



| THE DAILY BHUTAN POWER SYSTEM OPERATOR LOAD-GENERATION BALANCE REPORT & ENERGY FIGURES ISSUED ON 14-Sep-2025(-ve:import, +ve:export) |                                          |                  |                                                          |                                                                |                                   |                                                                                                                                                                              |         |
|--------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------------------|----------------------------------------------------------|----------------------------------------------------------------|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| Report Details                                                                                                                       | Date                                     | Time             | National Coincidental Peak Load (MW)                     |                                                                | Date                              | Time                                                                                                                                                                         | Load    |
|                                                                                                                                      | September 13, 2025                       | 19:00:00         |                                                          |                                                                | 05-Sep-25                         | 19:27:16                                                                                                                                                                     | 1176.18 |
| Sl. No.                                                                                                                              | Hydropower Plant                         | Unit             | MW                                                       | Transmission Lines and Elements                                | Load (MW)                         | Remarks                                                                                                                                                                      |         |
| 1                                                                                                                                    | 6 x 170MW THP                            | Unit- I          | 187.85                                                   | 400kV THP - Siliguri Line - I                                  | 238.72                            | All units and feeders are in service.                                                                                                                                        |         |
|                                                                                                                                      |                                          | Unit- II         | 187.79                                                   | 400kV THP - Siliguri Line - II                                 | 237.78                            |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | Unit- III        | 187.38                                                   | 400kV THP - Siliguri Line - IV                                 | 228.79                            |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | Unit- IV         | 187.44                                                   | 400kV THP - Malbase Line - III                                 | 410.78                            |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | Unit- V          | 187.02                                                   | 400kV Malbase - Siliguri Line                                  | 185.87                            |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | Unit- VI         | 187.50                                                   | -                                                              | -                                 |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | Total            | 1,124.98                                                 | Auxiliary Consumption & Transformation Losses at Generator end | 0.79%                             |                                                                                                                                                                              |         |
| 2                                                                                                                                    | 4 x 180MW MHP                            | Unit-I           | 197.89                                                   | 400kV MHP - Jigmeling Line - I                                 | 254.16                            | 400kV MHP-JIG Line II on Standby as three of the other 400kV lines at MHP have the capacity to evacuate the power.                                                           |         |
|                                                                                                                                      |                                          | Unit-II          | 197.83                                                   | 400kV MHP - Jigmeling Line - II                                | 0.00                              |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | Unit-III         | 190.47                                                   | 400kV MHP - Jigmeling Line - III                               | 263.41                            |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | Unit-IV          | 196.21                                                   | 400kV MHP - Jigmeling Line - IV                                | 263.67                            |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | -                | -                                                        | 220kV Jigmeling - BitDeer Line - I                             | 78.30                             |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | -                | -                                                        | 220kV Jigmeling - BitDeer Line - II                            | 73.96                             |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | -                | -                                                        | 500MVA, 400/220kV ICT at Jigmeling (HV)                        | 290.18                            |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | -                | -                                                        | 400kV Jigmeling - Alipurduar Line - I                          | 381.82                            |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | -                | -                                                        | 400kV Jigmeling - Alipurduar Line - II                         | 381.09                            |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | -                | -                                                        | 80MVA, 220/132kV ICT - I (HV)                                  | 68.66                             |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | -                | -                                                        | 80MVA, 220/132kV ICT - II (HV)                                 | 68.23                             |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | -                | -                                                        | 132kV MHP - Yurmo Line - II                                    | 65.23                             |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | -                | -                                                        | 132kV MHP - Tintibi Line                                       | 16.63                             |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | -                | -                                                        | 132kV Gelephu - Salakati Line                                  | -1.01                             |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | Total            | 782.40                                                   | Auxiliary Consumption & Transformation Losses at Generator end | 0.40%                             |                                                                                                                                                                              |         |
| 3                                                                                                                                    | 6 x 170MW PHP-II                         | Unit- I          | 186.55                                                   | 400kV PHP II - Jigmeling -I                                    | 144.71                            | Unit III under Shutdown due to looseness at the runner end.<br>Unit IV tripped @ 17:38hrs (06.09.2025) and under inspection.<br>400kV PHP II - Alipurduar- I not in Service. |         |
|                                                                                                                                      |                                          | Unit- II         | 186.81                                                   | 400kV PHP II - Jigmeling -II                                   | 144.34                            |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | Unit- III        | 0.00                                                     | 400kV PHP II - Alipurduar -I                                   | 0.00                              |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | Unit- IV         | 0.00                                                     | 400kV PHP II - Alipurduar -II                                  | 454.01                            |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | Unit- V          | 182.09                                                   | -                                                              | -                                 |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | Unit- VI         | 186.70                                                   | -                                                              | -                                 |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | Total            | 742.15                                                   | Auxiliary Consumption & Transformation Losses at Generator end | -0.12%                            |                                                                                                                                                                              |         |
| 4                                                                                                                                    | 4 x 84MW CHP                             | Unit- I          | 91.48                                                    | 220kV CHP - Birpara Line - I                                   | 0.00                              | 220kV CHP-Birpara Line I under shutdown for replacement of defective insulator caused due to lightening                                                                      |         |
|                                                                                                                                      |                                          | Unit- II         | 91.53                                                    | 220kV CHP - Birpara Line - II                                  | 65.23                             |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | Unit- III        | 91.53                                                    | 220kV CHP - Gedu                                               | 108.51                            |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | Unit- IV         | 91.56                                                    | 220kV CHP - Jamjee - I                                         | 60.85                             |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | -                | -                                                        | 220kV CHP - Jamjee - II                                        | 60.43                             |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | -                | -                                                        | 220kV CHP - Jamjee - III                                       | 58.37                             |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | -                | -                                                        | 220kV Malbase - Birpara Line                                   | 63.75                             |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | -                | -                                                        | 66kV CHP - Gedu Line                                           | 10.93                             |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | Total            | 366.10                                                   | Auxiliary Consumption & Transformation Losses at Generator end | 0.49%                             |                                                                                                                                                                              |         |
| 5                                                                                                                                    | 2 x 12MW BHP (U/S)                       | Unit- I          | 11.02                                                    | 220kV BHP - Semtokha Line                                      | 108.30                            | All units and feeders are in service.                                                                                                                                        |         |
|                                                                                                                                      |                                          | Unit- II         | 12.00                                                    | 66kV BHP - Lobeysa Line                                        | 22.74                             |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | Total            | 23.02                                                    | 220kV BHP - Tsirang Line                                       | -67.33                            |                                                                                                                                                                              |         |
| 6                                                                                                                                    | 2 x 20MW BHP (L/S)                       | Unit- I          | 20.70                                                    | 5MVA, 66/11kV TFR                                              | 0.61                              |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | Unit- II         | 21.07                                                    | 30MVA ICT, 220/66kV (HV)                                       | 1.74                              |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | Total            | 41.77                                                    | Auxiliary Consumption & Transformation Losses at Generator end | 0.73%                             |                                                                                                                                                                              |         |
| 7                                                                                                                                    | 2 x 63MW DHP                             | Unit-I           | 63.69                                                    | 220kV DHP - Tsirang Line                                       | 126.21                            | 220kV DHP -Dagapela Line on Standby due to protection setting.                                                                                                               |         |
|                                                                                                                                      |                                          | Unit-II          | 63.19                                                    | 220kV DHP - Dagapela Line                                      | 0.00                              |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | -                | -                                                        | 220kV BitDeer - Dagapela Line                                  | 49.00                             |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | -                | -                                                        | 5MVA, 220/33kV TFR                                             | 0.25                              |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | Total            | 126.88                                                   | Auxiliary Consumption & Transformation Losses at Generator end | 0.33%                             |                                                                                                                                                                              |         |
| 8                                                                                                                                    | 4 x 15MW KHP                             | Unit- I          | 16.50                                                    | 132kV KHP - Nangkhori Line                                     | 57.80                             | All units and feeders are in service.                                                                                                                                        |         |
|                                                                                                                                      |                                          | Unit-II          | 16.50                                                    | 132kV KHP - Kilikhar Line                                      | 7.46                              |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | Unit- III        | 16.50                                                    | 5MVA, 132/11kV TFR                                             | 0.25                              |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | Unit- IV         | 16.50                                                    | 132kV Motanga - Rangia Line                                    | 37.26                             |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | Total            | 66.00                                                    | Auxiliary Consumption & Transformation Losses at Generator end | 0.74%                             |                                                                                                                                                                              |         |
| 9                                                                                                                                    | 2 x 59MW NHP                             | Unit-I           | 19.10                                                    | 132kV NHP-MHP-I                                                | 19.41                             | All units and feeders are in service.                                                                                                                                        |         |
|                                                                                                                                      |                                          | Unit-II          | 64.86                                                    | 132kV NHP-MHP-II                                               | 64.43                             |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | Total            | 83.96                                                    | Auxiliary Consumption & Transformation Losses at Generator end | 0.14%                             |                                                                                                                                                                              |         |
| 10                                                                                                                                   | 2 x 9MW SHP                              | Unit- I          | 5.00                                                     | 66kV SHP-Damdhum (Samtse)                                      | 0.00                              | (Not able to Generate full capacity of 18MW due to transmission evacuation constraint.)<br>Interim measure: Evacuation is through 33kV System.                               |         |
|                                                                                                                                      |                                          | Unit- II         | 4.99                                                     | -                                                              | -                                 |                                                                                                                                                                              |         |
|                                                                                                                                      |                                          | Total            | 9.99                                                     | Auxiliary Consumption & Transformation Losses at Generator end | 100.00%                           |                                                                                                                                                                              |         |
| Note: Generation-Load Summary (MW) for 13-Sep-2025 at 19:00 hrs                                                                      |                                          |                  |                                                          |                                                                |                                   |                                                                                                                                                                              |         |
| Sl. No.                                                                                                                              | Region                                   | Total Generation | Total Domestic Load<br>(Total Generation - Total Export) |                                                                | Total Export(+ve)/<br>Import(-ve) | 19:00 hrs Statistical Comparison<br>(MW) for this and last year                                                                                                              |         |
| 1                                                                                                                                    | Both Eastern & Western<br>(Whole Bhutan) | 3,367.25         | 1,093.94                                                 |                                                                | 2,273.31                          | Tt. Exp./Imp. <div><div>1,665.63</div><div>2,273.31</div></div>                                                                                                              |         |
| Note: Generation-Load Summary (MW) for 13-Sep-2024, at 19:00 hrs                                                                     |                                          |                  |                                                          |                                                                |                                   |                                                                                                                                                                              |         |
| Sl. No.                                                                                                                              | Region                                   | Total Generation | Total Domestic Load<br>(Total Generation - Total Export) |                                                                | Total Export(+ve)/<br>Import(-ve) | 19:00 hrs Statistical Comparison<br>(MW) for this and last year                                                                                                              |         |
| 1                                                                                                                                    | Both Eastern & Western<br>(Whole Bhutan) | 2,591.65         | 926.02                                                   |                                                                | 1,665.63                          | Tt.Load <div><div>926.02</div><div>1,093.94</div></div>                                                                                                                      |         |
| Note: Daily Energy (MUs) and Power(MW) Statistics for 13-Sep-2025                                                                    |                                          |                  |                                                          |                                                                |                                   |                                                                                                                                                                              |         |
| Sl. No.                                                                                                                              | Total Energy Generation                  | Daily Energy Met | Net Energy Import<br>(IEX and Solar)                     | Net Energy Export                                              | Peak Cross-border (MW)            | Tt. Gen. <div><div>2,591.65</div><div>3,367.25</div></div>                                                                                                                   |         |
| 1                                                                                                                                    | 79.01                                    | 1054.42          | 0.00                                                     | 54.13                                                          | 2,417.12                          | ■ Y-2024 ■ Y-2025                                                                                                                                                            |         |

- The Instantaneous load balance does not tend towards zero. This could be due to the following reasons:
  - Not all the meters are digital and nor are all the meter at all locations can be read at same time (say 9:00hrs) due to many meter to be read manually.
  - The clocks of all the locations are not synchronized.
- This report, compiled using the SCADA data, is prepared to give an overall idea of the generation & load flow for the system at a particular instant. This report also gives energy and import/export figures.
- When SCADA data are unavailable for certain stations due to technical issues, required data are collected from the site.