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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 06-May-2025(-ve:import, +ve:export)						
Report Details		Date	Time	National Coincidental Peak Load (MW)		
		May 5, 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	45.18	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	90.08	400kV THP - Malbase Line - III	265.46	
		Unit- V	99.29	400kV Malbase - Siliguri Line	-5.87	
		Unit- VI	121.27	-	-	
		Total	310.64	Auxiliary Consumption & Transformation Losses at Generator end	0.00%	
2	4 x 180MW MHP	Unit-I	70.21	400kV MHP - Jigmeling Line - I	0.00	Unit-II under AMP. 400kV MHP-JLG line-I Standby. 400kV MHP-JLG line-II standby 132kV MHP_Yummo Line- I not in Service.
		Unit-II	0.00	400kV MHP - Jigmeling Line - II	0.00	
		Unit-III	136.79	400kV MHP - Jigmeling Line - III	124.27	
		Unit-IV	75.97	400kV MHP - Jigmeling Line - IV	123.78	
		-	-	132kV MHP - Yurno Line - I	0.00	
		-	-	132kV MHP - Yurno Line - II	61.74	
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	178.91	
		-	-	400kV Jigmeling - Alipurduar Line - I : direct lines	191.27	
		-	-	400kV Jigmeling - Alipurduar Line - II :	190.55	
		-	-	80MVA, 220/132kV ICT - I (HV)	-28.28	
		-	-	80MVA, 220/132kV ICT - II (HV)	-28.04	
		-	-	220kV Tsirang - Jigmeling Line	-115.15	
		-	-	132kV Gelephu - Salakati Line	3.82	
		Total	282.97	Auxiliary Consumption & Transformation Losses at Generator end	0.37%	
3	6 x 170MW PHP-II	Unit- I	160.00	400kV PHP II - Jigmeling -I	0.00	Unit II on standby 400kV PHP-II - Jigmeling Line-I on Standby.
		Unit- II	0.00	400kV PHP II - Jigmeling -II	319.20	
		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	320.00	Auxiliary Consumption & Transformation Losses at Generator end	0.25%	
4	4 x 84MW CHP	Unit- I	80.50	220kV CHP - Birpara Line - I	-45.30	Unit-II under AMP. Unit-IV under Shutdown.
		Unit- II	0.00	220kV CHP - Birpara Line - II	-44.66	
		Unit- III	79.77	220kV CHP - Gedu	25.47	
		Unit- IV	0.00	220kV CHP - Jamjee (old) - I	73.27	
		-	-	220kV CHP - Jamjee - II (new)	72.53	
		-	-	220kV CHP - Jamjee - III (new)	70.24	
		-	-	220kV Malbase - Birpara Line	-49.65	
		-	-	66kV CHP - Gedu Line	7.41	
		-	-	3x3MVA, 66/11kV TFR	1.40	
		Total	160.27	Auxiliary Consumption & Transformation Losses at Generator end	-0.06%	
5	2 x 12MW BHP (U/S)	Unit- I	3.70	220kV BHP - Semtokha Line	110.00	
		Unit- II	4.20	66kV BHP - Lobeyza Line	24.50	
		Total	7.90	220kV BHP - Tsirang Line	-112.04	
6	2 x 20MW BHP (L/S)	Unit- I	6.50	5MVA, 66/11kV TFR	0.17	
		Unit- II	8.30	30MVA ICT, 220/66kV (HV)	17.41	
		Total	14.80	Auxiliary Consumption & Transformation Losses at Generator end	0.31%	
7	2 x 63MW DHP	Unit-I	0.00	220kV DHP - Tsirang Line	0.00	DHP- Tsirang line kept on Idle charge. Unit-I on Standby.
		Unit-II	41.70	220kV DHP - Dagapela Line	41.00	
		-	-	220kV Jigmeling - Dagapela Line	7.66	
		-	-	5MVA, 220/33kV TFR	0.20	
		Total	41.70	Auxiliary Consumption & Transformation Losses at Generator end	1.20%	
8	4 x 15MW KHP	Unit- I	0.00	132kV KHP - Nangkhori Line	25.50	Unit-I on Standby.
		Unit-II	15.15	132kV KHP - Kilikhar Line	19.30	
		Unit- III	15.12	5MVA, 132/11kV TFR	0.36	
		Unit- IV	15.06	132kV Motanga - Rangia Line	19.67	
		Total	45.33	Auxiliary Consumption & Transformation Losses at Generator end	0.38%	
9	2 x 59MW NHP	Unit-I	0.00	132kV NHP-MHP-I	27.86	Unit-I under Shutdown. 132kV NHP-MHP line-II on Standby.
		Unit-II	28.06	132kV NHP-MHP-II	0.00	
		Total	28.06	Auxiliary Consumption & Transformation Losses at Generator end	0.71%	
10	2 x 9MW SHP	Unit- I	0.00	66kV SHP-Damdhum (Samtse)	0.00	Unit I under Shutdown Interim measure: evacuation is through 33kV system.
		Unit- II	5.47	-	-	
		Total	5.47	Auxiliary Consumption & Transformation Losses at Generator end	100.00%	

Note: Generation-Load Summary (MW) for 05-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)	1,217.14	912.13	305.01

Note: Generation-Load Summary (MW) for 05-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)	494.19	875.31	-381.12

THE DAILY BHUTAN POWER SYSTEM OPERATOR LOAD-GENERATION BALANCE REPORT & ENERGY FIGURES ISSUED ON 06-May-2025(-ve:import, +ve:export)						
Report	Date	Time	National Coincidental Peak Load (MW)		Date	Time
Details	May 5, 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	43.22	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	109.81	400kV THP - Malbase Line - III	286.99	
		Unit- V	99.35	400kV Malbase - Siliguri Line	-11.64	
		Unit- VI	121.40	-	-	
		Total	330.56	Auxiliary Consumption & Transformation Losses at Generator end	0.11%	
2	4 x 180MW MHP	Unit-I	50.26	400kV MHP - Jigmeling Line - I	0.00	Unit-II under AMP. 400kV MHP-JLG line-I on Standby. 400kV MHP-JLG line-II on Standby. 132kV MHP_Yurmoo Line-I not in Service.
		Unit-II	0.00	400kV MHP - Jigmeling Line - II	0.00	
		Unit-III	131.86	400kV MHP - Jigmeling Line - III	112.77	
		Unit-IV	80.02	400kV MHP - Jigmeling Line - IV	112.22	
		-	-	132kV MHP - Yurmoo Line - I	63.61	
		-	-	132kV MHP - Yurmoo Line - II	0.00	
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	213.46	
		-	-	400kV Jigmeling - Alipurduar Line - I ; direct lines	160.73	
		-	-	400kV Jigmeling - Alipurduar Line - II ;	160.00	
		-	-	80MVA, 220/132kV ICT - I (HV)	-33.80	
		-	-	80MVA, 220/132kV ICT - II (HV)	-33.56	
		-	-	220kV Tsirang - Jigmeling Line	-126.48	
		-	-	132kV Gelephu - Salakati Line	-7.94	
		Total	262.14	Auxiliary Consumption & Transformation Losses at Generator end	0.50%	
3	6 x 170MW PHP-II	Unit- I	144.84	400kV PHP II - Jigmeling -I	0.00	Unit-II on Standby. 400kV PHP-II - Jigmeling Line-I on Standby.
		Unit- II	0.00	400kV PHP II - Jigmeling -II	295.80	
		Unit- III	150.53	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	295.37	Auxiliary Consumption & Transformation Losses at Generator end	-0.15%	
4	4 x 84MW CHP	Unit- I	80.61	220kV CHP - Birpara Line - I	-43.50	Unit-IV under Shutdown . Unit-II under AMP.
		Unit- II	0.00	220kV CHP - Birpara Line - II	-43.03	
		Unit- III	89.75	220kV CHP - Gedu	6.77	
		Unit- IV	0.00	220kV CHP - Jamjee - I	81.37	
		-	-	220kV CHP - Jamjee - II	80.94	
		-	-	220kV CHP - Jamjee - III	77.96	
		-	-	220kV Malbase - Birpara Line	-35.84	
		-	-	66kV CHP - Gedu Line	7.71	
		-	-	3x3MVA, 66/11kV TFR	1.61	
		Total	170.36	Auxiliary Consumption & Transformation Losses at Generator end	0.31%	
5	2 x 12MW BHP (U/S)	Unit- I	3.60	220kV BHP - Semtokha Line	112.55	
		Unit- II	3.90	66kV BHP - Lobeysa Line	27.94	
		Total	7.50	220kV BHP - Tsirang Line	-121.99	
					0.71	
6	2 x 20MW BHP (L/S)	Unit- I	5.68	5MVA, 66/11kV TFR	21.52	
		Unit- II	5.50	30MVA ICT, 220/66kV (HV)		
		Total	11.18	Auxiliary Consumption & Transformation Losses at Generator end	-2.84%	
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	33.00	220kV DHP - Dagapela Line	32.52	
		-	-	220kV Jigmeling - Dagapela Line	19.80	
		-	-	5MVA, 220/33kV TFR	0.24	
		Total	33.00	Auxiliary Consumption & Transformation Losses at Generator end	0.73%	
8	4 x 15MW KHP	Unit- I	0.00	132kV KHP - Nangkhor Line	18.65	Unit- I on Standby.
		Unit-II	12.19	132kV KHP - Kilikhar Line	17.14	
		Unit- III	12.22	5MVA, 132/11kV TFR	0.35	
		Unit- IV	12.20	132kV Motanga - Rangia Line	19.35	
		Total	36.61	Auxiliary Consumption & Transformation Losses at Generator end	1.28%	
9	2 x 59MW NHP	Unit-I	0.00	132kV NHP-MHP-I	27.78	Unit-I under Shutdown. 132kV NHP-MHP line-II on Standby.
		Unit-II	27.96	132kV NHP-MHP-II	0.00	
		Total	27.96	Auxiliary Consumption & Transformation Losses at Generator end	0.64%	
10	2 x 9MW SHP	Unit- I	0.00	66kV SHP-Damdhum (Samtse)	0.00	Interim measure: evacuation is through 33kV system.
		Unit- II	4.50	-	-	
		Total	4.50	Auxiliary Consumption & Transformation Losses at Generator end	100.00%	

Note: Generation-Load Summary (MW) for 05-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)	1,179.18	937.83	241.35

Note: Generation-Load Summary (MW) for 05-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)	866.60	829.68	36.92

Note: Daily Energy (MUs) and Power(MW) Statistics for 05-May-2025

Sl. No.	Total Energy Generation	Daily Energy Met	Net Energy Import (IEX and Solar)	Net Energy Export	Peak Cross-border (MW)
1	29.31	21.28	0.00	7.81	443.17

- 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.