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

Report Details	Date	Time	National Coincidental Peak Load (MW)		Date	Time	Load
	13-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	89.88	400kV THP - Silguri Line - I	0.00	Unit-II Under Shutdown. Unit-IV on standby. Unit-VI under AMP. 400kV THP-SIL Line II under Shutdown. 400kV THP-SIL Line IV on Standby.
		Unit-II	0.00	400kV THP - Silguri Line - II	50.95	
		Unit-III	109.21	400kV THP - Silguri Line - IV	0.00	
		Unit-IV	0.00	400kV THP - Malbase Line - III	249.36	
		Unit-V	100.40	400kV Malbase - Silguri Line	2.62	
		Unit-VI	0.00	-	-	
		Total	299.49	Auxiliary Consumption & Transformation Losses at Generator end	-0.27%	
2	4 x 180MW MHP	Unit-I	70.15	400kV MHP - Jigmeling Line - I	82.02	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	140.18	400kV MHP - Jigmeling Line - II	0.00	
		Unit-III	0.00	400kV MHP - Jigmeling Line - III	82.36	
		Unit-IV	0.00	400kV MHP - Jigmeling Line - IV	0.00	
		-	-	132kV MHP - Yurmo Line - I	0.00	
		-	-	132kV MHP - Yurmo Line - II	63.70	
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	196.36	
		-	-	400kV Jigmeling - Alipurduar Line - I <i>direct lines</i>	67.91	
		-	-	400kV Jigmeling - Alipurduar Line - II	66.54	
		-	-	80MVA, 220/132kV ICT - I (HV)	9.98	
		-	-	80MVA, 220/132kV ICT - II (HV)	9.87	
		-	-	220kV Tsirang - Jigmeling Line	-122.89	
		-	-	132kV Gelephu - Salakati Line	-17.61	
		Total	210.33	Auxiliary Consumption & Transformation Losses at Generator end	0.12%	
3	6 x 170MW PHP-II	Unit-I	0.00	400kV PHP II - Jigmeling - I	0.00	Unit-I on standby. 400kV PHP-II_ALLI line I on standby.
		Unit-II	169.80	400kV PHP II - Jigmeling - II	168.26	
		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	169.80	Auxiliary Consumption & Transformation Losses at Generator end	0.91%	
4	4 x 84MW CHP	Unit-I	0.00	220kV CHP - Birpara Line - I	-46.66	Unit-I under AMP. Unit-II under Standby.
		Unit-II	0.00	220kV CHP - Birpara Line - II	-46.23	
		Unit-III	60.33	220kV CHP - Gedu	-25.09	
		Unit-IV	59.86	220kV CHP - Jamjee (old) - I	77.82	
		-	-	220kV CHP - Jamjee - II (new)	78.04	
		-	-	220kV CHP - Jamjee - III (new)	75.46	
		-	-	220kV Malbase - Birpara Line	-37.77	
		-	-	66kV CHP - Gedu Line	6.41	
		-	-	3x3MVA, 66/11kV TFR	1.39	
Total	120.19	Auxiliary Consumption & Transformation Losses at Generator end	-0.79%			
5	2 x 12MW BHP (U/S)	Unit-I	0.00	220kV BHP - Semtokha Line	130.60	U/S Unit-I under AMP L/S Unit-I under Standby.
		Unit-II	6.40	66kV BHP - Lobeyasa Line	27.31	
		Total	6.40	220kV BHP - Tsirang Line	-139.96	
6	2 x 20MW BHP (L/S)	Unit-I	0.00	5MVA, 66/11kV TFR	0.57	U/S Unit-I under AMP L/S Unit-I under Standby.
		Unit-II	12.40	30MVA ICT, 220/66kV (HV)	21.76	
		Total	12.40	Auxiliary Consumption & Transformation Losses at Generator end	1.49%	
7	2 x 63MW DHP	Unit-I	22.54	220kV DHP - Tsirang Line	22.31	Unit II under AMP. 220kV DHP_Dagapela line on Standby.
		Unit-II	0.00	220kV DHP - Dagapela Line	0.00	
		-	-	220kV Jigmeling - Dagapela Line	53.45	
		-	-	5MVA, 220/33kV TFR	0.22	
		Total	22.54	Auxiliary Consumption & Transformation Losses at Generator end	0.04%	
8	4 x 15MW KHP	Unit-I	12.69	132kV KHP - Nangkhor Line	11.70	Unit -II on Standby. Unit-IV under AMP
		Unit-II	0.00	132kV KHP - Kilikhar Line	12.99	
		Unit-III	12.70	5MVA, 132/11kV TFR	0.33	
		Unit-IV	0.00	132kV Motanga - Rangia Line	0.50	
		Total	25.39	Auxiliary Consumption & Transformation Losses at Generator end	1.46%	
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	18.04	132kV NHP-MHP-II	18.00	
		Total	18.04	Auxiliary Consumption & Transformation Losses at Generator end	0.22%	

Note: Generation-Load Summary (MW) for 13-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	630.82	830.80	830.74	-77.09	0.06
2	Eastern Grid	253.76	13.53	12.87	117.34	0.66
Total		884.58	844.33	843.61	40.25	0.72

Note: Generation-Load Summary for 13-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	574.25	715.93	709.54	-7.97	6.39
2	Eastern Grid	311.95	152.44	151.69	25.80	0.75
Total		886.20	868.37	861.23	17.83	7.14

THE DAILY BHUTAN POWER SYSTEM OPERATOR LOAD-GENERATION BALANCE REPORT & ENERGY FIGURES ISSUED ON 14-Jan-2025(-ve:import, +ve:export)

Report Details	Date	Time	National Coincidental Peak Load (MW)		Date	Time	Load
	13-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	161.00	400kV THP - Siliguri Line - I	0.00	Unit-II & Unit-III under shutdown. 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	100.10		
		Unit-III	0.00	400kV THP - Siliguri Line - IV	0.00		
		Unit-IV	158.98	400kV THP - Malbase Line - III	350.25		
		Unit-V	129.20	400kV Malbase - Siliguri Line	40.00		
		Unit-VI	0.00	-	-		
		Total	449.18	Auxiliary Consumption & Transformation Losses at Generator end	-0.26%		
2	4 x 180MW MHP	Unit-I	160.74	400kV MHP - Jigmeling Line - I	127.40	Unit-III under Shutdown. Unit-IV under AMP. 400kV MHP-JLG Line IV on Standby. 400kV MHP-JLG Line II under Shutdown. 132kV MHP, Yurmo Line - I not in Service. 400kV JLG-ALI line II tripped at 16:04hrs	
		Unit-II	160.12	400kV MHP - Jigmeling Line - II	0.00		
		Unit-III	0.00	400kV MHP - Jigmeling Line - III	128.33		
		Unit-IV	0.00	400kV MHP - Jigmeling Line - IV	0.00		
		-	-	132kV MHP - Yurmo Line - I	0.00		
		-	-	132kV MHP - Yurmo Line - II	64.92		
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	217.82		
		-	-	400kV Jigmeling - Alipurduar Line - I <i>direct lines</i>	35.02		
		-	-	400kV Jigmeling - Alipurduar Line - II	0.00		
		-	-	80MVA, 220/132kV ICT - I (HV)	13.22		
		-	-	80MVA, 220/132kV ICT - II (HV)	13.09		
		-	-	220kV Tsirang - Jigmeling Line	-137.47		
		-	-	132kV Gelephu - Salakati Line	-21.96		
		Total	320.86	Auxiliary Consumption & Transformation Losses at Generator end	0.07%		
		3	6 x 170MW PHP-II	Unit-I	0.00		400kV PHP II - Jigmeling - I
Unit-II	0.00			400kV PHP II - Jigmeling - II	0.00		
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	0.00			Auxiliary Consumption & Transformation Losses at Generator end	0.00%		
4	4 x 84MW CHP	Unit-I	0.00	220kV CHP - Birpara Line - I	-44.86	Unit-I under AMP. Unit-II under Shutdown.	
		Unit-II	0.00	220kV CHP - Birpara Line - II	-44.42		
		Unit-III	78.86	220kV CHP - Gedu	0.77		
		Unit-IV	77.59	220kV CHP - Jamjee - I	80.27		
		-	-	220kV CHP - Jamjee - II	80.68		
		-	-	220kV CHP - Jamjee - III	78.06		
		-	-	220kV Malbase - Birpara Line	-33.28		
		-	-	66kV CHP - Gedu Line	4.09		
		-	-	3x3MVA, 66/11kV TFR	1.54		
		Total	156.45	Auxiliary Consumption & Transformation Losses at Generator end	0.20%		
5	2 x 12MW BHP (U/S)	Unit-I	0.00	220kV BHP - Semtokha Line	142.11	U/S Unit-I under AMP L/S Unit-II under AMP.	
		Unit-II	6.37	66kV BHP - Lobeyasa Line	29.63		
		Total	6.37	220kV BHP - Tsirang Line	-154.19		
6	2 x 20MW BHP (L/S)	Unit-I	12.25	5MVA, 66/11kV TFR	0.76		
		Unit-II	0.00	30MVA ICT, 220/66kV (HV)	24.39		
		Total	12.25	Auxiliary Consumption & Transformation Losses at Generator end	1.66%		
7	2 x 63MW DHP	Unit-I	22.72	220kV DHP - Tsirang Line	22.48	Unit II under AMP. 220kV DHP-Dagapela line on Standby.	
		Unit-II	0.00	220kV DHP - Dagapela Line	0.00		
		-	-	220kV Jigmeling - Dagapela Line	53.44		
		-	-	5MVA, 220/33kV TFR	0.24		
		Total	22.72	Auxiliary Consumption & Transformation Losses at Generator end	0.00%		
8	4 x 15MW KHP	Unit-I	11.18	132kV KHP - Nangkor Line	7.28	Unit-II on Standby. Unit-IV under AMP	
		Unit-II	0.00	132kV KHP - Kilikhar Line	14.34		
		Unit-III	11.19	5MVA, 132/11kV TFR	0.49		
		Unit-IV	0.00	132kV Motanga - Rangia Line	-2.86		
		Total	22.37	Auxiliary Consumption & Transformation Losses at Generator end	1.16%		
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 tripped at 16:04hrs	
		Unit-II	0.00	132kV NHP-MHP-II	0.00		
		Total	0.00	Auxiliary Consumption & Transformation Losses at Generator end	0.00%		

Note: Generation-Load Summary (MW) for 13-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	646.97	766.90	767.44	17.54	-0.54
2	Eastern Grid	343.23	195.56	195.09	10.20	0.47
	Total	990.20	962.46	962.53	27.74	-0.07

Note: Generation-Load Summary (MW) for 13-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	674.15	721.89	715.06	84.02	6.83
2	Eastern Grid	250.79	187.68	185.64	-68.65	2.04
	Total	924.94	909.57	900.70	15.37	8.87

Note: Daily Energy (MUs) and Power(MW) Statistics for 13-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	0.33	0.00	20.87	17.03	-363.02	-4.25

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.