LOAD-GENERATION BALANCE REPORT

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

Date:	**August 5, 2019**
Hours:	**19:00 Hours**

Sl. No.	Hydropower Plant	Unit	MW	Name of Feeders	Load (MW)	Sign	Remarks
1	**1020MW THP**	Unit- I	187.49	400kV THP - Siliguri Fdr- I	258.70	+	
		Unit- II	185.87	400kV THP - Siliguri Fdr- II	252.30	+	
		Unit- III	186.53	400kV THP - Siliguri Fdr- IV	246.82	+	
		Unit- IV	186.37	400kV THP - Malbase Fdr- III	348.90	+	
		Unit- V	187.39	400kV Malbase - Siliguri	219.18	+	
		Unit- VI	186.21	-	-	-	
		Total	**1,119.86**	**Error at Station/Auxiliary Consumption/Losses**	**13.14**		
2	**720MW MHP**	Unit-I	185.81	400kV MHP - Jigmeling Fdr - I	185.71	+	
		Unit-II	186.54	400kV MHP - Jigmeling Fdr - II	186.40	+	
		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	0.00		
		-	-	(Local Load)	0.00		
		Total	**372.35**	**Error at Station/Auxiliary Consumption/Losses**	**0.24**		
2	**336MW CHP**	Unit- I	91.42	220kV CHP - Birpara Fdr- I	91.49	+	Unit IV under shutdown
		Unit- II	91.48	220kV CHP - Birpara Fdr- II	91.40	+	
		Unit- III	91.55	220kV CHP - Malbase Fdr- III	111.56	+	
		Unit- IV	0.00	220kV CHP - Semtokha Fdr- IV	-33.45	-	
		-	-	220kV Malbase - Birpara Fdr.	64.88	+	
		-	-	66kV CHP - Chumdo Fdr.	3.40	+	
		-	-	66kV CHP - Gedu Fdr.	7.60	+	
		-	-	3x3MVA, 66/11kV TFR	1.15	+	
		Total	**274.45**	**Error at Station/Auxiliary Consumption/Losses**	**1.30**		
3	**24MW BHP (U/S)**	Unit- I	12.30	220kV BHP - Semtokha Fdr.	61.06	+	
		Unit- II	12.20	66kV BHP - Lobeysa Fdr.	17.60	+	
		Total	**24.50**	220kV BHP - Tsirang Fdr.	-14.02	-	
	40MW BHP (L/S)	Unit- I	20.60	5MVA, 66/11kV TFR	0.92	+	
		Unit- II	21.00	30MVA ICT, 220/66kV			
		Total	**41.60**	**Error at Station/Auxiliary Consumption/Losses**	**0.54**		
4	**126MW DHPC**	Unit-I	52.08	220kV DHPC - Tsirang Fdr.	103.73	+	
		Unit-II	52.15	220kV Jigmeling - Dagapela Fdr.			
		-	-	5MVA, 220/33kV TFR			
		Total	**104.23**	**Error at Station/Auxiliary Consumption/Losses**	**0.50**		
5	**60MW KHP**	Unit- I	16.50	132kV KHP - Nangkhor Fdr- I	56.56	+	Motanga Substation is bypassed through ERS tower
		Unit-II	16.22	132kV KHP - Kilikhar Fdr- II	8.57	+	
		Unit- III	16.27	5MVA, 132/11kV TFR	0.30	+	
		Unit- IV	16.50	132kV Gelephu - Salakati Fdr.	41.88	+	
		-	-	132kV Motanga - Rangia Fdr.	58.26	+	
		-	-	220kV Tsirang - Jigmeling	88.16	+	
		Total	**65.49**	**Error at Station/Auxiliary Consumption/Losses**	**0.06**		

Note: Load summary on August 05, 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**	1,564.64	251.71	236.23	1,224.77	15.48
2	**Eastern Grid**	437.84	53.75	53.45	472.25	0.30
	Total	2,002.48	305.46	289.68	1,697.02	15.78

Note: Load Summary on August 05, 2018 at 19:00hrs

Sl. No	Region	19:00Hrs Load (MW)	Day Peak Load (MW)	Month Peak Load (MW)
1	**Western Grid**	245.92	249.50	259.44
2	**Eastern Grid**	52.03	52.03	55.98
	National	**297.95**	**301.53**	**315.42**

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:	**August 6, 2019**
Hours:	**09:00 Hours**

Sl. No.	Hydropower Plant	Unit	MW	Name of Feeders	Load (MW)	Sign	Remarks
1	**1020MW THP**	Unit- I	187.45	400kV THP - Siliguri Fdr- I	264.80	+	
		Unit- II	185.06	400kV THP - Siliguri Fdr- II	262.30	+	
		Unit- III	186.92	400kV THP - Siliguri Fdr- IV	254.90	+	
		Unit- IV	186.05	400kV THP - Malbase Fdr- III	328.70	+	
		Unit- V	187.13	400kV Malbase - Siliguri	230.35	+	
		Unit- VI	186.41	-	-	-	
		Total	**1,119.02**	**Error at Station/Auxiliary Consumption/Losses**	**8.32**		
2	**720MW MHP**	Unit-I	186.30	400kV MHP - Jigmeling Fdr - I	185.50	+	
		Unit-II	185.20	400kV MHP - Jigmeling Fdr - II	186.40	+	
		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	**371.50**	**Error at Station/Auxiliary Consumption/Losses**	**-0.40**		
3	**336MW CHP**	Unit- I	91.64	220kV CHP - Birpara Fdr- I	92.24	+	Unit IV under shutdown
		Unit- II	91.48	220kV CHP - Birpara Fdr- II	92.19	+	
		Unit- III	91.55	220kV CHP - Malbase Fdr- III	131.49	+	
		Unit- IV	0.00	220kV CHP - Semtokha Fdr- IV	-51.23	-	
		-	-	220kV Malbase - Birpara Fdr.	50.75	+	
		-	-	66kV CHP - Chumdo Fdr.	0.16	-	
		-	-	66kV CHP - Gedu Fdr.	8.54	+	
		-	-	3x3MVA, 66/11kV TFR	0.69	+	
		Total	**274.67**	**Error at Station/Auxiliary Consumption/Losses**	**0.59**		
4	**24MW BHP (U/S)**	Unit- I	12.30	220kV BHP - Semtokha Fdr.	70.04	+	
		Unit- II	12.20	66kV BHP - Lobeysa Fdr.	16.36	+	
		Total	**24.50**	220kV BHP - Tsirang Fdr.	-21.57	-	
	40MW BHP (L/S)	Unit- I	20.70	5MVA, 66/11kV TFR	0.36	+	
		Unit- II	20.30	30MVA ICT, 220/66kV			
		Total	**41.00**	**Error at Station/Auxiliary Consumption/Losses**	**0.31**		
5	**126MW DHPC**	Unit-I	48.38	220kV DHPC - Tsirang Fdr.	96.10	+	
		Unit-II	48.16	220kV Jigmeling - Dagapela Fdr.			
		-	-	5MVA, 220/33kV TFR			
		Total	**96.54**	**Error at Station/Auxiliary Consumption/Losses**	**0.44**		
6	**60MW KHP**	Unit- I	16.50	132kV KHP - Nangkhor Fdr- I	60.80	+	Motanga Substation is bypassed through ERS tower.
		Unit-II	16.50	132kV KHP - Kilikhar Fdr- II	3.31	+	
		Unit- III	16.30	5MVA, 132/11kV TFR	0.34	+	
		Unit- IV	16.01	132kV Gelephu - Salakati Fdr.	33.75	+	
		-	-	132kV Motanga - Rangia Fdr.	59.10	+	
		-	-	220kV Tsirang - Jigmeling	72.82	+	
		Total	**65.31**	**Error at Station/Auxiliary Consumption/Losses**	**0.86**		

Note: Load summary on August 06, 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**	1,555.73	235.38	225.72	1,247.53	9.66
2	**Eastern Grid**	436.81	44.88	44.42	464.75	0.46
	Total	1,992.54	280.26	270.14	1,712.28	10.12

Note: Load Summary on August 06, 2018 at 09:00hrs

Sl. No	Region	09:00Hrs Load (MW)	Day Peak Load (MW)	Month Peak Load (MW)
1	**Western Grid**	232.95	245.71	259.44
2	**Eastern Grid**	36.81	50.57	55.98
	National	**269.76**	**296.28**	**315.42**

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.