ནུས་ཤུགས་དང་རང་བཞིན་ཐོན་སྐྱེད་ལྷན་ཁག དཔལ་ལྡན་འབྲུག་གཞུང་།

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 04-Jul-2025(-ve:import, +ve:export)

Report Details	Date	Time	National Coincidental Peak Load (MW)	Date	Time	Load
	July 3, 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	186.00	400kV THP - Siliguri Line - I	289.48	400kV Malbase-Siliguri Line under Shutdown.
		Unit- II	186.08	400kV THP - Siliguri Line - II	287.51	
		Unit- III	187.01	400kV THP - Siliguri Line- IV	278.94	
		Unit- IV	185.00	400kV THP - Malbase Line - III	261.25	
		Unit- V	186.05	400kV Malbase - Siliguri Line	0.00	
		Unit- VI	186.47	-	-	
		Total	**1,116.61**	**Auxiliary Consumption & Transformation Losses at Generator end**	**-0.05%**	
2	4 x 180MW MHP	Unit-I	197.82	400kV MHP - Jigmeling Line - I	277.11	400kV MHP-Jigmeling Line- II on Standby
		Unit-II	197.51	400kV MHP - Jigmeling Line - II	0.00	
		Unit-III	191.96	400kV MHP - Jigmeling Line - III	286.78	
		Unit-IV	197.08	400kV MHP - Jigmeling Line - IV	286.86	
		-	-	220kV Jigmeling - BitDeer Line - I	60.16	
		-	-	220kV Jigmeling - BitDeer Line - II	57.77	
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	237.82	
		-	-	400kV Jigmeling - Alipurduar Line - I *direct lines*	669.09	
		-	-	400kV Jigmeling - Alipurduar Line - II	669.09	
		-	-	80MVA, 220/132kV ICT - I (HV)	-60.24	
		-	-	80MVA, 220/132kV ICT - II (HV)	-59.83	
		-	-	132kV MHP - Yurmo Line - II	60.95	
		-	-	132kV Gelephu - Salakati Line	37.69	
		Total	**784.37**	**Auxiliary Consumption & Transformation Losses at Generator end**	**0.21%**	
3	6 x 170MW PHP-II	Unit- I	185.72	400kV PHP II - Jigmeling -I *erstwhile interim lines*	375.36	-
		Unit- II	187.15	400kV PHP II - Jigmeling -II	374.44	
		Unit- III	188.18	400kV PHP II - Alipurduar -I	0.00	
		Unit- IV	187.86	400kV PHP II - Alipurduar -II	0.00	
		Unit- V	0.00	-	-	
		Unit- VI	0.00	-	-	
		Total	**748.91**	**Auxiliary Consumption & Transformation Losses at Generator end**	**-0.12%**	
4	4 x 84MW CHP	Unit- I	91.46	220kV CHP - Birpara Line - I	47.02	-
		Unit- II	91.59	220kV CHP - Birpara Line - II	46.41	
		Unit- III	91.36	220kV CHP - Gedu	124.03	
		Unit- IV	91.57	220kV CHP - Jamjee **(old)** - I	46.12	
		-	-	220kV CHP - Jamjee - II **(new)**	45.74	
		-	-	220kV CHP - Jamjee - III **(new)**	44.20	
		-	-	220kV Malbase - Birpara Line	23.32	
		-	-	66kV CHP - Gedu Line	9.47	
		-	-	3x3MVA, 66/11kV TFR	1.22	
		Total	**365.98**	**Auxiliary Consumption & Transformation Losses at Generator end**	**0.48%**	
5	2 x 12MW BHP (U/S)	Unit- I	10.10	220kV BHP - Semtokha Line	157.01	
		Unit- II	10.08	66kV BHP - Lobeysa Line	26.63	
		Total	**20.18**	220kV BHP - Tsirang Line	-133.60	
6	2 x 20MW BHP (L/S)	Unit- I	15.28	5MVA, 66/11kV TFR	0.44	
		Unit- II	15.26	30MVA ICT, 220/66kV (HV)	7.57	
		Total	**30.54**	**Auxiliary Consumption & Transformation Losses at Generator end**	**0.47%**	
7	2 x 63MW DHP	Unit-I	34.81	220kV DHP - Tsirang Line	68.35	220kV DHP - Dagapela Line on Standby.
		Unit-II	33.98	220kV DHP - Dagapela Line	0.00	
		-	-	220kV BitDeer - Dagapela Line	52.03	
		-	-	5MVA, 220/33kV TFR	0.23	
		Total	**68.79**	**Auxiliary Consumption & Transformation Losses at Generator end**	**0.31%**	
8	4 x 15MW KHP	Unit- I	16.06	132kV KHP - Nangkhor Line	41.15	
		Unit-II	16.34	132kV KHP - Kilikhar Line	22.47	
		Unit- III	15.84	5MVA, 132/11kV TFR	0.30	
		Unit- IV	16.05	132kV Motanga - Rangia Line	43.25	
		Total	**64.29**	**Auxiliary Consumption & Transformation Losses at Generator end**	**0.58%**	
9	2 x 59MW NHP	Unit-I	64.93	132kV NHP-MHP-I	64.46	
		Unit-II	64.99	132kV NHP-MHP-II	64.48	
		Total	**129.92**	**Auxiliary Consumption & Transformation Losses at Generator end**	**0.75%**	
10	2 x 9MW SHP	Unit- I	5.90	66kV SHP-Damdhum (Samtse)	0.00	Interim measure: evacuation is through 33kV system.
		Unit- II	4.10	-	-	
		Total	**10.00**	**Auxiliary Consumption & Transformation Losses at Generator end**	**100.00%**	

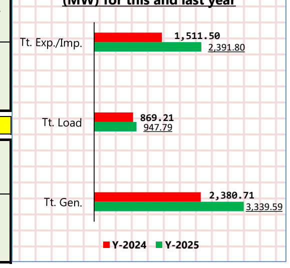
Note: Generation-Load Summary (MW) for 03-Jul-25 at 09:00 hrs

Sl. No.	Region	Total Generation	Total Domestic Load (Total Generation - Total Export)	Total Export(+ve)/ Import(-ve)
1	Both Eastern & Western (Whole Bhutan)	3,339.59	947.79	2,391.80

Note: Generation-Load Summary (MW) for 03-Jul-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)	2,380.71	869.21	1,511.50

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 04-Jul-2025(-ve:import, +ve:export)

Report Details	Date	Time	National Coincidental Peak Load (MW)	Date	Time	Load
	July 3, 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	0.00	400kV THP - Siliguri Line - I	225.01	Unit I tripped @ 400kV Malbase-Siliguri line under Shutdown. Unit I tripped @ 17:06hrs
		Unit- II	187.64	400kV THP - Siliguri Line - II	223.22	
		Unit- III	187.59	400kV THP - Siliguri Line - IV	216.24	
		Unit- IV	187.74	400kV THP - Malbase Line - III	265.45	
		Unit- V	185.00	400kV Malbase - Siliguri Line	0.00	
		Unit- VI	183.00	-	-	
		Total	**930.97**	**Auxiliary Consumption & Transformation Losses at Generator end**	0.11%	
2	4 x 180MW MHP	Unit-I	197.63	400kV MHP - Jigmeling Line - I	276.36	400kV MHP-JLG Line- II on Standby.
		Unit-II	197.81	400kV MHP - Jigmeling Line - II	0.00	
		Unit-III	192.01	400kV MHP - Jigmeling Line - III	285.91	
		Unit-IV	193.00	400kV MHP - Jigmeling Line - IV	285.90	
		-	-	220kV Jigmeling - BitDeer Line - I	62.76	
		-	-	220kV Jigmeling - BitDeer Line - II	60.61	
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	259.27	
		-	-	400kV Jigmeling - Alipurduar Line - I (direct lines)	656.73	
		-	-	400kV Jigmeling - Alipurduar Line - II (direct lines)	657.46	
		-	-	80MVA, 220/132kV ICT - I (HV)	-68.30	
		-	-	80MVA, 220/132kV ICT - II (HV)	-67.64	
		-	-	132kV MHP - Yurmo Line - II	61.26	
		-	-	132kV Gelephu - Salakati Line	38.92	
		Total	**780.45**	**Auxiliary Consumption & Transformation Losses at Generator end**	-0.01%	
3	6 x 170MW PHP-II	Unit- I	185.10	400kV PHP II - Jigmeling -I (erstwhile interim lines)	372.00	-
		Unit- II	187.15	400kV PHP II - Jigmeling -II (erstwhile interim lines)	369.20	
		Unit- III	185.92	400kV PHP II - Alipurduar -I (erstwhile interim lines)	0.00	
		Unit- IV	187.81	400kV PHP II - Alipurduar -II (erstwhile interim lines)	0.00	
		Unit- V	0.00	-	-	
		Unit- VI	0.00	-	-	
		Total	**745.98**	**Auxiliary Consumption & Transformation Losses at Generator end**	0.64%	
4	4 x 84MW CHP	Unit- I	91.56	220kV CHP - Birpara Line - I	49.57	-
		Unit- II	91.32	220kV CHP - Birpara Line - II	48.89	
		Unit- III	91.22	220kV CHP - Gedu	120.47	
		Unit- IV	91.48	220kV CHP - Jamjee - I	45.69	
		-	-	220kV CHP - Jamjee - II	45.29	
		-	-	220kV CHP - Jamjee - III	43.68	
		-	-	220kV Malbase - Birpara Line	31.37	
		-	-	66kV CHP - Gedu Line	9.51	
		-	-	3x3MVA, 66/11kV TFR	1.52	
		Total	**365.58**	**Auxiliary Consumption & Transformation Losses at Generator end**	0.26%	
5	2 x 12MW BHP (U/S)	Unit- I	12.00	220kV BHP - Semtokha Line	163.00	
		Unit- II	12.21	66kV BHP - Lobeysa Line	28.91	
		Total	**24.21**	220kV BHP - Tsirang Line	-129.42	
6	2 x 20MW BHP (L/S)	Unit- I	19.83	5MVA, 66/11kV TFR	0.66	
		Unit- II	19.69	30MVA ICT, 220/66kV (HV)	6.18	
		Total	**39.52**	**Auxiliary Consumption & Transformation Losses at Generator end**	0.91%	
7	2 x 63MW DHP	Unit-I	29.32	220kV DHP - Tsirang Line	59.01	220kV DHP - Dagapela Line on Standby.
		Unit-II	30.17	220kV DHP - Dagapela Line	0.00	
		-	-	220kV BitDeer - Dagapela Line	46.00	
		-	-	5MVA, 220/33kV TFR	0.20	
		Total	**59.49**	**Auxiliary Consumption & Transformation Losses at Generator end**	0.47%	
8	4 x 15MW KHP	Unit- I	16.10	132kV KHP - Nangkhor Line	38.90	
		Unit-II	16.38	132kV KHP - Kilikhar Line	23.30	
		Unit- III	15.60	5MVA, 132/11kV TFR	0.34	
		Unit- IV	15.83	132kV Motanga - Rangia Line	46.05	
		Total	**63.91**	**Auxiliary Consumption & Transformation Losses at Generator end**	2.14%	
9	2 x 59MW NHP	Unit-I	64.94	132kV NHP-MHP-I	64.41	
		Unit-II	64.89	132kV NHP-MHP-II	64.46	
		Total	**129.83**	**Auxiliary Consumption & Transformation Losses at Generator end**	0.74%	
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 03-Jul-2025 at 19:00 hrs

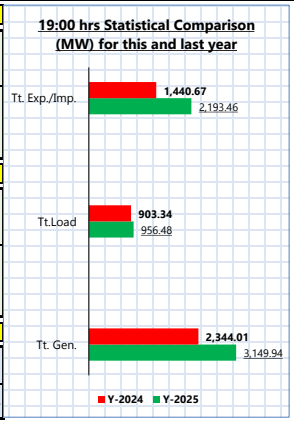
Sl. No.	Region	Total Generation	Total Domestic Load (Total Generation - Total Export)	Total Export(+ve)/ Import(-ve)
1	Both Eastern & Western (Whole Bhutan)	3,149.94	956.48	2,193.46

Note: Generation-Load Summary (MW) for 03-Jul-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)	2,344.01	903.34	1,440.67

Note: Daily Energy (MUs) and Power(MW) Statistics for 03-Jul-2025

Sl. No.	Total Energy Generation	Daily Energy Met	Net Energy Import (IEX and Solar)	Net Energy Export	Peak Cross-border (MW)
1	75.69	22.19	0.00	53.55	2,432.96



1. The Instantaneous load balance does not tend towards zero. This could be due to the following reasons:

   i) 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.

2. 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.
3. When SCADA data are unavailable for certain stations due to technical issues, required data are collected from the site.