

BHUTAN POWER SYSTEM OPERATOR LOAD-GENERATION BALANCE REPORT

Maximum Load/Demand till Date

Date:	May 13, 2021
Hours:	09:00 Hours

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

Sl. No.	Hydropower Plant	Unit	MW	Transmission Lines and Elements	Load (MW)	Sign	Remarks
1	1020MW THP	Unit- I	0.00	400kV THP - Siliguri Line - I	281.60	+	Unit-I & III under AMP. 400kV THP_SIL Line II & IV on Standby.
		Unit- II	179.73	400kV THP - Siliguri Line - II	0.00	-	
		Unit- III	0.00	400kV THP - Siliguri Line- IV	0.00	-	
		Unit- IV	178.24	400kV THP - Malbase Line - III	312.19	+	
		Unit- V	67.68	400kV Malbase - Siliguri Line	255.17	+	
		Unit- VI	178.36	-	-	-	
		Total	604.01	Error at Station/Auxiliary Consumption/Losses		1.692%	
2	720MW MHP	Unit-I	150.18	400kV MHP - Jigmeling Line - I	0.00	-	Unit -III under breakdown. 400kV MHP-JLG Line I & III on standby. 132kV MHP_Yurmoo line I & II not in service. 400/220kV ICT at JLG not in service. 400kV JLG_ALI line II on standby.
		Unit-II	70.17	400kV MHP - Jigmeling Line - II	189.19	+	
		Unit-III	0.00	400kV MHP - Jigmeling Line - III	0.00	-	
		Unit-IV	160.61	400kV MHP - Jigmeling Line - IV	189.82	+	
		-	-	132kV MHP - Yurmo Line - I	0.00	-	
		-	-	132kV MHP - Yurmo Line - II	0.00	-	
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	0.00	-	
		-	-	400kV Jigmeling - Alipurduar Line - I	364.01	+	
		-	-	400kV Jigmeling - Alipurduar Line - II	0.00	-	
		-	-	80MVA, 220/132kV ICT - I (HV)	12.14	+	
		-	-	80MVA, 220/132kV ICT - II (HV)	12.14	+	
		-	-	220kV Tsirang - Jigmeling Line	25.19	+	
		-	-	132kV Gelephu - Salakati Line	8.40	+	
Total	380.96	Error at Station/Auxiliary Consumption/Losses		0.512%			
3	336MW CHP	Unit- I	77.71	220kV CHP - Birpara Line- I	60.77	+	Unit- II on standby.
		Unit- II	0.00	220kV CHP - Birpara Line- II	60.60	+	
		Unit- III	79.27	220kV CHP - Malbase Line- III	100.46	+	
		Unit- IV	76.36	220kV CHP - Semtokha Line- IV	-6.83	-	
		-	-	220kV Malbase - Birpara Line	21.73	-	
		-	-	66kV CHP - Chumdo Line	12.96	+	
		-	-	66kV CHP - Gedu Line	3.77	+	
		-	-	3x3MVA, 66/11kV TFR	0.90	+	
Total	233.34	Error at Station/Auxiliary Consumption/Losses		0.304%			
4	24MW BHP (U/S)	Unit- I	7.00	220kV BHP - Semtokha Line	36.53	+	
		Unit- II	6.80	66kV BHP - Lobeyasa Line	7.30	+	
		Total	13.80	220kV BHP - Tsirang Line	-5.75	-	
	40MW BHP (L/S)	Unit- I	12.00	5MVA, 66/11kV TFR	0.87	+	
		Unit- II	13.20	30MVA ICT, 220/66kV (HV)	5.59	-	
Total	25.20	Error at Station/Auxiliary Consumption/Losses		0.128%			
5	126MW DHP	Unit-I	33.11	220kV DHP - Tsirang Line	32.98	+	Unit-II on standby. 220kV DHP_Dagapela Line on standby.
		Unit-II	0.00	220kV DHP - Dagapela Line	0.00	-	
		-	-	220kV Jigmeling - Dagapela Line	0.82	+	
		-	-	5MVA, 220/33kV TFR	0.20	+	
		Total	33.11	Error at Station/Auxiliary Consumption/Losses		-0.211%	
6	60MW KHP	Unit- I	16.50	132kV KHP - Nangkhor Line	42.96	+	
		Unit-II	16.50	132kV KHP - Kilikhar Line	21.97	+	
		Unit- III	16.50	5MVA, 132/11kV TFR	0.31	+	
		Unit- IV	16.50	132kV Motanga - Rangia Line	39.55	+	
		Total	66.00	Error at Station/Auxiliary Consumption/Losses		1.152%	

Note: Generation-Load Summary (MW) for May 13, 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	909.46	204.40	194.31	679.87	10.09
2	Eastern Grid	446.96	60.19	57.48	411.96	2.71
Total		1,356.42	264.59	251.79	1,091.83	12.80

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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	496.01	213.98	206.73	248.17	7.25
2	Eastern Grid	231.00	65.15	62.63	199.71	2.52
Total		727.01	279.13	269.36	447.88	9.77

NOTE-BHP,KHP,MAT,GEL,JLG & MHP data collected site

- 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.
 - The clocks of all the locations are not synchronized.
- This report is generated to give an idea of the generation & load flow for the system at a particular instant.