



ལྷན་ཁྲིམས་དང་འཕེལ་རྒྱུ་ཉམས་ལེན་པའི་འཕུལ་གྲུག་ལྷན་ཁྲིམས་
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 23-Apr-2025(-ve:import, +ve:export)						
Report Details	Date	Time		National Coincidental Peak Load (MW)		Load
	April 22, 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	119.16	400kV THP - Siliguri Line - I	0.00	Unit-IV under AMP. Unit- II, III under shutdown Unit V 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	4.35	
		Unit- III	0.00	400kV THP - Siliguri Line - IV	0.00	
		Unit- IV	0.00	400kV THP - Malbase Line - III	236.93	
		Unit- V	0.00	400kV Malbase - Siliguri Line	-44.75	
		Unit- VI	120.37	-	-	
		Total	239.53	Auxiliary Consumption & Transformation Losses at Generator end	-0.73%	
2	4 x 180MW MHP	Unit-I	150.19	400kV MHP - Jigmeling Line - I	0.00	Unit-II under AMP. Unit-III under Standby 400kV MHP-JLG line-I & IV on Standby. 132kV MHP_Yumoo Line- I not in Service.
		Unit-II	0.00	400kV MHP - Jigmeling Line - II	107.96	
		Unit-III	0.00	400kV MHP - Jigmeling Line - III	108.83	
		Unit-IV	111.43	400kV MHP - Jigmeling Line - IV	0.00	
		-	-	132kV MHP - Yurno Line - I	0.00	
		-	-	132kV MHP - Yurno Line - II	61.48	
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	192.36	
		-	-	400kV Jigmeling - Alipurduar Line - I	125.09	
		-	-	400kV Jigmeling - Alipurduar Line - II	124.36	
		-	-	80MVA, 220/132kV ICT - I (HV)	-19.48	
		-	-	80MVA, 220/132kV ICT - II (HV)	-19.36	
		-	-	220kV Tsirang - Jigmeling Line	-103.26	
		-	-	132kV Gelephu - Salakati Line	-8.28	
		Total	261.62	Auxiliary Consumption & Transformation Losses at Generator end	0.45%	
		Unit-I	0.00	400kV PHP II - Jigmeling-I	0.00	Unit-I on Standby. 400kV PHP-II - Jigmeling Line-I on Standby.
3	6 x 170MW PHP-II	Unit- II	49.89	400kV PHP II - Jigmeling-II	229.90	
		Unit- III	180.18	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	230.07	Auxiliary Consumption & Transformation Losses at Generator end	0.07%	
4	4 x 84MW CHP	Unit- I	55.72	220kV CHP - Birpara Line - I	-52.70	Unit-II under AMP. Unit-IV under Shutdown.
		Unit- II	0.00	220kV CHP - Birpara Line - II	-52.39	
		Unit- III	59.82	220kV CHP - Gedu	11.42	
		Unit- IV	0.00	220kV CHP - Jamjee (old) - I	69.92	
		-	-	220kV CHP - Jamjee - II (new)	69.25	
		-	-	220kV CHP - Jamjee - III (new)	66.88	
		-	-	220kV Malbase - Birpara Line	-53.20	
		-	-	66kV CHP - Gedu Line	3.47	
		-	-	3x3MVA, 66/11kV TFR	1.34	
		Total	115.54	Auxiliary Consumption & Transformation Losses at Generator end	-1.43%	
5	2 x 12MW BHP (U/S)	Unit- I	4.50	220kV BHP - Semtokha Line	104.50	U/S Unit-II & L/S Unit-II on Standby.
		Unit- II	0.00	66kV BHP - Lobeyza Line	23.28	
		Total	4.50	220kV BHP - Tsirang Line	-115.62	
6	2 x 20MW BHP (L/S)	Unit- I	8.10	5MVA, 66/11kV TFR	0.40	
		Unit- II	0.00	30MVA ICT, 220/66kV (HV)	19.52	
		Total	8.10	Auxiliary Consumption & Transformation Losses at Generator end	0.32%	
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	0.20	
		Total	16.61	Auxiliary Consumption & Transformation Losses at Generator end	0.48%	
8	4 x 15MW KHP	Unit- I	13.76	132kV KHP - Nangkhor Line	36.35	
		Unit-II	13.85	132kV KHP - Kilikhar Line	18.35	
		Unit- III	13.77	5MVA, 132/11kV TFR	0.28	
		Unit- IV	13.91	132kV Motanga - Rangia Line	9.83	
		Total	55.29	Auxiliary Consumption & Transformation Losses at Generator end	0.56%	
9	2 x 59MW NHP	Unit-I	0.00	132kV NHP-MHP-I	17.84	Unit-I under Shutdown 132kV NHP-MHP line-II on standby.
		Unit-II	18.03	132kV NHP-MHP-II	0.00	
		Total	18.03	Auxiliary Consumption & Transformation Losses at Generator end	1.05%	
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	4.54	-	-	
		Total	4.54	Auxiliary Consumption & Transformation Losses at Generator end	100.00%	

Note: Generation-Load Summary (MW) for 22-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)	953.83	901.52	52.31

Note: Generation-Load Summary (MW) for 22-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)	996.30	886.65	109.65

THE DAILY BHUTAN POWER SYSTEM OPERATOR LOAD-GENERATION BALANCE REPORT & ENERGY FIGURES ISSUED ON 23-Apr-2025(-ve:import, +ve:export)						
Report	Date	Time	National Coincidental Peak Load (MW)		Date	Time
Details	April 22, 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	86.73	400kV THP - Siliguri Line - I	0.00	Unit-IV under AMP. Unit- II ,III under shutdown. Unit V 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	-17.01	
		Unit- III	0.00	400kV THP - Siliguri Line - IV	0.00	
		Unit- IV	0.00	400kV THP - Malbase Line - III	202.11	
		Unit- V	0.00	400kV Malbase - Siliguri Line	-64.00	
		Unit- VI	99.62	-	-	
		Total	186.35	Auxiliary Consumption & Transformation Losses at Generator end	0.67%	
2	4 x 180MW MHP	Unit-I	151.64	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	99.20	
		Unit-III	0.00	400kV MHP - Jigmeling Line - III	99.60	
		Unit-IV	85.99	400kV MHP - Jigmeling Line - IV	0.00	
		-	-	132kV MHP - Yurmo Line - I	0.00	
		-	-	132kV MHP - Yurmo Line - II	62.15	
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	209.46	
		-	-	400kV Jigmeling - Alipurduar Line - I	142.54	
		-	-	400kV Jigmeling - Alipurduar Line - II ; direct lines	181.82	
		-	-	80MVA, 220/132kV ICT - I (HV)	27.30	
		-	-	80MVA, 220/132kV ICT - II (HV)	26.82	
		-	-	220kV Tsirang - Jigmeling Line	-117.28	
		-	-	132kV Gelephu - Salakati Line	-16.06	
		Total	237.63	Auxiliary Consumption & Transformation Losses at Generator end	0.64%	
3	6 x 170MW PHP-II	Unit- I	0.00	400kV PHP II - Jigmeling -I	0.00	Unit-I on Standby. 400kV PHP-II - Jigmeling Line-I on Standby.
		Unit- II	149.08	400kV PHP II - Jigmeling -II	308.24	
		Unit- III	159.92	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	309.00	Auxiliary Consumption & Transformation Losses at Generator end	0.25%	
4	4 x 84MW CHP	Unit- I	49.99	220kV CHP - Birpara Line - I	-53.50	Unit-II Under Shutdown Unit-IV under AMP.
		Unit- II	0.00	220kV CHP - Birpara Line - II	-52.90	
		Unit- III	52.91	220kV CHP - Gedu	4.76	
		Unit- IV	0.00	220kV CHP - Jamjee - I	67.51	
		-	-	220kV CHP - Jamjee - II	66.53	
		-	-	220kV CHP - Jamjee - III	64.83	
		-	-	220kV Malbase - Birpara Line	-53.00	
		-	-	66kV CHP - Gedu Line	3.88	
		-	-	3x3MVA, 66/11kV TFR	1.44	
		Total	102.90	Auxiliary Consumption & Transformation Losses at Generator end	0.34%	
5	2 x 12MW BHP (U/S)	Unit- I	4.50	220kV BHP - Semtokha Line	117.90	U/S Unit-II & L/S Unit-II on Standby
		Unit- II	0.00	66kV BHP - Lobeysa Line	24.01	
		Total	4.50	220kV BHP - Tsirang Line	-129.59	
	2 x 20MW BHP (L/S)	Unit- I	8.34	5MVA, 66/11kV TFR	0.47	
		Unit- II	0.00	30MVA ICT, 220/66kV (HV)	20.54	
		Total	8.34	Auxiliary Consumption & Transformation Losses at Generator end	0.39%	
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	0.18	
		Total	16.61	Auxiliary Consumption & Transformation Losses at Generator end	0.60%	
8	4 x 15MW KHP	Unit- I	11.46	132kV KHP - Nangkhor Line	19.13	Unit- II on Standby.
		Unit-II	0.00	132kV KHP - Kilikhar Line	14.71	
		Unit- III	11.50	5MVA, 132/11kV TFR	0.35	
		Unit- IV	11.51	132kV Motanga - Rangia Line	5.59	
		Total	34.47	Auxiliary Consumption & Transformation Losses at Generator end	0.81%	
9	2 x 59MW NHP	Unit-I	0.00	132kV NHP-MHP-I	24.83	Unit-I under Shutdown. 132kV NHP-MHP line-II under AMP.
		Unit-II	25.00	132kV NHP-MHP-II	0.00	
		Total	25.00	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- II	4.01	-	-	
		Total	4.01	Auxiliary Consumption & Transformation Losses at Generator end	100.00%	

Note: Generation-Load Summary (MW) for 22-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)	928.81	855.33	73.48

Note: Generation-Load Summary (MW) for 22-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)	898.39	857.83	40.56

Note: Daily Energy (MUs) and Power(MW) Statistics for 22-Apr-2025

Sl. No.	Total Energy Generation	Daily Energy Met	Net Energy Import (IEX and Solar)	Net Energy Export	Peak Cross-border (MW)
1	22.87	21.42	0.51	1.86	366.05

- 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.