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Ministry of Energy and Natural Resources
Royal Government of Bhutan
Office of the Bhutan Power System Operator
Thimphu: Bhutan



THE DAILY BHUTAN POWER SYSTEM OPERATOR LOAD-GENERATION BALANCE REPORT & ENERGY FIGURES ISSUED ON 14-May-2025(-ve:import, +ve:export)						
Report Details		Date	Time	National Coincidental Peak Load (MW)		
		May 13, 2025	9:00 AM			
				25-Dec-24		
				18:38:16		
				1026.44		
Sl. No.	Hydropower Plant	Unit	MW	Transmission Lines and Elements	Load (MW)	Remarks
1	6 x 170MW THP	Unit- I	0.00	400kV THP - Siliguri Line - I	174.00	Unit-I, II & III under shutdown for Penstock Cleaning. 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	185.91	400kV THP - Malbase Line - III	382.77	
		Unit- V	185.23	400kV Malbase - Siliguri Line	116.12	
		Unit- VI	185.94	-	-	
		Total	557.08	Auxiliary Consumption & Transformation Losses at Generator end	0.06%	
2	4 x 180MW MHP	Unit-I	71.79	400kV MHP - Jigmeling Line - I	0.00	Unit-II under Shutdown. 400kV MHP-JLG line-I & II on Standby. 132kV MHP_Yumoo Line- I not in Service.
		Unit-II	0.00	400kV MHP - Jigmeling Line - II	0.00	
		Unit-III	135.50	400kV MHP - Jigmeling Line - III	122.15	
		Unit-IV	70.04	400kV MHP - Jigmeling Line - IV	121.34	
		-	-	132kV MHP - Yurno Line - I	0.00	
		-	-	132kV MHP - Yurno Line - II	60.83	
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	154.55	
		-	-	400kV Jigmeling - Alipurduar Line - I : direct lines	214.55	
		-	-	400kV Jigmeling - Alipurduar Line - II :	213.09	
		-	-	80MVA, 220/132kV ICT - I (HV)	-29.20	
		-	-	80MVA, 220/132kV ICT - II (HV)	-28.94	
		-	-	220kV Tsirang - Jigmeling Line	-118.15	
		-	-	132kV Gelephu - Salakati Line	0.93	
		Total	277.33	Auxiliary Consumption & Transformation Losses at Generator end	0.30%	
3	6 x 170MW PHP-II	Unit- I	160.23	400kV PHP II - Jigmeling -I	339.90	400kV PHP-II -Jigmeling Line-II under shutdown.
		Unit- II	180.00	400kV PHP II - Jigmeling -II	0.00	
		Unit- III	0.00	400kV PHP II - Alipurduar -I	0.00	
		Unit- IV	0.00	400kV PHP II - Alipurduar -II	0.00	
		Unit- V	0.00	-	-	
		Unit- VI	0.00	-	-	
		Total	340.23	Auxiliary Consumption & Transformation Losses at Generator end	0.10%	
4	4 x 84MW CHP	Unit- I	88.43	220kV CHP - Birpara Line - I	-11.30	Unit-IV under Shutdown.
		Unit- II	88.12	220kV CHP - Birpara Line - II	-11.10	
		Unit- III	87.68	220kV CHP - Gedu	65.84	
		Unit- IV	0.00	220kV CHP - Jamjee (old) - I	71.48	
		-	-	220kV CHP - Jamjee - II (new)	71.01	
		-	-	220kV CHP - Jamjee - III (new)	68.37	
		-	-	220kV Malbase - Birpara Line	-25.15	
		-	-	66kV CHP - Gedu Line	9.35	
		-	-	3x3MVA, 66/11kV TFR	1.31	
		Total	264.23	Auxiliary Consumption & Transformation Losses at Generator end	-0.28%	
5	2 x 12MW BHP (U/S)	Unit- I	6.60	220kV BHP - Semtokha Line	101.20	L/S Unit- I on Standby.
		Unit- II	6.76	66kV BHP - Lobeyza Line	24.78	
		Total	13.36	220kV BHP - Tsirang Line	-83.95	
6	2 x 20MW BHP (L/S)	Unit- I	14.82	5MVA, 66/11kV TFR	0.40	
		Unit- II	14.26	30MVA ICT, 220/66kV (HV)	12.20	
		Total	29.08	Auxiliary Consumption & Transformation Losses at Generator end	0.02%	
7	2 x 63MW DHP	Unit-I	37.09	220kV DHP - Tsirang Line	0.00	DHP- Tsirang line kept on idle charge. Unit-II is on standby.
		Unit-II	0.00	220kV DHP - Dagapela Line	36.50	
		-	-	220kV Jigmeling - Dagapela Line	11.45	
		-	-	5MVA, 220/33kV TFR	0.20	
		Total	37.09	Auxiliary Consumption & Transformation Losses at Generator end	1.05%	
8	4 x 15MW KHP	Unit- I	15.17	132kV KHP - Nangkhor Line	27.94	Unit II on standby.
		Unit-II	0.00	132kV KHP - Kilikhar Line	16.92	
		Unit- III	15.25	5MVA, 132/11kV TFR	0.31	
		Unit- IV	15.09	132kV Motanga - Rangia Line	12.89	
		Total	45.51	Auxiliary Consumption & Transformation Losses at Generator end	0.75%	
9	2 x 59MW NHP	Unit-I	0.00	132kV NHP-MHP-I	27.83	Unit-I under Shutdown. 132kV NHP-MHP line-II on Standby.
		Unit-II	28.04	132kV NHP-MHP-II	0.00	
		Total	28.04	Auxiliary Consumption & Transformation Losses at Generator end	0.75%	
10	2 x 9MW SHP	Unit- I	5.58	66kV SHP-Damdhum (Samtse)	0.00	Unit II under Shutdown. Interim measure: evacuation is through 33kV system.
		Unit- II	0.00	-	-	
		Total	5.58	Auxiliary Consumption & Transformation Losses at Generator end	100.00%	

Note: Generation-Load Summary (MW) for 13-May-25 at 09:00 hrs

Sl. No.	Region	Total Generation	Total Domestic Load (Total Generation - Total Export)	Total Export(+ve)/ Import(-ve)
1	Both Eastern & Western (Whole Bhutan)	1,597.53	913.50	684.03

Note: Generation-Load Summary (MW) for 13-May-24 at 09:00 hrs

Sl. No.	Region	Total Generation	Total Domestic Load (Total Generation - Total Export)	Total Export(+ve)/ Import(-ve)
1	Both Eastern & Western (Whole Bhutan)	598.31	882.65	-283.94

THE DAILY BHUTAN POWER SYSTEM OPERATOR LOAD-GENERATION BALANCE REPORT & ENERGY FIGURES ISSUED ON 14-May-2025(-ve:import, +ve:export)						
Report	Date	Time	National Coincidental Peak Load (MW)		Date	Time
Details	May 13, 2025	19:00:00			25-Dec-2024	18:36
						1026.44
Sl. No.	Hydropower Plant	Unit	MW	Transmission Lines and Elements	Load (MW)	Remarks
1	6 x 170MW THP	Unit- I	0.00	400kV THP - Siliguri Line - I	170.99	Unit-I, II & III under shutdown for Penstock Cleaning. 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	185.26	400kV THP - Malbase Line - III	386.87	
		Unit- V	185.46	400kV Malbase - Siliguri Line	108.84	
		Unit- VI	186.05	-	-	
		Total	556.77	Auxiliary Consumption & Transformation Losses at Generator end	-0.20%	
2	4 x 180MW MHP	Unit-I	160.00	400kV MHP - Jigmeling Line - I	0.00	Unit-II under Shutdown. 400kV MHP-JLG line-I &II on Standby. 132kV MHP_Yurmoo Line- I not in Service.
		Unit-II	0.00	400kV MHP - Jigmeling Line - II	0.00	
		Unit-III	160.66	400kV MHP - Jigmeling Line - III	243.62	
		Unit-IV	160.73	400kV MHP - Jigmeling Line - IV	241.59	
		-	-	132kV MHP - Yurmo Line - I	61.61	
		-	-	132kV MHP - Yurmo Line - II	0.00	
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	218.91	
		-	-	400kV Jigmeling - Alipurduar Line - I ; direct lines	404.27	
		-	-	400kV Jigmeling - Alipurduar Line - II ; direct lines	403.88	
		-	-	80MVA, 220/132kV ICT - I (HV)	-42.73	
		-	-	80MVA, 220/132kV ICT - II (HV)	-42.38	
		-	-	220kV Tsirang - Jigmeling Line	-118.15	
		-	-	132kV Gelephu - Salakati Line	4.84	
		Total	481.39	Auxiliary Consumption & Transformation Losses at Generator end	-0.40%	
3	6 x 170MW PHP-II	Unit- I	170.00	400kV PHP II - Jigmeling -I	499.00	400kV PHP-II - Jigmeling Line-II under shutdown.
		Unit- II	170.00	400kV PHP II - Jigmeling -II	0.00	
		Unit- III	160.00	400kV PHP II - Alipurduar -I	0.00	
		Unit- IV	0.00	400kV PHP II - Alipurduar -II	0.00	
		Unit- V	0.00	-	-	
		Unit- VI	0.00	-	-	
		Total	500.00	Auxiliary Consumption & Transformation Losses at Generator end	0.20%	
4	4 x 84MW CHP	Unit- I	87.93	220kV CHP - Birpara Line - I	-7.23	Unit-IV under Shutdown.
		Unit- II	88.03	220kV CHP - Birpara Line - II	-7.21	
		Unit- III	88.55	220kV CHP - Gedu	65.87	
		Unit- IV	0.00	220kV CHP - Jamjee - I	67.72	
		-	-	220kV CHP - Jamjee - II	66.87	
		-	-	220kV CHP - Jamjee - III	65.05	
		-	-	220kV Malbase - Birpara Line	-20.13	
		-	-	66kV CHP - Gedu Line	10.26	
		-	-	3x3MVA, 66/11kV TFR	1.59	
		Total	264.51	Auxiliary Consumption & Transformation Losses at Generator end	0.60%	
5	2 x 12MW BHP (U/S)	Unit- I	4.57	220kV BHP - Semtokha Line	127.85	L/S Unit-I on standby
		Unit- II	4.48	66kV BHP - Lobeysa Line	26.73	
		Total	9.05	220kV BHP - Tsirang Line	-126.09	
		-	-	5MVA, 66/11kV TFR	0.59	
6	2 x 20MW BHP (L/S)	Unit- I	9.89	30MVA ICT, 220/66kV (HV)	18.66	
		Unit- II	9.53	-	-	
		Total	19.42	Auxiliary Consumption & Transformation Losses at Generator end	-2.14%	
		-	-	-	-	
7	2 x 63MW DHP	Unit-I	48.36	220kV DHP - Tsirang Line	0.00	Unit-II on Standby. 220kV DHP-TSI line kept on idle charge.
		Unit-II	0.00	220kV DHP - Dagapela Line	48.09	
		-	-	220kV Jigmeling - Dagapela Line	0.52	
		-	-	5MVA, 220/33kV TFR	0.07	
		Total	48.36	Auxiliary Consumption & Transformation Losses at Generator end	0.41%	
8	4 x 15MW KHP	Unit- I	15.12	132kV KHP - Nangkhon Line	24.87	Unit- II on Standby.
		Unit-II	0.00	132kV KHP - Kilikhar Line	19.75	
		Unit- III	15.19	5MVA, 132/11kV TFR	0.33	
		Unit- IV	15.13	132kV Motanga - Rangia Line	21.97	
		Total	45.44	Auxiliary Consumption & Transformation Losses at Generator end	1.08%	
9	2 x 59MW NHP	Unit-I	0.00	132kV NHP-MHP-I	63.52	Unit-I under Shutdown. 132kV NHP-MHP line-II on Standby.
		Unit-II	63.93	132kV NHP-MHP-II	0.00	
		Total	63.93	Auxiliary Consumption & Transformation Losses at Generator end	0.64%	
10	2 x 9MW SHP	Unit- I	7.13	66kV SHP-Damdhum (Samtse)	0.00	Unit-2 under shutdown Interim measure: evacuation is through 33kV system.
		Unit- II	0.00	-	-	
		Total	7.13	Auxiliary Consumption & Transformation Losses at Generator end	100.00%	

Note: Generation-Load Summary (MW) for 13-May-2025 at 19:00 hrs

Sl. No.	Region	Total Generation	Total Domestic Load (Total Generation - Total Export)	Total Export(+ve)/ Import(-ve)
1	Both Eastern & Western (Whole Bhutan)	1,996.00	915.78	1,080.22

Note: Generation-Load Summary (MW) for 13-May-2024, at 19:00 hrs

Sl. No.	Region	Total Generation	Total Domestic Load (Total Generation - Total Export)	Total Export(+ve)/ Import(-ve)
1	Both Eastern & Western (Whole Bhutan)	963.39	921.28	42.11

Note: Daily Energy (MUs) and Power(MW) Statistics for 13-May-2025

Sl. No.	Total Energy Generation	Daily Energy Met	Net Energy Import (IEX and Solar)	Net Energy Export	Peak Cross-border (MW)
1	42.04	21.51	0.00	20.23	1,205.82

- The Instantaneous load balance,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 now 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.
- This report, compiled using the SCADA data, is prepared to give an overall idea of the generation & load flow for the system at a particular instant. This report also gives energy and import/export figures.
- When SCADA data are unavailable for certain stations due to technical issues, required data are collected from the site.