ནུས་ཤུགས་དང་རང་བཞིན་ཐོན་སྐྱེད་ལྷན་ཁག ། དཔལ་ལྡན་འབྲུག་གཞུང་།

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 07-Jan-2025(-ve:import, +ve:export)

Report Details	Date	Time	National Coincidental Peak Load (MW)	Date	Time	Load
	06-Jan-25	09:00 hrs		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	155.00	400kV THP - Siliguri Line - I	0.00	Unit-II on Standby. Unit-V on standby. Unit-VI under AMP. 400kV THP-SIL Line I under Shutdown. 400kV THP-SIL Line IV on Standby.
		Unit- II	0.00	400kV THP - Siliguri Line - II	63.47	
		Unit- III	76.00	400kV THP - Siliguri Line- IV	0.00	
		Unit- IV	130.00	400kV THP - Malbase Line - III	297.15	
		Unit- V	0.00	400kV Malbase - Siliguri Line	8.70	
		Unit- VI	0.00	-	-	
		Total	**361.00**	**Auxiliary Consumption & Transformation Losses at Generator end**	**0.11%**	
2	4 x 180MW MHP	Unit-I	88.79	400kV MHP - Jigmeling Line - I	97.92	Unit-III under Shutdown. Unit-IV under AMP. 400kV MHP-JLG Line IV on Standby. 400kV MHP-JLG Line II under Shutdown. 132kV MHP_Yurmoo Line- I not in Service.
		Unit-II	149.85	400kV MHP - Jigmeling Line - II	0.00	
		Unit-III	0.00	400kV MHP - Jigmeling Line - III	98.48	
		Unit-IV	0.00	400kV MHP - Jigmeling Line - IV	0.00	
		-	-	132kV MHP - Yurmo Line - I	0.00	
		-	-	132kV MHP - Yurmo Line - II	63.67	
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	213.78	
		-	-	400kV Jigmeling - Alipurduar Line - I *(direct lines)*	75.46	
		-	-	400kV Jigmeling - Alipurduar Line - II *(direct lines)*	74.40	
		-	-	80MVA, 220/132kV ICT - I (HV)	19.01	
		-	-	80MVA, 220/132kV ICT - II (HV)	18.90	
		-	-	220kV Tsirang - Jigmeling Line	-123.80	
		-	-	132kV Gelephu - Salakati Line	-15.98	
		Total	**238.64**	**Auxiliary Consumption & Transformation Losses at Generator end**	**0.24%**	
3	6 x 170MW PHP-II	Unit- I	170.98	400kV PHP II - Jigmeling -I *(erstwhile interim lines)*	0.00	Unit-II on standby. 400kV PHP-II_ALI line I on standby.
		Unit- II	0.00	400kV PHP II - Jigmeling -II *(erstwhile interim lines)*	170.75	
		Unit- III	0.00	400kV PHP II - Alipurduar -I *(erstwhile interim lines)*	0.00	
		Unit- IV	0.00	400kV PHP II - Alipurduar -II *(erstwhile interim lines)*	0.00	
		Unit- V	0.00	-	-	
		Unit- VI	0.00	-	-	
		Total	**170.98**	**Auxiliary Consumption & Transformation Losses at Generator end**	**0.13%**	
4	4 x 84MW CHP	Unit- I	0.00	220kV CHP - Birpara Line - I	-51.03	Unit-I under AMP. Unit-IV on Standby.
		Unit- II	72.00	220kV CHP - Birpara Line - II	-51.02	
		Unit- III	73.00	220kV CHP - Gedu	10.03	
		Unit- IV	0.00	220kV CHP - Jamjee **(old)** - I	76.97	
		-	-	220kV CHP - Jamjee - II **(new)**	77.43	
		-	-	220kV CHP - Jamjee - III **(new)**	74.71	
		-	-	220kV Malbase - Birpara Line	-49.12	
		-	-	66kV CHP - Gedu Line	6.30	
		-	-	3x3MVA, 66/11kV TFR	1.51	
		Total	**145.00**	**Auxiliary Consumption & Transformation Losses at Generator end**	**0.07%**	
5	2 x 12MW BHP (U/S)	Unit- I	0.00	220kV BHP - Semtokha Line	132.00	U/S Unit-I under AMP L/S Unit-I on Standby.
		Unit- II	6.60	66kV BHP - Lobeysa Line	27.59	
		Total	**6.60**	220kV BHP - Tsirang Line	-140.96	
6	2 x 20MW BHP (L/S)	Unit- I	0.00	5MVA, 66/11kV TFR	0.53	
		Unit- II	12.90	30MVA ICT, 220/66kV (HV)	21.73	
		Total	**12.90**	**Auxiliary Consumption & Transformation Losses at Generator end**	**1.74%**	
7	2 x 63MW DHP	Unit-I	23.67	220kV DHP - Tsirang Line	23.48	Unit II on Standby. 220kV DHP_Dagapela line on Standby.
		Unit-II	0.00	220kV DHP - Dagapela Line	0.00	
		-	-	220kV Jigmeling - Dagapela Line	53.75	
		-	-	5MVA, 220/33kV TFR	0.01	
		Total	**23.67**	**Auxiliary Consumption & Transformation Losses at Generator end**	**0.76%**	
8	4 x 15MW KHP	Unit- I	0.00	132kV KHP - Nangkhor Line	3.65	Unit -I on Standby. Unit-IV under AMP
		Unit-II	15.39	132kV KHP - Kilikhar Line	11.16	
		Unit- III	0.00	5MVA, 132/11kV TFR	0.47	
		Unit- IV	0.00	132kV Motanga - Rangia Line	-8.82	
		Total	**15.39**	**Auxiliary Consumption & Transformation Losses at Generator end**	**0.71%**	
9	2 x 59MW NHP	Unit-I	0.00	132kV NHP-MHP-I	0.00	Unit-I under AMP. 132kV NHP-MHP line-I under Shutdown.
		Unit-II	22.01	132kV NHP-MHP-II	22.00	
		Total	**22.01**	**Auxiliary Consumption & Transformation Losses at Generator end**	**0.05%**	

Note: Generation-Load Summary (MW) for 06-Jan-25 at 09:00 hrs

Sl. No.	Region	Total Generation	Total Load (Gen. - Exp.)	Total Load (Feeder Summation)	Total Export/Import	Auxiliary Consumption & Transformation Losses
1	Western Grid	720.15	922.95	921.72	-79.00	1.23
2	Eastern Grid	276.04	27.18	26.49	125.06	0.69
Total		**996.19**	**950.13**	**948.21**	**46.06**	**1.92**

Note: Generation-Load Summary for 06-Jan-24 at 09:00 hrs

Sl. No.	Region	Total Generation	Total Load (Gen. - Exp.)	Total Load (Feeder Summation)	Total Export/Import	Auxiliary Consumption & Transformation Losses
1	Western Grid	642.68	684.00	678.39	87.14	5.61
2	Eastern Grid	260.16	194.25	193.42	-62.55	0.83
Total		**902.84**	**878.25**	**871.81**	**24.59**	**6.44**

THE DAILY BHUTAN POWER SYSTEM OPERATOR LOAD-GENERATION BALANCE REPORT & ENERGY FIGURES ISSUED ON 07-Jan-2025(-ve:import, +ve:export)

Report Details	Date	Time	National Coincidental Peak Load (MW)	Date	Time	Load
	6-Jan-2025	18:00 hrs		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	139.36	400kV THP - Siliguri Line - I	0.00	Unit-II under shutdown. Unit-V on standby. Unit-VI under AMP. 400kV THP-SIL Line I under Shutdown. 400kV THP-SIL Line IV on Standby.
		Unit- II	0.00	400kV THP - Siliguri Line - II	59.81	
		Unit- III	90.42	400kV THP - Siliguri Line - IV	0.00	
		Unit- IV	136.15	400kV THP - Malbase Line - III	307.39	
		Unit- V	0.00	400kV Malbase - Siliguri Line	-2.18	
		Unit- VI	0.00	-	-	
		Total	**365.93**	**Auxiliary Consumption & Transformation Losses at Generator end**	**-0.35%**	
2	4 x 180MW MHP	Unit-I	129.76	400kV MHP - Jigmeling Line - I	103.12	Unit-III under Shutdown. Unit IV under AMP. 400kV MHP-JLG Line IV on Standby. 400kV MHP-JLG Line II under Shutdown. 132kV MHP_Yurmoo Line- I not in Service.
		Unit-II	120.76	400kV MHP - Jigmeling Line - II	0.00	
		Unit-III	0.00	400kV MHP - Jigmeling Line - III	103.65	
		Unit-IV	0.00	400kV MHP - Jigmeling Line - IV	0.00	
		-	-	132kV MHP - Yurmo Line - I	0.00	
		-	-	132kV MHP - Yurmo Line - II	65.26	
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	230.18	
		-	-	400kV Jigmeling - Alipurduar Line - I (direct lines)	72.52	
		-	-	400kV Jigmeling - Alipurduar Line - II	73.34	
		-	-	80MVA, 220/132kV ICT - I (HV)	19.91	
		-	-	80MVA, 220/132kV ICT - II (HV)	19.74	
		-	-	220kV Tsirang - Jigmeling Line	-133.20	
		-	-	132kV Gelephu - Salakati Line	-17.41	
		Total	**250.52**	**Auxiliary Consumption & Transformation Losses at Generator end**	**0.14%**	
3	6 x 170MW PHP-II	Unit- I	171.00	400kV PHP II - Jigmeling -I (erstwhile interim lines)	0.00	Unit-II on standby. 400kV PHP-II_ALI line I on standby.
		Unit- II	0.00	400kV PHP II - Jigmeling -II	170.18	
		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	**171.00**	**Auxiliary Consumption & Transformation Losses at Generator end**	**0.48%**	
4	4 x 84MW CHP	Unit- I	0.00	220kV CHP - Birpara Line - I	-51.63	Unit-I under AMP. Unit-IV on Standby.
		Unit- II	70.38	220kV CHP - Birpara Line - II	-51.16	
		Unit- III	70.72	220kV CHP - Gedu	-0.81	
		Unit- IV	0.00	220kV CHP - Jamjee - I	79.50	
		-	-	220kV CHP - Jamjee - II	79.85	
		-	-	220kV CHP - Jamjee - III	77.16	
		-	-	220kV Malbase - Birpara Line	-41.28	
		-	-	66kV CHP - Gedu Line	6.43	
		-	-	3x3MVA, 66/11kV TFR	1.60	
		Total	**141.10**	**Auxiliary Consumption & Transformation Losses at Generator end**	**0.11%**	
5	2 x 12MW BHP (U/S)	Unit- I	0.00	220kV BHP - Semtokha Line	139.70	U/S Unit-I under AMP L/S Unit-I on Standby.
		Unit- II	6.60	66kV BHP - Lobeysa Line	29.75	
		Total	**6.60**	220kV BHP - Tsirang Line	-150.40	
6	2 x 20MW BHP (L/S)	Unit- I	0.00	5MVA, 66/11kV TFR	0.87	
		Unit- II	12.90	30MVA ICT, 220/66kV (HV)	24.46	
		Total	**12.90**	**Auxiliary Consumption & Transformation Losses at Generator end**	**-2.15%**	
7	2 x 63MW DHP	Unit-I	23.88	220kV DHP - Tsirang Line	23.64	Unit-II on Standby. 220kV DHP-Dagapela line on Standby.
		Unit-II	0.00	220kV DHP - Dagapela Line	0.00	
		-	-	220kV Jigmeling - Dagapela Line	54.65	
		-	-	5MVA, 220/33kV TFR	0.20	
		Total	**23.88**	**Auxiliary Consumption & Transformation Losses at Generator end**	**0.17%**	
8	4 x 15MW KHP	Unit- I	0.00	132kV KHP - Nangkhor Line	8.33	Unit-III on Standby. Unit-IV under AMP
		Unit-II	11.70	132kV KHP - Kilikhar Line	14.34	
		Unit- III	11.70	5MVA, 132/11kV TFR	0.41	
		Unit- IV	0.00	132kV Motanga - Rangia Line	0.07	
		Total	**23.40**	**Auxiliary Consumption & Transformation Losses at Generator end**	**1.37%**	
9	2 x 59MW NHP	Unit-I	0.00	132kV NHP-MHP-I	0.00	Unit-I under AMP. 132kV NHP-MHP line-I under Shutdown.
		Unit-II	22.02	132kV NHP-MHP-II	21.87	
		Total	**22.02**	**Auxiliary Consumption & Transformation Losses at Generator end**	**0.68%**	

Note: Generation-Load Summary (MW) for 06-Jan-2025 at 18:00 hrs

Sl. No.	Region	Total Generation	Total Load (Gen. - Exp.)	Total Load (Feeder Summation)	Total Export/Import	Auxiliary Consumption & Transformation Losses
1	Western Grid	721.41	941.05	941.72	-86.44	-0.67
2	Eastern Grid	295.94	34.22	33.39	128.52	0.83
Total		**1,017.35**	**975.27**	**975.11**	**42.08**	**0.16**

Note: Generation-Load Summary (MW) for 06-Jan-2024, at 18:00 hrs

Sl. No.	Region	Total Generation	Total Load (Gen. - Exp.)	Total Load (Feeder Summation)	Total Export/Import	Auxiliary Consumption & Transformation Losses
1	Western Grid	629.00	686.19	681.04	59.09	5.15
2	Eastern Grid	282.31	189.23	185.46	-23.2	3.77
Total		**911.31**	**875.42**	**866.50**	**35.89**	**8.92**

Note: Daily Energy (MUs) and Power(MW) Statistics for 06-Jan-2025

Sl. No.	Net Energy Export (Bilateral)	Net Energy Import (Bilateral)	Daily Energy Met	Total Energy Generation	Peak Cross-border (MW)	Imp./Exp. through Exchange (MUs)
1	**0.37**	**0.00**	**21.56**	**17.19**	**-416.42**	**-4.74**

1. 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:

i) 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. ii) The clocks of all the locations are not synchronized.

2. 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.

3. When SCADA data are unavailable for certain stations due to technical issues, required data are collected from the site.