

# Generation and Reservoirs Statistics

December 28, 2023



PUBLIC UTILITIES COMMISSION OF SRI LANKA

## 1. Daily Generation Mix in MWh

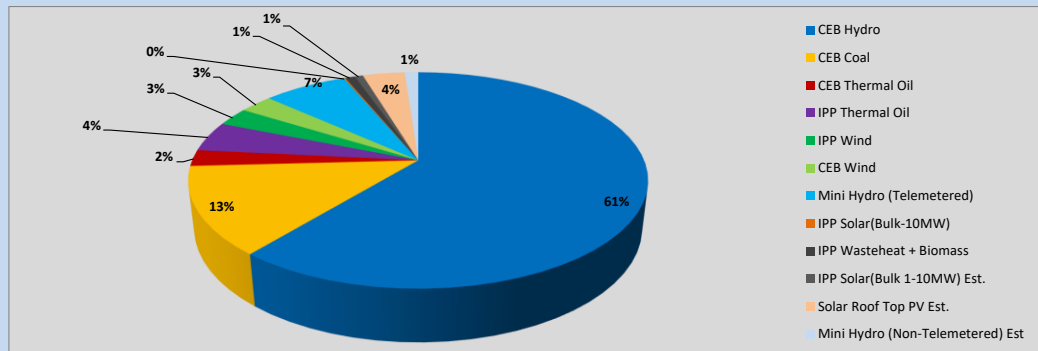


Table 01

|   | Generation (MWh) |
|---|------------------|
| CEB Hydro   | 26,659           |
| CEB Coal  | 5,745            |
| CEB Thermal Oil                                       | 1,061            |
| IPP Thermal Oil                                       | 1,964            |
| IPP Wind  | 1,216            |
| CEB Wind  | 1,224            |
| Mini Hydro (Telemetered)                              | 3,069            |
| IPP Solar (Bulk)                                      | 58               |
| IPP Waste heat + Biomass                              | 361              |
| <b>Total Generation (Excluding estimated figures)</b> | <b>41,357</b>    |
| * Estimated unserved energy                           | 0                |
| * Estimated Mini Hydro (Non telemetered)              | 501              |
| * Estimated IPP Solar PV (Bulk 1-10MW)                | 304              |
| * Estimated Solar Roof Top PV                         | 1540             |
| <b>Total Generation (Including estimated figures)</b> | <b>43,702</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  | 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) | Percentage |
|----------------------|----------------|------------|
| CEB Hydro            | 685            | 62.61%     |
| CEB Coal             | 142            | 12.96%     |
| CEB Thermal Oil      | 21             | 1.90%      |
| IPP Thermal          | 29             | 2.66%      |
| SPP Wind             | 19             | 1.77%      |
| CEB Wind             | 26             | 2.41%      |
| Mini Hydro *         | 103            | 9.46%      |
| IPP Solar *          | 58             | 5.27%      |
| IPP Waste heat + BMP | 11             | 0.96%      |
| <b>Total</b>         | <b>1,094</b>   |            |

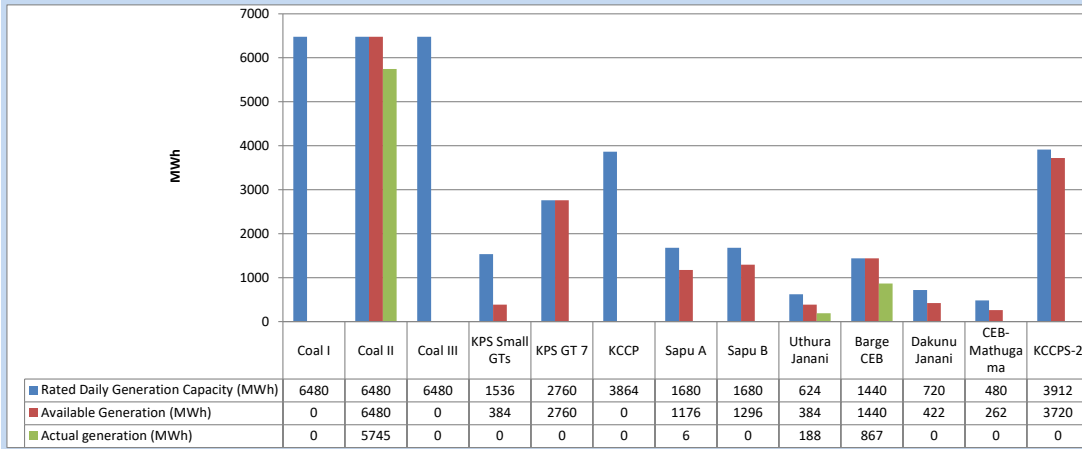
Table 04 - Current Year

| Category        | Dispatch (GWh) | Percentage |
|-----------------|----------------|------------|
| CEB Hydro       | 4,507          | 29.54%     |
| CEB Coal        | 4,637          | 30.39%     |
| CEB Thermal Oil | 1,975          | 12.95%     |
| IPP Thermal     | 1,156          | 7.57%      |
| SPP Wind        | 388            | 2.54%      |
| CEB Wind        | 388            | 2.55%      |
| Mini Hydro *    | 1,192          | 7.81%      |
| IPP Solar *     | 860            | 5.63%      |
| IPP Waste heat  | 154            | 1.01%      |
| <b>Total</b>    | <b>15,258</b>  |            |

\*Including estimated contribution from non telemetered plants

### 3. CEB owned Thermal Plant Dispatch

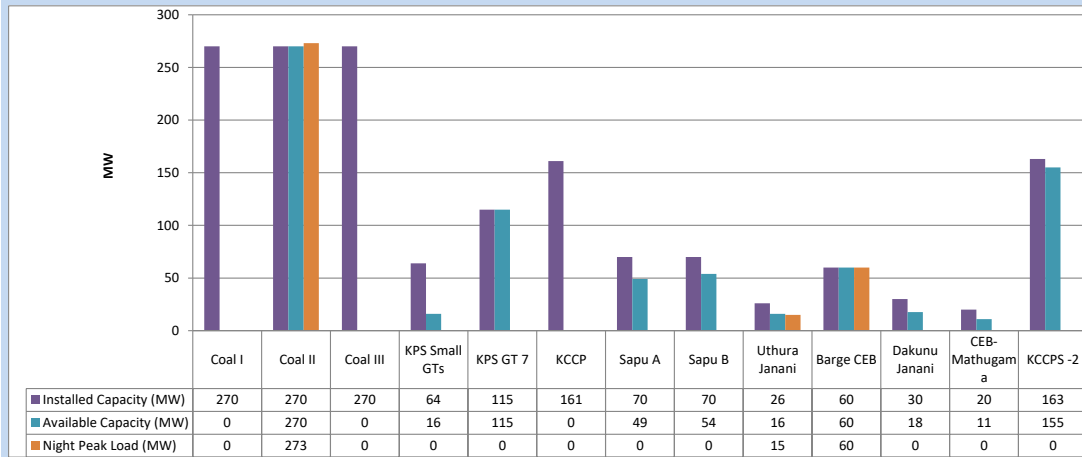
December 28, 2023



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

December 29, 2023

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

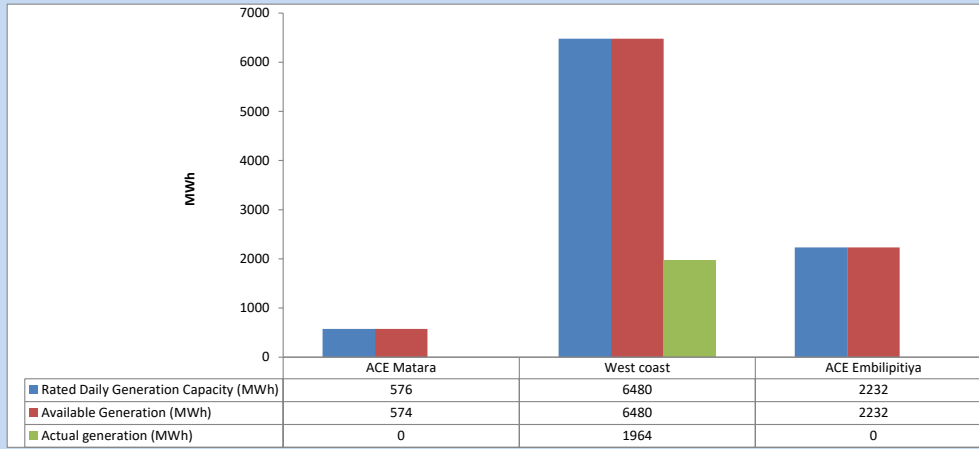


Plant availability is recorded at 6.00 am on

December 29, 2023

### 5. IPP owned Thermal Plant Dispatch

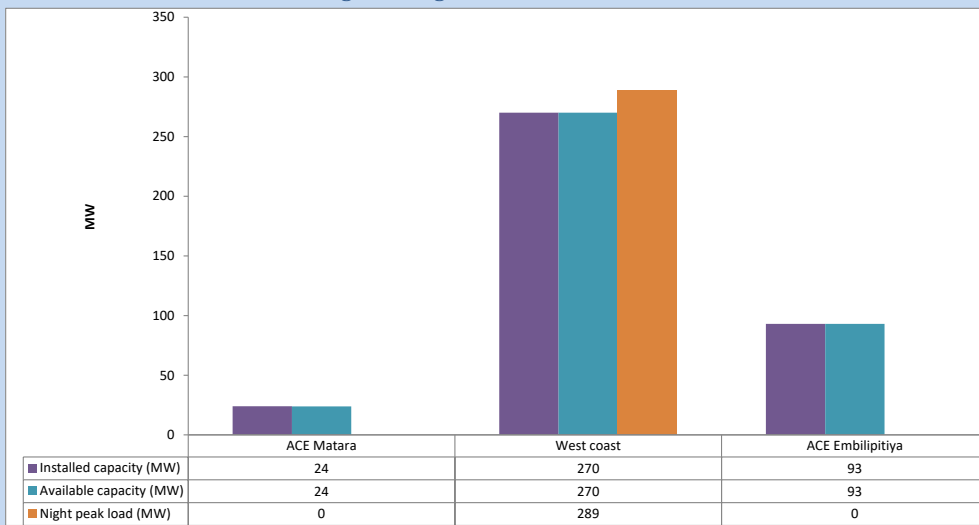
December 28, 2023



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

December 29, 2023

### 6. IPP owned Thermal Plant Loading at the Night Peak

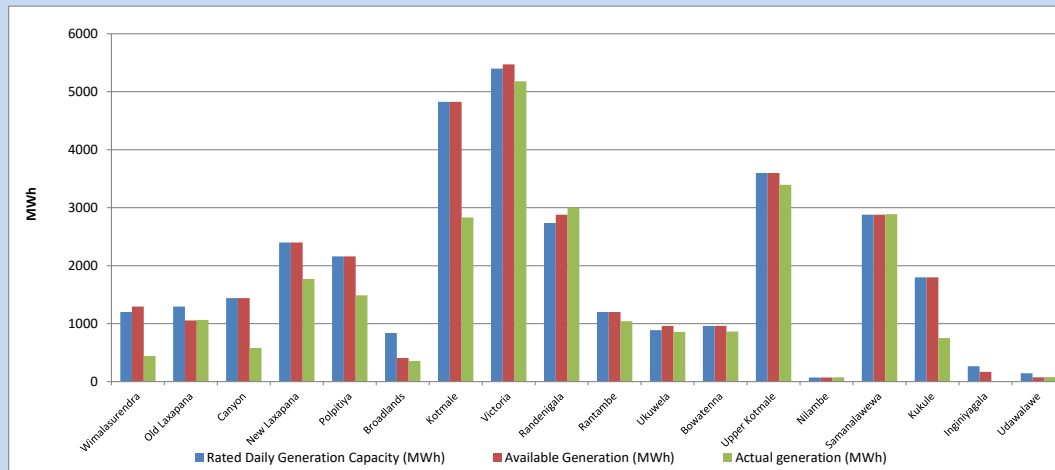


Plant availability is recorded at 6.00 am on

December 29, 2023

## 7. Major Hydro Plant Dispatch

December 28, 2023

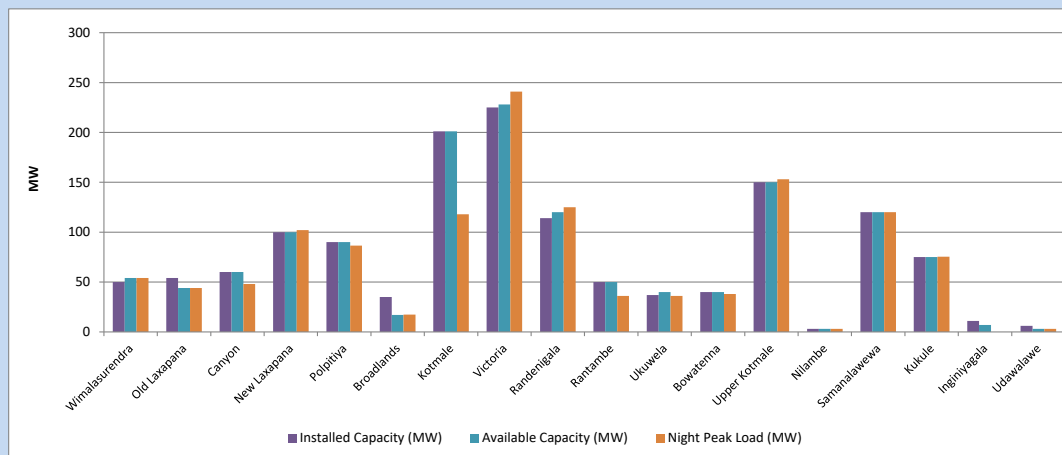


Available Generation is estimated based on plant availability at 6.00am on December 29, 2023  
Broadlands power plant is operating in the Commissioning Stage

December 29, 2023

## 8. Major Hydro Plant Loading at Night Peak

December 28, 2023



Plant availability is recorded at 6.00 am on December 29, 2023  
Broadlands power plant is operating in the Commissioning Stage

December 29, 2023

## 9. Summary of Major Plant performance

Table 05

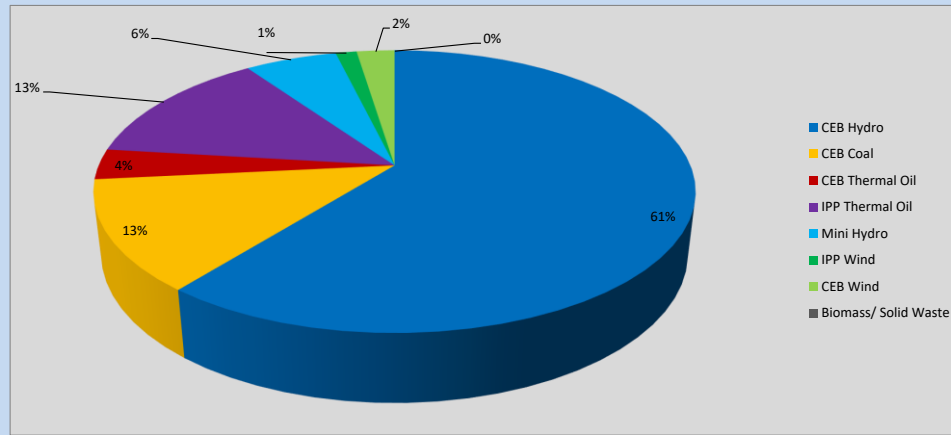
| Plant             | Installed Capacity<br>(MW) | Plant Availability<br>(MW) | Night peak Load<br>(MW) | Plant Dispatch<br>(MWh) |
|-------------------|----------------------------|----------------------------|-------------------------|-------------------------|
| Wimalasurendra    | 50                         | 54                         | 54                      | 442                     |
| Old Laxapana      | 54                         | 44                         | 44                      | 1,063                   |
| Canyon            | 60                         | 60                         | 48                      | 580                     |
| New Laxapana      | 100                        | 100                        | 102                     | 1,770                   |
| Polpitiya         | 90                         | 90                         | 87                      | 1,490                   |
| Broadlands        | 35                         | 17                         | 17                      | 358                     |
| Kotmale           | 201                        | 201                        | 118                     | 2,830                   |
| Victoria          | 225                        | 228                        | 241                     | 5,181                   |
| Randenigala       | 114                        | 120                        | 125                     | 3,000                   |
| Rantambe          | 50                         | 50                         | 36                      | 1,044                   |
| Ukuwela           | 37                         | 40                         | 36                      | 856                     |
| Bowatenna         | 40                         | 40                         | 38                      | 863                     |
| Upper Kotmale     | 150                        | 150                        | 153                     | 3,394                   |
| Nilambe           | 3                          | 3                          | 3                       | 73                      |
| Samanalawewa      | 120                        | 120                        | 120                     | 2,888                   |
| Kukule            | 75                         | 75                         | 76                      | 750                     |
| Inginiyagala      | 11                         | 7                          | 0                       | 0                       |
| Udawalawe         | 6                          | 3                          | 3                       | 78                      |
| Puttalam Coal I   | 270                        | 0                          | 0                       | 0                       |
| Puttalam Coal II  | 270                        | 270                        | 273                     | 5,745                   |
| Puttalam Coal III | 270                        | 0                          | 0                       | 0                       |
| KPS Small GTs     | 64                         | 16                         | 0                       | 0                       |
| KPS GT 7          | 115                        | 115                        | 0                       | 0                       |
| KCCP              | 161                        | 0                          | 0                       | 0                       |
| Sapugaskanda A    | 70                         | 49                         | 0                       | 6                       |
| Sapugaskanda B    | 70                         | 54                         | 0                       | 0                       |
| Uthura Janani     | 26                         | 16                         | 15                      | 188                     |
| Barge CEB         | 60                         | 60                         | 60                      | 867                     |
| CEB-Hambantota    | 30                         | 18                         | 0                       | 0                       |
| CEB-Mathugama     | 20                         | 11                         | 0                       | 0                       |
| ACE Matara        | 24                         | 24                         | 0                       | 0                       |
| Asia Power        | 50                         | 0                          | 0                       | 0                       |
| KCCPS -2          | 163                        | 155                        | 0                       | 0                       |
| West Coast        | 270                        | 270                        | 289                     | 1,964                   |
| Nothern Power     | 36                         | 0                          | 0                       | 0                       |
| ACE Embilipitiya  | 93                         | 93                         | 0                       | 0                       |
| Total             | 3,483                      | 2,553                      | 2,146                   | 41,358                  |

Plant availability is the availability recorded at 6 am on

December 29, 2023

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

December 28, 2023



**Table 06**

|                          |      |    |
|--------------------------|------|----|
| CEB Hydro                | 1310 | MW |
| CEB Coal                 | 273  | MW |
| CEB Thermal Oil          | 75   | MW |
| IPP Thermal Oil          | 289  | MW |
| Mini Hydro (Telemetered) | 127  | MW |
| IPP Wind                 | 29.1 | MW |
| CEB Wind                 | 52.5 | MW |
| Biomass/ Solid Waste     | 0    | MW |

#### Recorded Peak Demand Data

**Table 07**

|                         |       |    |
|-------------------------|-------|----|
| Night Peak*             | 2,156 | MW |
| Day Peak Maximum Demand | 1,981 | MW |
| Day Peak Minimum Demand | 1,666 | MW |
| Off Peak Minimum Demand | 1,229 | MW |

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

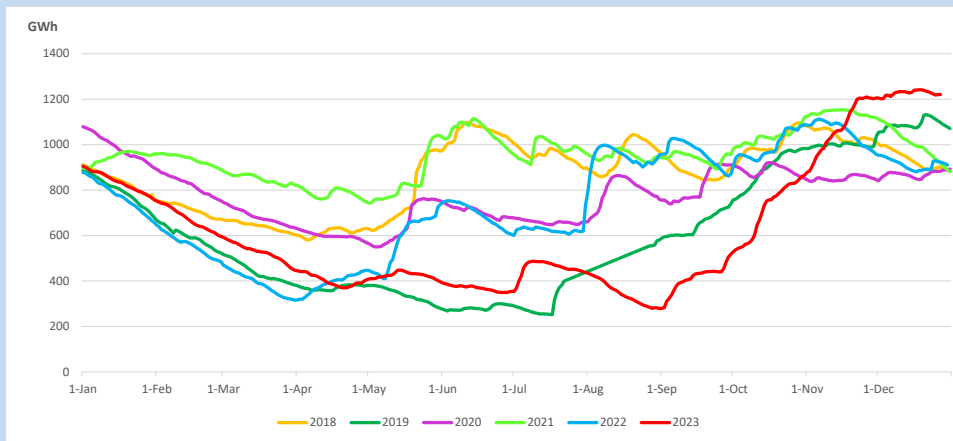
#### Reservoir Levels -

as at 06.00 Hr on December 29, 2023

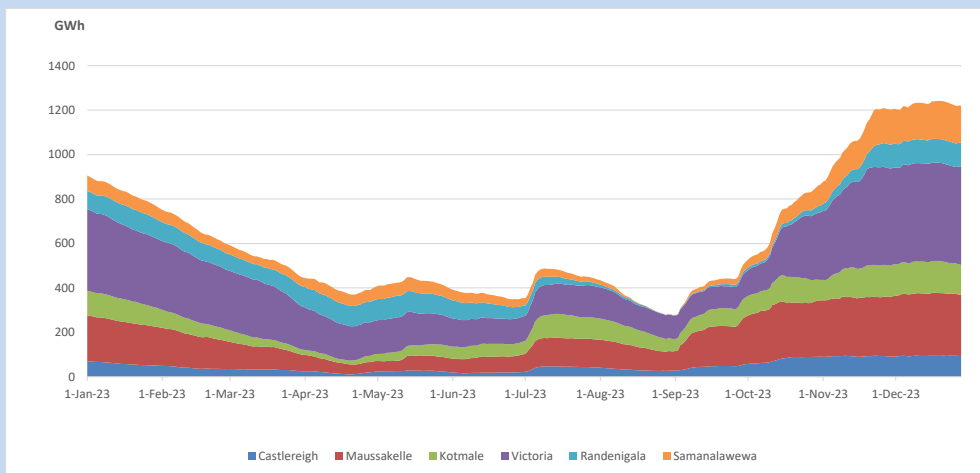


Total Reservoir Level 1220.2 GWh  
% of Total capacity 98.0%

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

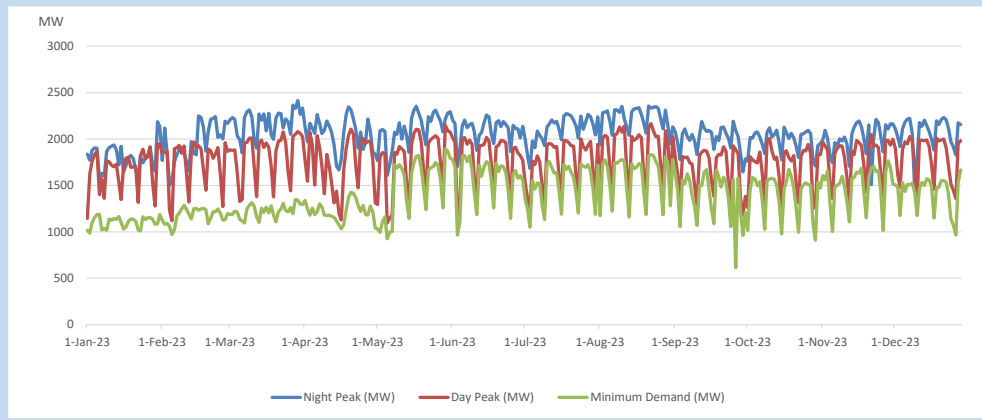


### 12. Variation of Major Hydro Reservoir Levels in the current year (GWh)





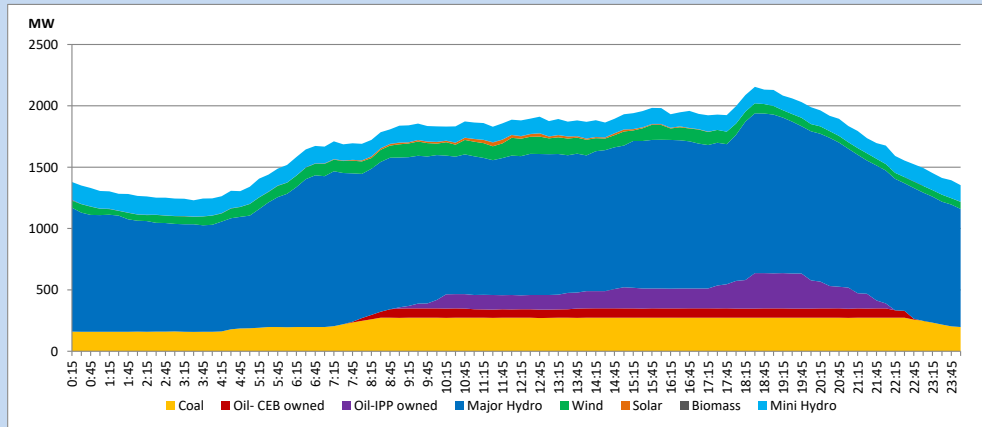
### 13. Variation of Demand during the current year



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

### 14. Daily Load Curve

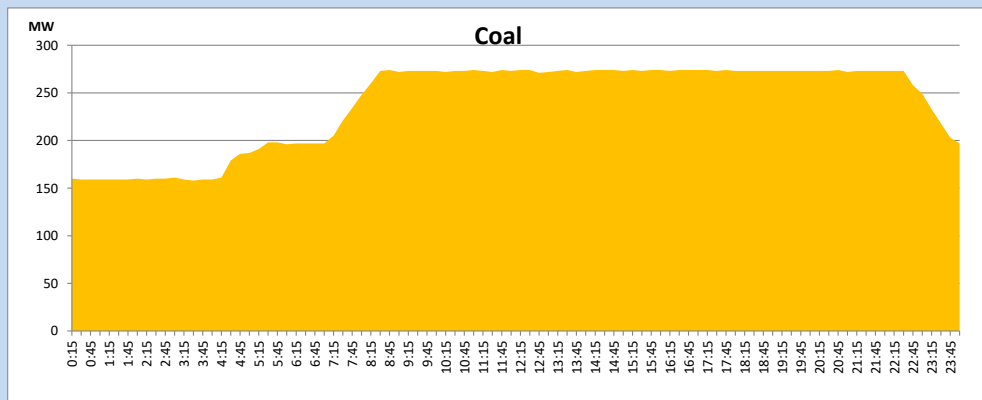
December 28, 2023



Solar and wind data is based on Telemetered Power Stations only

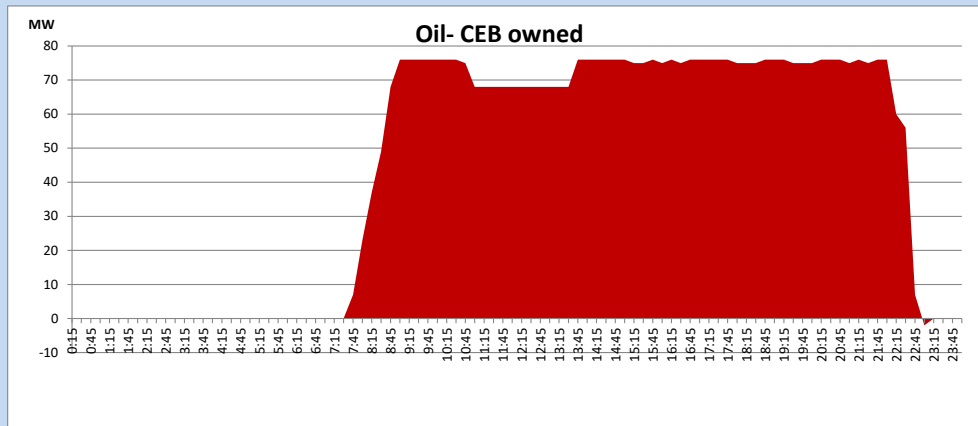
### Coal Generation during

December 28, 2023



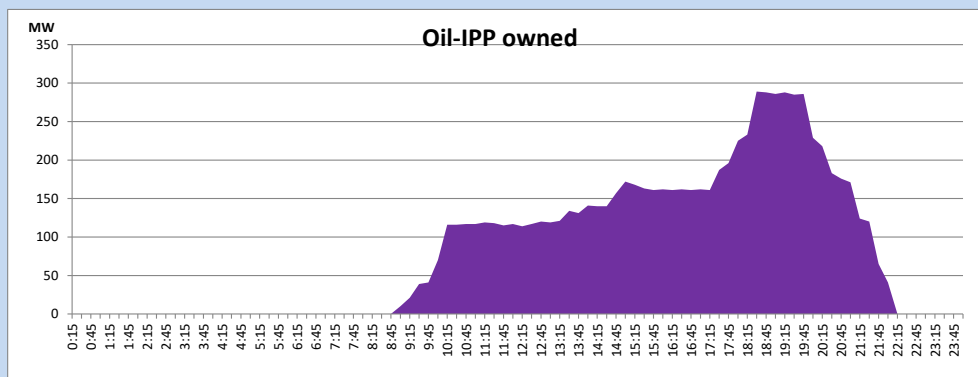
CEB Oil Plant Generation during

December 28, 2023



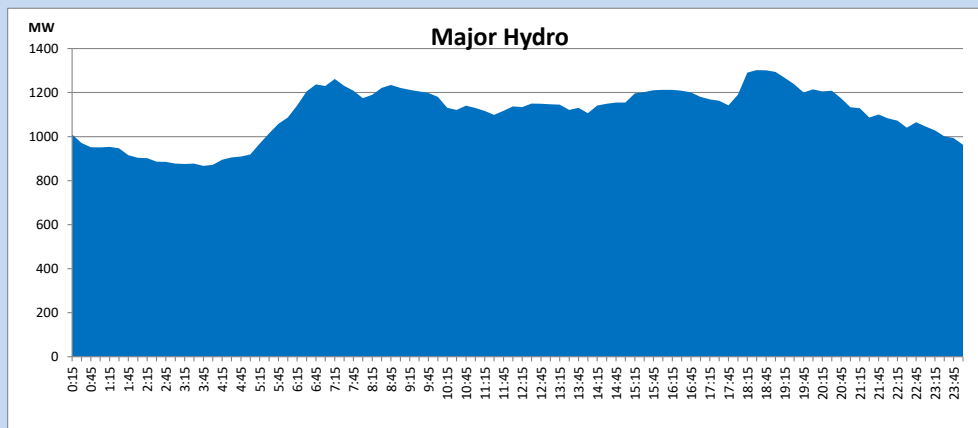
IPP Oil Plant Generation during

December 28, 2023



Major Hydro Generation during

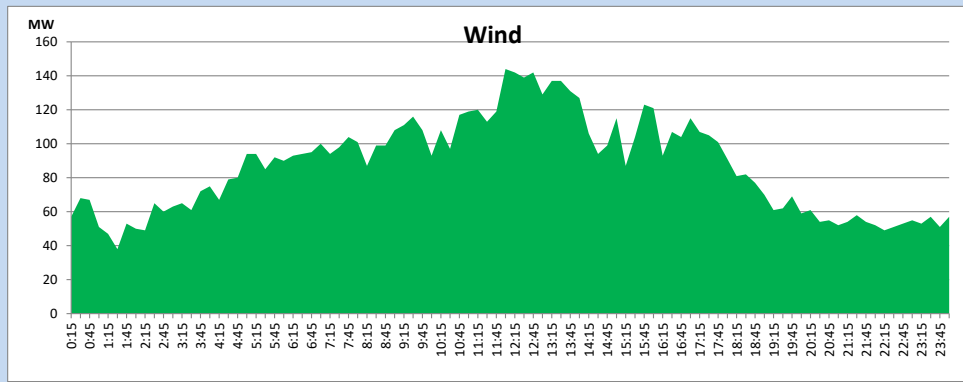
December 28, 2023



## Wind Generation during

December 28, 2023

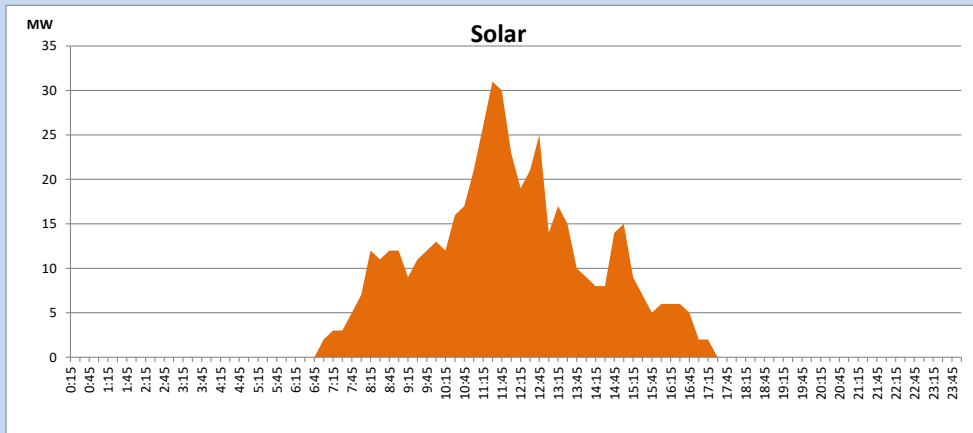
Based on Telemetered Power Stations only



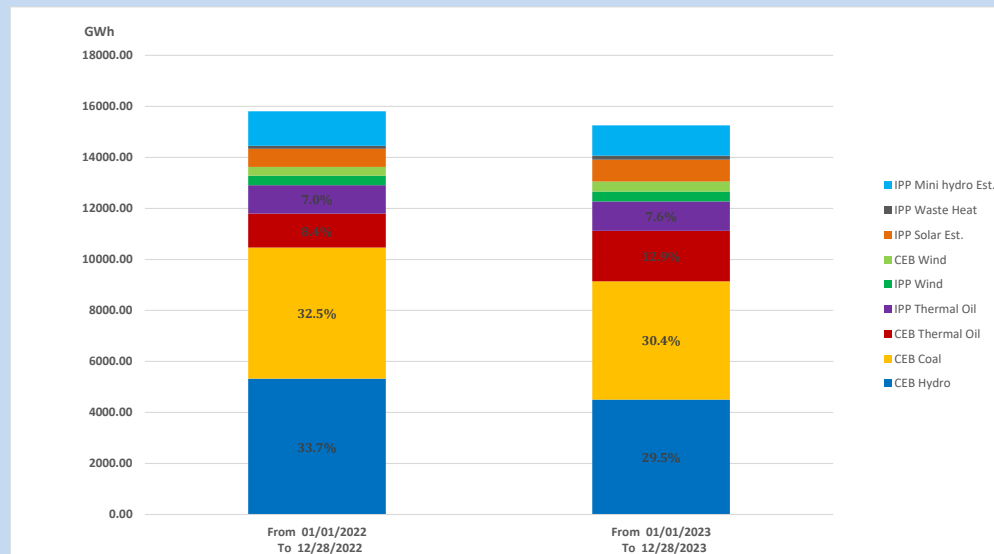
## Solar Generation during

December 28, 2023

Based on Telemetered Power Stations only



## 15. Cumulative Dispatch Comparison with Last Year



Cumulative dispatch  
From 01/01/2022 To 12/28/2022  
From 01/01/2023 To 12/28/2023

15806 GWh  
15258 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      |
|---------------------------------------|-------------------|
| <b>CEB Thermal</b>                    |                   |
| <b>Sapugaskanda 1</b>                 | Heavy Fuel        |
| <b>Sapugaskanda 2</b>                 | Heavy Fuel        |
| <b>Kelanitissa Small Gas Turbines</b> | Auto Diesel       |
| <b>GT 7 - Kelanitissa</b>             | Auto Diesel       |
| <b>Kelanitissa CCY</b>                | Naphtha or Diesel |
| <b>Lakvijaya 1</b>                    | Coal              |
| <b>Lakvijaya 2</b>                    | Coal              |
| <b>Lakvijaya 3</b>                    | Coal              |
| <b>Uthuru Janani</b>                  | Heavy Fuel        |
| <b>Barge CEB</b>                      | Heavy Fuel        |
| <b>KCCPS -2</b>                       | Auto Diesel       |

| Power Station           | Primary Fuel             |
|-------------------------|--------------------------|
| <b>Private Thermal</b>  |                          |
| <b>West Coast</b>       | Auto Diesel / Heavy Fuel |
| <b>ACE Matara</b>       | Heavy Fuel               |
| <b>ACE Embilipitiya</b> | Heavy Fuel               |

Major Incidents reported during the day

December 28, 2023

- 1) Bowathenna reservoir spilling started at 9:45hrs and spilling stopped at 18:30hrs.
- 2) Upper Kothmale pond spilling started at 12:15hrs and stopped at 22:33hrs.
- 3) Victoria reservoir spilling started at 23:44hrs and stopped at 04:47hrs (29.12.2023).
- 4) Randenigala reservoir spilled intermittently and spilling stopped at 06:16hrs (29.12.2023).
- 5) Rantabe pond spilled intermittently and spilling continues to the present hour.