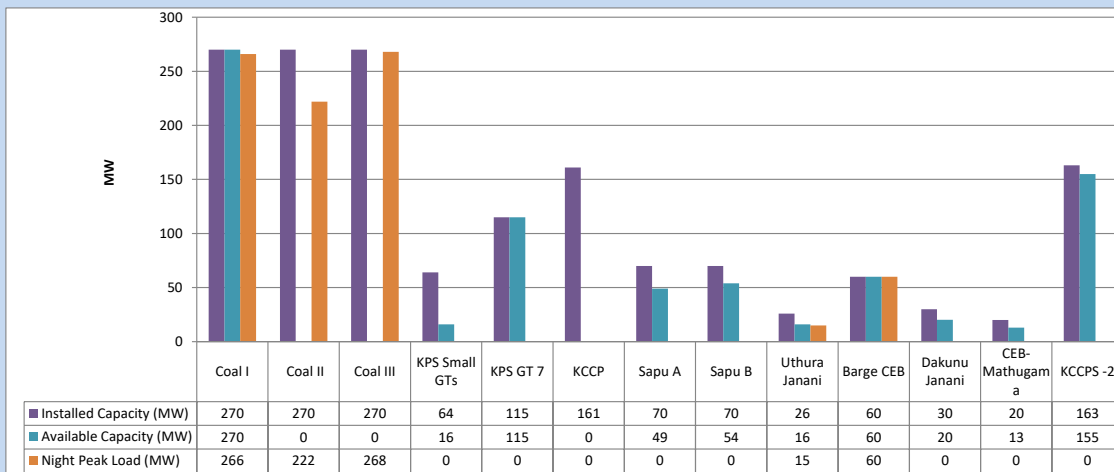
November 17, 2023



Available Generation is estimated based on plant availability at 6.00am on

November 18, 2023

4. CEB owned Thermal Plant Loading at the Night Peak

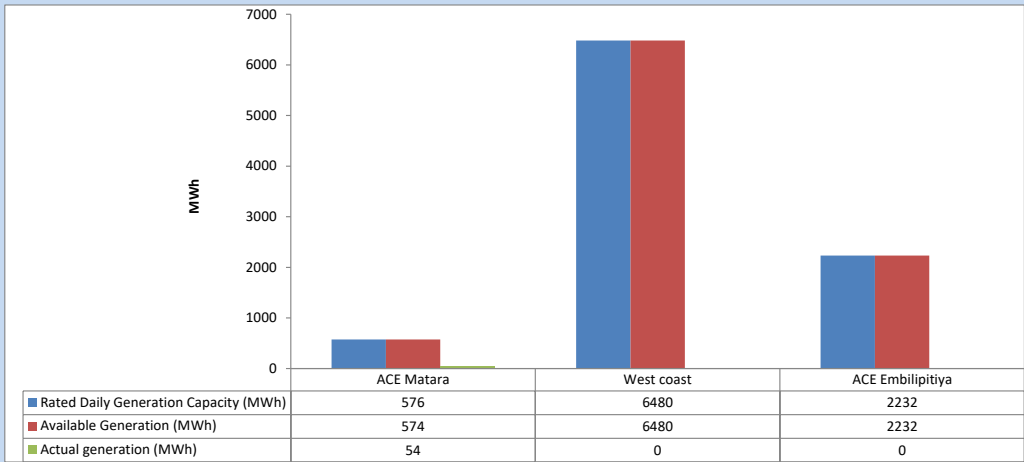


Plant availability is recorded at 6.00 am on

November 18, 2023

5. IPP owned Thermal Plant Dispatch

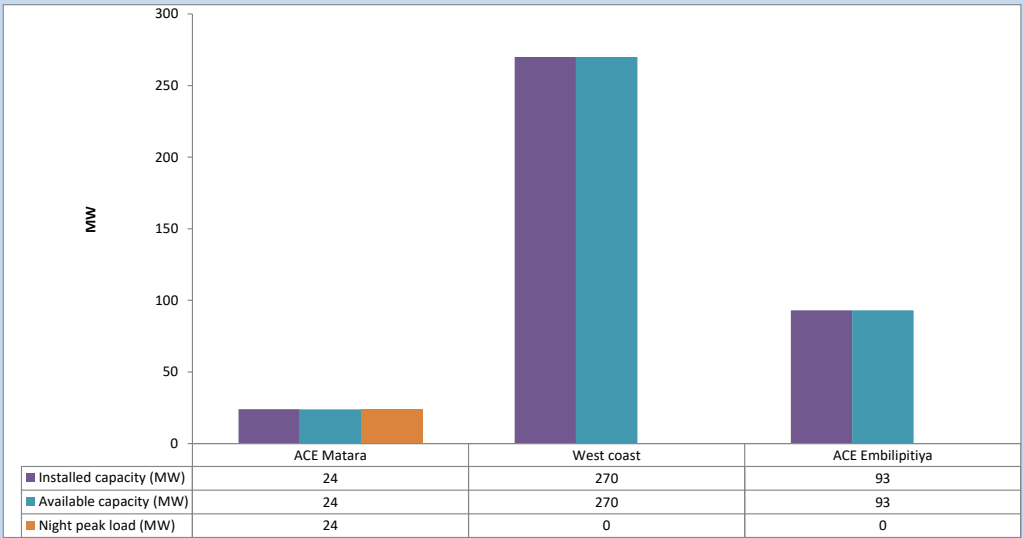
November 17, 2023



Available Generation is estimated based on plant availability at 6.00am on

November 18, 2023

6. IPP owned Thermal Plant Loading at the Night Peak

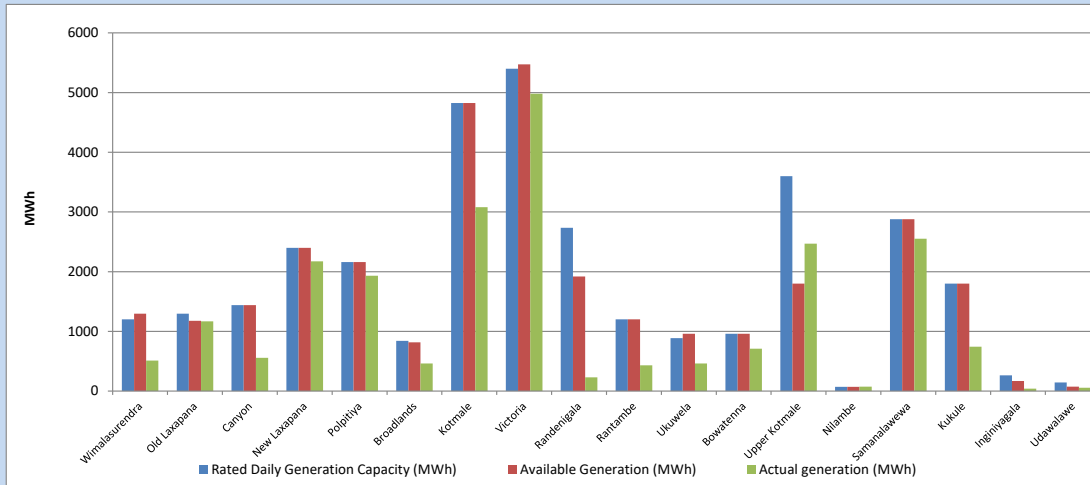


Plant availability is recorded at 6.00 am on

November 18, 2023

7. Major Hydro Plant Dispatch

November 17, 2023

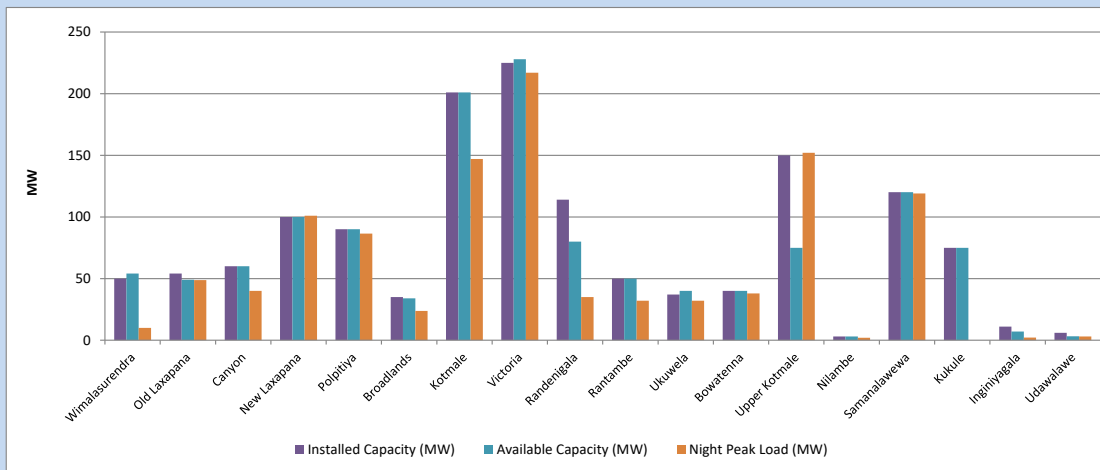


Available Generation is estimated based on plant availability at 6.00am on November 18, 2023
Broadlands power plant is operating in the Commissioning Stage

November 18, 2023

8. Major Hydro Plant Loading at Night Peak

November 17, 2023



Plant availability is recorded at 6.00 am on November 18, 2023
Broadlands power plant is operating in the Commissioning Stage

November 18, 2023

9. Summary of Major Plant performance

Table 05

Plant	Installed Capacity	Plant Availability	Night peak Load	Plant Dispatch
	(MW)	(MW)	(MW)	(MWh)
Wimalasurendra	50	54	10	512
Old Laxapana	54	49	49	1,167
Canyon	60	60	40	557
New Laxapana	100	100	101	2,173
Polpitiya	90	90	87	1,930
Broadlands	35	34	24	461
Kotmale	201	201	147	3,080
Victoria	225	228	217	4,981
Randenigala	114	80	35	229
Rantambe	50	50	32	430
Ukuwela	37	40	32	463
Bowatenna	40	40	38	710
Upper Kotmale	150	75	152	2,470
Nilambe	3	3	2	74
Samanalawewa	120	120	119	2,553
Kukule	75	75	0	742
Inginiyagala	11	7	2	39
Udawalawe	6	3	3	57
Puttalam Coal I	270	270	266	5,006
Puttalam Coal II	270	0	222	4,638
Puttalam Coal III	270	0	268	2,777
KPS Small GTs	64	16	0	0
KPS GT 7	115	115	0	0
KCCP	161	0	0	0
Sapugaskanda A	70	49	0	0
Sapugaskanda B	70	54	0	0
Uthura Janani	26	16	15	35
Barge CEB	60	60	60	282
CEB-Hambantota	30	20	0	0
CEB-Mathugama	20	13	0	0
ACE Matara	24	24	24	54
Asia Power	50	0	0	0
KCCPS -2	163	155	0	0
West Coast	270	270	0	0
Nothern Power	36	0	0	0
ACE Embilipitiya	93	93	0	0
Total	3,483	2,464	2,112	39,835

Plant availability is the availability recorded at 6 am on

November 18, 2023

10. Contribution to the Night Peak in MW

November 17, 2023

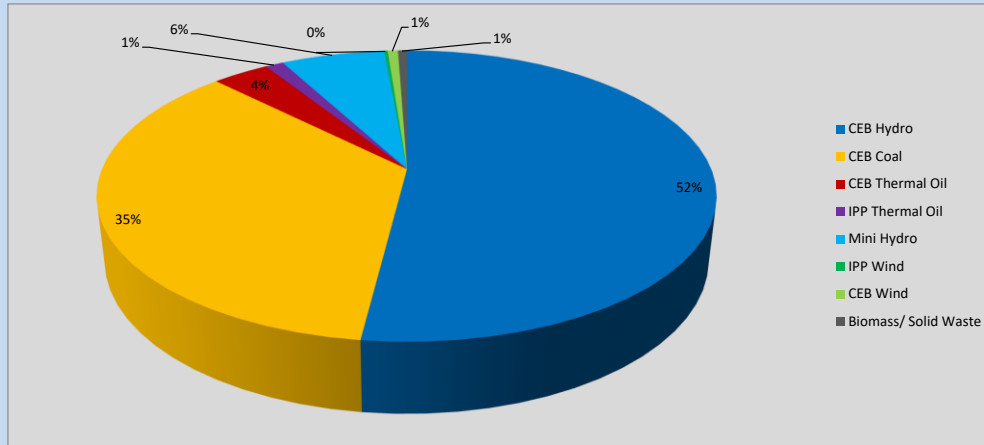


Table 06

CEB Hydro	1107	MW
CEB Coal	756	MW
CEB Thermal Oil	75	MW
IPP Thermal Oil	24	MW
Mini Hydro (Telemetered)	137	MW
IPP Wind	4.7	MW
CEB Wind	13.7	MW
Biomass/ Solid Waste	12	MW

Recorded Peak Demand Data

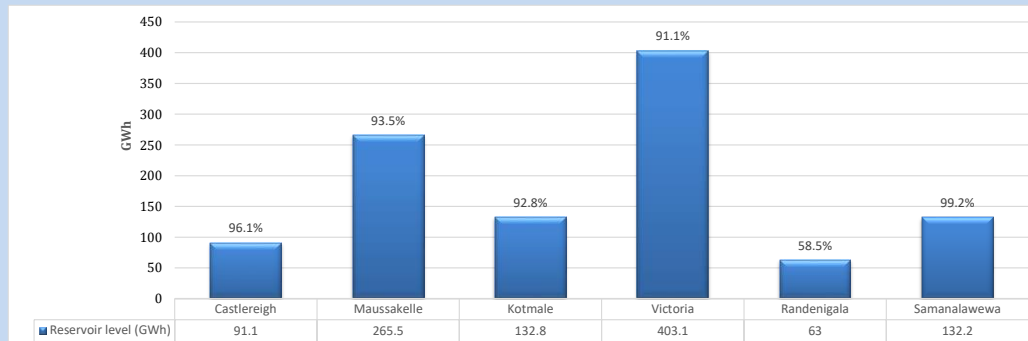
Table 07

Night Peak*	2,130	MW
Day Peak Maximum Demand	1,927	MW
Day Peak Minimum Demand	1,685	MW
Off Peak Minimum Demand	1,201	MW

Above figures are excluding contribution from roof top solar, non telemetered solar and mini hydro plants

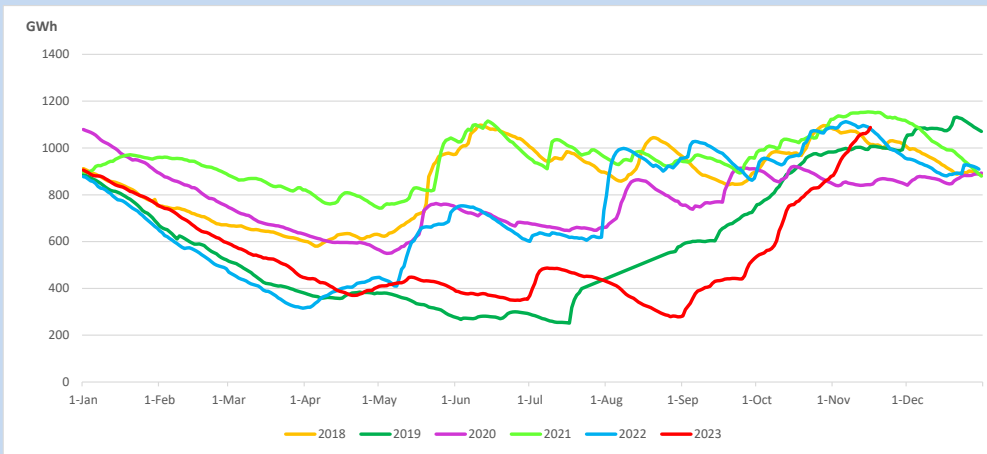
Reservoir Levels -

as at 06.00 Hr on November 18, 2023

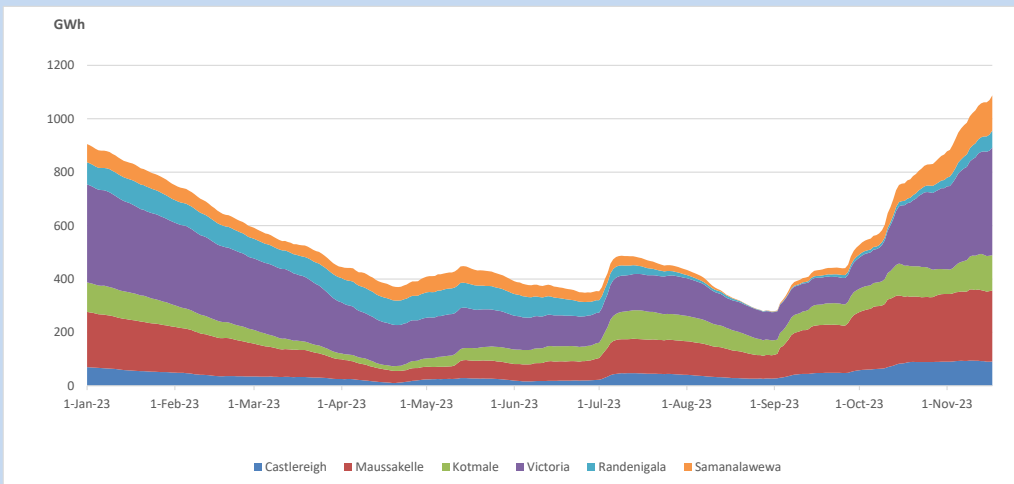


Total Reservoir Level 1087.7 GWh
% of Total capacity 90.2%

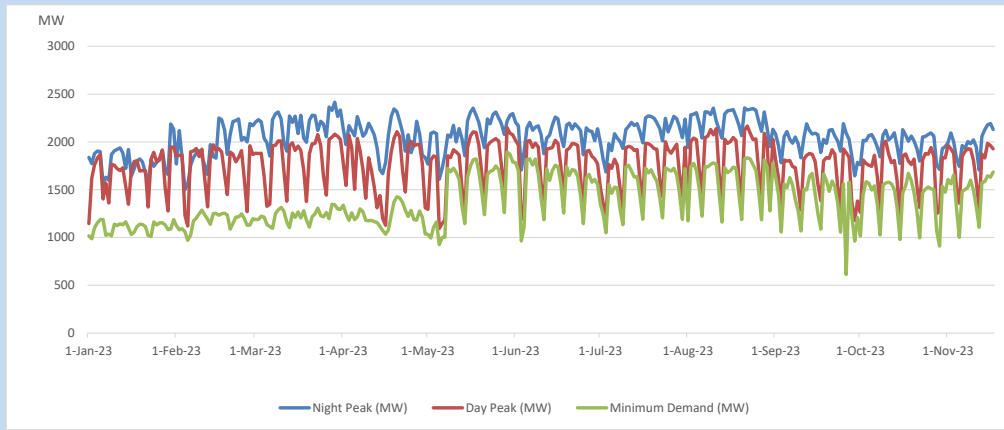
11. Comparison of Total Reservoir Storage Levels with Past Years



12. Variation of Major Hydro Reservoir Levels in the current year (GWh)



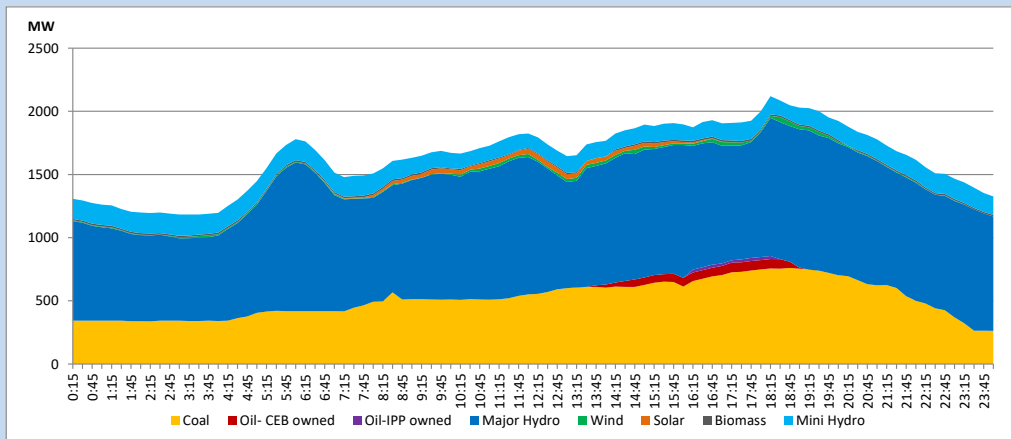
13. Variation of Demand during the current year



The above figures are excluding contribution from roof top solar, non telemetered solar and mini hydro plants

14. Daily Load Curve

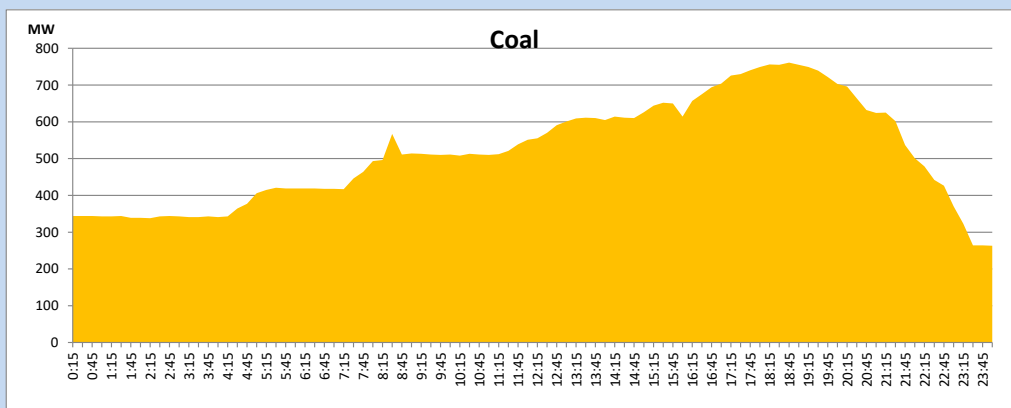
November 17, 2023



Solar and wind data is based on Telemetered Power Stations only

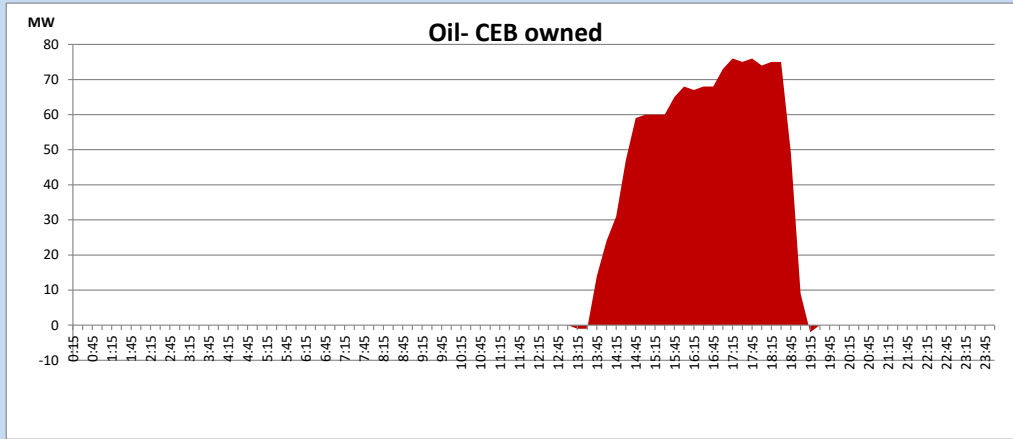
Coal Generation during

November 17, 2023



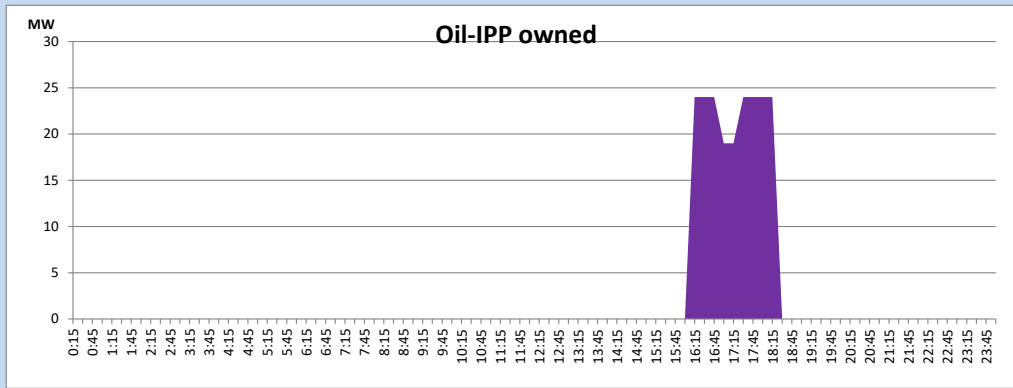
CEB Oil Plant Generation during

November 17, 2023



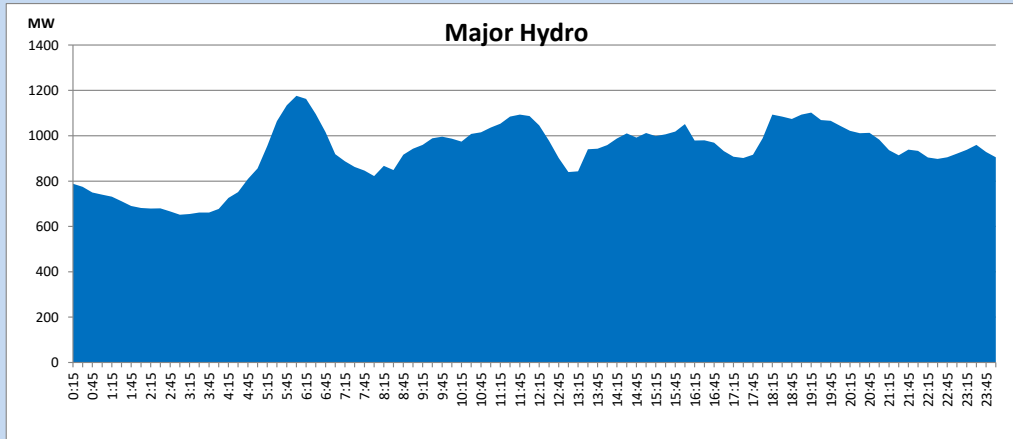
IPP Oil Plant Generation during

November 17, 2023



Major Hydro Generation during

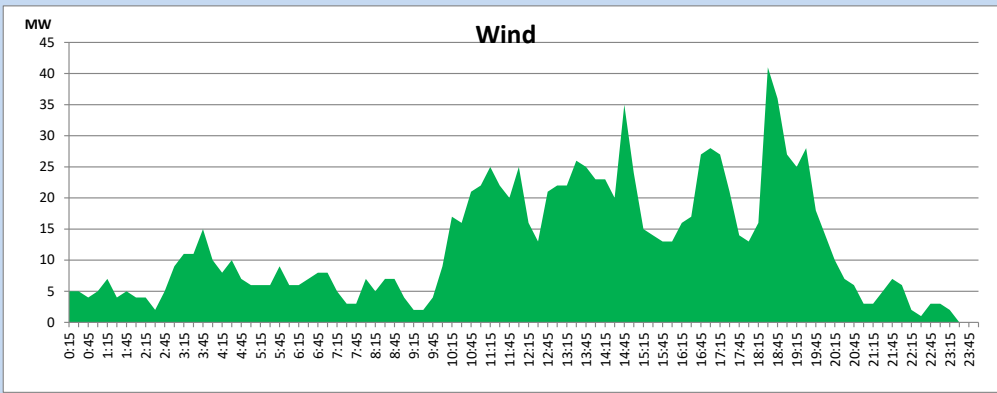
November 17, 2023



Wind Generation during

November 17, 2023

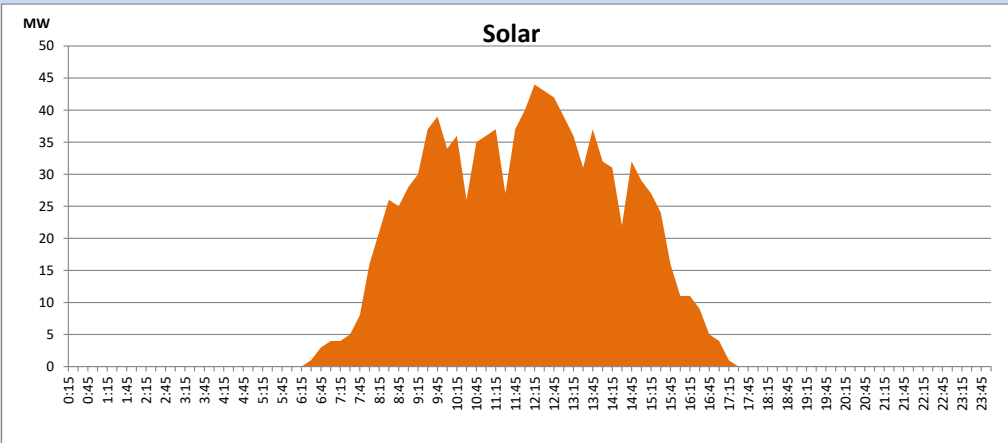
Based on Telemetered Power Stations only



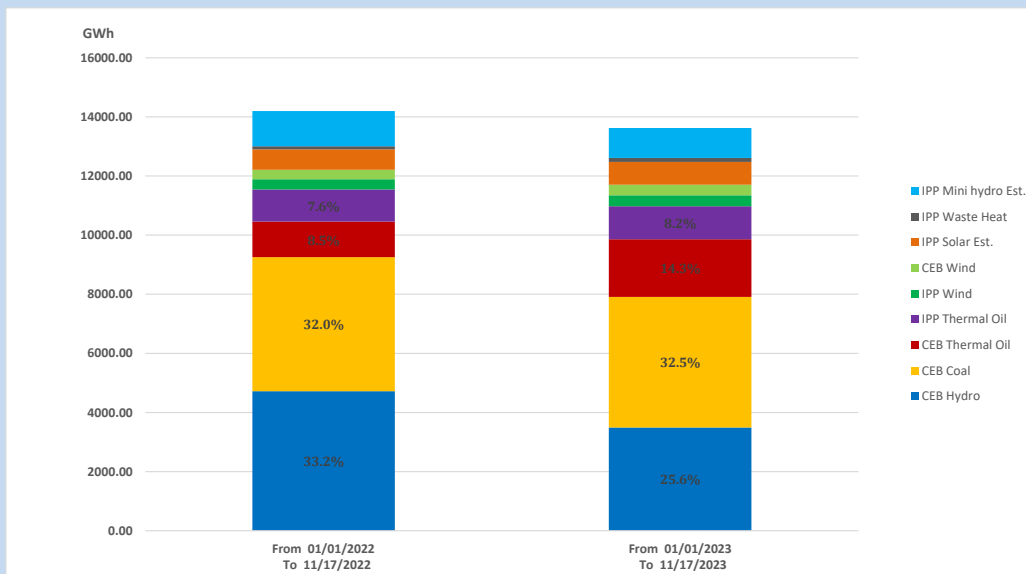
Solar Generation during

November 17, 2023

Based on Telemetered Power Stations only



15. Cumulative Dispatch Comparison with Last Year



Cumulative dispatch

From 01/01/2022 To 11/17/2022

14196 GWh

From 01/01/2023 To 11/17/2023

13624 GWh

The above figures are including contribution from roof top solar, non telemetered solar and mini hydro plants (figures have been adjusted based on the data from the CEB monthly review reports.)

Thermal Plant Fuel types

Table 08

Power Station	Primary Fuel
CEB Thermal	
Sapugaskanda 1	Heavy Fuel
Sapugaskanda 2	Heavy Fuel
Kelanitissa Small Gas Turbines	Auto Diesel
GT 7 - Kelanitissa	Auto Diesel
Kelanitissa CCY	Naphtha or Diesel
Lakvijaya 1	Coal
Lakvijaya 2	Coal
Lakvijaya 3	Coal
Uthuru Janani	Heavy Fuel
Barge CEB	Heavy Fuel
KCCPS -2	Auto Diesel

Power Station	Primary Fuel
Private Thermal	
West Coast	Auto Diesel / Heavy Fuel
ACE Matara	Heavy Fuel
ACE Embilipitiya	Heavy Fuel

Major Incidents reported during the day

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- 1) Kukule unit 02 tripped at 09:18hrs rejecting 40MW from the system due to air cooler discharge water temperature high alarm causing the system frequency dropped to 49.34Hz. The unit resumed generation at 10:36hrs. Again, the unit 02 tripped at 16:18hrs rejecting 40MW from the system due to the operation of generator differential protection. The unit resumed generation at 20:16hrs.
- 2) Ukuwela generation made unavailable from 12:01hrs to facilitate the search of a drowned person on request of Kande Nuwara police station. Ukuwela both units resumed generation at 15:57hrs. Again, Ukuwela Unit 01 made unavailable at 18:20hrs due to the tunnel pressure variation, and Ukuwela Unit 02 made unavailable at 19:03hrs due to the blockage of Polgolla intake. Ukuwela Unit 01 resumed generation at 00:18hrs (18.11.23) and Unit 02 is yet to resume generation.
- 3) Kukule spilling started at 21.13hrs and continues to the present hour.
- 4) LVPS unit 02 made a forced shutdown and desynchronized from the system at 23.22hrs due to the HP heater - 03 tube leakage. LVPS unit 03 made a forced shutdown and desynchronized from the system at 23.30hrs due to the deaerator filling line leakage. LVPS unit 02 & 03 are yet to resume generation.