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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 12-Jul-2025(-ve:import, +ve:export)							
Report Details	Date	Time		National Coincidental Peak Load (MW)	Date	Time	Load
	July 11, 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	187.46	400kV THP - Siliguri Line - I	121.28		
		Unit-II	187.50	400kV THP - Siliguri Line - II	119.74		
		Unit-III	61.50	400kV THP - Siliguri Line- IV	114.25		
		Unit-IV	140.74	400kV THP - Malbase Line - III	316.12		
		Unit-V	50.26	400kV Malbase - Siliguri Line	69.62		
		Unit-VI	50.14	-	-		
		Total	677.60	Auxiliary Consumption & Transformation Losses at Generator end	0.92%		
2	4 x 180MW MHP	Unit-I	145.76	400kV MHP - Jigmeling Line - I	201.66	400kV MHP-Jigmeling Line- II on standby.	
		Unit-II	150.86	400kV MHP - Jigmeling Line - II	0.00		
		Unit-III	148.87	400kV MHP - Jigmeling Line - III	209.34		
		Unit-IV	146.47	400kV MHP - Jigmeling Line - IV	208.66		
		-	-	220kV Jigmeling - BitDeer Line - I	45.65		
		-	-	220kV Jigmeling - BitDeer Line - II	44.03		
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	191.27		
		-	-	400kV Jigmeling - Alipurduar Line - I	312.00		
		-	-	400kV Jigmeling - Alipurduar Line - II	310.55		
		-	-	80MVA, 220/132kV ICT - I (HV)	50.81		
		-	-	80MVA, 220/132kV ICT - II (HV)	50.43		
		-	-	132kV MHP - Yurmo Line - II	63.06		
		-	-	132kV Gelephu - Salakati Line	10.97		
		Total	591.96	Auxiliary Consumption & Transformation Losses at Generator end	0.01%		
		3	6 x 170MW PHP-II	Unit- I	186.79		
Unit- II	186.71			400kV PHP II - Jigmeling -II	101.06		
Unit- III	187.48			400kV PHP II - Alipurduar -I	0.00		
Unit- IV	0.00			400kV PHP II - Alipurduar -II	360.54		
Unit- V	0.00			-	-		
Unit- VI	0.00			-	-		
Total	560.98			Auxiliary Consumption & Transformation Losses at Generator end	-0.42%		
4	4 x 84MW CHP	Unit- I	86.38	220kV CHP - Birpara Line - I	20.13		
		Unit- II	85.29	220kV CHP - Birpara Line - II	19.70		
		Unit- III	86.04	220kV CHP - Gedu	111.76		
		Unit- IV	85.80	220kV CHP - Jamjee (old) - I	61.54		
		-	-	220kV CHP - Jamjee - II (new)	61.03		
		-	-	220kV CHP - Jamjee - III (new)	58.62		
		-	-	220kV Malbase - Birpara Line	-10.69		
		-	-	66kV CHP - Gedu Line	8.95		
		-	-	3x3MVA, 66/11kV TFR	1.32		
		Total	343.51	Auxiliary Consumption & Transformation Losses at Generator end	0.13%		
		5	2 x 12MW BHP (U/S)	Unit- I	6.40		
Unit- II	7.90			66kV BHP - Lobeysa Line	22.74		
Total	14.30			220kV BHP - Tsirang Line	-94.47		
6	2 x 20MW BHP (L/S)	Unit- I	9.90	5MVA, 66/11kV TFR	0.48		
		Unit- II	12.00	30MVA ICT, 220/66kV (HV)	9.09		
		Total	21.90	Auxiliary Consumption & Transformation Losses at Generator end	0.80%		
7	2 x 63MW DHP	Unit-I	55.92	220kV DHP - Tsirang Line	55.62	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	0.23		
		Total	55.92	Auxiliary Consumption & Transformation Losses at Generator end	0.13%		
8	4 x 15MW KHP	Unit- I	16.53	132kV KHP - Nangkhor Line	42.91		
		Unit-II	16.56	132kV KHP - Kilikhar Line	22.55		
		Unit- III	16.53	5MVA, 132/11kV TFR	0.29		
		Unit- IV	16.53	132kV Motanga - Rangia Line	29.04		
		Total	66.15	Auxiliary Consumption & Transformation Losses at Generator end	0.60%		
9	2 x 59MW NHP	Unit-I	44.95	132kV NHP-MHP-I	45.57		
		Unit-II	44.98	132kV NHP-MHP-II	45.26		
		Total	89.93	Auxiliary Consumption & Transformation Losses at Generator end	-1.00%		
10	2 x 9MW SHP	Unit- I	5.10	66kV SHP-Damdhum (Samtse)	0.00	Interim measure: evacuation is through 33kV system.	
		Unit- II	5.00	-	-		
		Total	10.10	Auxiliary Consumption & Transformation Losses at Generator end	100.00%		
Note: Generation-Load Summary (MW) for 11-Jul-25 at 09:00 hrs							
Sl. No.	Region	Total Generation	Total Domestic Load (Total Generation - Total Export)		Total Export(+ve)/ Import(-ve)	09:00 hrs Statistical Comparison (MW) for this and last year	
1	Both Eastern & Western (Whole Bhutan)	2,432.35	955.22		1,477.13	Tt. Exp./Imp.	1,635.25 1,477.13
Note: Generation-Load Summary (MW) for 11-Jul-24 at 09:00 hrs							
Sl. No.	Region	Total Generation	Total Domestic Load (Total Generation - Total Export)		Total Export(+ve)/ Import(-ve)	Tt. Load	
1	Both Eastern & Western (Whole Bhutan)	2,520.07	884.82		1,635.25	884.82 955.22	
Tt. Gen.							
1	Both Eastern & Western (Whole Bhutan)	2,520.07	884.82		1,635.25	2,520.07 2,432.35	
■ Y-2024 ■ Y-2025							

THE DAILY BHUTAN POWER SYSTEM OPERATOR LOAD-GENERATION BALANCE REPORT & ENERGY FIGURES ISSUED ON 12-Jul-2025(-ve:import, +ve:export)									
Report Details	Date	Time	National Coincidental Peak Load (MW)			Date	Time	Load	
	July 11, 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	187.60	400kV THP - Siliguri Line - I		183.06			
		Unit- II	187.65	400kV THP - Siliguri Line - II		181.95			
		Unit- III	81.20	400kV THP - Siliguri Line - IV		96.80			
		Unit- IV	84.70	400kV THP - Malbase Line - III		338.83			
		Unit- V	50.19	400kV Malbase - Siliguri Line		50.42			
		Unit- VI	50.22			-			
		Total	641.56	Auxiliary Consumption & Transformation Losses at Generator end		0.14%			
2	4 x 180MW MHP	Unit-I	154.30	400kV MHP - Jigmeling Line - I		192.84	400kV MHP-JLG Line- II on standby. 132kV Gelephu-Salakati line under shutdown.		
		Unit-II	135.13	400kV MHP - Jigmeling Line - II		0.00			
		Unit-III	135.73	400kV MHP - Jigmeling Line - III		200.29			
		Unit-IV	135.56	400kV MHP - Jigmeling Line - IV		199.81			
		-	-	220kV Jigmeling - BitDeer Line - I		53.15			
		-	-	220kV Jigmeling - BitDeer Line - II		51.03			
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)		213.46			
		-	-	400kV Jigmeling - Alipurduar Line - I		347.64			
		-	-	400kV Jigmeling - Alipurduar Line - II		347.64			
		-	-	80MVA, 220/132kV ICT - I (HV)		54.63			
		-	-	80MVA, 220/132kV ICT - II (HV)		54.19			
		-	-	132kV MHP - Yurmo Line - II		61.50			
		-	-	132kV Gelephu - Salakati Line		0.00			
		Total	560.72	Auxiliary Consumption & Transformation Losses at Generator end		0.09%			
3	6 x 170MW PHP-II	Unit- I	186.29	400kV PHP II - Jigmeling -I		162.59	400kV PHP II-Alipurduar I not in service.		
		Unit- II	185.78	400kV PHP II - Jigmeling -II		162.01			
		Unit- III	187.83	400kV PHP II - Alipurduar -I		0.00			
		Unit- IV	186.50	400kV PHP II - Alipurduar -II		424.68			
		Unit- V	0.00			-			
		Unit- VI	0.00			-			
		Total	746.40	Auxiliary Consumption & Transformation Losses at Generator end		-0.39%			
4	4 x 84MW CHP	Unit- I	79.33	220kV CHP - Birpara Line - I		18.59			
		Unit- II	79.06	220kV CHP - Birpara Line - II		18.04			
		Unit- III	80.59	220kV CHP - Gedu		101.13			
		Unit- IV	79.74	220kV CHP - Jamjee - I		57.20			
		-	-	220kV CHP - Jamjee - II		56.72			
		-	-	220kV CHP - Jamjee - III		54.81			
		-	-	220kV Malbase - Birpara Line		-6.26			
		-	-	66kV CHP - Gedu Line		9.61			
		-	-	3x3MVA, 66/11kV TFR		1.41			
		Total	318.72	Auxiliary Consumption & Transformation Losses at Generator end		0.38%			
5	2 x 12MW BHP (U/S)	Unit- I	5.98	220kV BHP - Semtokha Line		120.00			
		Unit- II	8.02	66kV BHP - Lobeysa Line		23.24			
		Total	14.00	220kV BHP - Tsirang Line		-104.06			
6	2 x 20MW BHP (L/S)	Unit- I	13.13	5MVA, 66/11kV TFR		0.52			
		Unit- II	12.90	30MVA ICT, 220/66kV (HV)		10.24			
		Total	26.03	Auxiliary Consumption & Transformation Losses at Generator end		0.82%			
7	2 x 63MW DHP	Unit-I	52.39	220kV DHP - Tsirang Line		52.14	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		0.28			
		Total	52.39	Auxiliary Consumption & Transformation Losses at Generator end		-0.06%			
8	4 x 15MW KHP	Unit- I	16.50	132kV KHP - Nangkhon Line		41.17			
		Unit-II	16.46	132kV KHP - Kilikhar Line		24.04			
		Unit- III	16.57	5MVA, 132/11kV TFR		0.34			
		Unit- IV	16.53	132kV Motanga - Rangia Line		38.43			
		Total	66.06	Auxiliary Consumption & Transformation Losses at Generator end		0.77%			
9	2 x 59MW NHP	Unit-I	50.18	132kV NHP-MHP-I		49.53			
		Unit-II	45.00	132kV NHP-MHP-II		44.72			
		Total	95.18	Auxiliary Consumption & Transformation Losses at Generator end		0.98%			
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 11-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)	2,531.06	990.07			1,540.99	Tt. Exp./Imp. 1,645.06 1,540.99		
Note: Generation-Load Summary (MW) for 11-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 894.31 990.07		
1	Both Eastern & Western (Whole Bhutan)	2,539.37	894.31			1,645.06			
Note: Daily Energy (MUs) and Power(MW) Statistics for 11-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. 2,539.37 2,531.06			
1	59.79	22.82	0.00	37.07	1,642.42	■ 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.