



ལྷན་ཁྲིམས་དང་འཕེལ་རྒྱུ་ཉམས་ལེན་པའི་འཕུལ་གྲུལ་ལྷན་ཁྲིམས་
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-Apr-2025(-ve:import, +ve:export)						
Report Details	Date	Time	National Coincidental Peak Load (MW)		Date	Time
	April 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	12.26	400kV THP - Siliguri Line - I	0.00	Unit-IV under AMP. Unit- II, III & VI on Standby. 400kV THP-SIL Line I on Standby. 400kV THP-SIL Line IV under Shutdown.
		Unit- II	0.00	400kV THP - Siliguri Line - II	-111.49	
		Unit- III	0.00	400kV THP - Siliguri Line- IV	0.00	
		Unit- IV	0.00	400kV THP - Malbase Line - III	133.40	
		Unit- V	9.64	400kV Malbase - Siliguri Line	-152.00	
		Unit- VI	0.00	-	-	
		Total	21.90	Auxiliary Consumption & Transformation Losses at Generator end	-0.05%	
2	4 x 180MW MHP	Unit-I	0.00	400kV MHP - Jigmeling Line - I	38.78	Unit-II under AMP. Unit I on Standby 400kV MHP-JLG line-III on Standby. 400kV MHP-JLG line-IV under shutdown. 132kV MHP_Yumoo Line- I not in Service. 80MVA ICT-I Under Shutdown.
		Unit-II	0.00	400kV MHP - Jigmeling Line - II	38.59	
		Unit-III	59.45	400kV MHP - Jigmeling Line - III	0.00	
		Unit-IV	75.32	400kV MHP - Jigmeling Line - IV	0.00	
		-	-	132kV MHP - Yurno Line - I	0.00	
		-	-	132kV MHP - Yurno Line - II	63.30	
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	209.46	
		-	-	400kV Jigmeling - Alipurduar Line - I	37.80	
		-	-	400kV Jigmeling - Alipurduar Line - II	36.00	
		-	-	80MVA, 220/132kV ICT - I (HV)	0.07	
		-	-	80MVA, 220/132kV ICT - II (HV)	54.69	
		-	-	220kV Tsirang - Jigmeling Line	-88.98	
		-	-	132kV Gelephu - Salakati Line	-14.99	
		Total	134.77	Auxiliary Consumption & Transformation Losses at Generator end	6.50%	
3	6 x 170MW PHP-II	Unit- I	142.72	400kV PHP II - Jigmeling -I	0.00	Unit-II on Standby. 400kV PHP-II - Jigmeling Line-I on Standby.
		Unit- II	39.36	400kV PHP II - Jigmeling -II	182.00	
		Unit- III	0.00	400kV PHP II - Alipurduar -I	0.00	
		Unit- IV	0.00	400kV PHP II - Alipurduar -II	0.00	
		Unit- V	0.00	-	-	
		Unit- VI	0.00	-	-	
		Total	182.08	Auxiliary Consumption & Transformation Losses at Generator end	0.04%	
4	4 x 84MW CHP	Unit- I	21.04	220kV CHP - Birpara Line - I	-69.17	Unit-II & Unit-III under AMP.
		Unit- II	0.00	220kV CHP - Birpara Line - II	-68.20	
		Unit- III	0.00	220kV CHP - Gedu	0.57	
		Unit- IV	19.88	220kV CHP - Jamjee (old) - I	58.21	
		-	-	220kV CHP - Jamjee - II (new)	57.99	
		-	-	220kV CHP - Jamjee - III (new)	55.98	
		-	-	220kV Malbase - Birpara Line	-72.00	
		-	-	66kV CHP - Gedu Line	5.58	
		-	-	3x3MVA, 66/11kV TFR	1.29	
		Total	40.92	Auxiliary Consumption & Transformation Losses at Generator end	-3.25%	
5	2 x 12MW BHP (U/S)	Unit- I	0.00	220kV BHP - Semtokha Line	106.50	U/S Unit-I & L/S Unit-II on Standby.
		Unit- II	4.30	66kV BHP - Lobeyza Line	7.43	
6	2 x 20MW BHP (L/S)	Unit- I	8.16	220kV BHP - Tsirang Line	-101.31	
		Unit- II	0.00	5MVA, 66/11kV TFR	0.33	
7	2 x 63MW DHP	Unit- I	0.00	30MVA ICT, 220/66kV (HV)	3.62	Unit-I on Standby. 220kV DHP-Dagapela line on Standby.
		Unit-I	0.00	220kV DHP - Tsirang Line	14.95	
		Unit-II	15.16	220kV DHP - Dagapela Line	0.00	
		-	-	220kV Jigmeling - Dagapela Line	51.56	
		-	-	5MVA, 220/33kV TFR	0.20	
8	4 x 15MW KHP	Total	15.16	Auxiliary Consumption & Transformation Losses at Generator end	0.07%	Unit- II under AMP.
		Unit- I	0.00	132kV KHP - Nangkhor Line	13.93	
		Unit-II	0.00	132kV KHP - Kilikhar Line	17.92	
		Unit- III	16.20	5MVA, 132/11kV TFR	0.27	
		Unit- IV	16.12	132kV Motanga - Rangia Line	0.00	
9	2 x 59MW NHP	Total	32.32	Auxiliary Consumption & Transformation Losses at Generator end	0.62%	Unit- II under AMP.
		Unit-I	15.03	132kV NHP-MHP-I	14.66	
		Unit-II	0.00	132kV NHP-MHP-II	0.00	
10	2 x 9MW SHP	Total	15.03	Auxiliary Consumption & Transformation Losses at Generator end	2.46%	Unit-II under AMP. 132kV NHP-MHP line-II under AMP.
		Unit- I	0.00	66kV SHP-Damdhum (Samtse)	0.00	
		Unit- II	0.00	-	-	
		Total	0.00	Auxiliary Consumption & Transformation Losses at Generator end	0.00%	Interim measure: evacuation is through 33kV system

Note: Generation-Load Summary (MW) for 03-Apr-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)	454.64	868.69	-414.05

Note: Generation-Load Summary (MW) for 03-Apr-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)	749.03	871.51	-122.48

THE DAILY BHUTAN POWER SYSTEM OPERATOR LOAD-GENERATION BALANCE REPORT & ENERGY FIGURES ISSUED ON 04-Apr-2025(-ve:import, +ve:export)							
Report Details		Date		Time		Load	
		April 3, 2025		18:00:00		1026.44	
		National Coincidental Peak Load (MW)		25-Dec-2024			
Sl. No.	Hydropower Plant	Unit	MW	Transmission Lines and Elements	Load (MW)	Remarks	
1	6 x 170MW THP	Unit- I	12.24	400kV THP - Siliguri Line - I	0.00	Unit-IV under AMP. Unit- II, III & VI on Standby. 400kV THP-SIL Line I on Standby. 400kV THP-SIL Line IV under Shutdown .	
		Unit- II	0.00	400kV THP - Siliguri Line - II	-121.19		
		Unit- III	0.00	400kV THP - Siliguri Line - IV	0.00		
		Unit- IV	0.00	400kV THP - Malbase Line - III	142.80		
		Unit- V	9.76	400kV Malbase - Siliguri Line	-168.00		
		Unit- VI	0.00	-	-		
		Total	22.00	Auxiliary Consumption & Transformation Losses at Generator end	1.77%		
2	4 x 180MW MHP	Unit-I	0.00	400kV MHP - Jigmeling Line - I	90.74	Unit-I on Standby. Unit II under AMP. 400kV MHP-JLG Line III on Standby. 400kV MHP-JLG Line IV under Shutdown. 132kV MHP_Yurmoo Line- I not in Service.	
		Unit-II	0.00	400kV MHP - Jigmeling Line - II	91.50		
		Unit-III	160.58	400kV MHP - Jigmeling Line - III	0.00		
		Unit-IV	70.86	400kV MHP - Jigmeling Line - IV	0.00		
		-	-	132kV MHP - Yurmoo Line - I	0.00		
		-	-	132kV MHP - Yurmoo Line - II	62.65		
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	215.76		
		-	-	400kV Jigmeling - Alipurduar Line - I	81.85		
		-	-	400kV Jigmeling - Alipurduar Line - II	80.00		
		-	-	80MVA, 220/132kV ICT - I (HV)	-23.78		
		-	-	80MVA, 220/132kV ICT - II (HV)	-23.41		
		-	-	220kV Tsirang - Jigmeling Line	-128.05		
		-	-	132kV Gelephu - Salakati Line	-8.38		
		Total	231.44	Auxiliary Consumption & Transformation Losses at Generator end	0.60%		
3	6 x 170MW PHP-II	Unit- I	50.02	400kV PHP II - Jigmeling -I	0.00	Unit-II on Standby. 400kV PHP-II - Jigmeling Line-I on Standby.	
		Unit- II	0.00	400kV PHP II - Jigmeling -II	219.95		
		Unit- III	170.24	400kV PHP II - Alipurduar -I	0.00		
		Unit- IV	0.00	400kV PHP II - Alipurduar -II	0.00		
		Unit- V	0.00	-	-		
		Unit- VI	0.00	-	-		
		Total	220.26	Auxiliary Consumption & Transformation Losses at Generator end	0.14%		
4	4 x 84MW CHP	Unit- I	21.15	220kV CHP - Birpara Line - I	-79.50	Unit-II & Unit-III under AMP.	
		Unit- II	0.00	220kV CHP - Birpara Line - II	-78.80		
		Unit- III	0.00	220kV CHP - Gedu	-16.77		
		Unit- IV	19.80	220kV CHP - Jamjee - I	70.63		
		-	-	220kV CHP - Jamjee - II	70.27		
		-	-	220kV CHP - Jamjee - III	67.62		
		-	-	220kV Malbase - Birpara Line	-74.08		
		-	-	66kV CHP - Gedu Line	5.08		
		-	-	3x3MVA, 66/11kV TFR	1.41		
		Total	40.95	Auxiliary Consumption & Transformation Losses at Generator end	2.47%		
5	2 x 12MW BHP (U/S)	Unit- I	0.00	220kV BHP - Semtokha Line	133.50	U/S Unit-I & L/S Unit-II on Standby	
		Unit- II	3.80	66kV BHP - Lobeysa Line	9.13		
		Total	3.80	220kV BHP - Tsirang Line	-130.83		
		Unit- I	8.40	5MVA, 66/11kV TFR	0.47		
6	2 x 20MW BHP (L/S)	Unit- II	0.00	30MVA ICT, 220/66kV (HV)	5.61		
		Total	8.40	Auxiliary Consumption & Transformation Losses at Generator end	-0.57%		
		Unit-I	0.00	220kV DHP - Tsirang Line	14.97		Unit-I on Standby. 220kV DHP-Dagapela line on Standby
		Unit-II	15.20	220kV DHP - Dagapela Line	0.00		
7	2 x 63MW DHP	-	-	220kV Jigmeling - Dagapela Line	51.56		
		-	-	5MVA, 220/33kV TFR	0.20		
		Total	15.20	Auxiliary Consumption & Transformation Losses at Generator end	0.20%		
		Unit- I	0.00	132kV KHP - Nangkhor Line	17.60		Unit- I on Standby.
Unit-II	11.12	132kV KHP - Kilikhar Line	15.21				
Unit- III	11.12	5MVA, 132/11kV TFR	0.28				
Unit- IV	11.16	132kV Motanga - Rangla Line	7.57				
8	4 x 15MW KHP	Total	33.40	Auxiliary Consumption & Transformation Losses at Generator end	0.93%		
		Unit-I	15.05	132kV NHP-MHP-I	14.84	Unit-II under AMP. 132kV NHP-MHP line-II under AMP.	
		Unit-II	0.00	132kV NHP-MHP-II	0.00		
		Total	15.05	Auxiliary Consumption & Transformation Losses at Generator end	1.40%		
9	2 x 59MW NHP	Unit-I	0.00	66kV SHP-Damdhum (Samtse)	0.00	Interim measure: evacuation is through 33kV system	
		Unit- II	0.00	-	-		
		Total	0.00	Auxiliary Consumption & Transformation Losses at Generator end	0.00%		
		Note: Generation-Load Summary (MW) for 03-Apr-2025 at 18:00 hrs					
Sl. No.	Region	Total Generation	Total Domestic Load (Total Generation - Total Export)		Total Export(+ve)/ Import(-ve)		
1	Both Eastern & Western (Whole Bhutan)	590.50	951.03		-360.53		
Note: Generation-Load Summary (MW) for 03-Apr-2024, at 18:00 hrs							
Sl. No.	Region	Total Generation	Total Domestic Load (Total Generation - Total Export)		Total Export(+ve)/ Import(-ve)		
1	Both Eastern & Western (Whole Bhutan)	758.60	877.73		-119.13		
Note: Daily Energy (MUs) and Power(MW) Statistics for 03-Apr-2025							
Sl. No.	Total Energy Generation	Daily Energy Met	Net Energy Import (IEX and Solar)	Net Energy Export	Peak Cross-border (MW)		
1	17.37	21.41	4.88	0.46	-547.78		

1. 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:

- 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.
- 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.