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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 01-Apr-2025(-ve:import, +ve:export)

Report Details	Date	Time	National Coincidental Peak Load (MW)		Date	Time	Load
	March 31, 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	20.20	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	-103.39	
		Unit- III	0.00	400kV THP - Siliguri Line- IV	0.00	
		Unit- IV	0.00	400kV THP - Malbase Line - III	134.46	
		Unit- V	11.77	400kV Malbase - Siliguri Line	-146.00	
		Unit- VI	0.00	-	-	
		Total	31.97	Auxiliary Consumption & Transformation Losses at Generator end	2.82%	
2	4 x 180MW MHP	Unit-I	0.00	400kV MHP - Jigmeling Line - I	17.28	Unit-II under AMP. Unit I on Standby. 400kV MHP-JLG line-III & IV on Standby. 132kV MHP_Yurmo Line- I not in Service.
		Unit-II	0.00	400kV MHP - Jigmeling Line - II	17.17	
		Unit-III	54.92	400kV MHP - Jigmeling Line - III	0.00	
		Unit-IV	26.25	400kV MHP - Jigmeling Line - IV	0.00	
		-	-	132kV MHP - Yurmo Line - I	0.00	
		-	-	132kV MHP - Yurmo Line - II	61.61	
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	185.09	
		-	-	400kV Jigmeling - Alipurduar Line - I : <i>direct lines</i>	32.00	
		-	-	400kV Jigmeling - Alipurduar Line - II : <i>direct lines</i>	33.46	
		-	-	80MVA, 220/132kV ICT - I (HV)	14.13	
		-	-	80MVA, 220/132kV ICT - II (HV)	13.94	
		-	-	220kV Tsirang - Jigmeling Line	-105.01	
		-	-	132kV Gelephu - Salakati Line	-13.17	
		Total	81.17	Auxiliary Consumption & Transformation Losses at Generator end	-0.05%	
3	6 x 170MW PHP-II	Unit-I	49.92	400kV PHP II - Jigmeling -I	0.00	Unit-II on Standby. Unit-III is on 24hrs trial run. 400kV PHP-II - Jigmeling Line-I on Standby.
		Unit- II	0.00	400kV PHP II - Jigmeling -II	219.00	
		Unit- III	169.71	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	219.63	Auxiliary Consumption & Transformation Losses at Generator end	0.29%	
4	4 x 84MW CHP	Unit- I	21.10	220kV CHP - Birpara Line - I	-75.58	Unit-II & Unit-III under AMP.
		Unit- II	0.00	220kV CHP - Birpara Line - II	-74.94	
		Unit- III	0.00	220kV CHP - Gedu	-22.21	
		Unit- IV	30.66	220kV CHP - Jamjee (old) - I	73.60	
		-	-	220kV CHP - Jamjee - II (new)	73.41	
		-	-	220kV CHP - Jamjee - III (new)	70.74	
		-	-	220kV Malbase - Birpara Line	-77.76	
		-	-	66kV CHP - Gedu Line	6.76	
		-	-	3x3MVA, 66/11kV TFR	1.31	
		Total	51.76	Auxiliary Consumption & Transformation Losses at Generator end	-2.57%	
5	2 x 12MW BHP (U/S)	Unit- I	0.00	220kV BHP - Semtokha Line	107.65	U/S Unit-I & L/S Unit-II on Standby.
		Unit- II	4.40	66kV BHP - Lobeysha Line	22.56	
		Total	4.40	220kV BHP - Tsirang Line	-117.24	
6	2 x 20MW BHP (L/S)	Unit- I	8.36	5MVA, 66/11kV TFR	0.34	
		Unit- II	0.00	30MVA ICT, 220/66kV (HV)	18.80	
		Total	8.36	Auxiliary Consumption & Transformation Losses at Generator end	-4.31%	
7	2 x 63MW DHP	Unit-I	0.00	220kV DHP - Tsirang Line	15.57	Unit-I on Standby. 220kV DHP-Dagapela line on Standby.
		Unit-II	15.78	220kV DHP - Dagapela Line	0.00	
		-	-	220kV Jigmeling - Dagapela Line	51.55	
		-	-	5MVA, 220/33kV TFR	0.20	
		Total	15.78	Auxiliary Consumption & Transformation Losses at Generator end	0.06%	
8	4 x 15MW KHP	Unit- I	15.14	132kV KHP - Nangkhor Line	28.13	Unit- II under AMP.
		Unit-II	0.00	132kV KHP - Kilikhar Line	16.52	
		Unit- III	15.12	5MVA, 132/11kV TFR	0.26	
		Unit- IV	15.10	132kV Motanga - Rangia Line	9.99	
		Total	45.36	Auxiliary Consumption & Transformation Losses at Generator end	0.99%	
9	2 x 59MW NHP	Unit-I	15.00	132kV NHP-MHP-I	14.85	Unit-II under AMP. 132kV NHP-MHP line-II under AMP.
		Unit-II	0.00	132kV NHP-MHP-II	0.00	
		Total	15.00	Auxiliary Consumption & Transformation Losses at Generator end	1.00%	
10	2 x 9MW SHP	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 31-Mar-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)	473.43	888.82	-415.39

Note: Generation-Load Summary (MW) for 31-Mar-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)	398.25	879.43	-481.18

THE DAILY BHUTAN POWER SYSTEM OPERATOR LOAD-GENERATION BALANCE REPORT & ENERGY FIGURES ISSUED ON 01-Apr-2025(+ve:import, +ve:export)							
Report Details	Date	Time	National Coincidental Peak Load (MW)		Date	Time	Load
	March 31, 2025	18:00:00			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	166.00	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	53.55		
		Unit-III	0.00	400kV THP - Siliguri Line - IV	0.00		
		Unit-IV	0.00	400kV THP - Malbase Line - III	276.87		
		Unit-V	166.00	400kV Malbase - Siliguri Line	5.00		
		Unit-VI	0.00	-	-		
		Total	332.00	Auxiliary Consumption & Transformation Losses at Generator end	0.48%		
2	4 x 180MW MHP	Unit-I	0.00	400kV MHP - Jigmeling Line - I	134.09	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	134.23		
		Unit-III	152.82	400kV MHP - Jigmeling Line - III	0.00		
		Unit-IV	162.22	400kV MHP - Jigmeling Line - IV	0.00		
		-	-	132kV MHP - Yurmoo Line - I	0.00		
		-	-	132kV MHP - Yurmoo Line - II	58.76		
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	172.36		
		-	-	400kV Jigmeling - Alipurduar Line - I	46.55		
		-	-	400kV Jigmeling - Alipurduar Line - II	48.00		
		-	-	80MVA, 220/132kV ICT - I (HV)	14.53		
		-	-	80MVA, 220/132kV ICT - II (HV)	14.37		
		-	-	220kV Tsirang - Jigmeling Line	-91.97		
		-	-	132kV Gelephu - Salakati Line	-17.41		
		Total	315.04	Auxiliary Consumption & Transformation Losses at Generator end	1.83%		
		3	6 x 170MW PHP-II	Unit-I	0.00		
Unit-II	0.00			400kV PHP II - Jigmeling -II	0.00		
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	0.00			Auxiliary Consumption & Transformation Losses at Generator end	0.00%		
4	4 x 84MW CHP	Unit-I	60.28	220kV CHP - Birpara Line - I	-44.39	Unit-II & Unit-III under AMP.	
		Unit-II	0.00	220kV CHP - Birpara Line - II	-44.00		
		Unit-III	0.00	220kV CHP - Gedu	-31.57		
		Unit-IV	59.88	220kV CHP - Jamjee - I	79.00		
		-	-	220kV CHP - Jamjee - II	78.38		
		-	-	220kV CHP - Jamjee - III	75.31		
		-	-	220kV Malbase - Birpara Line	-31.00		
		-	-	66kV CHP - Gedu Line	7.12		
		-	-	3x3MVA, 66/11kV TFR	1.38		
		Total	120.16	Auxiliary Consumption & Transformation Losses at Generator end	-0.89%		
5	2 x 12MW BHP (U/S)	Unit-I	0.00	220kV BHP - Semtokha Line	94.10	U/S Unit-I & L/S Unit-II on Standby	
		Unit-II	4.29	66kV BHP - Lobeysha Line	22.78		
		Total	4.29	220kV BHP - Tsirang Line	-103.94		
6	2 x 20MW BHP (L/S)	Unit-I	8.70	5MVA, 66/11kV TFR	0.51		
		Unit-II	0.00	30MVA ICT, 220/66kV (HV)	19.26		
		Total	8.70	Auxiliary Consumption & Transformation Losses at Generator end	-3.54%		
7	2 x 63MW DHP	Unit-I	0.00	220kV DHP - Tsirang Line	15.73	Unit-I on Standby. 220kV DHP-Dagapela line on Standby	
		Unit-II	15.95	220kV DHP - Dagapela Line	0.00		
		-	-	220kV Jigmeling - Dagapela Line	52.15		
		-	-	5MVA, 220/33kV TFR	0.20		
		Total	15.95	Auxiliary Consumption & Transformation Losses at Generator end	0.13%		
8	4 x 15MW KHP	Unit-I	13.43	132kV KHP - Nangkhor Line	23.83	Unit- II under AMP.	
		Unit-II	0.00	132kV KHP - Kilikhar Line	15.99		
		Unit-III	13.56	5MVA, 132/11kV TFR	0.24		
		Unit-IV	13.48	132kV Motanga - Rangia Line	6.69		
		Total	40.47	Auxiliary Consumption & Transformation Losses at Generator end	1.01%		
9	2 x 59MW NHP	Unit-I	17.98	132kV NHP-MHP-I	17.81	Unit-II under AMP. 132kV NHP-MHP line-II under AMP.	
		Unit-II	0.00	132kV NHP-MHP-II	0.00		
		Total	17.98	Auxiliary Consumption & Transformation Losses at Generator end	0.95%		
10	2 x 9MW SHP	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 31-Mar-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)	854.59	831.60	22.99

Note: Generation-Load Summary (MW) for 31-Mar-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)	731.77	857.84	-126.04

Note: Daily Energy (MUs) and Power(MW) Statistics for 31-Mar-2025

Sl. No.	Total Energy Generation	Daily Energy Met	Net Energy Import (IEX and Solar)	Net Energy Export	Peak Cross-border (MW)
1	18.16	20.01	2.44	0.59	-412.52

- 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:
 - 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.