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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 09-Jun-2025(-ve:import, +ve:export)						
Report Details		Date	Time	National Coincidental Peak Load (MW)		
		June 8, 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	155.00	400kV THP - Siliguri Line - I	129.82	400kV THP-Siliguri Line -II on Standby. THP Unit-II & IV on Standby.
		Unit- II	0.00	400kV THP - Siliguri Line - II	0.00	
		Unit- III	160.00	400kV THP - Siliguri Line- IV	121.60	
		Unit- IV	0.00	400kV THP - Malbase Line - III	364.28	
		Unit- V	164.00	400kV Malbase - Siliguri Line	69.09	
		Unit- VI	140.00	-	-	
		Total	619.00	Auxiliary Consumption & Transformation Losses at Generator end	0.53%	
2	4 x 180MW MHP	Unit-I	85.56	400kV MHP - Jigmeling Line - I	161.46	400kV MHP-JLG line- II on Standby. 132kV MHP_Yumoo Line- I not in Service.
		Unit-II	88.10	400kV MHP - Jigmeling Line - II	0.00	
		Unit-III	151.83	400kV MHP - Jigmeling Line - III	166.54	
		Unit-IV	151.83	400kV MHP - Jigmeling Line - IV	166.54	
		-	-	132kV MHP - Yurno Line - I	0.00	
		-	-	132kV MHP - Yurno Line - II	60.12	
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	225.09	
		-	-	400kV Jigmeling - Alipurduar Line - I	394.18	
		-	-	400kV Jigmeling - Alipurduar Line - II	392.73	
		-	-	80MVA, 220/132kV ICT - I (HV)	-49.49	
		-	-	80MVA, 220/132kV ICT - II (HV)	-49.07	
		-	-	220kV Tsirang - Jigmeling Line	-114.10	
		-	-	132kV Gelephu - Salakati Line	24.05	
		Total	477.32	Auxiliary Consumption & Transformation Losses at Generator end	-0.57%	
3	6 x 170MW PHP-II	Unit- I	39.60	400kV PHP II - Jigmeling -I	260.36	erstwhile interim lines
		Unit- II	186.90	400kV PHP II - Jigmeling -II	259.64	
		Unit- III	150.40	400kV PHP II - Alipurduar -I	0.00	
		Unit- IV	146.30	400kV PHP II - Alipurduar -II	0.00	
		Unit- V	0.00	-	-	
		Unit- VI	0.00	-	-	
		Total	523.20	Auxiliary Consumption & Transformation Losses at Generator end	0.61%	
4	4 x 84MW CHP	Unit- I	83.47	220kV CHP - Birpara Line - I	-5.07	Unit-IV under shutdown
		Unit- II	83.93	220kV CHP - Birpara Line - II	-5.23	
		Unit- III	84.12	220kV CHP - Gedu	55.31	
		Unit- IV	0.00	220kV CHP - Jamjee (old) - I	66.62	
		-	-	220kV CHP - Jamjee - II (new)	66.18	
		-	-	220kV CHP - Jamjee - III (new)	63.77	
		-	-	220kV Malbase - Birpara Line	-11.20	
		-	-	66kV CHP - Gedu Line	6.98	
		-	-	3x3MVA, 66/11kV TFR	0.93	
		Total	251.52	Auxiliary Consumption & Transformation Losses at Generator end	0.81%	
5	2 x 12MW BHP (U/S)	Unit- I	3.80	220kV BHP - Semtokha Line	109.50	
		Unit- II	3.70	66kV BHP - Lobeyza Line	23.55	
		Total	7.50	220kV BHP - Tsirang Line	-109.81	
6	2 x 20MW BHP (L/S)	Unit- I	8.80	5MVA, 66/11kV TFR	0.38	
		Unit- II	7.20	30MVA ICT, 220/66kV (HV)	16.44	
		Total	16.00	Auxiliary Consumption & Transformation Losses at Generator end	-0.51%	
7	2 x 63MW DHP	Unit-I	34.42	220kV DHP - Tsirang Line	0.00	DHP Unit-II on Standby. 220kV DHP- Tsirang line kept on Standby.
		Unit-II	0.00	220kV DHP - Dagapela Line	34.20	
		-	-	220kV Jigmeling - Dagapela Line	8.00	
		-	-	5MVA, 220/33kV TFR	0.20	
		Total	34.42	Auxiliary Consumption & Transformation Losses at Generator end	0.06%	
8	4 x 15MW KHP	Unit- I	13.76	132kV KHP - Nangkhori Line	34.27	
		Unit-II	13.89	132kV KHP - Kilikhar Line	20.35	
		Unit- III	13.85	5MVA, 132/11kV TFR	0.23	
		Unit- IV	13.82	132kV Motanga - Rangia Line	35.55	
		Total	55.32	Auxiliary Consumption & Transformation Losses at Generator end	0.86%	
9	2 x 59MW NHP	Unit-I	25.01	132kV NHP-MHP-I	49.72	
		Unit-II	50.04	132kV NHP-MHP-II	24.92	
		Total	75.05	Auxiliary Consumption & Transformation Losses at Generator end	0.55%	
10	2 x 9MW SHP	Unit- I	9.00	66kV SHP-Damdhum (Samtse)	0.00	Unit II under shutdown. Interim measure: evacuation is through 33kV system.
		Unit- II	0.00	-	-	
		Total	9.00	Auxiliary Consumption & Transformation Losses at Generator end	100.00%	

Note: Generation-Load Summary (MW) for 08-Jun-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)	2,068.33	922.81	1,145.52

Note: Generation-Load Summary (MW) for 08-Jun-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)	892.74	827.59	65.15

THE DAILY BHUTAN POWER SYSTEM OPERATOR LOAD-GENERATION BALANCE REPORT & ENERGY FIGURES ISSUED ON 09-Jun-2025(-ve:import, +ve:export)						
Report	Date	Time	National Coincidental Peak Load (MW)		Date	Time
Details	June 8, 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	140.00	400kV THP - Siliguri Line - I	73.56	Unit-II & IV on Standby. 400kV THP-Siliguri Line -II on Standby.
		Unit- II	0.00	400kV THP - Siliguri Line - II	0.00	
		Unit- III	105.00	400kV THP - Siliguri Line - IV	66.72	
		Unit- IV	0.00	400kV THP - Malbase Line - III	329.40	
		Unit- V	88.00	400kV Malbase - Siliguri Line	17.00	
		Unit- VI	140.00	-	-	
		Total	473.00	Auxiliary Consumption & Transformation Losses at Generator end	0.70%	
2	4 x 180MW MHP	Unit-I	70.10	400kV MHP - Jigmeling Line - I	116.59	400kV MHP-JLG line-II on Standby. 132kV MHP_Yurmoo Line- I not in Service.
		Unit-II	84.20	400kV MHP - Jigmeling Line - II	0.00	
		Unit-III	142.10	400kV MHP - Jigmeling Line - III	121.88	
		Unit-IV	74.06	400kV MHP - Jigmeling Line - IV	120.83	
		-	-	132kV MHP - Yurmo Line - I	0.00	
		-	-	132kV MHP - Yurmo Line - II	61.68	
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	225.09	
		-	-	400kV Jigmeling - Alipurdwar Line - I	292.36	
		-	-	400kV Jigmeling - Alipurdwar Line - II	292.36	
		-	-	80MVA, 220/132kV ICT - I (HV)	-49.49	
		-	-	80MVA, 220/132kV ICT - II (HV)	-49.07	
		-	-	220kV Tsirang - Jigmeling Line	-114.10	
		-	-	132kV Gelephu - Salakati Line	24.05	
		Total	370.46	Auxiliary Consumption & Transformation Losses at Generator end	1.13%	
3	6 x 170MW PHP-II	Unit- I	38.99	400kV PHP II - Jigmeling -I	225.11	erstwhile interim lines
		Unit- II	176.59	400kV PHP II - Jigmeling -II	224.10	
		Unit- III	186.90	400kV PHP II - Alipurdwar -I	0.00	
		Unit- IV	46.10	400kV PHP II - Alipurdwar -II	0.00	
		Unit- V	0.00	-	-	
		Unit- VI	0.00	-	-	
		Total	448.58	Auxiliary Consumption & Transformation Losses at Generator end	-0.14%	
4	4 x 84MW CHP	Unit- I	70.29	220kV CHP - Birpara Line - I	-19.00	Unit-IV under shutdown
		Unit- II	69.91	220kV CHP - Birpara Line - II	-19.10	
		Unit- III	71.08	220kV CHP - Gedu	38.32	
		Unit- IV	0.00	220kV CHP - Jamjee - I	67.89	
		-	-	220kV CHP - Jamjee - II	67.15	
		-	-	220kV CHP - Jamjee - III	65.83	
		-	-	220kV Malbase - Birpara Line	-19.00	
		-	-	66kV CHP - Gedu Line	6.60	
		-	-	3x3MVA, 66/11kV TFR	1.33	
		Total	211.28	Auxiliary Consumption & Transformation Losses at Generator end	1.07%	
5	2 x 12MW BHP (U/S)	Unit- I	7.50	220kV BHP - Semtokha Line	104.21	U/S Unit-II on Standby
		Unit- II	0.00	66kV BHP - Lobeysa Line	23.90	
		Total	7.50	220kV BHP - Tsirang Line	-106.58	
		-	-	5MVA, 66/11kV TFR	0.58	
6	2 x 20MW BHP (L/S)	Unit- I	8.00	30MVA ICT, 220/66kV (HV)	16.91	
		Unit- II	6.60	-	-	
		Total	14.60	Auxiliary Consumption & Transformation Losses at Generator end	-0.05%	
		-	-	-	-	
7	2 x 63MW DHP	Unit-I	34.42	220kV DHP - Tsirang Line	0.00	Unit II on Standby. 132kV DHP_Tsirang Line on Standby
		Unit-II	0.00	220kV DHP - Dagapela Line	34.20	
		-	-	220kV Jigmeling - Dagapela Line	8.00	
		-	-	5MVA, 220/33kV TFR	0.20	
		Total	34.42	Auxiliary Consumption & Transformation Losses at Generator end	0.06%	
8	4 x 15MW KHP	Unit- I	13.83	132kV KHP - Nangkhori Line	32.97	
		Unit-II	13.89	132kV KHP - Kilikhar Line	21.76	
		Unit- III	13.89	5MVA, 132/11kV TFR	0.33	
		Unit- IV	13.85	132kV Motanga - Rangia Line	34.08	
		Total	55.46	Auxiliary Consumption & Transformation Losses at Generator end	0.72%	
9	2 x 59MW NHP	Unit-I	0.00	132kV NHP-MHP-I	54.72	Unit I tripped @ 18:56hrs. 132kV NHP-MHP-II on Standby.
		Unit-II	55.06	132kV NHP-MHP-II	0.00	
		Total	55.06	Auxiliary Consumption & Transformation Losses at Generator end	0.62%	
10	2 x 9MW SHP	Unit- I	4.50	66kV SHP-Damdhum (Samtse)	0.00	Interim measure: evacuation is through 33kV system.
		Unit- II	4.50	-	-	
		Total	9.00	Auxiliary Consumption & Transformation Losses at Generator end	100.00%	

Note: Generation-Load Summary (MW) for 08-Jun-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)	1,679.36	936.33	743.03

Note: Generation-Load Summary (MW) for 08-Jun-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)	791.27	744.55	46.72

Note: Daily Energy (MUs) and Power(MW) Statistics for 08-Jun-2025

Sl. No.	Total Energy Generation	Daily Energy Met	Net Energy Import (IEX and Solar)	Net Energy Export	Peak Cross-border (MW)
1	43.23	22.04	0.00	21.21	1,147.22

- 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.