

LOAD-GENERATION BALANCE REPORT

Maximum Load/Demand till Date

| | |
|--------|--------------------|
| Date: | September 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 | 186.72 | 400kV THP - Siliguri Fdr- I | 220.07 | + | |
| | | Unit- II | 99.67 | 400kV THP - Siliguri Fdr- II | 219.42 | + | |
| | | Unit- III | 187.10 | 400kV THP - Siliguri Fdr- IV | 219.40 | + | |
| | | Unit- IV | 120.35 | 400kV THP - Malbase Fdr- III | 299.84 | + | |
| | | Unit- V | 186.91 | 400kV Malbase - Siliguri | 189.25 | + | |
| | | Unit- VI | 185.92 | - | - | - | |
| | | Total | 966.67 | Error at Station/Auxiliary Consumption/Losses | 7.94 | | |
| 2 | 720MW MHP | Unit-I | 0.00 | 400kV MHP - Jigmeling Fdr - I | 290.40 | + | Unit I under break down |
| | | Unit-II | 192.31 | 400kV MHP - Jigmeling Fdr - II | 290.40 | + | |
| | | Unit-III | 193.02 | 400kV MHP - Jigmeling Fdr - III | 0.00 | | |
| | | Unit-IV | 194.57 | 400kV MHP - Jigmeling Fdr - IV | 0.00 | | |
| | | - | - | 200MVA, 400/132kV ICT | 0.00 | | |
| | | - | - | (Local Load) | 0.00 | | |
| | | Total | 579.90 | Error at Station/Auxiliary Consumption/Losses | -0.90 | | |
| 2 | 336MW CHP | Unit- I | 0.00 | 220kV CHP - Birpara Fdr- I | 92.82 | + | Unit-I under breakdown |
| | | Unit- II | 92.23 | 220kV CHP - Birpara Fdr- II | 92.65 | + | |
| | | Unit- III | 91.88 | 220kV CHP - Malbase Fdr- III | 129.19 | + | |
| | | Unit- IV | 90.74 | 220kV CHP - Semtokha Fdr- IV | -54.17 | - | |
| | | - | - | 220kV Malbase - Birpara Fdr. | 52.78 | + | |
| | | - | - | 66kV CHP - Chumdo Fdr. | 4.42 | + | |
| | | - | - | 66kV CHP - Gedu Fdr. | 8.33 | + | |
| | | Total | 274.85 | Error at Station/Auxiliary Consumption/Losses | 0.30 | | |
| 3 | 24MW BHP (U/S) | Unit- I | 11.83 | 220kV BHP - Semtokha Fdr. | 91.16 | + | |
| | | Unit- II | 11.83 | 66kV BHP - Lobeyasa Fdr. | 21.55 | + | |
| | | Total | 23.66 | 220kV BHP - Tsirang Fdr. | -48.76 | - | |
| | 40MW BHP (L/S) | Unit- I | 21.03 | 5MVA, 66/11kV TFR | 0.69 | + | |
| | | Unit- II | 20.22 | 30MVA ICT, 220/66kV | | | |
| Total | 41.25 | Error at Station/Auxiliary Consumption/Losses | 0.27 | | | | |
| 4 | 126MW DHPC | Unit-I | 40.34 | 220kV DHPC - Tsirang Fdr. | 98.00 | + | |
| | | Unit-II | 60.46 | 220kV Jigmeling - Dagapela Fdr. | | | |
| | | - | - | 5MVA, 220/33kV TFR | | | |
| | | Total | 100.80 | Error at Station/Auxiliary Consumption/Losses | 2.80 | | |
| 5 | 60MW KHP | Unit- I | 16.55 | 132kV KHP - Nangkhor Fdr- I | 55.70 | + | To transfer 132kV line from ERS arrangement back to Motanga station |
| | | Unit-II | 16.59 | 132kV KHP - Kilikhar Fdr- II | 9.30 | + | |
| | | Unit- III | 16.50 | 5MVA, 132/11kV TFR | 0.60 | + | |
| | | Unit- IV | 16.38 | 132kV Gelephu - Salakati Fdr. | 64.11 | + | |
| | | - | - | 132kV Motanga - Rangia Fdr. | 0.00 | + | |
| | | - | - | 220kV Tsirang - Jigmeling | 47.50 | + | |
| | | Total | 66.02 | Error at Station/Auxiliary Consumption/Losses | 0.42 | | |

Note: Load summary on September 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 | 1,407.23 | 273.34 | 262.03 | 1,086.39 | 11.31 |
| 2 | Eastern Grid | 645.92 | 48.51 | 48.99 | 644.91 | -0.48 |
| | Total | 2,053.15 | 321.85 | 311.02 | 1,731.30 | 10.83 |

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

| Sl. No | Region | 19:00Hrs Load (MW) | Day Peak Load (MW) | Month Peak Load (MW) |
|--------|-----------------|--------------------|--------------------|----------------------|
| 1 | Western Grid | 255.28 | 255.28 | 256.15 |
| 2 | Eastern Grid | 48.58 | 48.58 | 57.74 |
| | National | 303.86 | 303.86 | 313.89 |

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: | September 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 | 187.44 | 400kV THP - Siliguri Fdr- I | 234.29 | + | |
| | | Unit- II | 106.92 | 400kV THP - Siliguri Fdr- II | 234.94 | + | |
| | | Unit- III | 187.34 | 400kV THP - Siliguri Fdr- IV | 235.87 | + | |
| | | Unit- IV | 119.73 | 400kV THP - Malbase Fdr- III | 264.82 | + | |
| | | Unit- V | 187.18 | 400kV Malbase - Siliguri | 214.32 | + | |
| | | Unit- VI | 186.04 | - | - | - | |
| | | Total | 974.65 | Error at Station/Auxiliary Consumption/Losses | 4.73 | | |
| 2 | 720MW MHP | Unit-I | 0.00 | 400kV MHP - Jigmeling Fdr - I | 290.54 | + | Unit-I under breakdown. |
| | | Unit-II | 194.70 | 400kV MHP - Jigmeling Fdr - II | 290.90 | + | |
| | | Unit-III | 194.20 | 400kV MHP - Jigmeling Fdr - III | 0.00 | | |
| | | Unit-IV | 194.10 | 400kV MHP - Jigmeling Fdr - IV | 0.00 | | |
| | | - | - | 200MVA, 400/132kV ICT | | | |
| | | - | - | (Local Load) | | | |
| | | Total | 583.00 | Error at Station/Auxiliary Consumption/Losses | 1.56 | | |
| 3 | 336MW CHP | Unit- I | 0.00 | 220kV CHP - Birpara Fdr- I | 95.34 | + | Unit-I under breakdown. |
| | | Unit- II | 91.28 | 220kV CHP - Birpara Fdr- II | 95.18 | + | |
| | | Unit- III | 91.71 | 220kV CHP - Malbase Fdr- III | 159.60 | + | |
| | | Unit- IV | 92.19 | 220kV CHP - Semtokha Fdr- IV | -86.00 | - | |
| | | - | - | 220kV Malbase - Birpara Fdr. | 32.79 | + | |
| | | - | - | 66kV CHP - Chumdo Fdr. | -0.43 | - | |
| | | - | - | 66kV CHP - Gedu Fdr. | 8.74 | + | |
| | | Total | 275.18 | Error at Station/Auxiliary Consumption/Losses | 2.00 | | |
| 4 | 24MW BHP (U/S) | Unit- I | 11.81 | 220kV BHP - Semtokha Fdr. | 101.20 | + | |
| | | Unit- II | 11.81 | 66kV BHP - Lobeyasa Fdr. | 18.43 | + | |
| | | Total | 23.62 | 220kV BHP - Tsirang Fdr. | -56.48 | - | |
| | 40MW BHP (L/S) | Unit- I | 21.02 | 5MVA, 66/11kV TFR | 0.38 | + | |
| | | Unit- II | 20.19 | 30MVA ICT, 220/66kV | | | |
| Total | 41.21 | Error at Station/Auxiliary Consumption/Losses | 1.30 | | | | |
| 5 | 126MW DHPC | Unit-I | 48.35 | 220kV DHPC - Tsirang Fdr. | 95.54 | + | |
| | | Unit-II | 47.97 | 220kV Jigmeling - Dagapela Fdr. | | | |
| | | - | - | 5MVA, 220/33kV TFR | | | |
| | | Total | 96.32 | Error at Station/Auxiliary Consumption/Losses | 0.78 | | |
| 6 | 60MW KHP | Unit- I | 16.51 | 132kV KHP - Nangkor Fdr- I | 61.51 | + | To transfer 132kV line from ERS arrangement back to Motanga station |
| | | Unit-II | 16.69 | 132kV KHP - Kilikhar Fdr- II | 4.30 | + | |
| | | Unit- III | 16.45 | 5MVA, 132/11kV TFR | 0.40 | + | |
| | | Unit- IV | 16.62 | 132kV Gelephu - Salakati Fdr. | 65.11 | + | |
| | | - | - | 132kV Motanga - Rangia Fdr. | 0.00 | | |
| | | - | - | 220kV Tsirang - Jigmeling | 31.69 | + | |
| Total | 66.27 | Error at Station/Auxiliary Consumption/Losses | 0.06 | | | | |

Note: Load summary on September 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 | 1,410.98 | 236.56 | 227.75 | 1,142.73 | 8.81 |
| 2 | Eastern Grid | 649.27 | 34.41 | 32.79 | 646.55 | 1.62 |
| | Total | 2,060.25 | 270.97 | 260.54 | 1,789.28 | 10.43 |

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

| Sl. No | Region | 09:00Hrs Load (MW) | Day Peak Load (MW) | Month Peak Load (MW) |
|--------|-----------------|--------------------|--------------------|----------------------|
| 1 | Western Grid | 221.01 | 255.65 | 256.15 |
| 2 | Eastern Grid | 36.68 | 46.73 | 57.74 |
| | National | 257.69 | 302.38 | 313.89 |

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.