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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 13-Jul-2025(-ve:import, +ve:export)											
Report Details	Date		Time		National Coincidental Peak Load (MW)	Date		Time		Load	
	July 12, 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		102.14		Unit-I under Shutdown.			
		Unit-II	187.67	400kV THP - Siliguri Line - II		101.03					
		Unit-III	154.00	400kV THP - Siliguri Line - IV		96.17					
		Unit-IV	80.75	400kV THP - Malbase Line - III		307.53					
		Unit-V	132.32	400kV Malbase - Siliguri Line		49.99					
		Unit-VI	50.27	-		-					
		Total	605.01	Auxiliary Consumption & Transformation Losses at Generator end		-0.31%					
2	4 x 180MW MHP	Unit-I	155.18	400kV MHP - Jigmeling Line - I		192.27		400kV MHP-Jigmeling Line- II on standby.			
		Unit-II	135.87	400kV MHP - Jigmeling Line - II		0.00					
		Unit-III	135.76	400kV MHP - Jigmeling Line - III		199.50					
		Unit-IV	135.56	400kV MHP - Jigmeling Line - IV		199.06					
		-	-	220kV Jigmeling - BitDeer Line - I		54.45					
		-	-	220kV Jigmeling - BitDeer Line - II		52.39					
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)		221.09					
		-	-	400kV Jigmeling - Alipurduar Line - I		341.82					
		-	-	400kV Jigmeling - Alipurduar Line - II		341.82					
		-	-	80MVA, 220/132kV ICT - I (HV)		57.75					
		-	-	80MVA, 220/132kV ICT - II (HV)		57.17					
		-	-	132kV MHP - Yurmo Line - II		60.83					
		-	-	132kV Gelephu - Salakati Line		12.40					
		Total	562.37	Auxiliary Consumption & Transformation Losses at Generator end		0.01%					
		3	6 x 170MW PHP-II	Unit-I	186.29	400kV PHP II - Jigmeling-I					
Unit-II	183.55			400kV PHP II - Jigmeling-II		160.90					
Unit-III	185.28			400kV PHP II - Alipurduar-I		0.00					
Unit-IV	184.07			400kV PHP II - Alipurduar-II		419.92					
Unit-V	0.00			-		-					
Unit-VI	0.00			-		-					
Total	739.19			Auxiliary Consumption & Transformation Losses at Generator end		-0.47%					
4	4 x 84MW CHP	Unit-I	80.72	220kV CHP - Birpara Line - I		14.28					
		Unit-II	81.15	220kV CHP - Birpara Line - II		14.22					
		Unit-III	80.59	220kV CHP - Gedu		107.14					
		Unit-IV	81.12	220kV CHP - Jamjee (old) - I		59.42					
		-	-	220kV CHP - Jamjee - II (new)		58.96					
		-	-	220kV CHP - Jamjee - III (new)		57.13					
		-	-	220kV Malbase - Birpara Line		-17.86					
		-	-	66kV CHP - Gedu Line		9.97					
		-	-	3x3MVA, 66/11kV TFR		1.21					
		Total	323.58	Auxiliary Consumption & Transformation Losses at Generator end		0.39%					
5	2 x 12MW BHP (U/S)	Unit-I	6.70	220kV BHP - Semtokha Line		112.37					
		Unit-II	6.80	66kV BHP - Lobeyza Line		22.63					
		Total	13.50	220kV BHP - Tsirang Line		-103.82					
6	2 x 20MW BHP (L/S)	Unit-I	8.90	5MVA, 66/11kV TFR		0.50					
		Unit-II	8.70	30MVA ICT, 220/66kV (HV)		9.86					
		Total	17.60	Auxiliary Consumption & Transformation Losses at Generator end		-1.86%					
7	2 x 63MW DHP	Unit-I	49.88	220kV DHP - Tsirang Line		49.63		Unit II on standby 220kV DHP - Dagapela Line on standby.			
		Unit-II	0.00	220kV DHP - Dagapela Line		0.00					
		-	-	220kV BitDeer - Dagapela Line		52.03					
		-	-	5MVA, 220/33kV TFR		0.24					
		Total	49.88	Auxiliary Consumption & Transformation Losses at Generator end		0.02%					
8	4 x 15MW KHP	Unit-I	16.57	132kV KHP - Nangkhor Line		62.46					
		Unit-II	16.57	132kV KHP - Kilikhar Line		3.01					
		Unit-III	16.59	5MVA, 132/11kV TFR		0.26					
		Unit-IV	16.52	132kV Motanga - Rangia Line		30.65					
		Total	66.25	Auxiliary Consumption & Transformation Losses at Generator end		0.78%					
9	2 x 59MW NHP	Unit-I	45.04	132kV NHP-MHP-I		44.67					
		Unit-II	45.05	132kV NHP-MHP-II		44.69					
		Total	90.09	Auxiliary Consumption & Transformation Losses at Generator end		0.81%					
10	2 x 9MW SHP	Unit-I	5.00	66kV SHP-Damdhum (Samtse)		0.00		Interim measure: evacuation is through 33kV system.			
		Unit-II	5.00	-		-					
		Total	10.00	Auxiliary Consumption & Transformation Losses at Generator end		100.00%					
Note: Generation-Load Summary (MW) for 12-Jul-25 at 09:00 hrs							09:00 hrs Statistical Comparison (MW) for this and last year				
Sl. No.	Region	Total Generation		Total Domestic Load (Total Generation - Total Export)		Total Export(+ve)/ Import(-ve)		Tt. Exp./Imp.			
1	Both Eastern & Western (Whole Bhutan)	2,477.47		970.89		1,506.58		</			

THE DAILY BHUTAN POWER SYSTEM OPERATOR LOAD-GENERATION BALANCE REPORT & ENERGY FIGURES ISSUED ON 13-Jul-2025(-ve:import, +ve:export)							
Report Details	Date	Time	National Coincidental Peak Load (MW)		Date	Time	Load
	July 12, 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	142.92	400kV THP - Siliguri Line - I	100.38	Unit III on standby.	
		Unit- II	187.63	400kV THP - Siliguri Line - II	99.40		
		Unit- III	0.00	400kV THP - Siliguri Line - IV	94.24		
		Unit- IV	81.80	400kV THP - Malbase Line - III	348.48		
		Unit- V	75.34	400kV Malbase - Siliguri Line	38.96		
		Unit- VI	160.47	-	-		
		Total	648.16	Auxiliary Consumption & Transformation Losses at Generator end	0.87%		
2	4 x 180MW MHP	Unit-I	54.83	400kV MHP - Jigmeling Line - I	181.05	400kV MHP-JLG Line- II on standby.	
		Unit-II	136.18	400kV MHP - Jigmeling Line - II	0.00		
		Unit-III	150.89	400kV MHP - Jigmeling Line - III	188.03		
		Unit-IV	160.60	400kV MHP - Jigmeling Line - IV	187.57		
		-	-	220kV Jigmeling - BitDeer Line - I	48.53		
		-	-	220kV Jigmeling - BitDeer Line - II	47.30		
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	221.46		
		-	-	400kV Jigmeling - Alipurduar Line - I	279.27		
		-	-	400kV Jigmeling - Alipurduar Line - II	278.55		
		-	-	80MVA, 220/132kV ICT - I (HV)	62.65		
		-	-	80MVA, 220/132kV ICT - II (HV)	62.18		
		-	-	132kV MHP - Yurmo Line - II	64.47		
		-	-	132kV Gelephu - Salakati Line	11.08		
		Total	502.50	Auxiliary Consumption & Transformation Losses at Generator end	-0.12%		
3	6 x 170MW PHP-II	Unit- I	186.03	400kV PHP II - Jigmeling -I	114.87	Unit III under shutdown. 400kV PHP II-Alipurduar I not in service.	
		Unit- II	186.75	400kV PHP II - Jigmeling -II	114.02		
		Unit- III	0.00	400kV PHP II - Alipurduar -I	0.00		
		Unit- IV	186.37	400kV PHP II - Alipurduar -II	333.71		
		Unit- V	0.00	-	-		
		Unit- VI	0.00	-	-		
		Total	559.15	Auxiliary Consumption & Transformation Losses at Generator end	-0.62%		
4	4 x 84MW CHP	Unit- I	72.11	220kV CHP - Birpara Line - I	11.16		
		Unit- II	74.55	220kV CHP - Birpara Line - II	10.70		
		Unit- III	74.64	220kV CHP - Gedu	77.81		
		Unit- IV	74.84	220kV CHP - Jamjee - I	63.14		
		-	-	220kV CHP - Jamjee - II	62.63		
		-	-	220kV CHP - Jamjee - III	60.49		
		-	-	220kV Malbase - Birpara Line	0.95		
		-	-	66kV CHP - Gedu Line	8.47		
		-	-	3x3MVA, 66/11kV TFR	1.37		
		Total	296.14	Auxiliary Consumption & Transformation Losses at Generator end	0.12%		
5	2 x 12MW BHP (U/S)	Unit- I	6.30	220kV BHP - Semtokha Line	103.40		
		Unit- II	6.50	66kV BHP - Lobeysa Line	21.14		
		Total	12.80	220kV BHP - Tsirang Line	-89.81		
6	2 x 20MW BHP (L/S)	Unit- I	11.30	5MVA, 66/11kV TFR	0.42		
		Unit- II	11.12	30MVA ICT, 220/66kV (HV)	10.31		
		Total	22.42	Auxiliary Consumption & Transformation Losses at Generator end	0.20%		
7	2 x 63MW DHP	Unit-I	48.92	220kV DHP - Tsirang Line	48.65	220kV DHP - Dagapela Line on standby. DHP Unit-II on standby.	
		Unit-II	0.00	220kV DHP - Dagapela Line	0.00		
		-	-	220kV BitDeer - Dagapela Line	52.03		
		-	-	5MVA, 220/33kV TFR	0.25		
		Total	48.92	Auxiliary Consumption & Transformation Losses at Generator end	0.04%		
8	4 x 15MW KHP	Unit- I	16.50	132kV KHP - Nangkhori Line	62.97		
		Unit-II	16.71	132kV KHP - Kilikhar Line	2.52		
		Unit- III	16.50	5MVA, 132/11kV TFR	0.29		
		Unit- IV	16.63	132kV Motanga - Rangia Line	32.00		
		Total	66.34	Auxiliary Consumption & Transformation Losses at Generator end	0.84%		
9	2 x 59MW NHP	Unit-I	58.91	132kV NHP-MHP-I	59.29		
		Unit-II	59.12	132kV NHP-MHP-II	58.71		
		Total	118.03	Auxiliary Consumption & Transformation Losses at Generator end	0.03%		
10	2 x 9MW SHP	Unit- I	5.00	66kV SHP-Damdhum (Samtse)	0.00	Interim measure: evacuation is through 33kV system.	
		Unit- II	5.00	-	-		
		Total	10.00	Auxiliary Consumption & Transformation Losses at Generator end	100.00%		
Note: Generation-Load Summary (MW) for 12-Jul-2025 at 19:00 hrs							
Sl. No.	Region	Total Generation	Total Domestic Load (Total Generation - Total Export)		Total Export(+ve)/ Import(-ve)	19:00 hrs Statistical Comparison (MW) for this and last year	
1	Both Eastern & Western (Whole Bhutan)	2,284.46	994.06		1,290.40	Tt. Exp./Imp. 1,780.62 1,290.40	
Note: Generation-Load Summary (MW) for 12-Jul-2024, at 19:00 hrs							
Sl. No.	Region	Total Generation	Total Domestic Load (Total Generation - Total Export)		Total Export(+ve)/ Import(-ve)	Tt.Load 877.39 994.06	
1	Both Eastern & Western (Whole Bhutan)	2,658.01	877.39		1,780.62		
Note: Daily Energy (MUs) and Power(MW) Statistics for 12-Jul-2025							
Sl. No.	Total Energy Generation	Daily Energy Met	Net Energy Import (IEX and Solar)	Net Energy Export	Peak Cross- border (MW)	Tt. Gen. 2,658.01 2,284.46	
1	56.26	22.88	0.00	33.40	1,651.28	Y-2024 Y-2025	

1. The Instantaneous load balance does not tend towards zero. This could be due to the following reasons:
- Not all the meters are digital and nor 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.