

**LOAD-GENERATION BALANCE REPORT**

Maximum Load/Demand till Date

Date:	July 21, 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	187.98	400kV THP - Siliguri Fdr- I	231.96	+	
		Unit- II	138.96	400kV THP - Siliguri Fdr- II	230.12	+	
		Unit- III	100.05	400kV THP - Siliguri Fdr- IV	225.08	+	
		Unit- IV	186.17	400kV THP - Malbase Fdr- III	285.70	+	
		Unit- V	185.30	400kV Malbase - Siliguri	204.33	+	
		Unit- VI	186.00	-	-	-	
		<b>Total</b>	<b>984.46</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>11.60</b>		
2	720MW MHP	Unit-I	0.00	400kV MHP - Jigmeling Fdr - I	0.00		MHEP Unit-I and 400kV MHP-JLG I under breakdown.
		Unit-II	185.00	400kV MHP - Jigmeling Fdr - II	184.70		
		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		
		<b>Total</b>	<b>185.00</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.30</b>		
2	336MW CHP	Unit- I	91.42	220kV CHP - Birpara Fdr- I	119.95	+	
		Unit- II	91.58	220kV CHP - Birpara Fdr- II	119.77	+	
		Unit- III	91.74	220kV CHP - Malbase Fdr- III	159.41	+	
		Unit- IV	91.81	220kV CHP - Semtokha Fdr- IV	-39.45	-	
		-	-	220kV Malbase - Birpara Fdr.	74.22	+	
		-	-	66kV CHP - Chumdo Fdr.	4.09	+	
		-	-	66kV CHP - Gedu Fdr.	1.70	+	
		-	-	3x3MVA, 66/11kV TFR	1.03	+	
		<b>Total</b>	<b>366.55</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.05</b>		
3	24MW BHP (U/S)	Unit- I	11.84	220kV BHP - Semtokha Fdr.	63.92	+	
		Unit- II	11.84	66kV BHP - Lobeyasa Fdr.	17.98	+	
		<b>Total</b>	<b>23.68</b>	220kV BHP - Tsirang Fdr.	-17.47	-	
	40MW BHP (L/S)	Unit- I	20.54	5MVA, 66/11kV TFR	0.65	+	
		Unit- II	20.64	30MVA ICT, 220/66kV			
<b>Total</b>	<b>41.18</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.22</b>				
4	126MW DHPC	Unit-I	36.44	220kV DHPC - Tsirang Fdr.	73.25	+	
		Unit-II	37.21	220kV Jigmeling - Dagapela Fdr.			
		-	-	5MVA, 220/33kV TFR			
		<b>Total</b>	<b>73.65</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.40</b>		
5	60MW KHP	Unit- I	16.51	132kV KHP - Nangkhon Fdr- I	56.43	+	Note:132kV Gel_Sala tripped at 18:45Hrs.Zone-2 optd at Salakati end. Motanga Substation is bypassed through ERS tower
		Unit-II	16.47	132kV KHP - Kilikhar Fdr- II	7.53	+	
		Unit- III	15.87	5MVA, 132/11kV TFR	0.60	+	
		Unit- IV	15.99	132kV Gelephu - Salakati Fdr.	0.00	+	
		-	-	132kV Motanga - Rangia Fdr.	55.10	+	
		-	-	220kV Tsirang - Jigmeling	54.62	+	
		<b>Total</b>	<b>64.84</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.28</b>		

**Note: Load summary on July 21, 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	1,489.52	229.47	217.64	1,205.43	11.83
2	Eastern Grid	249.84	64.66	64.08	239.80	0.58
	<b>Total</b>	<b>1,739.36</b>	<b>294.13</b>	<b>281.72</b>	<b>1,445.23</b>	<b>12.41</b>

**Note: Load Summary on July 21, 2018 at 19:00hrs**

Sl. No	Region	19:00Hrs Load (MW)	Day Peak Load (MW)	Month Peak Load (MW)
1	Western Grid	219.34	231.77	280.97
2	Eastern Grid	46.20	46.20	57.66
	<b>National</b>	<b>265.54</b>	<b>277.97</b>	<b>338.63</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

Date:	July 22, 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	187.32	400kV THP - Siliguri Fdr- I	266.00	+	
		Unit- II	182.94	400kV THP - Siliguri Fdr- II	265.09	+	
		Unit- III	186.74	400kV THP - Siliguri Fdr- IV	257.74	+	
		Unit- IV	187.01	400kV THP - Malbase Fdr- III	312.39	+	
		Unit- V	187.17	400kV Malbase - Siliguri	237.98	+	
		Unit- VI	185.77	-	-	-	
		<b>Total</b>	<b>1,116.95</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>15.73</b>		
2	720MW MHP	Unit-I	0.00	400kV MHP - Jigmeling Fdr - I	0.00	+	MHEP Unit-I (Mechanical problem) and 400kV MHP- JLG II under breakdown.
		Unit-II	190.00	400kV MHP - Jigmeling Fdr - II	189.44	+	
		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>190.00</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.56</b>		
3	336MW CHP	Unit- I	92.00	220kV CHP - Birpara Fdr- I	114.83	+	
		Unit- II	91.58	220kV CHP - Birpara Fdr- II	114.31	+	
		Unit- III	91.37	220kV CHP - Malbase Fdr- III	156.36	+	
		Unit- IV	91.69	220kV CHP - Semtokha Fdr- IV	-31.06	-	
		-	-	220kV Malbase - Birpara Fdr.	68.09	+	
		-	-	66kV CHP - Chumdo Fdr.	1.21	+	
		-	-	66kV CHP - Gedu Fdr.	7.72	+	
		-	-	3x3MVA, 66/11kV TFR	0.90	+	
<b>Total</b>	<b>366.64</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>2.37</b>				
4	24MW BHP (U/S)	Unit- I	11.61	220kV BHP - Semtokha Fdr.	48.55	+	
		Unit- II	11.61	66kV BHP - Lobeyasa Fdr.	15.69	+	
		<b>Total</b>	<b>23.22</b>	220kV BHP - Tsirang Fdr.	-1.07	-	
	40MW BHP (L/S)	Unit- I	20.54	5MVA, 66/11kV TFR	0.42	+	
		Unit- II	20.27	30MVA ICT, 220/66kV			
		<b>Total</b>	<b>40.81</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.44</b>		
5	126MW DHPC	Unit-I	36.40	220kV DHPC - Tsirang Fdr.	73.20	+	
		Unit-II	37.23	220kV Jigmeling - Dagapela Fdr.			
		-	-	5MVA, 220/33kV TFR			
		<b>Total</b>	<b>73.63</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.43</b>		
6	60MW KHP	Unit- I	16.66	132kV KHP - Nangkhor Fdr- I	59.35	+	Note: Motanga Substation is bypassed through ERS tower.
		Unit-II	16.73	132kV KHP - Kilikhar Fdr- II	3.80	+	
		Unit- III	15.64	5MVA, 132/11kV TFR	0.40	+	
		Unit- IV	15.56	132kV Gelephu - Salakati Fdr.	40.00	+	
		-	-	132kV Motanga - Rangia Fdr.	43.17	+	
		-	-	220kV Tsirang - Jigmeling	70.43	+	
		<b>Total</b>	<b>64.59</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>1.04</b>		

**Note: Load summary on July 22, 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	1,621.25	226.78	207.81	1,324.04	18.97
2	Eastern Grid	254.59	52.41	50.81	272.61	1.60
	<b>Total</b>	<b>1,875.84</b>	<b>279.19</b>	<b>258.62</b>	<b>1,596.65</b>	<b>20.57</b>

**Note: Load Summary on July 22, 2018 at 09:00hrs**

Sl. No	Region	09:00Hrs Load (MW)	Day Peak Load (MW)	Month Peak Load (MW)
1	Western Grid	207.42	236.34	280.97
2	Eastern Grid	29.28	42.54	57.66
	<b>National</b>	<b>236.70</b>	<b>278.88</b>	<b>338.63</b>

**NOTES: MHP LOAD COLLECTED FROM SITE**

- 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.