

# Generation and Reservoirs Statistics

September 5, 2023



**PUBLIC UTILITIES COMMISSION OF SRI LANKA**

## 1. Daily Generation Mix in MWh

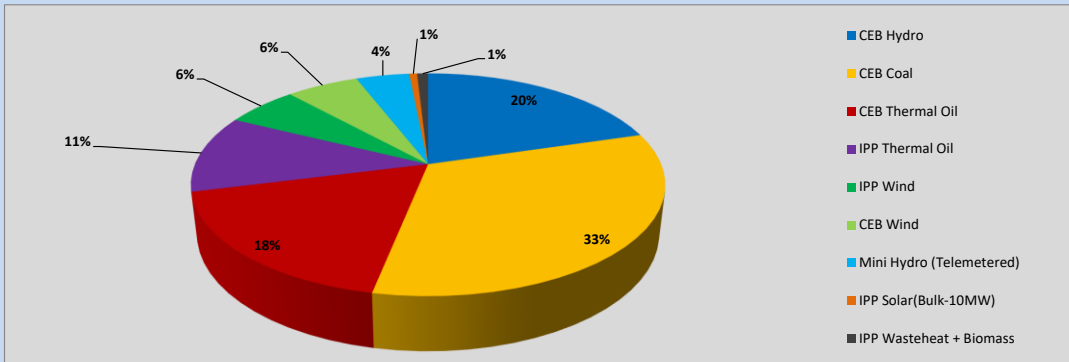


Table 01

	Generation (MWh)
CEB Hydro	7,816
CEB Coal	12,545
CEB Thermal Oil	6,858
IPP Thermal Oil	4,316
IPP Wind	2,260
CEB Wind	2,259
Mini Hydro (Telemetered)	1,665
IPP Solar (Bulk)	246
IPP Waste heat + Biomass	343
<b>Total Generation (Excluding estimated figures)</b>	<b>38,308</b>
* Estimated unserved energy	0
* Estimated Mini Hydro (Non telemetered)	1975
* Estimated IPP Solar PV (Bulk 1-10MW)	304
* Estimated Solar Roof Top PV	1650
<b>Total Generation (Including estimated figures)</b>	<b>42,237</b>

\* 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	416
IPP Waste heat + Biomass	50
IPP Solar	130
Rooftop Solar* (Ordinary)	267
Rooftop Solar* (LT Bulk)	256
Rooftop Solar* (HT Bulk)	61

Data Source - Monthly Review Report [May-2023]

## 2. Cumulative Dispatch

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

Table 03 - Current Month

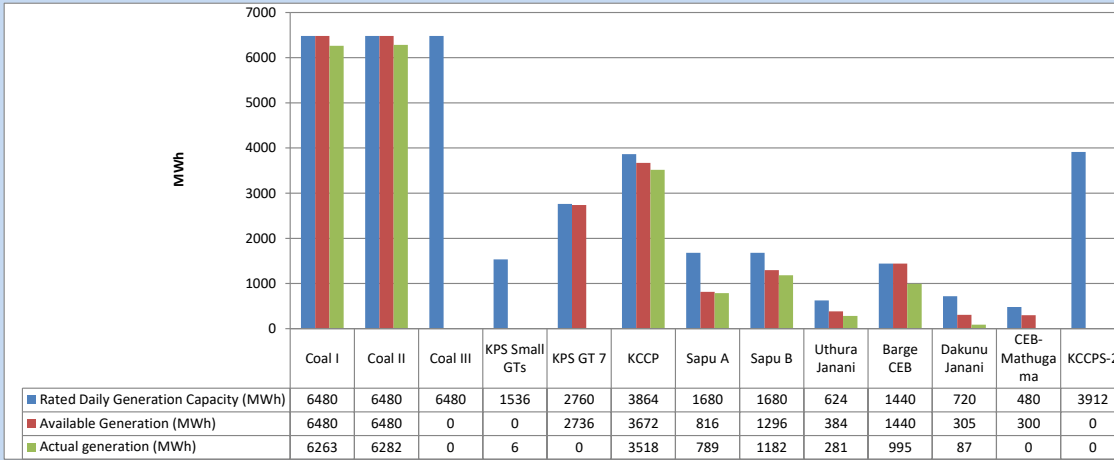
Category	Dispatch (GWh)	
CEB Hydro	37	20.40%
CEB Coal	61	33.48%
CEB Thermal Oil	34	18.62%
IPP Thermal	19	10.30%
SPP Wind	12	6.34%
CEB Wind	11	5.81%
Mini Hydro (Telemetered)	6	3.35%
IPP Solar(Bulk-10MW)	1	0.68%
IPP Waste heat + BMP	2	1.01%
<b>Total</b>	<b>183</b>	

Table 04 - Current Year

Category	Dispatch (GWh)	
CEB Hydro	2,336	24.23%
CEB Coal	3,646	37.81%
CEB Thermal Oil	1,719	17.83%
IPP Thermal	1,009	10.46%
SPP Wind	272	2.82%
CEB Wind	280	2.90%
Mini Hydro (Telemetered)	216	2.24%
IPP Solar(Bulk-10MW)	76	0.78%
IPP Waste heat	89	0.93%
<b>Total</b>	<b>9,643</b>	

### 3. CEB owned Thermal Plant Dispatch

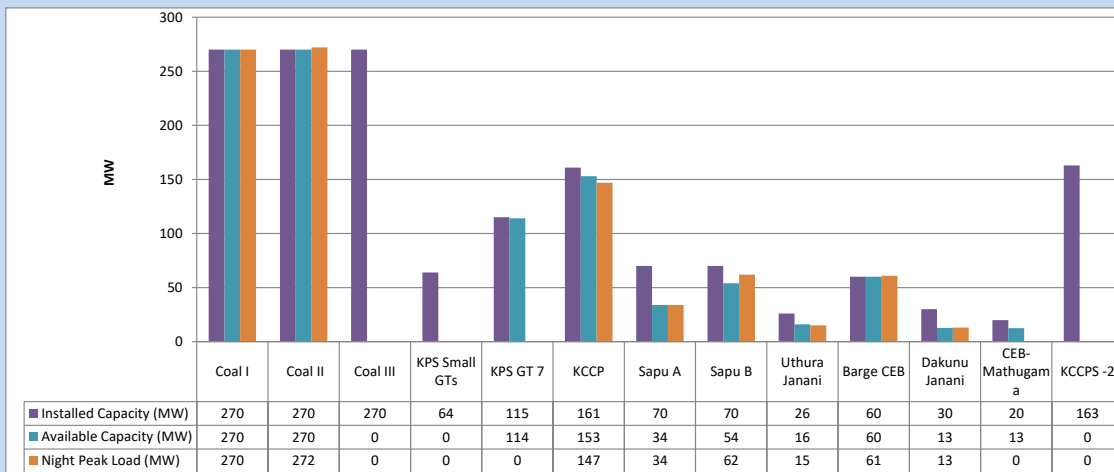
September 5, 2023



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

September 6, 2023

### 4. CEB owned Thermal Plant Loading at the Night Peak

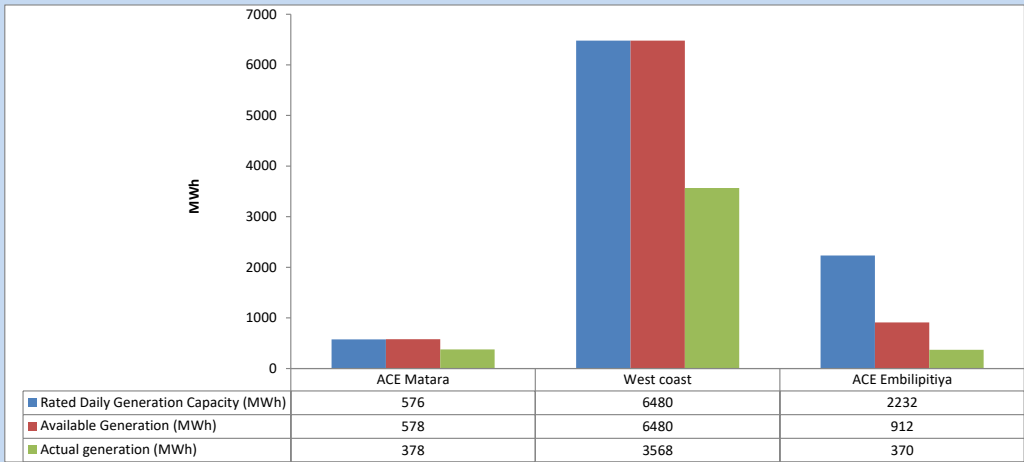


Plant availability is recorded at 6.00 am on

September 6, 2023

5. IPP owned Thermal Plant Dispatch

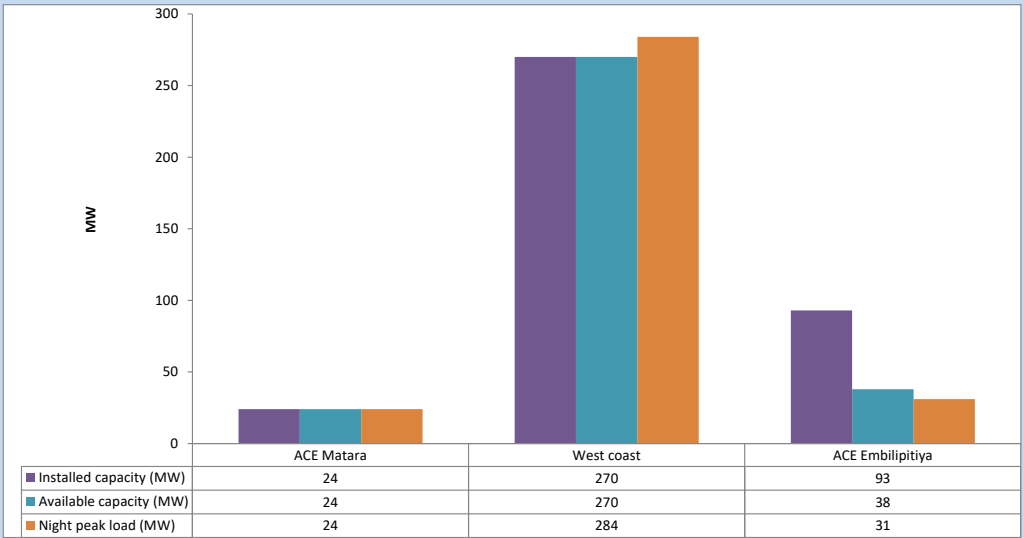
September 5, 2023



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

September 6, 2023

6. IPP owned Thermal Plant Loading at the Night Peak

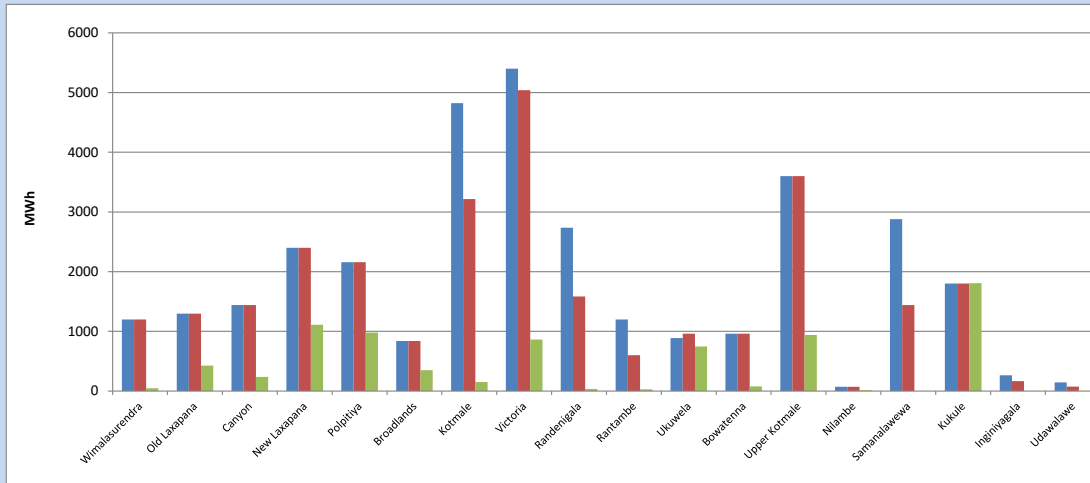


Plant availability is recorded at 6.00 am on

September 6, 2023

### 7. Major Hydro Plant Dispatch

September 5, 2023

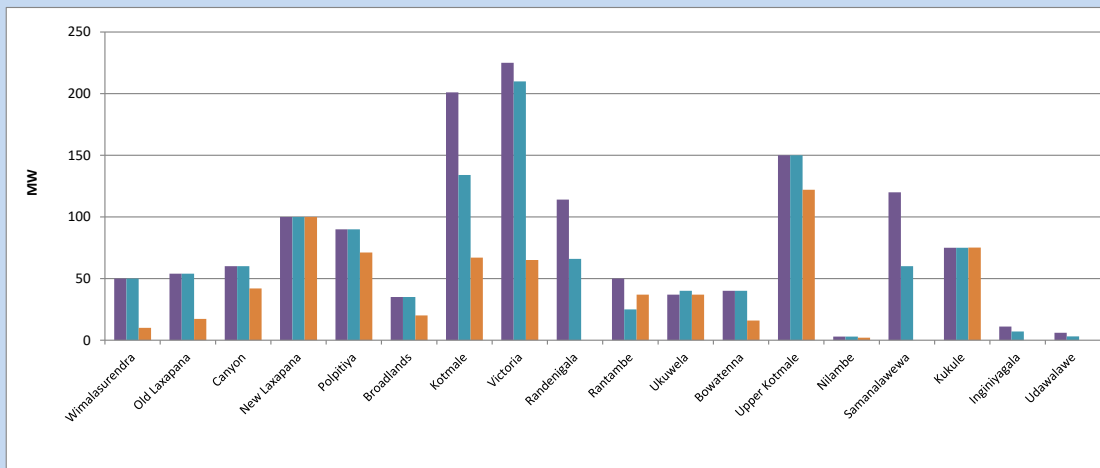


Available Generation is estimated based on plant availability at 6.00am on September 6, 2023  
Broadlands power plant is operating in the Commissioning Stage

September 6, 2023

### 8. Major Hydro Plant Loading at Night Peak

September 5, 2023



Plant availability is recorded at 6.00 am on September 6, 2023  
Broadlands power plant is operating in the Commissioning Stage

September 6, 2023

## 9. Summary of Major Plant performance

Table 05

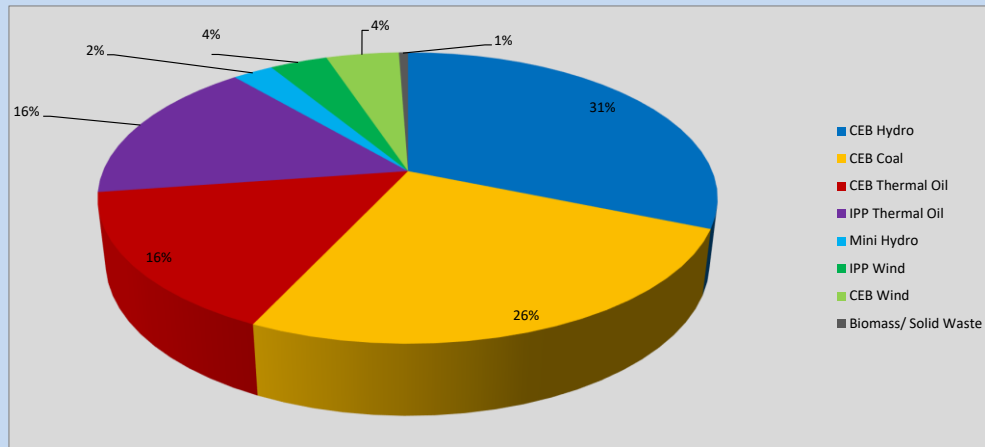
Plant	Installed Capacity (MW)	Plant Availability (MW)	Night peak Load (MW)	Plant Dispatch (MWh)
Wimalasurendra	50	50	10	47
Old Laxapana Canyon	54	54	17	425
New Laxapana	60	60	42	238
Polpitiya	100	100	100	1,111
Broadlands	90	90	71	980
Kotmale	35	35	20	349
Kotmale	201	134	67	150
Victoria	225	210	65	863
Randenigala	114	66	0	34
Rantambe	50	25	37	29
Ukuwela	37	40	37	748
Bowatenna	40	40	16	78
Upper Kotmale	150	150	122	941
Nilambe	3	3	2	15
Samanalawewa	120	60	0	0
Kukule	75	75	75	1,808
Inginiyagala	11	7	0	0
Udawalawe	6	3	0	0
Puttalam Coal I	270	270	270	6,263
Puttalam Coal II	270	270	272	6,282
Puttalam Coal III	270	0	0	0
KPS Small GTs	64	0	0	6
KPS GT 7	115	114	0	0
KCCP	161	153	147	3,518
Sapugaskanda A	70	34	34	789
Sapugaskanda B	70	54	62	1,182
Uthura Janani	26	16	15	281
Barge CEB	60	60	61	995
CEB-Hambantota	30	13	13	87
CEB-Mathugama	20	13	0	0
ACE Matara	24	24	24	378
Asia Power	50	0	0	0
KCCPS -2	163	0	0	0
West Coast	270	270	284	3,568
Nothern Power	36	0	0	0
ACE Embilipitiya	93	38	31	370
Total	3,483	2,530	2,132	38,308

Plant availability is the availability recorded at 6 am on

September 6, 2023

### 10. Contribution to the Night Peak in MW

September 5, 2023



**Table 06**

CEB Hydro	659	MW
CEB Coal	542	MW
CEB Thermal Oil	332	MW
IPP Thermal Oil	339	MW
Mini Hydro (Telemetered)	53	MW
IPP Wind	75.8	MW
CEB Wind	95.7	MW
Biomass/ Solid Waste	12	MW

### Recorded Peak Demand Data

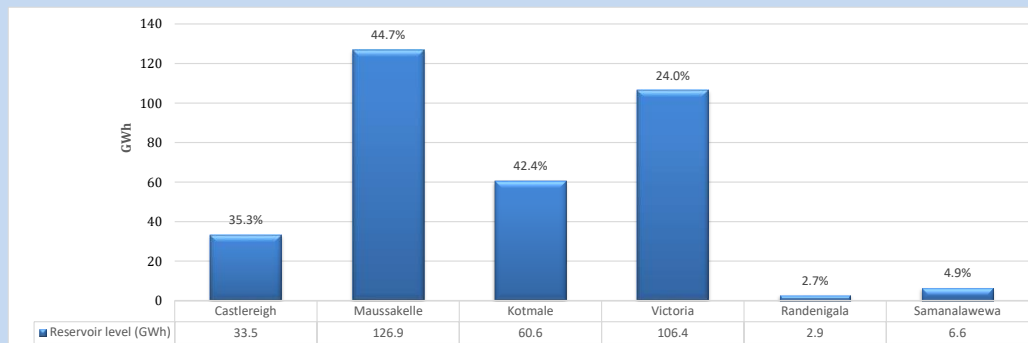
**Table 07**

Night Peak*	2,109	MW
Day Peak Maximum Demand	1,800	MW
Day Peak Minimum Demand	1,522	MW
Off Peak Minimum Demand	1,120	MW

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

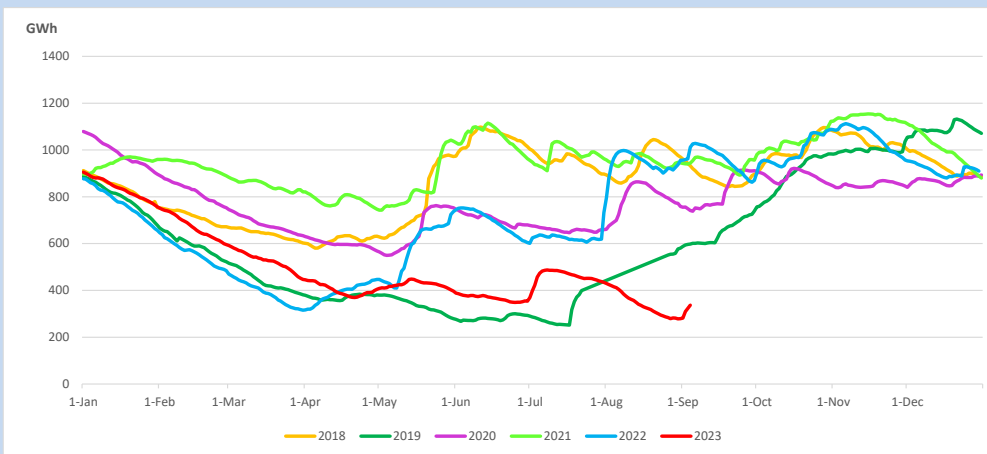
### Reservoir Levels -

as at 06.00 Hr on September 6, 2023

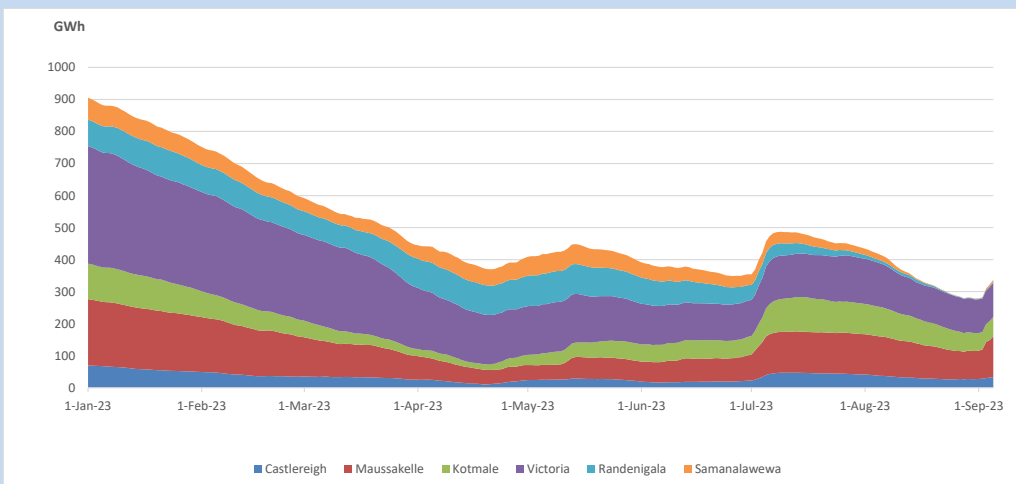


Total Reservoir Level            336.9 GWh  
 % of Total capacity                27.9%

### 11. Comparison of Total Reservoir Storage Levels with Past Years

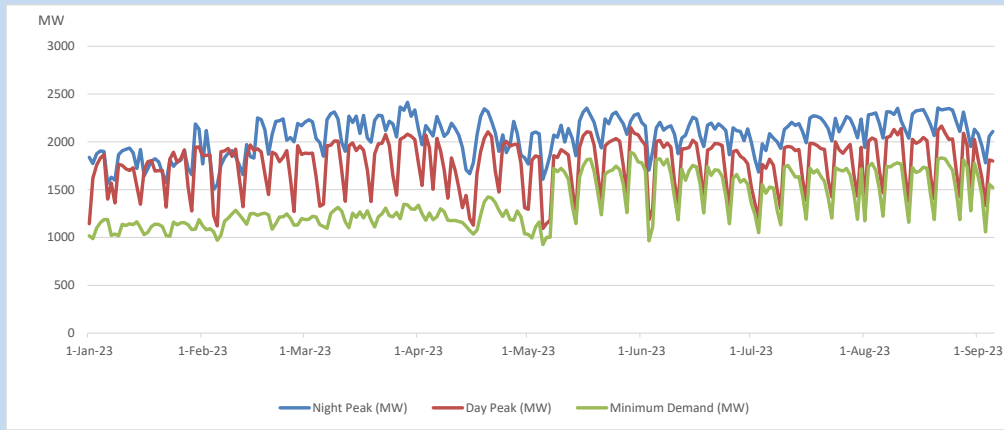


### 12. Variation of Major Hydro Reservoir Levels in the current year (GWh)





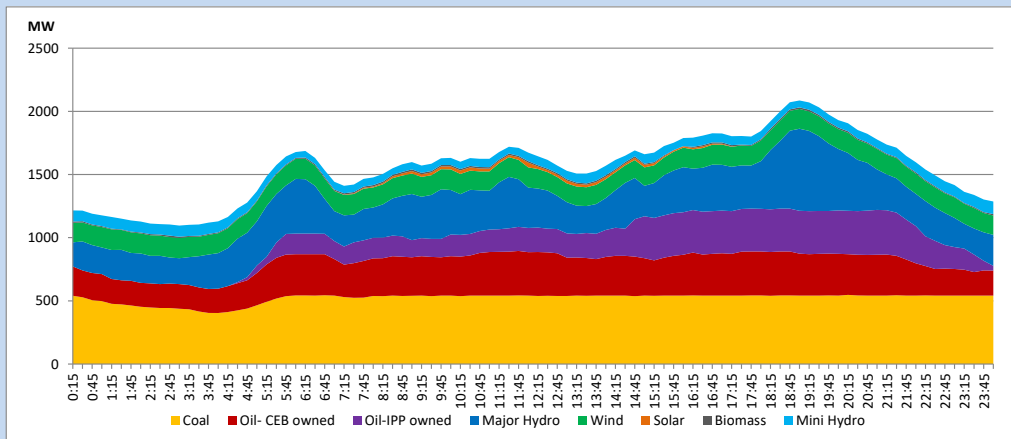
### 13. Variation of Demand during the current year



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

### 14. Daily Load Curve

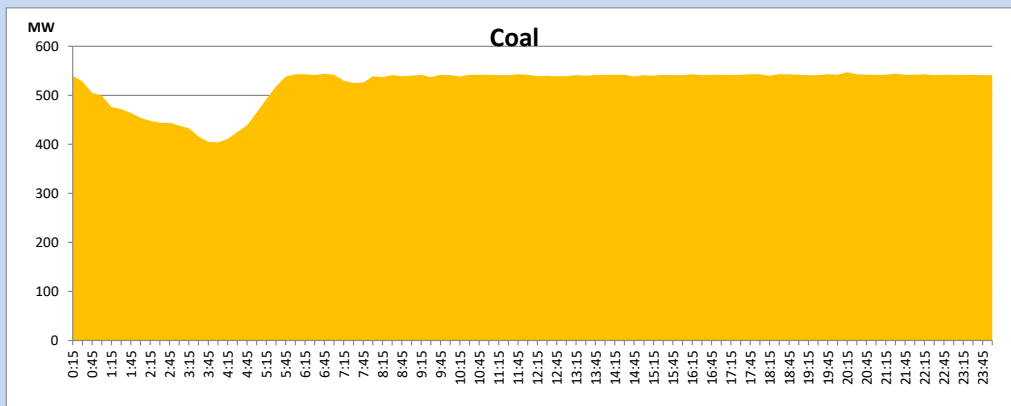
September 5, 2023



Solar and wind data is based on Telemetered Power Stations only

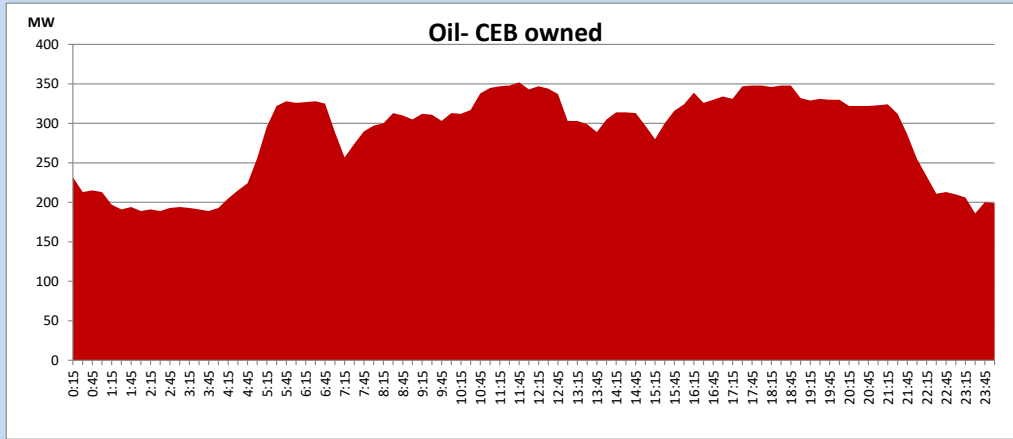
### Coal Generation during

September 5, 2023



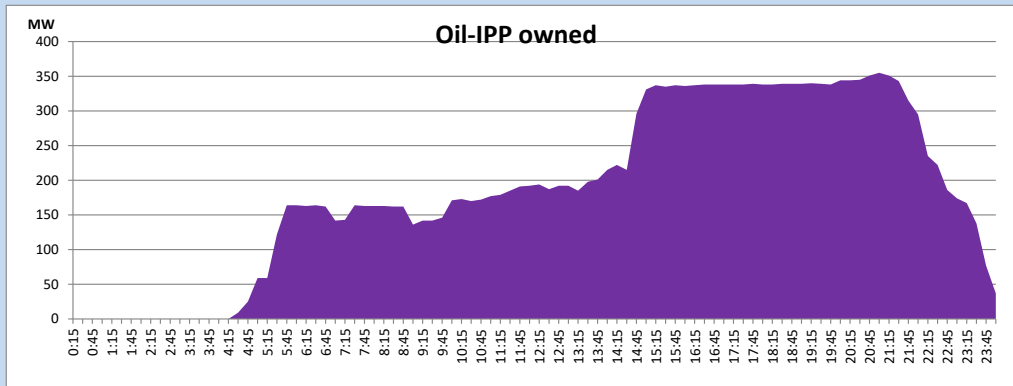
CEB Oil Plant Generation during

September 5, 2023



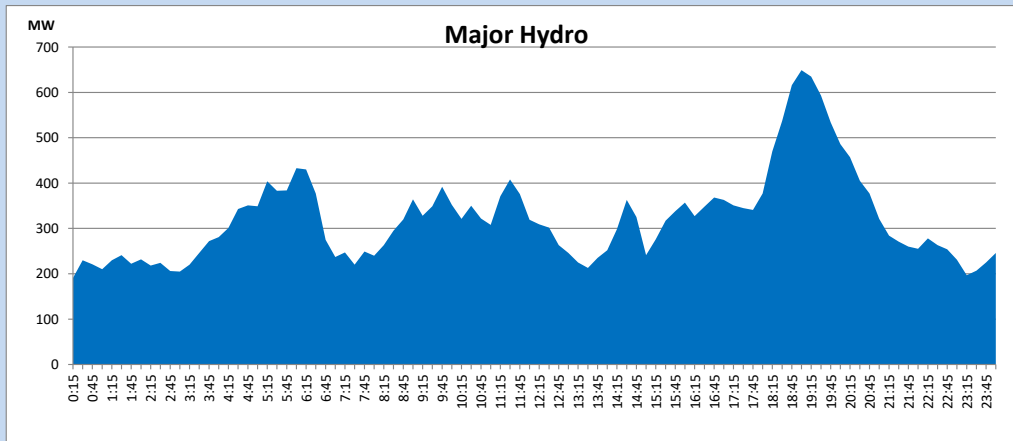
IPP Oil Plant Generation during

September 5, 2023



Major Hydro Generation during

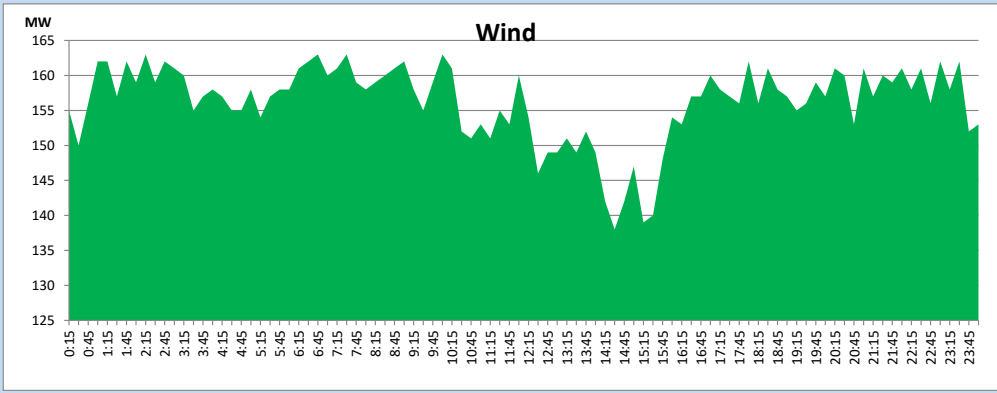
September 5, 2023



## Wind Generation during

September 5, 2023

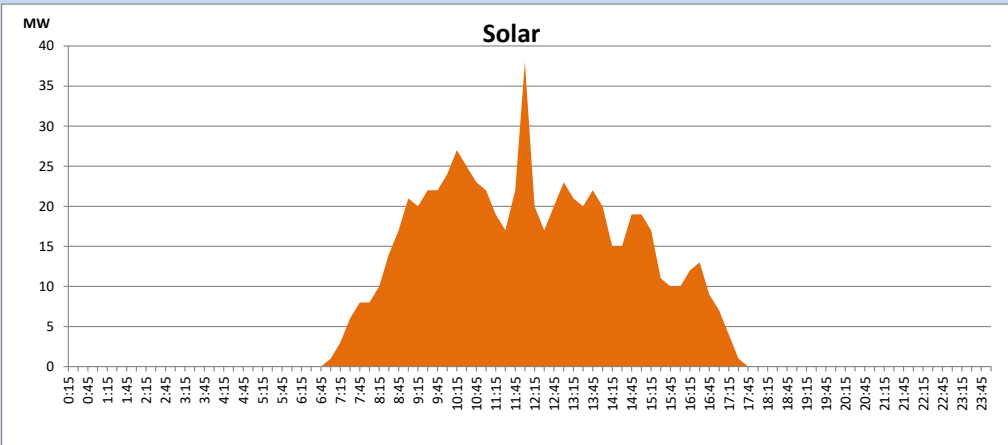
Based on Telemetered Power Stations only



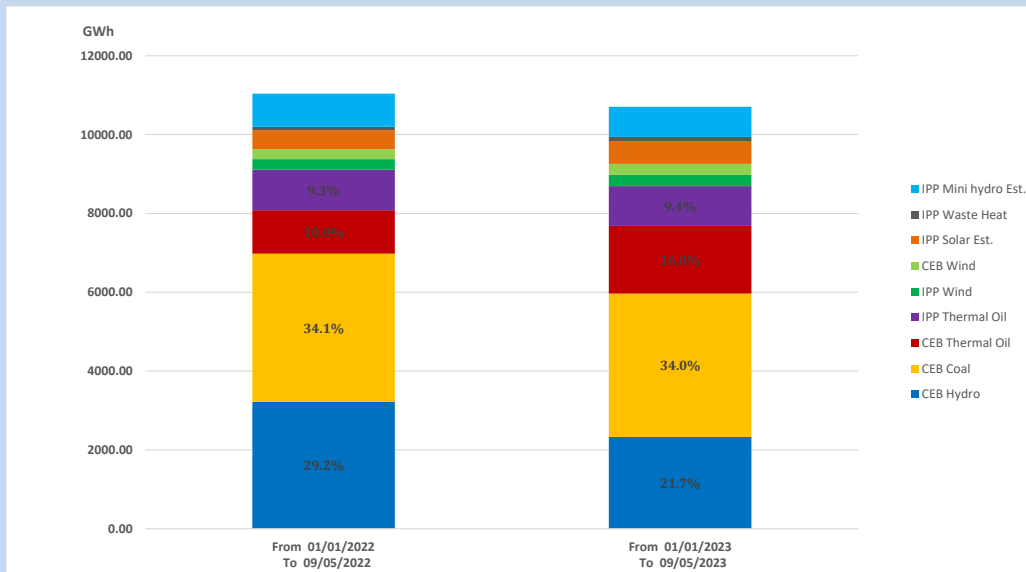
## Solar Generation during

September 5, 2023

Based on Telemetered Power Stations only



## 15. Cumulative Dispatch Comparison with Last Year



### Cumulative dispatch

From 01/01/2022 To 09/05/2022

11040 GWh

From 01/01/2023 To 09/05/2023

10707 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

September 5, 2023

- 1) Samanalawewa full load generation restricted, in order to comply with the operation constraints initiated by propagation of air bubbles at reservoir intake, which would further course for the possible formation of vortex at the same place, due to the severe depletion of Samanalawewa reservoir storage.
- 2) Kukule spilling continues to the present hour.
- 3) Kalutara 132/33kV T/F 01 tripped from 33kV side only along with 33kV feeder 04 at 06:42hrs causing Kalutara GSS to be dead (Kalutara 132/33kV T/F 02 has been already released for breakdown recovery from 21.07.2023). Kalutara 132/33kV T/F 01 and all affected feeders were normalized by 07:24hrs.
- 4) Polpitiya generator unit 01 tripped at 06:39hrs due to a mechanical fault, rejecting 35MW from the system. The generator resumed generation at 12:24hrs.
- 5) New Polpitiya – Hambantota 220kV cct 02 loaded for the first time at 15:47hrs.