LOAD-GENERATION BALANCE REPORT

Maximum Load/Demand till Date		
Date	**Time**	**Load(MW)**
27-Dec-18	18:18hrs	399.35MW

Date:	**July 30, 2019**
Hours:	**19:00 Hours**

Sl. No.	Hydropower Plant	Unit	MW	Name of Feeders	Load (MW)	Sign	Remarks
1	**1020MW THP**	Unit- I	187.01	400kV THP - Siliguri Fdr- I	260.09	+	
		Unit- II	184.32	400kV THP - Siliguri Fdr- II	255.06	+	
		Unit- III	187.27	400kV THP - Siliguri Fdr- IV	252.44	+	
		Unit- IV	186.04	400kV THP - Malbase Fdr- III	345.63	+	
		Unit- V	187.41	400kV Malbase - Siliguri	221.00	+	
		Unit- VI	186.42	-	-	-	
		Total	**1,118.47**	**Error at Station/Auxiliary Consumption/Losses**	**5.25**		
2	**720MW MHP**	Unit-I	187.30	400kV MHP - Jigmeling Fdr - I	188.51	+	
		Unit-II	185.70	400kV MHP - Jigmeling Fdr - II	185.42	+	
		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		
		Total	**373.00**	**Error at Station/Auxiliary Consumption/Losses**	**-0.93**		
2	**336MW CHP**	Unit- I	91.48	220kV CHP - Birpara Fdr- I	111.60	+	
		Unit- II	91.73	220kV CHP - Birpara Fdr- II	111.81	+	
		Unit- III	91.77	220kV CHP - Malbase Fdr- III	141.95	+	
		Unit- IV	91.99	220kV CHP - Semtokha Fdr- IV	-13.92	-	
		-	-	220kV Malbase - Birpara Fdr.	74.09	+	
		-	-	66kV CHP - Chumdo Fdr.	3.62	+	
		-	-	66kV CHP - Gedu Fdr.	8.17	+	
		-	-	3x3MVA, 66/11kV TFR	1.30	+	
		Total	**366.97**	**Error at Station/Auxiliary Consumption/Losses**	**2.44**		
3	**24MW BHP (U/S)**	Unit- I	11.83	220kV BHP - Semtokha Fdr.	41.39	+	
		Unit- II	11.83	66kV BHP - Lobeysa Fdr.	18.23	+	
		Total	**23.66**	220kV BHP - Tsirang Fdr.	3.97	+	
	40MW BHP (L/S)	Unit- I	20.54	5MVA, 66/11kV TFR	0.70	+	
		Unit- II	20.57	30MVA ICT, 220/66kV			
		Total	**41.11**	**Error at Station/Auxiliary Consumption/Losses**	**0.48**		
4	**126MW DHPC**	Unit-I	43.06	220kV DHPC - Tsirang Fdr.	85.64	+	
		Unit-II	43.10	220kV Jigmeling - Dagapela Fdr.			
		-	-	5MVA, 220/33kV TFR			
		Total	**86.16**	**Error at Station/Auxiliary Consumption/Losses**	**0.52**		
5	**60MW KHP**	Unit- I	16.50	132kV KHP - Nangkhor Fdr- I	56.33	+	Motanga Substation is bypassed through ERS tower
		Unit-II	16.50	132kV KHP - Kilikhar Fdr- II	9.69	+	
		Unit- III	16.50	5MVA, 132/11kV TFR	0.59	+	
		Unit- IV	16.50	132kV Gelephu - Salakati Fdr.	40.64	+	
		-	-	132kV Motanga - Rangia Fdr.	50.93	+	
		-	-	220kV Tsirang - Jigmeling	87.02	+	
		Total	**66.00**	**Error at Station/Auxiliary Consumption/Losses**	**-0.61**		

Note: Load summary on July 30, 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**	1,636.37	263.26	254.57	1,286.09	8.69
2	**Eastern Grid**	439.00	60.52	62.06	465.50	-1.54
	Total	2,075.37	323.78	316.63	1,751.59	7.15

Note: Load Summary on July 30, 2018 at 19:00hrs

Sl. No	Region	19:00Hrs Load (MW)	Day Peak Load (MW)	Month Peak Load (MW)
1	**Western Grid**	218.07	227.20	280.97
2	**Eastern Grid**	48.38	48.38	57.66
	National	**266.45**	**275.58**	**338.63**

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	**Time**	**Load(MW)**
27-Dec-18	18:18hrs	399.35MW

Date:	**July 31, 2019**
Hours:	**09:00 Hours**

Sl. No.	Hydropower Plant	Unit	MW	Name of Feeders	Load (MW)	Sign	Remarks
1	**1020MW THP**	Unit- I	186.97	400kV THP - Siliguri Fdr- I	270.29	+	
		Unit- II	188.23	400kV THP - Siliguri Fdr- II	268.40	+	
		Unit- III	186.45	400kV THP - Siliguri Fdr- IV	265.38	+	
		Unit- IV	187.13	400kV THP - Malbase Fdr- III	314.04	+	
		Unit- V	187.71	400kV Malbase - Siliguri	239.62	+	
		Unit- VI	186.11	-	-	-	
		Total	**1,122.60**	**Error at Station/Auxiliary Consumption/Losses**	**4.49**		
2	**720MW MHP**	Unit-I	187.20	400kV MHP - Jigmeling Fdr - I	187.31	+	
		Unit-II	185.40	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)			
		Total	**372.60**	**Error at Station/Auxiliary Consumption/Losses**	**1.53**		
3	**336MW CHP**	Unit- I	91.48	220kV CHP - Birpara Fdr- I	113.73	+	
		Unit- II	91.73	220kV CHP - Birpara Fdr- II	113.69	+	
		Unit- III	91.77	220kV CHP - Malbase Fdr- III	166.21	+	
		Unit- IV	91.99	220kV CHP - Semtokha Fdr- IV	-37.59	-	
		-	-	220kV Malbase - Birpara Fdr.	58.91	+	
		-	-	66kV CHP - Chumdo Fdr.	0.88	+	
		-	-	66kV CHP - Gedu Fdr.	8.15	+	
		-	-	3x3MVA, 66/11kV TFR	0.79	+	
		Total	**366.97**	**Error at Station/Auxiliary Consumption/Losses**	**1.11**		
4	**24MW BHP (U/S)**	Unit- I	11.83	220kV BHP - Semtokha Fdr.	57.99	+	
		Unit- II	11.83	66kV BHP - Lobeysa Fdr.	15.91	+	
		Total	**23.66**	220kV BHP - Tsirang Fdr.	-10.18	-	
	40MW BHP (L/S)	Unit- I	20.54	5MVA, 66/11kV TFR	0.48	+	
		Unit- II	20.54	30MVA ICT, 220/66kV			
		Total	**41.08**	**Error at Station/Auxiliary Consumption/Losses**	**0.54**		
5	**126MW DHPC**	Unit-I	45.39	220kV DHPC - Tsirang Fdr.	90.16	+	
		Unit-II	45.21	220kV Jigmeling - Dagapela Fdr.			
		-	-	5MVA, 220/33kV TFR			
		Total	**90.60**	**Error at Station/Auxiliary Consumption/Losses**	**0.44**		
6	**60MW KHP**	Unit- I	16.50	132kV KHP - Nangkhor Fdr- I	60.09	+	Motanga Substation is bypassed through ERS tower.
		Unit-II	16.50	132kV KHP - Kilikhar Fdr- II	4.52	+	
		Unit- III	16.50	5MVA, 132/11kV TFR	0.03	+	
		Unit- IV	16.50	132kV Gelephu - Salakati Fdr.	38.94	+	
		-	-	132kV Motanga - Rangia Fdr.	49.95	+	
		-	-	220kV Tsirang - Jigmeling	77.45	+	
		Total	**66.00**	**Error at Station/Auxiliary Consumption/Losses**	**1.36**		

Note: Load summary on July 31, 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**	1,644.91	237.44	230.86	1,330.02	6.58
2	**Eastern Grid**	438.60	56.09	53.20	459.96	2.89
	Total	2,083.51	293.53	284.06	1,789.98	9.47

Note: Load Summary on July 31, 2018 at 09:00hrs

Sl. No	Region	09:00Hrs Load (MW)	Day Peak Load (MW)	Month Peak Load (MW)
1	**Western Grid**	183.36	239.75	280.97
2	**Eastern Grid**	42.76	49.96	57.66
	National	**226.12**	**289.71**	**338.63**

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.

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