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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 11-Apr-2025(-ve:import, +ve:export)							
Report Details	Date	Time	National Coincidental Peak Load (MW)		Date	Time	Load
	April 10, 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	10.20	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. 400kV MAL_SIL line tripped.	
		Unit-II	0.00	400kV THP - Siliguri Line - II	-210.17		
		Unit-III	0.00	400kV THP - Siliguri Line- IV	0.00		
		Unit-IV	0.00	400kV THP - Malbase Line - III	232.01		
		Unit-V	11.70	400kV Malbase - Siliguri Line	0.00		
		Unit-VI	0.00	-	-		
		Total	21.90	Auxiliary Consumption & Transformation Losses at Generator end	0.27%		
2	4 x 180MW MHP	Unit-I	0.00	400kV MHP - Jigmeling Line - I	0.00	Unit-II under AMP. Unit I on Standby 400kV MHP-JLG line-I & IV on Standby. 132kV MHP_Yurmoo Line-I not in Service.	
		Unit-II	0.00	400kV MHP - Jigmeling Line - II	2.25		
		Unit-III	25.42	400kV MHP - Jigmeling Line - III	2.21		
		Unit-IV	26.16	400kV MHP - Jigmeling Line - IV	0.00		
		-	-	132kV MHP - Yurmo Line - I	0.00		
		-	-	132kV MHP - Yurmo Line - II	61.70		
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	202.00		
		-	-	400kV Jigmeling - Alipurduar Line - I <i>direct lines</i>	17.50		
		-	-	400kV Jigmeling - Alipurduar Line - II <i>lines</i>	19.50		
		-	-	80MVA, 220/132kV ICT - I (HV)	32.15		
		-	-	80MVA, 220/132kV ICT - II (HV)	31.86		
		-	-	220kV Tsirang - Jigmeling Line	-92.49		
		-	-	132kV Gelephu - Salakati Line	-19.62		
		Total	51.58	Auxiliary Consumption & Transformation Losses at Generator end	0.48%		
		3	6 x 170MW PHP-II	Unit-I	139.92		
Unit-II	0.00			400kV PHP II - Jigmeling -II	160.00		
Unit-III	20.24			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	160.16			Auxiliary Consumption & Transformation Losses at Generator end	0.10%		
4	4 x 84MW CHP	Unit-I	20.86	220kV CHP - Birpara Line - I	-97.33	Unit-II & Unit-III under AMP.	
		Unit-II	0.00	220kV CHP - Birpara Line - II	-96.58		
		Unit-III	0.00	220kV CHP - Gedu	-4.69		
		Unit-IV	21.32	220kV CHP - Jamjee (old) - I	79.57		
		-	-	220kV CHP - Jamjee - II (new)	78.99		
		-	-	220kV CHP - Jamjee - III (new)	76.17		
		-	-	220kV Malbase - Birpara Line	-113.13		
		-	-	66kV CHP - Gedu Line	5.19		
		-	-	3x3MVA, 66/11kV TFR	1.42		
		Total	42.18	Auxiliary Consumption & Transformation Losses at Generator end	-1.33%		
5	2 x 12MW BHP (U/S)	Unit-I	5.00	220kV BHP - Semotha Line	99.00	U/S Unit-II & L/S Unit-II on Standby.	
		Unit-II	0.00	66kV BHP - Lobeyasa Line	23.36		
		Total	5.00	220kV BHP - Tsirang Line	-105.24		
6	2 x 20MW BHP (L/S)	Unit-I	12.30	5MVA, 66/11kV TFR	0.39		
		Unit-II	0.00	30MVA ICT, 220/66kV (HV)	18.89		
		Total	12.30	Auxiliary Consumption & Transformation Losses at Generator end	-1.21%		
7	2 x 63MW DHP	Unit-I	0.00	220kV DHP - Tsirang Line	16.33	Unit-I on Standby. 220kV DHP-Dagapela line on Standby.	
		Unit-II	16.61	220kV DHP - Dagapela Line	0.00		
		-	-	220kV Jigmeling - Dagapela Line	51.56		
		-	-	5MVA, 220/33kV TFR	0.20		
Total	16.61	Auxiliary Consumption & Transformation Losses at Generator end	0.48%				
8	4 x 15MW KHP	Unit-I	0.00	132kV KHP - Nangkor Line	20.46	Unit- I on Standby	
		Unit-II	12.20	132kV KHP - Kilikhar Line	15.36		
		Unit-III	12.14	5MVA, 132/11kV TFR	0.31		
		Unit-IV	12.15	132kV Motanga - Rangia Line	19.51		
		Total	36.49	Auxiliary Consumption & Transformation Losses at Generator end	0.99%		
9	2 x 59MW NHP	Unit-I	0.00	132kV NHP-MHP-I	14.83	Unit-I on Standby. 132kV NHP-MHP line-II on Standby.	
		Unit-II	15.01	132kV NHP-MHP-II	0.00		
		Total	15.01	Auxiliary Consumption & Transformation Losses at Generator end	1.20%		
10	2 x 9MW SHP	Unit-I	3.11	66kV SHP-Damdhum (Samtse)	0.00	Interim measure: evacuation is through the 33kV system. 3.11MW is an infirm power.	
		Unit-II	0.00	-	-		
		Total	3.11	Auxiliary Consumption & Transformation Losses at Generator end	100.00%		

Note: Generation-Load Summary (MW) for 10-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)	364.34	844.66	-480.32

Note: Generation-Load Summary (MW) for 10-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)	305.38	884.63	-579.25

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Report Details	Date	Time	National Coincidental Peak Load (MW)		Date	Time	Load
	April 10, 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	10.00	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	-99.73		
		Unit-III	0.00	400kV THP - Siliguri Line - IV	0.00		
		Unit-IV	0.00	400kV THP - Malbase Line - III	150.98		
		Unit-V	42.00	400kV Malbase - Siliguri Line	-146.00		
		Unit-VI	0.00	-	-		
		Total	52.00	Auxiliary Consumption & Transformation Losses at Generator end	1.44%		
2	4 x 180MW MHP	Unit-I	50.19	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-Yurmoo Line- I not in Service.	
		Unit-II	0.00	400kV MHP - Jigmeling Line - II	25.77		
		Unit-III	0.00	400kV MHP - Jigmeling Line - III	26.30		
		Unit-IV	65.39	400kV MHP - Jigmeling Line - IV	0.00		
		-	-	132kV MHP - Yurmoo Line - I	0.00		
		-	-	132kV MHP - Yurmoo Line - II	63.28		
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	192.00		
		-	-	400kV Jigmeling - Alipurduar Line - I	-18.18		
		-	-	400kV Jigmeling - Alipurduar Line - II	-18.18		
		-	-	80MVA, 220/132kV ICT - I (HV)	23.55		
		-	-	80MVA, 220/132kV ICT - II (HV)	23.36		
		-	-	220kV Tsirang - Jigmeling Line	92.27		
		-	-	132kV Gelephu - Salakati Line	-19.80		
		Total	115.58	Auxiliary Consumption & Transformation Losses at Generator end	0.20%		
		3	6 x 170MW PHP-II	Unit-I	51.00		400kV PHP II - Jigmeling -I
Unit-II	0.00			400kV PHP II - Jigmeling -II	100.80		
Unit-III	51.02			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	102.02			Auxiliary Consumption & Transformation Losses at Generator end	1.20%		
4	4 x 84MW CHP	Unit-I	23.22	220kV CHP - Birpara Line - I	-84.84	Unit-II & Unit-III under AMP.	
		Unit-II	0.00	220kV CHP - Birpara Line - II	-84.10		
		Unit-III	0.00	220kV CHP - Gedu	-26.21		
		Unit-IV	28.60	220kV CHP - Jamjee - I	81.51		
		-	-	220kV CHP - Jamjee - II	80.94		
		-	-	220kV CHP - Jamjee - III	78.17		
		-	-	220kV Malbase - Birpara Line	-76.96		
		-	-	66kV CHP - Gedu Line	3.50		
		-	-	3x3MVA, 66/11kV TFR	1.39		
		Total	51.82	Auxiliary Consumption & Transformation Losses at Generator end	2.82%		
5	2 x 12MW BHP (U/S)	Unit-I	11.00	220kV BHP - Semtokha Line	109.50	U/S Unit-II & L/S Unit-II on Standby	
		Unit-II	0.00	66kV BHP - Lobeysa Line	27.92		
		Total	11.00	220kV BHP - Tsirang Line	-106.56		
6	2 x 20MW BHP (L/S)	Unit-I	20.50	5MVA, 66/11kV TFR	0.53		
		Unit-II	0.00	30MVA ICT, 220/66kV (HV)	18.30		
		Total	20.50	Auxiliary Consumption & Transformation Losses at Generator end	0.35%		
7	2 x 63MW DHP	Unit-I	0.00	220kV DHP - Tsirang Line	19.05	Unit-I on Standby. 220kV DHP-Dagapela line on Standby	
		Unit-II	19.25	220kV DHP - Dagapela Line	0.00		
		-	-	220kV Jigmeling - Dagapela Line	51.29		
		-	-	5MVA, 220/33kV TFR	0.18		
		Total	19.25	Auxiliary Consumption & Transformation Losses at Generator end	0.10%		
8	4 x 15MW KHP	Unit-I	0.00	132kV KHP - Nangkor Line	14.00	Unit- I and II on Standby.	
		Unit-II	0.00	132kV KHP - Kilikhar Line	12.00		
		Unit-III	13.25	5MVA, 132/11kV TFR	0.28		
		Unit-IV	13.21	132kV Motanga - Rangia Line	-5.17		
		Total	26.46	Auxiliary Consumption & Transformation Losses at Generator end	0.69%		
9	2 x 59MW NHP	Unit-I	0.00	132kV NHP-MHP-I	0.00	Unit-I on Standby. 132kV NHP-MHP line-II on Standby. Unit II tripped @14:17hrs and synchronised 18:13hrs	
		Unit-II	0.00	132kV NHP-MHP-II	0.00		
		Total	0.00	Auxiliary Consumption & Transformation Losses at Generator end	0.00%		
10	2 x 9MW SHP	Unit-I	3.00	66kV SHP-Damdhum (Samtse)	0.00	Interim measure: evacuation is through the 33kV system.	
		Unit-II	0.00	-	-		
		Total	3.00	Auxiliary Consumption & Transformation Losses at Generator end	100.00%		

Note: Generation-Load Summary (MW) for 10-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)	401.63	954.59	-552.96

Note: Generation-Load Summary (MW) for 10-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)	483.52	900.07	-416.55

Note: Daily Energy (MUs) and Power(MW) Statistics for 10-Apr-2025

Sl. No.	Total Energy Generation	Daily Energy Met	Net Energy Import (IEX and Solar)	Net Energy Export	Peak Cross-border (MW)
1	17.53	21.16	4.46	0.74	-563.60

- 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.