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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 26-Mar-2025(-ve:import, +ve:export)							
Report Details	Date	Time	National Coincidental Peak Load (MW)		Date	Time	Load
	March 25, 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	10.00	400kV THP - Siliguri Line - I	0.00	Unit-II & Unit-IV under AMP. Unit-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	-129.07		
		Unit-III	0.00	400kV THP - Siliguri Line- IV	0.00		
		Unit-IV	0.00	400kV THP - Malbase Line - III	159.82		
		Unit-V	20.70	400kV Malbase - Siliguri Line	-178.19		
		Unit-VI	0.00	-	-		
		Total	30.76	Auxiliary Consumption & Transformation Losses at Generator end	0.03%		
2	4 x 180MW MHP	Unit-I	37.08	400kV MHP - Jigmeling Line - I	39.22	Unit-II under AMP. Unit-III on Standby. 400kV MHP-JLG Line II & III on Standby. 132kV MHP_Yurmoo Line-I not in Service. 220kV Tsirang - Jigmeling Line under Shutdown.	
		Unit-II	0.00	400kV MHP - Jigmeling Line - II	0.00		
		Unit-III	0.00	400kV MHP - Jigmeling Line - III	0.00		
		Unit-IV	90.36	400kV MHP - Jigmeling Line - IV	42.18		
		-	-	132kV MHP - Yurmo Line - I	0.00		
		-	-	132kV MHP - Yurmo Line - II	62.27		
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	48.36		
		-	-	400kV Jigmeling - Alipurduar Line - I : <i>direct lines</i>	93.82		
		-	-	400kV Jigmeling - Alipurduar Line - II : <i>direct lines</i>	95.27		
		-	-	80MVA, 220/132kV ICT - I (HV)	25.05		
		-	-	80MVA, 220/132kV ICT - II (HV)	24.67		
		-	-	220kV Tsirang - Jigmeling Line	0.00		
		-	-	132kV Gelephu - Salakati Line	-0.87		
		Total	127.44	Auxiliary Consumption & Transformation Losses at Generator end	-1.12%		
		3	6 x 170MW PHP-II	Unit-I	140.16		400kV PHP II - Jigmeling-I
Unit-II	19.39			400kV PHP II - Jigmeling-II	159.00		
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	159.55			Auxiliary Consumption & Transformation Losses at Generator end	0.34%		
4	4 x 84MW CHP	Unit-I	22.08	220kV CHP - Birpara Line - I	-171.03	Unit-II & Unit-III under AMP. 220kV CHP_Gedu line kept open to avoid overloading on 220kV Mal_Gedu line.	
		Unit-II	0.00	220kV CHP - Birpara Line - II	-169.81		
		Unit-III	0.00	220kV CHP - Gedu	0.00		
		Unit-IV	29.15	220kV CHP - Jamjee (old) - I	132.88		
		-	-	220kV CHP - Jamjee - II (new)	133.26		
		-	-	220kV CHP - Jamjee - III (new)	128.60		
		-	-	220kV Malbase - Birpara Line	-40.19		
		-	-	66kV CHP - Gedu Line	-1.58		
		-	-	3x3MVA, 66/11kV TFR	1.40		
		Total	51.23	Auxiliary Consumption & Transformation Losses at Generator end	-4.86%		
5	2 x 12MW BHP (U/S)	Unit-I	4.10	220kV BHP - Semtokha Line	-44.60	U/S Unit-II under AMP L/S Unit-I under AMP.	
		Unit-II	0.00	66kV BHP - Lobeysha Line	18.96		
		Total	4.10	220kV BHP - Tsirang Line	37.21		
6	2 x 20MW BHP (L/S)	Unit-I	0.00	5MVA, 66/11kV TFR	0.34		
		Unit-II	8.20	30MVA ICT, 220/66kV (HV)	15.10		
		Total	8.20	Auxiliary Consumption & Transformation Losses at Generator end	3.17%		
7	2 x 63MW DHP	Unit-I	16.26	220kV DHP - Tsirang Line	-35.42	Unit-II on Standby. 220kV JLG-Dagapela line under Shutdown.	
		Unit-II	0.00	220kV DHP - Dagapela Line	51.27		
		-	-	220kV Jigmeling - Dagapela Line	0.00		
		-	-	5MVA, 220/33kV TFR	0.20		
		Total	16.26	Auxiliary Consumption & Transformation Losses at Generator end	1.29%		
8	4 x 15MW KHP	Unit-I	0.00	132kV KHP - Nangkhor Line	13.70	Unit- II under AMP. Unit-I on Standby.	
		Unit-II	0.00	132kV KHP - Kilikhar Line	12.20		
		Unit-III	13.20	5MVA, 132/11kV TFR	0.39		
		Unit-IV	13.22	132kV Motanga - Rangia Line	6.18		
Total	26.42	Auxiliary Consumption & Transformation Losses at Generator end	0.49%				
9	2 x 59MW NHP	Unit-I	14.99	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	14.99	Auxiliary Consumption & Transformation Losses at Generator end	1.27%		
10	2 x 9MW SHP	Unit-I		66kV SHP-Damdhum (Samtse)		Interim measure: evacuation is through 33kV system	
		Unit-II		-			
		Total	0.00	Auxiliary Consumption & Transformation Losses at Generator end	0.00%		

Note: Generation-Load Summary (MW) for 25-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)	438.95	932.84	-493.89

Note: Generation-Load Summary (MW) for 25-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)	927.27	871.83	55.44

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Report Details	Date	Time	National Coincidental Peak Load (MW)		Date	Time	Load
	March 25, 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	158.68	400kV THP - Siliguri Line - I	0.00	Unit-II & Unit-IV under AMP. Unit- 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	9.17		
		Unit-III	0.00	400kV THP - Siliguri Line - IV	0.00		
		Unit-IV	0.00	400kV THP - Malbase Line - III	310.20		
		Unit-V	160.69	400kV Malbase - Siliguri Line	-43.00		
		Unit-VI	0.00	-	-		
		Total	319.37	Auxiliary Consumption & Transformation Losses at Generator end	0.00%		
2	4 x 180MW MHP	Unit-I	135.18	400kV MHP - Jigmeling Line - I	110.04	Unit-II under AMP. Unit-IV on Standby. 400kV MHP-JLG Line II & III on Standby. 132kV MHP_Yurmoo Line- I not in Service. 220kV Tsirang - Jigmeling Line under Shutdown.	
		Unit-II	0.00	400kV MHP - Jigmeling Line - II	0.00		
		Unit-III	135.40	400kV MHP - Jigmeling Line - III	0.00		
		Unit-IV	0.00	400kV MHP - Jigmeling Line - IV	109.63		
		-	-	132kV MHP - Yurmo Line - I	0.00		
		-	-	132kV MHP - Yurmo Line - II	61.20		
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	64.00		
		-	-	400kV Jigmeling - Alipurduar Line - I	156.36		
		-	-	400kV Jigmeling - Alipurduar Line - II	157.82		
		-	-	80MVA, 220/132kV ICT - I (HV)	32.43		
		-	-	80MVA, 220/132kV ICT - II (HV)	32.21		
		-	-	220kV Tsirang - Jigmeling Line	0.00		
		-	-	132kV Gelephu - Salakati Line	0.40		
		Total	270.58	Auxiliary Consumption & Transformation Losses at Generator end	1.69%		
3	6 x 170MW PHP-II	Unit-I	20.43	400kV PHP II - Jigmeling -I	0.00	400kV PHP II-Jigmeling line I on Standby.	
		Unit-II	139.89	400kV PHP II - Jigmeling -II	161.40		
		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	160.32	Auxiliary Consumption & Transformation Losses at Generator end	-0.67%		
4	4 x 84MW CHP	Unit-I	56.74	220kV CHP - Birpara Line - I	-98.29	Unit-II & Unit-III under AMP.	
		Unit-II	0.00	220kV CHP - Birpara Line - II	-98.23		
		Unit-III	0.00	220kV CHP - Gedu	-88.99		
		Unit-IV	54.09	220kV CHP - Jamjee - I	131.28		
		-	-	220kV CHP - Jamjee - II	131.96		
		-	-	220kV CHP - Jamjee - III	127.35		
		-	-	220kV Malbase - Birpara Line	-60.00		
		-	-	66kV CHP - Gedu Line	4.95		
		-	-	3x3MVA, 66/11kV TFR	1.21		
		Total	110.83	Auxiliary Consumption & Transformation Losses at Generator end	-0.37%		
5	2 x 12MW BHP (U/S)	Unit-I	4.00	220kV BHP - Semtokha Line	-44.92	U/S Unit-II & L/S Unit-I under AMP.	
		Unit-II	0.00	66kV BHP - Lobeysa Line	18.33		
		Total	4.00	220kV BHP - Tsirang Line	38.09		
6	2 x 20MW BHP (L/S)	Unit-I	0.00	5MVA, 66/11kV TFR	0.52		
		Unit-II	8.00	30MVA ICT, 220/66kV (HV)	14.81		
		Total	8.00	Auxiliary Consumption & Transformation Losses at Generator end	-0.17%		
7	2 x 63MW DHP	Unit-I	16.50	220kV DHP - Tsirang Line	-35.00	Unit II on Standby. 220kV JLG-Dagapela line under Shutdown.	
		Unit-II	0.00	220kV DHP - Dagapela Line	51.20		
		-	-	220kV Jigmeling - Dagapela Line	0.00		
		-	-	5MVA, 220/33kV TFR	0.10		
		Total	16.50	Auxiliary Consumption & Transformation Losses at Generator end	1.21%		
8	4 x 15MW KHP	Unit-I	0.00	132kV KHP - Nangkor Line	9.74	Unit- II under AMP. Unit-I on Standby.	
		Unit-II	0.00	132kV KHP - Kilihar Line	12.15		
		Unit-III	11.18	5MVA, 132/11kV TFR	0.29		
		Unit-IV	11.21	132kV Motanga - Rangia Line	5.57		
		Total	22.39	Auxiliary Consumption & Transformation Losses at Generator end	0.94%		
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		66kV SHP-Damdhum (Samtse)	0.00	Interim measure: evacuation is through 33kV system	
		Unit-II		-	-		
		Total	0.00	Auxiliary Consumption & Transformation Losses at Generator end	0.00%		

Note: Generation-Load Summary (MW) for 25-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)	926.99	897.19	29.80

Note: Generation-Load Summary (MW) for 25-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)	401.96	989.67	-496.71

Note: Daily Energy (MUs) and Power(MW) Statistics for 25-Mar-2025

Sl. No.	Total Energy Generation	Daily Energy Met	Net Energy Import (IEX and Solar)	Net Energy Export	Peak Cross-border (MW)
1	13.42	20.07	7.06	0.35	-593.21

- 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.