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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 31-Mar-2025(-ve:import, +ve:export)

Report Details		Date	Time	National Coincidental Peak Load (MW)		Date	Time	Load
		March 30, 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	22.00	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		-111.10		
		Unit- III	0.00	400kV THP - Siliguri Line- IV		0.00		
		Unit- IV	0.00	400kV THP - Malbase Line - III		143.14		
		Unit- V	10.00	400kV Malbase - Siliguri Line		-155.00		
		Unit- VI	0.00	-		-		
		Total	32.00	Auxiliary Consumption & Transformation Losses at Generator end		-0.12%		
2	4 x 180MW MHP	Unit-I	0.00	400kV MHP - Jigmeling Line - I		23.75	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		23.39		
		Unit-III	50.50	400kV MHP - Jigmeling Line - III		0.00		
		Unit-IV	45.42	400kV MHP - Jigmeling Line - IV		0.00		
		-	-	132kV MHP - Yurmo Line - I		0.00		
		-	-	132kV MHP - Yurmo Line - II		62.37		
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)		190.49		
		-	-	400kV Jigmeling - Alipurduar Line - I : <i>direct lines</i>		30.44		
		-	-	400kV Jigmeling - Alipurduar Line - II : <i>direct lines</i>		28.78		
		-	-	80MVA, 220/132kV ICT - I (HV)		-14.15		
		-	-	80MVA, 220/132kV ICT - II (HV)		-13.99		
		-	-	220kV Tsirang - Jigmeling Line		-111.16		
		-	-	132kV Gelephu - Salakati Line		-12.02		
		Total	95.92	Auxiliary Consumption & Transformation Losses at Generator end		1.26%		
		3	6 x 170MW PHP-II	Unit-I	18.58	400kV PHP II - Jigmeling -I		
Unit- II	0.00			400kV PHP II - Jigmeling -II		205.00		
Unit- III	187.00			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	205.58			Auxiliary Consumption & Transformation Losses at Generator end		0.28%		
4	4 x 84MW CHP	Unit- I	20.11	220kV CHP - Birpara Line - I		-83.01	Unit-II & Unit-III under AMP.	
		Unit- II	0.00	220kV CHP - Birpara Line - II		-82.08		
		Unit- III	0.00	220kV CHP - Gedu		-12.80		
		Unit- IV	21.40	220kV CHP - Jamjee (old) - I		71.71		
		-	-	220kV CHP - Jamjee - II (new)		71.75		
		-	-	220kV CHP - Jamjee - III (new)		69.08		
		-	-	220kV Malbase - Birpara Line		-84.00		
		-	-	66kV CHP - Gedu Line		6.10		
		-	-	3x3MVA, 66/11kV TFR		1.05		
		Total	41.51	Auxiliary Consumption & Transformation Losses at Generator end		-0.70%		
5	2 x 12MW BHP (U/S)	Unit- I	0.00	220kV BHP - Semtokha Line		107.59	U/S Unit-I & L/S Unit-II on Standby.	
		Unit- II	4.30	66kV BHP - Lobeysha Line		23.17		
		Total	4.30	220kV BHP - Tsirang Line		-117.96		
6	2 x 20MW BHP (L/S)	Unit- I	9.20	5MVA, 66/11kV TFR		0.51		
		Unit- II	0.00	30MVA ICT, 220/66kV (HV)		19.57		
		Total	9.20	Auxiliary Consumption & Transformation Losses at Generator end		1.41%		
7	2 x 63MW DHP	Unit-I	0.00	220kV DHP - Tsirang Line		15.91	Unit-I on Standby. 220kV DHP-Dagapela line on Standby.	
		Unit-II	16.13	220kV DHP - Dagapela Line		0.00		
		-	-	220kV Jigmeling - Dagapela Line		52.00		
		-	-	5MVA, 220/33kV TFR		0.21		
		Total	16.13	Auxiliary Consumption & Transformation Losses at Generator end		0.06%		
8	4 x 15MW KHP	Unit- I	15.15	132kV KHP - Nangkhor Line		27.95	Unit- II under AMP.	
		Unit-II	0.00	132kV KHP - Kilikhar Line		16.78		
		Unit- III	15.16	5MVA, 132/11kV TFR		0.21		
		Unit- IV	15.22	132kV Motanga - Rangia Line		8.69		
Total	45.53	Auxiliary Consumption & Transformation Losses at Generator end		1.29%				
9	2 x 59MW NHP	Unit-I	15.00	132kV NHP-MHP-I		14.80	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		1.33%		
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 30-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)	465.17	924.47	-459.30

Note: Generation-Load Summary (MW) for 30-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)	423.59	881.72	-458.13

THE DAILY BHUTAN POWER SYSTEM OPERATOR LOAD-GENERATION BALANCE REPORT & ENERGY FIGURES ISSUED ON 31-Mar-2025(-ve:import, +ve:export)							
Report Details	Date	Time	National Coincidental Peak Load (MW)		Date	Time	Load
	March 30, 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	154.47	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	24.43		
		Unit-III	0.00	400kV THP - Siliguri Line - IV	0.00		
		Unit-IV	0.00	400kV THP - Malbase Line - III	280.89		
		Unit-V	153.46	400kV Malbase - Siliguri Line	-33.45		
		Unit-VI	0.00	-	-		
		Total	307.93	Auxiliary Consumption & Transformation Losses at Generator end	0.85%		
2	4 x 180MW MHP	Unit-I	0.00	400kV MHP - Jigmeling Line - I	92.74	Unit-I on Standby. Unit II under AMP. 400kV MHP-JLG Line III & IV on Standby. 132kV MHP_Yurmoo Line- I not in Service.	
		Unit-II	0.00	400kV MHP - Jigmeling Line - II	92.61		
		Unit-III	84.53	400kV MHP - Jigmeling Line - III	0.00		
		Unit-IV	150.17	400kV MHP - Jigmeling Line - IV	0.00		
		-	-	132kV MHP - Yurmo Line - I	0.00		
		-	-	132kV MHP - Yurmo Line - II	63.19		
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	203.72		
		-	-	400kV Jigmeling - Alipurduar Line - I	107.50		
		-	-	400kV Jigmeling - Alipurduar Line - II	105.75		
		-	-	80MVA, 220/132kV ICT - I (HV)	-20.11		
		-	-	80MVA, 220/132kV ICT - II (HV)	-19.95		
		-	-	220kV Tsirang - Jigmeling Line	-111.42		
		-	-	132kV Gelephu - Salakati Line	-11.23		
		Total	234.70	Auxiliary Consumption & Transformation Losses at Generator end	0.50%		
		3	6 x 170MW PHP-II	Unit-I	50.36		
Unit-II	0.00			400kV PHP II - Jigmeling -II	236.83		
Unit-III	187.05			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	237.41			Auxiliary Consumption & Transformation Losses at Generator end	0.24%		
4	4 x 84MW CHP	Unit-I	56.62	220kV CHP - Birpara Line - I	-57.61	Unit-II & Unit-III under AMP.	
		Unit-II	0.00	220kV CHP - Birpara Line - II	-57.63		
		Unit-III	0.00	220kV CHP - Gedu	2.38		
		Unit-IV	54.50	220kV CHP - Jamjee - I	72.29		
		-	-	220kV CHP - Jamjee - II	72.53		
		-	-	220kV CHP - Jamjee - III	70.18		
		-	-	220kV Malbase - Birpara Line	-53.28		
		-	-	66kV CHP - Gedu Line	6.74		
		-	-	3x3MVA, 66/11kV TFR	1.28		
		Total	111.12	Auxiliary Consumption & Transformation Losses at Generator end	0.86%		
5	2 x 12MW BHP (U/S)	Unit-I	0.00	220kV BHP - Semtokha Line	112.20	U/S Unit-I & L/S Unit-II on Standby	
		Unit-II	4.20	66kV BHP - Lobeyssa Line	23.24		
		Total	4.20	220kV BHP - Tsirang Line	-123.10		
6	2 x 20MW BHP (L/S)	Unit-I	8.80	5MVA, 66/11kV TFR	0.46		
		Unit-II	0.00	30MVA ICT, 220/66kV (HV)	19.80		
		Total	8.80	Auxiliary Consumption & Transformation Losses at Generator end	1.54%		
7	2 x 63MW DHP	Unit-I	0.00	220kV DHP - Tsirang Line	15.92	Unit-I on Standby. 220kV DHP-Dagapela line on Standby	
		Unit-II	16.16	220kV DHP - Dagapela Line	0.00		
		-	-	220kV Jigmeling - Dagapela Line	52.42		
		-	-	5MVA, 220/33kV TFR	0.23		
		Total	16.16	Auxiliary Consumption & Transformation Losses at Generator end	0.06%		
8	4 x 15MW KHP	Unit-I	16.26	132kV KHP - Nangkhor Line	17.06	Unit- II under AMP. Unit-IV on Standby.	
		Unit-II	0.00	132kV KHP - Kiliikhar Line	14.83		
		Unit-III	16.32	5MVA, 132/11kV TFR	0.26		
		Unit-IV	0.00	132kV Motanga - Rangia Line	4.26		
		Total	32.58	Auxiliary Consumption & Transformation Losses at Generator end	1.33%		
9	2 x 59MW NHP	Unit-I	15.24	132kV NHP-MHP-I	15.02	Unit-II under AMP. 132kV NHP-MHP line-II under AMP.	
		Unit-II	0.00	132kV NHP-MHP-II	0.00		
		Total	15.24	Auxiliary Consumption & Transformation Losses at Generator end	1.44%		
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 30-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)	968.14	939.40	28.74

Note: Generation-Load Summary (MW) for 30-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)	943.27	909.67	33.60

Note: Daily Energy (MUs) and Power(MW) Statistics for 30-Mar-2025

Sl. No.	Total Energy Generation	Daily Energy Met	Net Energy Import (IEX and Solar)	Net Energy Export	Peak Cross-border (MW)
1	18.30	20.85	3.08	0.53	-470.51

- 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.