

**LOAD-GENERATION BALANCE REPORT**

Maximum Load/Demand till Date

Date: August 18, 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	186.40	400kV THP - Siliguri Fdr- I	260.43	+	
		Unit- II	187.56	400kV THP - Siliguri Fdr- II	261.01	+	
		Unit- III	187.33	400kV THP - Siliguri Fdr- IV	252.12	+	
		Unit- IV	187.49	400kV THP - Malbase Fdr- III	330.60	+	
		Unit- V	186.94	400kV Malbase - Siliguri	228.55	+	
		Unit- VI	185.88	-	-	-	
		<b>Total</b>	<b>1,121.60</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>17.44</b>		
2	720MW MHP	Unit-I	185.70	400kV MHP - Jigmeling Fdr - I	280.08	+	Unit-II under shutdown
		Unit-II	0.00	400kV MHP - Jigmeling Fdr - II	281.51	+	
		Unit-III	180.51	400kV MHP - Jigmeling Fdr - III	0.00		
		Unit-IV	182.22	400kV MHP - Jigmeling Fdr - IV	0.00		
		-	-	200MVA, 400/132kV ICT	0.00		
		-	-	(Local Load)	0.00		
		<b>Total</b>	<b>548.43</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>-13.16</b>		
2	336MW CHP	Unit- I	91.46	220kV CHP - Birpara Fdr- I	111.27	+	
		Unit- II	91.77	220kV CHP - Birpara Fdr- II	111.22	+	
		Unit- III	90.58	220kV CHP - Malbase Fdr- III	137.05	+	
		Unit- IV	91.13	220kV CHP - Semtokha Fdr- IV	-8.83	-	
		-	-	220kV Malbase - Birpara Fdr.	77.38	+	
		-	-	66kV CHP - Chumdo Fdr.	4.78	+	
		-	-	66kV CHP - Gedu Fdr.	7.21	+	
		<b>Total</b>	<b>364.94</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.88</b>		
3	24MW BHP (U/S)	Unit- I	11.24	220kV BHP - Semtokha Fdr.	56.00	+	
		Unit- II	11.24	66kV BHP - Lobeyasa Fdr.	15.89	+	
		<b>Total</b>	<b>22.48</b>	220kV BHP - Tsirang Fdr.	-8.47	-	
	40MW BHP (L/S)	Unit- I	20.30	5MVA, 66/11kV TFR	0.37	+	
		Unit- II	20.72	30MVA ICT, 220/66kV			
<b>Total</b>	<b>41.02</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.29</b>				
4	126MW DHPC	Unit-I	29.69	220kV DHPC - Tsirang Fdr.	92.30	+	
		Unit-II	63.13	220kV Jigmeling - Dagapela Fdr.			
		-	-	5MVA, 220/33kV TFR			
		<b>Total</b>	<b>92.82</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.52</b>		
5	60MW KHP	Unit- I	16.37	132kV KHP - Nangkhon Fdr- I	55.84	+	Motanga Substation is bypassed through ERS tower
		Unit-II	16.56	132kV KHP - Kilikhar Fdr- II	9.40	+	
		Unit- III	16.45	5MVA, 132/11kV TFR	0.60	+	
		Unit- IV	16.55	132kV Gelephu - Salakati Fdr.	42.23	+	
		-	-	132kV Motanga - Rangia Fdr.	46.53	+	
		-	-	220kV Tsirang - Jigmeling	91.02	+	
		<b>Total</b>	<b>65.93</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.09</b>		

Note: Load summary on August 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	1,642.86	249.86	231.31	1,301.98	18.55
2	Eastern Grid	614.36	55.03	68.10	650.35	-13.07
	<b>Total</b>	<b>2,257.22</b>	<b>304.89</b>	<b>299.41</b>	<b>1,952.33</b>	<b>5.48</b>

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

Sl. No	Region	19:00Hrs Load (MW)	Day Peak Load (MW)	Month Peak Load (MW)
1	Western Grid	247.42	247.42	259.44
2	Eastern Grid	48.23	48.23	55.98
	<b>National</b>	<b>295.65</b>	<b>295.65</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.

**LOAD-GENERATION BALANCE REPORT**

Maximum Load/Demand till Date

<b>Date:</b>	<b>August 19, 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	188.51	400kV THP - Siliguri Fdr- I	269.53	+	
		Unit- II	185.95	400kV THP - Siliguri Fdr- II	266.81	+	
		Unit- III	187.57	400kV THP - Siliguri Fdr- IV	261.15	+	
		Unit- IV	187.73	400kV THP - Malbase Fdr- III	307.47	+	
		Unit- V	186.86	400kV Malbase - Siliguri	242.72	+	
		Unit- VI	186.27	-	-	-	
		<b>Total</b>	<b>1,122.89</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>17.93</b>		
2	720MW MHP	Unit-I	186.30	400kV MHP - Jigmeling Fdr - I	280.40	+	Unit-II under shutdown
		Unit-II	0.00	400kV MHP - Jigmeling Fdr - II	280.50	+	
		Unit-III	181.00	400kV MHP - Jigmeling Fdr - III	0.00		
		Unit-IV	182.10	400kV MHP - Jigmeling Fdr - IV	0.00		
		-	-	200MVA, 400/132kV ICT			
		-	-	(Local Load)			
		<b>Total</b>	<b>549.40</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>-11.50</b>		
3	336MW CHP	Unit- I	91.90	220kV CHP - Birpara Fdr- I	113.85	+	
		Unit- II	91.51	220kV CHP - Birpara Fdr- II	113.83	+	
		Unit- III	91.54	220kV CHP - Malbase Fdr- III	157.75	+	
		Unit- IV	91.49	220kV CHP - Semtokha Fdr- IV	-30.04	-	
		-	-	220kV Malbase - Birpara Fdr.	65.44	+	
		-	-	66kV CHP - Chumdo Fdr.	1.20	+	
		-	-	66kV CHP - Gedu Fdr.	7.47	+	
		<b>Total</b>	<b>366.44</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>1.74</b>		
4	24MW BHP (U/S)	Unit- I	10.41	220kV BHP - Semtokha Fdr.	47.79	+	
		Unit- II	10.41	66kV BHP - Lobeyasa Fdr.	13.91	+	
		<b>Total</b>	<b>20.82</b>	220kV BHP - Tsirang Fdr.	-3.80	-	
	40MW BHP (L/S)	Unit- I	20.30	5MVA, 66/11kV TFR	0.46	+	
		Unit- II	19.04	30MVA ICT, 220/66kV			
		<b>Total</b>	<b>39.34</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>1.80</b>		
5	126MW DHPC	Unit-I	26.31	220kV DHPC - Tsirang Fdr.	88.88	+	
		Unit-II	63.05	220kV Jigmeling - Dagapela Fdr.			
		-	-	5MVA, 220/33kV TFR			
		<b>Total</b>	<b>89.36</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.48</b>		
6	60MW KHP	Unit- I	16.51	132kV KHP - Nangkhor Fdr- I	62.14	+	Motanga Substation is bypassed through ERS tower.
		Unit-II	16.65	132kV KHP - Kilikhar Fdr- II	3.57	+	
		Unit- III	16.57	5MVA, 132/11kV TFR	0.50	+	
		Unit- IV	16.49	132kV Gelephu - Salakati Fdr.	41.75	+	
		-	-	132kV Motanga - Rangia Fdr.	46.05	+	
		-	-	220kV Tsirang - Jigmeling	73.13	+	
		<b>Total</b>	<b>66.22</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.01</b>		

**Note: Load summary on August 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	1,638.85	232.39	210.44	1,333.33	21.95
2	Eastern Grid	615.62	40.05	51.54	648.70	-11.49
	<b>Total</b>	<b>2,254.47</b>	<b>272.44</b>	<b>261.98</b>	<b>1,982.03</b>	<b>10.46</b>

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

Sl. No	Region	09:00Hrs Load (MW)	Day Peak Load (MW)	Month Peak Load (MW)
1	Western Grid	233.47	249.85	259.44
2	Eastern Grid	37.07	52.37	55.98
	<b>National</b>	<b>270.54</b>	<b>302.22</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.