

## LOAD-GENERATION BALANCE REPORT

Maximum Load/Demand till Date

<b>Date:</b>	<b>September 28, 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	188.00	400kV THP - Siliguri Fdr- I	246.01	+	
		Unit- II	119.79	400kV THP - Siliguri Fdr- II	244.34	+	
		Unit- III	187.16	400kV THP - Siliguri Fdr- IV	246.12	+	
		Unit- IV	187.28	400kV THP - Malbase Fdr- III	312.65	+	
		Unit- V	186.62	400kV Malbase - Siliguri	215.02	+	
		Unit- VI	186.61	-	-	-	
		<b>Total</b>	<b>1,055.46</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>6.34</b>		
2	720MW MHP	Unit-I	0.00	400kV MHP - Jigmeling Fdr - I	196.94	+	Unit-I & III under break down
		Unit-II	192.52	400kV MHP - Jigmeling Fdr - II	190.80	+	
		Unit-III	0.00	400kV MHP - Jigmeling Fdr - III	0.00		
		Unit-IV	195.05	400kV MHP - Jigmeling Fdr - IV	0.00		
		-	-	200MVA, 400/132kV ICT	0.00		
		-	-	(Local Load)	0.00		
		<b>Total</b>	<b>387.57</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>-0.17</b>		
2	336MW CHP	Unit- I	0.00	220kV CHP - Birpara Fdr- I	94.01	+	Unit-I under breakdown
		Unit- II	91.96	220kV CHP - Birpara Fdr- II	94.17	+	
		Unit- III	91.36	220kV CHP - Malbase Fdr- III	131.99	+	
		Unit- IV	91.98	220kV CHP - Semtokha Fdr- IV	-60.08	-	
		-	-	220kV Malbase - Birpara Fdr.	52.67	+	
		-	-	66kV CHP - Chumdo Fdr.	4.54	+	
		-	-	66kV CHP - Gedu Fdr.	8.14	+	
		-	-	3x3MVA, 66/11kV TFR	1.35	+	
		<b>Total</b>	<b>275.30</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>1.18</b>		
3	24MW BHP (U/S)	Unit- I	11.81	220kV BHP - Semtokha Fdr.	98.03	+	
		Unit- II	11.81	66kV BHP - Lobeyasa Fdr.	21.31	+	
		<b>Total</b>	<b>23.62</b>	220kV BHP - Tsirang Fdr.	-53.88	-	
	40MW BHP (L/S)	Unit- I	20.97	5MVA, 66/11kV TFR	0.63	+	
		Unit- II	20.16	30MVA ICT, 220/66kV			
<b>Total</b>	<b>41.13</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>1.34</b>				
4	126MW DHPC	Unit-I	50.39	220kV DHPC - Tsirang Fdr.	109.05	+	
		Unit-II	59.13	220kV Jigmeling - Dagapela Fdr.			
		-	-	5MVA, 220/33kV TFR			
		<b>Total</b>	<b>109.52</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.47</b>		
5	60MW KHP	Unit- I	16.62	132kV KHP - Nangkhor Fdr- I	57.68	+	To transfer 132kV line from ERS arrangement back to Motanga station
		Unit-II	16.70	132kV KHP - Kilikhar Fdr- II	7.89	+	
		Unit- III	16.56	5MVA, 132/11kV TFR	0.50	+	
		Unit- IV	16.49	132kV Gelephu - Salakati Fdr.	70.01	+	
		-	-	132kV Motanga - Rangia Fdr.	0.00		
		-	-	220kV Tsirang - Jigmeling	50.79	+	
		<b>Total</b>	<b>66.37</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.30</b>		

**Note: Load summary on September 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	1,505.03	261.90	255.25	1,192.34	6.65
2	Eastern Grid	453.94	46.98	46.85	457.75	0.13
	<b>Total</b>	<b>1,958.97</b>	<b>308.88</b>	<b>302.10</b>	<b>1,650.09</b>	<b>6.78</b>

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

Sl. No	Region	19:00Hrs Load (MW)	Day Peak Load (MW)	Month Peak Load (MW)
1	Western Grid	252.81	252.81	256.15
2	Eastern Grid	51.43	52.71	57.74
	<b>National</b>	<b>304.24</b>	<b>305.52</b>	<b>313.89</b>

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>September 29, 2019</b>
<b>Hours:</b>	<b>09:00 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	187.36	400kV THP - Siliguri Fdr- I	269.60	+	
		Unit- II	187.47	400kV THP - Siliguri Fdr- II	267.90	+	
		Unit- III	186.51	400kV THP - Siliguri Fdr- IV	260.55	+	
		Unit- IV	187.29	400kV THP - Malbase Fdr- III	306.25	+	
		Unit- V	187.29	400kV Malbase - Siliguri	245.21	+	
		Unit- VI	187.10	-	-	-	
		<b>Total</b>	<b>1,123.02</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>18.72</b>		
2	720MW MHP	Unit-I	72.70	400kV MHP - Jigmeling Fdr - I	235.90	+	Unit-III under breakdown.
		Unit-II	193.20	400kV MHP - Jigmeling Fdr - II	231.20	+	
		Unit-III	0.00	400kV MHP - Jigmeling Fdr - III	0.00		
		Unit-IV	195.90	400kV MHP - Jigmeling Fdr - IV	0.00		
		-	-	200MVA, 400/132kV ICT			
		-	-	(Local Load)			
		<b>Total</b>	<b>461.80</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>-5.30</b>		
3	336MW CHP	Unit- I	0.00	220kV CHP - Birpara Fdr- I	91.80	+	Unit-I under breakdown.
		Unit- II	90.62	220kV CHP - Birpara Fdr- II	91.79	+	
		Unit- III	91.80	220kV CHP - Malbase Fdr- III	152.41	+	
		Unit- IV	91.79	220kV CHP - Semtokha Fdr- IV	-73.01	-	
		-	-	220kV Malbase - Birpara Fdr.	33.07	+	
		-	-	66kV CHP - Chumdo Fdr.	1.25	+	
		-	-	66kV CHP - Gedu Fdr.	7.85	+	
		<b>Total</b>	<b>274.21</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>1.15</b>		
4	24MW BHP (U/S)	Unit- I	11.79	220kV BHP - Semtokha Fdr.	100.66	+	
		Unit- II	11.79	66kV BHP - Lobeyasa Fdr.	18.39	+	
		<b>Total</b>	<b>23.58</b>	220kV BHP - Tsirang Fdr.	-53.39	-	
	40MW BHP (L/S)	Unit- I	20.98	5MVA, 66/11kV TFR	0.41	+	
		Unit- II	20.20	30MVA ICT, 220/66kV			
		<b>Total</b>	<b>41.18</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>-1.31</b>		
5	126MW DHPC	Unit-I	63.51	220kV DHPC - Tsirang Fdr.	126.29	+	
		Unit-II	63.29	220kV Jigmeling - Dagapela Fdr.			
		-	-	5MVA, 220/33kV TFR			
		<b>Total</b>	<b>126.80</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.51</b>		
6	60MW KHP	Unit- I	16.43	132kV KHP - Nangkhor Fdr- I	59.97	+	
		Unit-II	16.61	132kV KHP - Kilikhar Fdr- II	5.45	+	
		Unit- III	16.49	5MVA, 132/11kV TFR	0.20	+	
		Unit- IV	16.53	132kV Gelephu - Salakati Fdr.	49.42	+	
		-	-	132kV Motanga - Rangia Fdr.	47.43	+	
		-	-	220kV Tsirang - Jigmeling	68.51	+	
		<b>Total</b>	<b>66.06</b>	<b>Error at Station/Auxiliary Consumption/Losses</b>	<b>0.44</b>		

Note: Load summary on September 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	1,588.79	260.36	241.29	1,259.92	19.07
2	Eastern Grid	527.86	32.42	37.28	563.95	-4.86
	<b>Total</b>	<b>2,116.65</b>	<b>292.78</b>	<b>278.57</b>	<b>1,823.87</b>	<b>14.21</b>

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

Sl. No	Region	09:00Hrs Load (MW)	Day Peak Load (MW)	Month Peak Load (MW)
1	Western Grid	220.16	237.33	256.15
2	Eastern Grid	42.80	48.52	57.74
	<b>National</b>	<b>262.96</b>	<b>285.85</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.
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