

## LOAD-GENERATION BALANCE REPORT

Maximum Load/Demand till Date

<b>Date:</b>	<b>July 13, 2019</b>
<b>Hours:</b>	<b>19:00 Hours</b>

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	187.37	400kV THP - Siliguri Fdr- I	260.34	+	
		Unit- II	186.15	400kV THP - Siliguri Fdr- II	257.37	+	
		Unit- III	187.03	400kV THP - Siliguri Fdr- IV	250.64	+	
		Unit- IV	186.71	400kV THP - Malbase Fdr- III	333.60	+	
		Unit- V	186.67	400kV Malbase - Siliguri	226.81	+	
		Unit- VI	185.50	-	-	-	
		<b>Total</b>	<b>1,119.43</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>17.48</b>		
2	720MW MHP	Unit-I	171.62	400kV MHP - Jigmeling Fdr - I	85.81		COD for Unit-I: 12:30PM, 28th June, 2019. The current local load/auxiliary load is met from BPC, externally)
		Unit-II	0.00	400kV MHP - Jigmeling Fdr - II	85.81		
		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>171.62</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.00</b>		
2	336MW CHP	Unit- I	91.98	220kV CHP - Birpara Fdr- I	118.90	+	
		Unit- II	91.73	220kV CHP - Birpara Fdr- II	118.38	+	
		Unit- III	91.73	220kV CHP - Malbase Fdr- III	144.33	+	
		Unit- IV	91.68	220kV CHP - Semtokha Fdr- IV	-28.00	-	
		-	-	220kV Malbase - Birpara Fdr.	84.08	+	
		-	-	66kV CHP - Chumdo Fdr.	3.34	+	
		-	-	66kV CHP - Gedu Fdr.	7.90	+	
		-	-	3x3MVA, 66/11kV TFR	1.04	+	
		<b>Total</b>	<b>367.12</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>1.23</b>		
3	24MW BHP (U/S)	Unit- I	11.85	220kV BHP - Semtokha Fdr.	53.35	+	
		Unit- II	11.85	66kV BHP - Lobeyasa Fdr.	17.76	+	
		<b>Total</b>	<b>23.70</b>	220kV BHP - Tsirang Fdr.	-6.78	-	
	60MW BHP (L/S)	Unit- I	20.54	5MVA, 66/11kV TFR	0.66	+	
		Unit- II	20.81	30MVA ICT, 220/66kV			
<b>Total</b>	<b>41.35</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.06</b>				
4	126MW DHPC	Unit-I	47.27	220kV DHPC - Tsirang Fdr.	93.97	+	
		Unit-II	47.16	220kV Jigmeling - Dagapela Fdr.			
		-	-	5MVA, 220/33kV TFR			
		<b>Total</b>	<b>94.43</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.46</b>		
5	60MW KHP	Unit- I	16.53	132kV KHP - Nangkhon Fdr- I	57.11	+	Note: Motanga Substation is bypassed through ERS tower
		Unit-II	16.39	132kV KHP - Kilikhar Fdr- II	7.92	+	
		Unit- III	16.48	5MVA, 132/11kV TFR	0.40	+	
		Unit- IV	16.30	132kV Gelephu - Salakati Fdr.	44.15	+	
		-	-	132kV Motanga - Rangia Fdr.	48.00	+	
		-	-	220kV Tsirang - Jigmeling	85.35	+	
		<b>Total</b>	<b>65.70</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.27</b>		

**Note: Load summary on July 13, 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	1,646.03	244.16	224.93	1,316.52	19.23
2	Eastern Grid	237.32	58.90	58.63	263.77	0.27
	<b>Total</b>	<b>1,883.35</b>	<b>303.06</b>	<b>283.56</b>	<b>1,580.29</b>	<b>19.50</b>

**Note: Load Summary on July 13, 2018 at 19:00hrs**

Sl. No	Region	19:00Hrs Load (MW)	Day Peak Load (MW)	Month Peak Load (MW)
1	Western Grid	223.14	228.85	280.97
2	Eastern Grid	36.16	37.17	57.66
	<b>National</b>	<b>259.30</b>	<b>266.02</b>	<b>338.63</b>

**NOTES:**

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

<b>Date:</b>	<b>July 14, 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	187.43	400kV THP - Siliguri Fdr- I	272.26	+	
		Unit- II	185.89	400kV THP - Siliguri Fdr- II	269.92	+	
		Unit- III	187.56	400kV THP - Siliguri Fdr- IV	262.83	+	
		Unit- IV	187.23	400kV THP - Malbase Fdr- III	298.19	+	
		Unit- V	186.70	400kV Malbase - Siliguri	249.05	+	
		Unit- VI	186.46	-	-	-	
		<b>Total</b>	<b>1,121.27</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>18.07</b>		
2	720MW MHP	Unit-I	168.80	400kV MHP - Jigmeling Fdr - I	175.50	+	
		Unit-II	181.00	400kV MHP - Jigmeling Fdr - II	172.50	+	
		Unit-III	0.00	400kV MHP - Jigmeling Fdr - III			
		Unit-IV	0.00	400kV MHP - Jigmeling Fdr - IV	0.00		
		-	-	200MVA, 400/132kV ICT			
		-	-	(Local Load)			
		<b>Total</b>	<b>349.80</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>1.80</b>		
3	336MW CHP	Unit- I	91.98	220kV CHP - Birpara Fdr- I	125.35	+	
		Unit- II	91.19	220kV CHP - Birpara Fdr- II	125.42	+	
		Unit- III	90.87	220kV CHP - Malbase Fdr- III	177.28	+	
		Unit- IV	92.06	220kV CHP - Semtokha Fdr- IV	-71.65	-	
		-	-	220kV Malbase - Birpara Fdr.	69.39	+	
		-	-	66kV CHP - Chumdo Fdr.	0.28	+	
		-	-	66kV CHP - Gedu Fdr.	7.75	+	
		<b>Total</b>	<b>366.10</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.83</b>		
4	24MW BHP (U/S)	Unit- I	11.82	220kV BHP - Semtokha Fdr.	94.41	+	
		Unit- II	11.82	66kV BHP - Lobeyasa Fdr.	17.18	+	
		<b>Total</b>	<b>23.64</b>	220kV BHP - Tsirang Fdr.	-46.41	-	
	40MW BHP (L/S)	Unit- I	20.54	5MVA, 66/11kV TFR	0.45	+	
		Unit- II	20.72	30MVA ICT, 220/66kV			
		<b>Total</b>	<b>41.26</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>-0.73</b>		
5	126MW DHPC	Unit-I	63.49	220kV DHPC - Tsirang Fdr.	126.25	+	
		Unit-II	63.35	220kV Jigmeling - Dagapela Fdr.			
		-	-	5MVA, 220/33kV TFR			
		<b>Total</b>	<b>126.84</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.59</b>		
6	60MW KHP	Unit- I	16.15	132kV KHP - Nangkhor Fdr- I	57.63	+	Note: Motanga Substation is bypassed through ERS tower.
		Unit-II	16.43	132kV KHP - Kilikhar Fdr- II	9.12	+	
		Unit- III	16.11	5MVA, 132/11kV TFR	0.40	+	
		Unit- IV	16.14	132kV Gelephu - Salakati Fdr.	53.35	+	
		-	-	132kV Motanga - Rangia Fdr.	40.60	+	
		-	-	220kV Tsirang - Jigmeling	75.94	+	
		<b>Total</b>	<b>64.83</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>-2.32</b>		

**Note: Load summary on July 14, 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	1,679.11	228.95	210.19	1,374.22	18.76
2	Eastern Grid	414.63	48.62	49.14	441.95	-0.52
	<b>Total</b>	<b>2,093.74</b>	<b>277.57</b>	<b>259.33</b>	<b>1,816.17</b>	<b>18.24</b>

**Note: Load Summary on July 14, 2018 at 09:00hrs**

Sl. No	Region	09:00Hrs Load (MW)	Day Peak Load (MW)	Month Peak Load (MW)
1	Western Grid	202.46	226.26	280.97
2	Eastern Grid	31.02	41.23	57.66
	<b>National</b>	<b>233.48</b>	<b>267.49</b>	<b>338.63</b>

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- 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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