

**LOAD-GENERATION BALANCE REPORT**

Maximum Load/Demand till Date

Date:	July 28, 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	187.11	400kV THP - Siliguri Fdr- I	260.63	+	
		Unit- II	185.07	400kV THP - Siliguri Fdr- II	260.90	+	
		Unit- III	187.91	400kV THP - Siliguri Fdr- IV	260.17	+	
		Unit- IV	186.80	400kV THP - Malbase Fdr- III	329.79	+	
		Unit- V	186.83	400kV Malbase - Siliguri	229.18	+	
		Unit- VI	186.13	-	-	-	
		<b>Total</b>	<b>1,119.85</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>8.36</b>		
2	720MW MHP	Unit-I	0.00	400kV MHP - Jigmeling Fdr - I	0.00	+	Unit-I tripped at 4:09 Hrs and Unit-II at 18:06Hrs.
		Unit-II	0.00	400kV MHP - Jigmeling Fdr - II	0.00		
		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>0.00</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.00</b>		
2	336MW CHP	Unit- I	91.39	220kV CHP - Birpara Fdr- I	118.60	+	
		Unit- II	91.42	220kV CHP - Birpara Fdr- II	118.25	+	
		Unit- III	91.56	220kV CHP - Malbase Fdr- III	150.53	+	
		Unit- IV	92.05	220kV CHP - Semtokha Fdr- IV	-33.17	-	
		-	-	220kV Malbase - Birpara Fdr.	77.97	+	
		-	-	66kV CHP - Chumdo Fdr.	3.13	+	
		-	-	66kV CHP - Gedu Fdr.	7.80	+	
		-	-	3x3MVA, 66/11kV TFR	1.15	+	
		<b>Total</b>	<b>366.42</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.13</b>		
3	24MW BHP (U/S)	Unit- I	11.84	220kV BHP - Semtokha Fdr.	59.35	+	
		Unit- II	11.84	66kV BHP - Lobeyasa Fdr.	17.25	+	
		<b>Total</b>	<b>23.68</b>	220kV BHP - Tsirang Fdr.	-12.06	-	
	40MW BHP (L/S)	Unit- I	20.54	5MVA, 66/11kV TFR	0.63	+	
		Unit- II	20.65	30MVA ICT, 220/66kV			
<b>Total</b>	<b>41.19</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.30</b>				
4	126MW DHPC	Unit-I	55.14	220kV DHPC - Tsirang Fdr.	109.73	+	
		Unit-II	55.12	220kV Jigmeling - Dagapela Fdr.			
		-	-	5MVA, 220/33kV TFR			
		<b>Total</b>	<b>110.26</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.53</b>		
5	60MW KHP	Unit- I	16.50	132kV KHP - Nangkhon Fdr- I	57.91	+	Motanga Substation is bypassed through ERS tower
		Unit-II	16.50	132kV KHP - Kilikhar Fdr- II	7.92	+	
		Unit- III	16.50	5MVA, 132/11kV TFR	0.40	+	
		Unit- IV	16.50	132kV Gelephu - Salakati Fdr.	50.73	+	
		-	-	132kV Motanga - Rangia Fdr.	51.17	+	
		-	-	220kV Tsirang - Jigmeling	94.06	+	
		<b>Total</b>	<b>66.00</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>-0.23</b>		

**Note: Load summary on July 28, 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	1,661.40	241.64	232.92	1,325.70	8.72
2	Eastern Grid	66.00	58.16	58.39	101.90	-0.23
	<b>Total</b>	<b>1,727.40</b>	<b>299.80</b>	<b>291.31</b>	<b>1,427.60</b>	<b>8.49</b>

**Note: Load Summary on July 28, 2018 at 19:00hrs**

Sl. No	Region	19:00Hrs Load (MW)	Day Peak Load (MW)	Month Peak Load (MW)
1	Western Grid	229.53	235.15	280.97
2	Eastern Grid	45.92	47.27	57.66
	<b>National</b>	<b>275.45</b>	<b>282.42</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:

- 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

Date:	July 29, 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	187.50	400kV THP - Siliguri Fdr- I	269.49	+	
		Unit- II	186.52	400kV THP - Siliguri Fdr- II	267.31	+	
		Unit- III	186.94	400kV THP - Siliguri Fdr- IV	262.28	+	
		Unit- IV	185.64	400kV THP - Malbase Fdr- III	305.97	+	
		Unit- V	187.26	400kV Malbase - Siliguri	242.82	+	
		Unit- VI	186.67	-	-	-	
		<b>Total</b>	<b>1,120.53</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>15.48</b>		
2	720MW MHP	Unit-I	187.50	400kV MHP - Jigmeling Fdr - I	374.90	+	
		Unit-II	187.60	400kV MHP - Jigmeling Fdr - II	0.00		
		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>375.10</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.20</b>		
3	336MW CHP	Unit- I	91.28	220kV CHP - Birpara Fdr- I	118.00	+	
		Unit- II	91.06	220kV CHP - Birpara Fdr- II	117.95	+	
		Unit- III	91.64	220kV CHP - Malbase Fdr- III	169.71	+	
		Unit- IV	91.53	220kV CHP - Semtokha Fdr- IV	-50.68	-	
		-	-	220kV Malbase - Birpara Fdr.	62.56	+	
		-	-	66kV CHP - Chumdo Fdr.	0.26	+	
		-	-	66kV CHP - Gedu Fdr.	9.19	+	
		-	-	3x3MVA, 66/11kV TFR	0.79	+	
<b>Total</b>	<b>365.51</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.29</b>				
4	24MW BHP (U/S)	Unit- I	12.30	220kV BHP - Semtokha Fdr.	82.15	+	
		Unit- II	12.20	66kV BHP - Lobeyasa Fdr.	15.54	+	
		<b>Total</b>	<b>24.50</b>	220kV BHP - Tsirang Fdr.	-31.69	-	
	40MW BHP (L/S)	Unit- I	20.70	5MVA, 66/11kV TFR	0.97	+	
		Unit- II	21.00	30MVA ICT, 220/66kV			
		<b>Total</b>	<b>41.70</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>-0.77</b>		
5	126MW DHPC	Unit-I	52.41	220kV DHPC - Tsirang Fdr.	103.04	+	
		Unit-II	51.17	220kV Jigmeling - Dagapela Fdr.			
		-	-	5MVA, 220/33kV TFR			
		<b>Total</b>	<b>103.58</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.54</b>		
6	60MW KHP	Unit- I	16.50	132kV KHP - Nangkor Fdr- I	61.67	+	Motanga Substation is bypassed through ERS tower.
		Unit-II	16.50	132kV KHP - Kilikhar Fdr- II	3.82	+	
		Unit- III	16.50	5MVA, 132/11kV TFR	0.02	+	
		Unit- IV	16.50	132kV Gelephu - Salakati Fdr.	47.93	+	
		-	-	132kV Motanga - Rangia Fdr.	46.77	+	
		-	-	220kV Tsirang - Jigmeling	77.12	+	
		<b>Total</b>	<b>66.00</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.49</b>		

**Note: Load summary on July 29, 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	1,655.82	238.29	222.75	1,340.41	15.54
2	Eastern Grid	441.10	48.62	47.93	469.60	0.69
	<b>Total</b>	<b>2,096.92</b>	<b>286.91</b>	<b>270.68</b>	<b>1,810.01</b>	<b>16.23</b>

**Note: Load Summary on July 29, 2018 at 09:00hrs**

Sl. No	Region	09:00Hrs Load (MW)	Day Peak Load (MW)	Month Peak Load (MW)
1	Western Grid	207.90	280.97	280.97
2	Eastern Grid	41.43	55.40	57.66
	<b>National</b>	<b>249.33</b>	<b>336.37</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.
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