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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 07-Jun-2025(-ve:import, +ve:export)						
Report Details		Date	Time	National Coincidental Peak Load (MW)		
		June 6, 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	150.00	400kV THP - Siliguri Line - I	0.00	400kV THP-Siliguri Line -I under Shutdown. THP Unit-II & IV on Standby.
		Unit- II	0.00	400kV THP - Siliguri Line - II	148.32	
		Unit- III	130.00	400kV THP - Siliguri Line- IV	139.19	
		Unit- IV	0.00	400kV THP - Malbase Line - III	327.75	
		Unit- V	158.00	400kV Malbase - Siliguri Line	97.14	
		Unit- VI	170.00	-	-	
		Total	608.00	Auxiliary Consumption & Transformation Losses at Generator end	-1.19%	
2	4 x 180MW MHP	Unit-I	84.91	400kV MHP - Jigmeling Line - I	165.12	400kV MHP-JLG line- II on Standby. 132kV MHP_Yumoo Line- I not in Service.
		Unit-II	164.24	400kV MHP - Jigmeling Line - II	0.00	
		Unit-III	85.15	400kV MHP - Jigmeling Line - III	171.40	
		Unit-IV	169.16	400kV MHP - Jigmeling Line - IV	171.03	
		-	-	132kV MHP - Yumoo Line - I	0.00	
		-	-	132kV MHP - Yumoo Line - II	58.00	
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	219.27	
		-	-	400kV Jigmeling - Alipurduar Line - I : direct lines	506.18	
		-	-	400kV Jigmeling - Alipurduar Line - II :	505.46	
		-	-	80MVA, 220/132kV ICT - I (HV)	-44.55	
		-	-	80MVA, 220/132kV ICT - II (HV)	-44.22	
		-	-	220kV Tsirang - Jigmeling Line	-102.61	
		-	-	132kV Gelephu - Salakati Line	21.69	
		Total	503.46	Auxiliary Consumption & Transformation Losses at Generator end	0.48%	
3	6 x 170MW PHP-II	Unit- I	184.60	400kV PHP II - Jigmeling -I	365.82	erstwhile interim lines
		Unit- II	184.56	400kV PHP II - Jigmeling -II	364.36	
		Unit- III	184.03	400kV PHP II - Alipurduar -I	0.00	
		Unit- IV	182.26	400kV PHP II - Alipurduar -II	0.00	
		Unit- V	0.00	-	-	
		Unit- VI	0.00	-	-	
		Total	735.45	Auxiliary Consumption & Transformation Losses at Generator end	0.72%	
4	4 x 84MW CHP	Unit- I	70.57	220kV CHP - Birpara Line - I	7.15	
		Unit- II	74.36	220kV CHP - Birpara Line - II	7.00	
		Unit- III	69.65	220kV CHP - Gedu	95.96	
		Unit- IV	74.91	220kV CHP - Jamjee (old) - I	57.61	
		-	-	220kV CHP - Jamjee - II (new)	57.22	
		-	-	220kV CHP - Jamjee - III (new)	55.13	
		-	-	220kV Malbase - Birpara Line	-21.52	
		-	-	66kV CHP - Gedu Line	8.01	
		-	-	3x3MVA, 66/11kV TFR	1.35	
		Total	289.49	Auxiliary Consumption & Transformation Losses at Generator end	0.02%	
5	2 x 12MW BHP (U/S)	Unit- I	4.10	220kV BHP - Semtokha Line	134.20	
		Unit- II	4.20	66kV BHP - Lobeysha Line	25.20	
		Total	8.30	220kV BHP - Tsirang Line	-126.71	
6	2 x 20MW BHP (L/S)	Unit- I	12.52	5MVA, 66/11kV TFR	0.08	
		Unit- II	12.00	30MVA ICT, 220/66kV (HV)	15.12	
		Total	24.52	Auxiliary Consumption & Transformation Losses at Generator end	0.15%	
7	2 x 63MW DHP	Unit-I	50.40	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	50.10	
		-	-	220kV Jigmeling - Dagapela Line	-2.10	
		-	-	5MVA, 220/33kV TFR	0.20	
		Total	50.40	Auxiliary Consumption & Transformation Losses at Generator end	0.20%	
8	4 x 15MW KHP	Unit- I	16.48	132kV KHP - Nangkhor Line	43.25	
		Unit-II	16.55	132kV KHP - Kilikhar Line	22.09	
		Unit- III	16.60	5MVA, 132/11kV TFR	0.25	
		Unit- IV	16.58	132kV Motanga - Rangia Line	31.02	
		Total	66.21	Auxiliary Consumption & Transformation Losses at Generator end	0.94%	
9	2 x 59MW NHP	Unit-I	24.96	132kV NHP-MHP-I	39.72	
		Unit-II	40.03	132kV NHP-MHP-II	24.78	
		Total	64.99	Auxiliary Consumption & Transformation Losses at Generator end	0.75%	
10	2 x 9MW SHP	Unit- I	5.00	66kV SHP-Damdhum (Samtse)	0.00	Interim measure: evacuation is through 33kV system.
		Unit- II	4.50	-	-	
		Total	9.50	Auxiliary Consumption & Transformation Losses at Generator end	100.00%	

Note: Generation-Load Summary (MW) for 06-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)	2,360.32	918.69	1,441.63

Note: Generation-Load Summary (MW) for 06-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)	1,017.83	856.90	160.93

THE DAILY BHUTAN POWER SYSTEM OPERATOR LOAD-GENERATION BALANCE REPORT & ENERGY FIGURES ISSUED ON 07-Jun-2025(-ve:import, +ve:export)						
Report	Date	Time	National Coincidental Peak Load (MW)		Date	Time
Details	June 6, 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	139.17	400kV THP - Siliguri Line - I	0.00	Unit-II & IV on Standby. 400kV THP-Siliguri Line -I under Shutdown.
		Unit- II	0.00	400kV THP - Siliguri Line - II	90.59	
		Unit- III	89.60	400kV THP - Siliguri Line - IV	84.04	
		Unit- IV	0.00	400kV THP - Malbase Line - III	323.04	
		Unit- V	127.14	400kV Malbase - Siliguri Line	33.20	
		Unit- VI	138.99	-	-	
		Total	494.90	Auxiliary Consumption & Transformation Losses at Generator end	-0.56%	
2	4 x 180MW MHP	Unit-I	0.00	400kV MHP - Jigmeling Line - I	147.65	Unit- I tripped 400kV MHP-JLG line-II on Standby. 132kV MHP_Yurmoo Line- I not in Service.
		Unit-II	166.63	400kV MHP - Jigmeling Line - II	0.00	
		Unit-III	130.79	400kV MHP - Jigmeling Line - III	152.64	
		Unit-IV	152.11	400kV MHP - Jigmeling Line - IV	152.07	
		-	-	132kV MHP - Yurmo Line - I	0.00	
		-	-	132kV MHP - Yurmo Line - II	60.59	
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	237.82	
		-	-	400kV Jigmeling - Alipurdwar Line - I ; direct lines	415.27	
		-	-	400kV Jigmeling - Alipurdwar Line - II ;	414.55	
		-	-	80MVA, 220/132kV ICT - I (HV)	-52.84	
		-	-	80MVA, 220/132kV ICT - II (HV)	-52.33	
		-	-	220kV Tsirang - Jigmeling Line	-102.61	
		-	-	132kV Gelephu - Salakati Line	21.83	
		Total	449.53	Auxiliary Consumption & Transformation Losses at Generator end	0.23%	
3	6 x 170MW PHP-II	Unit- I	187.00	400kV PHP II - Jigmeling -I	315.70	erstwhile interim lines
		Unit- II	144.60	400kV PHP II - Jigmeling -II	314.00	
		Unit- III	150.20	400kV PHP II - Alipurdwar -I	0.00	
		Unit- IV	146.30	400kV PHP II - Alipurdwar -II	0.00	
		Unit- V	0.00	-	-	
		Unit- VI	0.00	-	-	
		Total	628.10	Auxiliary Consumption & Transformation Losses at Generator end	-0.25%	
4	4 x 84MW CHP	Unit- I	62.15	220kV CHP - Birpara Line - I	-3.88	
		Unit- II	61.96	220kV CHP - Birpara Line - II	-4.15	
		Unit- III	62.80	220kV CHP - Gedu	61.04	
		Unit- IV	62.97	220kV CHP - Jamjee - I	63.86	
		-	-	220kV CHP - Jamjee - II	63.38	
		-	-	220kV CHP - Jamjee - III	61.16	
		-	-	220kV Malbase - Birpara Line	-10.43	
		-	-	66kV CHP - Gedu Line	7.35	
		-	-	3x3MVA, 66/11kV TFR	1.46	
		Total	249.88	Auxiliary Consumption & Transformation Losses at Generator end	-0.14%	
5	2 x 12MW BHP (U/S)	Unit- I	4.50	220kV BHP - Semtokha Line	125.56	
		Unit- II	5.00	66kV BHP - Lobeysa Line	24.89	
		Total	9.50	220kV BHP - Tsirang Line	-124.87	
6	2 x 20MW BHP (L/S)	Unit- I	10.40	5MVA, 66/11kV TFR	0.41	
		Unit- II	5.40	30MVA ICT, 220/66kV (HV)	15.68	
		Total	15.80	Auxiliary Consumption & Transformation Losses at Generator end	-2.73%	
7	2 x 63MW DHP	Unit-I	41.34	220kV DHP - Tsirang Line	0.00	Unit II on Standby. 132kV DHP_Tsirang Line on Standby
		Unit-II	0.00	220kV DHP - Dagapela Line	41.09	
		-	-	220kV Jigmeling - Dagapela Line	8.16	
		-	-	5MVA, 220/33kV TFR	0.24	
		Total	41.34	Auxiliary Consumption & Transformation Losses at Generator end	0.02%	
8	4 x 15MW KHP	Unit- I	16.48	132kV KHP - Nangkhori Line	41.10	
		Unit-II	16.50	132kV KHP - Kilikhar Line	24.09	
		Unit- III	16.54	5MVA, 132/11kV TFR	0.31	
		Unit- IV	16.62	132kV Motanga - Rangia Line	38.63	
		Total	66.14	Auxiliary Consumption & Transformation Losses at Generator end	0.97%	
9	2 x 59MW NHP	Unit-I	25.04	132kV NHP-MHP-I	39.69	
		Unit-II	39.94	132kV NHP-MHP-II	24.75	
		Total	64.98	Auxiliary Consumption & Transformation Losses at Generator end	0.83%	
10	2 x 9MW SHP	Unit- I	9.00	66kV SHP-Damdhum (Samtse)	0.00	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 06-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)	2,029.17	949.52	1,079.65

Note: Generation-Load Summary (MW) for 06-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)	984.46	874.68	102.29

Note: Daily Energy (MUs) and Power(MW) Statistics for 06-Jun-2025

Sl. No.	Total Energy Generation	Daily Energy Met	Net Energy Import (IEX and Solar)	Net Energy Export	Peak Cross-border (MW)
1	52.39	22.23	0.00	30.28	1,449.25

- 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.