

## LOAD GENERATION BALANCE REPORT

Maximum Load/Demand till Date

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

**Date:** May 18, 2019  
**Hours:** 19:00 Hours

| Sl. No. | Hydropower Plant | Unit         | MW            | Name of Feeders                                      | Load (MW)    | Sign | Remarks  |
|---------|------------------|--------------|---------------|--|--------------|------|--|
| 1       | THP              | Unit- I      | 159.21        | 400kV THP - Siliguri Fdr- I                          | 0.00         |      | Unit-IV AMP<br>Unit- V & VI Standby<br>400kV THP_SIL fdr I & II<br>under breakdown |
|         |                  | Unit- II     | 140.19        | 400kV THP - Siliguri Fdr- II                         | 0.00         |      |  |
|         |                  | Unit- III    | 140.00        | 400kV THP - Siliguri Fdr- IV                         | 167.24       | +    |  |
|         |                  | Unit- IV     | 0.00          | 400kV THP - Malbase Fdr- III                         | 265.97       | +    |  |
|         |                  | Unit- V      | 0.00          | 400kV Malbase - Siliguri                             | 143.10       | +    |  |
|         |                  | Unit- VI     | 0.00          |  |              |      |  |
|         |                  | <b>Total</b> | <b>439.40</b> | <b>Error At Station/Auxiliary Consumption/Losses</b> | <b>6.19</b>  |      |  |
| 2       | CHP              | Unit- I      | 0.00          | 220kV CHP - Birpara Fdr- I                           | 34.22        | +    | Unit-I Standby   |
|         |                  | Unit- II     | 50.50         | 220kV CHP - Birpara Fdr- II                          | 34.15        | +    |  |
|         |                  | Unit- III    | 65.22         | 220kV CHP - Malbase Fdr- III                         | 65.91        | +    |  |
|         |                  | Unit- IV     | 73.56         | 220kV CHP - Semtokha Fdr- IV                         | 34.17        | +    |  |
|         |                  |              |               | 220kV Malbase - Birpara Fdr.                         | 5.59         | +    |  |
|         |                  |              |               | 66kV CHP - Chumdo Fdr.                               | 15.13        | +    |  |
|         |                  |              |               | 66kV CHP - Gedu Fdr.                                 | 2.78         | +    |  |
|         |                  |              |               | 3x3MVA, 66/11kV TFR                                  | 1.19         | +    |  |
|         |                  | <b>Total</b> | <b>189.28</b> | <b>Error At Station/Auxiliary Consumption/Losses</b> | <b>1.73</b>  |      |  |
| 3       | BHP (U/S)        | Unit- I      | 4.87          | 220kV BHP - Semtokha Fdr.                            | -5.55        | -    | Upper stage unit II & lower stage unit-II Standby                                  |
|         |                  | Unit- II     | 0.00          | 66kV BHP - Lobeysa Fdr.                              | 9.37         | +    |  |
|         |                  | <b>Total</b> | <b>4.87</b>   | 220kV BHP - Tsirang Fdr.                             | 10.89        | +    |  |
|         | BHP (L/S)        | Unit- I      | 10.07         | 5MVA, 66/11kV TFR                                    | 0.65         | +    |  |
|         |                  | Unit- II     | 0.00          | 30MVA ICT, 220/66kV                                  |              |      |  |
|         |                  | <b>Total</b> | <b>10.07</b>  | <b>Error At Station/Auxiliary Consumption/Losses</b> | <b>-0.42</b> |      |  |
| 4       | DHPC             | Unit-I       | 0.00          | 220kV DHPC - Tsirang Fdr.                            | 22.61        | +    | Unit-I Standby   |
|         |                  | Unit-II      | 22.82         | 220kV DHPC - Jigmeling Fdr.                          | 0.00         |      |  |
|         |                  |              |               | 5MVA, 220/33kV TFR                                   | 0.00         |      |  |
|         |                  | <b>Total</b> | <b>22.82</b>  | <b>Error At Station/Auxiliary Consumption/Losses</b> | <b>0.21</b>  |      |  |
| 5       | KHP              | Unit- I      | 13.03         | 132kV KHP - Nangkhor Fdr- I                          | 45.27        | +    |  |
|         |                  | Unit-II      | 13.11         | 132kV KHP - Kilikhar Fdr- II                         | 8.53         | +    |  |
|         |                  | Unit- III    | 15.31         | 5MVA, 132/11kV TFR                                   | 0.40         | +    |  |
|         |                  | Unit- IV     | 13.18         | 132kV Gelephu - Salakati Fdr.                        | -2.10        | -    |  |
|         |                  |              |               | 132kV Motanga - Rangia Fdr.                          | 21.81        | +    |  |
|         |                  |              |               | 220kV Tsirang - Jigmeling                            | 29.53        | +    |  |
|         |                  | <b>Total</b> | <b>54.63</b>  | <b>Error At Station/Auxiliary Consumption/Losses</b> | <b>0.43</b>  |      |  |

**Note: Load summary on May 18, 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 | 666.44                | 252.61                               | 244.90                            | 384.30              | 7.71         |
| 2      | Eastern Grid | 54.63                 | 64.45                                | 64.02                             | 19.71               | 0.43         |
|        | <b>Total</b> | 721.07                | 317.06                               | 308.92                            | 404.01              | 8.14         |

**Note: Load Summary on May 18, 2018 at 19:00hrs**

| Sl. No | Region          | 19:00Hrs Load (MW) | Day Peak Load (MW) | Month Peak Load (MW) |
|--------|-----------------|--------------------|--------------------|----------------------|
| 1      | Western Grid    | 247.97             | 255.14             | 270.60               |
| 2      | Eastern Grid    | 52.70              | 58.10              | 62.83                |
|        | <b>National</b> | <b>300.67</b>      | <b>313.24</b>      | <b>333.43</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:** May 19, 2019  
**Hours:** 09:00 Hours

| Sl. No. | Hydropower Plant | Unit         | MW            | Name of Feeders  | Load (MW)    | Sign | Remarks   |
|---------|------------------|--------------|---------------|--|--------------|------|---|
| 1       | THP              | Unit- I      | 118.71        | 400kV THP - Siliguri Fdr- I                              | 0.00         |      | Unit-IV AMP<br>Unit- V & VI Standby<br>400kV THP_SIL I & II under<br>breakdown. |
|         |                  | Unit- II     | 101.03        | 400kV THP - Siliguri Fdr- II                             | 0.00         |      |   |
|         |                  | Unit- III    | 80.63         | 400kV THP - Siliguri Fdr- IV                             | 112.16       | +    |   |
|         |                  | Unit- IV     | 0.00          | 400kV THP - Malbase Fdr- III                             | 183.10       | +    |   |
|         |                  | Unit- V      | 0.00          | 400kV Malbase - Siliguri                                 | 97.12        | +    |   |
|         |                  | Unit- VI     | 0.00          |  |              |      |   |
|         |                  | <b>Total</b> | <b>300.37</b> | <b>Error At Station/Auxiliary<br/>Consumption/Losses</b> | <b>5.11</b>  |      |   |
| 2       | CHP              | Unit- I      | 0.00          | 220kV CHP - Birpara Fdr- I                               | 27.30        | +    | Unit-I Standby  |
|         |                  | Unit- II     | 50.91         | 220kV CHP - Birpara Fdr- II                              | 27.32        | +    |   |
|         |                  | Unit- III    | 65.68         | 220kV CHP - Malbase Fdr- III                             | 86.75        | +    |   |
|         |                  | Unit- IV     | 51.77         | 220kV CHP - Semtokha Fdr- IV                             | 9.63         | +    |   |
|         |                  |              |               | 220kV Malbase - Birpara Fdr.                             | -22.42       | +    |   |
|         |                  |              |               | 66kV CHP - Chumdo Fdr.                                   | 11.88        | +    |   |
|         |                  |              |               | 66kV CHP - Gedu Fdr.                                     | 3.46         | +    |   |
|         |                  |              |               | 3x3MVA, 66/11kV TFR                                      | 1.03         | +    |   |
|         |                  | <b>Total</b> | <b>168.36</b> | <b>Error At Station/Auxiliary<br/>Consumption/Losses</b> | <b>0.99</b>  |      |   |
| 3       | BHP (U/S)        | Unit- I      | 4.70          | 220kV BHP - Semtokha Fdr.                                | 13.58        | +    | Upper stage unit II & lower<br>stage unit-II Standby<br>□                       |
|         |                  | Unit- II     | 0.00          | 66kV BHP - Lobeysa Fdr.                                  | 7.75         | +    |   |
|         |                  | <b>Total</b> | <b>4.70</b>   | 220kV BHP - Tsirang Fdr.                                 | -6.98        | -    |   |
|         | BHP (L/S)        | Unit- I      | 9.79          | 5MVA, 66/11kV TFR  | 0.48         | +    |   |
|         |                  | Unit- II     | 0.00          | 30MVA ICT, 220/66kV                                      |              |      |   |
|         |                  | <b>Total</b> | <b>9.79</b>   | <b>Error At Station/Auxiliary<br/>Consumption/Losses</b> | <b>-0.34</b> |      |   |
| 4       | DHPC             | Unit-I       | 0.00          | 220kV DHPC - Tsirang Fdr.                                | 17.66        | +    | Unit-I standby.   |
|         |                  | Unit-II      | 17.85         | 220kV DHPC - Jigmeling Fdr.                              |              |      |   |
|         |                  |              |               | 5MVA, 220/33kV TFR                                       |              |      |   |
|         |                  | <b>Total</b> | <b>17.85</b>  | <b>Error At Station/Auxiliary<br/>Consumption/Losses</b> | <b>0.19</b>  |      |   |
| 5       | KHP              | Unit- I      | 16.47         | 132kV KHP - Nangkhor Fdr- I                              | 60.56        | +    |   |
|         |                  | Unit-II      | 16.60         | 132kV KHP - Kilikhar Fdr- II                             | 4.70         | +    |   |
|         |                  | Unit- III    | 16.42         | 5MVA, 132/11kV TFR                                       | 0.30         | +    |   |
|         |                  | Unit- IV     | 16.44         | 132kV Gelephu - Salakati Fdr.                            | 3.84         | +    |   |
|         |                  |              |               | 132kV Motanga - Rangia Fdr.                              | 19.58        | +    |   |
|         |                  |              |               | 220kV Tsirang - Jigmeling                                | 9.91         | +    |   |
|         |                  | <b>Total</b> | <b>65.93</b>  | <b>Error At Station/Auxiliary<br/>Consumption/Losses</b> | <b>0.37</b>  |      |   |

Note: Load summary on May 19, 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 | 501.07                | 249.68                               | 243.73                            | 241.48              | 5.95         |
| 2      | Eastern Grid | 65.93                 | 52.42                                | 52.05                             | 23.42               | 0.37         |
|        | <b>Total</b> | 567.00                | 302.10                               | 295.78                            | 264.90              | 6.32         |

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

| Sl. No | Region          | 09:00Hrs Load (MW) | Day Peak Load (MW) | Month Peak Load (MW) |
|--------|-----------------|--------------------|--------------------|----------------------|
| 1      | Western Grid    | 217.30             | 240.91             | 270.60               |
| 2      | Eastern Grid    | 44.92              | 58.07              | 62.83                |
|        | <b>National</b> | 262.22             | 298.98             | 333.43               |

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