BHUTAN POWER SYSTEM OPERATOR LOAD-GENERATION BALANCE REPORT

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

Date:	**May 2, 2021**
Hours:	**09:00 Hours**

Sl. No.	Hydropower Plant	Unit	MW	Transmission Lines and Elements	Load (MW)	Sign	Remarks
1	**1020MW THP**	Unit- I	120.20	400kV THP - Siliguri Line - I	65.58	+	Unit-II & VI on standby. Unit-III & IV under AMP. 400kV THP_SIL Line II & IV on Standby.
		Unit- II	0.00	400kV THP - Siliguri Line - II	0.00		
		Unit- III	0.00	400kV THP - Siliguri Line- IV	0.00		
		Unit- IV	0.00	400kV THP - Malbase Line - III	127.97	+	
		Unit- V	80.41	400kV Malbase - Siliguri Line	51.01	+	
		Unit- VI	0.00	-	-	-	
		Total	**200.61**	**Error at Station/Auxiliary Consumption/Losses**	**3.519%**		
2	**720MW MHP**	Unit-I	0.00	400kV MHP - Jigmeling Line - I	77.21		Unit-I under AMP. Unit -III under breakdown. 400kV MHP_JLG Line II & III on standby. 132kV MHP_Yurmoo line I & II not in service. 400kV JLG_ALI line II on standby.
		Unit-II	60.19	400kV MHP - Jigmeling Line - II	0.00		
		Unit-III	0.00	400kV MHP - Jigmeling Line - III	0.00		
		Unit-IV	96.15	400kV MHP - Jigmeling Line - IV	77.69	+	
		-	-	132kV MHP - Yurmo Line - I	0.00		
		-	-	132kV MHP - Yurmo Line - II	0.00		
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	29.45		
		-	-	400kV Jigmeling - Alipurduar Line - I	123.90	+	
		-	-	400kV Jigmeling - Alipurduar Line - II	0.00		
		-	-	80MVA, 220/132kV ICT - I (HV)	20.10	+	
		-	-	80MVA, 220/132kV ICT - II (HV)	20.00	+	
				220kV Tsirang - Jigmeling Line	12.30	+	
				132kV Gelephu - Salakati Line	7.60	-	
		Total	**156.34**	**Error at Station/Auxiliary Consumption/Losses**	**0.921%**		
3	**336MW CHP**	Unit- I	48.00	220kV CHP - Birpara Line- I	1.00	+	Unit-II on standby. Unit-IV under AMP. 220kV CHP_BIR line II on standby.
		Unit- II	0.00	220kV CHP - Birpara Line- II	0.00		
		Unit- III	43.00	220kV CHP - Malbase Line- III	40.90	+	
		Unit- IV	0.00	220kV CHP - Semtokha Line- IV	35.40	+	
		-	-	220kV Malbase - Birpara Line	-32.96	-	
		-	-	66kV CHP - Chumdo Line	9.10	+	
		-	-	66kV CHP - Gedu Line	2.70	+	
		-	-	3x3MVA, 66/11kV TFR	1.02	+	
		Total	**91.00**	**Error at Station/Auxiliary Consumption/Losses**	**0.967%**		
4	**24MW BHP (U/S)**	Unit- I	0.00	220kV BHP - Semtokha Line	2.41	+	U/S Unit-I & L/S Unit-II on standby 220kV BHP_Tsirang line under shutdown
		Unit- II	4.20	66kV BHP - Lobeysa Line	10.00	+	
		Total	**4.20**	220kV BHP - Tsirang Line	0.00		
	40MW BHP (L/S)	Unit- I	8.90	5MVA, 66/11kV TFR	0.88	+	
		Unit- II	0.00	30MVA ICT, 220/66kV (HV)	6.56	+	
		Total	**8.90**	**Error at Station/Auxiliary Consumption/Losses**	**-1.450%**		
5	**126MW DHP**	Unit-I	0.00	220kV DHP - Tsirang Line	13.81	+	Unit-I on standby. 220kV DHP_Dagapela Line on standby.
		Unit-II	14.02	220kV DHP - Dagapela Line	0.00	+	
		-	-	220kV Jigmeling - Dagapela Line	1.00	+	
		-	-	5MVA, 220/33kV TFR	0.20	+	
		Total	**14.02**	**Error at Station/Auxiliary Consumption/Losses**	**0.071%**		
6	**60MW KHP**	Unit- I	15.04	132kV KHP - Nangkhor Line	24.21	+	Unit-III & IV standby.
		Unit-II	15.14	132kV KHP - Kilikhar Line	5.25	+	
		Unit- III	0.00	5MVA, 132/11kV TFR	0.34	+	
		Unit- IV	0.00	132kV Motanga - Rangia Line	9.75	+	
		Total	**30.18**	**Error at Station/Auxiliary Consumption/Losses**	**1.259%**		

Note: Generation-Load Summary (MW) for May 02, 2021 at 09:00hrs.

Sl. No	Region	Total Generation (MW)	Total Load [Generation - Export (MW)]	Total Load [Feeder Summation (MW)]	Total Export/Import (MW)	Load Balance (MW)
1	**Western Grid**	318.73	221.80	215.04	84.63	6.76
2	**Eastern Grid**	186.52	57.57	55.75	141.25	1.82
Total		**505.25**	**279.37**	**270.79**	**225.88**	**8.58**

Note: Generation-Load Summary for May 02, 2020 at 09:00hrs.

Sl. No	Region	Total Generation (MW)	Total Load [Generation - Export (MW)]	Total Load [Feeder Summation (MW)]	Total Export/Import (MW)	Load Balance (MW)
1	**Western Grid**	592.10	239.08	230.24	334.10	8.84
2	**Eastern Grid**	66.30	53.85	53.67	31.37	0.18
Total		**658.40**	**292.93**	**283.91**	**365.47**	**9.02**

NOTE-Western data 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.