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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 15-May-2025(-ve:import, +ve:export)

Report Details	Date	Time		National Coincidental Peak Load (MW)		Date	Time	Load
	May 14, 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		107.29		Unit-I & II 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	89.27	400kV THP - Siliguri Line- IV		0.00		
		Unit-IV	129.65	400kV THP - Malbase Line - III		312.78		
		Unit-V	133.71	400kV Malbase - Siliguri Line		35.63		
		Unit-VI	66.36			-		
		Total	418.99	Auxiliary Consumption & Transformation Losses at Generator end		-0.26%		
2	4 x 180MW MHP	Unit-I	198.45	400kV MHP - Jigmeling Line - I		0.00		Unit-III tripped @00.41hrs. Unit-IV tripped @8:49hrs. 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	0.00	400kV MHP - Jigmeling Line - III		81.58		
		Unit-IV	0.00	400kV MHP - Jigmeling Line - IV		81.18		
		-	-	132kV MHP - Yurmoo Line - I		0.00		
		-	-	132kV MHP - Yurmoo Line - II		114.20		
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)		167.27		
		-	-	400kV Jigmeling - Alipurduar Line - I		240.73		
		-	-	400kV Jigmeling - Alipurduar Line - II		240.00		
		-	-	80MVA, 220/132kV ICT - I (HV)		-16.39		
		-	-	80MVA, 220/132kV ICT - II (HV)		-16.21		
		-	-	220kV Tsirang - Jigmeling Line		-118.15		
		-	-	132kV Gelephu - Salakati Line		13.30		
		Total	198.45	Auxiliary Consumption & Transformation Losses at Generator end		-7.50%		
		3	6 x 170MW PHP-II	Unit- I	170.00	400kV PHP II - Jigmeling -I		
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		0.16%		
4	4 x 84MW CHP	Unit- I	49.64	220kV CHP - Birpara Line - I		-30.53		Unit-IV under Shutdown.
		Unit- II	79.10	220kV CHP - Birpara Line - II		-30.00		
		Unit- III	69.63	220kV CHP - Gedu		44.69		
		Unit- IV	0.00	220kV CHP - Jamjee (old) - I		70.02		
		-	-	220kV CHP - Jamjee - II (new)		69.12		
		-	-	220kV CHP - Jamjee - III (new)		66.75		
		-	-	220kV Malbase - Birpara Line		-47.20		
		-	-	66kV CHP - Gedu Line		7.73		
		-	-	3x3MVA, 66/11kV TFR		1.27		
		Total	198.37	Auxiliary Consumption & Transformation Losses at Generator end		-0.34%		
5	2 x 12MW BHP (U/S)	Unit- I	3.00	220kV BHP - Semtokha Line		109.20		
		Unit- II	3.56	66kV BHP - Lobeysa Line		23.78		
		Total	6.64	220kV BHP - Tsirang Line		-112.30		
6	2 x 20MW BHP (L/S)	Unit- I	7.47	5MVA, 66/11kV TFR		0.42		
		Unit- II	7.20	30MVA ICT, 220/66kV (HV)		17.87		
		Total	14.67	Auxiliary Consumption & Transformation Losses at Generator end		0.99%		
7	2 x 63MW DHP	Unit-I	28.75	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		28.30		
		-	-	220kV Jigmeling - Dagapela Line		20.00		
		-	-	5MVA, 220/33kV TFR		0.20		
		Total	28.75	Auxiliary Consumption & Transformation Losses at Generator end		0.87%		
8	4 x 15MW KHP	Unit- I	16.48	132kV KHP - Nangkhor Line		42.81		
		Unit-II	16.51	132kV KHP - Kilikhar Line		22.56		
		Unit- III	16.56	5MVA, 132/11kV TFR		0.25		
		Unit- IV	16.65	132kV Motanga - Rangia Line		40.52		
		Total	66.20	Auxiliary Consumption & Transformation Losses at Generator end		0.88%		
9	2 x 59MW NHP	Unit-I	0.00	132kV NHP-MHP-I		63.63		Unit-I under Shutdown. 132kV NHP-MHP Line-II on Standby.
		Unit-II	63.94	132kV NHP-MHP-II		0.00		
		Total	63.94	Auxiliary Consumption & Transformation Losses at Generator end		0.48%		
10	2 x 9MW SHP	Unit- I	8.07	66kV SHP-Damdhum (Samtse)		0.00		Unit II under Shutdown. Interim measure: evacuation is through 33kV system.
		Unit- II	0.00			-		
		Total	8.07	Auxiliary Consumption & Transformation Losses at Generator end		100.00%		

Note: Generation-Load Summary (MW) for 14-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)	1,504.08	934.34	569.74

Note: Generation-Load Summary (MW) for 14-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)	582.49	884.90	-302.41

THE DAILY BHUTAN POWER SYSTEM OPERATOR LOAD-GENERATION BALANCE REPORT & ENERGY FIGURES ISSUED ON 15-May-2025(-ve:import, +ve:export)						
Report	Date	Time	National Coincidental Peak Load (MW)		Date	Time
Details	May 14, 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	100.90	Unit-I & III under shutdown for Penstock Cleaning. 400kV THP-SIL Line II & IV on Standby.
		Unit- II	139.62	400kV THP - Siliguri Line - II	0.00	
		Unit- III	0.00	400kV THP - Siliguri Line - IV	0.00	
		Unit- IV	100.33	400kV THP - Malbase Line - III	319.58	
		Unit- V	125.76	400kV Malbase - Siliguri Line	45.14	
		Unit- VI	54.69	-	-	
		Total	420.40	Auxiliary Consumption & Transformation Losses at Generator end	-0.02%	
2	4 x 180MW MHP	Unit-I	171.81	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	156.60	400kV MHP - Jigmeling Line - III	232.46	
		Unit-IV	156.25	400kV MHP - Jigmeling Line - IV	232.08	
		-	-	132kV MHP - Yurmo Line - I	0.00	
		-	-	132kV MHP - Yurmo Line - II	61.64	
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	248.36	
		-	-	400kV Jigmeling - Alipurduar Line - I	376.73	
		-	-	400kV Jigmeling - Alipurduar Line - II	375.27	
		-	-	80MVA, 220/132kV ICT - I (HV)	-39.01	
		-	-	80MVA, 220/132kV ICT - II (HV)	-38.70	
		-	-	220kV Tsirang - Jigmeling Line	-118.15	
		-	-	132kV Gelephu - Salakati Line	8.01	
		Total	484.66	Auxiliary Consumption & Transformation Losses at Generator end	0.64%	
3	6 x 170MW PHP-II	Unit- I	182.10	400kV PHP II - Jigmeling -I	540.40	400kV PHP-II - Jigmeling Line-II under shutdown.
		Unit- II	181.90	400kV PHP II - Jigmeling -II	0.00	
		Unit- III	187.10	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	551.10	Auxiliary Consumption & Transformation Losses at Generator end	1.94%	
4	4 x 84MW CHP	Unit- I	76.63	220kV CHP - Birpara Line - I	-18.85	IV under Shutdown.
		Unit- II	79.09	220kV CHP - Birpara Line - II	-18.67	
		Unit- III	79.82	220kV CHP - Gedu	58.89	
		Unit- IV	0.00	220kV CHP - Jamjee - I	68.90	
		-	-	220kV CHP - Jamjee - II	68.66	
		-	-	220kV CHP - Jamjee - III	65.99	
		-	-	220kV Malbase - Birpara Line	-33.86	
		-	-	66kV CHP - Gedu Line	9.21	
		-	-	3x3MVA, 66/11kV TFR	1.56	
		Total	235.54	Auxiliary Consumption & Transformation Losses at Generator end	-0.06%	
5	2 x 12MW BHP (U/S)	Unit- I	2.86	220kV BHP - Semtokha Line	133.60	L/S Unit-II on standby
		Unit- II	3.35	66kV BHP - Lobeysa Line	26.76	
		Total	6.21	220kV BHP - Tsirang Line	-138.79	
				5MVA, 66/11kV TFR	0.64	
6	2 x 20MW BHP (L/S)	Unit- I	15.20	30MVA ICT, 220/66kV (HV)	21.53	
		Unit- II	0.00			
		Total	15.20	Auxiliary Consumption & Transformation Losses at Generator end	-3.74%	
7	2 x 63MW DHP	Unit-I	0.00	220kV DHP - Tsirang Line	0.00	Unit-I on Standby. 220kV DHP-TSI line kept on idle charge.
		Unit-II	25.03	220kV DHP - Dagapela Line	24.76	
		-	-	220kV Jigmeling - Dagapela Line	24.90	
		-	-	5MVA, 220/33kV TFR	0.07	
		Total	25.03	Auxiliary Consumption & Transformation Losses at Generator end	0.80%	
8	4 x 15MW KHP	Unit- I	16.52	132kV KHP - Nangkhori Line	40.48	
		Unit-II	16.46	132kV KHP - Kilikhar Line	24.72	
		Unit- III	16.59	5MVA, 132/11kV TFR	0.35	
		Unit- IV	16.53	132kV Motanga - Rangia Line	38.97	
		Total	66.10	Auxiliary Consumption & Transformation Losses at Generator end	0.83%	
9	2 x 59MW NHP	Unit-I	0.00	132kV NHP-MHP-I	44.63	Unit-I under Shutdown. 132kV NHP-MHP line-II on Standby.
		Unit-II	44.98	132kV NHP-MHP-II	0.00	
		Total	44.98	Auxiliary Consumption & Transformation Losses at Generator end	0.78%	
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 14-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)	1,856.35	982.71	873.64

Note: Generation-Load Summary (MW) for 14-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)	915.90	886.25	29.65

Note: Daily Energy (MUs) and Power(MW) Statistics for 14-May-2025

Sl. No.	Total Energy Generation	Daily Energy Met	Net Energy Import (IEX and Solar)	Net Energy Export	Peak Cross-border (MW)
1	40.54	21.44	0.00	18.57	1,017.87

- 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.