

## LOAD GENERATION BALANCE REPORT

Maximum Load/Demand till Date

| Date      | Time     | Load(MW) |
|-----------|----------|----------|
| 27-Dec-18 | 18:18hrs | 399.35MW |

**Date:** February 9, 2019  
**Hours:** 19:00 Hours

| Sl. No. | Hydropower Plant | Unit         | MW            | Name of Feeders                                      | Load (MW)    | Sign | Remarks   |
|---------|------------------|--------------|---------------|--|--------------|------|---|
| 1       | THP              | Unit- I      | 0.00          | 400kV THP - Siliguri Fdr- I                          | 0.00         | +    | Unit-V & 400kV THP-SIL Fdr I standby.<br>Unit-I, II & III under AM.<br>400kV THP_SIL Fdr II under AM. |
|         |                  | Unit- II     | 0.00          | 400kV THP - Siliguri Fdr- II                         | 0.00         | +    |   |
|         |                  | Unit- III    | 0.00          | 400kV THP - Siliguri Fdr- IV                         | 70.45        | +    |   |
|         |                  | Unit- IV     | 140.36        | 400kV THP - Malbase Fdr- III                         | 165.60       | +    |   |
|         |                  | Unit- V      | 0.00          | 400kV Malbase - Siliguri                             | 51.97        | +    |   |
|         |                  | Unit- VI     | 99.72         |  |              |      |   |
|         |                  | <b>Total</b> | <b>240.08</b> | <b>Error At Station/Auxiliary Consumption/Losses</b> | <b>4.03</b>  |      |   |
| 2       | CHP              | Unit- I      | 0.00          | 220kV CHP - Birpara Fdr- I                           | 0.00         |      | Unit I & III under AM.<br>220kV CHP-BIR II under breakdown and 220kV CHP-BIR I under AM.              |
|         |                  | Unit- II     | 61.17         | 220kV CHP - Birpara Fdr- II                          | 0.00         |      |   |
|         |                  | Unit- III    | 0.00          | 220kV CHP - Malbase Fdr- III                         | 38.35        | +    |   |
|         |                  | Unit- IV     | 56.92         | 220kV CHP - Semtokha Fdr- IV                         | 56.24        | +    |   |
|         |                  |              |               | 220kV Malbase - Birpara Fdr.                         | -29.94       | -    |   |
|         |                  |              |               | 66kV CHP - Chumdo Fdr.                               | 23.15        | +    |   |
|         |                  |              |               | 66kV CHP - Gedu Fdr.                                 | 2.05         | +    |   |
|         |                  |              |               | 3x3MVA, 66/11kV TFR                                  | 1.78         | +    |   |
|         |                  | <b>Total</b> | <b>118.09</b> | <b>Error At Station/Auxiliary Consumption/Losses</b> | <b>-3.48</b> |      |   |
| 3       | BHP (U/S)        | Unit- I      | 7.77          | 220kV BHP - Semtokha Fdr.                            | 0.63         | +    | Upper stage & Lower Stage-Unit II AM.   |
|         |                  | Unit- II     | 0.00          | 66kV BHP - Lobeysa Fdr.                              | 16.78        | +    |   |
|         |                  | <b>Total</b> | <b>7.77</b>   | 220kV BHP - Tsirang Fdr.                             | 4.48         |      |   |
|         | BHP (L/S)        | Unit- I      | 14.00         | 5MVA, 66/11kV TFR                                    | 0.92         | +    |   |
|         |                  | Unit- II     | 0.00          | 30MVA ICT, 220/66kV                                  |              |      |   |
|         |                  | <b>Total</b> | <b>14.00</b>  | <b>Error At Station/Auxiliary Consumption/Losses</b> | <b>-1.04</b> |      |   |
| 4       | DHPC             | Unit-I       | 18.54         | 220kV DHPC - Tsirang Fdr.                            | 18.34        | +    | Unit-II under Maintenance.  |
|         |                  | Unit-II      | 0.00          | 220kV DHPC - Jigmeling Fdr.                          | 0.00         |      |   |
|         |                  |              |               | 5MVA, 220/33kV TFR                                   | 0.00         |      |   |
|         |                  | <b>Total</b> | <b>18.54</b>  | <b>Error At Station/Auxiliary Consumption/Losses</b> | <b>0.20</b>  |      |   |
| 5       | KHP              | Unit- I      | 0.00          | 132kV KHP - Nangkhor Fdr- I                          | 10.63        | +    | Unit I Standby.<br>Unit-IV AM   |
|         |                  | Unit-II      | 10.54         | 132kV KHP - Kilikhar Fdr- II                         | 9.35         | +    |   |
|         |                  | Unit- III    | 10.29         | 5MVA, 132/11kV TFR                                   | 0.60         | +    |   |
|         |                  | Unit- IV     | 0.00          | 132kV Gelephu - Salakati Fdr.                        | -22.70       | -    |   |
|         |                  |              |               | 132kV Motanga - Rangia Fdr.                          | 1.77         | +    |   |
|         |                  |              |               | 220kV Tsirang - Jigmeling                            | 19.70        | +    |   |
|         |                  | <b>Total</b> | <b>20.83</b>  | <b>Error At Station/Auxiliary Consumption/Losses</b> | <b>0.25</b>  |      |   |

**Note: Load summary on February 09, 2019 at 19:00hrs.**

| Sl. No | Region       | Total Generation (MW) | Total Load (Generation - Export, MW) | Total Load (Feeder Summation, MW) | Total Export/Import | Load Balance |
|--------|--------------|-----------------------|--------------------------------------|-----------------------------------|---------------------|--------------|
| 1      | Western Grid | 398.48                | 286.30                               | 286.59                            | 92.48               | -0.29        |
| 2      | Eastern Grid | 20.83                 | 61.46                                | 61.21                             | -20.93              | 0.25         |
|        | <b>Total</b> | 419.31                | 347.76                               | 347.80                            | 71.55               | -0.04        |

**Note: Load Summary on February 09, 2018 at 19:00hrs**

| Sl. No | Region          | 19:00Hrs Load (MW) | Day Peak Load (MW) | Month Peak Load (MW) |
|--------|-----------------|--------------------|--------------------|----------------------|
| 1      | Western Grid    | 285.70             | 285.70             | 313.19               |
| 2      | Eastern Grid    | 66.17              | 66.17              | 72.02                |
|        | <b>National</b> | <b>349.18</b>      | <b>351.87</b>      | <b>385.21</b>        |

**Notes:-**

1. The Instantaneous load balance is calculated as (Total generation - (Total export-Import) - Total domestic load) do not tend towards zero. This could be due to the following reasons:
  - i) 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.
  - ii) The clocks of all the locations are not synchronized
2. This report is generated to give an idea of the generation & load flow for the system at a particular instant.

## LOAD GENERATION BALANCE REPORT

Maximum Load/Demand till Date

| Date      | Time     | Load(MW) |
|-----------|----------|----------|
| 27-Dec-18 | 18:18hrs | 399.35MW |

**Date:** February 10, 2019  
**Hours:** 09:00 Hours

| Sl. No. | Hydropower Plant | Unit         | MW            | Name of Feeders                                      | Load (MW) | Sign        | Remarks   |   |
|---------|------------------|--------------|---------------|--|-----------|-------------|---|---|
| 1       | THP              | Unit- I      | 0.00          | 400kV THP - Siliguri Fdr- I                          | 0.00      |             | Unit-V & 400kV THP-SIL Fdr I standby.<br>Unit-I, II & III under AM.<br>400kV THP_SIL Fdr II under AM. |   |
|         |                  | Unit- II     | 0.00          | 400kV THP - Siliguri Fdr- II                         | 0.00      |             |   |   |
|         |                  | Unit- III    | 0.00          | 400kV THP - Siliguri Fdr- IV                         | 38.35     | +           |   |   |
|         |                  | Unit- IV     | 70.79         | 400kV THP - Malbase Fdr- III                         | 119.12    | +           |   |   |
|         |                  | Unit- V      | 0.00          | 400kV Malbase - Siliguri                             | 23.81     | +           |   |   |
|         |                  | Unit- VI     | 90.27         |  |           |             |   |   |
|         |                  | <b>Total</b> | <b>161.06</b> | <b>Error At Station/Auxiliary Consumption/Losses</b> |           | <b>3.59</b> |   |   |
| 2       | CHP              | Unit- I      | 0.00          | 220kV CHP - Birpara Fdr- I                           | -4.00     | -           | Unit-I and III under AM.<br>220kV Birpara II under breakdown.   |   |
|         |                  | Unit- II     | 38.55         | 220kV CHP - Birpara Fdr- II                          | 0.00      | -           |   |   |
|         |                  | Unit- III    | 0.00          | 220kV CHP - Malbase Fdr- III                         | 30.59     | +           |   |   |
|         |                  | Unit- IV     | 47.59         | 220kV CHP - Semtokha Fdr- IV                         | 34.90     | +           |   |   |
|         |                  |              |               | 220kV Malbase - Birpara Fdr.                         | -42.54    | -           |   |   |
|         |                  |              |               | 66kV CHP - Chumdo Fdr.                               | 18.49     | +           |   |   |
|         |                  |              |               | 66kV CHP - Gedu Fdr.                                 | 2.19      | +           |   |   |
|         |                  | <b>Total</b> | <b>86.14</b>  | <b>Error At Station/Auxiliary Consumption/Losses</b> |           | <b>2.46</b> |   |   |
| 3       | BHP (U/S)        | Unit- I      | 5.91          | 220kV BHP - Semtokha Fdr.                            | 5.68      | +           | Upper stage & Lower Stage-<br>Unit II under AM  |   |
|         |                  | Unit- II     | 0.00          | 66kV BHP - Lobeysa Fdr.                              | 11.24     | +           |   |   |
|         |                  | <b>Total</b> | <b>5.91</b>   | 220kV BHP - Tsirang Fdr.                             |           | 0.00        |   | - |
|         | BHP (L/S)        | Unit- I      | 12.00         | 5MVA, 66/11kV TFR                                    |           | 0.79        |   | + |
|         |                  | Unit- II     | 0.00          | 30MVA ICT, 220/66kV                                  |           |             |   |   |
|         |                  | <b>Total</b> | <b>12.00</b>  | <b>Error At Station/Auxiliary Consumption/Losses</b> |           | <b>0.20</b> |   |   |
| 4       | DHPC             | Unit-I       | 20.27         | 220kV DHPC - Tsirang Fdr.                            | 20.05     | +           | Unit-II maintenance.  |   |
|         |                  | Unit-II      | 0.00          | 220kV DHPC - Jigmeling Fdr.                          | 0.00      |             |   |   |
|         |                  |              |               | 5MVA, 220/33kV TFR                                   |           |             |   |   |
|         |                  | <b>Total</b> | <b>20.27</b>  | <b>Error At Station/Auxiliary Consumption/Losses</b> |           | <b>0.22</b> |   |   |
| 5       | KHP              | Unit- I      | 0.00          | 132kV KHP - Nangkhor Fdr- I                          | 14.13     | +           | Unit-IV under AM  |   |
|         |                  | Unit-II      | 10.33         | 132kV KHP - Kilikhar Fdr- II                         | 5.69      | +           |   |   |
|         |                  | Unit- III    | 10.22         | 5MVA, 132/11kV TFR                                   |           | 0.40        |   | + |
|         |                  | Unit- IV     | 0.00          | 132kV Gelephu - Salakati Fdr.                        | -12.69    | -           |   |   |
|         |                  |              |               | 132kV Motanga - Rangia Fdr.                          | 0.62      | +           |   |   |
|         |                  |              |               | 220kV Tsirang - Jigmeling                            | 17.80     | +           |   |   |
|         |                  | <b>Total</b> | <b>20.55</b>  | <b>Error At Station/Auxiliary Consumption/Losses</b> |           |             |   |   |

**Note: Load summary on February 10, 2019 at 09:00hrs.**

| Sl. No       | Region       | Total Generation (MW) | Total Load (Generation - Export, MW) | Total Load (Feeder Summation, MW) | Total Export/Import | Load Balance |
|--------------|--------------|-----------------------|--------------------------------------|-----------------------------------|---------------------|--------------|
| 1            | Western Grid | 285.38                | 251.96                               | 245.49                            | 15.62               | 6.47         |
| 2            | Eastern Grid | 20.55                 | 50.42                                | 50.09                             | -12.07              | 0.33         |
| <b>Total</b> |              | 305.93                | 302.38                               | 295.58                            | 3.55                | 6.80         |

**Note: Load Summary on February 10, 2018 at 09:00hrs**

| Sl. No | Region          | 09:00Hrs Load (MW) | Day Peak Load (MW) | Month Peak Load (MW) |
|--------|-----------------|--------------------|--------------------|----------------------|
| 1      | Western Grid    | 271.98             | 300.40             | 313.19               |
| 2      | Eastern Grid    | 53.21              | 69.61              | 72.02                |
|        | <b>National</b> | <b>305.75</b>      | <b>351.87</b>      | <b>385.21</b>        |

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