

**LOAD-GENERATION BALANCE REPORT**

Maximum Load/Demand till Date

Date:	September 5, 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	187.42	400kV THP - Siliguri Fdr- I	252.35	+	
		Unit- II	184.72	400kV THP - Siliguri Fdr- II	250.98	+	
		Unit- III	187.04	400kV THP - Siliguri Fdr- IV	243.42	+	
		Unit- IV	186.88	400kV THP - Malbase Fdr- III	355.84	+	
		Unit- V	186.39	400kV Malbase - Siliguri	213.85	+	
		Unit- VI	186.74	-	-	-	
		<b>Total</b>	<b>1,119.19</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>16.60</b>		
2	720MW MHP	Unit-I	182.90	400kV MHP - Jigmeling Fdr - I	184.00	+	Unit-III under shutdown Unit-IV tripped at 18:55 Hrs, 5th September, 2019
		Unit-II	192.00	400kV MHP - Jigmeling Fdr - II	185.40	+	
		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	0.00		
		-	-	(Local Load)	0.00		
		<b>Total</b>	<b>374.90</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>5.50</b>		
2	336MW CHP	Unit- I	0.00	220kV CHP - Birpara Fdr- I	79.19	+	CHP Unit-I under breakdown..
		Unit- II	88.69	220kV CHP - Birpara Fdr- II	79.51	+	
		Unit- III	91.14	220kV CHP - Malbase Fdr- III	92.95	+	
		Unit- IV	92.24	220kV CHP - Semtokha Fdr- IV	5.14	+	
		-	-	220kV Malbase - Birpara Fdr.	58.09	+	
		-	-	66kV CHP - Chumdo Fdr.	6.28	+	
		-	-	66kV CHP - Gedu Fdr.	6.96	+	
		-	-	3x3MVA, 66/11kV TFR	1.33	+	
<b>Total</b>	<b>272.07</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.71</b>				
3	24MW BHP (U/S)	Unit- I	9.86	220kV BHP - Semtokha Fdr.	29.14	+	
		Unit- II	9.86	66kV BHP - Lobeyasa Fdr.	17.75	+	
		<b>Total</b>	<b>19.72</b>	220kV BHP - Tsirang Fdr.	10.36	+	
	40MW BHP (L/S)	Unit- I	19.59	5MVA, 66/11kV TFR	0.74	+	
		Unit- II	18.81	30MVA ICT, 220/66kV			
<b>Total</b>	<b>38.40</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.13</b>				
4	126MW DHPC	Unit-I	29.32	220kV DHPC - Tsirang Fdr.	64.98	+	
		Unit-II	36.11	220kV Jigmeling - Dagapela Fdr.			
		-	-	5MVA, 220/33kV TFR			
		<b>Total</b>	<b>65.43</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.45</b>		
5	60MW KHP	Unit- I	16.55	132kV KHP - Nangkor Fdr- I	56.98	+	Motanga Substation is bypassed through ERS tower
		Unit-II	16.59	132kV KHP - Kilikhar Fdr- II	8.74	+	
		Unit- III	16.71	5MVA, 132/11kV TFR	0.50	+	
		Unit- IV	16.45	132kV Gelephu - Salakati Fdr.	30.13	+	
		-	-	132kV Motanga - Rangia Fdr.	46.00	+	
		-	-	220kV Tsirang - Jigmeling	72.59	+	
		<b>Total</b>	<b>66.30</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.08</b>		

**Note: Load summary on September 05, 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	1,514.81	264.83	246.94	1,177.39	17.89
2	Eastern Grid	441.20	68.26	62.68	445.53	5.58
	<b>Total</b>	<b>1,956.01</b>	<b>333.09</b>	<b>309.62</b>	<b>1,622.92</b>	<b>23.47</b>

**Note: Load Summary on September 05, 2018 at 19:00hrs**

Sl. No	Region	19:00Hrs Load (MW)	Day Peak Load (MW)	Month Peak Load (MW)
1	Western Grid	231.23	231.23	256.15
2	Eastern Grid	50.79	50.79	57.74
	<b>National</b>	<b>282.02</b>	<b>282.02</b>	<b>313.89</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>September 6, 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	186.72	400kV THP - Siliguri Fdr- I	264.15	+	
		Unit- II	187.78	400kV THP - Siliguri Fdr- II	261.90	+	
		Unit- III	187.00	400kV THP - Siliguri Fdr- IV	254.96	+	
		Unit- IV	186.95	400kV THP - Malbase Fdr- III	321.29	+	
		Unit- V	186.70	400kV Malbase - Siliguri	235.28	+	
		Unit- VI	186.32	-	-	-	
		<b>Total</b>	<b>1,121.47</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>19.17</b>		
2	720MW MHP	Unit-I	190.40	400kV MHP - Jigmeling Fdr - I	131.00	+	Unit- III under shutdown, Unit IV tripped
		Unit-II	77.40	400kV MHP - Jigmeling Fdr - II	132.00	+	
		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)			
		<b>Total</b>	<b>267.80</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>4.80</b>		
3	336MW CHP	Unit- I	0.00	220kV CHP - Birpara Fdr- I	95.36	+	CHP Unit-I under breakdown.
		Unit- II	91.95	220kV CHP - Birpara Fdr- II	95.12	+	
		Unit- III	91.53	220kV CHP - Malbase Fdr- III	133.57	+	
		Unit- IV	91.27	220kV CHP - Semtokha Fdr- IV	-59.43	-	
		-	-	220kV Malbase - Birpara Fdr.	54.40	+	
		-	-	66kV CHP - Chumdo Fdr.	0.15	+	
		-	-	66kV CHP - Gedu Fdr.	7.71	+	
		<b>Total</b>	<b>274.75</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>1.50</b>		
4	24MW BHP (U/S)	Unit- I	11.81	220kV BHP - Semtokha Fdr.	79.03	+	
		Unit- II	11.81	66kV BHP - Lobeyasa Fdr.	16.91	+	
		<b>Total</b>	<b>23.62</b>	220kV BHP - Tsirang Fdr.	-30.47	-	
	40MW BHP (L/S)	Unit- I	20.96	5MVA, 66/11kV TFR	0.38	+	
		Unit- II	20.16	30MVA ICT, 220/66kV			
		<b>Total</b>	<b>41.12</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>-1.11</b>		
5	126MW DHPC	Unit-I	50.18	220kV DHPC - Tsirang Fdr.	112.68	+	
		Unit-II	62.96	220kV Jigmeling - Dagapela Fdr.			
		-	-	5MVA, 220/33kV TFR			
		<b>Total</b>	<b>113.14</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.46</b>		
6	60MW KHP	Unit- I	16.63	132kV KHP - Nangkhor Fdr- I	62.02	+	Motanga Substation is bypassed through ERS tower.
		Unit-II	16.65	132kV KHP - Kilikhar Fdr- II	3.57	+	
		Unit- III	16.45	5MVA, 132/11kV TFR	0.50	+	
		Unit- IV	16.63	132kV Gelephu - Salakati Fdr.	49.19	+	
		-	-	132kV Motanga - Rangia Fdr.	41.07	+	
		-	-	220kV Tsirang - Jigmeling	79.20	+	
		<b>Total</b>	<b>66.36</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.27</b>		

**Note: Load summary on September 06, 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	1,574.10	233.73	213.71	1,261.17	20.02
2	Eastern Grid	334.16	60.10	55.03	353.26	5.07
	<b>Total</b>	<b>1,908.26</b>	<b>293.83</b>	<b>268.74</b>	<b>1,614.43</b>	<b>25.09</b>

**Note: Load Summary on September 06, 2018 at 09:00hrs**

Sl. No	Region	09:00Hrs Load (MW)	Day Peak Load (MW)	Month Peak Load (MW)
1	Western Grid	214.66	235.62	256.15
2	Eastern Grid	41.19	57.74	57.74
	<b>National</b>	<b>255.85</b>	<b>293.36</b>	<b>313.89</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.