

LOAD-GENERATION BALANCE REPORT

Maximum Load/Demand till Date

| | |
|--------|---------------|
| Date: | July 26, 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 | 187.47 | 400kV THP - Siliguri Fdr- I | 262.31 | + | |
| | | Unit- II | 187.75 | 400kV THP - Siliguri Fdr- II | 261.40 | + | |
| | | Unit- III | 187.81 | 400kV THP - Siliguri Fdr- IV | 268.59 | + | |
| | | Unit- IV | 186.58 | 400kV THP - Malbase Fdr- III | 326.52 | + | |
| | | Unit- V | 187.11 | 400kV Malbase - Siliguri | 231.31 | + | |
| | | Unit- VI | 186.17 | - | - | - | |
| | | Total | 1,122.89 | Error at Station/Auxiliary Consumption/Losses | 4.07 | | |
| 2 | 720MW MHP | Unit-I | 187.00 | 400kV MHP - Jigmeling Fdr - I | 370.00 | + | 400kV MHP-JLG II idle charged till MHEP End |
| | | Unit-II | 186.00 | 400kV MHP - Jigmeling Fdr - II | 0.00 | | |
| | | Unit-III | | 400kV MHP - Jigmeling Fdr - III | 0.00 | | |
| | | Unit-IV | | 400kV MHP - Jigmeling Fdr - IV | 0.00 | | |
| | | - | - | 200MVA, 400/132kV ICT | 0.00 | | |
| | | - | - | (Local Load) | 0.00 | | |
| | | Total | 373.00 | Error at Station/Auxiliary Consumption/Losses | 3.00 | | |
| 2 | 336MW CHP | Unit- I | 91.54 | 220kV CHP - Birpara Fdr- I | 119.03 | + | |
| | | Unit- II | 91.48 | 220kV CHP - Birpara Fdr- II | 118.95 | + | |
| | | Unit- III | 92.13 | 220kV CHP - Malbase Fdr- III | 154.31 | + | |
| | | Unit- IV | 92.17 | 220kV CHP - Semtokha Fdr- IV | -40.00 | - | |
| | | - | - | 220kV Malbase - Birpara Fdr. | 76.52 | + | |
| | | - | - | 66kV CHP - Chumdo Fdr. | 2.96 | + | |
| | | - | - | 66kV CHP - Gedu Fdr. | 8.29 | + | |
| | | - | - | 3x3MVA, 66/11kV TFR | 1.15 | + | |
| | | Total | 367.32 | Error at Station/Auxiliary Consumption/Losses | 2.63 | | |
| 3 | 24MW BHP (U/S) | Unit- I | 11.86 | 220kV BHP - Semtokha Fdr. | 67.10 | + | |
| | | Unit- II | 11.86 | 66kV BHP - Lobeyasa Fdr. | 19.11 | + | |
| | | Total | 23.72 | 220kV BHP - Tsirang Fdr. | -20.82 | - | |
| | 40MW BHP (L/S) | Unit- I | 20.54 | 5MVA, 66/11kV TFR | 0.76 | + | |
| | | Unit- II | 20.79 | 30MVA ICT, 220/66kV | | | |
| Total | 41.33 | Error at Station/Auxiliary Consumption/Losses | 1.10 | | | | |
| 4 | 126MW DHPC | Unit-I | 63.44 | 220kV DHPC - Tsirang Fdr. | 126.19 | + | |
| | | Unit-II | 63.29 | 220kV Jigmeling - Dagapela Fdr. | | | |
| | | - | - | 5MVA, 220/33kV TFR | | | |
| | | Total | 126.73 | Error at Station/Auxiliary Consumption/Losses | 0.54 | | |
| 5 | 60MW KHP | Unit- I | 16.50 | 132kV KHP - Nangkor Fdr- I | 56.38 | + | Motanga Substation is bypassed through ERS tower |
| | | Unit-II | 16.50 | 132kV KHP - Kilikhar Fdr- II | 8.64 | + | |
| | | Unit- III | 16.32 | 5MVA, 132/11kV TFR | 0.50 | + | |
| | | Unit- IV | 16.41 | 132kV Gelephu - Salakati Fdr. | 44.80 | + | |
| | | - | - | 132kV Motanga - Rangia Fdr. | 57.90 | + | |
| | | - | - | 220kV Tsirang - Jigmeling | 101.10 | + | |
| | | Total | 65.73 | Error at Station/Auxiliary Consumption/Losses | 0.21 | | |

Note: Load summary on July 26, 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 | 1,681.99 | 242.78 | 236.64 | 1,338.11 | 6.14 |
| 2 | Eastern Grid | 438.73 | 67.13 | 63.92 | 472.70 | 3.21 |
| | Total | 2,120.72 | 309.91 | 300.56 | 1,810.81 | 9.35 |

Note: Load Summary on July 26, 2018 at 19:00hrs

| Sl. No | Region | 19:00Hrs Load (MW) | Day Peak Load (MW) | Month Peak Load (MW) |
|--------|-----------------|--------------------|--------------------|----------------------|
| 1 | Western Grid | 239.85 | 241.31 | 280.97 |
| 2 | Eastern Grid | 56.47 | 57.66 | 57.66 |
| | National | 296.32 | 298.97 | 338.63 |

NOTES: Eastern load collected from site

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.

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| | |
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| Date: | July 27, 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 | 187.50 | 400kV THP - Siliguri Fdr- I | 262.41 | + | |
| | | Unit- II | 186.77 | 400kV THP - Siliguri Fdr- II | 258.56 | + | |
| | | Unit- III | 188.02 | 400kV THP - Siliguri Fdr- IV | 251.56 | + | |
| | | Unit- IV | 187.19 | 400kV THP - Malbase Fdr- III | 330.84 | + | |
| | | Unit- V | 186.69 | 400kV Malbase - Siliguri | 228.51 | + | |
| | | Unit- VI | 185.33 | - | - | - | |
| | | Total | 1,121.50 | Error at Station/Auxiliary Consumption/Losses | 18.13 | | |
| 2 | 720MW MHP | Unit-I | 186.80 | 400kV MHP - Jigmeling Fdr - I | 372.00 | + | 400kV MHP-JLG II Idle charged till MHEP end |
| | | Unit-II | 185.30 | 400kV MHP - Jigmeling Fdr - II | 0.00 | | |
| | | Unit-III | 0.00 | 400kV MHP - Jigmeling Fdr - III | 0.00 | | |
| | | Unit-IV | 0.00 | 400kV MHP - Jigmeling Fdr - IV | 0.00 | | |
| | | - | - | 200MVA, 400/132kV ICT | | | |
| | | - | - | (Local Load) | | | |
| | | Total | 372.10 | Error at Station/Auxiliary Consumption/Losses | 0.10 | | |
| 3 | 336MW CHP | Unit- I | 91.47 | 220kV CHP - Birpara Fdr- I | 128.60 | + | |
| | | Unit- II | 91.43 | 220kV CHP - Birpara Fdr- II | 127.95 | + | |
| | | Unit- III | 91.29 | 220kV CHP - Malbase Fdr- III | 162.49 | + | |
| | | Unit- IV | 91.62 | 220kV CHP - Semtokha Fdr- IV | -64.61 | - | |
| | | - | - | 220kV Malbase - Birpara Fdr. | 84.86 | + | |
| | | - | - | 66kV CHP - Chumdo Fdr. | -0.36 | + | |
| | | - | - | 66kV CHP - Gedu Fdr. | 10.29 | + | |
| | | - | - | 3x3MVA, 66/11kV TFR | 0.68 | + | |
| Total | 365.81 | Error at Station/Auxiliary Consumption/Losses | 0.77 | | | | |
| 4 | 24MW BHP (U/S) | Unit- I | 11.84 | 220kV BHP - Semtokha Fdr. | 86.58 | + | |
| | | Unit- II | 11.84 | 66kV BHP - Lobeyasa Fdr. | 17.34 | + | |
| | | Total | 23.68 | 220kV BHP - Tsirang Fdr. | -38.05 | - | |
| | 40MW BHP (L/S) | Unit- I | 20.54 | 5MVA, 66/11kV TFR | 0.37 | + | |
| | | Unit- II | 20.75 | 30MVA ICT, 220/66kV | | | |
| Total | 41.29 | Error at Station/Auxiliary Consumption/Losses | -1.27 | | | | |
| 5 | 126MW DHPC | Unit-I | 63.55 | 220kV DHPC - Tsirang Fdr. | 126.25 | + | |
| | | Unit-II | 63.26 | 220kV Jigmeling - Dagapela Fdr. | | | |
| | | - | - | 5MVA, 220/33kV TFR | | | |
| | | Total | 126.81 | Error at Station/Auxiliary Consumption/Losses | 0.56 | | |
| 6 | 60MW KHP | Unit- I | 16.30 | 132kV KHP - Nangkor Fdr- I | 60.30 | + | Motanga Substation is bypassed through ERS tower. |
| | | Unit-II | 16.50 | 132kV KHP - Kilikhar Fdr- II | 3.41 | + | |
| | | Unit- III | 15.82 | 5MVA, 132/11kV TFR | 0.40 | + | |
| | | Unit- IV | 16.15 | 132kV Gelephu - Salakati Fdr. | 50.94 | + | |
| | | - | - | 132kV Motanga - Rangia Fdr. | 50.30 | + | |
| | | - | - | 220kV Tsirang - Jigmeling | 83.30 | + | |
| | | Total | 64.77 | Error at Station/Auxiliary Consumption/Losses | 0.66 | | |

Note: Load summary on July 27, 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 | 1,679.09 | 253.34 | 235.15 | 1,342.45 | 18.19 |
| 2 | Eastern Grid | 436.87 | 46.93 | 46.17 | 473.24 | 0.76 |
| | Total | 2,115.96 | 300.27 | 281.32 | 1,815.69 | 18.95 |

Note: Load Summary on July 27, 2018 at 09:00hrs

| Sl. No | Region | 09:00Hrs Load (MW) | Day Peak Load (MW) | Month Peak Load (MW) |
|--------|-----------------|--------------------|--------------------|----------------------|
| 1 | Western Grid | 213.90 | 265.10 | 280.97 |
| 2 | Eastern Grid | 41.64 | 53.24 | 57.66 |
| | National | 255.54 | 318.34 | 338.63 |

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.
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