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Ministry of Energy and Natural Resources
Royal Government of Bhutan
Bhutan Power System Operator
Thimphu: Bhutan



THE DAILY BHUTAN POWER SYSTEM OPERATOR LOAD-GENERATION BALANCE REPORT & ENERGY FIGURES ISSUED ON 27-Sep-2025(+ve:import, +ve:export)									
Report Details		Date	Time	National Coincidental Peak Load (MW)		Date	Time	Load	
		September 26, 2025	9:00 AM			24-Sep-25	7:30:01 PM	1,220.00	
Sl. No.	Hydropower Plant	Unit	MW	Transmission Lines and Elements		Load (MW)		Remarks	
1	6 x 170MW THP	Unit-I	185.70	400kV THP - Siliguri Line - I		234.07		All units and feeders are in service.	
		Unit-II	185.30	400kV THP - Siliguri Line - II		232.16			
		Unit-III	185.60	400kV THP - Siliguri Line- IV		223.45			
		Unit-IV	186.10	400kV THP - Malbase Line - III		426.05			
		Unit-V	186.20	400kV Malbase - Siliguri Line		177.46			
		Unit-VI	186.50	-		-			
		Total	1,115.40	Auxiliary Consumption & Transformation Losses at Generator end		-0.03%			
2	4 x 180MW MHP	Unit-I	197.85	400kV MHP - Jigmeling Line - I		262.77		400kV MHP-JIG Line IV on Standby	
		Unit-II	197.99	400kV MHP - Jigmeling Line - II		262.94			
		Unit-III	190.31	400kV MHP - Jigmeling Line - III		256.11			
		Unit-IV	197.21	400kV MHP - Jigmeling Line - IV		0.00			
		-	-	220kV Jigmeling - BitDeer Line - I		93.78			
		-	-	220kV Jigmeling - BitDeer Line - II		86.27			
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)		267.93			
		-	-	400kV Jigmeling - Alipurduar Line - I		396.36			
		-	-	400kV Jigmeling - Alipurduar Line - II		394.18			
		-	-	80MVA, 220/132kV ICT - I (HV)		43.94			
		-	-	80MVA, 220/132kV ICT - II (HV)		43.55			
		-	-	132kV MHP - Yurmo Line - II		56.40			
		-	-	132kV MHP - Tintibi Line		70.28			
		-	-	132kV Gelephu - Salakati Line		7.13			
		Total	783.36	Auxiliary Consumption & Transformation Losses at Generator end		0.51%			
3	6 x 170MW PHP-II	Unit-I	0.00	400kV PHP II - Jigmeling -I		143.10		Unit I under Shutdown due to CCW pipeline air suction & punctured intake gasket. Unit IV tripped @ 17:38hrs (06.09.2025) and under inspection. 400kV PHP II - Alipurduar -I not in Service.	
		Unit-II	187.00	400kV PHP II - Jigmeling -II		142.40			
		Unit-III	186.40	400kV PHP II - Alipurduar -I		0.00			
		Unit-IV	0.00	400kV PHP II - Alipurduar -II		464.08			
		Unit-V	186.20	-		-			
		Unit-VI	186.60	-		-			
		Total	746.20	Auxiliary Consumption & Transformation Losses at Generator end		-0.45%			
4	4 x 84MW CHP	Unit-I	91.30	220kV CHP - Birpara Line - I		38.60		All units and feeders are in service.	
		Unit-II	91.20	220kV CHP - Birpara Line - II		37.90			
		Unit-III	91.87	220kV CHP - Gedu		139.37			
		Unit-IV	92.50	220kV CHP - Jamjee - I		47.23			
		-	-	220kV CHP - Jamjee - II		47.52			
		-	-	220kV CHP - Jamjee - III		45.87			
		-	-	220kV Malbase - Birpara Line		-4.96			
		-	-	66kV CHP - Gedu Line		10.20			
		Total	366.87	Auxiliary Consumption & Transformation Losses at Generator end		0.05%			
5	2 x 12MW BHP (U/S)	Unit-I	12.02	220kV BHP - Semtokha Line		123.90		All the units and feeders are in service.	
		Unit-II	12.00	66kV BHP - Lobeysa Line		19.93			
		Total	24.02	220kV BHP - Tsirang Line		-77.68			
6	2 x 20MW BHP (L/S)	Unit-I	21.00	5MVA, 66/11kV TFR		0.43			
		Unit-II	20.50	30MVA ICT, 220/66kV (HV)		-3.34			
		Total	41.50	Auxiliary Consumption & Transformation Losses at Generator end		-1.62%			
7	2 x 63MW DHP	Unit-I	63.50	220kV DHP - Tsirang Line		126.20		220kV DHP - Dagapela line on Standby due to protection setting.	
		Unit-II	63.30	220kV DHP - Dagapela Line		0.00			
		-	-	220kV BitDeer - Dagapela Line		54.30			
		-	-	5MVA, 220/33kV TFR		0.20			
		Total	126.80	Auxiliary Consumption & Transformation Losses at Generator end		0.32%			
8	4 x 15MW KHP	Unit-I	16.50	132kV KHP - Nangkhor Line		41.30		All units and feeders are in service.	
		Unit-II	16.50	132kV KHP - Kilikhar Line		23.86			
		Unit-III	16.50	5MVA, 132/11kV TFR		0.28			
		Unit-IV	16.50	132kV Motanga - Rangia Line		43.71			
		Total	66.00	Auxiliary Consumption & Transformation Losses at Generator end		0.85%			
9	2 x 59MW NHP	Unit-I	64.91	132kV NHP-MHP-I		64.50		All units and feeders are in service.	
		Unit-II	64.95	132kV NHP-MHP-II		64.60			
		Total	129.86	Auxiliary Consumption & Transformation Losses at Generator end		0.59%			
10	2 x 9MW SHP	Unit-I	0.00	66kV SHP-Damdum (Samtse)		0.00		SHP Unit-I under Shutdown (OPU temperature exceeds its limit) Interim measure: Evacuation is through 33kV System	
		Unit-II	9.10	-		-			
		Total	9.10	Auxiliary Consumption & Transformation Losses at Generator end		100.00%			
11	17.38 MWp Sephu (Solar)	Inverter-1	2.02	33kV SSP-Wangdue		8.58		All inverters and feeders in service	
		Inverter-2	3.31	33kV SSP-Trongsa		4.41			
		Inverter-3	3.25	-		-			
		Inverter-4	4.41	-		-			
		Total	12.99	Auxiliary Consumption & Transformation Losses at Generator end		0.00%			

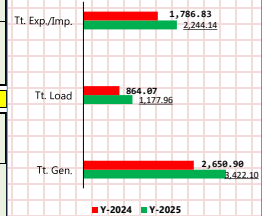
Note: Generation-Load Summary (MW) for 26-Sep-25 at 09:00 hrs

Sl. No.	Region	Total Generation	Total Domestic Load (Total Generation - Total Export)	Total Export(+ve)/ Import(-ve)
1	Both Eastern & Western (Whole Bhutan)	3,422.10	1,177.96	2,244.14

Note: Generation-Load Summary (MW) for 26-Sep-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)	2,650.90	864.07	1,786.83

09:00 hrs Statistical Comparison
(MW) for this and last year



THE DAILY BHUTAN POWER SYSTEM OPERATOR LOAD-GENERATION BALANCE REPORT & ENERGY FIGURES ISSUED ON 27-Sep-2025(-ve:import, +ve:export)							
Report Details	Date	Time	National Coincidental Peak Load (MW)		Date	Time	Load
	September 26, 2025	19:00:00			17-Sep-25	18:47:55	1220
Sl. No.	Hydropower Plant	Unit	MW	Transmission Lines and Elements	Load (MW)	Remarks	
1	6 x 170MW THP	Unit- I	187.75	400kV THP - Siliguri Line - I	218.34	All units and feeders are in Service.	
		Unit- II	187.74	400kV THP - Siliguri Line - II	217.06		
		Unit- III	187.30	400kV THP - Siliguri Line - IV	208.34		
		Unit- IV	187.33	400kV THP - Malbase Line - III	471.60		
		Unit- V	186.90	400kV Malbase - Siliguri Line	149.82		
		Unit- VI	187.39	-	-		
		Total	1,124.41	Auxiliary Consumption & Transformation Losses at Generator end	0.81%		
2	4 x 180MW MHP	Unit-I	181.75	400kV MHP - Jigmeling Line - I	248.56	400kV MHP-JIG Line IV kept on Standby as other three lines can cater the load.	
		Unit-II	172.12	400kV MHP - Jigmeling Line - II	249.32		
		Unit-III	190.76	400kV MHP - Jigmeling Line - III	242.71		
		Unit-IV	197.82	400kV MHP - Jigmeling Line - IV	0.00		
		-	-	220kV Jigmeling - BitDeer Line - I	67.99		
		-	-	220kV Jigmeling - BitDeer Line - II	67.55		
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	315.64		
		-	-	400kV Jigmeling - Alipurduar Line - I	415.27		
		-	-	400kV Jigmeling - Alipurduar Line - II	415.27		
		-	-	80MVA, 220/132kV ICT - I (HV)	64.55		
		-	-	80MVA, 220/132kV ICT - II (HV)	64.50		
		-	-	132kV MHP - Yurmo Line - II	64.58		
		-	-	132kV MHP - Tintibi Line	62.37		
		-	-	132kV Gelephu - Salakati Line	16.34		
		Total	742.45	Auxiliary Consumption & Transformation Losses at Generator end	0.52%		
3	6 x 170MW PHP-II	Unit- I	186.82	400kV PHP II - Jigmeling -I	206.20	Unit IV tripped @ 17:38hrs (06.09.2025) and under inspection. 400kV PHP II - Alipurduar- I not in Service.	
		Unit- II	186.13	400kV PHP II - Jigmeling -II	208.20		
		Unit- III	186.23	400kV PHP II - Alipurduar -I	0.00		
		Unit- IV	0.00	400kV PHP II - Alipurduar -II	517.45		
		Unit- V	186.99	-	-		
		Unit- VI	186.02	-	-		
		Total	932.19	Auxiliary Consumption & Transformation Losses at Generator end	0.04%		
4	4 x 84MW CHP	Unit- I	91.48	220kV CHP - Birpara Line - I	44.01	All units and Feeders are in service	
		Unit- II	91.47	220kV CHP - Birpara Line - II	43.27		
		Unit- III	91.34	220kV CHP - Gedu	109.81		
		Unit- IV	91.42	220kV CHP - Jamjee - I	52.45		
		-	-	220kV CHP - Jamjee - II	52.26		
		-	-	220kV CHP - Jamjee - III	50.46		
		-	-	220kV Malbase - Birpara Line	30.08		
		-	-	66kV CHP - Gedu Line	10.39		
		Total	365.71	Auxiliary Consumption & Transformation Losses at Generator end	0.84%		
5	2 x 12MW BHP (U/S)	Unit- I	12.02	220kV BHP - Semtokha Line	127.20	All units and feeders are in service.	
		Unit- II	12.00	66kV BHP - Lobeyssa Line	25.05		
		Total	24.02	220kV BHP - Tsirang Line	-87.92		
6	2 x 20MW BHP (L/S)	Unit- I	20.55	5MVA, 66/11kV TFR	0.59		
		Unit- II	20.87	30MVA ICT, 220/66kV (HV)	2.02		
		Total	41.42	Auxiliary Consumption & Transformation Losses at Generator end	0.79%		
7	2 x 63MW DHP	Unit-I	63.48	220kV DHP - Tsirang Line	122.96	220kV DHP -Dagapela Line on Standby due to protection setting.	
		Unit-II	60.06	220kV DHP - Dagapela Line	0.00		
		-	-	220kV BitDeer - Dagapela Line	54.89		
		-	-	5MVA, 220/33kV TFR	0.24		
		Total	123.54	Auxiliary Consumption & Transformation Losses at Generator end	0.28%		
8	4 x 15MW KHP	Unit- I	16.48	132kV KHP - Nangkhor Line	37.71	All units and feeders are in service.	
		Unit-II	16.55	132kV KHP - Kilikhar Line	27.14		
		Unit- III	16.57	5MVA, 132/11kV TFR	0.40		
		Unit- IV	16.54	132kV Motanga - Rangla Line	63.00		
		Total	66.14	Auxiliary Consumption & Transformation Losses at Generator end	1.35%		
9	2 x 59MW NHP	Unit-I	64.88	132kV NHP-MHP-I	64.44	All units and feeders are in service.	
		Unit-II	64.85	132kV NHP-MHP-II	64.48		
		Total	129.73	Auxiliary Consumption & Transformation Losses at Generator end	0.62%		
10	2 x 9MW SHP	Unit- I	5.00	66kV SHP-Damdhum (Samtse)	0.00	(Not able to Generate full capacity of 18MW due to transmission evacuation constraint.) Interim measure: Evacuation is through 33kV System.	
		Unit- II	4.99	-	-		
		Total	9.99	Auxiliary Consumption & Transformation Losses at Generator end	100.00%		
Note: Generation-Load Summary (MW) for 26-Sep-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)	3,559.60	1,221.35		2,338.25		
Note: Generation-Load Summary (MW) for 26-Sep-2024, 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)	2,654.58	898.94		1,755.64		
Note: Daily Energy (MUs) and Power(MW) Statistics for 26-Sep-2025							
Sl. No.	Total Energy Generation	Daily Energy Met	Net Energy Import (IEX and Solar)	Net Energy Export	Peak Cross-border (MW)	Tt. Exp./Imp. 1,755.64 2,338.25	
1	82.50	27.73	0.00	54.72	2,439.67		
Tt. Gen. 2,654.58 559.60							
Y-2024 Y-2025							

- 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.
 - 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.