

# Generation and Reservoirs Statistics

September 3, 2023



**PUBLIC UTILITIES COMMISSION OF SRI LANKA**

## 1. Daily Generation Mix in MWh

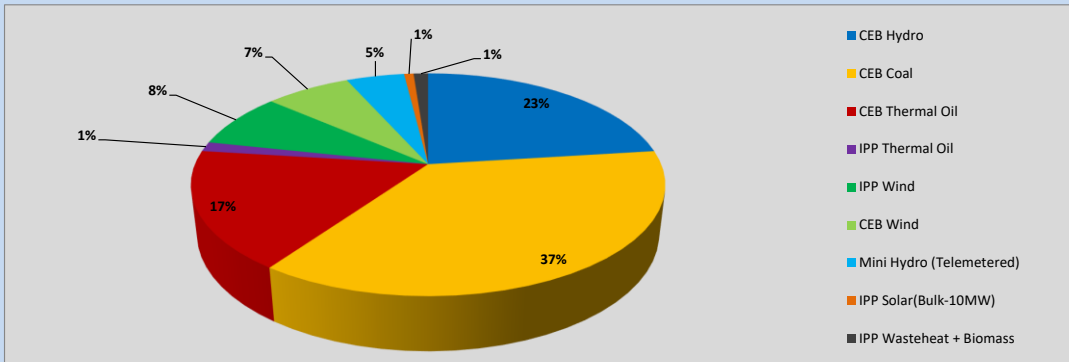


Table 01

	Generation (MWh)
CEB Hydro	7,350
CEB Coal	11,741
CEB Thermal Oil	5,493
IPP Thermal Oil	444
IPP Wind	2,547
CEB Wind	2,220
Mini Hydro (Telemetered)	1,513
IPP Solar (Bulk)	247
IPP Waste heat + Biomass	377
<b>Total Generation (Excluding estimated figures)</b>	<b>31,932</b>
* Estimated unserved energy	0
* Estimated Mini Hydro (Non telemetered)	2127
* Estimated IPP Solar PV (Bulk 1-10MW)	304
* Estimated Solar Roof Top PV	1660
<b>Total Generation (Including estimated figures)</b>	<b>36,023</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)	294
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

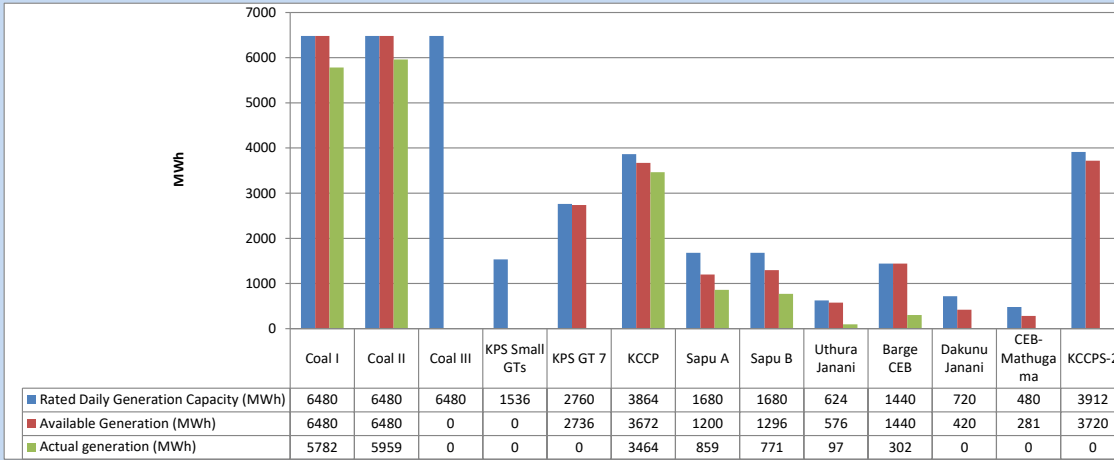
Category	Dispatch (GWh)	
CEB Hydro	19	17.41%
CEB Coal	37	34.75%
CEB Thermal Oil	22	19.98%
IPP Thermal	12	11.13%
SPP Wind	7	6.36%
CEB Wind	6	5.90%
Mini Hydro (Telemetered)	3	2.70%
IPP Solar(Bulk-10MW)	1	0.71%
IPP Waste heat + BMP	1	1.06%
<b>Total</b>	<b>108</b>	

Table 04 - Current Year

Category	Dispatch (GWh)	
CEB Hydro	2,318	24.22%
CEB Coal	3,622	37.85%
CEB Thermal Oil	1,707	17.84%
IPP Thermal	1,002	10.47%
SPP Wind	267	2.79%
CEB Wind	275	2.88%
Mini Hydro (Telemetered)	213	2.23%
IPP Solar(Bulk-10MW)	75	0.78%
IPP Waste heat	89	0.93%
<b>Total</b>	<b>9,568</b>	

### 3. CEB owned Thermal Plant Dispatch

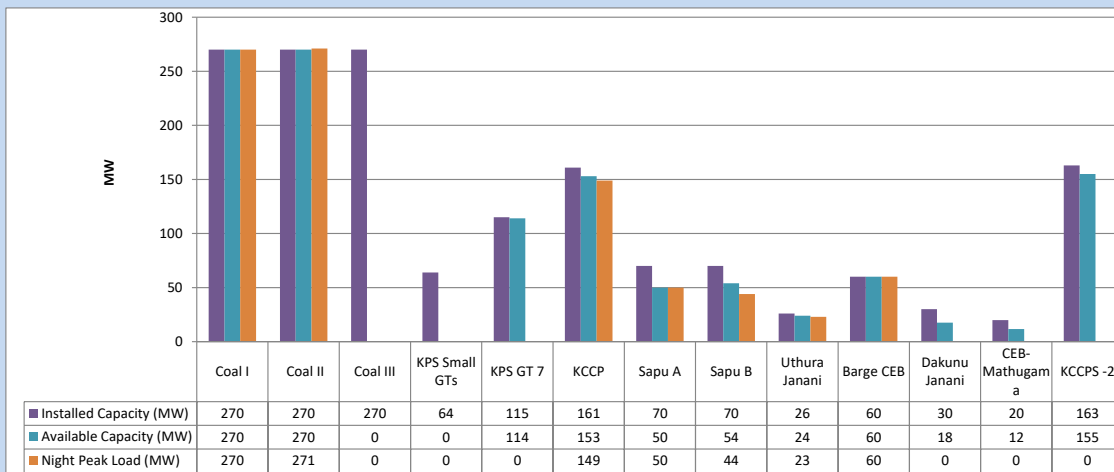
September 3, 2023



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

September 4, 2023

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

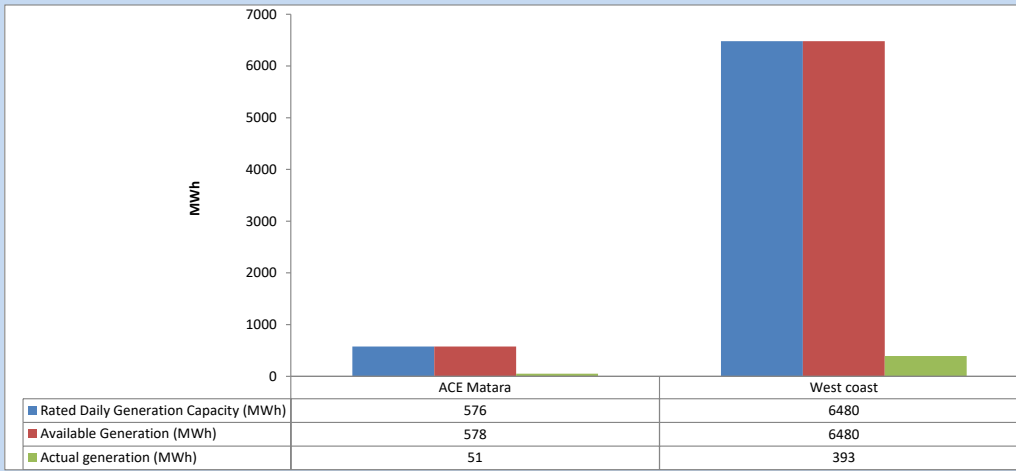


Plant availability is recorded at 6.00 am on

September 4, 2023

5. IPP owned Thermal Plant Dispatch

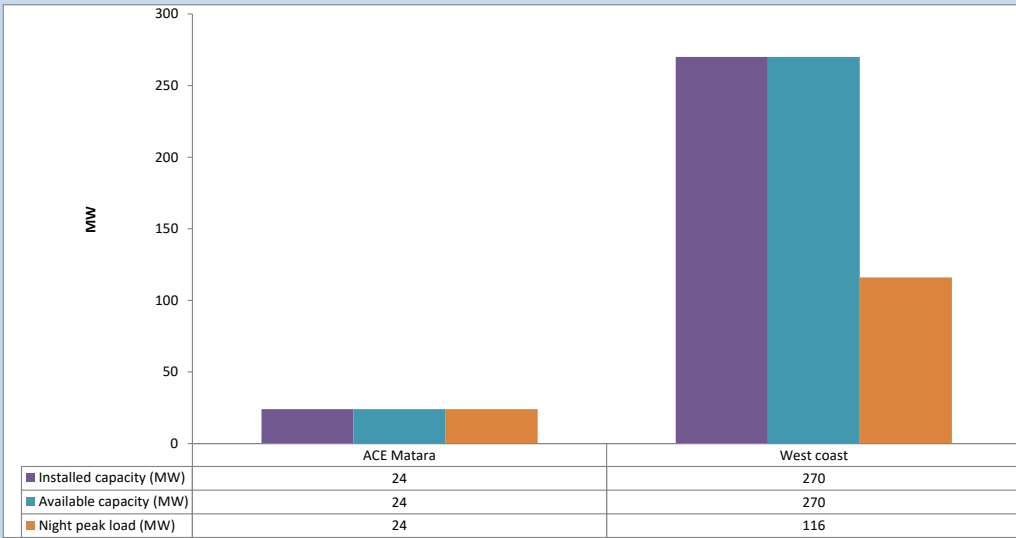
September 3, 2023



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

September 4, 2023

6. IPP owned Thermal Plant Loading at the Night Peak

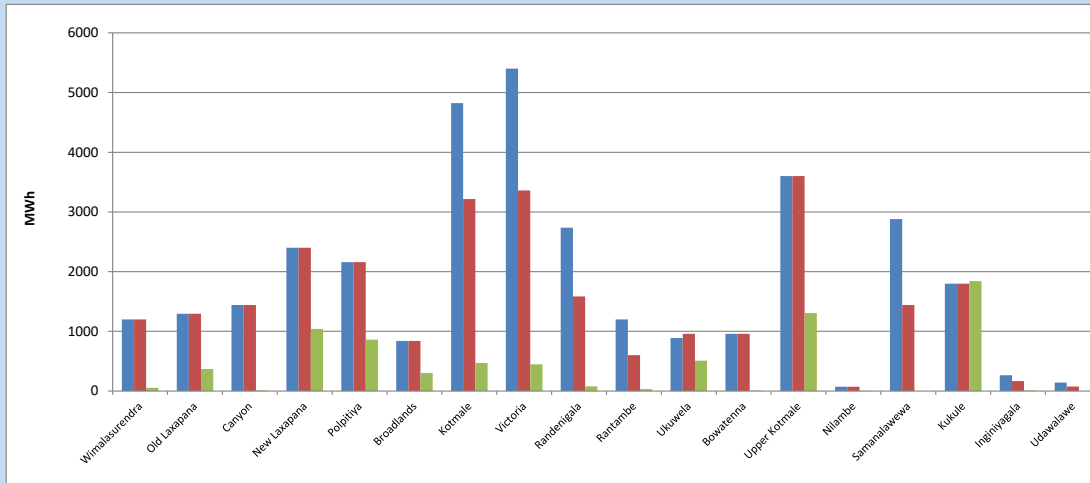


Plant availability is recorded at 6.00 am on

September 4, 2023

7. Major Hydro Plant Dispatch

September 3, 2023

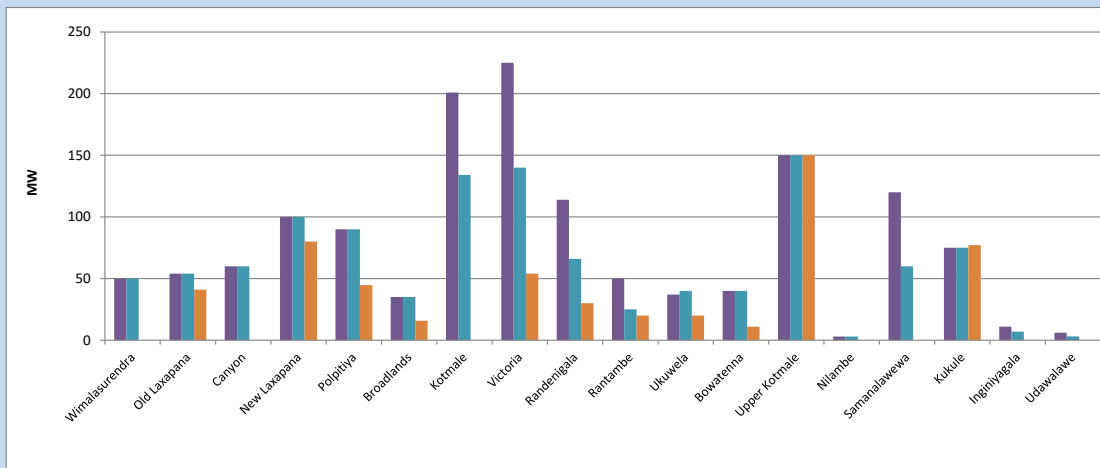


Available Generation is estimated based on plant availability at 6.00am on September 4, 2023  
Broadlands power plant is operating in the Commissioning Stage

September 4, 2023

8. Major Hydro Plant Loading at Night Peak

September 3, 2023



Plant availability is recorded at 6.00 am on September 4, 2023  
Broadlands power plant is operating in the Commissioning Stage

## 9. Summary of Major Plant performance

Table 05

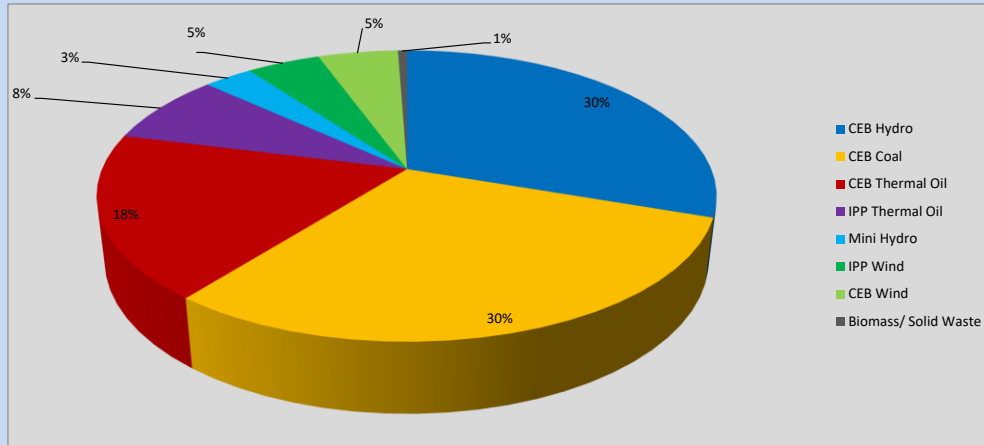
Plant	Installed Capacity	Plant Availability	Night peak Load	Plant Dispatch
	(MW)	(MW)	(MW)	(MWh)
Wimalasurendra	50	50	0	55
Old Laxapana	54	54	41	370
Canyon	60	60	0	10
New Laxapana	100	100	80	1,040
Polpitiya	90	90	45	860
Broadlands	35	35	16	302
Kotmale	201	134	0	470
Victoria	225	140	54	449
Randenigala	114	66	30	80
Rantambe	50	25	20	33
Ukuwela	37	40	20	511
Bowatenna	40	40	11	8
Upper Kotmale	150	150	150	1,307
Nilambe	3	3	0	3
Samanalawewa	120	60	0	0
Kukule	75	75	77	1,841
Inginiyagala	11	7	0	11
Udawalawe	6	3	0	0
Puttalam Coal I	270	270	270	5,782
Puttalam Coal II	270	270	271	5,959
Puttalam Coal III	270	0	0	0
KPS Small GTs	64	0	0	0
KPS GT 7	115	114	0	0
KCCP	161	153	149	3,464
Sapugaskanda A	70	50	50	859
Sapugaskanda B	70	54	44	771
Uthura Janani	26	24	23	97
Barge CEB	60	60	60	302
CEB-Hambantota	30	18	0	0
CEB-Mathugama	20	12	0	0
ACE Matara	24	24	24	51
Asia Power	50	0	0	0
KCCPS -2	163	155	0	0
West Coast	270	270	116	393
Nothern Power	36	0	0	0
ACE Embilipitiya	93	0	0	0
<b>Total</b>	<b>3,483</b>	<b>2,605</b>	<b>1,786</b>	<b>31,932</b>

Plant availability is the availability recorded at 6 am on

September 4, 2023

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

September 3, 2023



**Table 06**

CEB Hydro	539	MW
CEB Coal	541	MW
CEB Thermal Oil	326	MW
IPP Thermal Oil	140	MW
Mini Hydro (Telemetered)	54	MW
IPP Wind	81.6	MW
CEB Wind	88.9	MW
Biomass/ Solid Waste	10	MW

**Recorded Peak Demand Data**

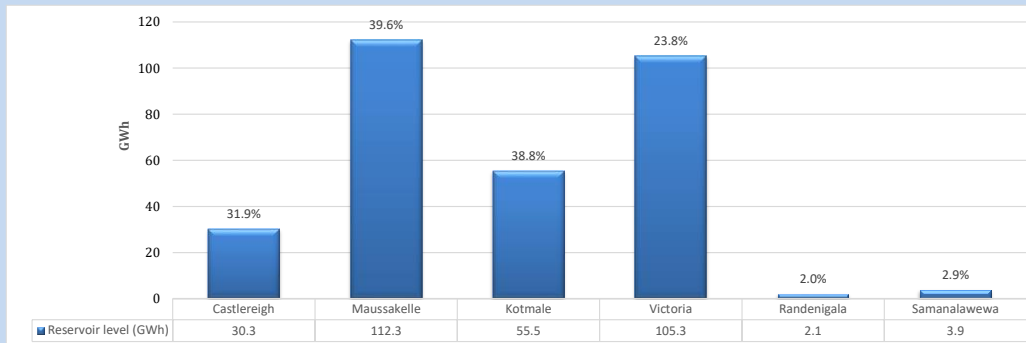
**Table 07**

Night Peak*	1,781	MW
Day Peak Maximum Demand	1,336	MW
Day Peak Minimum Demand	1,058	MW
Off Peak Minimum Demand	1,070	MW

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

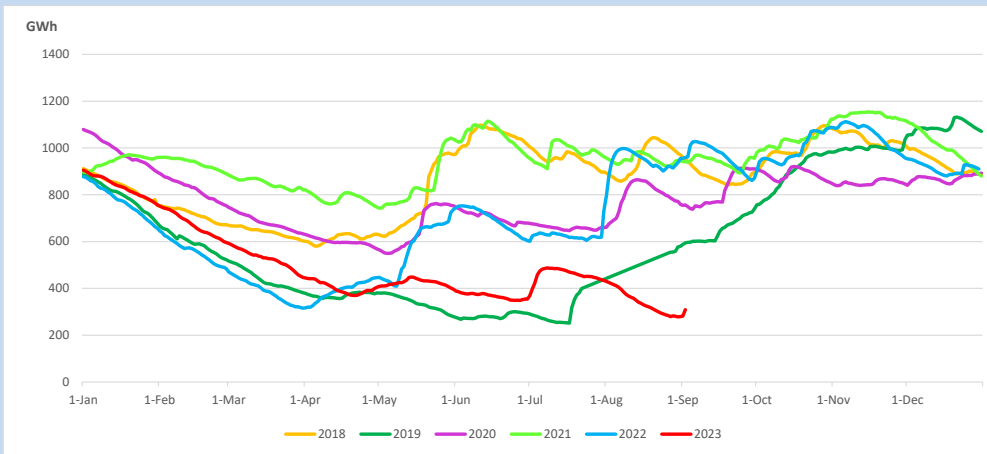
**Reservoir Levels -**

as at 06.00 Hr on September 4, 2023

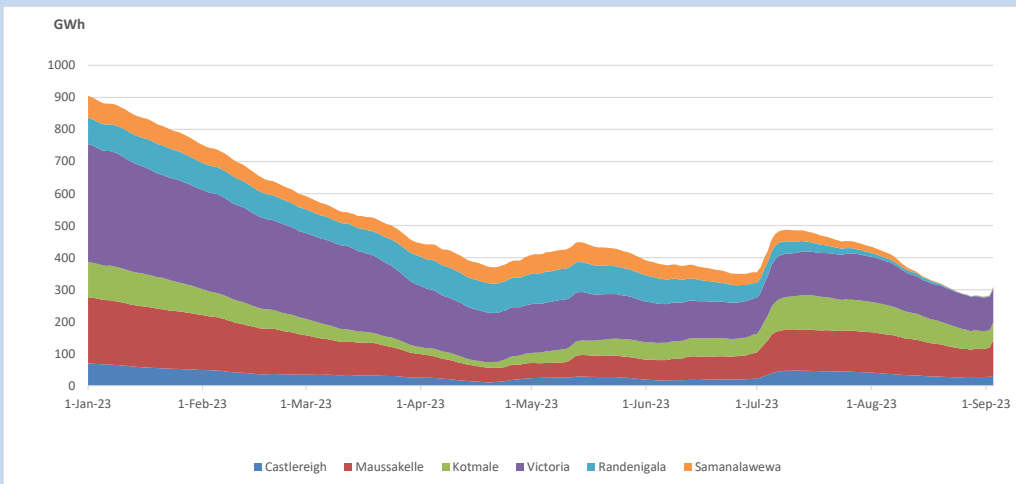


Total Reservoir Level 309.4 GWh  
 % of Total capacity 25.7%

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

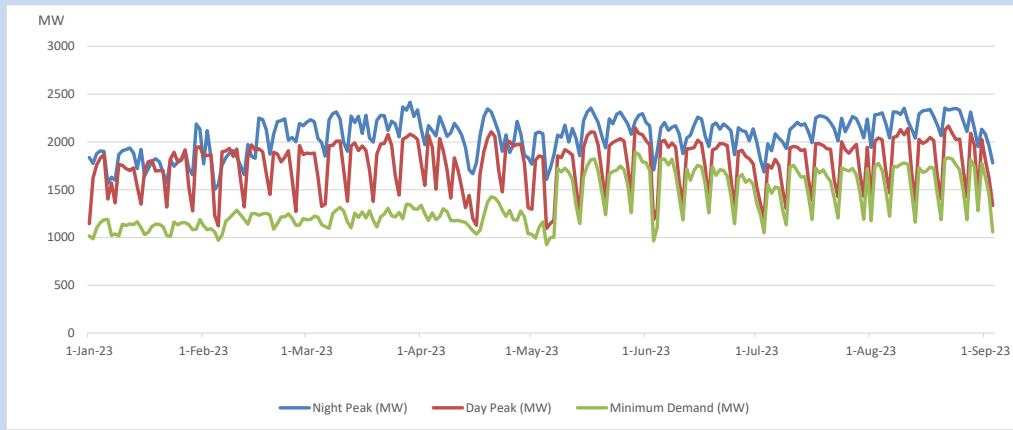


### 12. Variation of Major Hydro Reservoir Levels in the current year (GWh)





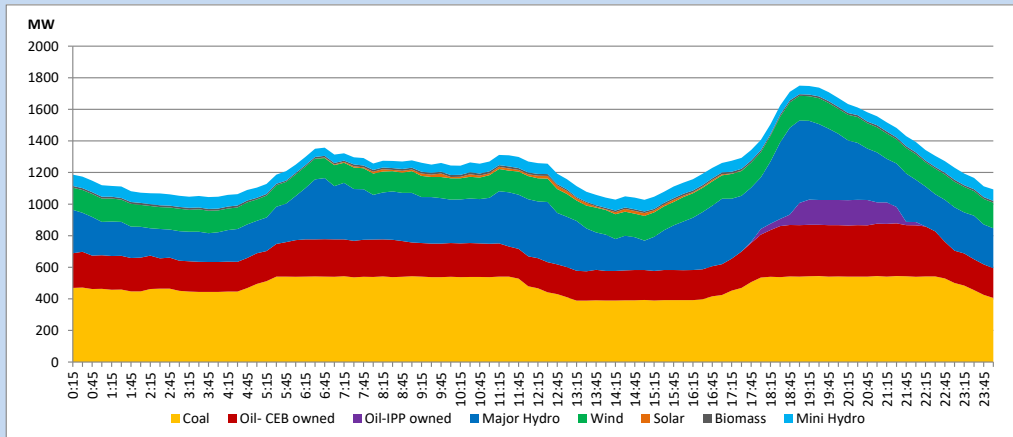
### 13. Variation of Demand during the current year



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

### 14. Daily Load Curve

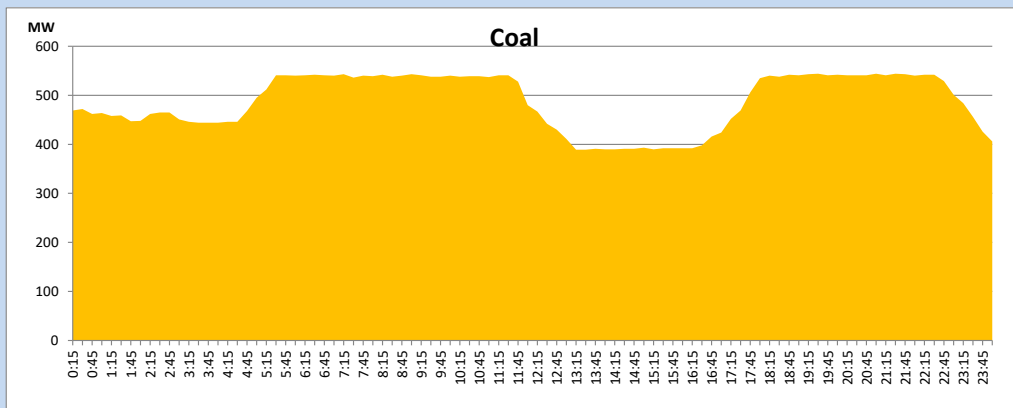
September 3, 2023



Solar and wind data is based on Telemetered Power Stations only

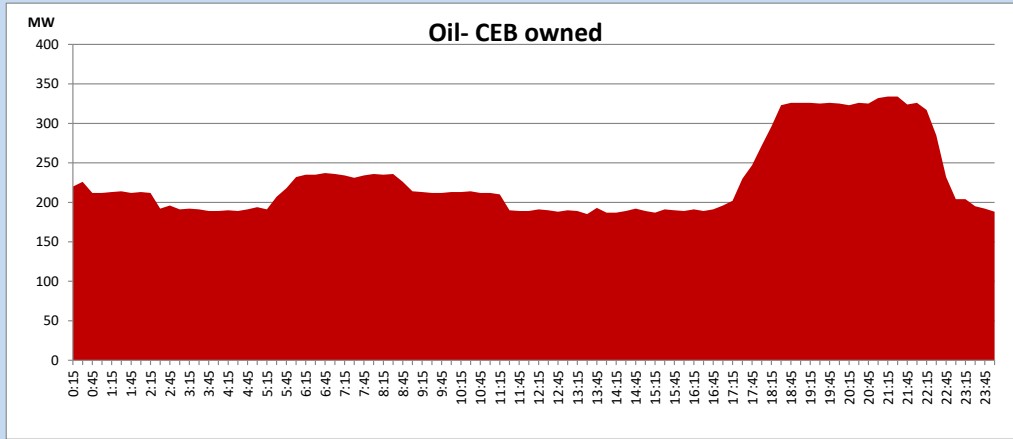
### Coal Generation during

September 3, 2023



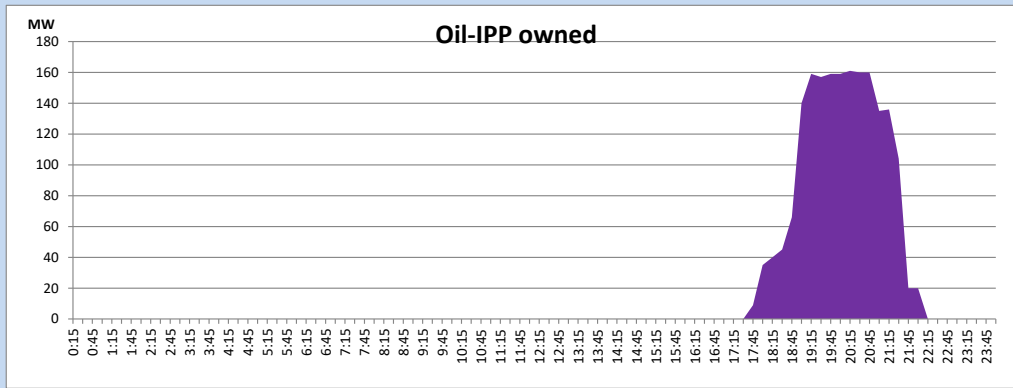
CEB Oil Plant Generation during

September 3, 2023



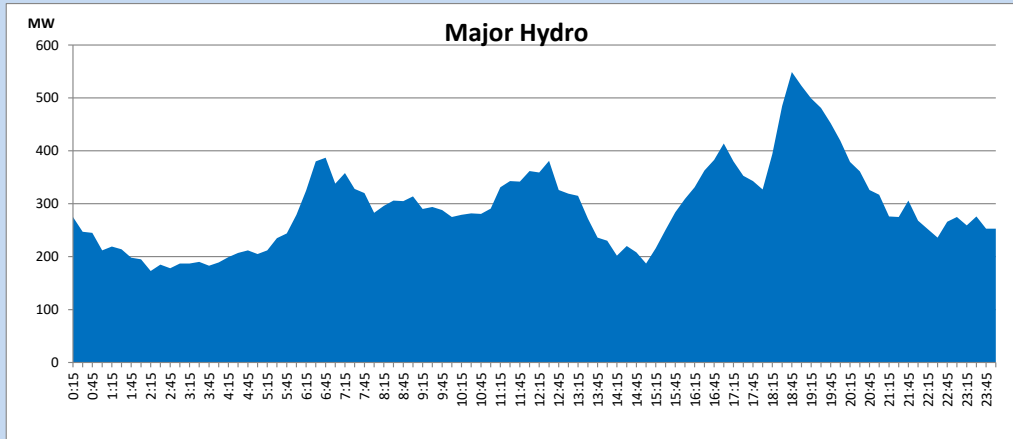
IPP Oil Plant Generation during

September 3, 2023



Major Hydro Generation during

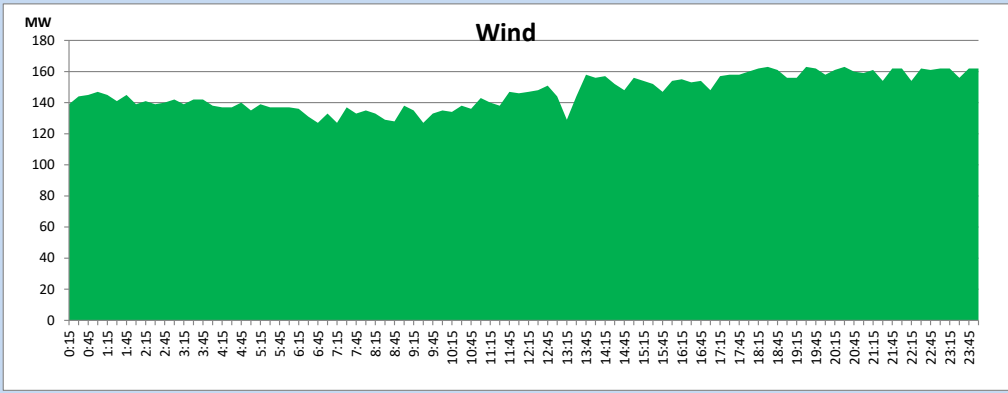
September 3, 2023



## Wind Generation during

September 3, 2023

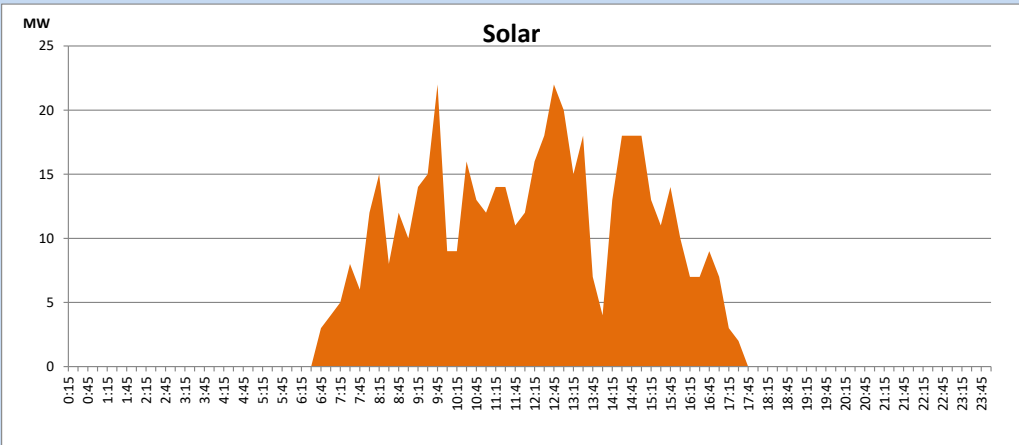
Based on Telemetered Power Stations only



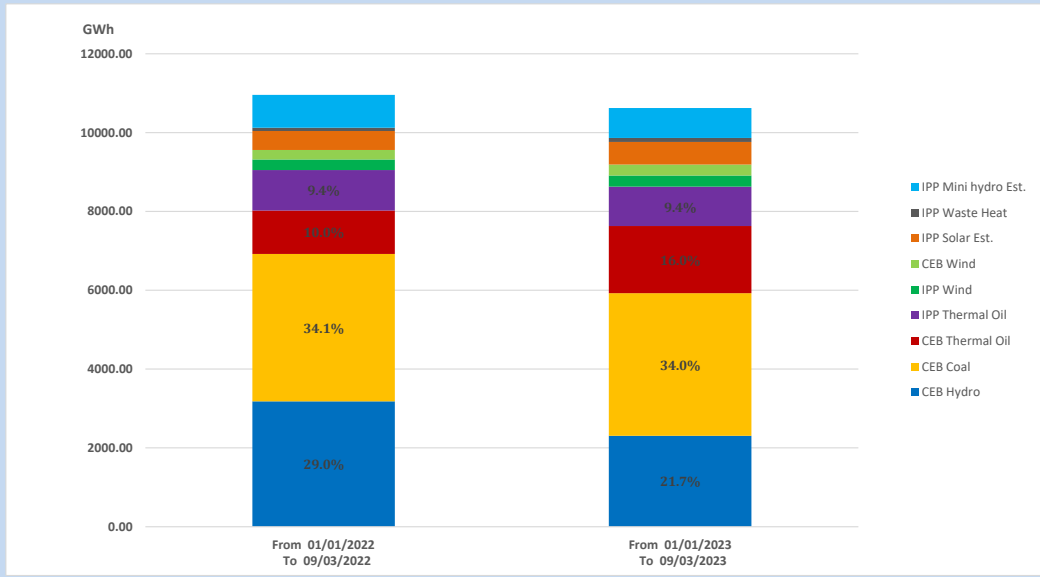
## Solar Generation during

September 3, 2023

Based on Telemetered Power Stations only



## 15. Cumulative Dispatch Comparison with Last Year



### Cumulative dispatch

From 01/01/2022 To 09/03/2022

10959 GWh

From 01/01/2023 To 09/03/2023

10623 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

Major Incidents reported during the day

September 3, 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) Embilipitiya – Beliatta 132kV cct tripped from both ends at 06:17hrs due to the operation of distance protection, causing Beliatta GSS to be dead. Beliatta GSS and all affected feeders were normalized at 06:27hrs and Embilipitiya – Beliatta 132kV cct was normalized at 06:32hrs.
- 3) New Laxapana – Polpitiya cct 01 manually switched off at 19:42hrs with the request of the Polpitiya PS due to a hotspot detected at Polpitiya end. The cct is yet to be normalized.
- 4) Laxapana pond spilling started at 02:30hrs (04/09/2023). Kukule spilling continuous to the present hour.