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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 24-Apr-2025(-ve:import, +ve:export)						
Report Details		Date	Time	National Coincidental Peak Load (MW)		Load
		April 23, 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, III 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	88.45	
		Unit- III	0.00	400kV THP - Siliguri Line- IV	0.00	
		Unit- IV	0.00	400kV THP - Malbase Line - III	282.48	
		Unit- V	185.43	400kV Malbase - Siliguri Line	39.73	
		Unit- VI	185.90	-	-	
		Total	371.33	Auxiliary Consumption & Transformation Losses at Generator end	0.11%	
2	4 x 180MW MHP	Unit-I	171.66	400kV MHP - Jigmeling Line - I	0.00	Unit-II under AMP. Unit-III 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	263.87	
		Unit-III	177.05	400kV MHP - Jigmeling Line - III	265.07	
		Unit-IV	180.55	400kV MHP - Jigmeling Line - IV	0.00	
		-	-	132kV MHP - Yurmo Line - I	0.00	
		-	-	132kV MHP - Yurmo Line - II	64.42	
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	209.46	
		-	-	400kV Jigmeling - Alipurduar Line - I	330.91	
		-	-	400kV Jigmeling - Alipurduar Line - II	325.09	
		-	-	80MVA, 220/132kV ICT - I (HV)	0.07	
		-	-	80MVA, 220/132kV ICT - II (HV)	54.69	
		-	-	220kV Tsirang - Jigmeling Line	-114.07	
		-	-	132kV Gelephu - Salakati Line	3.40	
		Total	529.26	Auxiliary Consumption & Transformation Losses at Generator end	0.07%	
		Unit- I	0.00	400kV PHP II - Jigmeling -I	0.00	
3	6 x 170MW PHP-II	Unit- II	180.08	400kV PHP II - Jigmeling -II	359.67	Unit-I on Standby. 400kV PHP-II - Jigmeling Line-I on Standby.
		Unit- III	180.31	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	360.39	Auxiliary Consumption & Transformation Losses at Generator end	0.20%	
4	4 x 84MW CHP	Unit- I	91.66	220kV CHP - Birpara Line - I	-25.69	Unit-II under AMP. Unit-IV under Shutdown.
		Unit- II	0.00	220kV CHP - Birpara Line - II	-25.51	
		Unit- III	91.73	220kV CHP - Gedu	53.32	
		Unit- IV	0.00	220kV CHP - Jamjee (old) - I	58.57	
		-	-	220kV CHP - Jamjee - II (new)	58.13	
		-	-	220kV CHP - Jamjee - III (new)	56.07	
		-	-	220kV Malbase - Birpara Line	-40.49	
		-	-	66kV CHP - Gedu Line	7.34	
		-	-	3x3MVA, 66/11kV TFR	1.28	
		Total	183.39	Auxiliary Consumption & Transformation Losses at Generator end	-0.07%	
5	2 x 12MW BHP (U/S)	Unit- I	4.95	220kV BHP - Semtokha Line	121.10	U/S Unit-II & L/S Unit-II on Standby.
		Unit- II	0.00	66kV BHP - Lobeyza Line	21.29	
		Total	4.95	220kV BHP - Tsirang Line	-129.74	
6	2 x 20MW BHP (L/S)	Unit- I	8.33	5MVA, 66/11kV TFR	0.38	
		Unit- II	0.00	30MVA ICT, 220/66kV (HV)	17.41	
		Total	8.33	Auxiliary Consumption & Transformation Losses at Generator end	1.88%	
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	-	
8	4 x 15MW KHP	Total	16.61	Auxiliary Consumption & Transformation Losses at Generator end	1.69%	
		Unit- I	13.82	132kV KHP - Nangkhori Line	35.49	
		Unit-II	13.85	132kV KHP - Kilikhar Line	19.20	
		Unit- III	13.76	5MVA, 132/11kV TFR	0.28	
9	2 x 59MW NHP	Unit- IV	13.96	132kV Motanga - Rangia Line	17.46	
		Total	55.39	Auxiliary Consumption & Transformation Losses at Generator end	0.76%	
		Unit-I	0.00	132kV NHP-MHP-I	64.48	Unit-I under Shutdown 132kV NHP-MHP line-II on standby.
		Unit-II	64.95	132kV NHP-MHP-II	0.00	
10	2 x 9MW SHP	Total	64.95	Auxiliary Consumption & Transformation Losses at Generator end	0.72%	Interim measure: evacuation is through 33kV system. Unit-I under Breakdown.
		Unit- I	0.00	66kV SHP-Damdhum (Samtse)	0.00	
		Unit- II	0.00	-	-	
		Total	0.00	Auxiliary Consumption & Transformation Losses at Generator end	0.00%	

Note: Generation-Load Summary (MW) for 23-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)	1,594.60	881.25	713.35

Note: Generation-Load Summary (MW) for 23-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)	730.77	880.92	-150.15

THE DAILY BHUTAN POWER SYSTEM OPERATOR LOAD-GENERATION BALANCE REPORT & ENERGY FIGURES ISSUED ON 24-Apr-2025(-ve:import, +ve:export)						
Report	Date	Time	National Coincidental Peak Load (MW)		Date	Time
Details	April 23, 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	8.94	400kV THP - Siliguri Line - I	0.00	Unit-IV under AMP. Unit- 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	172.44	
		Unit- III	174.56	400kV THP - Siliguri Line - IV	0.00	
		Unit- IV	0.00	400kV THP - Malbase Line - III	382.64	
		Unit- V	185.94	400kV Malbase - Siliguri Line	112.00	
		Unit- VI	185.92	-	-	
		Total	555.36	Auxiliary Consumption & Transformation Losses at Generator end	0.05%	
2	4 x 180MW MHP	Unit-I	69.92	400kV MHP - Jigmeling Line - I	0.00	Unit-II under AMP. 400kV MHP-JLG line-I & IV on Standby. 132kV MHP_Yurmoo Line- I not in Service. 400kV Jigmeling-Alipurduar Line I under shutdown
		Unit-II	0.00	400kV MHP - Jigmeling Line - II	95.66	
		Unit-III	70.24	400kV MHP - Jigmeling Line - III	96.23	
		Unit-IV	71.07	400kV MHP - Jigmeling Line - IV	0.00	
		-	-	132kV MHP - Yurmo Line - I	0.00	
		-	-	132kV MHP - Yurmo Line - II	61.59	
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	209.46	
		-	-	400kV Jigmeling - Alipurduar Line - I ; direct lines	0.00	
		-	-	400kV Jigmeling - Alipurduar Line - II ;	354.91	
		-	-	80MVA, 220/132kV ICT - I (HV)	0.07	
		-	-	80MVA, 220/132kV ICT - II (HV)	54.69	
		-	-	220kV Tsirang - Jigmeling Line	-132.46	
		-	-	132kV Gelephu - Salakati Line	-8.85	
		Total	211.23	Auxiliary Consumption & Transformation Losses at Generator end	1.21%	
3	6 x 170MW PHP-II	Unit- I	180.00	400kV PHP II - Jigmeling -I	0.00	Unit-I on Standby. 400kV PHP-II - Jigmeling Line-I on Standby.
		Unit- II	50.00	400kV PHP II - Jigmeling -II	409.30	
		Unit- III	180.00	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	410.00	Auxiliary Consumption & Transformation Losses at Generator end	0.17%	
4	4 x 84MW CHP	Unit- I	91.53	220kV CHP - Birpara Line - I	-22.70	Unit-II Under Shutdown Unit-IV under AMP.
		Unit- II	0.00	220kV CHP - Birpara Line - II	-21.90	
		Unit- III	91.91	220kV CHP - Gedu	41.98	
		Unit- IV	0.00	220kV CHP - Jamjee - I	60.00	
		-	-	220kV CHP - Jamjee - II	59.53	
		-	-	220kV CHP - Jamjee - III	57.67	
		-	-	220kV Malbase - Birpara Line	-27.00	
		-	-	66kV CHP - Gedu Line	7.43	
		-	-	3x3MVA, 66/11kV TFR	1.33	
		Total	183.44	Auxiliary Consumption & Transformation Losses at Generator end	0.05%	
5	2 x 12MW BHP (U/S)	Unit- I	4.60	220kV BHP - Semtokha Line	141.80	U/S Unit-II & L/S Unit-II on Standby
		Unit- II	0.00	66kV BHP - Lobeysa Line	24.97	
		Total	4.60	220kV BHP - Tsirang Line	-152.97	
		Unit- I	9.80	5MVA, 66/11kV TFR	0.55	
6	2 x 20MW BHP (L/S)	Unit- II	0.00	30MVA ICT, 220/66kV (HV)	21.27	
		Total	9.80	Auxiliary Consumption & Transformation Losses at Generator end	0.35%	
7	2 x 63MW DHP	Unit-I	16.61	220kV DHP - Tsirang Line	16.53	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	-	
		Total	16.61	Auxiliary Consumption & Transformation Losses at Generator end	0.48%	
8	4 x 15MW KHP	Unit- I	12.09	132kV KHP - Nangkhor Line	21.21	Unit- II on Standby.
		Unit-II	0.00	132kV KHP - Kiltkhar Line	14.60	
		Unit- III	12.15	5MVA, 132/11kV TFR	0.34	
		Unit- IV	12.18	132kV Motanga - Rangia Line	1.07	
		Total	36.42	Auxiliary Consumption & Transformation Losses at Generator end	0.74%	
9	2 x 59MW NHP	Unit-I	0.00	132kV NHP-MHP-I	44.80	Unit-I under Shutdown. 132kV NHP-MHP line-II under AMP.
		Unit-II	44.95	132kV NHP-MHP-II	0.00	
		Total	44.95	Auxiliary Consumption & Transformation Losses at Generator end	0.33%	
10	2 x 9MW SHP	Unit- I	0.00	66kV SHP-Damdhum (Samtse)	0.00	Interim measure: evacuation is through 33kV system
		Unit- II	4.00	-	-	
		Total	4.00	Auxiliary Consumption & Transformation Losses at Generator end	100.00%	

Note: Generation-Load Summary (MW) for 23-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)	1,476.41	916.44	559.97

Note: Generation-Load Summary (MW) for 23-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)	910.09	895.35	14.74

Note: Daily Energy (MUs) and Power(MW) Statistics for 23-Apr-2025

Sl. No.	Total Energy Generation	Daily Energy Met	Net Energy Import (IEX and Solar)	Net Energy Export	Peak Cross-border (MW)
1	33.07	21.24	0.00	11.65	819.10

- 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.