

Generation and Reservoirs Statistics

December 9, 2023



PUBLIC UTILITIES COMMISSION OF SRI LANKA

1. Daily Generation Mix in MWh

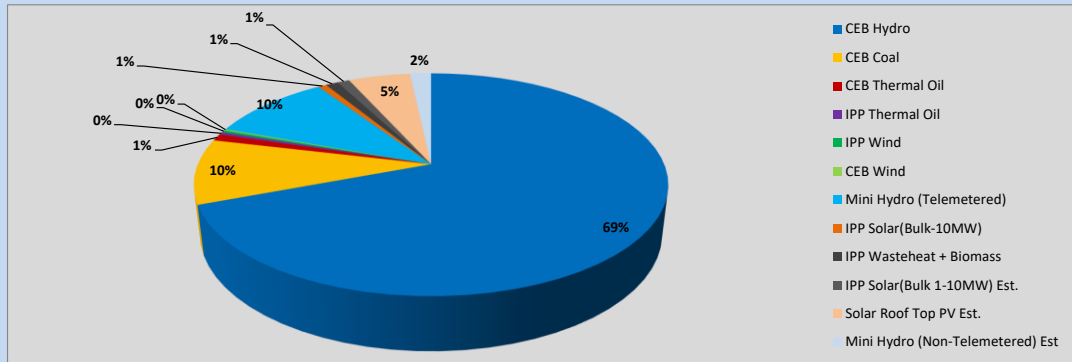


Table 01

	Generation (MWh)
CEB Hydro	21,188
CEB Coal	2,894
CEB Thermal Oil	301
IPP Thermal Oil	124
IPP Wind	102
CEB Wind	58
Mini Hydro (Telemetered)	3,044
IPP Solar (Bulk)	209
IPP Waste heat + Biomass	307
Total Generation (Excluding estimated figures)	28,227
* Estimated unserved energy	0
* Estimated Mini Hydro (Non telemetered)	526
* Estimated IPP Solar PV (Bulk 1-10MW)	304
* Estimated Solar Roof Top PV	1540
Total Generation (Including estimated figures)	30,597

* 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	229	65.35%
CEB Coal	46	12.99%
CEB Thermal Oil	5	1.37%
IPP Thermal	6	1.83%
SPP Wind	4	1.16%
CEB Wind	5	1.52%
Mini Hydro *	33	9.46%
IPP Solar *	19	5.28%
IPP Waste heat + BMP	4	1.04%
Total	351	

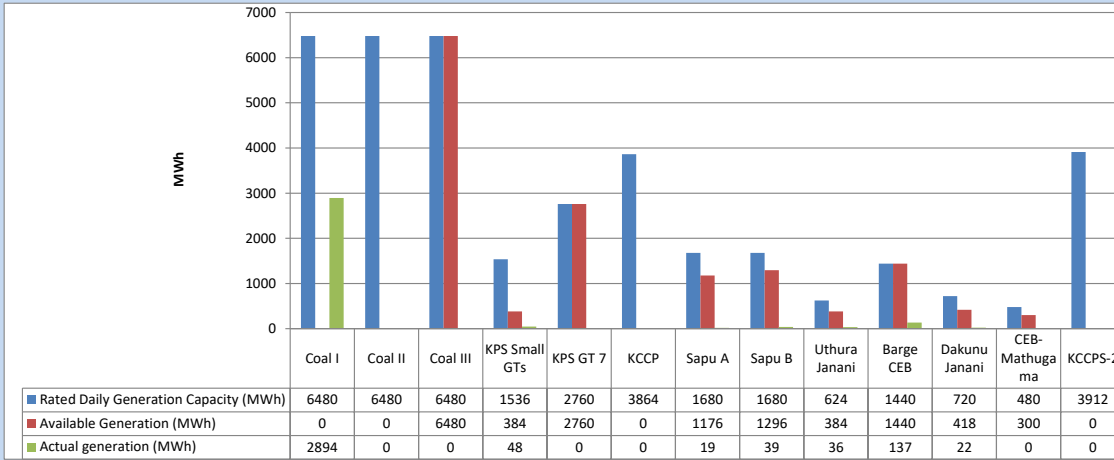
Table 04 - Current Year

Category	Dispatch (GWh)	
CEB Hydro	4,053	27.95%
CEB Coal	4,541	31.31%
CEB Thermal Oil	1,960	13.52%
IPP Thermal	1,134	7.82%
SPP Wind	377	2.60%
CEB Wind	368	2.54%
Mini Hydro *	1,106	7.62%
IPP Solar *	821	5.66%
IPP Waste heat	143	0.99%
Total	14,503	

*Including estimated contribution from non telemetered plants

3. CEB owned Thermal Plant Dispatch

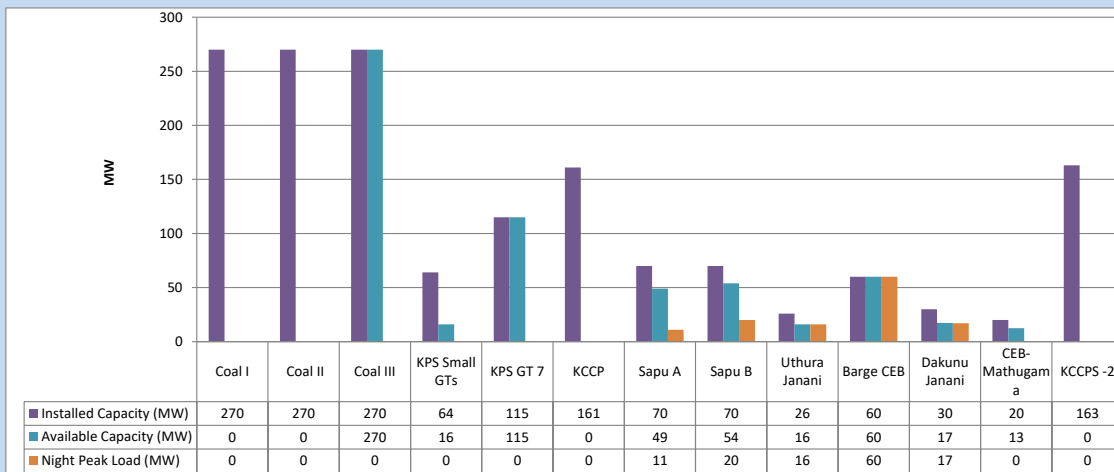
December 9, 2023



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

December 10, 2023

4. CEB owned Thermal Plant Loading at the Night Peak

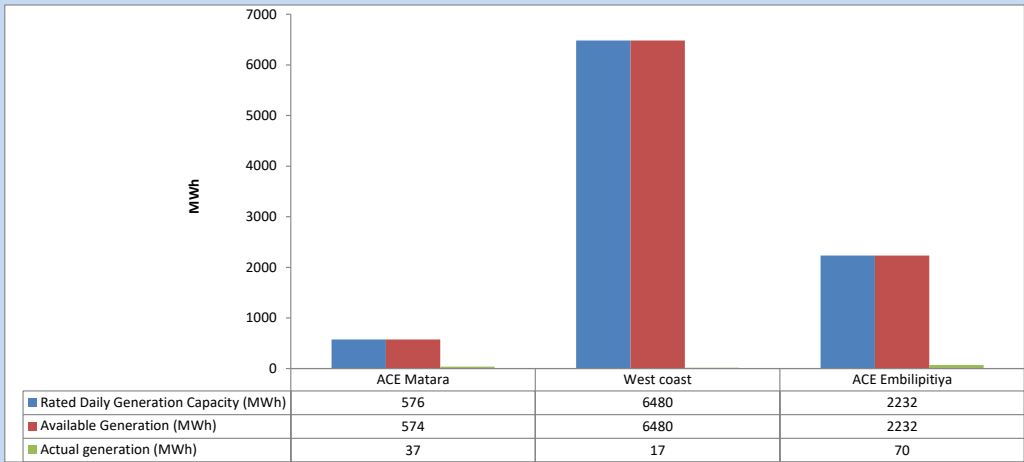


Plant availability is recorded at 6.00 am on

December 10, 2023

5. IPP owned Thermal Plant Dispatch

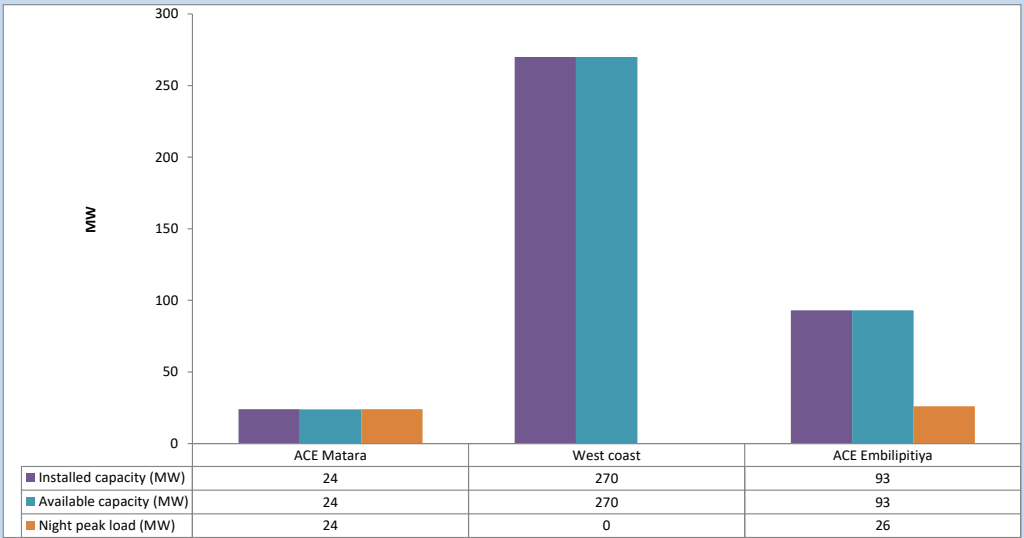
December 9, 2023



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

December 10, 2023

6. IPP owned Thermal Plant Loading at the Night Peak

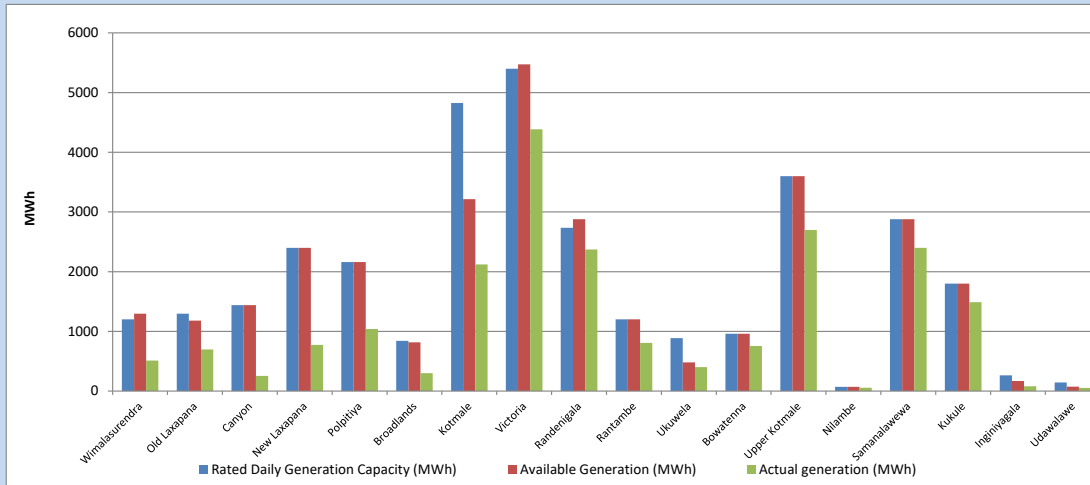


Plant availability is recorded at 6.00 am on

December 10, 2023

7. Major Hydro Plant Dispatch

December 9, 2023

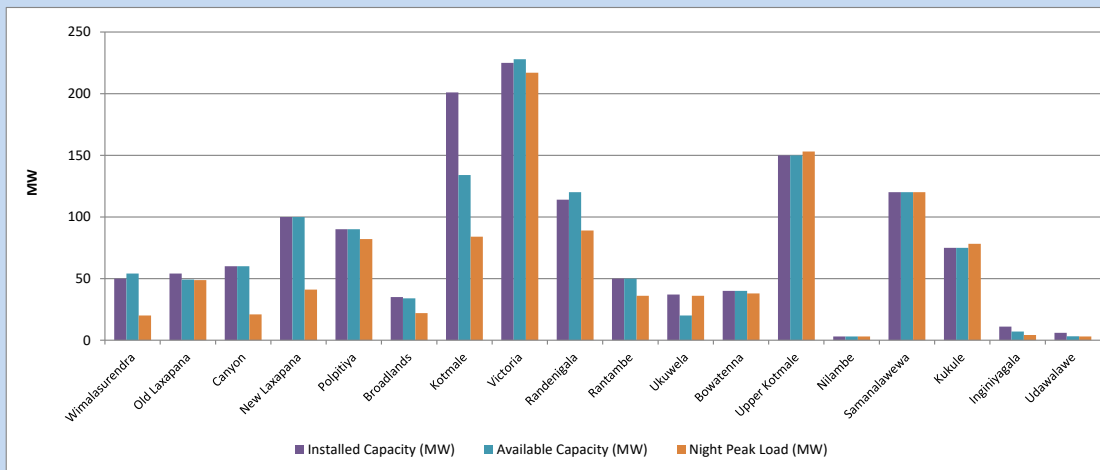


Available Generation is estimated based on plant availability at 6.00am on December 10, 2023
Broadlands power plant is operating in the Commissioning Stage

December 10, 2023

8. Major Hydro Plant Loading at Night Peak

December 9, 2023



Plant availability is recorded at 6.00 am on December 10, 2023
Broadlands power plant is operating in the Commissioning Stage

December 10, 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	20	512
Old Laxapana Canyon	54	49	49	697
New Laxapana	60	60	21	254
Polpitiya	100	100	41	774
Broadlands	90	90	82	1,040
Kotmale	35	34	22	299
Kotmale	201	134	84	2,120
Victoria	225	228	217	4,384
Randenigala	114	120	89	2,370
Rantambe	50	50	36	807
Ukuwela	37	20	36	400
Bowatenna	40	40	38	755
Upper Kotmale	150	150	153	2,699
Nilambe	3	3	3	56
Samanalawewa	120	120	120	2,400
Kukule	75	75	78	1,489
Inginiyagala	11	7	4	79
Udawalawe	6	3	3	53
Puttalam Coal I	270	0	0	2,894
Puttalam Coal II	270	0	0	0
Puttalam Coal III	270	270	0	0
KPS Small GTs	64	16	0	48
KPS GT 7	115	115	0	0
KCCP	161	0	0	0
Sapugaskanda A	70	49	11	19
Sapugaskanda B	70	54	20	39
Uthura Janani	26	16	16	36
Barge CEB	60	60	60	137
CEB-Hambantota	30	17	17	22
CEB-Mathugama	20	13	0	0
ACE Matara	24	24	24	37
Asia Power	50	0	0	0
KCCPS -2	163	0	0	0
West Coast	270	270	0	17
Nothern Power	36	0	0	0
ACE Embilipitiya	93	93	26	70
Total	3,483	2,334	1,452	28,227

Plant availability is the availability recorded at 6 am on

December 10, 2023

10. Contribution to the Night Peak in MW

December 9, 2023

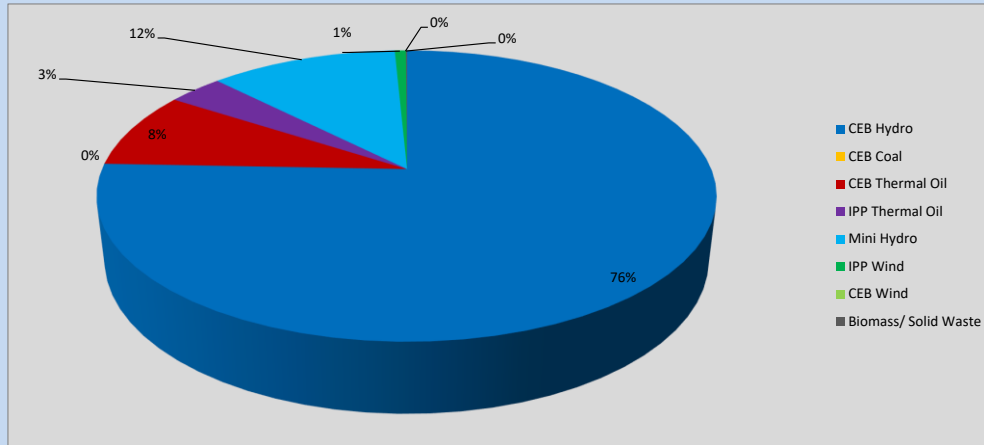


Table 06

CEB Hydro	1101	MW
CEB Coal	0	MW
CEB Thermal Oil	124	MW
IPP Thermal Oil	50	MW
Mini Hydro (Telemetered)	170	MW
IPP Wind	10.1	MW
CEB Wind	0	MW
Biomass/ Solid Waste	1	MW

Recorded Peak Demand Data

Table 07

Night Peak*	1,457	MW
Day Peak Maximum Demand	1,724	MW
Day Peak Minimum Demand	1,428	MW
Off Peak Minimum Demand	1,166	MW

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

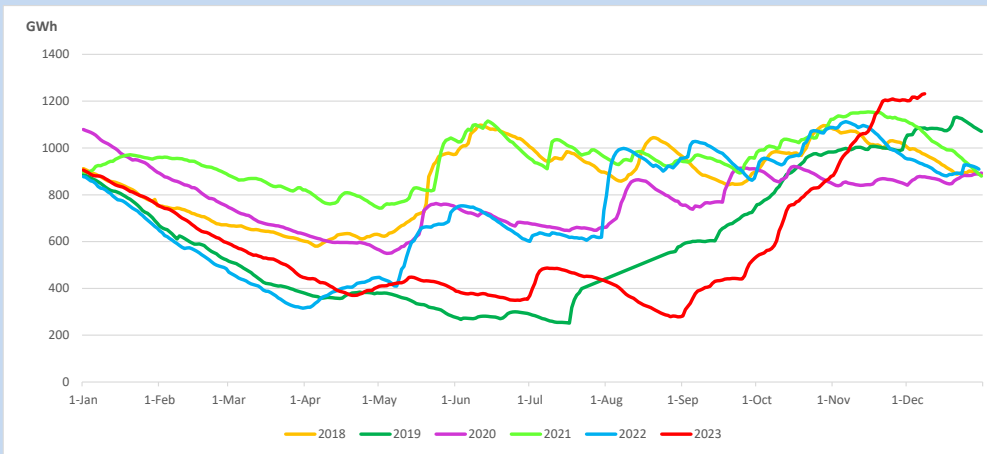
Reservoir Levels -

as at 06.00 Hr on December 10, 2023

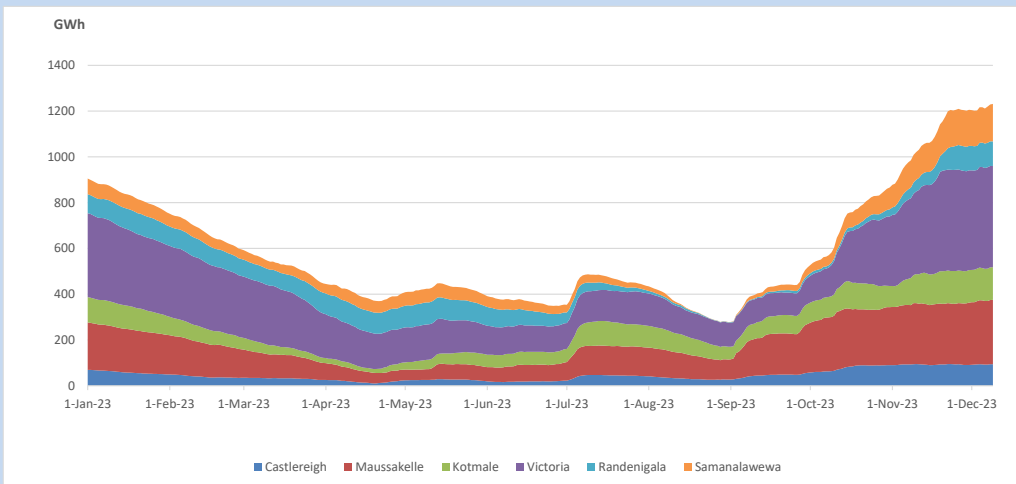


Total Reservoir Level 1231.7 GWh
% of Total capacity 98.9%

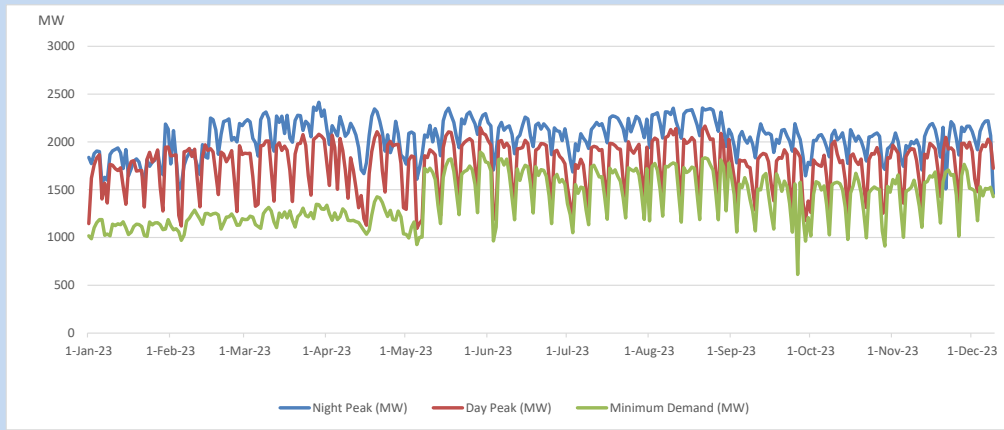
11. Comparison of Total Reservoir Storage Levels with Past Years



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



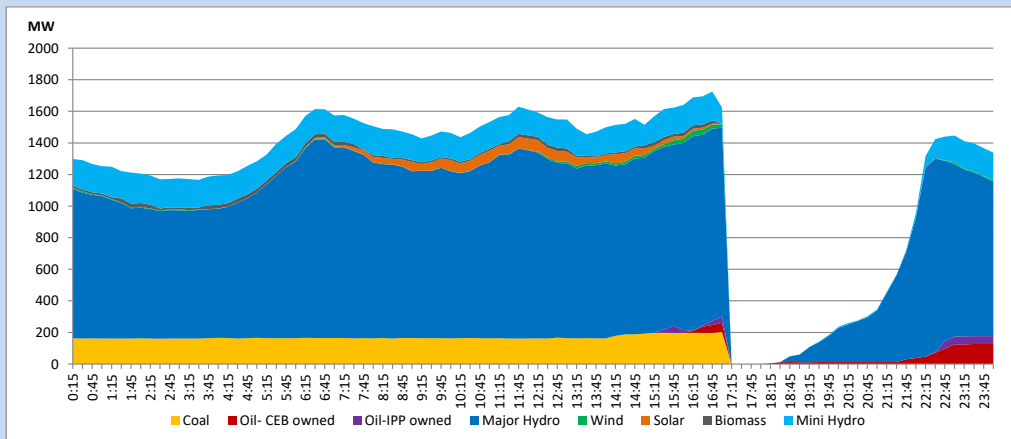
13. Variation of Demand during the current year



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

14. Daily Load Curve

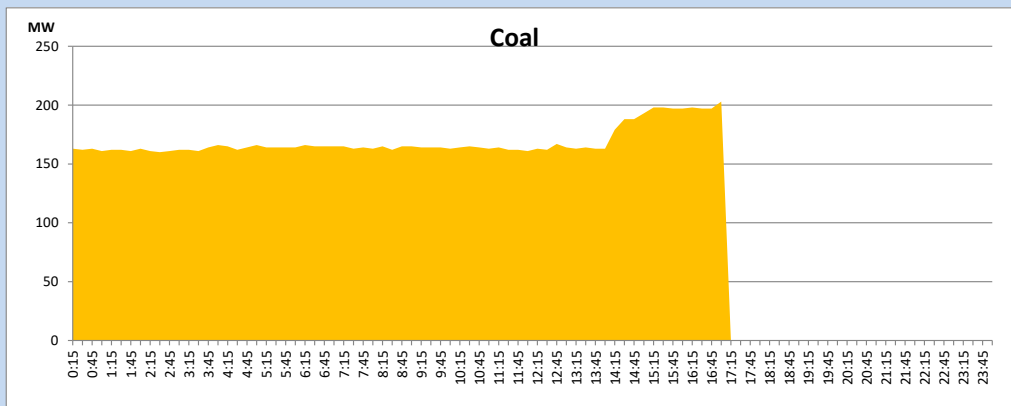
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Solar and wind data is based on Telemetered Power Stations only

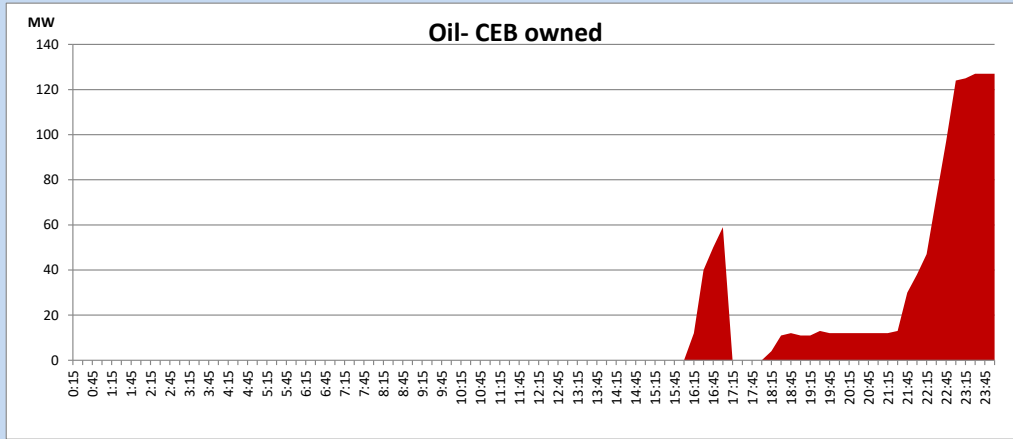
Coal Generation during

December 9, 2023



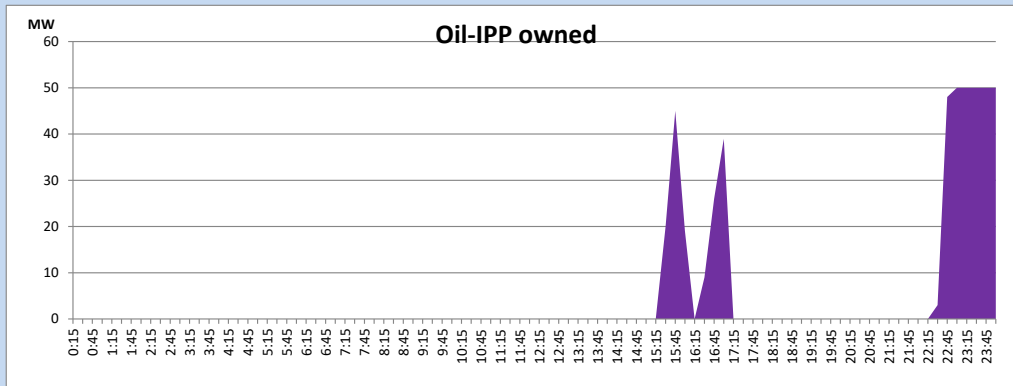
CEB Oil Plant Generation during

December 9, 2023



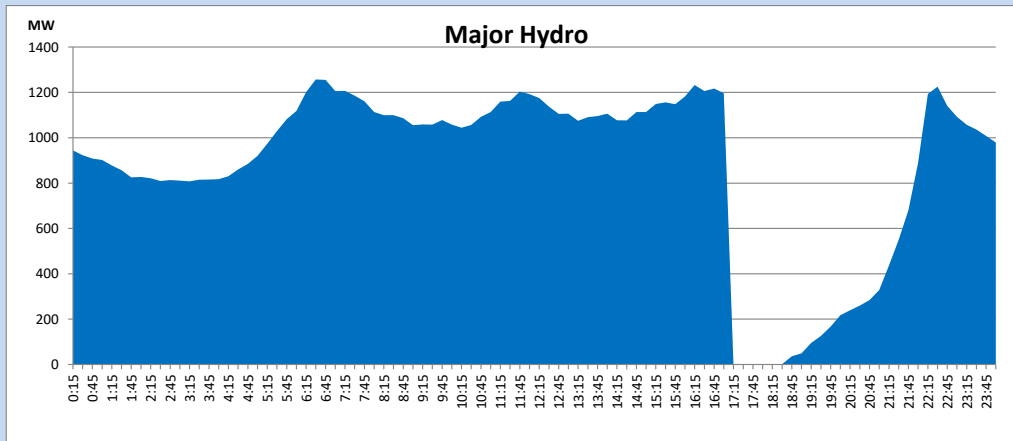
IPP Oil Plant Generation during

December 9, 2023



Major Hydro Generation during

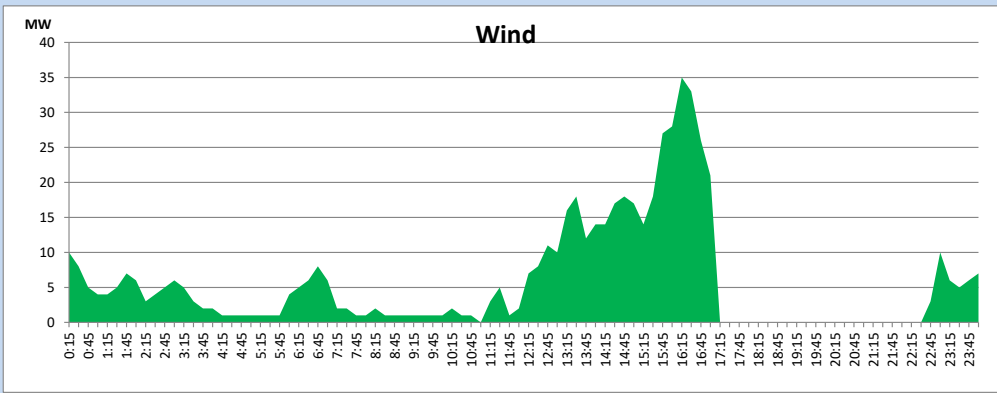
December 9, 2023



Wind Generation during

December 9, 2023

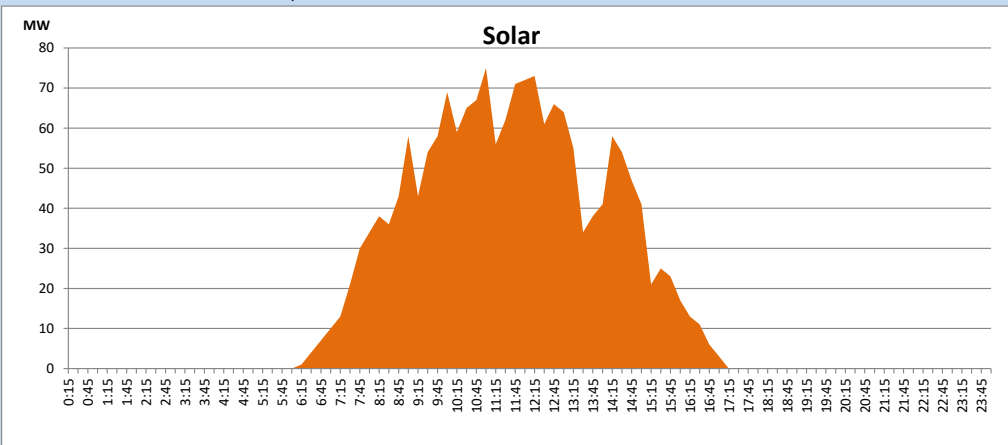
Based on Telemetered Power Stations only



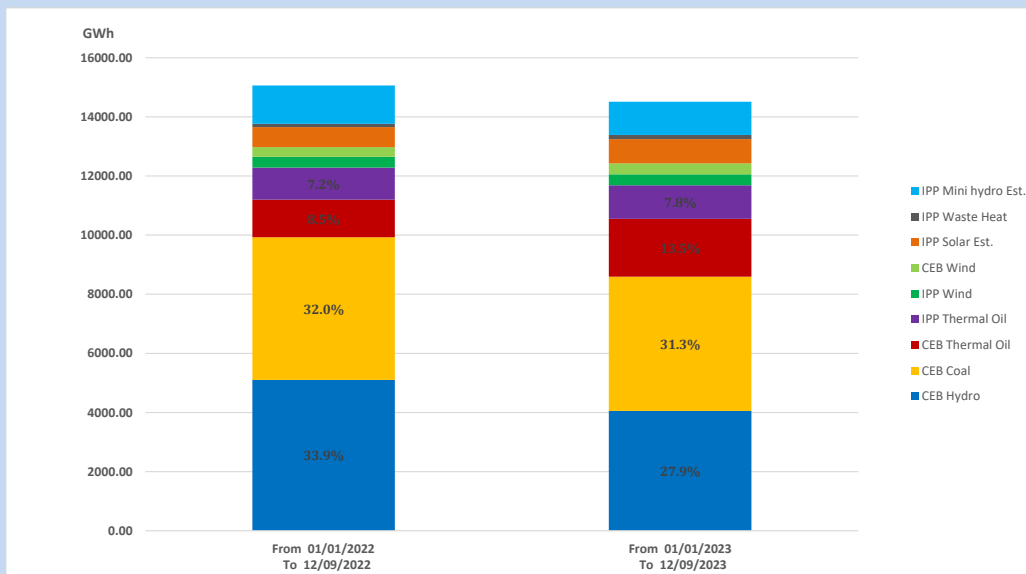
Solar Generation during

December 9, 2023

Based on Telemetered Power Stations only



15. Cumulative Dispatch Comparison with Last Year



Cumulative dispatch
 From 01/01/2022 To 12/09/2022
 From 01/01/2023 To 12/09/2023

15063 GWh
 14514 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

December 9, 2023

- 1) Ampara - Monaragala 132kV cct tripped from both ends at 10:58hrs due to the operation of directional earth fault protection, causing Monaragala GSS to be dead (Badulla - Monaragala 132kV cct had been released for an outage at the time). The cct was normalized at 11:16hrs and all affected feeders were normalized at 11:18hrs.
- 2) Embilipitiya GSS 132/33kV T/F 01 and 33kV B/S CB tripped at 15:49hrs along with 33kV feeder 02 and 06 causing 33kV feeder 01, 03 & 08 to be dead, due to the operation of O/C & E/F protection. 33kV B/S CB was energized at 16:52hrs and all 33kV feeders were normalized by 22:07hrs. Embilipitiya GSS 132/33kV T/F 01 is yet to be normalized.
- 3) WCP GT 01 & 02 performed a forced shutdown at 15:51hrs while loading, due to a lube oil system failure. WCP made available at 23:00hrs.
- 4) Total system failure occurred at 17.03 hrs and all GSS energized by 22:48 hrs.
- 5) Bowathenna reservoir spilling stopped at 07:30hrs.
- 6) Upper Kothmale pond spilled intermittently and spilling continues to the present hour. Kukule pond spilled intermittently & stopped at 3:10hrs (10.12.23).
- 7) Victoria, Kothmale and Randenigala reservoirs spilled intermittently and stopped at 2:12hrs, 2:30hrs & 2:36hrs (10.12.2023) respectively.