



भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
पूर्वी क्षेत्रीय विद्युत समिति

75
Azadi Ka
Amrit Mahotsav



Eastern Regional Power Committee

14, गोल्फ क्लब रोड, टॉलीगंज, कोलकाता-700033

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सं/No: ERPC/MS/Reporting/MPR/2022-23/1379

दिनांक/Date: 31.01.2023

सेवा में : (संलग्न सूची के अनुसार)

To: As per enclosed list.

विषय : दिसंबर-2022 माह की ईआरपीसी की मासिक प्रगति रिपोर्ट ईआरपीसी की वेबसाइट पर अपलोड -
के संबंध में

Subject: Upload of Monthly Progress Report of ERPC for the month of December, 2022
on ERPC website.

महोदय / Sir ,

पूर्वी क्षेत्रीय विद्युत समिति की दिसंबर-2022 माह की मासिक प्रगति रिपोर्ट ईआरपीसी की वेबसाइट
www.erpc.gov.in पर अपलोड कर दी गई है। यह आपकी जानकारी के लिए है।

Monthly Progress Report of Eastern Regional Power Committee for the month of
December, 2022 has been uploaded on ERPC website www.erpc.gov.in. This is for
your information please.

संलग्नक : यथोपरी।

Encl. – As above.

भवदीय / Yours faithfully

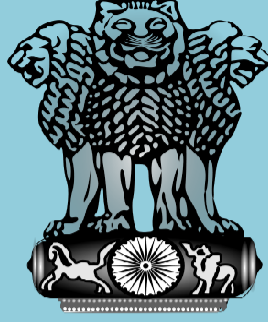
21/01/2023

(Sanatan Sarvesh)

सहा. कार्यकारी अभियंता
Asst. Executive Engr.

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Government of India

विद्युतमंत्रालय

Ministry of Power

पूर्वी क्षेत्रीय विद्युत समिति

EASTERN REGIONAL POWER COMMITTEE

मासिक प्रगति रिपोर्ट

PROGRESS REPORT FOR THE MONTH OF

दिसंबर - 2022

December-2022



14, गोल्फ क्लब रोड, टोलीगंज

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Highlights of Eastern Regional Power System for December- 2022

- The **Maximum Net Demand** met of Eastern Region (ER) during the month of Dec, 2022 was **20720 MW** which is marginally more than the Dec, 2021 (20631 MW). Individual **Peak Demand (MW)** of all the constituents (except Odisha & Sikkim) **increased** compared to the corresponding period of last year.
- The **Average Net Energy Consumption** per day in ER for the month of Dec, 2022 was **409.75 MU** (excluding export), which is 6.52% more than the corresponding period of last year (384.67 MU).
- **The Average regional PLF of thermal units during the month is 75.54 %**, which is 6.80% more than the corresponding period of the last year (**68.74%**).

Santaldih TPS (WBPDC) registered the highest PLF of 98.95%, followed by TSTPP (NTPC) 97.52% and Sagardighi TPP (WBPDC) 96.06% during the month of Dec, 2022.

- **Maximum Net generation** was **29631.88 MW** against total **Effective Capacity of 42203.41 MW** (including import from Bhutan). At the time of Regional peak (**20720 MW** on 29.12.2022 at 19.00 hrs.), the generation was **29593 MW**, import from CPP was 1574 MW and Net export was 10448 MW.
- The system frequency in the IEGC recommended band (49.9 Hz to 50.05 Hz) remained for 57.47% of time during the month. **Average frequency** for the month was **50.00 Hz**. The instantaneous maximum and minimum frequency were 50.55 Hz and 49.41 Hz, respectively. The integrated (Fifteen minutes time block average) maximum and minimum frequency were **50.45 Hz** and **49.46 Hz** respectively (refer Annexure-I).
- At 400 kV voltage level, the **maximum Voltage** recorded was 423 KV at Jeerat 400 KV S/s whereas the minimum voltage recorded 389 KV at Muzaffarpur 400 KV S/s of Power grid.
- **The Maximum Export from ER to outside region was 11744 MW (including Nepal and Bangladesh) on 27th Dec, 2022 at 07:00 hrs.** Total net energy export during the month was 6372.05 MU (Inc.Transmission loss) which corresponds to 35.43 % of Ex-bus total generation 17985.42 MU of Eastern Region.
- The import from CPPs was 1089.01 MU during the month.
- **Export(+)/Import(-) during the month:**

Region/Country	Max. Export of Power from ER (MW)	Max. Import of Power by ER (MW)	Net Export of Energy inc.Transmission loss(MU)
NR	5730	0	2937.87
WR	2624	1394	652.59
SR	4755	0	2140.97
NER	1137	889	0
BANGLADESH			602.69
NEPAL (via-CTU)			38.56
Chukha, Kurichu, Tala			0
Total			6372.05
NEPAL by Bihar(NBPDCL)			9.16

SALIENT FEATURES

(YEAR TO YEAR COMPARISON)

		Dec-22	DEC-2021	CHANGE	% CHANGE
1)	Effective Capacity (end of the Month)				
	THERMAL (MW)	32500	32080	420	1.31
	HYDRO (MW)	5990	\$ 5990	0	0
	DIESEL (MW)	0	0	0	0
	RES (MW)	1518	1518	0	0
	TOTAL (MW)	40007	39587	420	1.06
2)	Peak Demand (MW)	21076	20992	84	0.40
3)	Peak Demand Met (MW)	20720	20631	89	0.43
4)	Shortage (MW)	357	362	-5	0.00
5)	% Shortage	1.69	1.72	-0.03	0.00
6)	Average Energy Requirement Per Day (MU)	413.83	388.30	25.53	6.57
7)	Average Energy Availability Per Day (MU)	409.75	384.67	25.08	6.52
8)	Average Shortage Per Day (MU)	4.08	3.63	0.45	--
9)	% Shortage	0.98	0.94	0.04	--
10)	Net Generation for the Month				
	Thermal (MU)	16975.37	15203.85	1771.52	11.65
	Hydro (MU)	873.52	* 1033.11	-159.59	-15.45
	RES (MU)	136.53	111.53	0.00	-
	Total (MU)	17985.42	16348.49	1636.93	10.01
11)	Generation at the Time of Max. Regional Demand Met (29-12-22 at 19.00 Hrs.)				
	Thermal (MW)	25816	23427	2389	10.20
	Hydro (MW)	3725	* 3620	105	2.89
	RES(MW)	53	17	36	209.37
	Total (MW)	29593	27064	2529	9.34
12)	Inter-Regional Energy Transfer				
	Export (MU)	6372.67	5544.99	827.68	14.93
	Import (MU)	0.63	0.00	0.63	-
	Net Exp.(+)/Net Imp.(-) (MU)	6372.05	5544.99	827.06	14.92
13)	Import From Captive(MU)	1089.01	1121.30	-32.29	-2.88
14)	Peak Inter Regional Power Transfer				
	Max Export (MW) on 27-12-22 at 07.00Hrs	11744	10776	968	8.99
	Max Import (MW) on 14-12-22 at 03.00Hrs	1394	2056	-662	-32.20
	Max Net Export(+)/Import (-) (MW)	11423	10776	647	6.01
15)	Maximum voltage recorded	423	JEERAT	400 kv s/s	
16)	Minimum voltage recorded	389	MUZAFFARPUR	400 kv s/s	

\$ Excludes 2196 MW contribution from HEPs of Bhutan

* Includes contribution from HEP of Bhutan (Chukha, Kurichhu ,Dagahhu , Tala & Mangdechhu HEP)

POWER SUPPLY POSITION FOR THE MONTH OF DEC'2022

A) Net Average Energy Per Day

System	Requirement Met (MU/Day)	Requirement (MU/Day)	Shortage (MU/Day)	% Shortage
BSPHCL	83.79	84.18	0.39	0.46
JUVNL	32.39	36.03	3.64	10.10
DVC	68.86	68.88	0.01	0.02
ODISHA	96.41	96.42	0.02	0.02
WBSEDCL	103.94	103.99	0.05	0.05
CESC	22.47	22.47	0.00	0.02
SIKKIM	1.86	1.86	0.00	0.02
REGION	409.75	413.83	4.08	0.98

B) Peak Demand in MW:

System	Demand Met (MW)	Demand (MW)	Shortage (MW)	% Shortage
BSPHCL	5115	5118	3	0.06
JUVNL	1708	2138	430	20.12
DVC	3228	3228	0	0.00
ODISHA	4788	4788	0	0.00
WBSEDCL	5374	5442	68	1.25
CESC	1379	1379	0	0.0
SIKKIM	124	124	0	0.00
REGION	20720	21076	357	1.69

➤ **DIVERSITY FACTOR :** **1.05**

➤ **Regional Peak Demand Met on 29-12-2022 at 19.00 hrs. at 49.98 Hz.**

CONSTITUENT-WISE PERFORMANCE DATA DEC-2022

SYSTEM	Gross Generation(MU)				Auxiliary power Consumption(MU)				Net Generation (MU)				Import from Captive (MU)	Exchange Net Import(+) Net Export(-)	Energy Consumption(MU)	Per Day Cons.(MU)	Net Peak Demand (MW)	Gross Peak Demand (MW)
	HYDRO	Thermal	RES (Hy+Solar)	Total	HYDRO	Thermal	Solar	Total	HYDRO	Thermal	Solar	Total						
BSPHCL	0.00	348.40	46.43	394.84	0.00	31.07	0.00	31.07	0.00	317.33	46.43	363.77	0.00	2233.82	2597.58	83.8	5115	5166
JUVNL	0.50	359.55	0.00	360.05	0.01	34.47	0.00	34.47	0.50	325.08	0.00	325.58	39.21	639.26	1004.05	32.4	1708	1757
DVC	5.42	3652.14	0.00	3657.56	0.00	243.91	0.00	243.91	5.42	3408.24	0.00	3413.66	8.68	-1287.55	2134.78	68.9	3228	3588
ODISHA(OPGC+OHPC+TTPS)	191.48	1102.42	66.04	1359.93	1.48	75.10	0.00	76.58	190.00	1027.32	66.04	1283.36	748.54	956.71	2988.60	96.4	4788	4894
WBPDC+WBSEDCL+DPL	198.43	3036.69	21.93	3257.05	0.00	249.69	0.00	249.69	198.43	2786.99	21.93	3007.36	292.58	-77.82	3222.12	103.9	5374	5757
CESC	0.00	338.13	0.00	338.13	0.00	27.67	0.00	27.67	0.00	310.45	0.00	310.45	0.00	386.12	696.58	22.5	1379	1419
HEL	0.00	332.82	0.00	332.82	0.00	24.92	0.00	24.92	0.00	307.89	0.00	307.89	0.00	-307.89				
SIKKIM	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	56.59	57.59	1.9		
NTPC	0.00	6901.65	1.13	6902.77	0.00	469.98	0.00	469.98	0.00	6431.67	1.13	6432.80	0.00	-6432.80				
MPL	0.00	715.06	0.00	715.06	0.00	38.90	0.00	38.90	0.00	676.16	0.00	676.16	0.00	-676.16				
APNRL	0.00	324.76	0.00	324.76	0.00	25.31	0.00	25.31	0.00	299.45	0.00	299.45	0.00	-299.45				
GMR	0.00	400.20	0.00	400.20	0.00	25.68	0.00	25.68	0.00	374.52	0.00	374.52	0.00	-374.52				
JITPL	0.00	753.07	0.00	753.07	0.00	42.80	0.00	42.80	0.00	710.27	0.00	710.27	0.00	-710.27				
NHPC (Inc TLDP= 37.84 MU)	150.48	0.00	0.00	150.48	0.00	0.00	0.00	0.00	150.48	0.00	0.00	150.48	0.00	-150.48	0.00			
CHUZACHEN HPS	11.17	0.00	0.00	11.17	0.00	0.00	0.00	0.00	11.17	0.00	0.00	11.17	0.00	-11.17	0.00			
DIKCHU HPS	12.03	0.00	0.00	12.03	0.00	0.00	0.00	0.00	12.03	0.00	0.00	12.03	0.00	-12.03	0.00			
JORHANG HPS	13.95	0.00	0.00	13.95	0.00	0.00	0.00	0.00	13.95	0.00	0.00	13.95	0.00	-13.95	0.00			
TASHIDING HPS	15.23	0.00	0.00	15.23	0.00	0.00	0.00	0.00	15.23	0.00	0.00	15.23	0.00	-15.23	0.00			
TEESTA-III HPS	211.48	0.00	0.00	211.48	0.00	0.00	0.00	0.00	211.48	0.00	0.00	211.48	0.00	-211.48	0.00			
RONGNICHU HEP	10.61	0.00	0.00	10.61	0.00	0.00	0.00	0.00	10.61	0.00	0.00	10.61	0.00	-10.61	0.00			
CHPC(Birpara Receipt)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
KHPS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
THPS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
DAGACHU HPS	21.17	0.00	0.00	21.17	0.00	0.00	0.00	0.00	21.17	0.00	0.00	21.17	0.00	-21.17	0.00			
Mangdechhu HEP	33.05	0.00	0.00	33.05	0.00	0.00	0.00	0.00	33.05	0.00	0.00	33.05	0.00	-33.05	0.00			
Total Drawal by HVDC Sahsaram,Alipurduar & Others														1.08	1.08			
Total	875.01	18264.87	136.53	19276.41	1.48	1289.50	0.00	1290.98	873.52	16975.37	136.53	17985.43	1089.01	-6372.05	12702.39	409.8	20720	22551

POWER SUPPLY POSITION IN EASTERN REGION DURING THE YEAR AS COMPARED TO PREVIOUS YEAR

A) Net Average Energy

Month	2021-22					2022-23				
	Requirement Met (MU/Day)	Requirement (MU/Day)	Shortage (MU/Day)	Shortage (%)	Avg. Freq. (HZ)	Requirement Met (MU/Day)	Requirement (MU/Day)	Shortage (MU/Day)	Shortage (%)	Avg. Freq. (HZ)
APRIL	495.89	497.87	1.98	0.40	49.99	542.68	555.15	12.46	2.25	49.93
MAY	429.83	430.89	1.06	0.25	49.99	519.86	524.87	5.02	0.96	49.99
JUNE	462.07	462.84	0.77	0.17	49.99	547.72	553.79	6.07	1.10	49.98
JULY	498.44	500.02	1.57	0.31	50.00	569.64	576.81	7.17	1.24	49.99
AUGUST	501.37	505.13	3.76	0.74	49.99	556.08	563.58	7.50	1.33	49.98
SEPTEMBER	485.60	489.40	3.80	0.78	50.00	554.91	558.02	3.11	0.56	49.99
OCTOBER	453.17	458.67	5.51	1.20	49.98	498.49	500.63	2.14	0.43	50.00
NOVEMBER	388.80	390.35	1.55	0.40	49.99	418.14	422.38	4.24	1.00	49.99
DECEMBER	384.67	388.30	3.63	0.94	49.99	409.75	413.83	4.08	0.98	50.00
JANUARY	409.39	412.33	2.94	0.71	49.99	-	-	-	-	-
FEBRUARY	409.74	412.62	2.87	0.70	49.99	-	-	-	-	-
MARCH	474.37	479.88	5.51	1.15	49.97	-	-	-	-	-

B) Peak in MW:

Month	2021-22					2022-23				
	Demand Met (MW)	Demand (MW)	Shortage (MW)	Shortage (%)	Avg. Freq. (HZ)	Demand Met (MW)	Demand (MW)	Shortage (MW)	Shortage (%)	Avg. Freq. (HZ)
APRIL	24405	24405	0	0.00	49.99	25690	25735	45	0.17	49.93
MAY	24191	24191	0	0.00	49.99	25070	25369	299	1.18	49.99
JUNE	23494	23521	28	0.12	49.99	26196	26730	534	2.00	49.98
JULY	25145	26019	874	3.36	50.00	26609	27739	1130	4.07	49.99
AUGUST	24157	24236	79	0.33	49.99	27218	28275	1057	3.74	49.98
SEPTEMBER	25010	25454	445	1.75	50.00	26650	26915	266	0.99	49.99
OCTOBER	23675	23979	304	1.27	49.98	26220	26225	5	0.02	50.00
NOVEMBER	20961	20998	37	0.18	49.99	21741	22225	484	2.18	49.99
DECEMBER	20631	20992	362	1.72	49.99	20720	21076	357	1.69	50.00
JANUARY	21204	21396	191	0.89	49.99	-	-	-	-	-
FEBRUARY	21198	21540	342	1.59	49.99	-	-	-	-	-
MARCH	24582	24762	180	0.73	49.97	-	-	-	-	-

PERFORMANCE OF GENERATING STATIONS IN THE EASTERN REGION DURING THE MONTH OF DEC -2022

ORGANI- SATION	TYPE	POWER STATION	INSTALLED CAPACITY (in MW)	EFFECTIVE CAPACITY (in MW)	Gross Energy Generation in MU	Net Energy Generation in MU	Cummulative Gross Energy Generation upto Current Month (2022-23) in MU	Cummulative Net Energy Generation upto Current Month (2022-23) in MU
BIHAR	NTPC	Barauni (U# 6,7)	220.00	210.00	0.00	-0.35	33.38	24.34
	Thermal	Barauni (U# 8)	250.00	250.00	174.83	159.05	1264.03	1149.01
		Barauni (U# 9)	250.00	250.00	173.58	158.64	1378.49	1246.48
	(Dedicated for Bihar)	Muzaffarpur Stg-I	220.00	220.00	0.00	0.00	0.00	0.00
	RES	Thermal Total	940.00	930.00	348.40	317.33	2675.90	2419.83
		Total BIHAR	1294.91	1284.91	394.84	363.77	2897.96	2641.89
JHARKHAND								
TVNL	Thermal	TVNL	420.00	420.00	229.35	205.78	1979.37	1768.90
TPCL		JOJOBERA	240.00	240.00	130.20	119.30	856.73	782.69
JSEB	Hydro	Subarnrekha (U#1,2)	130.00	130.00	0.50	0.50	158.51	158.45
	RES		60.41	60.41	0.00	0.00	0.00	0.00
		Total	190.41	190.41	0.50	0.50	158.51	158.45
DVC	Thermal	Bokaro-B(3)	0.00	0.00	0.00	-0.32	0.00	-4.65
		Chandrapura(U7 # 8)	500.00	500.00	333.05	301.04	2750.44	2476.83
		Durgapur(4)	210.00	210.00	0.00	0.00	135.12	111.48
		Mezia(1,2,3,4,5,6)	1340.00	1340.00	733.63	655.26	6269.21	5589.98
		Mejia(U # 7,8)	1000.00	1000.00	633.46	600.51	5302.20	5001.77
		Bokaro-A(1)	500.00	500.00	336.57	317.85	2817.74	2656.73
		Durgapur STPS (U#1,2)	1000.00	1000.00	660.11	629.43	5109.24	4831.32
		Raghunathpur TPS (U#1,2)	1200.00	1200.00	289.01	269.56	4003.61	3739.35
	Koderma STPS (U#1,2)	1000.00	1000.00	666.32	634.93	5339.38	5046.54	
		Total Thermal	6750.00	6750.00	3652.14	3408.24	31726.95	29449.37
Hydro	Maithon (U#1,2,3)	63.20	63.20	2.92	2.92	85.66	85.44	
	Panchet (U#1,2)	80.00	80.00	2.49	2.49	122.53	121.62	
	Tilaiya (U#1,2)	4.00	4.00	0.01	0.0	0.02	-0.1	
	Hydro Total	147.20	147.20	5.42	5.42	208.21	207.00	
	Total DVC	6897.20	6897.20	3657.56	3413.66	31935.16	29656.37	
WEST BENGAL								
WBPDCCL	Thermal	Bandel TPS	320.00	275.00	144.64	131.73	1345.17	1212.91
		Santaldih TPS(U#5&6)	500.00	500.00	368.10	339.99	2912.28	2672.71
		Kolaghat TPS	840.00	840.00	443.69	396.68	3580.94	3172.01
		Bakreswar TPP	1050.00	1050.00	691.05	633.30	6197.41	5663.83
		Sagardighi TPP	1600.00	1600.00	1143.50	1064.32	9112.63	8436.51
		DPPS (300+250)	550.00	550.00	245.70	220.98	1955.95	1755.63
		Thermal Total	4860.00	4815.00	3036.69	2786.99	25104.37	22913.61
WBSCL	Hydro	Jaldhaka (3x9+2x4)	35.00	35.00	9.24	9.24	163.59	163.59
		Rammam (4x12.73)	51.00	51.00	12.90	12.90	219.21	219.21
		Teesta C.F. (3x3x7.5)	67.50	67.50	13.79	13.79	105.81	105.81
		Purulia PSS (4x225)	900.00	900.00	162.51	162.51	1123.13	1123.13
		Total Hydro	1053.50	1053.50	198.43	198.43	1611.73	1611.73
		RES	500.76	500.76	21.93	21.93	164.46	164.46

PERFORMANCE OF GENERATING STATIONS IN THE EASTERN REGION DURING THE MONTH OF DEC -2022

ORGANI- SATION	TYPE	POWER STATION	INSTALLED CAPACITY (in MW)	EFFECTIVE CAPACITY (in MW)	Gross Energy Generation in MU	Net Energy Generation in MU	Cummulative Gross Energy Generation upto Current Month (2022-23) in MU	Cummulative Net Energy Generation upto Current Month (2022-23) in MU
BIHAR	NTPC	Barauni (U# 6,7)	220.00	210.00	0.00	-0.35	33.38	24.34
	Thermal	Barauni (U# 8)	250.00	250.00	174.83	159.05	1264.03	1149.01
		Barauni (U# 9)	250.00	250.00	173.58	158.64	1378.49	1246.48
	(Dedicated for Bihar)	Muzaffarpur Stg-I	220.00	220.00	0.00	0.00	0.00	0.00
	RES	Thermal Total	940.00	930.00	348.40	317.33	2675.90	2419.83
		Total BIHAR	1294.91	1284.91	394.84	363.77	2897.96	2641.89
JHARKHAND								
TVNL	Thermal	TVNL	420.00	420.00	229.35	205.78	1979.37	1768.90
TPCL		JOJOBERA	240.00	240.00	130.20	119.30	856.73	782.69
JSEB	Hydro	Subarnrekha (U#1,2)	130.00	130.00	0.50	0.50	158.51	158.45
	RES		60.41	60.41	0.00	0.00	0.00	0.00
		Total	190.41	190.41	0.50	0.50	158.51	158.45
DVC	Thermal	Bokaro-B(3)	0.00	0.00	0.00	-0.32	0.00	-4.65
		Chandrapura(U7 # 8)	500.00	500.00	333.05	301.04	2750.44	2476.83
		Durgapur(4)	210.00	210.00	0.00	0.00	135.12	111.48
		Mezia(1,2,3,4,5,6)	1340.00	1340.00	733.63	655.26	6269.21	5589.98
		Mejia(U # 7,8)	1000.00	1000.00	633.46	600.51	5302.20	5001.77
		Bokaro-A(1)	500.00	500.00	336.57	317.85	2817.74	2656.73
		Durgapur STPS (U#1,2)	1000.00	1000.00	660.11	629.43	5109.24	4831.32
		Raghunathpur TPS (U#1,2)	1200.00	1200.00	289.01	269.56	4003.61	3739.35
	Koderma STPS (U#1,2)	1000.00	1000.00	666.32	634.93	5339.38	5046.54	
		Total Thermal	6750.00	6750.00	3652.14	3408.24	31726.95	29449.37
Hydro	Maithon (U#1,2,3)	63.20	63.20	2.92	2.92	85.66	85.44	
	Panchet (U#1,2)	80.00	80.00	2.49	2.49	122.53	121.62	
	Tilaiya (U#1,2)	4.00	4.00	0.01	0.0	0.02	-0.1	
	Hydro Total	147.20	147.20	5.42	5.42	208.21	207.00	
	Total DVC	6897.20	6897.20	3657.56	3413.66	31935.16	29656.37	
WEST BENGAL								
WBPDCCL	Thermal	Bandel TPS	320.00	275.00	144.64	131.73	1345.17	1212.91
		Santaldih TPS(U#5&6)	500.00	500.00	368.10	339.99	2912.28	2672.71
		Kolaghat TPS	840.00	840.00	443.69	396.68	3580.94	3172.01
		Bakreswar TPP	1050.00	1050.00	691.05	633.30	6197.41	5663.83
		Sagardighi TPP	1600.00	1600.00	1143.50	1064.32	9112.63	8436.51
		DPPS (300+250)	550.00	550.00	245.70	220.98	1955.95	1755.63
	Thermal Total	4860.00	4815.00	3036.69	2786.99	25104.37	22913.61	
WBSCL	Hydro	Jaldhaka (3x9+2x4)	35.00	35.00	9.24	9.24	163.59	163.59
		Rammam (4x12.73)	51.00	51.00	12.90	12.90	219.21	219.21
		Teesta C.F. (3x3x7.5)	67.50	67.50	13.79	13.79	105.81	105.81
		Purulia PSS (4x225)	900.00	900.00	162.51	162.51	1123.13	1123.13
		Total Hydro	1053.50	1053.50	198.43	198.43	1611.73	1611.73
	RES	500.76	500.76	21.93	21.93	164.46	164.46	

PLANT LOAD FACTOR (PLF) OF THERMAL POWER STATIONS IN EASTERN REGION DURING THE MONTH OF DEC' 2022

ORGANISATION	TYPE	POWER STATION	INSTALLED CAPACITY (in MW)	EFFECTIVE CAPACITY (in MW)	Gross Energy Generation in MU	PLF of Current Month (%)	Cummulative Gross Energy Generation upto Current Month (2022-23) in MU	Cummulative PLF upto Current Month (%)
BIHAR	Thermal	Barauni (U# 6,7)	220.00	210.00	0.00	0.00	33.38	0.93
		Barauni (U# 8)	250.00	250.00	174.83	93.99	1264.03	76.61
		Barauni (U# 9)	250.00	250.00	173.58	93.32	1378.49	83.54
		(Dedicated for Bihar) Muzaffarpur Stg-I	220.00	220.00	0.00	0.00	0.00	0.00
		Thermal Total	940.00	930.00	348.40	50.35	2675.90	43.26
	RES		354.91	354.91	46.43		222.06	
		Total BIHAR	1294.91	1284.91	394.84		2897.96	
JHARKHAND								
TVNL	Thermal	TVNL	420.00	420.00	229.35	73.40	1979.37	71.41
		JOJOBERA	240.00	240.00	130.20	72.92	856.73	80.84
JSEB	Hydro	Subarnrekha (U#1,2)	130.00	130.00	0.50		158.51	
	RES		60.41	60.41	0.00		0.00	
		Total	190.41	190.41	0.50		158.51	
DVC	Thermal	Bokaro-B(3)	0.00	0.00	0.00	0.00	0.00	0.00
		Chandrapura(U7 # 8)	500.00	500.00	333.05	89.53	2750.44	83.35
		Durgapur(4)	210.00	210.00	0.00	0.00	135.12	9.75
		Mezia(1,2,3,4,5,6)	1340.00	1340.00	733.63	73.59	6269.21	70.89
		Mejia(U # 7,8)	1000.00	1000.00	633.46	85.14	5302.20	80.34
		Bokaro-A(1)	500.00	500.00	336.57	90.48	2817.74	85.39
		Durgapur STPS (U#1,2)	1000.00	1000.00	660.11	88.72	5109.24	77.41
		Raghunathpur TPS (U#1,2)	1200.00	1200.00	289.01	32.37	4003.61	50.55
	Koderma STPS (U#1,2)	1000.00	1000.00	666.32	89.56	5339.38	80.90	
		Total Thermal	6750.00	6750.00	3652.14	72.72	31726.95	71.22
	Hydro	Maithon (U#1,2,3)	63.20	63.20	2.92		85.66	
Panchet (U#1,2)		80.00	80.00	2.49		122.53		
Tilaiya (U#1,2)		4.00	4.00	0.01		0.02		
Hydro Total		147.20	147.20	5.42		208.21		
	Total DVC	6897.20	6897.20	3657.56		31935.16		
WEST BENGAL								
WBPDCCL	Thermal	Bandel TPS	320.00	275.00	144.64	70.69	1345.17	74.11
		Santalidih TPS(U#5&6)	500.00	500.00	368.10	98.95	2912.28	88.25
		Kolaghat TPS	840.00	840.00	443.69	71.00	3580.94	64.59
		Bakreswar TPP	1050.00	1050.00	691.05	88.46	6197.41	89.43
		Sagardighi TPP	1600.00	1600.00	1143.50	96.06	9112.63	86.29
		DPPS (300+250)	550.00	550.00	245.70	60.04	1955.95	53.88
		Thermal Total	4860.00	4815.00	3036.69	84.77	25104.37	79.00
WBSEDCL	Hydro	Jaldhaka (3x9+2x4)	35.00	35.00	9.24		163.59	
		Rammam (4x12.73)	51.00	51.00	12.90		219.21	
		Teesta C.F. (3x3x7.5)	67.50	67.50	13.79		105.81	
		Purulia PSS (4x225)	900.00	900.00	162.51		1123.13	
		Total Hydro	1053.50	1053.50	198.43		1611.73	
	RES	500.76	500.76	21.93		164.46		
DE- COMMISSIONED	1.WBPDCCL,Bandel TPS Unit #1 (IC=1X60 MW,EC=1X60 MW) decommissioned from 21.02.2022. 2.WBPDCCL,Kolaghat TPS Unit #1,2 (IC=2X210 MW,EC=2X210 MW) decommissioned from 21.02.2022. 3.BIHAR, Muzaffarpur TPS Unit(KBUNL) #1,2 (IC=2X110 MW, EC=2X110 MW) decommissioned from 08.09.2021. 4.NTPC, TTPS Odisha All Six units(4X62.5+2X110) decommissioned from 01.04.2021 5.DVC, BTPS(B) Unit #3 (210 MW) de-commissioned from 01.04.2021 6. DPL U#6 (110 MW) Decommissioned from 28.01.20 as per CEA. 7. CTPS U#6 (140 MW) Decommissioned from 19.03.2020 as per CEA.							
COMMISSIONED	1.NTPC NPGCL U#3 (660 MW) COD from 01.06.2022 2.NTPC Nabinagar TPP(BRBL) U#4 (250 MW) COD from 01.12.2021 3.NTPC BARAUNI TPP U#9 (250 MW) COD from 01.11.2021 4.NTPC Barh St-1, U#1(660 MW) COD from 12.11.2021 5.NSTPS U#2 (660 MW) COD from 23.07.2021 6.NTPC DARLIPALI STPS U#2 (800 MW) COD 01.09.2021 7.DARLIPALI S TPS U#1(800 MW) COD 01.03.2020 8.BARAUNI TPS U#1(250 MW) COD 01.03.2020							

PLANT LOAD FACTOR (PLF) OF THERMAL POWER STATIONS IN EASTERN REGION DURING THE MONTH OF DEC' 2022

ORGANI- SATION	TYPE	POWER STATION	INSTALLED CAPACITY	EFFECTIVE CAPACITY	Gross Energy Generation	PLF of Current Month	Cummulative Gross Energy Generation upto Current Month	Cummulative PLF upto Current Month
			(in MW)	(in MW)	in MU	(%)	(2022-23) in MU	(%)
CESC	Thermal	Titagarh (4x60)	240.00	240.00	0.00	0.00	0.00	0.00
		Southern (2x67.5)	135.00	135.00	0.76	0.75	571.91	64.19
		Budge-Budge (3x250)	750.00	750.00	337.37	60.46	3979.71	80.40
		Total CESC	1125.00	1125.00	338.13	40.40	4551.62	61.30
HEL	Thermal	HEL	600.00	600.00	332.82	74.56	3347.73	84.54
		Total West Bengal	8139.26	8094.26	3927.99		34779.91	
OPGC	Thermal	IB TPS	420.00	420.00	267.39	85.57	2006.82	72.40
		IB TPS U#3(660 MW)	660.00	660.00	410.94	83.69	3474.89	79.77
		IB TPS U#4(660 MW)	660.00	660.00	424.10	86.37	3240.33	74.39
OHPC	Hydro	Hirakud-I (Burla)	275.50	275.50	23.61		844.04	
		Hirakud-II (Chiplima)	72.00	72.00	13.75		287.58	
		Balimela (6x60+2x75)	510.00	510.00	62.17		883.49	
		Rengali (5x50)	250.00	250.00	38.90		660.17	
		Upper Kolab (4x80)	320.00	320.00	20.90		317.24	
		Indravati HPS (4x150)	600.00	600.00	8.46		1051.06	
		Mckd.(Odisha drawal)	57.38	57.38	23.69		178.21	
		Total Hydro	2084.88	2084.88	191.48		4221.78	
		RES	539.57	539.57	66.04		524.01	
	Total Odisha	4364.45	4364.45	1359.93		13467.83		
(**) SIKKIM	Hydro	RES	52.18	52.18	1.00		14.00	
NTPC		MTPS Stg-II	390.00	390.00	272.94	94.06	2191.10	85.12
		FSTPP# I&II (3x200+2x500)	1600.00	1600.00	696.81	58.54	7023.49	66.51
		FSTPP (U# 6)	500.00	500.00	140.98	37.90	1800.11	54.55
		KhSTPP (4x210+3x500)	2340.00	2340.00	1197.68	68.79	11811.90	76.48
		TSTPP (2x500)	1000.00	1000.00	725.52	97.52	5505.43	83.42
		BARH STPS II (2X660)	1320.00	1320.00	870.22	88.61	6855.83	78.69
		BARH STPS I (1X660)	660.00	660.00	369.85	75.32	3043.05	69.86
		BRBCL # 1,2,3,4(4X250 MW)	1000.00	1000.00	647.02	86.97	5289.44	80.14
		BRBCL # 4 infirm			0.00	0.00	0.00	0.00
		NSTPS U# I&2	1980.00	1980.00	851.09	57.77	9175.43	75.82
		NSTPS infirm					75.63	
		DSTPP #1&2	1600.00	1600.00	1129.54	94.89	8107.71	76.78
		DSTPP #2 infirm	0.00	0.00	0.00	0.00	0.00	0.00
		Total NTPC	12390.00	12390.00	6901.65	74.87	60879.12	75.24
NHPC	HYDRO	Rangit (3x20)	60.00	60.00	15.17		306.42	
		Teesta (3x170)	510.00	510.00	98.31		2587.07	
		TLDP(4x33+4x40) for WBSEDCL	292.00	292.00	37.00		1252.83	
		Total NHPC	862.00	862.00	150.48		4146.31	
	Thermal	MPL (U#1&2)	1050.00	1050.00	715.06	91.53	6093.22	87.93
		APNRL (U#1,2)	540.00	540.00	324.76	80.83	2648.54	74.31
		GMR (2x350)	700.00	700.00	400.20	76.84	3293.00	71.28
		JITPL (2X600)	1200.00	1200.00	753.07	84.35	5656.48	71.42
		CHUZACHEN** (2x55)	110.00	110.00	11.17		472.31	
		JORETHANG (2x48)	96.00	96.00	13.95		405.11	
		TEESTA URJA St III (6x200)	1200.00	1200.00	211.48		5657.04	
		Tashilding (2x48.5)	97.00	97.00	15.23		423.12	
		DICKCHU (2x48)	96.00	96.00	12.03		508.57	
		RONGNICHU HEP (2x56.5)			10.61		407.77	
TALCHER SOLAR	10.00	10.00	1.13		9.73			
Total Thermal (E.R)	32555.00	32500.00	18264.87	75.54	157535.07	73.91		
EASTERN REGIONAL		Total Hydro (E.R)	5989.58	5989.58	820.79		18220.46	
		Total RES	1517.83	1517.83	136.53		934.26	
		TOTAL (E.R)	40062.41	40007.41	19222.18		176689.79	
BHUTAN	Hydro	CHPC(4x90)	360.00	270.00	0.00		1569.83	
		Kurichu (4x15)	60.00	60.00	0.00		28.65	
		TALA (6x170)	1020.00	1020.00	0.00		2417.33	
		DAGACHU (2x63)	126.00	126.00	21.17		381.19	
		MANGDECHU(4x180)	720.00	720.00	33.05		2627.40	
		Grand Total	42348.41	42203.41	19276.41		183714.19	

CONTRIBUTIONS OF DIFFERENT CONSTITUENTS AT THE TIME OF REGIONAL PEAK DURING THE MONTH OF DEC'2022 (29-12-2022)

Date 29-Dec-22
 Time 19.00 Hrs.
 Frequency 49.98 Hz.

System/State	Installed	Effective				(All Fig. in MW)
	Capacity	Capacity	Hydro	Thermal	RES	Net Gen Total
BSPHCL	1295	1285	0	461	0	461
JUVNL	850	850	0	428	0	428
DVC	6897	6897	38	4958	0	4996
ODISHA	4364	4364	755	1388	53	2195
WBSEDCL	5864	5819	920	4137	0	5056
TLDP	292	292	242	0	0	242
HEL HALDIA	600	600	0	547	0	547
CESC	1125	1125	0	439	0	439
DPL	550	550	0	0	0	0
SIKKIM	52	52	0	0	0	0
NTPC	12390	12390	0	10218	0	10218
NHPC	570	570	569	0	0	569
CHUKHA	360	270	42	0	0	42
KURICHU	60	60	-3	0	0	-3
TALA	1020	1020	19	0	0	19
MPL	1050	1050	0	972	0	972
OPGC (660 MW)	0	0	0	0	0	0
APNRL	540	540	0	496	0	496
Kamalganga (GMR)	700	700	0	655	0	655
JITPL	1200	1200	0	1117	0	1117
RONGNICHU HEP (2x56.5)	113	113	96	0	0	96
Chuzachen	110	110	27	0	0	27
Jorethang	96	96	0	0	0	0
TEESTA URJA St III	1200	1200	991	0	0	991
Tashilding	97	97	0	0	0	0
DICKCHU	96	96	56	0	0	56
<u>Daghachu</u>	126	126	26	0	0	26
<u>Solar</u>	10	10	0	0	0	0
<u>Mangdechu</u>	720	720	-53	0	0	-53
<u>Total</u>	42348	42203	3725	25816	53	29593
Import From Captive:						1574
Export To:						
NER						-62
SR						3415
WR						1096
NR						5000
Bangladesh						931
Nepal						68
Total						10448
➤ Regional Net Peak Demand Met (MW) :						20720

Indicates Export(+)/Import(-) of Power

Hourly Load Generation Data OF ER on Regional Peak Day During The Month of DEC'2022 (29-12-2022)

(All Figures in MW)

Hrs.	Generation			Import from Captive	Net Import From Hydro of Bhutan	Net Export to other region	Demand Met	Freq. Correction	Load Shed	Requirement
	Hydro	Thermal	Total							
1	282	23521	23803	1301	-106	8891	16108	18	0	16126
2	226	22590	22816	1293	-108	8322	15679	16	0	15695
3	201	21758	21959	1296	-99	7637	15519	22	0	15541
4	201	22113	22314	1284	-101	8024	15473	22	0	15495
5	296	23430	23726	1337	-57	9160	15845	21	0	15866
6	666	24228	24894	1387	9	10584	15707	44	79	15830
7	1898	24770	26668	1522	-3	11038	17150	36	291	17476
8	3179	24888	28067	1533	-42	10807	18751	44	294	19090
9	2887	25013	27900	1540	-37	10464	18939	25	298	19263
10	2031	25162	27193	1562	-30	10066	18660	65	402	19126
11	968	25148	26116	1558	-38	9176	18460	18	663	19141
12	1026	24987	26013	1426	-44	8799	18596	-15	281	18862
13	798	24846	25644	1437	-19	8249	18813	13	52	18878
14	620	24815	25435	1395	18	8698	18151	230	0	18381
15	528	24692	25219	1373	16	9483	17125	58	0	17183
16	1039	24613	25652	1370	11	10138	16895	-34	0	16895
17	1082	25132	26213	1540	33	10196	17590	-31	357	17916
18	2583	25387	27971	1548	26	9334	20211	-21	394	20584
19	3747	25816	29563	1574	30	10448	20720	13	344	21076
20	2844	25855	28699	1563	41	10203	20099	19	344	20462
21	1557	25594	27151	1559	37	9724	19023	-38	344	19329
22	659	25325	25984	1435	36	9476	17978	25	89	18092
23	255	24591	24846	1355	30	9637	16595	26	0	16621
24	260	24288	24548	1333	-109	9540	16232	28	0	16261

Hourly Load Generation Data of ER On Regional Lean Day During The Month of DEC'2022 (3-12-2022)

(All Figures in MW)

Hrs.	Generation			Import from Captive	Net Import From Hydro of Bhutan	Net Export to other region	Demand Met	Freq. Correction	Load Shed	Requirement
	Hydro	Thermal	Total							
1	694	21445	22139	1305	113	8372	15185	4	0	15189
2	552	21024	21576	1300	106	8040	14942	3	0	15593
3	625	20030	20656	1275	99	7472	14559	-6	0	15526
4	761	20219	20980	1300	110	7691	14699	-15	0	15467
5	968	21341	22308	1307	129	8664	15081	-3	0	15859
6	905	22257	23163	1334	208	8825	15880	3	611	16077
7	1133	22903	24036	1535	345	9673	16242	17	612	17220
8	2100	23062	25162	1542	335	9744	17296	-14	548	18803
9	2320	23259	25579	1544	347	9880	17590	15	493	19263
10	1427	23407	24834	1543	350	9272	17456	63	278	19125
11	1005	23351	24356	1424	309	8871	17219	11	222	18621
12	930	23199	24129	1368	223	8632	17089	21	145	18799
13	987	22988	23975	1309	169	8105	17348	-5	145	18826
14	599	22646	23246	1217	107	8423	16148	-30	2	18033
15	599	22641	23240	1320	104	8724	15940	15	2	17073
16	1173	23076	24249	1349	97	9384	16311	3	388	16716
17	1815	23193	25008	1492	78	9719	16859	9	550	17664
18	3111	23242	26353	1642	40	8883	19152	-7	549	20437
19	3663	22957	26620	1683	51	9263	19090	-23	549	21153
20	2838	23012	25851	1736	64	9056	18594	13	548	20143
21	1986	23248	25233	1740	75	9073	17975	53	403	19500
22	1171	23032	24203	1672	74	8928	17021	12	0	17845
23	816	22303	23119	1566	80	8426	16339	29	0	17115
24	763	21890	22653	1510	94	8250	16007	1	0	16640

NOTIFIED POWER CUTS/RESTRICTIONS ON INDUSTRIES & POWER SUPPLY TO AGRICULTURE SECTOR

FOR THE MONTH OF DEC'2022

POWER CUT / RESTRICTIONS

BSPHCL	NO NOTIFIED CUTS/RESTRICTIONS However there was loadshedding of 11.55 MU
JUVNL	NO NOTIFIED CUTS/RESTRICTIONS However there was loadshedding of 112.62 MU
DVC	NO NOTIFIED CUTS/RESTRICTIONS. However there was loadshedding of 0.00 MU
ODISHA	NO NOTIFIED CUTS/RESTRICTIONS However there was loadshedding of 0.00 MU
WEST BENGAL	NO NOTIFIED CUTS/RESTRICTIONS. However there was loadshedding of 1.08 MU

POWER SUPPLY TO AGRICULTURAL SECTOR

STATE	HOURS OF SUPPLY (AVERAGE / DAY)
BIHAR	18 HRS.00 MINS.
JHARKHAND	ABOUT 20 to 22 HRS.
ODISHA	24 HRS.
WEST BENGAL	23 HRS.

FREQUENCY DETAILS FOR THE MONTH OF Dec-22

DATE	H O U R S										INST. FREQ.				15 MIN. INTEGRATED			
	00	05	10	17	22	00	49.9	>50.05	49.9		MAX	HRS.	MIN	HRS.	MAX	HRS.	MIN	HRS.
	TO	TO	TO	TO	TO	TO	<49.9	TO	TO		HZ		HZ		HZ		HZ	
01-Dec	49.98	49.99	49.93	50.02	49.95	49.97	12.20	73.81	13.99	73.81	50.20	17:33:00	49.77	12:53:40	50.09	0:00	49.84	0:00
02-Dec	49.98	49.88	49.96	50.01	49.96	49.96	17.78	70.75	11.47	70.75	50.18	06:02:10	49.63	09:19:00	50.08	0:00	49.75	0:00
03-Dec	50.01	49.97	49.99	49.98	49.97	49.99	6.89	75.75	17.36	75.75	50.22	13:01:20	49.75	09:37:30	50.10	0:00	49.84	0:00
04-Dec	50.00	49.96	50.02	49.99	50.03	50.00	8.07	62.94	28.99	62.94	50.28	06:04:30	49.68	08:21:40	50.17	0:00	49.76	0:00
05-Dec	50.01	50.00	49.99	50.09	49.99	50.02	3.75	61.62	34.63	61.62	50.29	19:58:10	49.79	06:53:20	50.19	0:00	49.85	0:00
06-Dec	50.00	49.92	50.02	50.03	50.02	50.00	13.30	51.40	35.30	51.40	50.35	06:03:00	49.62	07:16:50	50.19	0:00	49.71	0:00
07-Dec	49.96	49.96	49.97	50.02	50.01	49.98	17.36	54.80	27.84	54.80	50.30	23:59:40	49.61	16:29:20	50.23	0:00	49.70	0:00
08-Dec	49.96	50.05	50.01	50.02	49.95	50.00	8.67	56.97	34.36	56.97	50.36	06:04:30	49.62	22:18:40	50.26	0:00	49.72	0:00
09-Dec	50.03	50.01	49.97	50.06	50.03	50.01	8.61	54.53	36.86	54.53	50.36	06:05:00	49.58	12:53:30	50.30	0:00	49.69	0:00
10-Dec	50.02	49.99	49.96	50.07	49.98	50.00	21.44	44.04	34.53	44.04	50.37	07:01:50	49.60	11:48:00	50.25	0:00	49.68	0:00
11-Dec	49.98	49.92	50.05	50.00	50.04	50.00	12.81	57.43	29.76	57.43	50.22	00:00:40	49.91	00:08:30	50.02	0:00	49.98	0:00
12-Dec	49.99	49.89	50.04	49.98	50.04	49.99	16.09	54.98	28.94	54.98	50.35	13:02:30	49.65	06:44:10	50.26	0:00	49.73	0:00
13-Dec	49.94	50.05	50.02	49.99	50.01	50.00	11.91	55.42	32.67	55.42	50.35	07:03:00	49.62	02:40:00	50.25	0:00	49.66	0:00
14-Dec	50.01	50.02	49.97	49.99	50.05	50.00	9.29	60.86	29.85	60.86	50.32	04:01:50	49.68	10:20:40	50.19	0:00	49.77	0:00
15-Dec	50.00	49.98	50.02	49.94	49.98	49.99	14.87	57.34	27.79	57.34	50.30	10:27:10	49.58	05:15:40	50.20	0:00	49.76	0:00
16-Dec	49.91	49.87	49.99	50.04	49.90	49.95	26.28	48.89	24.83	48.89	50.27	07:59:30	49.69	06:27:40	50.16	0:00	49.63	0:00
17-Dec	49.93	50.06	50.02	49.99	49.98	50.00	11.22	57.88	30.90	57.88	50.38	06:06:10	49.66	01:11:30	50.22	0:00	49.75	0:00
18-Dec	49.99	49.99	49.99	50.08	49.94	50.01	10.27	57.42	32.31	57.42	50.43	06:03:50	49.67	22:58:30	50.26	0:00	49.75	0:00
19-Dec	49.96	50.03	49.98	49.97	49.92	49.98	15.38	59.56	25.06	59.56	50.01	00:01:40	49.41	00:42:10	49.95	0:00	49.72	0:00
20-Dec	50.00	49.88	50.01	50.04	50.06	49.99	20.71	45.05	34.24	45.05	50.50	13:02:00	49.71	09:31:30	50.45	0:00	49.48	0:00
21-Dec	50.00	50.00	50.03	50.04	49.98	50.02	7.29	54.32	38.39	54.32	50.39	18:59:50	49.60	04:43:50	50.37	0:00	49.81	0:00
22-Dec	50.00	50.04	50.06	49.98	49.99	50.02	7.11	56.71	36.18	56.71	50.40	11:41:30	49.69	17:14:30	50.37	0:00	49.83	0:00
23-Dec	49.96	49.96	50.07	50.02	50.01	50.01	13.77	54.20	32.03	54.20	50.41	14:03:40	49.69	09:14:20	50.37	0:00	49.79	0:00
24-Dec	49.96	50.03	49.96	50.01	50.02	49.99	18.91	49.84	31.25	49.84	50.38	07:45:10	49.62	14:58:10	50.31	0:00	49.73	0:00
25-Dec	50.01	49.89	50.05	50.08	50.00	50.01	13.87	44.06	42.07	44.06	50.44	07:04:30	49.41	09:08:40	50.41	0:00	49.46	0:00
26-Dec	50.09	50.05	49.99	49.99	49.96	50.02	11.26	53.22	35.52	53.22	50.55	06:08:20	49.72	20:51:20	50.44	0:00	49.81	0:00
27-Dec	49.98	50.05	50.07	49.97	49.87	50.01	17.55	48.26	34.19	48.26	50.48	06:04:40	49.65	14:54:40	50.39	0:00	49.72	0:00
28-Dec	49.97	50.00	49.98	49.98	50.00	49.98	6.91	72.40	20.69	72.40	50.37	06:04:20	49.75	04:14:20	50.16	0:00	49.84	0:00
29-Dec	49.96	49.93	49.95	50.00	49.95	49.96	18.87	63.04	18.09	63.04	50.30	16:03:10	49.46	13:50:10	50.18	0:00	49.58	0:00
30-Dec	50.00	49.93	50.04	50.02	49.99	50.00	7.79	65.38	26.83	65.38	50.38	06:49:30	49.71	09:18:50	50.20	0:00	49.78	0:00
MAX	50.09	50.06	50.07	50.09	50.06	50.02	26.28	75.75	42.07	75.75	50.55		49.91		50.45		49.98	
MIN	49.91	49.87	49.93	49.94	49.87	49.95	3.75	44.04	11.47	44.04	50.01		49.41		49.95		49.46	
AVG	49.99	49.98	50.00	50.01	49.99	50.00	12.84	57.47	29.70	57.47	50.33		49.64		50.23		49.73	

SUMMARY:

Avg. Frequency : **50.00 Hz.**

Instantaneous Frequency :

Maximum Frequency : 50.55 Hz at 06:08 Hrs.

Minimum Frequency : 49.41 Hz at 09:31 Hrs.

15 Minutes Integrated Frequency :

Maximum Frequency : 50.45 Hz On 00/01/00 at 00:00 Hrs.

Minimum Frequency : 49.46 Hz On 00/01/00 at 00:00 Hrs

Frequency Distribution in % of Time			
Hz	<49.9	49.9-50.05	>50.05
% of Time	12.84	57.47	29.70

VOLTAGE ANALYSIS

MAXIMUM & MINIMUM VOLTAGES RECORDED AT IMPORTANT 400 KV S/S IN THE MONTH OF DEC'2022

(All figs. in kV)

PGCIL	BINAGURI		MAITHON		JEERAT		BIHARSHARIFF	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	420	398	413	398	423	396	422	399

PGCIL	MUZAFFARPUR		JAMSHEDPUR		ROURKELA		JEYPORE	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	415	389	415	394	414	402	419	399

DETAILS OF CONSTITUENT WISE LOAD SHEDDING IMPLEMENTED THROUGH UFRs IN THE EASTERN REGION

Expected Load Relief through UFRs by ER Constituent:

(All Fig. are in MW)

STATES/ UTILITIES	STAGE-I (49.4 Hz) (Inst.)	STAGE-II (49.2 Hz) (Inst.)	STAGE-III (49.0 Hz) (Inst.)	STAGE-IV 48.8 Hz (Inst.)	Total Load Relief by Control Area
BIHAR	98	99	99	101	397
JHARKHAND	61	62	61	62	246
DVC	134	135.5	136	137	542.5
ODISHA	181.5	183.5	184	186	735
WEST BENGAL (incl. CESC)	345.5	350	350	354	1399.5
TOTAL	820	830	830	840	3320

As decided in the National Power Committee (NPC) meeting held on 16.07.2013 and subsequently in the 89th OCC meeting of ERPC to implement the scheme w.e.f. 30.09.2013. Revised UFR Scheme (Stg-I 49.4Hz. Stg-II 49.2 Hz Stg-III 49.0 Hz and Stg-IV 48.8 Hz) implemented from March/ April-2020

A. **WATER LEVEL OF MAJOR HYDEL RESERVOIRS OF THE REGION IN**
Dec-22

(All figs.in mtrs.)

Name of the Reservoirs	FRL	MDDL	As on last day of the		As on first day of this month & date	
			(31-12-22)	(31-12-21)		
Hirakud	192	180	191.09	191.38	191.31	01.12.22
Balimela	462	439	450.40	451.56	451.65	01.12.22
Rengali	123	109	121.15	121.78	122.03	01.12.22
Upperkolab	858	844	855.48	852.09	855.59	01.12.22
Indravati	642	625	638.20	632.08	637.95	01.12.22
Subernrekha	590	580	586.80	586.53	586.92	01.12.22

B. **CPP/IPP IMPORT by Eastern Region Constituents during** Dec-22

(All figs. are in MU)

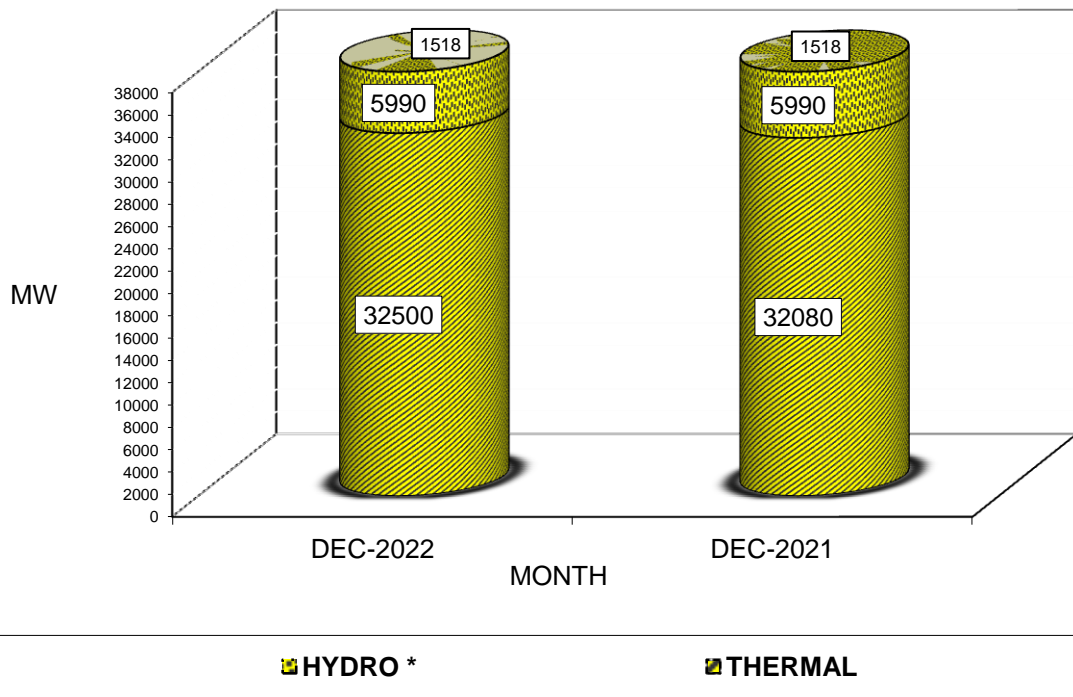
System	Tata Power	Crescent Power	JSPL, Angul	Sterlite	Jindal	NALCO	TISCO	Others	Total
JUVNL	0	0	0	0	0	0	0	0	39.21
West Bengal	75.63	26.71	0	0	0	0	0	190.25	292.58
ODISHA	0	0	21.68	211.38	2.23	0.00	0	513.25	748.54
DVC	0	0	0	0	0	0	8.68	0	8.68
TOTAL	75.63	26.71	21.68	211.38	2.23	0.00	8.68	703.50	1089.01

C. **Distribution of Schedule Supply among Key Customers by IPPs during** Dec-22

(All figs. are in MU)

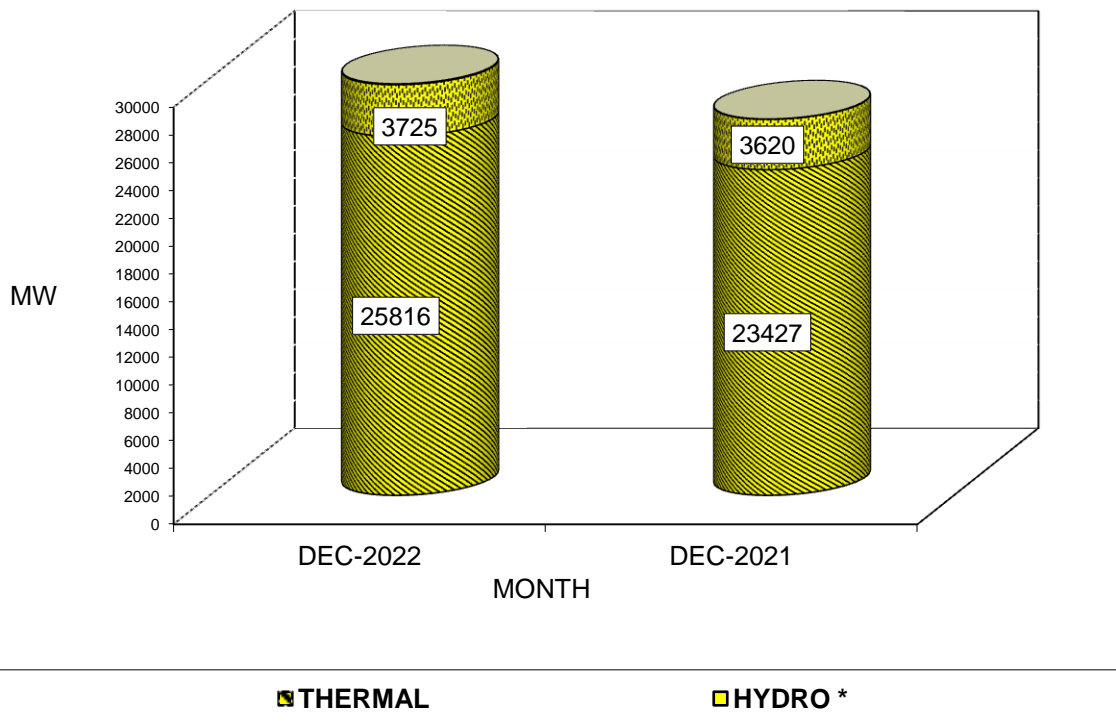
IPP	TPDDL	WBSEDCL/ WBPDCCL	DVC	Sale at IEX/NPCL	ODISHA	JSEB	CTU/Others	Total (Excl. Tr. Loss)
MPL	192.59	202.11	96.10	0.00	0	0	182.57	673.37
Sterlite	0	0	0	0	0.00	0	0.00	0.00
APNRL	0	0.00	0	0.00	0.00	0.00	0.00	0.00
Total	192.59	202.11	96.10	0.00	0.00	0.00	182.57	673.37

EFFECTIVE CAPACITY OF EASTERN REGIONAL GRID



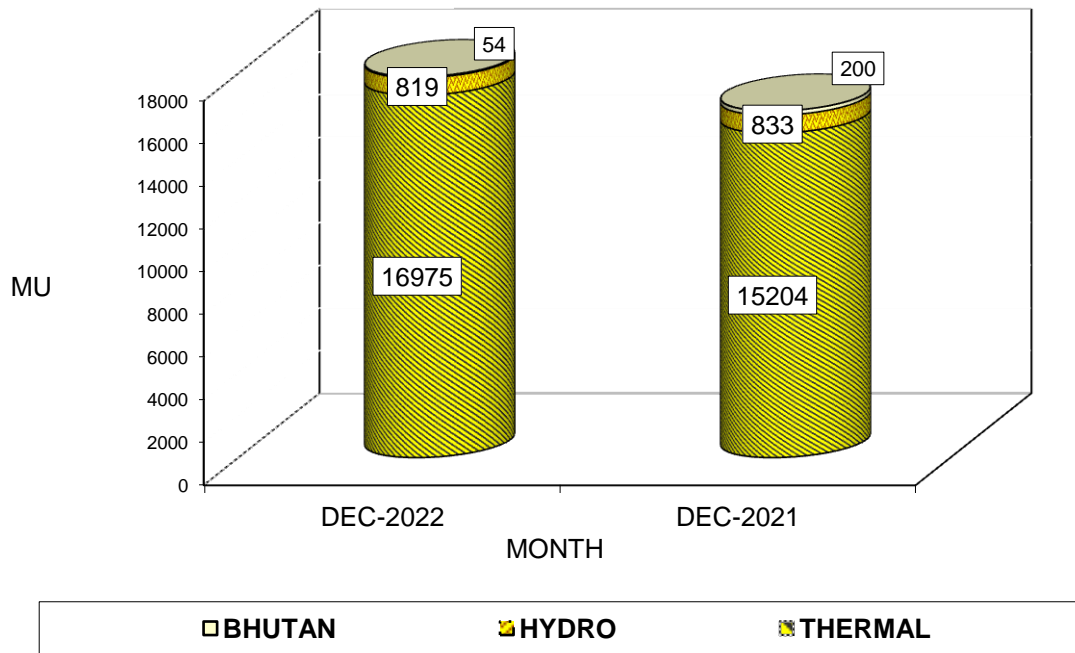
*Excludes contribution from HEPs of Bhutan

GENERATION CORRESPONDING TO PEAK DEMAND MET

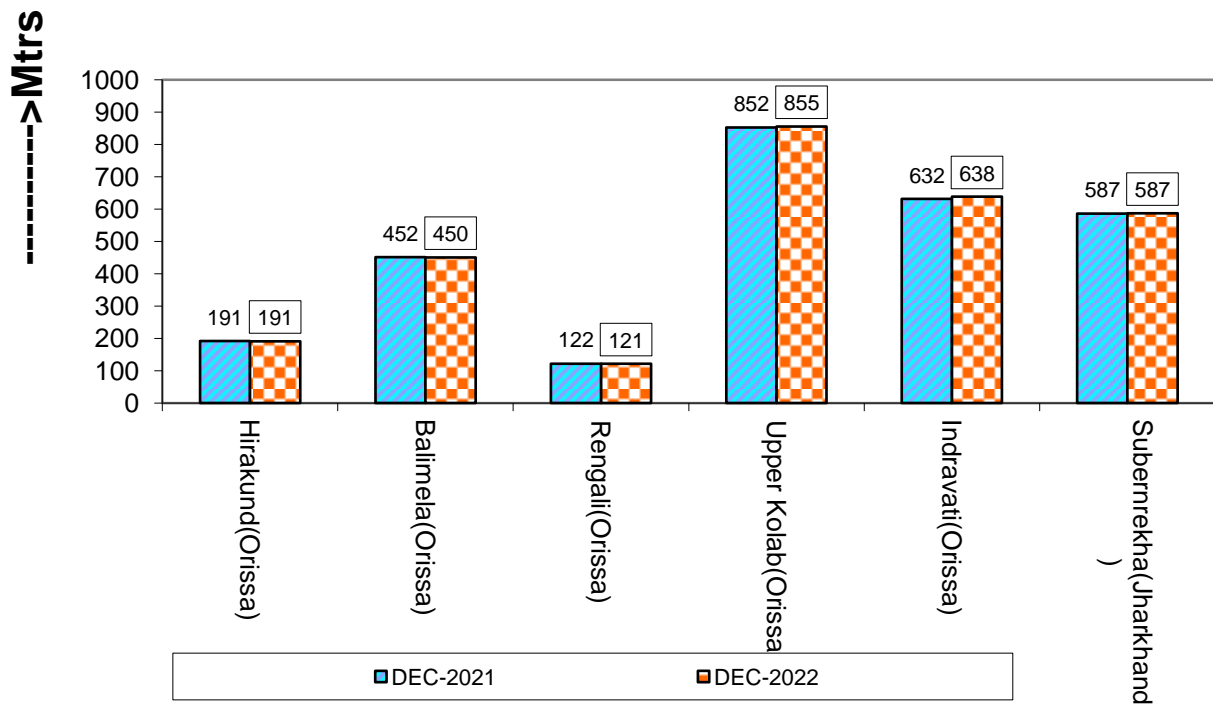


*Includes contribution from HEP of Bhutan

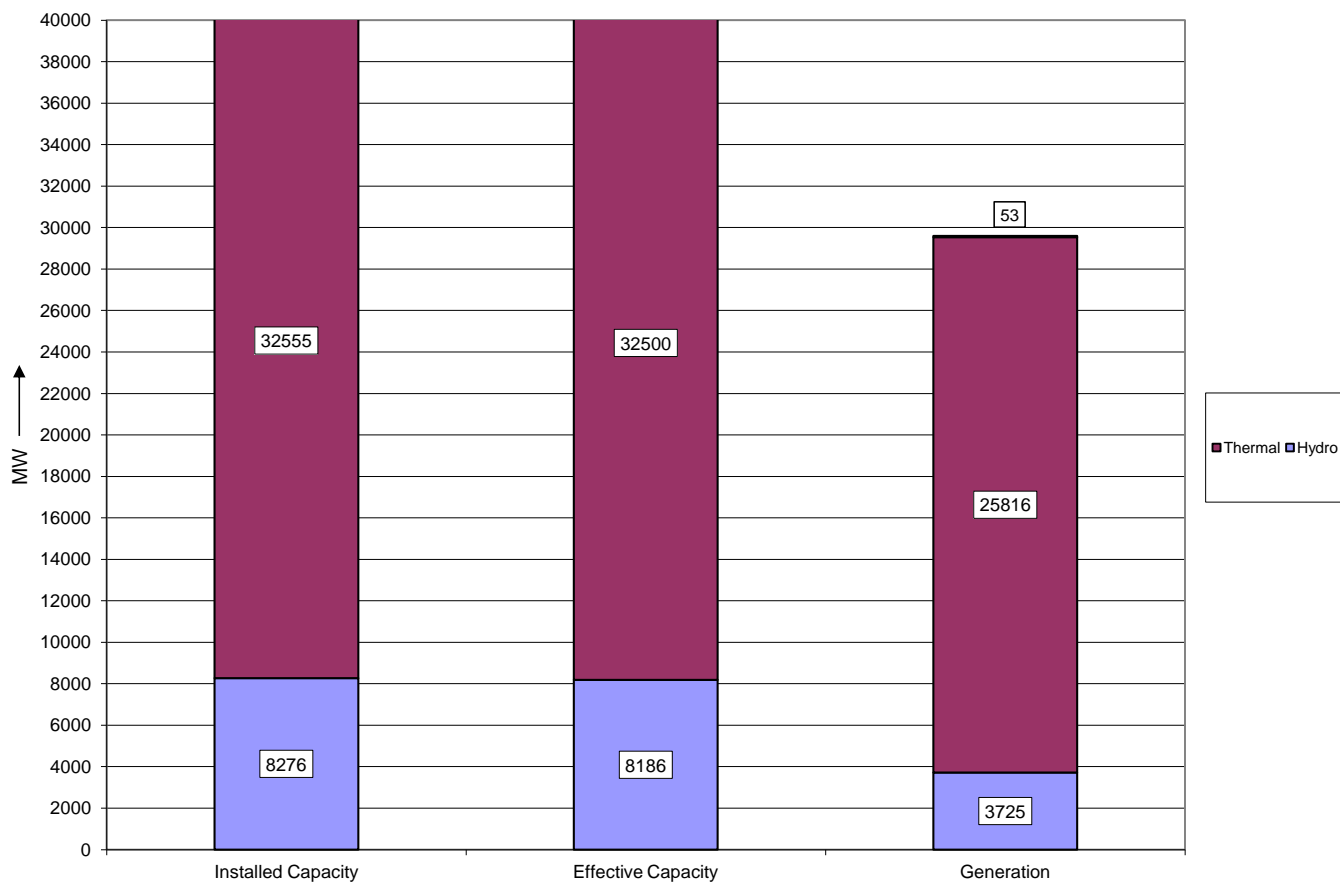
NET ENERGY GENERATION



RESERVOIR LEVEL OF HPS OF ER (RECORDED ON LAST DAY OF MONTH)

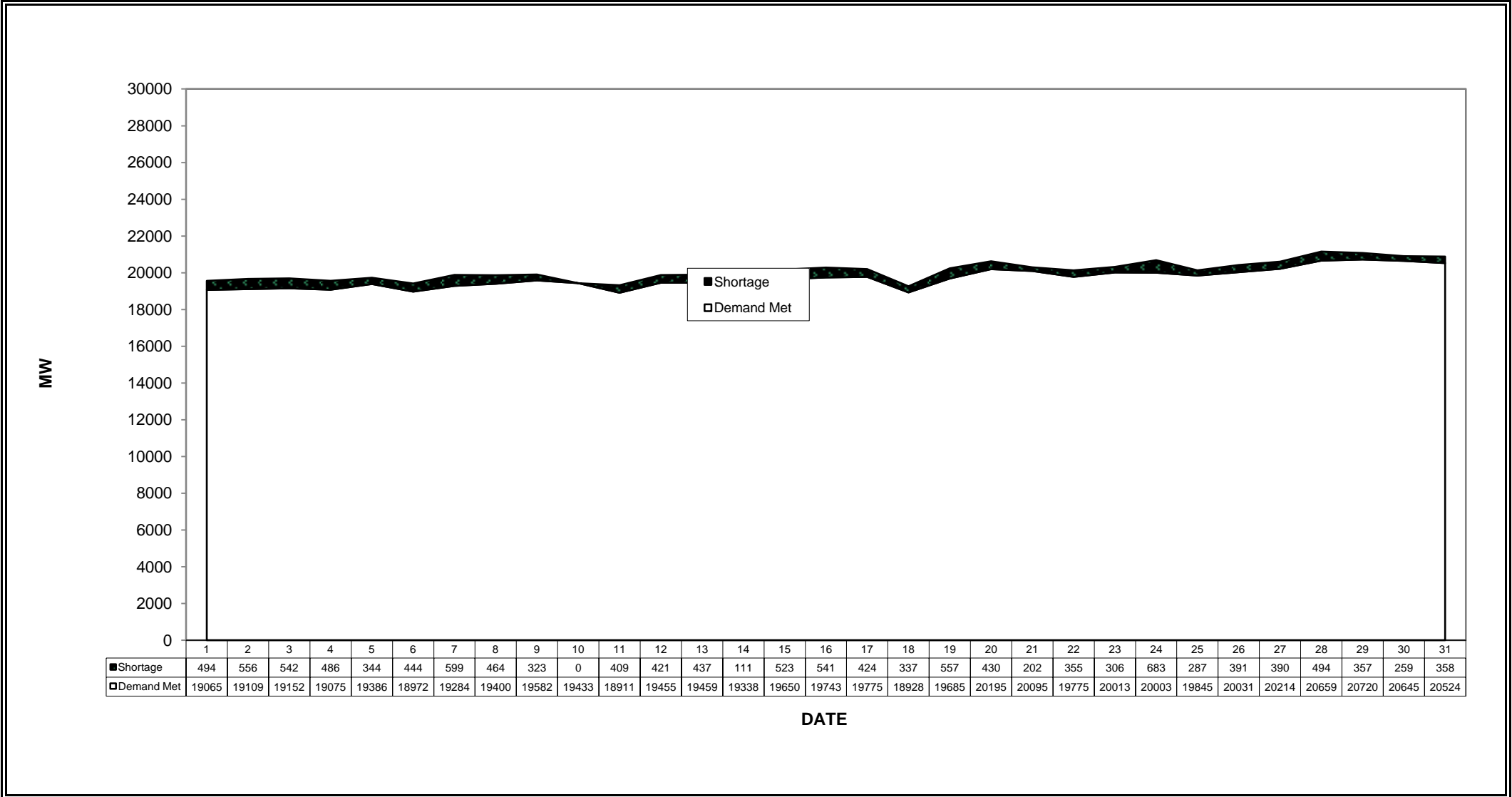


Capacity / Actual Generation Pattern of ER on Peak Day (29-12-2022) at 19.00 hrs.

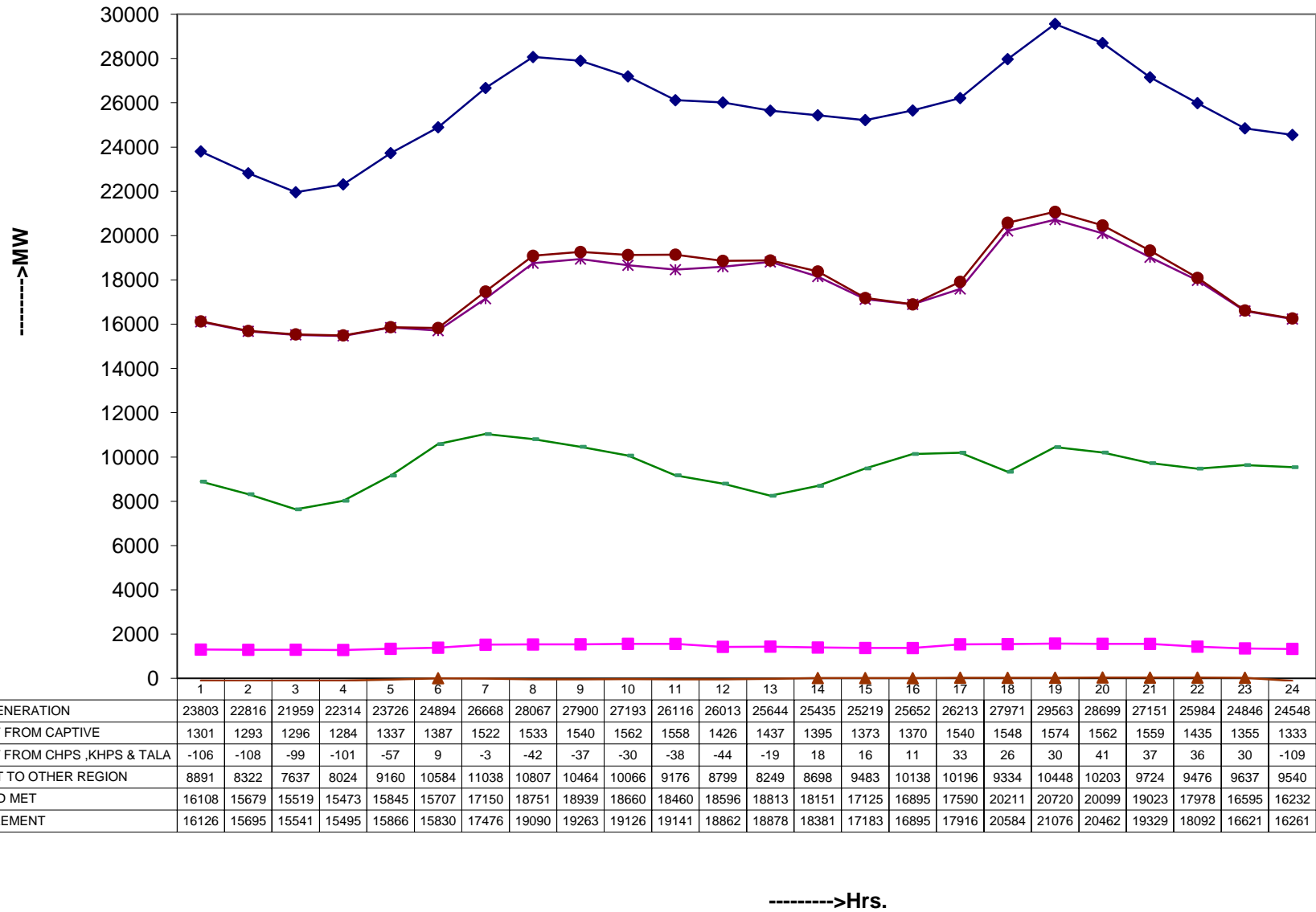


(*)--Includes contribution from HEP of Bhutan (Chukka, Kurichhu & Tala)

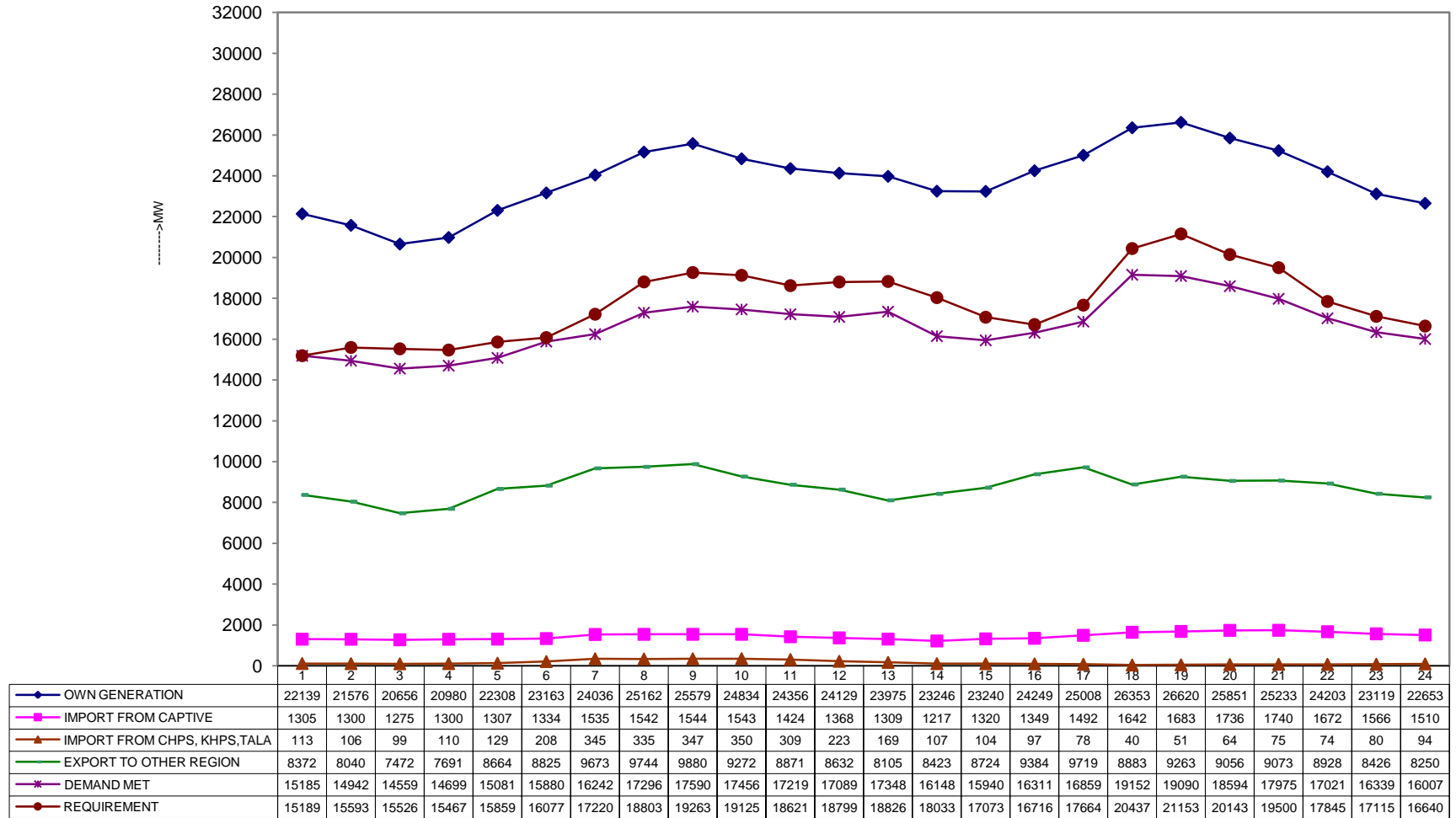
Peak Demand Met / Shortage of Eastern Region For The Month Of DEC'2022



Hourly Load Generation Data OF ER on Regional Peak Day During The Month of DEC'2022 (29-12-2022)

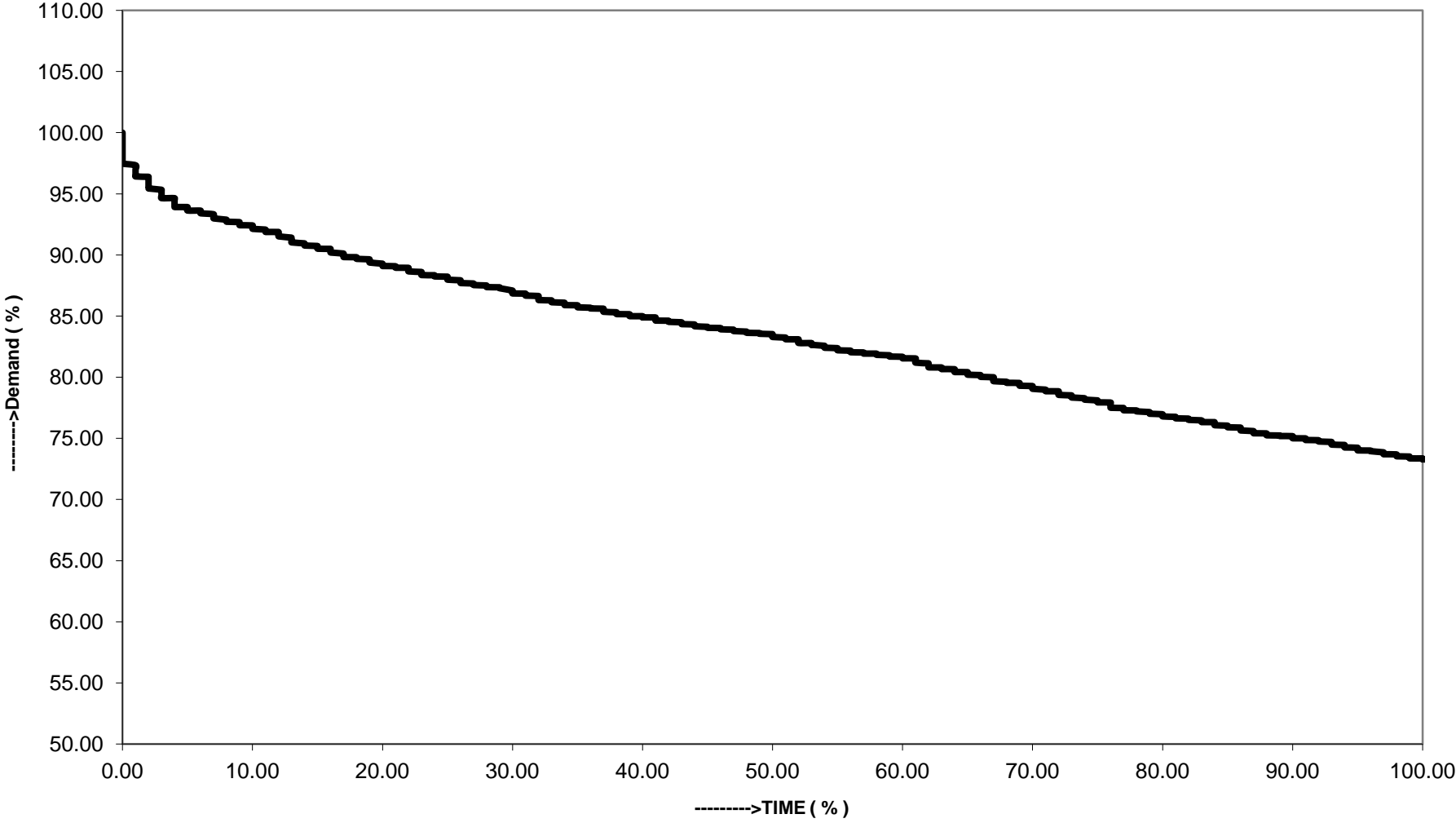


Hourly Load Generation Data of ER On Regional Lean Day During The Month of DEC'2022 (3-12-2022)

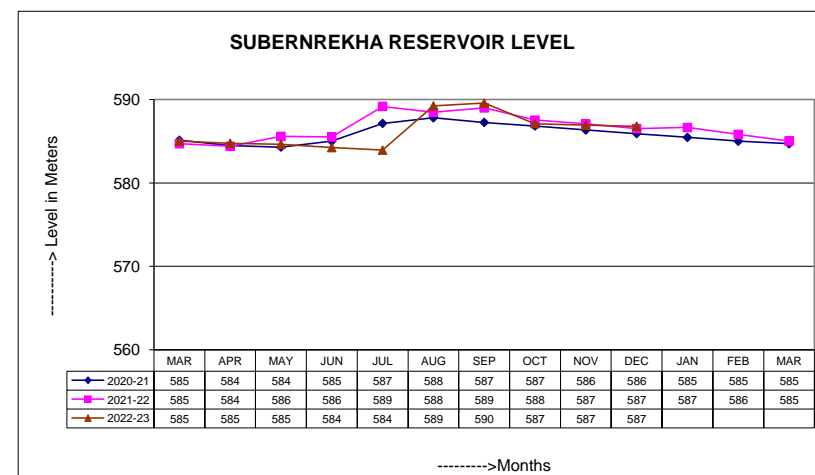
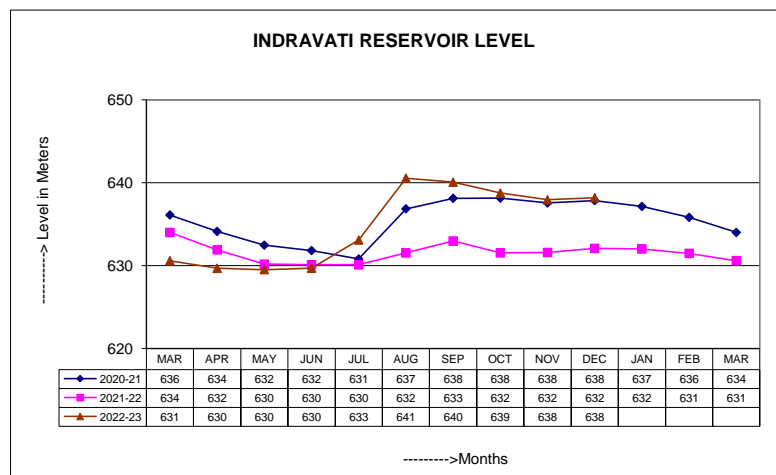
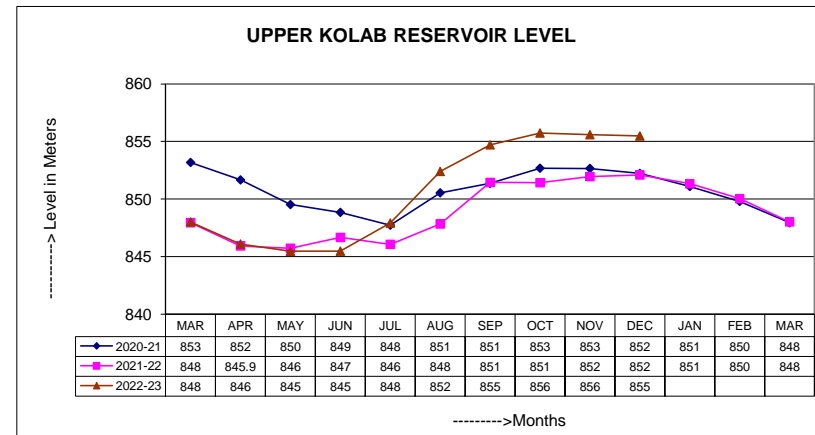
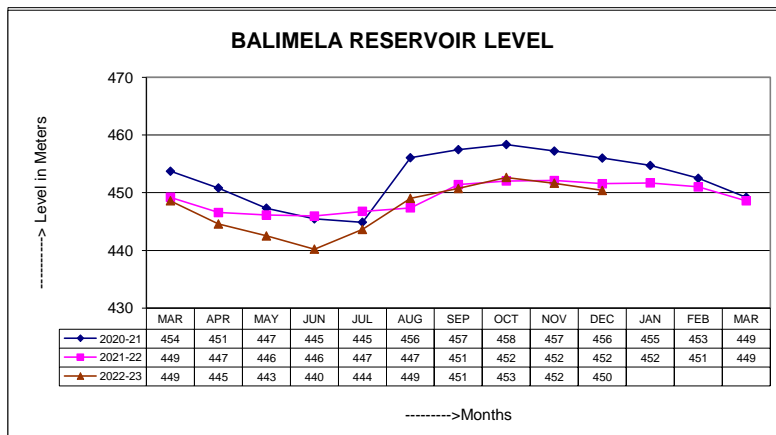
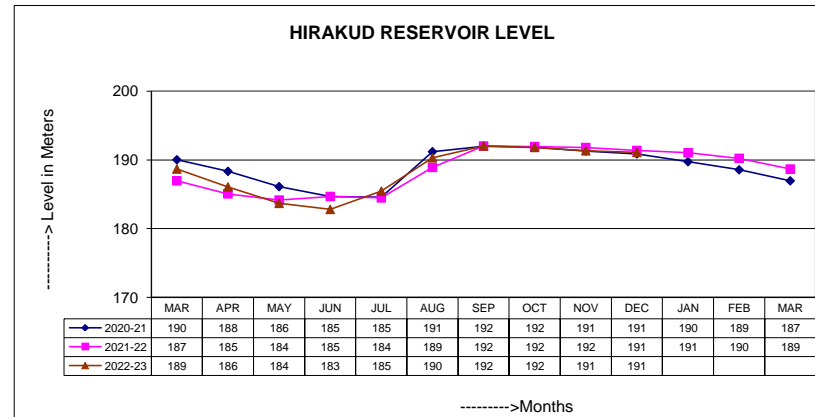
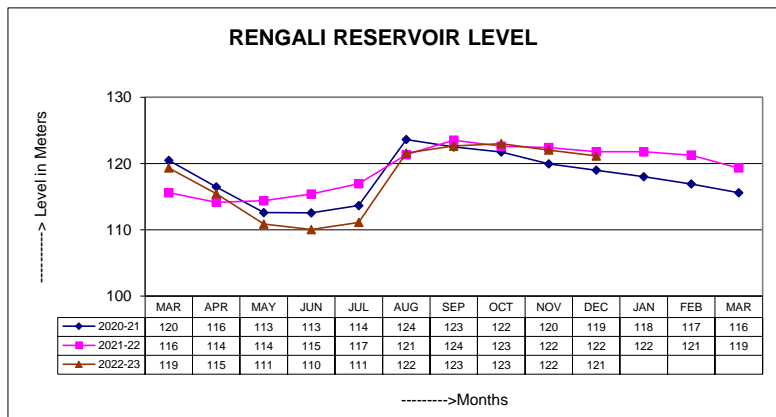


Monthly Load Duration Curve of Eastern Region for DEC-2022

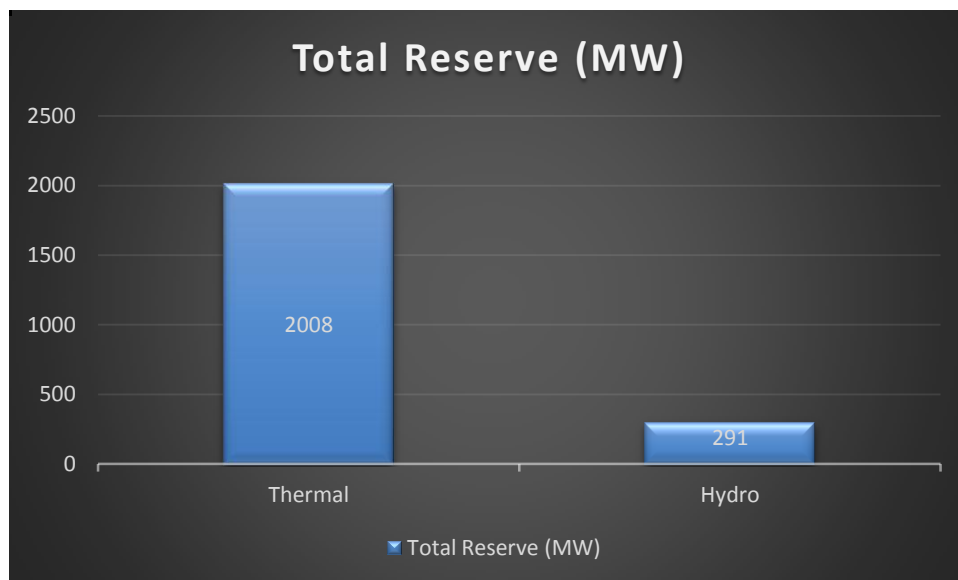
Maximum Demand met : 20720 MW
Minimum Demand met: 14559 MW



WATER LEVEL IN MAJOR RESERVOIRS ON LAST DATE OF MONTH



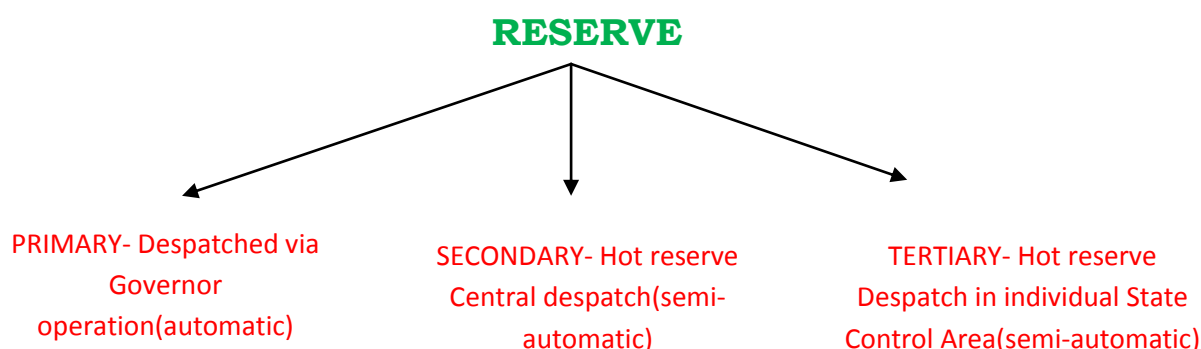
REPORT ON GENERATION RESERVES IN EASTERN REGION FOR DEC'22



GENESIS

In an ever changing power scenario of the country having generation reserves is like a “BRAHMASTRA” in the hand of the Grid operators. During system exigency like loss of generation, high drawal, grid disturbances, tripping of important corridors this reserve can be dispatched by the system operator and provides immediate relief to the stressed out grid.

Hon’ble CERC in its report on Spinning Reserve dated. Sep’2015 and subsequent order dated. 13.10.2015 laid out the broad guidelines for quantum of different types of reserves in the Indian power system.



Hon’ble CERC outlined the following requirement:

Primary: 4000MW on all India basis

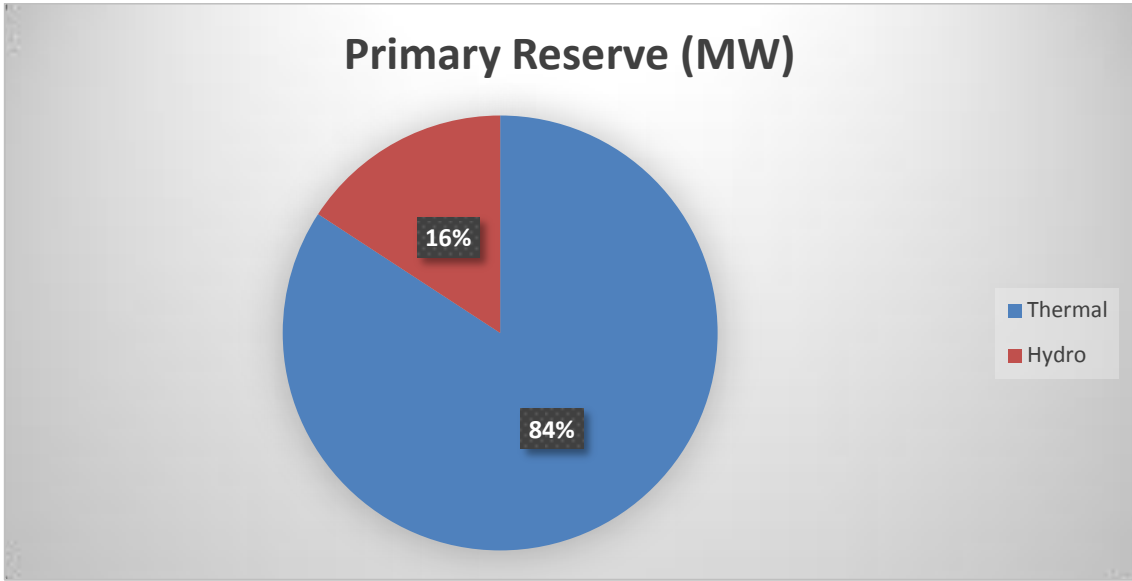
Secondary: Minimum 660MW(for Eastern Region) corresponding to largest unit size in the region

Tertiary: Quantum to be maintained in de-centralized fashion by each state control area for at least 50% of the largest generating unit available in the state control area.

On 31.12.2022 the following are the reserves available in the Eastern Region including only on-bar units which have FGMO/RGMO:

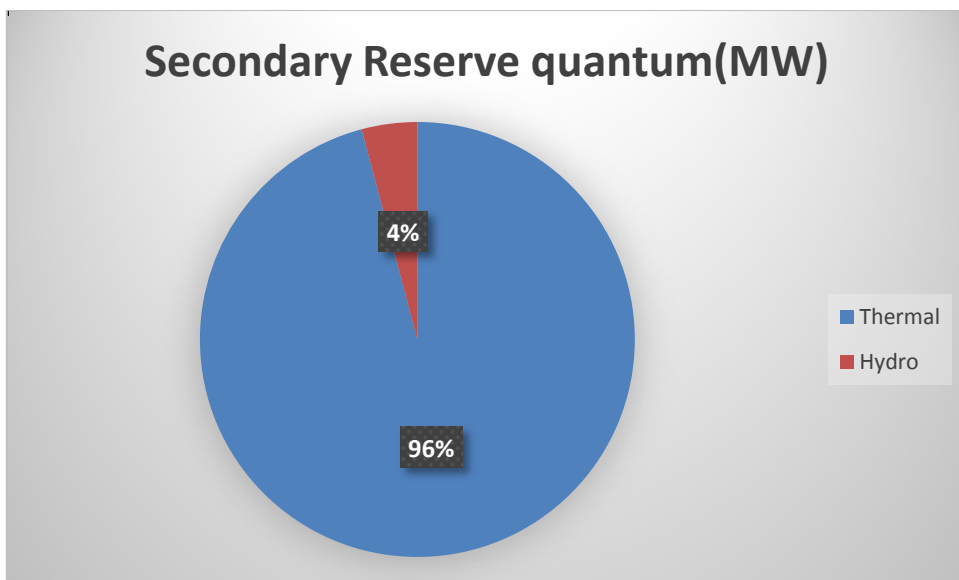
PRIMARY

Category	Installed Capacity(MW)	Reserve quantum(MW)	Reserve quantum as percentage of IC(%)
Thermal	28310	1416	5
Hydro	5215	266	5.09
Total	33525	1681	5.01



SECONDARY

Category	Installed Capacity(MW)	Secondary Reserve quantum(MW)	Reserve quantum as percentage of IC(%)
Thermal	11400	592.5	5.20
Hydro	576	25.5	4.43
Total	11976	618	5.16

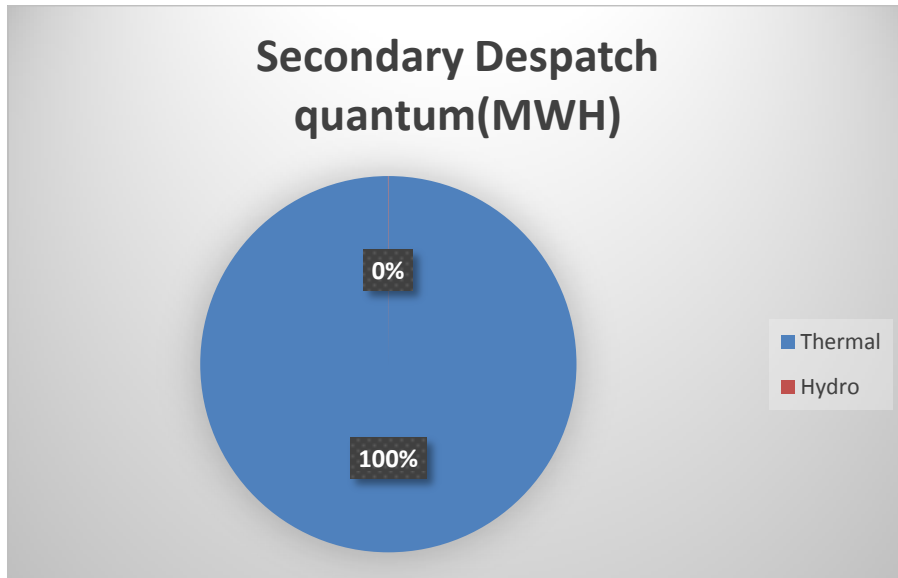


Actual Dispatch of Secondary Reserve

Name of Reserve Provider	Installed Capacity (MW)	Net RRAS (MWH)	Net SCED (MWH)	Net SRAS (MWH)	Total Dispatch under Ancillary Service(MWH)	Reserve Dispatch as % of Installed Capacity
BARH	1320	13621.1	36607.9	19121.6	69350.62587	7.06
BARH-I	660	3773.4	14553.9	3915.4	22242.62367	4.53
BRBCL	1000	19898.4	19432.9	0.0	39331.37079	5.29
Darlipali_NTPC	1600	65.0	899.3	0.0	964.2675	0.08
FSTPP I & II	1600	15088.6	29498.8	15098.3	59685.7408	5.01
FSTPP-III	500	1777.5	6179.8	3666.2	11623.54145	3.12
KHSTPP-I	840	5038.2	22468.3	0.0	27506.46454	4.40
KHSTPP-II	1500	5954.2	32534.1	15363.8	53852.16178	4.83
MPL	1050	4625.6	16521.4	40174.7	61321.63227	7.85
MTPS-II	390	2142.6	6823.2	5832.8	14798.60086	5.10
NPGC	660	12833.2	25910.5	18158.7	56902.43856	11.59
TSTPP-I	1000	2618.2	7400.7	69.2	10088.07613	1.36
Teesta-V	510	0.0	0.0	155.2	155.2429	0.04

Category wise Dispatch of Secondary Reserve

Category	Installed Capacity(MW)	Secondary Dispatch quantum(MWH)	Reserve quantum as percentage of IC(%)
Thermal	11400	427667.5442	5.04
Hydro	510	155.2429	0.04
Total	11910	427822.7871	4.83



Tertiary Reserve under implementation in Eastern Region.