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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-Apr-2025(-ve:import, +ve:export)						
Report Details		Date		Time		National Coincidental Peak Load (MW)
		April 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	0.00	400kV THP - Siliguri Line - I	0.00	Unit-IV under AMP. Unit-I & II under Shutdown. 400kV THP-SIL Line I on Standby. 400kV THP-SIL Line IV under Shutdown.
		Unit- II	0.00	400kV THP - Siliguri Line - II	3.55	
		Unit- III	99.29	400kV THP - Siliguri Line- IV	0.00	
		Unit- IV	0.00	400kV THP - Malbase Line - III	227.23	
		Unit- V	69.58	400kV Malbase - Siliguri Line	-44.36	
		Unit- VI	61.86	-	-	
		Total	230.73	Auxiliary Consumption & Transformation Losses at Generator end	-0.02%	
2	4 x 180MW MHP	Unit-I	135.04	400kV MHP - Jigmeling Line - I	0.00	Unit-II under AMP. 400kV MHP-JLG line-I Standby. 400kV MHP-JLG line-II under shutdown (RoW). 132kV MHP_Yumoo Line-I not in Service.
		Unit-II	0.00	400kV MHP - Jigmeling Line - II	0.00	
		Unit-III	50.37	400kV MHP - Jigmeling Line - III	103.83	
		Unit-IV	55.25	400kV MHP - Jigmeling Line - IV	103.10	
		-	-	132kV MHP - Yurno Line - I	0.00	
		-	-	132kV MHP - Yurno Line - II	61.61	
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	183.00	
		-	-	400kV Jigmeling - Alipurduar Line - I	133.82	
		-	-	400kV Jigmeling - Alipurduar Line - II	130.91	
		-	-	80MVA, 220/132kV ICT - I (HV)	12.35	
		-	-	80MVA, 220/132kV ICT - II (HV)	12.15	
		-	-	220kV Tsirang - Jigmeling Line	-108.50	
		-	-	132kV Gelephu - Salakati Line	-2.79	
		Total	240.66	Auxiliary Consumption & Transformation Losses at Generator end	-0.02%	
3	6 x 170MW PHP-II	Unit- I	0.00	400kV PHP II - Jigmeling -I	0.00	Unit-I under Breakdown. 400kV PHP-II - Jigmeling Line-I on Standby.
		Unit- II	50.00	400kV PHP II - Jigmeling -II	230.80	
		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	237.00	Auxiliary Consumption & Transformation Losses at Generator end	2.62%	
4	4 x 84MW CHP	Unit- I	45.42	220kV CHP - Birpara Line - I	-55.21	Unit-II under AMP. Unit-IV under Shutdown.
		Unit- II	0.00	220kV CHP - Birpara Line - II	-54.57	
		Unit- III	45.42	220kV CHP - Gedu	-10.57	
		Unit- IV	0.00	220kV CHP - Jamjee (old) - I	69.02	
		-	-	220kV CHP - Jamjee - II (new)	68.35	
		-	-	220kV CHP - Jamjee - III (new)	66.13	
		-	-	220kV Malbase - Birpara Line	-42.24	
		-	-	66kV CHP - Gedu Line	7.51	
		-	-	3x3MVA, 66/11kV TFR	1.27	
		Total	90.84	Auxiliary Consumption & Transformation Losses at Generator end	-1.20%	
5	2 x 12MW BHP (U/S)	Unit- I	4.15	220kV BHP - Semtokha Line	109.56	U/S Unit-II & L/S Unit-II on Standby.
		Unit- II	0.00	66kV BHP - Lobeyza Line	23.69	
		Total	4.15	220kV BHP - Tsirang Line	-121.67	
6	2 x 20MW BHP (L/S)	Unit- I	8.13	5MVA, 66/11kV TFR	0.39	
		Unit- II	0.00	30MVA ICT, 220/66kV (HV)	20.24	
		Total	8.13	Auxiliary Consumption & Transformation Losses at Generator end	2.52%	
7	2 x 63MW DHP	Unit-I	16.24	220kV DHP - Tsirang Line	16.02	Unit-II on Standby. 220kV DHP-Dagapela line on Standby.
		Unit-II	0.00	220kV DHP - Dagapela Line	0.00	
		-	-	220kV Jigmeling - Dagapela Line	51.56	
		-	-	5MVA, 220/33kV TFR	0.21	
		Total	16.24	Auxiliary Consumption & Transformation Losses at Generator end	0.06%	
8	4 x 15MW KHP	Unit- I	13.10	132kV KHP - Nangkhor Line	34.31	
		Unit-II	13.11	132kV KHP - Kilikhar Line	17.41	
		Unit- III	13.15	5MVA, 132/11kV TFR	0.27	
		Unit- IV	13.05	132kV Motanga - Rangia Line	15.40	
		Total	52.41	Auxiliary Consumption & Transformation Losses at Generator end	0.80%	
9	2 x 59MW NHP	Unit-I	0.00	132kV NHP-MHP-I	27.84	Unit-I under Shutdown 132kV NHP-MHP line-II on Standby.
		Unit-II	28.03	132kV NHP-MHP-II	0.00	
		Total	28.03	Auxiliary Consumption & Transformation Losses at Generator end	0.68%	
10	2 x 9MW SHP	Unit- I	0.00	66kV SHP-Damdhum (Samtse)	0.00	Interim measure: evacuation is through 33kV system. Unit-I under Breakdown. Unit-II under Shutdown.
		Unit- II	0.00	-	-	
		Total	0.00	Auxiliary Consumption & Transformation Losses at Generator end	0.00%	

Note: Generation-Load Summary (MW) for 25-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)	908.19	823.68	84.51

Note: Generation-Load Summary (MW) for 25-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)	737.99	872.97	-134.98

THE DAILY BHUTAN POWER SYSTEM OPERATOR LOAD-GENERATION BALANCE REPORT & ENERGY FIGURES ISSUED ON 26-Apr-2025(-ve:import, +ve:export)							
Report Details	Date	Time	National Coincidental Peak Load (MW)		Date	Time	Load
	April 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	0.00	400kV THP - Siliguri Line - I	0.00	Unit-IV under AMP. Unit-V on Standby. Unit- I & II under shutdown. 400kV THP-SIL Line I on Standby. 400kV THP-SIL Line IV under Shutdown .	
		Unit- II	0.00	400kV THP - Siliguri Line - II	-32.97		
		Unit- III	105.15	400kV THP - Siliguri Line - IV	0.00		
		Unit- IV	0.00	400kV THP - Malbase Line - III	188.91		
		Unit- V	0.00	400kV Malbase - Siliguri Line	-76.33		
		Unit- VI	50.82	-	-		
		Total	155.97	Auxiliary Consumption & Transformation Losses at Generator end			
2	4 x 180MW MHP	Unit-I	79.86	400kV MHP - Jigmeling Line - I	0.00	Unit-II under AMP. 400kV MHP-JLG line-I on Standby. 400kV MHP-JLG line-II under ROW. 132kV MHP_Yurmoo Line-I not in Service.	
		Unit-II	0.00	400kV MHP - Jigmeling Line - II	0.00		
		Unit-III	85.23	400kV MHP - Jigmeling Line - III	101.01		
		Unit-IV	81.12	400kV MHP - Jigmeling Line - IV	100.32		
		-	-	132kV MHP - Yurmo Line - I	0.00		
		-	-	132kV MHP - Yurmo Line - II	61.72		
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	208.00		
		-	-	400kV Jigmeling - Alipurduar Line - I	138.18		
		-	-	400kV Jigmeling - Alipurduar Line - II	137.46		
		-	-	80MVA, 220/132kV ICT - I (HV)	18.16		
		-	-	80MVA, 220/132kV ICT - II (HV)	18.00		
		-	-	220kV Tsirang - Jigmeling Line	-122.14		
		-	-	132kV Gelephu - Salakati Line	-10.33		
		Total	246.21	Auxiliary Consumption & Transformation Losses at Generator end			
3	6 x 170MW PHP-II	Unit- I	0.00	400kV PHP II - Jigmeling -I	0.00	Unit-I under breakdown 400kV PHP-II - Jigmeling Line-I on Standby.	
		Unit- II	140.91	400kV PHP II - Jigmeling -II	289.65		
		Unit- III	149.36	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	290.27	Auxiliary Consumption & Transformation Losses at Generator end			
4	4 x 84MW CHP	Unit- I	54.98	220kV CHP - Birpara Line - I	-51.16	Unit-IV Under Shutdown Unit-II under AMP.	
		Unit- II	0.00	220kV CHP - Birpara Line - II	-50.04		
		Unit- III	50.96	220kV CHP - Gedu	2.56		
		Unit- IV	0.00	220kV CHP - Jamjee - I	65.60		
		-	-	220kV CHP - Jamjee - II	65.25		
		-	-	220kV CHP - Jamjee - III	62.77		
		-	-	220kV Malbase - Birpara Line	-43.68		
		-	-	66kV CHP - Gedu Line	8.78		
		-	-	3x3MVA, 66/11kV TFR	1.30		
		Total	105.94	Auxiliary Consumption & Transformation Losses at Generator end			
5	2 x 12MW BHP (U/S)	Unit- I	4.21	220kV BHP - Semtokha Line	121.91	U/S Unit-II & L/S Unit-II on Standby	
		Unit- II	0.00	66kV BHP - Lobeysha Line	24.08		
		Total	4.21	220kV BHP - Tsirang Line	-133.93		
	6	2 x 20MW BHP (L/S)	Unit- I	8.10	5MVA, 66/11kV TFR		
Unit- II			0.00	30MVA ICT, 220/66kV (HV)	20.81		
Total			8.10	Auxiliary Consumption & Transformation Losses at Generator end		-1.46%	
7	2 x 63MW DHP	Unit-I	16.61	220kV DHP - Tsirang Line	16.33	Unit-II on Standby. 220kV DHP-Dagapela line on Standby	
		Unit-II	0.00	220kV DHP - Dagapela Line	0.00		
		-	-	220kV Jigmeling - Dagapela Line	51.56		
		-	-	5MVA, 220/33kV TFR	0.22		
		Total	16.61	Auxiliary Consumption & Transformation Losses at Generator end			
8	4 x 15MW KHP	Unit- I	0.00	132kV KHP - Nangkhor Line	20.15	Unit- I on Standby.	
		Unit-II	11.76	132kV KHP - Kilikhar Line	14.61		
		Unit- III	11.77	5MVA, 132/11kV TFR	0.25		
		Unit- IV	11.73	132kV Motanga - Rangia Line	15.61		
		Total	35.26	Auxiliary Consumption & Transformation Losses at Generator end			
9	2 x 59MW NHP	Unit-I	0.00	132kV NHP-MHP-I	17.82	Unit-I under Shutdown. 132kV NHP-MHP line-II under AMP.	
		Unit-II	18.02	132kV NHP-MHP-II	0.00		
		Total	18.02	Auxiliary Consumption & Transformation Losses at Generator end			
10	2 x 9MW SHP	Unit- I	0.00	66kV SHP-Damdhum (Samtse)	0.00	Interim measure: evacuation is through 33kV system. Unit-I under Breakdown.	
		Unit- II	4.00	-	-		
		Total	4.00	Auxiliary Consumption & Transformation Losses at Generator end			
Note: Generation-Load Summary (MW) for 25-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)	884.59	857.85		26.74		
Note: Generation-Load Summary (MW) for 25-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)	921.05	887.29		33.76		
Note: Daily Energy (MUs) and Power(MW) Statistics for 25-Apr-2025							
Sl. No.	Total Energy Generation	Daily Energy Met	Net Energy Import (IEX and Solar)	Net Energy Export	Peak Cross-border (MW)		
1	22.55	20.24	0.00	2.45	257.00		

- 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 now are all the meter at all locations can be read at same time (say 9:00hrs) due to many meter to be read manually. ii) 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.