

LOAD GENERATION BALANCE REPORT

Maximum Load/Demand till Date

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

Date: June 18, 2019
Hours: 19:00 Hours

| Sl. No. | Hydropower Plant | Unit | MW | Name of Feeders | Load (MW) | Sign | Remarks |
|---------|------------------|--------------|---------------|--|-------------|------|--|
| 1 | THP | Unit- I | 100.31 | 400kV THP - Siliguri Fdr- I | 116.97 | + | Unit-III under shutdown 400kV THP-SIL Fdr IV Standby |
| | | Unit- II | 98.00 | 400kV THP - Siliguri Fdr- II | 116.62 | + | |
| | | Unit- III | 0.00 | 400kV THP - Siliguri Fdr- IV | 0.00 | | |
| | | Unit- IV | 70.58 | 400kV THP - Malbase Fdr- III | 197.02 | + | |
| | | Unit- V | 70.87 | 400kV Malbase - Siliguri | 92.64 | + | |
| | | Unit- VI | 99.96 | | | | |
| | | Total | 439.72 | Error At Station/Auxiliary Consumption/Losses | 9.11 | | |
| 2 | CHP | Unit- I | 61.07 | 220kV CHP - Birpara Fdr- I | 56.50 | + | |
| | | Unit- II | 57.52 | 220kV CHP - Birpara Fdr- II | 56.40 | + | |
| | | Unit- III | 63.38 | 220kV CHP - Malbase Fdr- III | 83.76 | + | |
| | | Unit- IV | 72.67 | 220kV CHP - Semtokha Fdr- IV | 43.43 | + | |
| | | | | 220kV Malbase - Birpara Fdr. | 28.11 | + | |
| | | | | 66kV CHP - Chumdo Fdr. | 5.91 | + | |
| | | | | 66kV CHP - Gedu Fdr. | 7.34 | + | |
| | | | | 3x3MVA, 66/11kV TFR | 1.03 | + | |
| | | Total | 254.64 | Error At Station/Auxiliary Consumption/Losses | 0.27 | | |
| 3 | BHP (U/S) | Unit- I | 0.00 | 220kV BHP - Semtokha Fdr. | -13.57 | - | Upper stage & Lower stage unit I standby |
| | | Unit- II | 7.25 | 66kV BHP - Lobeysa Fdr. | 10.35 | + | |
| | | Total | 7.25 | 220kV BHP - Tsirang Fdr. | 23.33 | + | |
| | BHP (L/S) | Unit- I | 0.00 | 5MVA, 66/11kV TFR | 0.60 | + | |
| | | Unit- II | 13.84 | 30MVA ICT, 220/66kV | | | |
| | | Total | 13.84 | Error At Station/Auxiliary Consumption/Losses | 0.38 | | |
| 4 | DHPC | Unit-I | 26.80 | 220kV DHPC - Tsirang Fdr. | 26.59 | + | Unit-II Standby |
| | | Unit-II | 0.00 | 220kV DHPC - Jigmeling Fdr. | | | |
| | | | | 5MVA, 220/33kV TFR | | | |
| | | Total | 26.80 | Error At Station/Auxiliary Consumption/Losses | 0.21 | | |
| 5 | KHP | Unit- I | 16.52 | 132kV KHP - Nangkhor Fdr- I | 58.46 | + | NOTE:MOTANGA SUBSTATION IS BYPASSED THROUGH ERS TOWER |
| | | Unit-II | 16.51 | 132kV KHP - Kilikhar Fdr- II | 6.85 | + | |
| | | Unit- III | 16.57 | 5MVA, 132/11kV TFR | 0.50 | + | |
| | | Unit- IV | 16.45 | 132kV Gelephu - Salakati Fdr. | 2.63 | + | |
| | | | | 132kV Motanga - Rangia Fdr. | 43.83 | + | |
| | | | | 220kV Tsirang - Jigmeling | 47.97 | + | |
| | | Total | 66.05 | Error At Station/Auxiliary Consumption/Losses | 0.24 | | |

Note: Load summary on June 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 | 742.25 | 227.04 | 217.07 | 467.24 | 9.97 |
| 2 | Eastern Grid | 66.05 | 67.56 | 67.32 | 46.46 | 0.24 |
| | Total | 808.30 | 294.60 | 284.39 | 513.70 | 10.21 |

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

| Sl. No | Region | 19:00Hrs Load (MW) | Day Peak Load (MW) | Month Peak Load (MW) |
|--------|-----------------|--------------------|--------------------|----------------------|
| 1 | Western Grid | 219.43 | 227.94 | 261.96 |
| 2 | Eastern Grid | 57.84 | 60.33 | 61.02 |
| | National | 277.27 | 288.27 | 322.98 |

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: June 19, 2019
Hours: 09:00 Hours

| Sl. No. | Hydropower Plant | Unit | MW | Name of Feeders | Load (MW) | Sign | Remarks |
|---------|------------------|--------------|---------------|--|-------------|------|--|
| 1 | THP | Unit- I | 99.22 | 400kV THP - Siliguri Fdr- I | 119.34 | + | Unit-III under shutdown 400kV THP_SIL Fdr.IV Standby |
| | | Unit- II | 100.74 | 400kV THP - Siliguri Fdr- II | 117.08 | + | |
| | | Unit- III | 0.00 | 400kV THP - Siliguri Fdr- IV | 0.00 | + | |
| | | Unit- IV | 70.70 | 400kV THP - Malbase Fdr- III | 197.33 | + | |
| | | Unit- V | 69.16 | 400kV Malbase - Siliguri | 93.90 | + | |
| | | Unit- VI | 100.34 | | | | |
| | | Total | 440.16 | Error At Station/Auxiliary Consumption/Losses | 6.41 | | |
| 2 | CHP | Unit- I | 63.31 | 220kV CHP - Birpara Fdr- I | 41.28 | + | |
| | | Unit- II | 8.45 | 220kV CHP - Birpara Fdr- II | 41.22 | + | |
| | | Unit- III | 62.58 | 220kV CHP - Malbase Fdr- III | 83.28 | + | |
| | | Unit- IV | 64.28 | 220kV CHP - Semtokha Fdr- IV | 20.71 | + | |
| | | | | 220kV Malbase - Birpara Fdr. | 3.52 | + | |
| | | | | 66kV CHP - Chumdo Fdr. | 3.44 | + | |
| | | | | 66kV CHP - Gedu Fdr. | 7.26 | + | |
| | | | | 3x3MVA, 66/11kV TFR | 0.72 | + | |
| | | Total | 198.62 | Error At Station/Auxiliary Consumption/Losses | 0.71 | | |
| 3 | BHP (U/S) | Unit- I | 0.00 | 220kV BHP - Semtokha Fdr. | 3.66 | + | Upper stage & Lower Stage unit I Standby |
| | | Unit- II | 6.89 | 66kV BHP - Lobeysa Fdr. | 4.90 | + | |
| | | Total | 6.89 | 220kV BHP - Tsirang Fdr. | 6.75 | + | |
| | BHP (L/S) | Unit- I | 0.00 | 5MVA, 66/11kV TFR | 0.46 | + | |
| | | Unit- II | 13.50 | 30MVA ICT, 220/66kV | | | |
| | | Total | 13.50 | Error At Station/Auxiliary Consumption/Losses | 4.62 | | |
| 4 | DHPC | Unit-I | 23.76 | 220kV DHPC - Tsirang Fdr. | 23.55 | + | Unit-II standby. |
| | | Unit-II | 0.00 | 220kV DHPC - Jigmeling Fdr. | | | |
| | | | | 5MVA, 220/33kV TFR | | | |
| | | Total | 23.76 | Error At Station/Auxiliary Consumption/Losses | 0.21 | | |
| 5 | KHP | Unit- I | 16.56 | 132kV KHP - Nangkhor Fdr- I | 62.55 | + | NOTE:MOTANGA SUBSTATION IS BYPASSED THROUGH ERS TOWER |
| | | Unit-II | 16.73 | 132kV KHP - Kilikhar Fdr- II | 3.23 | + | |
| | | Unit- III | 16.68 | 5MVA, 132/11kV TFR | 0.30 | + | |
| | | Unit- IV | 16.61 | 132kV Gelephu - Salakati Fdr. | -0.75 | - | |
| | | | | 132kV Motanga - Rangia Fdr. | 44.87 | + | |
| | | | | 220kV Tsirang - Jigmeling | 28.94 | + | |
| | | Total | 66.58 | Error At Station/Auxiliary Consumption/Losses | 0.50 | | |

Note: Load summary on June 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 | 682.93 | 237.65 | 225.70 | 416.34 | 11.95 |
| 2 | Eastern Grid | 66.58 | 51.40 | 50.90 | 44.12 | 0.50 |
| | Total | 749.51 | 289.05 | 276.60 | 460.46 | 12.45 |

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

| Sl. No | Region | 09:00Hrs Load (MW) | Day Peak Load (MW) | Month Peak Load (MW) |
|--------|-----------------|--------------------|--------------------|----------------------|
| 1 | Western Grid | 199.50 | 230.80 | 261.96 |
| 2 | Eastern Grid | 41.78 | 53.06 | 61.02 |
| | National | 241.28 | 283.86 | 322.98 |

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:
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