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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 04-Mar-2025(-ve:import, +ve:export)**

Report Details	Date	Time	National Coincidental Peak Load (MW)	Date	Time	Load
	03-Mar-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	134.77	400kV THP - Siliguri Line - I	31.20	Unit-II & III under AMP. Unit-IV on Standby. 400kV THP-SIL Line IV on Standby. 400kV THP-SIL Line II under AMP
		Unit-II	0.00	400kV THP - Siliguri Line - II	0.00	
		Unit-III	0.00	400kV THP - Siliguri Line-IV	0.00	
		Unit-IV	0.00	400kV THP - Malbase Line - III	247.45	
		Unit-V	44.67	400kV Malbase - Siliguri Line	-14.39	
		Unit-VI	99.41	-	-	
		<b>Total</b>	<b>278.85</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>0.07%</b>	
2	4 x 180MW MHP	Unit-I	135.60	400kV MHP - Jigmeling Line - I	0.00	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	73.46	
		Unit-III	0.00	400kV MHP - Jigmeling Line - III	73.94	
		Unit-IV	60.29	400kV MHP - Jigmeling Line - IV	0.00	
		-	-	132kV MHP - Yurmo Line - I	0.00	
		-	-	132kV MHP - Yurmo Line - II	62.78	
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	173.82	
		-	-	400kV Jigmeling - Aliparduar Line - I	72.73	
		-	-	400kV Jigmeling - Aliparduar Line - II	74.91	
		-	-	80MVA, 220/132kV ICT - I (HV)	13.42	
		-	-	80MVA, 220/132kV ICT - II (HV)	13.36	
		-	-	220kV Tsirang - Jigmeling Line	-94.67	
		-	-	132kV Gelephu - Salakati Line	-9.13	
		<b>Total</b>	<b>195.89</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>0.27%</b>	
3	6 x 170MW PHP-II	Unit-I	0.00	400kV PHP II - Jigmeling -I	0.00	Unit-I on Standby. 400kV PHP-II_ALL line I on Standby.
		Unit-II	180.12	400kV PHP II - Jigmeling -II	180.44	
		Unit-III	0.00	400kV PHP II - Aliparduar -I	0.00	
		Unit-IV	0.00	400kV PHP II - Aliparduar -II	0.00	
		Unit-V	0.00	-	-	
		Unit-VI	0.00	-	-	
		<b>Total</b>	<b>180.12</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>-0.18%</b>	
4	4 x 84MW CHP	Unit-I	59.80	220kV CHP - Birpara Line - I	-49.15	Unit-II on Standby. Unit-III under Shutdown.
		Unit-II	0.00	220kV CHP - Birpara Line - II	-48.61	
		Unit-III	0.00	220kV CHP - Gedu	-42.66	
		Unit-IV	50.70	220kV CHP - Jamjee (old) - I	82.38	
		-	-	220kV CHP - Jamjee - II (new)	82.79	
		-	-	220kV CHP - Jamjee - III (new)	79.85	
		-	-	220kV Malbase - Birpara Line	-32.25	
		-	-	66kV CHP - Gedu Line	5.08	
		-	-	3x3MVA, 66/11kV TFR	1.26	
		<b>Total</b>	<b>110.50</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>-0.40%</b>	
5	2 x 12MW BHP (U/S)	Unit-I	4.78	220kV BHP - Semtokha Line	97.00	U/S Unit-II under Shutdown. L/S Unit-I on Standby.
		Unit-II	0.00	66kV BHP - Lobeyssa Line	24.88	
		<b>Total</b>	<b>4.78</b>	220kV BHP - Tsirang Line	-107.71	
6	2 x 20MW BHP (L/S)	Unit-I	0.00	5MVA, 66/11kV TFR	0.40	
		Unit-II	9.91	30MVA ICT, 220/66kV (HV)	20.86	
		<b>Total</b>	<b>9.91</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>0.82%</b>	
7	2 x 63MW DHP	Unit-I	17.17	220kV DHP - Tsirang Line	16.97	Unit II under AMP. 220kV DHP-Dagapela line on Standby.
		Unit-II	0.00	220kV DHP - Dagapela Line	0.00	
		-	-	220kV Jigmeling - Dagapela Line	52.86	
		-	-	5MVA, 220/33kV TFR	0.18	
		<b>Total</b>	<b>17.17</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>0.12%</b>	
8	4 x 15MW KHP	Unit-I	0.00	132kV KHP - Nangkor Line	12.59	Unit-I under AMP. Unit-IV on Standby.
		Unit-II	12.68	132kV KHP - Kiliikhar Line	12.26	
		Unit-III	12.71	5MVA, 132/11kV TFR	0.28	
		Unit-IV	0.00	132kV Motanga - Rangia Line	12.90	
		<b>Total</b>	<b>25.39</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>1.02%</b>	
9	2 x 59MW NHP	Unit-I	15.02	132kV NHP-MHP-I	14.82	Unit-II under AMP. 132kV NHP-MHP line-II on Standby.
		Unit-II	0.00	132kV NHP-MHP-II	0.00	
		<b>Total</b>	<b>15.02</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>1.33%</b>	

Note: Generation-Load Summary (MW) for 03-Mar-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)	837.63	799.42	38.21

Note: Generation-Load Summary (MW) for 02-Mar-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)	250.37	794.89	-544.52

THE DAILY BHUTAN POWER SYSTEM OPERATOR LOAD-GENERATION BALANCE REPORT & ENERGY FIGURES ISSUED ON 04-Mar-2025(-ve:import, +ve:export)							
Report Details	Date	Time	National Coincidental Peak Load (MW)		Date	Time	Load
	3-Mar-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	119.33	400kV THP - Siliguri Line - I	31.20	Unit-II & III under AMP. Unit-IV on Standby. 400kV THP-SIL Line IV on Standby. 400kV THP-SIL Line II under AMP	
		Unit-II	0.00	400kV THP - Siliguri Line - II	0.00		
		Unit-III	0.00	400kV THP - Siliguri Line - IV	0.00		
		Unit-IV	0.00	400kV THP - Malbase Line - III	258.33		
		Unit-V	79.52	400kV Malbase - Siliguri Line	-18.84		
		Unit-VI	90.78	-	-		
		<b>Total</b>	<b>289.63</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>0.03%</b>		
2	4 x 180MW MHP	Unit-I	144.86	400kV MHP - Jigmeling Line - I	78.87	Unit-II on Standby. Unit-III under Shutdown 400kV MHP-JLG line II & III on Standby. 132kV MHP_Yurmo line-I not in service.	
		Unit-II	0.00	400kV MHP - Jigmeling Line - II	0.00		
		Unit-III	0.00	400kV MHP - Jigmeling Line - III	0.00		
		Unit-IV	61.34	400kV MHP - Jigmeling Line - IV	78.32		
		-	-	132kV MHP - Yurmo Line - I	0.00		
		-	-	132kV MHP - Yurmo Line - II	62.78		
		-	-	500MVA, 400/220kV ICT at Jigmeling (HV)	190.18		
		-	-	400kV Jigmeling - Alipurduar Line - I <i>direct lines</i>	72.00		
		-	-	400kV Jigmeling - Alipurduar Line - II	72.73		
		-	-	80MVA, 220/132kV ICT - I (HV)	18.24		
		-	-	80MVA, 220/132kV ICT - II (HV)	18.08		
		-	-	220kV Tsirang - Jigmeling Line	-99.26		
		-	-	132kV Gelephu - Salakati Line	-10.77		
		<b>Total</b>	<b>206.20</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>0.52%</b>		
3	6 x 170MW PHP-II	Unit-I	0.00	400kV PHP II - Jigmeling -I	0.00	Unit I on Standby 400kV PHP II-ALI line I on Standby.	
		Unit-II	181.25	400kV PHP II - Jigmeling -II	181.20		
		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	-	-		
		<b>Total</b>	<b>181.25</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>0.03%</b>		
4	4 x 84MW CHP	Unit-I	57.51	220kV CHP - Birpara Line - I	-52.86	Unit-II under AMP. Unit-III under Shutdown.	
		Unit-II	0.00	220kV CHP - Birpara Line - II	-52.39		
		Unit-III	0.00	220kV CHP - Gedu	-53.38		
		Unit-IV	53.43	220kV CHP - Jamjee - I	88.11		
		-	-	220kV CHP - Jamjee - II	88.58		
		-	-	220kV CHP - Jamjee - III	85.45		
		-	-	220kV Malbase - Birpara Line	-29.29		
		-	-	66kV CHP - Gedu Line	5.31		
		-	-	3x3MVA, 66/11kV TFR	1.49		
		<b>Total</b>	<b>110.94</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>0.57%</b>		
5	2 x 12MW BHP (U/S)	Unit-I	4.70	220kV BHP - Semtokha Line	100.31	U/S Unit-II under Shutdown. L/S Unit-I on Standby.	
		Unit-II	0.00	66kV BHP - Lobeysa Line	26.23		
		<b>Total</b>	<b>4.70</b>	220kV BHP - Tsirang Line	-112.49		
6	2 x 20MW BHP (L/S)	Unit-I	0.00	5MVA, 66/11kV TFR	0.62		
		Unit-II	9.90	30MVA ICT, 220/66kV (HV)	22.75		
		<b>Total</b>	<b>9.90</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>-0.48%</b>		
7	2 x 63MW DHP	Unit-I	17.57	220kV DHP - Tsirang Line	17.39	Unit II under AMP. 220kV DHP-Dagapela line on Standby.	
		Unit-II	0.00	220kV DHP - Dagapela Line	0.00		
		-	-	220kV Jigmeling - Dagapela Line	52.60		
		-	-	5MVA, 220/33kV TFR	0.16		
<b>Total</b>	<b>17.57</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>0.11%</b>				
8	4 x 15MW KHP	Unit-I	0.00	132kV KHP - Nangkhon Line	7.95	Unit-I under AMP. Unit-IV on Standby.	
		Unit-II	11.20	132kV KHP - Kilikhar Line	13.80		
		Unit-III	11.20	5MVA, 132/11kV TFR	0.36		
		Unit-IV	0.00	132kV Motanga - Rangia Line	11.28		
		<b>Total</b>	<b>22.40</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>1.29%</b>		
9	2 x 59MW NHP	Unit-I	15.00	132kV NHP-MHP-I	14.84	Unit-II under AMP. 132kV NHP-MHP line-II on Standby.	
		Unit-II	0.00	132kV NHP-MHP-II	0.00		
		<b>Total</b>	<b>15.00</b>	<b>Auxiliary Consumption &amp; Transformation Losses at Generator end</b>	<b>1.07%</b>		

Note: Generation-Load Summary (MW) for 03-Mar-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)	857.59	834.53	23.06

Note: Generation-Load Summary (MW) for 02-Mar-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)	206.37	874.11	-667.74

Note: Daily Energy (MUs) and Power(MW) Statistics for 03-Mar-2025

Sl. No.	Total Energy Generation	Daily Energy Met	Net Energy Import (IEX and Solar)	Net Energy Export	Peak Cross-border (MW)
1	14.83	19.72	5.20	0.33	-511.69

- 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.