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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 07-Apr-2025(-ve:import, +ve:export)**

Report Details	Date	Time	National Coincidental Peak Load (MW)		Date	Time	Load
	April 6, 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 III under Shutdown. Unit- II, & I 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	-112.10	
		Unit-III	0.00	400kV THP - Siliguri Line- IV	0.00	
		Unit-IV	0.00	400kV THP - Malbase Line - III	133.01	
		Unit-V	11.59	400kV Malbase - Siliguri Line	-154.09	
		Unit-VI	9.96	-	-	
		<b>Total</b>	<b>21.55</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>2.97%</b>	
2	4 x 180MW MHP	Unit-I	0.00	400kV MHP - Jigmeling Line - I	0.00	Unit-II under AMP. Unit I on Standby 400kV MHP-JLG line-I on Standby. 400kV MHP-JLG line IV under Shutdown. 132kV MHP_Yurmo Line- I not in Service.
		Unit-II	0.00	400kV MHP - Jigmeling Line - II	18.46	
		Unit-III	39.98	400kV MHP - Jigmeling Line - III	18.44	
		Unit-IV	40.90	400kV MHP - Jigmeling Line - IV	0.00	
		-	-	132kV MHP - Yurmo Line - I	0.00	
		-	-	132kV MHP - Yurmo Line - II	60.79	
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	190.81	
		-	-	400kV Jigmeling - Alipurduar Line - I : <i>direct lines</i>	4.07	
		-	-	400kV Jigmeling - Alipurduar Line - II : <i>direct lines</i>	2.74	
		-	-	80MVA, 220/132kV ICT - I (HV)	13.28	
		-	-	80MVA, 220/132kV ICT - II (HV)	13.15	
		-	-	220kV Tsirang - Jigmeling Line	-113.58	
		-	-	132kV Gelephu - Salakati Line	-30.60	
		<b>Total</b>	<b>80.88</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>1.25%</b>	
3	6 x 170MW PHP-II	Unit-I	137.53	400kV PHP II - Jigmeling-I	0.00	Unit-II on Standby. 400kV PHP-II - Jigmeling Line-I on Standby.
		Unit-II	0.00	400kV PHP II - Jigmeling-II	156.00	
		Unit-III	18.30	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	-	-	
		<b>Total</b>	<b>155.83</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>-0.11%</b>	
4	4 x 84MW CHP	Unit-I	16.45	220kV CHP - Birpara Line - I	-87.00	Unit-II & Unit-III under AMP.
		Unit-II	0.00	220kV CHP - Birpara Line - II	-86.40	
		Unit-III	0.00	220kV CHP - Gedu	-16.95	
		Unit-IV	24.70	220kV CHP - Jamjee (old) - I	76.26	
		-	-	220kV CHP - Jamjee - II (new)	75.61	
		-	-	220kV CHP - Jamjee - III (new)	72.99	
		-	-	220kV Malbase - Birpara Line	-89.28	
		-	-	66kV CHP - Gedu Line	4.63	
		-	-	3x3MVA, 66/11kV TFR	1.51	
		<b>Total</b>	<b>41.15</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>1.22%</b>	
5	2 x 12MW BHP (U/S)	Unit-I	4.80	220kV BHP - Semtokha Line	126.30	U/S Unit-II & L/S Unit-II on Standby.
		Unit-II	0.00	66kV BHP - Lobeysha Line	8.34	
		<b>Total</b>	<b>4.80</b>	220kV BHP - Tsirang Line	-122.09	
6	2 x 20MW BHP (L/S)	Unit-I	7.90	5MVA, 66/11kV TFR	0.38	
		Unit-II	0.00	30MVA ICT, 220/66kV (HV)	4.79	
		<b>Total</b>	<b>7.90</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>-1.81%</b>	
7	2 x 63MW DHP	Unit-I	0.00	220kV DHP - Tsirang Line	14.30	Unit-I on Standby. 220kV DHP-Dagapela line on Standby.
		Unit-II	14.53	220kV DHP - Dagapela Line	0.00	
		-	-	220kV Jigmeling - Dagapela Line	50.67	
		-	-	5MVA, 220/33kV TFR	0.22	
		<b>Total</b>	<b>14.53</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>0.07%</b>	
8	4 x 15MW KHP	Unit-I	0.00	132kV KHP - Nangkhor Line	15.23	Unit- I under shutdown and Unit III on Standby
		Unit-II	14.21	132kV KHP - Kilikhar Line	12.70	
		Unit-III	0.00	5MVA, 132/11kV TFR	0.29	
		Unit-IV	14.28	132kV Motanga - Rangia Line	-2.85	
		<b>Total</b>	<b>28.49</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>0.95%</b>	
9	2 x 59MW NHP	Unit-I	0.00	132kV NHP-MHP-I	17.82	Unit-I on Standby. 132kV NHP-MHP line-II under AMP.
		Unit-II	18.01	132kV NHP-MHP-II	0.00	
		<b>Total</b>	<b>18.01</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>1.05%</b>	
10	2 x 9MW SHP	Unit-I	0.00	66kV SHP-Damdhum (Samtse)	0.00	Interim measure: evacuation is through 33kV system
		Unit-II	0.00	-	-	
		<b>Total</b>	<b>0.00</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>0.00%</b>	

Note: Generation-Load Summary (MW) for 06-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)	373.14	928.65	-555.51

Note: Generation-Load Summary (MW) for 06-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)	328.87	868.55	-539.68

THE DAILY BHUTAN POWER SYSTEM OPERATOR LOAD-GENERATION BALANCE REPORT & ENERGY FIGURES ISSUED ON 07-Apr-2025(+ve:import, +ve:export)							
Report Details	Date	Time	National Coincidental Peak Load (MW)		Date	Time	Load
	April 6, 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	0.00	400kV THP - Siliguri Line - I	0.00	Unit-IV under AMP. Unit III Under Shutdown Unit- II & I 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	-121.00		
		Unit-III	0.00	400kV THP - Siliguri Line - IV	0.00		
		Unit-IV	0.00	400kV THP - Malbase Line - III	141.78		
		Unit-V	11.80	400kV Malbase - Siliguri Line	-168.00		
		Unit-VI	9.01	-	-		
		<b>Total</b>	<b>20.81</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>0.14%</b>		
2	4 x 180MW MHP	Unit-I	0.00	400kV MHP - Jigmeling Line - I	0.00	Unit-I on Standby. Unit II under AMP. 400kV MHP-JLG Line I on Standby. 400kV MHP-JLG line IV under Shutdown. 132kV MHP_Yurmoo Line- I not in Service.	
		Unit-II	0.00	400kV MHP - Jigmeling Line - II	37.44		
		Unit-III	75.25	400kV MHP - Jigmeling Line - III	37.63		
		Unit-IV	46.05	400kV MHP - Jigmeling Line - IV	0.00		
		-	-	132kV MHP - Yurmo Line - I	0.00		
		-	-	132kV MHP - Yurmo Line - II	63.21		
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	209.46		
		-	-	400kV Jigmeling - Alipurduar Line - I	48.77		
		-	-	400kV Jigmeling - Alipurduar Line - II	48.68		
		-	-	80MVA, 220/132kV ICT - I (HV)	29.93		
		-	-	80MVA, 220/132kV ICT - II (HV)	29.77		
		-	-	220kV Tsirang - Jigmeling Line	-115.26		
		-	-	132kV Gelephu - Salakati Line	-19.43		
		<b>Total</b>	<b>121.30</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>0.68%</b>		
		3	6 x 170MW PHP-II	Unit-I	50.12		
Unit-II	0.00			400kV PHP II - Jigmeling -II	220.00		
Unit-III	169.96			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			-	-		
<b>Total</b>	<b>220.08</b>			<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>0.04%</b>		
4	4 x 84MW CHP	Unit-I	17.15	220kV CHP - Birpara Line - I	-85.95	Unit-II & Unit-III under AMP.	
		Unit-II	0.00	220kV CHP - Birpara Line - II	-84.95		
		Unit-III	0.00	220kV CHP - Gedu	-25.40		
		Unit-IV	24.04	220kV CHP - Jamjee - I	78.15		
		-	-	220kV CHP - Jamjee - II	77.85		
		-	-	220kV CHP - Jamjee - III	75.28		
		-	-	220kV Malbase - Birpara Line	-79.20		
		-	-	66kV CHP - Gedu Line	5.30		
		-	-	3x3MVA, 66/11kV TFR	1.43		
		<b>Total</b>	<b>41.19</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>-1.26%</b>		
5	2 x 12MW BHP (U/S)	Unit-I	4.10	220kV BHP - Semtokha Line	126.12	U/S Unit-II & L/S Unit-II on Standby	
		Unit-II	0.00	66kV BHP - Lobeysa Line	11.03		
		<b>Total</b>	<b>4.10</b>	220kV BHP - Tsirang Line	-125.87		
6	2 x 20MW BHP (L/S)	Unit-I	8.00	5MVA, 66/11kV TFR	0.57		
		Unit-II	-0.04	30MVA ICT, 220/66kV (HV)	7.71		
		<b>Total</b>	<b>7.96</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>1.74%</b>		
7	2 x 63MW DHP	Unit-I	0.00	220kV DHP - Tsirang Line	14.74	Unit-I on Standby. 220kV DHP-Dagapela line on Standby	
		Unit-II	14.96	220kV DHP - Dagapela Line	0.00		
		-	-	220kV Jigmeling - Dagapela Line	51.56		
		-	-	5MVA, 220/33kV TFR	0.21		
		<b>Total</b>	<b>14.96</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>0.07%</b>		
8	4 x 15MW KHP	Unit-I	0.00	132kV KHP - Nangkhor Line	11.45	Unit-I & III on Standby.	
		Unit-II	12.18	132kV KHP - Kiliikhar Line	12.43		
		Unit-III	0.00	5MVA, 132/11kV TFR	0.27		
		Unit-IV	12.19	132kV Motanga - Rangia Line	-1.10		
		<b>Total</b>	<b>24.37</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>0.90%</b>		
9	2 x 59MW NHP	Unit-I	0.00	132kV NHP-MHP-I	17.80	Unit-I on Standby. 132kV NHP-MHP line-II on Standby.	
		Unit-II	18.03	132kV NHP-MHP-II	0.00		
		<b>Total</b>	<b>18.03</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>1.28%</b>		
10	2 x 9MW SHP	Unit-I	0.00	66kV SHP-Damdhum (Samtse)	0.00	Interim measure: evacuation is through 33kV system	
		Unit-II	0.00	-	-		
		<b>Total</b>	<b>0.00</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>0.00%</b>		

Note: Generation-Load Summary (MW) for 06-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)	472.80	934.98	-462.18

Note: Generation-Load Summary (MW) for 06-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)	638.83	621.71	17.12

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

Sl. No.	Total Energy Generation	Daily Energy Met	Net Energy Import (IEX and Solar)	Net Energy Export	Peak Cross-border (MW)
1	15.62	21.59	6.42	0.45	-681.98

- 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.