

**LOAD-GENERATION BALANCE REPORT**

Maximum Load/Demand till Date

Date:	July 29, 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	188.19	400kV THP - Siliguri Fdr- I	261.47	+	
		Unit- II	186.88	400kV THP - Siliguri Fdr- II	259.34	+	
		Unit- III	187.87	400kV THP - Siliguri Fdr- IV	253.03	+	
		Unit- IV	185.98	400kV THP - Malbase Fdr- III	332.50	+	
		Unit- V	187.44	400kV Malbase - Siliguri	228.65	+	
		Unit- VI	186.08	-	-	-	
		<b>Total</b>	<b>1,122.44</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>16.10</b>		
2	720MW MHP	Unit-I	186.90	400kV MHP - Jigmeling Fdr - I	186.54	+	
		Unit-II	186.00	400kV MHP - Jigmeling Fdr - II	186.54		
		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>372.90</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>-0.18</b>		
2	336MW CHP	Unit- I	91.60	220kV CHP - Birpara Fdr- I	111.22	+	
		Unit- II	91.03	220kV CHP - Birpara Fdr- II	111.22	+	
		Unit- III	91.49	220kV CHP - Malbase Fdr- III	146.81	+	
		Unit- IV	91.29	220kV CHP - Semtokha Fdr- IV	-17.39	-	
		-	-	220kV Malbase - Birpara Fdr.	69.72	+	
		-	-	66kV CHP - Chumdo Fdr.	3.85	+	
		-	-	66kV CHP - Gedu Fdr.	7.88	+	
		-	-	3x3MVA, 66/11kV TFR	1.23	+	
		<b>Total</b>	<b>365.41</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.59</b>		
3	24MW BHP (U/S)	Unit- I	11.84	220kV BHP - Semtokha Fdr.	44.78	+	
		Unit- II	11.84	66kV BHP - Lobeyasa Fdr.	18.22	+	
		<b>Total</b>	<b>23.68</b>	220kV BHP - Tsirang Fdr.	-0.28	-	
	40MW BHP (L/S)	Unit- I	20.54	5MVA, 66/11kV TFR	0.76	+	
		Unit- II	19.85	30MVA ICT, 220/66kV			
<b>Total</b>	<b>40.39</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.59</b>				
4	126MW DHPC	Unit-I	46.21	220kV DHPC - Tsirang Fdr.	93.66	+	
		Unit-II	48.09	220kV Jigmeling - Dagapela Fdr.			
		-	-	5MVA, 220/33kV TFR			
		<b>Total</b>	<b>94.30</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.64</b>		
5	60MW KHP	Unit- I	16.50	132kV KHP - Nangkhor Fdr- I	56.67	+	Motanga Substation is bypassed through ERS tower
		Unit-II	16.50	132kV KHP - Kilikhar Fdr- II	8.83	+	
		Unit- III	16.50	5MVA, 132/11kV TFR	0.52	+	
		Unit- IV	16.50	132kV Gelephu - Salakati Fdr.	42.80	+	
		-	-	132kV Motanga - Rangia Fdr.	48.50	+	
		-	-	220kV Tsirang - Jigmeling	93.38	+	
		<b>Total</b>	<b>66.00</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>-0.02</b>		

**Note: Load summary on July 29, 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	1,646.22	258.19	240.27	1,294.65	17.92
2	Eastern Grid	438.90	67.90	68.10	464.38	-0.20
	<b>Total</b>	<b>2,085.12</b>	<b>326.09</b>	<b>308.37</b>	<b>1,759.03</b>	<b>17.72</b>

**Note: Load Summary on July 29, 2018 at 19:00hrs**

Sl. No	Region	19:00Hrs Load (MW)	Day Peak Load (MW)	Month Peak Load (MW)
1	Western Grid	280.97	280.97	280.97
2	Eastern Grid	55.40	55.40	57.66
	<b>National</b>	<b>336.37</b>	<b>336.37</b>	<b>338.63</b>

**NOTES: Eastern load 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:

- i) 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.
- ii) 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:	July 30, 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	187.13	400kV THP - Siliguri Fdr- I	265.13	+	
		Unit- II	187.72	400kV THP - Siliguri Fdr- II	264.34	+	
		Unit- III	186.51	400kV THP - Siliguri Fdr- IV	256.95	+	
		Unit- IV	187.27	400kV THP - Malbase Fdr- III	317.37	+	
		Unit- V	186.97	400kV Malbase - Siliguri	237.30	+	
		Unit- VI	185.62	-	-	-	
		<b>Total</b>	<b>1,121.22</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>17.43</b>		
2	720MW MHP	Unit-I	186.43	400kV MHP - Jigmeling Fdr - I	187.31	+	
		Unit-II	184.51	400kV MHP - Jigmeling Fdr - II	183.76		
		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>370.94</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>-0.13</b>		
3	336MW CHP	Unit- I	91.48	220kV CHP - Birpara Fdr- I	117.40	+	
		Unit- II	91.73	220kV CHP - Birpara Fdr- II	117.16	+	
		Unit- III	91.77	220kV CHP - Malbase Fdr- III	165.38	+	
		Unit- IV	91.99	220kV CHP - Semtokha Fdr- IV	-44.96	-	
		-	-	220kV Malbase - Birpara Fdr.	65.45	+	
		-	-	66kV CHP - Chumdo Fdr.	0.43	+	
		-	-	66kV CHP - Gedu Fdr.	8.75	+	
		-	-	3x3MVA, 66/11kV TFR	0.88	+	
<b>Total</b>	<b>366.97</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>1.93</b>				
4	24MW BHP (U/S)	Unit- I	12.40	220kV BHP - Semtokha Fdr.	64.27	+	
		Unit- II	12.20	66kV BHP - Lobeyasa Fdr.	15.91	+	
		<b>Total</b>	<b>24.60</b>	220kV BHP - Tsirang Fdr.	-15.68	-	
	40MW BHP (L/S)	Unit- I	20.10	5MVA, 66/11kV TFR	0.99	+	
		Unit- II	20.10	30MVA ICT, 220/66kV			
		<b>Total</b>	<b>40.20</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>-0.69</b>		
5	126MW DHPC	Unit-I	50.06	220kV DHPC - Tsirang Fdr.	99.79	+	
		Unit-II	50.18	220kV Jigmeling - Dagapela Fdr.			
		-	-	5MVA, 220/33kV TFR			
		<b>Total</b>	<b>100.24</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.45</b>		
6	60MW KHP	Unit- I	16.50	132kV KHP - Nangkhor Fdr- I	61.72	+	Motanga Substation is bypassed through ERS tower.
		Unit-II	16.50	132kV KHP - Kilikhar Fdr- II	3.33	+	
		Unit- III	16.50	5MVA, 132/11kV TFR	0.02	+	
		Unit- IV	16.50	132kV Gelephu - Salakati Fdr.	49.46	+	
		-	-	132kV Motanga - Rangia Fdr.	55.63	+	
		-	-	220kV Tsirang - Jigmeling	80.01	+	
		<b>Total</b>	<b>66.00</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.93</b>		

**Note: Load summary on July 30, 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	1,653.23	249.49	230.37	1,323.73	19.12
2	Eastern Grid	436.94	40.79	39.99	476.16	0.80
	<b>Total</b>	<b>2,090.17</b>	<b>290.28</b>	<b>270.36</b>	<b>1,799.89</b>	<b>19.92</b>

**Note: Load Summary on July 30, 2018 at 09:00hrs**

Sl. No	Region	09:00Hrs Load (MW)	Day Peak Load (MW)	Month Peak Load (MW)
1	Western Grid	224.07	227.20	280.97
2	Eastern Grid	36.06	48.38	57.66
	<b>National</b>	<b>260.13</b>	<b>275.58</b>	<b>338.63</b>

**NOTES: Eastern 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.
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