

**LOAD-GENERATION BALANCE REPORT**

Maximum Load/Demand till Date

Date: August 16, 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	187.00	400kV THP - Siliguri Fdr- I	348.71	+	400kV THP_SIL IV under shutdown
		Unit- II	187.00	400kV THP - Siliguri Fdr- II	347.59	+	
		Unit- III	187.00	400kV THP - Siliguri Fdr- IV	0.00	+	
		Unit- IV	187.00	400kV THP - Malbase Fdr- III	417.00	+	
		Unit- V	187.00	400kV Malbase - Siliguri	301.00	+	
		Unit- VI	187.00	-	-	-	
		<b>Total</b>	<b>1,122.00</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>8.70</b>		
2	720MW MHP	Unit-I	186.10	400kV MHP - Jigmeling Fdr - I	183.30	+	Unit-II under shutdown
		Unit-II	0.00	400kV MHP - Jigmeling Fdr - II	183.40	+	
		Unit-III	0.00	400kV MHP - Jigmeling Fdr - III	0.00		
		Unit-IV	184.90	400kV MHP - Jigmeling Fdr - IV	0.00		
		-	-	200MVA, 400/132kV ICT	0.00		
		-	-	(Local Load)	0.00		
		<b>Total</b>	<b>371.00</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>4.30</b>		
2	336MW CHP	Unit- I	91.49	220kV CHP - Birpara Fdr- I	119.56	+	
		Unit- II	91.73	220kV CHP - Birpara Fdr- II	120.10	+	
		Unit- III	91.65	220kV CHP - Malbase Fdr- III	139.32	+	
		Unit- IV	91.22	220kV CHP - Semtokha Fdr- IV	-26.44	-	
		-	-	220kV Malbase - Birpara Fdr.	96.00	+	
		-	-	66kV CHP - Chumdo Fdr.	4.47	+	
		-	-	66kV CHP - Gedu Fdr.	7.35	+	
		-	-	3x3MVA, 66/11kV TFR	1.19	+	
<b>Total</b>	<b>366.09</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.54</b>				
3	24MW BHP (U/S)	Unit- I	12.30	220kV BHP - Semtokha Fdr.	59.65	+	
		Unit- II	12.20	66kV BHP - Lobeyasa Fdr.	17.49	+	
		<b>Total</b>	<b>24.50</b>	220kV BHP - Tsirang Fdr.	-12.02	-	
	40MW BHP (L/S)	Unit- I	20.70	5MVA, 66/11kV TFR	0.71	+	
		Unit- II	21.00	30MVA ICT, 220/66kV			
<b>Total</b>	<b>41.70</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.37</b>				
4	126MW DHPC	Unit-I	55.35	220kV DHPC - Tsirang Fdr.	117.91	+	
		Unit-II	63.16	220kV Jigmeling - Dagapela Fdr.			
		-	-	5MVA, 220/33kV TFR			
		<b>Total</b>	<b>118.51</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.60</b>		
5	60MW KHP	Unit- I	16.32	132kV KHP - Nangkor Fdr- I	55.76	+	Motanga Substation is bypassed through ERS tower
		Unit-II	16.45	132kV KHP - Kilikhar Fdr- II	9.74	+	
		Unit- III	16.53	5MVA, 132/11kV TFR	0.60	+	
		Unit- IV	16.50	132kV Gelephu - Salakati Fdr.	49.56	+	
		-	-	132kV Motanga - Rangia Fdr.	55.08	+	
		-	-	220kV Tsirang - Jigmeling	103.59	+	
		<b>Total</b>	<b>65.80</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>-0.30</b>		

Note: Load summary on August 16, 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	1,672.80	236.25	226.04	1,332.96	10.21
2	Eastern Grid	436.80	69.05	65.05	471.34	4.00
	<b>Total</b>	<b>2,109.60</b>	<b>305.30</b>	<b>291.09</b>	<b>1,804.30</b>	<b>14.21</b>

Note: Load Summary on August 16, 2018 at 19:00hrs

Sl. No	Region	19:00Hrs Load (MW)	Day Peak Load (MW)	Month Peak Load (MW)
1	Western Grid	250.33	259.44	259.44
2	Eastern Grid	49.40	52.64	55.98
	<b>National</b>	<b>299.73</b>	<b>312.08</b>	<b>315.42</b>

**NOTES: ALL WESTERN LOADS 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.

**LOAD-GENERATION BALANCE REPORT**

Maximum Load/Demand till Date

<b>Date:</b>	<b>August 17, 2019</b>
<b>Hours:</b>	<b>09:00 Hours</b>

<b>Date</b>	<b>Time</b>	<b>Load(MW)</b>
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	187.20	400kV THP - Siliguri Fdr- I	270.49	+	
		Unit- II	184.76	400kV THP - Siliguri Fdr- II	266.70	+	
		Unit- III	187.02	400kV THP - Siliguri Fdr- IV	260.50	+	
		Unit- IV	186.15	400kV THP - Malbase Fdr- III	308.46	+	
		Unit- V	186.02	400kV Malbase - Siliguri	241.50	+	
		Unit- VI	185.24	-	-	-	
		<b>Total</b>	<b>1,116.39</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>10.24</b>		
2	720MW MHP	Unit-I	187.34	400kV MHP - Jigmeling Fdr - I	92.79	+	Unit-II under shutdown
		Unit-II	0.00	400kV MHP - Jigmeling Fdr - II	93.78	+	
		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)			
		<b>Total</b>	<b>187.34</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.77</b>		
3	336MW CHP	Unit- I	91.57	220kV CHP - Birpara Fdr- I	122.87	+	
		Unit- II	91.87	220kV CHP - Birpara Fdr- II	123.08	+	
		Unit- III	91.61	220kV CHP - Malbase Fdr- III	165.62	+	
		Unit- IV	91.28	220kV CHP - Semtokha Fdr- IV	-57.12	-	
		-	-	220kV Malbase - Birpara Fdr.	73.84	+	
		-	-	66kV CHP - Chumdo Fdr.	0.50	+	
		-	-	66kV CHP - Gedu Fdr.	8.03	+	
		<b>Total</b>	<b>366.33</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>2.52</b>		
4	24MW BHP (U/S)	Unit- I	11.79	220kV BHP - Semtokha Fdr.	77.53	+	
		Unit- II	11.79	66kV BHP - Lobeyasa Fdr.	16.56	+	
		<b>Total</b>	<b>23.58</b>	220kV BHP - Tsirang Fdr.	-28.65	-	
	40MW BHP (L/S)	Unit- I	20.30	5MVA, 66/11kV TFR	0.37	+	
		Unit- II	20.70	30MVA ICT, 220/66kV			
		<b>Total</b>	<b>41.00</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>-1.23</b>		
5	126MW DHPC	Unit-I	61.19	220kV DHPC - Tsirang Fdr.	123.98	+	
		Unit-II	63.20	220kV Jigmeling - Dagapela Fdr.			
		-	-	5MVA, 220/33kV TFR			
		<b>Total</b>	<b>124.39</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.41</b>		
6	60MW KHP	Unit- I	16.40	132kV KHP - Nangkhor Fdr- I	61.21	+	Motanga Substation is bypassed through ERS tower.
		Unit-II	16.50	132kV KHP - Kilikhar Fdr- II	4.25	+	
		Unit- III	16.43	5MVA, 132/11kV TFR	0.50	+	
		Unit- IV	16.40	132kV Gelephu - Salakati Fdr.	55.49	+	
		-	-	132kV Motanga - Rangia Fdr.	53.04	+	
		-	-	220kV Tsirang - Jigmeling	91.92	+	
		<b>Total</b>	<b>65.73</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>-0.23</b>		

**Note: Load summary on August 17, 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	1,671.69	220.79	208.85	1,358.98	11.94
2	Eastern Grid	253.07	49.89	49.35	295.10	0.54
	<b>Total</b>	<b>1,924.76</b>	<b>270.68</b>	<b>258.20</b>	<b>1,654.08</b>	<b>12.48</b>

**Note: Load Summary on August 17, 2018 at 09:00hrs**

Sl. No	Region	09:00Hrs Load (MW)	Day Peak Load (MW)	Month Peak Load (MW)
1	Western Grid	222.55	251.66	259.44
2	Eastern Grid	39.62	49.90	55.98
	<b>National</b>	<b>262.17</b>	<b>301.56</b>	<b>315.42</b>

**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.