

LOAD GENERATION BALANCE REPORT

Maximum Load/Demand till Date

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

Date: February 18, 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-IV & 400kV THP-SIL Fdr I under AM & IV standby. Unit-I, II & III under AM |
| | | Unit- II | 0.00 | 400kV THP - Siliguri Fdr- II | 66.17 | + | |
| | | Unit- III | 0.00 | 400kV THP - Siliguri Fdr- IV | 0.00 | | |
| | | Unit- IV | 0.00 | 400kV THP - Malbase Fdr- III | 149.00 | + | |
| | | Unit- V | 138.03 | 400kV Malbase - Siliguri | 43.33 | + | |
| | | Unit- VI | 79.30 | | | | |
| | | Total | 217.33 | Error At Station/Auxiliary Consumption/Losses | 2.16 | | |
| 2 | CHP | Unit- I | 0.00 | 220kV CHP - Birpara Fdr- I | -35.48 | - | Unit I under AM. 220kV CHP_MAL line & 66kV CHP-GED line under maintenance. |
| | | Unit- II | 43.75 | 220kV CHP - Birpara Fdr- II | 83.67 | + | |
| | | Unit- III | 40.32 | 220kV CHP - Malbase Fdr- III | 0.00 | + | |
| | | Unit- IV | 49.70 | 220kV CHP - Semtokha Fdr- IV | 61.77 | + | |
| | | | | 220kV Malbase - Birpara Fdr. | -42.71 | - | |
| | | | | 66kV CHP - Chumdo Fdr. | 19.70 | + | |
| | | | | 66kV CHP - Gedu Fdr. | 0.00 | + | |
| | | | | 3x3MVA, 66/11kV TFR | 2.10 | + | |
| | | Total | 133.77 | Error At Station/Auxiliary Consumption/Losses | 2.01 | | |
| 3 | BHP (U/S) | Unit- I | 0.00 | 220kV BHP - Semtokha Fdr. | -3.05 | + | Upper stage Unit I & Lower Stage- Unit II AM. |
| | | Unit- II | 4.99 | 66kV BHP - Lobeysa Fdr. | 15.74 | + | |
| | | Total | 4.99 | 220kV BHP - Tsirang Fdr. | 2.13 | + | |
| | BHP (L/S) | Unit- I | 10.00 | 5MVA, 66/11kV TFR | 0.90 | + | |
| | | Unit- II | 0.00 | 30MVA ICT, 220/66kV | | | |
| | | Total | 10.00 | Error At Station/Auxiliary Consumption/Losses | -0.73 | | |
| 4 | DHPC | Unit-I | 15.55 | 220kV DHPC - Tsirang Fdr. | 15.30 | + | Unit-II under AM |
| | | Unit-II | 0.00 | 220kV DHPC - Jigmeling Fdr. | 0.00 | | |
| | | | | 5MVA, 220/33kV TFR | 0.00 | | |
| | | Total | 15.55 | Error At Station/Auxiliary Consumption/Losses | 0.25 | | |
| 5 | KHP | Unit- I | 10.30 | 132kV KHP - Nangkhor Fdr- I | 8.40 | + | Unit II Standby, Unit-III AM |
| | | Unit-II | 0.00 | 132kV KHP - Kilikhar Fdr- II | 11.30 | + | |
| | | Unit- III | 0.00 | 5MVA, 132/11kV TFR | 0.60 | + | |
| | | Unit- IV | 10.18 | 132kV Gelephu - Salakati Fdr. | -24.01 | - | |
| | | | | 132kV Motanga - Rangia Fdr. | 9.15 | + | |
| | | | | 220kV Tsirang - Jigmeling | 14.60 | + | |
| | | Total | 20.48 | Error At Station/Auxiliary Consumption/Losses | 0.18 | | |

Note: Load summary on February 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 | 381.64 | 252.06 | 248.37 | 114.98 | 3.69 |
| 2 | Eastern Grid | 20.48 | 49.94 | 49.76 | -14.86 | 0.18 |
| Total | Total | 402.12 | 302.00 | 298.13 | 100.12 | 3.87 |

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

| Sl. No | Region | 19:00Hrs Load (MW) | Day Peak Load (MW) | Month Peak Load (MW) |
|--------------|-----------------|--------------------|--------------------|----------------------|
| 1 | Western Grid | 283.88 | 283.88 | 313.19 |
| 2 | Eastern Grid | 60.13 | 60.13 | 72.02 |
| Total | National | 344.01 | 344.01 | 385.21 |

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 19, 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 under AM & IV standby. Unit-I, II & III under AM |
| | | Unit- II | 0.00 | 400kV THP - Siliguri Fdr- II | 27.27 | + | |
| | | Unit- III | 0.00 | 400kV THP - Siliguri Fdr- IV | 0.00 | + | |
| | | Unit- IV | 0.00 | 400kV THP - Malbase Fdr- III | 100.08 | + | |
| | | Unit- V | 69.20 | 400kV Malbase - Siliguri | 10.91 | + | |
| | | Unit- VI | 59.99 | | | | |
| | | Total | 129.19 | Error At Station/Auxiliary Consumption/Losses | | 1.84 | |
| 2 | CHP | Unit- I | 0.00 | 220kV CHP - Birpara Fdr- I | -6.30 | - | Unit I under AM. Unit-III Standby 220kV CHP_MAL line & 66kV CHP-GED line under maintenance. |
| | | Unit- II | 30.68 | 220kV CHP - Birpara Fdr- II | 30.70 | + | |
| | | Unit- III | 0.00 | 220kV CHP - Malbase Fdr- III | 0.00 | + | |
| | | Unit- IV | 34.72 | 220kV CHP - Semtokha Fdr- IV | 23.77 | + | |
| | | | | 220kV Malbase - Birpara Fdr. | -60.26 | - | |
| | | | | 66kV CHP - Chumdo Fdr. | 16.70 | + | |
| | | | | 66kV CHP - Gedu Fdr. | 0.00 | - | |
| | | Total | 65.40 | Error At Station/Auxiliary Consumption/Losses | | -0.76 | |
| 3 | BHP (U/S) | Unit- I | 5.50 | 220kV BHP - Semtokha Fdr. | 18.89 | + | Upper stage & Lower Stage- Unit II AM |
| | | Unit- II | 0.00 | 66kV BHP - Lobeysa Fdr. | 11.81 | + | |
| | | Total | 5.50 | 220kV BHP - Tsirang Fdr. | | -14.84 | |
| | BHP (L/S) | Unit- I | 10.30 | 5MVA, 66/11kV TFR | 0.62 | + | |
| | | Unit- II | 0.00 | 30MVA ICT, 220/66kV | | | |
| | | Total | 10.30 | Error At Station/Auxiliary Consumption/Losses | | -0.68 | |
| 4 | DHPC | Unit-I | 17.28 | 220kV DHPC - Tsirang Fdr. | 17.06 | + | Unit-II maintenance. |
| | | Unit-II | 0.00 | 220kV DHPC - Jigmeling Fdr. | 0.00 | | |
| | | | | 5MVA, 220/33kV TFR | 0.00 | | |
| | | Total | 17.28 | Error At Station/Auxiliary Consumption/Losses | | 0.22 | |
| 5 | KHP | Unit- I | 0.00 | 132kV KHP - Nangkhor Fdr- I | 9.39 | + | Unit I & II Standby, Unit-III AM |
| | | Unit-II | 0.00 | 132kV KHP - Kilikhar Fdr- II | 6.47 | + | |
| | | Unit- III | 0.00 | 5MVA, 132/11kV TFR | 0.40 | + | |
| | | Unit- IV | 16.23 | 132kV Gelephu - Salakati Fdr. | -29.92 | - | |
| | | | | 132kV Motanga - Rangia Fdr. | 6.95 | + | |
| | | | | 220kV Tsirang - Jigmeling | 0.02 | + | |
| | | Total | 16.23 | Error At Station/Auxiliary Consumption/Losses | | -0.03 | |

Note: Load summary on February 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 | 227.67 | 225.33 | 224.71 | 2.32 | 0.62 |
| 2 | Eastern Grid | 16.23 | 39.22 | 39.25 | -22.97 | -0.03 |
| | Total | 243.90 | 264.55 | 263.96 | -20.65 | 0.59 |

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

| Sl. No | Region | 09:00Hrs Load (MW) | Day Peak Load (MW) | Month Peak Load (MW) |
|--------|-----------------|--------------------|--------------------|----------------------|
| 1 | Western Grid | 267.23 | 298.53 | 313.19 |
| 2 | Eastern Grid | 46.54 | 67.75 | 72.02 |
| | National | 313.77 | 366.28 | 385.21 |

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.
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