



འཇུག་ལྷན་པོའི་མཚན་འཛིན་ལྷན་ཁག་ རྒྱལ་ཡོད་འཇུག་ལྷན་པོ།
 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 10-Nov-2024(-ve:import, +ve:export)

Report Details	Date	Time	National Coincidental Peak Load (MW)	Date	Time	Load
	09-Nov-24	09:00 hrs		30-Dec-23	18:00 hrs	955.51

Sl. No.	Hydropower Plant	Unit	MW	Transmission Lines and Elements	Load (MW)	Remarks
1	6 x 170MW THP	Unit- I	144.33	400kV THP - Siliguri Line - I	142.25	Unit-V under AMP. Unit-IV under shutdown. 400kV THP-MAL line under Shutdown
		Unit- II	58.59	400kV THP - Siliguri Line - II	141.83	
		Unit- III	118.61	400kV THP - Siliguri Line- IV	136.78	
		Unit- IV	0.00	400kV THP - Malbase Line - III	0.00	
		Unit- V	0.00	400kV Malbase - Siliguri Line	-173.76	
		Unit- VI	99.32	-	-	
		Total	420.85	Auxiliary Consumption & Transformation Losses at Generator end	0.00%	
2	4 x 180MW MHP	Unit-I	0.00	400kV MHP - Jigmeling Line - I	0.00	Unit-I under AMP. Unit-II on Standby. 400kV MHP-JLG Line I under Breakdown. 400kV MHP-JLG line II on Standby. 132kV MHP_Yurmo Line- I not in Service. 400kV JLG_ALI Interim Line II on Standby.
		Unit-II	0.00	400kV MHP - Jigmeling Line - II	0.00	
		Unit-III	145.88	400kV MHP - Jigmeling Line - III	134.61	
		Unit-IV	146.16	400kV MHP - Jigmeling Line - IV	133.77	
		-	-	132kV MHP - Yurmo Line - I	0.00	
		-	-	132kV MHP - Yurmo Line - II	60.98	
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	129.82	
		-	-	400kV Jigmeling - Puna - Alipurduar Line - I	34.18	
		-	-	400kV Jigmeling - Puna - Alipurduar Line - II	0.00	
		-	-	400kV Jigmeling - Alipurduar Line - I	50.18	
		-	-	400kV Jigmeling - Alipurduar Line - II	51.64	
		-	-	80MVA, 220/132kV ICT - I (HV)	22.37	
		-	-	80MVA, 220/132kV ICT - II (HV)	22.13	
		-	-	220kV Tsirang - Jigmeling Line	-32.63	
		-	-	132kV Gelephu - Salakati Line	10.07	
Total	292.04	Auxiliary Consumption & Transformation Losses at Generator end	0.77%			
3	4 x 84MW CHP	Unit- I	64.34	220kV CHP - Birpara Line - I	-35.60	Unit-IV on Standby.
		Unit- II	68.54	220kV CHP - Birpara Line - II	-35.25	
		Unit- III	66.81	220kV CHP - Gedu	24.66	
		Unit- IV	0.00	220kV CHP - Jamjee (old) - I	80.72	
		-	-	220kV CHP - Jamjee - II (new)	81.16	
		-	-	220kV CHP - Jamjee - III (new)	78.33	
		-	-	220kV Malbase - Birpara Line	-33.71	
		-	-	66kV CHP - Gedu Line	5.32	
		-	-	3x3MVA, 66/11kV TFR	1.30	
Total	199.69	Auxiliary Consumption & Transformation Losses at Generator end	-0.48%			
4	2 x 12MW BHP (U/S)	Unit- I	6.00	220kV BHP - Semtokha Line	91.00	
		Unit- II	6.40	66kV BHP - Lobeyasa Line	24.30	
		Total	12.40	220kV BHP - Tsirang Line	-80.21	
5	2 x 20MW BHP (L/S)	Unit- I	11.20	5MVA, 66/11kV TFR	0.39	
		Unit- II	12.00	30MVA ICT, 220/66kV (HV)	13.13	
		Total	23.20	Auxiliary Consumption & Transformation Losses at Generator end	0.34%	
6	2 x 63MW DHP	Unit-I	0.00	220kV DHP - Tsirang Line	50.24	Unit I on Standby. 220kV DHP_Dagapela Line on Standby.
		Unit-II	50.50	220kV DHP - Dagapela Line	0.00	
		-	-	220kV Jigmeling - Dagapela Line	52.83	
		-	-	5MVA, 220/33kV TFR	0.20	
Total	50.50	Auxiliary Consumption & Transformation Losses at Generator end	0.12%			
7	4 x 15MW KHP	Unit- I	12.12	132kV KHP - Nangkhor Line	22.77	KHP Unit-IV on Standby.
		Unit-II	12.16	132kV KHP - Kilikhar Line	12.94	
		Unit- III	12.13	5MVA, 132/11kV TFR	0.30	
		Unit- IV	0.00	132kV Motanga - Rangia Line	22.55	
		Total	36.41	Auxiliary Consumption & Transformation Losses at Generator end	1.10%	
8	2 x 59MW NHP	Unit-I	20.02	132kV NHP-MHP-I	19.76	
		Unit-II	19.98	132kV NHP-MHP-II	19.81	
		Total	40.00	Auxiliary Consumption & Transformation Losses at Generator end	1.08%	

Note: Generation-Load Summary (MW) for 09-Nov-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	706.64	596.73	597.51	142.54	-0.78
2	Eastern Grid	368.45	167.20	164.12	168.62	3.08
Total		1,075.09	763.93	761.63	311.16	2.30

Note: Generation-Load Summary for 09-Nov-23 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	615.52	598.73	598.94	67.74	-0.21
2	Eastern Grid	247.27	172.04	169.07	24.28	2.97
Total		862.79	770.77	768.01	92.02	2.76

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Report Details	Date	Time	National Coincidental Peak Load (MW)	Date	Time	Load
	9-Nov-2024	18:00 hrs		30-Dec-2023	18:00 hrs	955.51

Sl. No.	Hydropower Plant	Unit	MW	Transmission Lines and Elements	Load (MW)	Remarks
1	6 x 170MW THP	Unit-I	109.48	400kV THP - Siliguri Line - I	124.27	Unit-II under shutdown. Unit-V under AMP. 400kV THP - Malbase Line - III under Shutdown.
		Unit-II	0.00	400kV THP - Siliguri Line - II	123.90	
		Unit-III	99.03	400kV THP - Siliguri Line - IV	119.00	
		Unit-IV	59.48	400kV THP - Malbase Line - III	0.00	
		Unit-V	0.00	400kV Malbase - Siliguri Line	-197.34	
		Unit-VI	99.67	-	-	
		Total	367.66	Auxiliary Consumption & Transformation Losses at Generator end	0.13%	
2	4 x 180MW MHP	Unit-I	0.00	400kV MHP - Jigmeling Line - I	0.00	Unit-I under AMP. Unit-II on Standby. 400kV MHP-JLG Line I under Breakdown. 400kV MHP-JLG line II on Standby. 132kV MHP_Yurmo Line- I not in Service. 400kV JLG_ALI Interim Line II on Standby.
		Unit-II	0.00	400kV MHP - Jigmeling Line - II	0.00	
		Unit-III	125.66	400kV MHP - Jigmeling Line - III	128.00	
		Unit-IV	136.18	400kV MHP - Jigmeling Line - IV	127.30	
		-	-	132kV MHP - Yurmo Line - I	0.00	
		-	-	132kV MHP - Yurmo Line - II	65.50	
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	142.18	
		-	-	400kV Jigmeling - Puna - Alipurduar Line - I	27.64	
		-	-	400kV Jigmeling - Puna - Alipurduar Line - II	0.00	
		-	-	400kV Jigmeling - Alipurduar Line - I	41.46	
		-	-	400kV Jigmeling - Alipurduar Line - II	42.18	
		-	-	80MVA, 220/132kV ICT - I (HV)	26.99	
		-	-	80MVA, 220/132kV ICT - II (HV)	26.79	
		-	-	220kV Tsirang - Jigmeling Line	-33.29	
		-	-	132kV Gelephu - Salakati Line	9.70	
Total	261.84	Auxiliary Consumption & Transformation Losses at Generator end	0.05%			
3	4 x 84MW CHP	Unit-I	69.62	220kV CHP - Birpara Line - I	-34.86	Unit-IV on Standby.
		Unit-II	66.63	220kV CHP - Birpara Line - II	-34.24	
		Unit-III	68.56	220kV CHP - Gedu	15.68	
		Unit-IV	0.00	220kV CHP - Jamjee (old) - I	84.13	
		-	-	220kV CHP - Jamjee - II (new)	84.89	
		-	-	220kV CHP - Jamjee - III (new)	82.02	
		-	-	220kV Malbase - Birpara Line	-26.11	
		-	-	66kV CHP - Gedu Line	5.91	
		-	-	3x3MVA, 66/11kV TFR	1.68	
		Total	204.81	Auxiliary Consumption & Transformation Losses at Generator end	-0.20%	
4	2 x 12MW BHP (U/S)	Unit-I	5.90	220kV BHP - Semothka Line	99.20	
		Unit-II	6.40	66kV BHP - Lobeyasa Line	27.07	
		Total	12.30	220kV BHP - Tsirang Line	-90.83	
5	2 x 20MW BHP (L/S)	Unit-I	11.30	5MVA, 66/11kV TFR	0.66	
		Unit-II	12.10	30MVA ICT, 220/66kV (HV)	15.60	
		Total	23.40	Auxiliary Consumption & Transformation Losses at Generator end	-1.12%	
6	2 x 63MW DHP	Unit-I	0.00	220kV DHP - Tsirang Line	49.70	Unit I on Standby. 220kV DHP_Dagapela line on Standby.
		Unit-II	49.97	220kV DHP - Dagapela Line	0.00	
		-	-	220kV Jigmeling - Dagapela Line	41.95	
		-	-	5MVA, 220/33kV TFR	0.26	
		Total	49.97	Auxiliary Consumption & Transformation Losses at Generator end	0.02%	
7	4 x 15MW KHP	Unit-I	13.39	132kV KHP - Nangkhor Line	20.70	KHP Unit-IV on Standby.
		Unit-II	13.39	132kV KHP - Kilikhar Line	18.65	
		Unit-III	13.41	5MVA, 132/11kV TFR	0.42	
		Unit-IV	0.00	132kV Motanga - Rangia Line	32.58	
		Total	40.19	Auxiliary Consumption & Transformation Losses at Generator end	1.05%	
8	2 x 59MW NHP	Unit-I	13.03	132kV NHP-MHP-I	14.40	
		Unit-II	45.00	132kV NHP-MHP-II	44.68	
		Total	58.03	Auxiliary Consumption & Transformation Losses at Generator end	-1.81%	

Note: Generation-Load Summary (MW) for 09-Nov-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	658.14	616.81	617.11	74.62	-0.30
2	Eastern Grid	360.06	173.21	173.72	153.56	-0.51
	Total	1,018.20	790.02	790.83	228.18	-0.81

Note: Generation-Load Summary (MW) for 09-Nov-2023, 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	588.99	589.11	584.52	65.43	4.59
2	Eastern Grid	247.03	189.23	186.93	-7.75	2.30
	Total	836.02	778.34	771.45	57.68	6.89

Note: Daily Energy (MUs) and Power(MW) Statistics for 09-Nov-2024

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	6.29	0.00	18.94	25.29	345.56	0.00

- 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 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.
 - 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.