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

Report Details	Date	Time	National Coincidental Peak Load (MW)		Date	Time	Load
	April 11, 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	129.29	400kV THP - Siliguri Line - I	0.00	Unit-IV under AMP. Unit III under Shutdown. Unit - II & 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	-31.06		
		Unit-III	0.00	400kV THP - Siliguri Line - IV	0.00		
		Unit-IV	0.00	400kV THP - Malbase Line - III	221.84		
		Unit-V	61.42	400kV Malbase - Siliguri Line	-82.18		
		Unit-VI	0.00	-	-		
		Total	190.71	Auxiliary Consumption & Transformation Losses at Generator end	-0.04%		
2	4 x 180MW MHP	Unit-I	84.96	400kV MHP - Jigmeling Line - I	0.00	Unit-II under AMP & Unit-III under PTW. 400kV MHP-JLG line-I & IV on Standby. 132kV MHP_Yurmo Line- I not in Service.	
		Unit-II	0.00	400kV MHP - Jigmeling Line - II	58.02		
		Unit-III	0.00	400kV MHP - Jigmeling Line - III	58.51		
		Unit-IV	75.34	400kV MHP - Jigmeling Line - IV	0.00		
		-	-	132kV MHP - Yurmo Line - I	0.00		
		-	-	132kV MHP - Yurmo Line - II	62.22		
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	209.46		
		-	-	400kV Jigmeling - Alipurduar Line - I <i>direct lines</i>	99.64		
		-	-	400kV Jigmeling - Alipurduar Line - II <i>lines</i>	98.18		
		-	-	80MVA, 220/132kV ICT - I (HV)	27.97		
		-	-	80MVA, 220/132kV ICT - II (HV)	26.82		
		-	-	220kV Tsirang - Jigmeling Line	-97.62		
		-	-	132kV Gelephu - Salakati Line	-4.78		
		Total	160.30	Auxiliary Consumption & Transformation Losses at Generator end	-0.39%		
		3	6 x 170MW PHP-II	Unit-I	140.65		
Unit-II	0.00			400kV PHP II - Jigmeling -II	291.12		
Unit-III	150.40			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	291.05			Auxiliary Consumption & Transformation Losses at Generator end	-0.02%		
4	4 x 84MW CHP	Unit-I	39.98	220kV CHP - Birpara Line - I	-69.20	Unit-II & Unit-III under AMP.	
		Unit-II	0.00	220kV CHP - Birpara Line - II	-68.57		
		Unit-III	0.00	220kV CHP - Gedu	-12.29		
		Unit-IV	45.73	220kV CHP - Jamjee (old) - I	78.01		
		-	-	220kV CHP - Jamjee - II (new)	77.56		
		-	-	220kV CHP - Jamjee - III (new)	74.77		
		-	-	220kV Malbase - Birpara Line	-61.00		
		-	-	66kV CHP - Gedu Line	4.20		
		-	-	3x3MVA, 66/11kV TFR	1.57		
		Total	85.71	Auxiliary Consumption & Transformation Losses at Generator end	-0.40%		
5	2 x 12MW BHP (U/S)	Unit-I	5.36	220kV BHP - Semtokha Line	107.44	U/S Unit-II & L/S Unit-II on Standby.	
		Unit-II	0.00	66kV BHP - Lobeyasa Line	24.65		
		Total	5.36	220kV BHP - Tsirang Line	-115.24		
6	2 x 20MW BHP (L/S)	Unit-I	11.83	5MVA, 66/11kV TFR	0.41		
		Unit-II	0.00	30MVA ICT, 220/66kV (HV)	20.02		
		Total	11.83	Auxiliary Consumption & Transformation Losses at Generator end	-0.41%		
7	2 x 63MW DHP	Unit-I	0.00	220kV DHP - Tsirang Line	21.18	Unit-I on Standby. 220kV DHP-Dagapela line on Standby.	
		Unit-II	21.43	220kV DHP - Dagapela Line	0.00		
		-	-	220kV Jigmeling - Dagapela Line	51.56		
		-	-	5MVA, 220/33kV TFR	0.20		
Total	21.43	Auxiliary Consumption & Transformation Losses at Generator end	0.23%				
8	4 x 15MW KHP	Unit-I	0.00	132kV KHP - Nangkor Line	21.14	Unit- I on Standby	
		Unit-II	12.12	132kV KHP - Kilikhar Line	14.70		
		Unit-III	12.17	5MVA, 132/11kV TFR	0.33		
		Unit-IV	12.12	132kV Motanga - Rangia Line	1.05		
		Total	36.41	Auxiliary Consumption & Transformation Losses at Generator end	0.66%		
9	2 x 59MW NHP	Unit-I	0.00	132kV NHP-MHP-I	17.83	Unit-I on Standby. 132kV NHP-MHP line-II on Standby.	
		Unit-II	18.02	132kV NHP-MHP-II	0.00		
		Total	18.02	Auxiliary Consumption & Transformation Losses at Generator end	1.05%		
10	2 x 9MW SHP	Unit-I	3.44	66kV SHP-Damdhum (Samtse)	0.00	Interim measure: evacuation is through the 33kV system. 3.44MW is an infirm power.	
		Unit-II	0.00	-	-		
		Total	3.44	Auxiliary Consumption & Transformation Losses at Generator end	100.00%		

Note: Generation-Load Summary (MW) for 11-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)	824.26	942.18	-117.92

Note: Generation-Load Summary (MW) for 11-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)	323.49	892.71	-569.02

THE DAILY BHUTAN POWER SYSTEM OPERATOR LOAD-GENERATION BALANCE REPORT & ENERGY FIGURES ISSUED ON 12-Apr-2025(-ve:import, +ve:export)							
Report Details	Date	Time	National Coincidental Peak Load (MW)		Date	Time	Load
	April 11, 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	20.18	400kV THP - Siliguri Line - I	0.00	Unit-IV under AMP. Unit III Under Shutdown Unit- II & 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	-105.12		
		Unit-III	0.00	400kV THP - Siliguri Line - IV	0.00		
		Unit-IV	0.00	400kV THP - Malbase Line - III	205.96		
		Unit-V	80.20	400kV Malbase - Siliguri Line	-164.36		
		Unit-VI	0.00	-	-		
		Total	100.38	Auxiliary Consumption & Transformation Losses at Generator end	-0.46%		
2	4 x 180MW MHP	Unit-I	69.75	400kV MHP - Jigmeling Line - I	0.00	Unit II under AMP. Unit III under shutdown. 400kV MHP-JLG Line I & line IV on standby.132kV MHP-Yurmo Line- I not in Service.	
		Unit-II	0.00	400kV MHP - Jigmeling Line - II	32.95		
		Unit-III	0.00	400kV MHP - Jigmeling Line - III	33.11		
		Unit-IV	42.02	400kV MHP - Jigmeling Line - IV	0.00		
		-	-	132kV MHP - Yurmo Line - I	0.00		
		-	-	132kV MHP - Yurmo Line - II	63.18		
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	209.46		
		-	-	400kV Jigmeling - Alipurduar Line - I	15.27		
		-	-	400kV Jigmeling - Alipurduar Line - II	13.82		
		-	-	80MVA, 220/132kV ICT - I (HV)	0.07		
		-	-	80MVA, 220/132kV ICT - II (HV)	54.69		
		-	-	220kV Tsirang - Jigmeling Line	-103.58		
		-	-	132kV Gelephu - Salakati Line	-9.76		
		Total	111.77	Auxiliary Consumption & Transformation Losses at Generator end	0.32%		
		3	6 x 170MW PHP-II	Unit-I	140.40		
Unit-II	39.18			400kV PHP II - Jigmeling -II	179.40		
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	179.58			Auxiliary Consumption & Transformation Losses at Generator end	0.10%		
4	4 x 84MW CHP	Unit-I	18.09	220kV CHP - Birpara Line - I	-101.17	Unit-II & Unit-III under AMP. 220kV MAL-Birpara line under shutdown.	
		Unit-II	0.00	220kV CHP - Birpara Line - II	-100.79		
		Unit-III	0.00	220kV CHP - Gedu	-3.33		
		Unit-IV	23.54	220kV CHP - Jamjee - I	81.11		
		-	-	220kV CHP - Jamjee - II	80.83		
		-	-	220kV CHP - Jamjee - III	77.76		
		-	-	220kV Malbase - Birpara Line	0.00		
		-	-	66kV CHP - Gedu Line	5.73		
		-	-	3x3MVA, 66/11kV TFR	1.69		
		Total	41.63	Auxiliary Consumption & Transformation Losses at Generator end	-0.48%		
5	2 x 12MW BHP (U/S)	Unit-I	4.82	220kV BHP - Semtokha Line	106.66	U/S Unit-II & L/S Unit-II on Standby	
		Unit-II	0.00	66kV BHP - Lobeysa Line	25.57		
		Total	4.82	220kV BHP - Tsirang Line	-118.54		
6	2 x 20MW BHP (L/S)	Unit-I	8.81	5MVA, 66/11kV TFR	0.50		
		Unit-II	0.00	30MVA ICT, 220/66kV (HV)	21.58		
		Total	8.81	Auxiliary Consumption & Transformation Losses at Generator end	-4.11%		
7	2 x 63MW DHP	Unit-I	0.00	220kV DHP - Tsirang Line	17.74	Unit-I on Standby. 220kV DHP-Dagapela line on Standby	
		Unit-II	17.96	220kV DHP - Dagapela Line	0.00		
		-	-	220kV Jigmeling - Dagapela Line	51.56		
		-	-	5MVA, 220/33kV TFR	-		
		Total	17.96	Auxiliary Consumption & Transformation Losses at Generator end	1.22%		
8	4 x 15MW KHP	Unit-I	0.00	132kV KHP - Nangkhon Line	13.14	Unit- I and II on Standby.	
		Unit-II	0.00	132kV KHP - Kilikhar Line	12.83		
		Unit-III	13.20	5MVA, 132/11kV TFR	0.30		
		Unit-IV	13.22	132kV Motanga - Rangia Line	-6.03		
		Total	26.42	Auxiliary Consumption & Transformation Losses at Generator end	0.57%		
9	2 x 59MW NHP	Unit-I	0.00	132kV NHP-MHP-I	17.83	Unit-I on Standby. 132kV NHP-MHP line-II on Standby.	
		Unit-II	18.01	132kV NHP-MHP-II	0.00		
		Total	18.01	Auxiliary Consumption & Transformation Losses at Generator end	1.00%		
10	2 x 9MW SHP	Unit-I	2.23	66kV SHP-Damdhum (Samtse)	0.00	Interim measure: evacuation is through the 33kV system.	
		Unit-II	0.00	-	-		
		Total	2.23	Auxiliary Consumption & Transformation Losses at Generator end	100.00%		

Note: Generation-Load Summary (MW) for 11-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)	511.61	969.75	-458.14

Note: Generation-Load Summary (MW) for 11-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)	414.22	910.00	-495.78

Note: Daily Energy (MUs) and Power(MW) Statistics for 11-Apr-2025

Sl. No.	Total Energy Generation	Daily Energy Met	Net Energy Import (IEX and Solar)	Net Energy Export	Peak Cross-border (MW)
1	20.78	21.93	2.66	1.24	-451.67

- 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.