

**LOAD-GENERATION BALANCE REPORT**

Maximum Load/Demand till Date

|        |                  |
|--------|------------------|
| Date:  | November 7, 2019 |
| Hours: | 19:00 Hours      |

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

| Sl. No.      | Hydropower Plant | Unit   | MW            | Name of Feeders                                      | Load (MW)   | Sign | Remarks  |
|--------------|------------------|--|---------------|--|-------------|------|--|
| 1            | 1020MW THP       | Unit- I  | 150.59        | 400kV THP - Siliguri Fdr- I                          | 0.00        |      | Unit-II & V under shutdown.<br>Unit-III at standby.<br>400kV THP_SILI I under Maintenance. |
|              |                  | Unit- II   | 0.00          | 400kV THP - Siliguri Fdr- II                         | 131.15      | +    |  |
|              |                  | Unit- III  | 0.00          | 400kV THP - Siliguri Fdr- IV                         | 130.69      | +    |  |
|              |                  | Unit- IV   | 140.06        | 400kV THP - Malbase Fdr- III                         | 194.58      | +    |  |
|              |                  | Unit- V  | 0.00          | 400kV Malbase - Siliguri                             | 107.19      | +    |  |
|              |                  | Unit- VI   | 169.44        | -  | -           | -    |  |
|              |                  | <b>Total</b>   | <b>460.09</b> | <b>Error at Station/Auxiliary Consumption/Losses</b> | <b>3.67</b> |      |  |
| 2            | 720MW MHP        | Unit-I   | 85.14         | 400kV MHP - Jigmeling Fdr - I                        | 105.30      | +    | Unit II & Unit III under shutdown  |
|              |                  | Unit-II  | 0.00          | 400kV MHP - Jigmeling Fdr - II                       | 107.60      | +    |  |
|              |                  | Unit-III   | 0.00          | 400kV MHP - Jigmeling Fdr - III                      | 0.00        |      |  |
|              |                  | Unit-IV  | 128.55        | 400kV MHP - Jigmeling Fdr - IV                       | 0.00        |      |  |
|              |                  | -  | -             | 200MVA, 400/132kV ICT                                | 0.00        |      |  |
|              |                  | -  | -             | (Local Load)   | 0.00        |      |  |
|              |                  | <b>Total</b>   | <b>213.69</b> | <b>Error at Station/Auxiliary Consumption/Losses</b> | <b>0.79</b> |      |  |
| 2            | 336MW CHP        | Unit- I  | 0.00          | 220kV CHP - Birpara Fdr- I                           | 40.15       | +    | Unit-I under shutdown  |
|              |                  | Unit- II   | 74.31         | 220kV CHP - Birpara Fdr- II                          | 39.72       | +    |  |
|              |                  | Unit- III  | 71.21         | 220kV CHP - Malbase Fdr- III                         | 94.79       | +    |  |
|              |                  | Unit- IV   | 71.94         | 220kV CHP - Semtokha Fdr- IV                         | 23.27       | +    |  |
|              |                  | -  | -             | 220kV Malbase - Birpara Fdr.                         | -6.62       | -    |  |
|              |                  | -  | -             | 66kV CHP - Chumdo Fdr.                               | 12.25       | +    |  |
|              |                  | -  | -             | 66kV CHP - Gedu Fdr.                                 | 5.84        | +    |  |
|              |                  | -  | -             | 3x3MVA, 66/11kV TFR                                  | 1.38        | +    |  |
|              |                  | <b>Total</b>   | <b>217.46</b> | <b>Error at Station/Auxiliary Consumption/Losses</b> | <b>0.06</b> |      |  |
| 3            | 24MW BHP (U/S)   | Unit- I  | 6.85          | 220kV BHP - Semtokha Fdr.                            | 26.29       | +    |  |
|              |                  | Unit- II   | 6.85          | 66kV BHP - Lobeysa Fdr.                              | 16.20       | +    |  |
|              |                  | <b>Total</b>   | <b>13.70</b>  | 220kV BHP - Tsirang Fdr.                             | -1.80       | -    |  |
|              | 40MW BHP (L/S)   | Unit- I  | 14.09         | 5MVA, 66/11kV TFR                                    | 0.64        | +    |  |
|              |                  | Unit- II   | 13.54         | 30MVA ICT, 220/66kV                                  |             |      |  |
| <b>Total</b> | <b>27.63</b>     | <b>Error at Station/Auxiliary Consumption/Losses</b> | <b>0.00</b>   |  |             |      |  |
| 4            | 126MW DHPC       | Unit-I   | 42.05         | 220kV DHPC - Tsirang Fdr.                            | 41.79       | +    | Unit II Standby  |
|              |                  | Unit-II  | 0.00          | 220kV Jigmeling - Dagapela Fdr.                      |             |      |  |
|              |                  | -  | -             | 5MVA, 220/33kV TFR                                   |             |      |  |
|              |                  | <b>Total</b>   | <b>42.05</b>  | <b>Error at Station/Auxiliary Consumption/Losses</b> | <b>0.26</b> |      |  |
| 5            | 60MW KHP         | Unit- I  | 0.00          | 132kV KHP - Nangkor Fdr- I                           | 31.86       | +    | Unit-I shutdown  |
|              |                  | Unit-II  | 13.18         | 132kV KHP - Kilikhar Fdr- II                         | 7.83        | +    |  |
|              |                  | Unit- III  | 14.00         | 5MVA, 132/11kV TFR                                   | 0.20        | +    |  |
|              |                  | Unit- IV   | 13.11         | 132kV Gelephu - Salakati Fdr.                        | 0.40        | +    |  |
|              |                  | -  | -             | 132kV Motanga - Rangia Fdr.                          | 12.96       | +    |  |
|              |                  | -  | -             | 220kV Tsirang - Jigmeling                            | 37.89       | +    |  |
|              |                  | <b>Total</b>   | <b>40.29</b>  | <b>Error at Station/Auxiliary Consumption/Losses</b> | <b>0.40</b> |      |  |

Note: Load summary on November 07, 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 | 760.93                | 280.76                                | 276.77                             | 442.28              | 3.99         |
| 2      | Eastern Grid | 253.98                | 65.61                                 | 64.42                              | 226.26              | 1.19         |
|        | <b>Total</b> | <b>1,014.91</b>       | <b>346.37</b>                         | <b>341.19</b>                      | <b>668.54</b>       | <b>5.18</b>  |

Note: Load Summary on November 07, 2018 at 19:00hrs

| Sl. No | Region          | 19:00Hrs Load (MW) | Day Peak Load (MW) | Month Peak Load (MW) |
|--------|-----------------|--------------------|--------------------|----------------------|
| 1      | Western Grid    | 274.80             | 274.80             | 281.60               |
| 2      | Eastern Grid    | 45.35              | 50.19              | 62.24                |
|        | <b>National</b> | <b>320.15</b>      | <b>324.99</b>      | <b>343.84</b>        |

**NOTES:**

- 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:
  - 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 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:  | November 8, 2019 |
| Hours: | 09:00 Hours      |

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

| Sl. No.      | Hydropower Plant | Unit   | MW            | Name of Feeders                                      | Load (MW)   | Sign | Remarks  |
|--------------|------------------|--|---------------|--|-------------|------|--|
| 1            | 1020MW THP       | Unit- I  | 150.25        | 400kV THP - Siliguri Fdr- I                          | 0.00        |      | Unit-II & V under shutdown.<br>Unit-III at standby.<br>400kV THP_SILI I under Maintenance. |
|              |                  | Unit- II   | 0.00          | 400kV THP - Siliguri Fdr- II                         | 97.92       | +    |  |
|              |                  | Unit- III  | 0.00          | 400kV THP - Siliguri Fdr- IV                         | 93.64       | +    |  |
|              |                  | Unit- IV   | 90.87         | 400kV THP - Malbase Fdr- III                         | 142.84      | +    |  |
|              |                  | Unit- V  | 0.00          | 400kV Malbase - Siliguri                             | 81.45       | +    |  |
|              |                  | Unit- VI   | 100.25        | -  | -           | -    |  |
|              |                  | <b>Total</b>   | <b>341.37</b> | <b>Error at Station/Auxiliary Consumption/Losses</b> | <b>6.97</b> |      |  |
| 2            | 720MW MHP        | Unit-I   | 72.46         | 400kV MHP - Jigmeling Fdr - I                        | 107.60      | +    | Unit II & Unit III under shutdown  |
|              |                  | Unit-II  | 0.00          | 400kV MHP - Jigmeling Fdr - II                       | 107.60      | +    |  |
|              |                  | Unit-III   | 0.00          | 400kV MHP - Jigmeling Fdr - III                      | 0.00        |      |  |
|              |                  | Unit-IV  | 148.09        | 400kV MHP - Jigmeling Fdr - IV                       | 0.00        |      |  |
|              |                  | -  | -             | 200MVA, 400/132kV ICT                                | 0.00        |      |  |
|              |                  | -  | -             | (Local Load)   |             |      |  |
|              |                  | <b>Total</b>   | <b>220.55</b> | <b>Error at Station/Auxiliary Consumption/Losses</b> | <b>5.35</b> |      |  |
| 3            | 336MW CHP        | Unit- I  | 0.00          | 220kV CHP - Birpara Fdr- I                           | 25.00       | +    | CHP Unit-I under shutdownn.  |
|              |                  | Unit- II   | 55.91         | 220kV CHP - Birpara Fdr- II                          | 25.00       | +    |  |
|              |                  | Unit- III  | 55.13         | 220kV CHP - Malbase Fdr- III                         | 104.50      | +    |  |
|              |                  | Unit- IV   | 59.70         | 220kV CHP - Semtokha Fdr- IV                         | -0.63       | -    |  |
|              |                  | -  | -             | 220kV Malbase - Birpara Fdr.                         | -24.81      | -    |  |
|              |                  | -  | -             | 66kV CHP - Chumdo Fdr.                               | 7.10        | +    |  |
|              |                  | -  | -             | 66kV CHP - Gedu Fdr.                                 | 6.50        | +    |  |
|              |                  | -  | -             | 3x3MVA, 66/11kV TFR                                  | 0.73        | +    |  |
|              |                  | <b>Total</b>   | <b>170.74</b> | <b>Error at Station/Auxiliary Consumption/Losses</b> | <b>2.54</b> |      |  |
| 4            | 24MW BHP (U/S)   | Unit- I  | 7.00          | 220kV BHP - Semtokha Fdr.                            | 36.59       | +    |  |
|              |                  | Unit- II   | 7.00          | 66kV BHP - Lobeysa Fdr.                              | 13.25       | +    |  |
|              |                  | <b>Total</b>   | <b>14.00</b>  | 220kV BHP - Tsirang Fdr.                             | -11.29      | -    |  |
|              | 40MW BHP (L/S)   | Unit- I  | 13.20         | 5MVA, 66/11kV TFR                                    | 0.38        | +    |  |
|              |                  | Unit- II   | 14.20         | 30MVA ICT, 220/66kV                                  |             |      |  |
| <b>Total</b> | <b>27.40</b>     | <b>Error at Station/Auxiliary Consumption/Losses</b> | <b>2.47</b>   |  |             |      |  |
| 5            | 126MW DHPC       | Unit-I   | 41.66         | 220kV DHPC - Tsirang Fdr.                            | 41.63       | +    | Unit-II Standby  |
|              |                  | Unit-II  | 0.00          | 220kV Jigmeling - Dagapela Fdr.                      |             |      |  |
|              |                  | -  | -             | 5MVA, 220/33kV TFR                                   |             |      |  |
|              |                  | <b>Total</b>   | <b>41.66</b>  | <b>Error at Station/Auxiliary Consumption/Losses</b> | <b>0.03</b> |      |  |
| 6            | 60MW KHP         | Unit- I  | 0.00          | 132kV KHP - Nangkor Fdr- I                           | 34.66       | +    | Unit-I shutdown  |
|              |                  | Unit-II  | 12.38         | 132kV KHP - Kilikhar Fdr- II                         | 3.37        | +    |  |
|              |                  | Unit- III  | 14.26         | 5MVA, 132/11kV TFR                                   | 0.50        | +    |  |
|              |                  | Unit- IV   | 12.18         | 132kV Gelephu - Salakati Fdr.                        | 1.88        | +    |  |
|              |                  | -  | -             | 132kV Motanga - Rangia Fdr.                          | 11.68       | +    |  |
|              |                  | -  | -             | 220kV Tsirang - Jigmeling                            | 29.49       | +    |  |
|              |                  | <b>Total</b>   | <b>38.82</b>  | <b>Error at Station/Auxiliary Consumption/Losses</b> | <b>0.29</b> |      |  |

Note: Load summary on November 08, 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 | 595.17                | 267.48                                | 255.47                             | 298.20              | 12.01        |
| 2      | Eastern Grid | 259.37                | 60.10                                 | 54.46                              | 228.76              | 5.64         |
|        | <b>Total</b> | <b>854.54</b>         | <b>327.58</b>                         | <b>309.93</b>                      | <b>526.96</b>       | <b>17.65</b> |

Note: Load Summary on November 08, 2018 at 09:00hrs

| Sl. No | Region          | 09:00Hrs Load (MW) | Day Peak Load (MW) | Month Peak Load (MW) |
|--------|-----------------|--------------------|--------------------|----------------------|
| 1      | Western Grid    | 251.91             | 272.88             | 293.93               |
| 2      | Eastern Grid    | 41.00              | 51.07              | 62.30                |
|        | <b>National</b> | <b>292.91</b>      | <b>323.95</b>      | <b>356.23</b>        |

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