

LOAD-GENERATION BALANCE REPORT

Maximum Load/Demand till Date

| | |
|--------|------------------|
| Date: | October 15, 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 | 119.85 | 400kV THP - Siliguri Fdr- I | 215.12 | + | 400kV THP-Mal III and Unit III opened due to less inflow |
| | | Unit- II | 129.01 | 400kV THP - Siliguri Fdr- II | 213.55 | + | |
| | | Unit- III | 0.00 | 400kV THP - Siliguri Fdr- IV | 208.95 | + | |
| | | Unit- IV | 139.70 | 400kV THP - Malbase Fdr- III | 0.00 | | |
| | | Unit- V | 119.24 | 400kV Malbase - Siliguri | -45.40 | - | |
| | | Unit- VI | 140.74 | - | - | - | |
| | | Total | 648.54 | Error at Station/Auxiliary Consumption/Losses | 10.92 | | |
| 2 | 720MW MHP | Unit-I | 80.60 | 400kV MHP - Jigmeling Fdr - I | 185.00 | + | Unit-III under Shutdown |
| | | Unit-II | 136.70 | 400kV MHP - Jigmeling Fdr - II | 185.50 | + | |
| | | Unit-III | 0.00 | 400kV MHP - Jigmeling Fdr - III | 0.00 | | |
| | | Unit-IV | 151.90 | 400kV MHP - Jigmeling Fdr - IV | 0.00 | | |
| | | - | - | 200MVA, 400/132kV ICT | 0.00 | | |
| | | - | - | (Local Load) | 0.00 | | |
| | | Total | 369.20 | Error at Station/Auxiliary Consumption/Losses | -1.30 | | |
| 2 | 336MW CHP | Unit- I | 0.00 | 220kV CHP - Birpara Fdr- I | 67.75 | + | Unit-I under Shutdown |
| | | Unit- II | 90.80 | 220kV CHP - Birpara Fdr- II | 67.50 | + | |
| | | Unit- III | 91.47 | 220kV CHP - Malbase Fdr- III | 127.45 | + | |
| | | Unit- IV | 91.58 | 220kV CHP - Semtokha Fdr- IV | -6.42 | - | |
| | | - | - | 220kV Malbase - Birpara Fdr. | 13.59 | + | |
| | | - | - | 66kV CHP - Chumdo Fdr. | 7.88 | + | |
| | | - | - | 66kV CHP - Gedu Fdr. | 7.58 | + | |
| | | Total | 273.85 | Error at Station/Auxiliary Consumption/Losses | 0.66 | | |
| 3 | 24MW BHP (U/S) | Unit- I | 11.27 | 220kV BHP - Semtokha Fdr. | 47.35 | + | |
| | | Unit- II | 11.27 | 66kV BHP - Lobeyasa Fdr. | 19.40 | + | |
| | | Total | 22.54 | 220kV BHP - Tsirang Fdr. | -3.79 | - | |
| | 40MW BHP (L/S) | Unit- I | 20.94 | 5MVA, 66/11kV TFR | 0.64 | + | |
| | | Unit- II | 20.15 | 30MVA ICT, 220/66kV | | | |
| Total | 41.09 | Error at Station/Auxiliary Consumption/Losses | 0.03 | | | | |
| 4 | 126MW DHPC | Unit-I | 30.30 | 220kV DHPC - Tsirang Fdr. | 67.05 | + | |
| | | Unit-II | 37.18 | 220kV Jigmeling - Dagapela Fdr. | | | |
| | | - | - | 5MVA, 220/33kV TFR | | | |
| | | Total | 67.48 | Error at Station/Auxiliary Consumption/Losses | 0.43 | | |
| 5 | 60MW KHP | Unit- I | 16.47 | 132kV KHP - Nangkhor Fdr- I | 56.14 | + | |
| | | Unit-II | 16.51 | 132kV KHP - Kilikhar Fdr- II | 9.07 | + | |
| | | Unit- III | 16.60 | 5MVA, 132/11kV TFR | 0.40 | + | |
| | | Unit- IV | 16.49 | 132kV Gelephu - Salakati Fdr. | 23.44 | + | |
| | | - | - | 132kV Motanga - Rangia Fdr. | 39.81 | + | |
| | | - | - | 220kV Tsirang - Jigmeling | 60.08 | + | |
| | | Total | 66.07 | Error at Station/Auxiliary Consumption/Losses | 0.46 | | |

Note: Load summary on October 15, 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 | 1,053.50 | 252.36 | 240.32 | 741.06 | 12.04 |
| 2 | Eastern Grid | 435.27 | 61.60 | 62.44 | 433.75 | -0.84 |
| | Total | 1,488.77 | 313.96 | 302.76 | 1,174.81 | 11.20 |

Note: Load Summary on October 15, 2018 at 19:00hrs

| Sl. No | Region | 19:00Hrs Load (MW) | Day Peak Load (MW) | Month Peak Load (MW) |
|--------|-----------------|--------------------|--------------------|----------------------|
| 1 | Western Grid | 256.34 | 256.34 | 281.60 |
| 2 | Eastern Grid | 48.90 | 50.40 | 62.24 |
| | National | 305.24 | 306.74 | 343.84 |

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:

- 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.

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: | October 16, 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 | 120.07 | 400kV THP - Siliguri Fdr- I | 324.93 | + | 400kV THP-Mal III ,THP-SILI II and Unit II under shutdown |
| | | Unit- II | 128.88 | 400kV THP - Siliguri Fdr- II | 0.00 | + | |
| | | Unit- III | 0.00 | 400kV THP - Siliguri Fdr- IV | 312.33 | + | |
| | | Unit- IV | 140.71 | 400kV THP - Malbase Fdr- III | 0.00 | | |
| | | Unit- V | 119.14 | 400kV Malbase - Siliguri | -22.84 | - | |
| | | Unit- VI | 140.40 | - | - | - | |
| | | Total | 649.20 | Error at Station/Auxiliary Consumption/Losses | 11.94 | | |
| 2 | 720MW MHP | Unit-I | 80.00 | 400kV MHP - Jigmeling Fdr - I | 188.30 | + | Unit- III under breakdown. |
| | | Unit-II | 135.00 | 400kV MHP - Jigmeling Fdr - II | 187.60 | + | |
| | | Unit-III | 0.00 | 400kV MHP - Jigmeling Fdr - III | 0.00 | | |
| | | Unit-IV | 165.00 | 400kV MHP - Jigmeling Fdr - IV | 0.00 | | |
| | | - | - | 200MVA, 400/132kV ICT | | | |
| | | - | - | (Local Load) | | | |
| | | Total | 380.00 | Error at Station/Auxiliary Consumption/Losses | 4.10 | | |
| 3 | 336MW CHP | Unit- I | 0.00 | 220kV CHP - Birpara Fdr- I | 71.33 | + | Unit-I under breakdown. |
| | | Unit- II | 90.68 | 220kV CHP - Birpara Fdr- II | 71.21 | + | |
| | | Unit- III | 90.99 | 220kV CHP - Malbase Fdr- III | 148.82 | + | |
| | | Unit- IV | 91.77 | 220kV CHP - Semtokha Fdr- IV | -30.47 | - | |
| | | - | - | 220kV Malbase - Birpara Fdr. | 3.50 | + | |
| | | - | - | 66kV CHP - Chumdo Fdr. | 3.40 | + | |
| | | - | - | 66kV CHP - Gedu Fdr. | 8.19 | + | |
| | | Total | 273.44 | Error at Station/Auxiliary Consumption/Losses | 0.14 | | |
| 4 | 24MW BHP (U/S) | Unit- I | 11.09 | 220kV BHP - Semtokha Fdr. | 58.41 | + | |
| | | Unit- II | 11.09 | 66kV BHP - Lobeyasa Fdr. | 16.76 | + | |
| | | Total | 22.18 | 220kV BHP - Tsirang Fdr. | -12.21 | - | |
| | 40MW BHP (L/S) | Unit- I | 20.94 | 5MVA, 66/11kV TFR | 0.37 | + | |
| | | Unit- II | 20.14 | 30MVA ICT, 220/66kV | | | |
| Total | 41.08 | Error at Station/Auxiliary Consumption/Losses | -0.07 | | | | |
| 5 | 126MW DHPC | Unit-I | 30.29 | 220kV DHPC - Tsirang Fdr. | 65.08 | + | |
| | | Unit-II | 35.19 | 220kV Jigmeling - Dagapela Fdr. | | | |
| | | - | - | 5MVA, 220/33kV TFR | | | |
| | | Total | 65.48 | Error at Station/Auxiliary Consumption/Losses | 0.40 | | |
| 6 | 60MW KHP | Unit- I | 16.45 | 132kV KHP - Nangkhor Fdr- I | 61.65 | + | |
| | | Unit-II | 16.59 | 132kV KHP - Kilikhar Fdr- II | 4.52 | + | |
| | | Unit- III | 16.39 | 5MVA, 132/11kV TFR | 0.50 | + | |
| | | Unit- IV | 16.36 | 132kV Gelephu - Salakati Fdr. | 33.02 | + | |
| | | - | - | 132kV Motanga - Rangia Fdr. | 37.73 | + | |
| | | - | - | 220kV Tsirang - Jigmeling | 50.79 | + | |
| | | Total | 65.79 | Error at Station/Auxiliary Consumption/Losses | -0.88 | | |

Note: Load summary on October 16, 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 | 1,051.38 | 240.13 | 227.72 | 760.46 | 12.41 |
| 2 | Eastern Grid | 445.79 | 49.93 | 46.71 | 446.65 | 3.22 |
| | Total | 1,497.17 | 290.06 | 274.43 | 1,207.11 | 15.63 |

Note: Load Summary on October 16, 2018 at 09:00hrs

| Sl. No | Region | 09:00Hrs Load (MW) | Day Peak Load (MW) | Month Peak Load (MW) |
|--------|-----------------|--------------------|--------------------|----------------------|
| 1 | Western Grid | 239.07 | 254.25 | 281.60 |
| 2 | Eastern Grid | 35.36 | 47.01 | 62.24 |
| | National | 274.43 | 301.26 | 343.84 |

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.