



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

75  
Azadi Ka  
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**Eastern Regional Power Committee**

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सं/No: ERPC/MS/Reporting/MPR/2021-22/ 1465

दिनांक/Date: 31.01.2022

सेवा में : (संलग्न सूची के अनुसार)

To: As per enclosed list.

विषय : दिसंबर, 2021 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, 2021  
on ERPC website.

महोदय / Sir ,

पूर्वी क्षेत्रीय विद्युत समिति की दिसंबर, 2021 माह की मासिक प्रगति रिपोर्ट ईआरपीसी की वेबसाइट  
[www.erpc.gov.in](http://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, 2021 has been uploaded on ERPC website [www.erpc.gov.in](http://www.erpc.gov.in). This is for  
your information please.

संलग्नक : यथोपरी।

Encl. – As above.

भवदीय / Yours faithfully

स्वप्न राय  
31/01/2022

(Swapan Roy)

अधीक्षक अभियंता

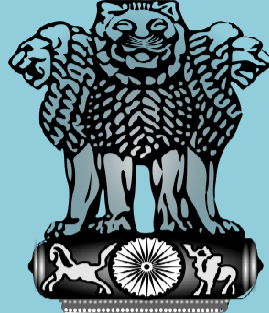
Superintending Engineer

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सत्यमेव जयते

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 - 2021

December-2021



14, गोल्फ क्लब रोड, टोलीगंज

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## Highlights of Eastern Regional Power System for Dec- 2021

- The **Maximum Net Demand** met of Eastern Region (ER) during the month of Dec, 2021 was **20631 MW** which is 5.55% more than the Dec, 2020 (19546 MW). Individual **Peak Demand (MW)** of most of the constituents **increased (except BSPHCL, WBSedCL & CESC)** compared to the corresponding period of last year.
- The **Average Net Energy Consumption** per day in ER for the month of Dec, 2021 was **384.67 MU** excluding export, which is 6.50% more than the corresponding period of last year (361.19 MU).
- **The Average regional PLF of thermal units during the month is 68.74 %**, which is 5.01% more than the corresponding period of the last year (**63.73%**).

WBPdCL (Santalidih TPS) registered the highest **PLF** of 97.53%, followed by WBPdCL (Sagardighi TPP) 94.30% and DVC (Chandrapura U#7,8) 92.98% during the month of **Dec, 2021**.

- **Maximum Net generation** was **27337 MW** against total **Effective Capacity of 41783.41 MW** (including import from Bhutan). At the time of Regional peak (**20631 MW** on 23.12.2021 at 19.00 hrs.) the generation was **27064 MW** and import from CPP was 1756 MW, Net export was 8189 MW.
- The system frequency in the IEGC recommended band (49.9 Hz to 50.05 Hz) remained for 73.14% of time during the month. **Average frequency** for the month was **49.99 Hz**. The instantaneous maximum and the minimum frequency touched were 50.34 Hz and 49.65 Hz respectively. The integrated (Fifteen minutes time block average) maximum and minimum frequency were **50.29 Hz** and **49.74 Hz** respectively (**refer Annexure-I**).
- The **Maximum Voltage** recorded 429 KV at Jamshedpur 400 KV S/s whereas the minimum voltage recorded 391 KV at Muzaffarpur 400 KV S/s of Power grid.
- **The Maximum Export from ER to outside region was 10776 MW (including Nepal and Bangladesh) on 13<sup>rd</sup> Dec, 2021 at 08:00 hrs.** Total net energy export during the month was **5544.99 MU (Inc.Transmission loss) MU** which is corresponds to 33.92 % of ex-bus total generation 16348.49 MU of Eastern Region.
- **The import from CPPs was 1121.30 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	6437	0	2991.10
WR	2310	2056	266.76
SR	4069	741	1534.69
NER	1058	158	281.05
BANGLADESH	735		404.34
NEPAL (via-CTU)	349		67.06
<b>Total</b>	<b>10776</b>	<b>2056</b>	<b>5544.99</b>
NEPAL by Bihar(NBPDCL)			23.51

**SALIENT FEATURES**

( YEAR TO YEAR COMPARISON )

		Dec-21	DEC-2020	CHANGE	% CHANGE
1) Effective Capacity (end of the Month)					
THERMAL	(MW)	32080	30130	1950	6.47
HYDRO	(MW)	5990	\$ 5877	113	2
DIESEL	(MW)	0	0	0	0
RES	(MW)	1518	1489	0	0
TOTAL	(MW)	39587	37495	2092	5.58
2) Peak Demand ( MW )		20992	19697	1295	6.58
3) Peak Demand Met ( MW )		20631	19546	1085	5.55
4) Shortage ( MW )		362	151	211	0.00
5) % Shortage		1.72	0.77	0.95	0.00
6) Average Energy Requirement Per Day ( MU )		388.30	361.95	26.35	7.28
7) Average Energy Availability Per Day ( MU )		384.67	361.19	23.48	6.50
8) Average Shortage Per Day ( MU )		3.63	0.76	2.87	--
9) % Shortage		0.94	0.21	0.73	--
10) Net Generation for the Month					
Thermal ( MU )		15203.85	13241.05	1962.80	14.82
Hydro ( MU )		1033.11	* 1100.14	-67.03	-6.09
RES (MU)		111.53	106.14	0.00	-
Total ( MU )		16348.49	14447.33	1901.16	13.16
11) Generation at the Time of Max. Regional Demand Met ( 23-12-21 at 19.00 Hrs. )					
Thermal ( MW )		23427	19285	4142	21.48
Hydro ( MW )		3620	* 3481	139	3.99
RES( MW )		17	18	-1	-8.20
Total ( MW )		27064	22784	4280	18.78
12) Inter-Regional Energy Transfer					
Export ( MU )		5544.99	4772.37	772.62	16.19
Import ( MU )		0.00	415.95	-415.95	-100.00
Net Exp.(+)/Net Imp.(-) ( MU )		5544.99	4356.43	1188.56	27.28
13) Import From Captive(MU)		1121.30	1106.05	15.25	1.38
14) Peak Inter Regional Power Transfer					
Max Export ( MW ) on 13-12-21 at 08.00Hrs		10776	10645	131	1.23
Max Import ( MW ) on 31-12-21 at 24.00Hrs		2056	2780	-724	-26.05
Max Net Export(+)/Import (-) ( MW )		10776	10176	600	5.90
15) Maximum voltage recorded		429	JAMSHEDPUR	400 kv	s/s
16) Minimum voltage recorded		391	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'2021

**A ) Net Average Energy Per Day**

System	Requirement Met (MU/Day)	Requirement (MU/Day)	Shortage (MU/Day)	% Shortage
BSPHCL	77.09	78.22	1.13	1.45
JUVNL	28.59	31.11	2.52	8.11
DVC	63.92	63.94	0.02	0.03
ODISHA	98.59	98.62	0.03	0.03
WBSIEDCL	92.44	92.52	0.08	0.09
CESC	21.87	21.88	0.01	0.03
SIKKIM	2.01	2.01	0.00	0.03
<b>REGION</b>	<b>384.67</b>	<b>388.30</b>	<b>3.63</b>	<b>0.94</b>

**B) Peak Demand in MW:**

System	Demand Met (MW)	Demand (MW)	Shortage (MW)	% Shortage
BSPHCL	4781	4967	186	3.74
JUVNL	1552	1808	256	14.18
DVC	2932	2932	0	0.00
ODISHA	5427	5430	3	0.06
WBSIEDCL	5025	5030	5	0.10
CESC	1321	1324	3	0.2
SIKKIM	133	133	0	0.00
REGION	20631	20992	362	1.72

➤ DIVERSITY FACTOR : 1.03

➤ Regional Peak Demand Met on 23-12-2021 at 19.00 hrs. at 49.98 Hz.

**CONSTITUENT-WISE PERFORMANCE DATA DEC-2021**

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	Gross Peak Demand
	HYDRO	Thermal	RES (Hy+Solar)	Total	HYDRO	Thermal	Solar	Total	HYDRO	Thermal	Solar	Total						
BSPHCL	0.00	293.26	44.50	337.75	0.00	28.11	0.00	28.11	0.00	265.14	44.50	309.64	0.00	2081.29	2390.93	77.1	4781	4832
JUVNL	7.32	177.67	0.00	184.99	0.01	16.85	0.00	16.87	7.31	160.82	0.00	168.12	47.47	671.02	886.61	28.6	1552	1582
DVC	14.42	3466.01	0.00	3480.42	0.13	241.62	0.00	241.75	14.29	3224.39	0.00	3238.67	8.31	-1265.32	1981.67	63.9	2932	3291
ODISHA(OPGC+OHPC+TTPS)	219.51	828.16	52.80	1100.46	1.32	65.73	0.00	67.05	218.19	762.43	52.80	1033.42	760.53	1263.21	3057.16	98.6	5427	5528
WBPDCL+WBSEDCL+DPL	133.38	2995.88	12.27	3141.53	0.00	256.79	0.00	256.79	133.38	2739.09	12.27	2884.73	304.99	-329.72	2860.00	92.3	5025	5424
CESC	0.00	323.22	0.00	323.22	0.00	28.08	0.00	28.08	0.00	295.14	0.00	295.14	0.00	382.84	677.98	21.9	1321	1373
HEL	0.00	333.51	0.00	333.51	0.00	25.04	0.00	25.04	0.00	308.47	0.00	308.47	0.00	-308.47				
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	61.19	62.19	2.0		
NTPC	0.00	5847.02	0.96	5847.99	0.00	406.92	0.00	406.92	0.00	5440.10	0.96	5441.06	0.00	-5441.06				
MPL	0.00	622.92	0.00	622.92	0.00	35.92	0.00	35.92	0.00	587.00	0.00	587.00	0.00	-587.00				
APNRL	0.00	355.10	0.00	355.10	0.00	28.30	0.00	28.30	0.00	326.80	0.00	326.80	0.00	-326.80				
GMR	0.00	372.12	0.00	372.12	0.00	25.32	0.00	25.32	0.00	346.80	0.00	346.80	0.00	-346.80				
JITPL	0.00	792.65	0.00	792.65	0.00	44.95	0.00	44.95	0.00	747.70	0.00	747.70	0.00	-747.70				
NHPC (Inc TLDP= 37.84 MU)	150.78	0.00	0.00	150.78	0.00	0.00	0.00	0.00	150.78	0.00	0.00	150.78	0.00	-150.78	0.00			
CHUZACHEN HPS	15.33	0.00	0.00	15.33	0.00	0.00	0.00	0.00	15.33	0.00	0.00	15.33	0.00	-15.33	0.00			
DIKCHU HPS	9.70	0.00	0.00	9.70	0.00	0.00	0.00	0.00	9.70	0.00	0.00	9.70	0.00	-9.70	0.00			
JORHANG HPS	18.80	0.00	0.00	18.80	0.00	0.00	0.00	0.00	18.80	0.00	0.00	18.80	0.00	-18.80	0.00			
TASHIDING HPS	21.21	0.00	0.00	21.21	0.00	0.00	0.00	0.00	21.21	0.00	0.00	21.21	0.00	-21.21	0.00			
TEESTA-III HPS	231.95	0.00	0.00	231.95	0.00	0.00	0.00	0.00	231.95	0.00	0.00	231.95	0.00	-231.95	0.00			
RONGNICHU HEP	12.56	0.00	0.00	12.56	0.00	0.00	0.00	0.00	12.56	0.00	0.00	12.56	0.00	-12.56	0.00			
CHPC(Birpara Receipt)	62.49	0.00	0.00	62.49	0.00	0.00	0.00	0.00	62.49	0.00	0.00	62.49	0.00	-62.49	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	3.77	0.00	0.00	3.77	0.00	0.00	0.00	0.00	3.77	0.00	0.00	3.77	0.00	-3.77	0.00			
DAGACHU HPS	25.73	0.00	0.00	25.73	0.00	0.00	0.00	0.00	25.73	0.00	0.00	25.73	0.00	-25.73	0.00			
Mangdechhu HEP	107.66	0.00	0.00	107.66	0.00	0.00	0.00	0.00	107.66	0.00	0.00	107.66	0.00	-107.66	0.00			
Total Drawal by HVDC Sahsaram,Alipurduar & Others														5.00	5.00			
<b>Total</b>	<b>1034.61</b>	<b>16407.51</b>	<b>111.53</b>	<b>17553.64</b>	<b>1.47</b>	<b>1203.63</b>	<b>0.00</b>	<b>1205.10</b>	<b>1033.14</b>	<b>15203.87</b>	<b>111.53</b>	<b>16348.54</b>	<b>1121.30</b>	<b>-5544.97</b>	<b>11924.88</b>	<b>384.67</b>	<b>20631</b>	<b>22210</b>



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

**A ) Net Average Energy**

Month	2020-21					2021-22				
	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	323.27	324.20	0.93	0.29	50.00	495.89	497.87	1.98	0.40	49.99
MAY	355.60	360.37	4.77	1.32	50.00	429.83	430.89	1.06	0.25	49.99
JUNE	425.23	425.91	0.69	0.16	50.00	462.07	462.84	0.77	0.17	49.99
JULY	447.56	448.25	0.70	0.16	49.99	498.44	500.02	1.57	0.31	50.00
AUGUST	447.69	449.62	1.93	0.43	49.99	501.37	505.13	3.76	0.74	49.99
SEPTEMBER	465.31	465.52	0.20	0.04	49.99	485.60	489.40	3.80	0.78	50.00
OCTOBER	448.87	448.96	0.09	0.02	50.00	453.17	458.67	5.51	1.20	49.98
NOVEMBER	358.25	358.45	0.20	0.06	49.99	388.80	390.35	1.55	0.40	49.99
DECEMBER	361.19	361.95	0.76	0.21	50.00	384.67	388.30	3.63	0.94	49.99
JANUARY	385.74	386.81	1.07	0.28	49.99	-	-	-	-	-
FEBRUARY	395.83	397.69	1.86	0.47	49.99	-	-	-	-	-
MARCH	452.63	455.10	2.48	0.54	49.99	-	-	-	-	-

**B) Peak in MW:**

Month	2020-21					2021-22				
	Demand Met (MW)	Demand (MW)	Shortage (MW)	Shortage (%)	Avg. Freq. (HZ)	Demand Met (MW)	Demand (MW)	Shortage (MW)	Shortage (%)	Avg. Freq. (HZ)
APRIL	18093	18302	209	1.14	50.00	24405	24405	0.00	0.00	49.99
MAY	20166	20306	140	0.69	50.00	24191	24191	0.00	0.00	49.99
JUNE	21832	21989	156	0.71	50.00	23494	23521	28	0.12	49.99
JULY	22643	22735	92	0.40	49.99	25145	26019	874	3.36	50.00
AUGUST	22192	22399	207	0.92	49.99	24157	24236	79	0.33	49.99
SEPTEMBER	23563	23619	56	0.24	49.99	25010	25454	445	1.75	50.00
OCTOBER	23374	23374	0	0.00	50.00	23675	23979	304	1.27	49.98
NOVEMBER	20406	20465	59	0.29	49.99	20961	20998	37	0.18	49.99
DECEMBER	19546	19697	151	0.77	50.00	20631	20992	362	1.72	49.99
JANUARY	20496	20703	207	1.00	49.99	-	-	-	-	-
FEBRUARY	20643	20854	211	1.01	49.99	-	-	-	-	-
MARCH	24016	24016	0	0.00	49.99	-	-	-	-	-

PERFORMANCE OF GENERATING STATIONS IN THE EASTERN REGION DURING THE MONTH OF DEC -2021

ORGANI- SATION	TYPE	POWER STATION	INSTALLED CAPACITY  ( in MW )	EFFECTIVE CAPACITY  ( in MW )	Gross Energy Generation  in MU	Net Energy Generation  in MU	Cumulative Gross Energy Generation upto Current Month  ( 2021-22) in MU	Cumulative Net Energy Generation upto Current Month  ( 2021-22) in MU
BIHAR	NTPC	Barauni (U# 6,7 )	220.00	210.00	0.00	-0.53	58.49	42.23
	Thermal	Barauni (U# 8)	250.00	250.00	149.44	136.47	1301.33	1162.74
		Barauni (U# 9)	250.00	250.00	143.81	129.90	301.96	276.27
	(Dedicated for Bihar)	Muzaffarpur Stg-I	220.00	220.00	0.00	-0.70	247.19	210.29
		Thermal Total	940.00	930.00	293.26	265.14	1908.97	1687.47
	RES		354.91	354.91	44.50	44.50	204.99	204.99
		Total BIHAR		<b>1294.91</b>	<b>1284.91</b>	<b>337.75</b>	<b>309.64</b>	<b>2113.96</b>
<b>JHARKHAND</b>								
TVNL	Thermal	TVNL	420.00	420.00	177.67	160.82	1109.36	985.04
JSEB	Hydro	Subarnrekha (U#1,2)	130.00	130.00	7.32	7.32	283.04	283.00
	RES		60.41	60.41	0.00	0.00	0.00	0.00
		Total	<b>190.41</b>	<b>190.41</b>	<b>7.32</b>	<b>7.32</b>	<b>283.04</b>	<b>283.00</b>
DVC	Thermal	Bokaro-B(3)	0.00	0.00	0.00	-0.83	0.00	-7.32
		Chandrapura( U7 # 8)	500.00	500.00	345.90	313.34	2810.23	2545.23
		Durgapur(4)	210.00	210.00	0.00	-0.60	65.16	49.86
		Mezia(1,2,3,4,5,6)	1340.00	1340.00	687.27	615.91	5917.20	5289.08
		Mejia( U # 7,8)	1000.00	1000.00	614.16	582.52	4917.19	4637.50
		Bokaro-A(1)	500.00	500.00	127.82	117.06	2157.88	2028.64
		Durgapur STPS (U#1,2)	1000.00	1000.00	588.95	558.60	4398.28	4145.32
		Raghunathpur TPS (U#1,2)	1200.00	1200.00	577.70	542.66	4463.57	4179.60
	Koderma STPS (U#1,2)	1000.00	1000.00	524.19	495.72	4988.18	4710.98	
		Total Thermal		<b>6750.00</b>	<b>6750.00</b>	<b>3466.01</b>	<b>3224.39</b>	<b>29717.68</b>
Hydro	Maithon (U#1,2,3)	63.20	63.20	3.05	3.02	196.68	196.39	
	Panchet (U#1,2)	80.00	80.00	8.48	8.38	220.12	218.96	
	Tilaiya (U#1,2)	4.00	4.00	2.89	2.9	17.92	17.8	
	Hydro Total	<b>147.20</b>	<b>147.20</b>	<b>14.42</b>	<b>14.29</b>	<b>434.72</b>	<b>433.17</b>	
	Total DVC		<b>6897.20</b>	<b>6897.20</b>	<b>3480.42</b>	<b>3238.67</b>	<b>30152.40</b>	<b>28012.05</b>
<b>WEST BENGAL</b>								
WBPDCCL	Thermal	Bandel TPS	380.00	335.00	142.22	127.24	1362.00	1226.57
		Santaldih TPS(U#5&6)	500.00	500.00	362.82	334.36	3077.16	2825.21
		Kolaghat TPS	1260.00	1260.00	394.95	351.54	3067.63	2721.22
		Bakreswar TPP	1050.00	1050.00	686.47	629.54	6041.79	5515.54
		Sagardighi TPP	1600.00	1600.00	1122.54	1039.73	8439.72	7789.75
		DPPS (300+250 *)	<b>550.00</b>	<b>550.00</b>	<b>286.88</b>	<b>256.69</b>	<b>1925.36</b>	<b>1726.32</b>
		Thermal Total	<b>5340.00</b>	<b>5295.00</b>	<b>2995.88</b>	<b>2739.09</b>	<b>23913.65</b>	<b>21804.61</b>
WBSEDCL	Hydro	Jaldhaka (3x9+2x4)	35.00	35.00	3.71	3.71	168.03	168.03
		Rammam (4x12.73)	51.00	51.00	16.68	16.68	236.71	236.71
		Teesta C.F. (3x3x7.5)	67.50	67.50	0.00	0.00	65.66	65.66
		Purulia PSS (4x225)	900.00	900.00	112.98	112.98	863.16	863.16
		Total Hydro	<b>1053.50</b>	<b>1053.50</b>	<b>133.38</b>	<b>133.38</b>	<b>1333.56</b>	<b>1333.56</b>
RES		500.76	500.76	12.27	12.27	134.41	134.41	
		> DVC, BTPS'B' U#3 210 MW de- commissioned from 01.04.2021						

PERFORMANCE OF GENERATING STATIONS IN THE EASTERN REGION DURING THE MONTH OF DEC -2021

ORGANISATION	TYPE	POWER STATION	INSTALLED CAPACITY ( in MW )	EFFECTIVE CAPACITY ( in MW )	Gross Energy	Net Energy	Cummulative Gross Energy Generation upto Current Month	Cummulative Net Energy Generation upto Current Month		
					Generation in MU	Generation in MU	( 2021-22) in MU	( 2021-22) 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	6.93	6.32	138.03	125.44		
		Budge-Budge (3x250)	750.00	750.00	316.28	288.82	4226.52	3899.00		
		Total CESC	1125.00	1125.00	323.22	295.14	4364.55	4024.44		
HEL	Thermal	HEL	600.00	600.00	333.51	308.47	3439.75	3177.48		
		Total West Bengal	8619.26	8574.26	3798.25	3488.34	33185.92	30474.50		
OPGC	Thermal	IB TPS	420.00	420.00	285.08	254.65	2182.71	1959.45		
		IB TPS U#3(660 MW)	660.00	660.00	306.63	286.70	2174.97	2031.22		
		IB TPS U#4(660 MW)	660.00	660.00	236.45	221.08	2813.42	2627.74		
OHPC	Hydro	Hirakud-I (Burla)	275.50	275.50	37.17	37.01	614.92	612.92		
		Hirakud-II (Chiplima)	72.00	72.00	24.70	24.61	206.81	205.99		
		Balimela (6x60+2x75)	510.00	510.00	90.97	90.27	841.25	834.48		
		Rengali (5x50)	250.00	250.00	39.66	39.56	747.86	746.72		
		Upper Kolab (4x80)	320.00	320.00	6.46	6.44	287.93	285.99		
		Indravati HPS (4x150)	600.00	600.00	1.47	1.23	1039.48	1018.04		
		Mckd.(Odisha drawal)	57.38	57.38	19.07	19.07	220.09	220.09		
		Total Hydro	2084.88	2084.88	219.51	218.19	3958.34	3924.22		
		RES	539.57	539.57	52.80	52.80	503.95	503.95		
		Total Odisha	4364.45	4364.45	1100.46	1033.41	11633.38	11046.57		
(*) SIKKIM	Hydro	RES	52.18	52.18	1.00	1.00	14.00	14.00		
NTPC		MTPS Stg-II	390.00	390.00	248.03	224.52	1832.25	1642.62		
		FSTPP# I&II ( 3x200+2x500)	1600.00	1600.00	914.88	844.79	6445.80	5891.20		
		FSTPP (U# 6)	500.00	500.00	299.28	277.54	2364.86	2178.81		
		KhSTPP (4x210+3x500)	2340.00	2340.00	1327.60	1242.93	12077.19	11216.58		
		TSTPP (2x500)	1000.00	1000.00	303.52	276.10	5405.76	4983.98		
		BARH STPS II (2X660)	1320.00	1320.00	510.48	475.65	5112.07	4783.16		
		BARH STPS I (1X660)			333.25	307.37	915.93	800.98		
		BRBCL # 1,2,3,4(4X250 MW)	1000	1000	609.10	563.71	3862.08	3549.39		
		BRBCL # 4			0.00	0.00	47.56	41.71		
		NSTPS U# I&2	1320.00	1320.00	859.32	820.29	5411.98	5105.91		
		NSTPS U#2 infirm			0.00	0.00	202.55	175.72		
		DSTPP #1&2	1600.00	1600.00	441.56	407.24	6057.39	5676.27		
		Total NTPC	11730.00	11730.00	5847.02	5440.14	50025.69	46279.70		
		NHPC	HYDRO	Rangit (3x20)	60.00	60.00	20.36	20.36	290.59	290.59
Teesta (3x170)	510.00			510.00	92.54	92.54	2390.51	2390.51		
TLDP( 4x33+4x40) for WBSEDCL	292.00			292.00	37.84	37.84	1219.21	1219.21		
Total NHPC	862.00			862.00	150.74	150.74	3900.31	3900.31		
MPL (U#1&2)	1050.00			1050.00	622.92	586.95	5945.93	5605.04		
APNRL (U#1,2)	540.00			540.00	355.10	326.78	2668.08	2432.88		
GMR (2x350)	700.00			700.00	372.12	346.79	3701.76	3448.82		
JITPL (2X600)	1200.00			1200.00	792.65	747.73	6279.23	5880.17		
CHUZACHEN** (2x55)	110.00			110.00	15.33	15.33	477.50	477.50		
JORETHANG (2x48)	96.00			96.00	18.80	18.80	404.31	404.31		
TEESTA URJA St III (6x200)	1200.00			1200.00	231.95	231.95	5676.14	5676.14		
Tashilding (2x48.5)	97.00			97.00	21.21	21.21	412.20	412.20		
DICKCHU (2x48)	96.00			96.00	9.70	9.70	453.01	453.01		
RONGNICHU HEP (2x56.5)					12.56	12.56	295.99	295.99		
TALCHER SOLAR	10.00			10.00	0.96	0.96	9.38	9.38		
Total Thermal (E.R)	32135.00			32080.00	16407.51	15203.85	140245.75	129522.95		
Total Hydro (E.R)	5989.58			5989.58	834.90	833.45	17629.12	17593.42		
Total RES	1517.83			1517.83	111.53	111.53	866.72	866.72		
EASTERN REGIONAL	<b>TOTAL (E.R)</b>			39642.41	39587.41	17353.94	16148.83	158741.60	147983.10	
BHUTAN	Hydro			CHPC(4x90)	360.00	270.00	62.49	62.49	1697.77	1697.77
		Kurichu (4x15)	60.00	60.00	0.00	0.00	116.86	116.86		
		TALA (6x170)	1020.00	1020.00	3.77	3.77	2727.96	2727.96		
		DAGACHU (2x63)	126.00	126.00	25.73	25.73	444.37	444.37		
		MANGDECHU(4x180 )	720.00	720.00	107.66	107.66	2740.37	2740.37		
<b>Grand Total</b>			41928.41	41783.41	17553.60	16348.49	166468.93	155710.43		

PLANT LOAD FACTOR ( PLF ) OF THERMAL POWER STATIONS IN EASTERN REGION DURING THE MONTH OF DEC' 2021

ORGANI- SATION	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 ( 2021-22 ) in MU	Cummulative PLF upto Current Month ( % )
BIHAR	NTPC	Barauni (U# 6,7)	220.00	210.00	0.00	0.00	58.49	4.22
		Thermal Barauni (U# 8)	250.00	250.00	149.44	80.35	1301.33	78.87
	(Dedicated for Bihar) RES	Barauni (U# 9)	250.00	250.00	143.81	0.00	301.96	0.00
		Muzaffarpur Stg-1	220.00	220.00	0.00	0.00	247.19	17.02
		Thermal Total	940.00	930.00	293.26	42.38	1908.97	38.40
			354.91	354.91	44.50		204.99	
		<b>Total BIHAR</b>	1294.91	1284.91	337.75		2113.96	
<b>JHARKHAND</b>								
TVNL	Thermal	TVNL	420.00	420.00	177.67	56.86	1109.36	40.02
JSEB	Hydro	Subarnrekha (U#1,2)	130.00	130.00	7.32		283.04	
	RES		60.41	60.41	0.00		0.00	
		<b>Total</b>	190.41	190.41	7.32		283.04	
DVC	Thermal	Bokaro-B(3)	0.00	0.00	0.00	0.00	0.00	0.00
		Chandrapura( U7 # 8)	500.00	500.00	345.90	92.98	2810.23	85.16
		Durgapur(4)	210.00	210.00	0.00	0.00	65.16	4.70
		Mezia(1,2,3,4,5,6)	1340.00	1340.00	687.27	68.94	5917.20	66.91
		Mejia( U # 7,8)	1000.00	1000.00	614.16	82.55	4917.19	74.50
		Bokaro-A(1)	500.00	500.00	127.82	34.36	2157.88	65.39
		Durgapur STPS (U#1,2)	1000.00	1000.00	588.95	79.16	4398.28	66.64
		Raghunathpur TPS (U#1,2)	1200.00	1200.00	577.70	64.71	4463.57	56.36
	Koderma STPS (U#1,2)	1000.00	1000.00	524.19	70.46	4988.18	75.58	
		<b>Total Thermal</b>	<b>6750.00</b>	<b>6750.00</b>	<b>3466.01</b>	<b>69.02</b>	<b>29717.68</b>	<b>66.71</b>
	Hydro	Maiton (U#1,2,3)	63.20	63.20	3.05		196.68	
		Panchet (U#1,2)	80.00	80.00	8.48		220.12	
		Tilaiya (U#1,2)	4.00	4.00	2.89		17.92	
<b>Hydro Total</b>		<b>147.20</b>	<b>147.20</b>	<b>14.42</b>		<b>434.72</b>		
	<b>Total DVC</b>	<b>6897.20</b>	<b>6897.20</b>	<b>3480.42</b>		<b>30152.40</b>		
<b>WEST BENGAL</b>								
WBPDC	Thermal	Bandel TPS	380.00	335.00	142.22	57.06	1362.00	61.60
		Santalidih TPS(U#5&6)	500.00	500.00	362.82	97.53	3077.16	93.25
		Kolaghat TPS	1260.00	1260.00	394.95	42.13	3067.63	36.89
		Bakreswar TPP	1050.00	1050.00	686.47	87.87	6041.79	87.18
		Sagardighi TPP	1600.00	1600.00	1122.54	94.30	8439.72	79.92
		DPPS (300+250 *)	<b>550.00</b>	<b>550.00</b>	<b>286.88</b>	<b>70.11</b>	<b>1925.36</b>	<b>53.04</b>
		<b>Thermal Total</b>	<b>5340.00</b>	<b>5295.00</b>	<b>2995.88</b>	<b>76.05</b>	<b>23913.65</b>	<b>68.43</b>
WBSEDCL	Hydro	Jaldhaka (3x9+2x4)	35.00	35.00	3.71		168.03	
		Rammam (4x12.73)	51.00	51.00	16.68		236.71	
		Teesta C.F. (3x3x7.5)	67.50	67.50	0.00		65.66	
		Purulia PSS (4x225)	900.00	900.00	112.98		863.16	
		<b>Total Hydro</b>	<b>1053.50</b>	<b>1053.50</b>	<b>133.38</b>		<b>1333.56</b>	
		RES	500.76	500.76	12.27		134.41	
DE- COMM SSIONED	WBPDC, Bandel TPS Unit #3 & #4 ( IC=2X82.5 MW, EC=2X60 MW) decommissioned from 01.04.2018.							
	NTPC, TTPS Odisha All Six units(4X62.5+2X110) decommissioned from 01.04.2021 DVC, BTPS(B) Unit #3 (210 MW) de-commissioned from 01.04.2021 DPL U#6 (110 MW) Decommissioned from 28.01.20 as per CEA. CTPS U#6 (140 MW) Decommissioned from 19.03.2020 as per CEA.							
COMMISS- IONED	1. IB U#3 (660 MW) COD from 03.07.19							
	2. IB U#4 (660 MW) COD from 21.08.19							
	3. NSTPS U#1(660 MW) COD from 06.09.2019							
	4. BARAUNI TPS U#1(250 MW) COD 01.03.2020							
	5. DARLIPALI S TPS U#1(800 MW) COD 01.03.2020							
	6. NSTPS U#2 (660 MW) COD from 23.07.2021							

PLANT LOAD FACTOR ( PLF ) OF THERMAL POWER STATIONS IN EASTERN REGION DURING THE MONTH OF DEC' 2021

ORGANI- SATION	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 ( 2021-22) in MU	Cummulative PLF upto Current Month ( % )
CESC	Thermal	Titagarh (4x60)	240.00	240.00	0.00	0.00	0.00	0.00
		Southern (2x67.5)	135.00	135.00	6.93	6.90	138.03	15.49
		Budge-Budge (3x250)	750.00	750.00	316.28	56.68	4226.52	85.38
		<b>Total CESC</b>	<b>1125.00</b>	<b>1125.00</b>	<b>323.22</b>	<b>38.62</b>	<b>4364.55</b>	<b>58.78</b>
HEL	Thermal	HEL	600.00	600.00	333.51	74.71	3439.75	86.86
		<b>Total West Bengal</b>	<b>8619.26</b>	<b>8574.26</b>	<b>3798.25</b>		<b>33185.92</b>	
OPGC	Thermal	IB TPS	420.00	420.00	285.08	91.23	2182.71	78.74
		IB TPS U#3(660 MW)	660.00	660.00	306.63	62.44	2174.97	49.93
		IB TPS U#4(660 MW)	660.00	660.00	236.45	48.15	2813.42	64.59
OHPC	Hydro	Hirakud-I (Burla)	275.50	275.50	37.17		614.92	
		Hirakud-II (Chiplima)	72.00	72.00	24.70		206.81	
		Balimela (6x60+2x75)	510.00	510.00	90.97		841.25	
		Rengali (5x50)	250.00	250.00	39.66		747.86	
		Upper Kolab (4x80)	320.00	320.00	6.46		287.93	
		Indravati HPS (4x150)	600.00	600.00	1.47		1039.48	
		Mckd.(Odisha drawal)	57.38	57.38	19.07		220.09	
		<b>Total Hydro</b>	<b>2084.88</b>	<b>2084.88</b>	<b>219.51</b>		<b>3958.34</b>	
		RES	539.57	539.57	52.80		503.95	
		<b>Total Odisha</b>	<b>4364.45</b>	<b>4364.45</b>	<b>1100.46</b>		<b>11633.38</b>	
(**) SIKKIM	Hydro	RES	52.18	52.18	1.00		14.00	
NTPC		MTPS Stg-II	390	390	248.03	85.48	1832.25	71.18
		FSTPP# I&II ( 3x200+2x500)	1600.00	1600.00	914.88	76.86	6445.80	61.04
		FSTPP (U# 6)	500.00	500.00	299.28	80.45	2364.86	71.66
		KhSTPP (4x210+3x500)	2340.00	2340.00	1327.60	76.26	12077.19	78.20
		TSTPP (2x500)	1000.00	1000.00	303.52	40.80	5405.76	81.91
		BARH STPS II (2X660)	1320.00	1320.00	510.48	51.98	5112.07	58.68
		BARH STPS I (1X660)	660.00	660.00	333.25	67.87	915.93	73.79
		BRBCL # 1,2,3,4(4X250 MW)	1000.00	1000.00	609.10	81.87	3862.08	75.20
		BRBCL # 4			0.00	0.00	47.56	0.00
		NSTPS U# I&2	1320.00	1320.00	859.32	87.50	5411.98	78.18
		NSTPS U#2 infirm					202.55	
		DSTPP #1&2	1600.00	1600.00	441.56	37.09	6057.39	79.47
		<b>Total NTPC</b>	<b>11730.00</b>	<b>11730.00</b>	<b>5847.02</b>	<b>67.00</b>	<b>50025.69</b>	<b>72.65</b>
		NHPC	HYDRO	Rangit (3x20)	60.00	60.00	20.36	
Teesta (3x170)	510.00			510.00	92.54		2390.51	
TLDP( 4x33+4x40) for WBSEDCL	292.00			292.00	37.84		1219.21	
<b>Total NHPC</b>	<b>862.00</b>			<b>862.00</b>	<b>150.74</b>		<b>3900.31</b>	
Thermal	MPL (U#1&2)		1050.00	1050.00	622.92	79.74	5945.93	85.80
	APNRL (U#1,2)		540.00	540.00	355.10	88.39	2668.08	74.86
	GMR (2x350)		700.00	700.00	372.12	71.45	3701.76	80.12
	JITPL (2X600)		1200.00	1200.00	792.65	88.78	6279.23	79.28
	CHUZACHEN** (2x55)		110.00	110.00	15.33		477.50	
	JORETHANG (2x48)		96.00	96.00	18.80		404.31	
	TEESTA URJA St III (6x200)		1200.00	1200.00	231.95		5676.14	
	Tashilding (2x48.5)		97.00	97.00	21.21		412.20	
	DICKCHU (2x48)		96.00	96.00	9.70		453.01	
	RONGNICHU HEP (2x56.5)				12.56		295.99	
TALCHER SOLAR	10.00	10.00	0.96		9.38			
<b>Total Thermal (E.R)</b>	<b>32135.00</b>	<b>32080.00</b>	<b>16407.51</b>	<b>68.74</b>	<b>140245.75</b>	<b>69.43</b>		
EASTERN REGIONAL		<b>Total Hydro (E.R)</b>	<b>5989.58</b>	<b>5989.58</b>	<b>834.90</b>		<b>17629.12</b>	
		<b>Total RES</b>	<b>1517.83</b>	<b>1517.83</b>	<b>111.53</b>		<b>866.72</b>	
		<b>TOTAL (E.R)</b>	<b>39642.41</b>	<b>39587.41</b>	<b>17353.94</b>		<b>158741.60</b>	
BHUTAN	Hydro	CHPC(4x90)	360.00	270.00	62.49		1697.77	
		Kurichu (4x15)	60.00	60.00	0.00		116.86	
	Hydro	TALA (6x170)	1020.00	1020.00	3.77		2727.96	
	Hydro	DAGACHU (2x63)	126.00	126.00	25.73		444.37	
		MANGDECHU(4x180 )	720.00	720.00	107.66		2740.37	
	<b>Grand Total</b>	<b>41928.41</b>	<b>41783.41</b>	<b>17553.60</b>		<b>166468.93</b>		

CONTRIBUTIONS OF DIFFERENT CONSTITUENTS AT THE TIME OF REGIONAL PEAK DURING  
THE MONTH OF DEC'2021 (23-12-2021)

Date **23-Dec-21**  
Time **19.00** Hrs.  
Frequency **49.98** Hz.

(All Fig. in MW)

System/State	Installed	Effective	Net Gen			
	Capacity	Capacity	Hydro	Thermal	RES	Total
BSPHCL	1295	1285	0	310	0	310
JUVNL	610	610	0	309	0	309
DVC	6897	6897	24	4989	0	5013
ODISHA	4364	4364	484	1136	17	1637
WBSIEDCL	6344	6299	672	3389	0	4061
TLDP	292	292	265	0	0	265
HEL HALDIA	600	600	0	547	0	547
CESC	1125	1125	0	613	0	613
DPL	550	550	0	0	0	0
SIKKIM	52	52	0	0	0	0
NTPC	11730	11730	0	8893	0	8893
NHPC	570	570	551	0	0	551
CHUKHA	360	270	78	0	0	78
KURICHU	60	60	-4	0	0	-4
TALA	1020	1020	35	0	0	35
MPL	1050	1050	0	968	0	968
OPGC (660 MW)	0	0	0	0	0	0
APNRL	540	540	0	490	0	490
Kamalganga (GMR)	700	700	0	659	0	659
JITPL	1200	1200	0	1124	0	1124
RONGNICHU HEP (2x56.5)	113	113	102	0	0	102
Chuzachen	110	110	85	0	0	85
Jorethang	96	96	48	0	0	48
TEESTA URJA St III	1200	1200	1048	0	0	1048
Tashilding	97	97	57	0	0	57
DICKCHU	96	96	58	0	0	58
<u>Daghachu</u>	126	126	30	0	0	30
<u>Solar</u>	10	10	0	0	0	0
<u>Mangdechu</u>	720	720	87	0	0	87
<u>Total</u>	41928	41783	3620	23427	17	27064
Import From Captive:						1756
Export To:						
NER						134
SR						2876
WR						321
NR						4120
Bangladesh						732
Nepal						5
<b>Total</b>						<b>8189</b>

➤ **nal Net Peak Demand Met ( MW ) :**

**20631**

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

**Hourly Load Generation Data OF ER On Regional Peak Day During The Month of DEC'2021 (23-12-2021)**

( 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	221	18526	18747	1697	219	5254	15408	-3	0	15408
2	227	18222	18449	1711	221	5476	14904	13	0	14918
3	207	17920	18127	1715	226	5369	14698	9	1	14708
4	205	17742	17948	1682	273	5148	14754	-1	1	14755
5	166	17686	17852	1715	339	5165	14741	12	1	14753
6	195	20765	20959	1822	334	7047	16068	1	1	16071
7	1643	22013	23656	1777	297	8019	17711	36	409	18156
8	2984	22346	25330	1779	257	8863	18502	57	338	18897
9	2743	22315	25058	1824	250	8448	18685	-10	354	19028
10	2387	22491	24877	1795	205	8538	18338	27	351	18717
11	994	22614	23608	1819	153	7873	17708	31	796	18535
12	650	22710	23360	1805	175	7800	17540	28	335	17902
13	564	22602	23166	1815	186	7759	17408	17	214	17639
14	498	22208	22705	1787	181	7734	16939	4	0	16944
15	414	22434	22848	1771	195	8329	16485	39	0	16524
16	254	22606	22860	1813	185	8428	16430	16	282	16727
17	1477	23013	24490	1756	171	8789	17628	-5	523	18147
18	2907	23376	26283	1734	180	8037	20159	-7	349	20501
19	3410	23427	26838	1756	226	8189	20631	13	349	20992
20	2861	23095	25956	1757	233	7792	20154	14	277	20445
21	958	22668	23627	1721	247	6715	18880	-8	177	19049
22	656	22076	22732	1726	230	6619	18069	-24	47	18092
23	268	20616	20884	1682	204	6196	16574	-4	0	16574
24	279	18927	19206	1661	231	5184	15915	-3	0	15915

**Hourly Load Generation Data of ER On Regional Lean Day During The Month of DEC'2021 (29-12-2021)**

( 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	221	17167	17389	1126	282	5701	13096	-7	1	13096
2	200	16585	16785	1037	285	5532	12575	-26	2	12577
3	181	16356	16537	1028	285	5637	12213	-25	9	12222
4	184	16382	16567	991	255	5898	11915	-36	18	11933
5	163	16646	16809	967	279	6055	12000	-5	20	12014
6	216	17588	17804	971	276	6552	12499	23	20	12541
7	427	20664	21091	1139	239	8872	13597	-4	19	13612
8	1649	22744	24393	1294	207	10490	15405	36	507	15948
9	2388	23075	25463	1324	188	10202	16773	22	157	16953
10	2141	22819	24960	1312	184	9121	17336	-12	12	17336
11	1373	22637	24010	1342	198	8462	17088	-21	154	17221
12	551	22464	23014	1334	191	7369	17170	-12	63	17221
13	395	22607	23003	1365	184	7504	17047	-10	3	17050
14	418	20891	21309	1418	270	6384	16614	-35	0	16614
15	385	20981	21366	1400	264	7077	15952	-10	2	15954
16	323	22440	22763	1411	261	8364	16071	1	2	16074
17	837	22848	23685	1436	247	8579	16789	-6	92	16875
18	2489	23232	25721	1406	236	8600	18763	7	589	19359
19	3604	23029	26633	1410	237	9197	19084	0	67	19151
20	2850	23022	25873	1401	226	8781	18719	13	25	18757
21	1031	22856	23887	1398	246	8179	17352	-21	1	17354
22	644	21867	22511	1369	277	7374	16784	-9	1	16785
23	371	18907	19278	1339	306	5642	15281	15	239	15535
24	334	17506	17840	1297	325	4796	14666	9	1	14676

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

FOR THE MONTH OF DEC'2021

**POWER CUT / RESTRICTIONS**

<b>BSPHCL</b>	NO NOTIFIED CUTS/RESTRICTIONS However there was loadshedding of 34.44 MU
<b>JUVNL</b>	NO NOTIFIED CUTS/RESTRICTIONS However there was loadshedding of 77.92 MU
<b>DVC</b>	NO NOTIFIED CUTS/RESTRICTIONS. However there was loadshedding of 0.00 MU
<b>ODISHA</b>	NO NOTIFIED CUTS/RESTRICTIONS However there was loadshedding of 0.00 MU
<b>WEST BENGAL</b>	NO NOTIFIED CUTS/RESTRICTIONS. However there was loadshedding of 1.58 MU

**POWER SUPPLY TO AGRICULTURAL SECTOR**

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



FREQUENCY DETAILS FOR THE MONTH OF Dec-21

D A T E	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	TO	HZ		HZ		HZ		HZ	
01-Dec	49.99	49.97	49.96	49.99	49.97	49.97	11.74	74.91	13.36	74.91	50.24	22:00:40	49.70	12:20:50	50.11	0:00	49.78	0:00
02-Dec	49.96	49.98	50.02	50.00	49.99	49.99	5.14	75.20	19.66	75.20	50.17	06:01:40	49.78	09:04:50	50.09	0:00	49.86	0:00
03-Dec	49.97	49.96	50.00	49.97	49.99	49.98	10.82	75.87	13.31	75.87	50.20	16:03:20	49.74	07:10:50	50.08	0:00	49.82	0:00
04-Dec	49.96	49.97	50.00	49.99	49.99	49.98	6.75	77.69	15.56	77.69	50.18	13:02:00	49.76	08:14:50	50.09	0:00	49.85	0:00
05-Dec	49.99	49.95	49.99	49.99	50.00	49.98	7.94	80.06	12.00	80.06	50.19	06:17:30	49.73	09:08:00	50.08	0:00	49.81	0:00
06-Dec	50.01	49.97	49.99	49.99	50.01	49.99	4.76	77.64	17.60	77.64	50.13	17:01:20	49.78	06:12:30	50.08	0:00	49.90	0:00
07-Dec	50.01	49.97	49.99	50.01	50.03	50.00	4.69	72.59	22.72	72.59	50.18	23:59:50	49.75	06:26:20	50.10	0:00	49.86	0:00
08-Dec	50.00	50.00	49.97	49.98	50.03	49.99	6.99	75.38	17.63	75.38	50.21	00:01:20	49.71	16:24:30	50.09	0:00	49.77	0:00
09-Dec	49.99	49.99	49.97	50.00	50.02	49.99	6.31	75.45	18.24	75.45	50.22	06:01:20	49.77	16:27:00	50.10	0:00	49.88	0:00
10-Dec	50.02	49.99	50.01	50.00	49.92	50.00	6.67	68.95	24.39	68.95	50.21	06:01:10	49.75	06:57:10	50.12	0:00	49.86	0:00
11-Dec	49.95	50.00	49.96	49.99	49.98	49.97	9.70	75.78	14.52	75.78	50.18	06:02:00	49.77	15:52:40	50.08	0:00	49.83	0:00
12-Dec	50.01	50.01	49.99	50.02	50.00	50.01	1.40	75.59	23.01	75.59	50.20	17:01:30	49.84	19:18:50	50.10	0:00	49.93	0:00
13-Dec	50.02	49.96	49.97	49.98	49.98	49.98	11.54	70.91	17.55	70.91	50.13	03:58:20	49.73	17:44:20	50.08	0:00	49.83	0:00
14-Dec	49.98	49.96	49.99	49.96	50.00	49.98	13.23	70.89	15.88	70.89	50.18	13:04:50	49.68	17:41:50	50.11	0:00	49.80	0:00
15-Dec	50.01	49.96	49.97	49.97	50.02	49.98	10.39	74.16	15.45	74.16	50.23	13:04:50	49.83	07:47:50	50.14	0:00	49.86	0:00
16-Dec	50.02	49.97	50.00	50.02	50.02	50.00	3.82	71.12	25.06	71.12	50.23	14:03:00	49.77	07:12:00	50.12	0:00	49.90	0:00
17-Dec	50.05	49.98	50.01	50.01	50.02	50.01	4.53	63.87	31.61	63.87	50.21	03:03:00	49.83	10:16:30	50.14	0:00	49.84	0:00
18-Dec	50.03	50.00	50.01	50.02	50.01	50.01	0.65	71.50	27.85	71.50	50.18	06:02:30	49.85	07:51:00	50.09	0:00	49.92	0:00
19-Dec	50.08	49.99	50.00	50.02	50.02	50.02	1.81	62.72	35.47	62.72	50.27	02:59:20	49.72	07:32:50	50.21	0:00	49.91	0:00
20-Dec	50.11	49.99	50.00	49.94	49.98	50.01	8.81	58.43	32.76	58.43	50.34	02:03:20	49.75	19:48:00	50.29	0:00	49.83	0:00
21-Dec	49.95	49.97	50.00	49.98	49.97	49.98	9.42	76.37	14.21	76.37	50.16	13:03:00	49.76	07:27:20	50.08	0:00	49.83	0:00
22-Dec	49.97	49.97	50.00	49.99	50.04	49.99	5.71	77.72	16.57	77.72	50.16	22:01:10	49.79	06:25:40	50.09	0:00	49.84	0:00
23-Dec	49.99	49.97	49.97	50.00	50.01	49.98	6.21	80.95	12.84	80.95	50.18	16:03:30	49.79	07:10:40	50.09	0:00	49.86	0:00
24-Dec	50.00	49.99	50.00	50.01	50.00	50.00	5.56	73.13	21.31	73.13	50.22	14:04:50	49.80	09:16:20	50.15	0:00	49.88	0:00
25-Dec	49.97	49.96	49.98	49.99	49.95	49.97	9.99	78.76	11.25	78.76	50.23	06:02:40	49.72	09:10:00	50.08	0:00	49.78	0:00
26-Dec	49.93	49.94	49.97	50.02	50.00	49.97	14.65	71.00	14.35	71.00	50.18	17:32:50	49.65	10:10:20	50.08	0:00	49.74	0:00
27-Dec	50.01	49.99	49.99	50.03	50.00	50.00	3.39	74.30	22.31	74.30	50.22	13:03:20	49.77	14:18:10	50.10	0:00	49.88	0:00
28-Dec	49.99	49.97	50.00	50.03	50.00	49.99	4.12	77.72	18.16	77.72	50.20	17:01:40	49.83	12:24:50	50.09	0:00	49.88	0:00
29-Dec	50.05	49.97	50.02	50.00	49.98	50.01	3.69	67.36	28.95	67.36	50.26	03:01:00	49.74	05:10:00	50.13	0:00	49.83	0:00
30-Dec	49.99	50.00	50.03	50.00	50.02	50.01	2.03	71.32	26.66	71.32	50.26	14:02:00	49.80	20:36:20	50.15	0:00	49.88	0:00
31-Dec	49.99	50.04	49.97	49.94	49.94	49.98	11.92	69.99	18.09	69.99	50.23	14:05:40	49.62	11:54:30	50.14	0:00	49.75	0:00
MAX	50.11	50.04	50.03	50.03	50.04	50.02	14.65	80.95	35.47	80.95	50.34		49.85		50.29		49.93	
MIN	49.93	49.94	49.96	49.94	49.92	49.97	0.65	58.43	11.25	58.43	50.13		49.62		50.08		49.74	
AVG	50.00	49.98	49.99	49.99	50.00	49.99	6.92	73.14	19.95	73.14	50.21		49.76		50.11		49.84	

SUMMARY:

Instantaneous Frequency :

Maximum Frequency : 50.34 Hz at 02:03 Hrs.

Minimum Frequency : 49.62 Hz at 11:54 Hrs.

15 Minutes Integrated Frequency :

Maximum Frequency : 50.29 Hz On 00/01/00 at 00:00 Hrs.

Minimum Frequency : 49.74 Hz On 00/01/00 at 00:00 Hrs

Avg. Frequency :

50.0 Hz.

Frequency Distribution in % of Time			
Hz	<49.9	49.9-50.05	>50.05
% of Time	6.92	73.14	19.95

## VOLTAGE ANALYSIS

## MAXIMUM &amp; MINIMUM VOLTAGES RECORDED AT IMPORTANT 400 kV S/S IN THE MONTH OF DEC'2021

( All figs. in kV)

PGCIL	BINAGURI		MAITHON		JEERAT		BIHARSHARIFF	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	424	401	415	400	416	394	424	399

PGCIL	MUZAFFARPUR		JAMSHEDPUR		ROURKELA		JEYPORE	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	421	391	429	408	409	395	419	400

## 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
<b>TOTAL</b>	<b>820</b>	<b>830</b>	<b>830</b>	<b>840</b>	<b>3320</b>

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-21**

(All figs.in mtrs.)

Name of the Reservoirs	FRL	MDDL	As on last day of the		As on first day of this month & date	
			(31-12-21)	(31-12-20)		
Hirakud	192	180	191.38	190.87	191.80	01.12.21
Balimela	462	439	451.56	456.01	452.08	01.12.21
Rengali	123	109	121.78	119.01	122.37	01.12.21
Upperkolab	858	844	852.09	852.22	851.96	01.12.21
Indravati	642	625	632.08	637.85	631.60	01.12.21
Subernrekha	590	580	586.53	585.92	587.08	01.12.21

B.

**CPP/IPP IMPORT by Eastern Region Constituents during  
Dec-21**

(All figs. are in MU)

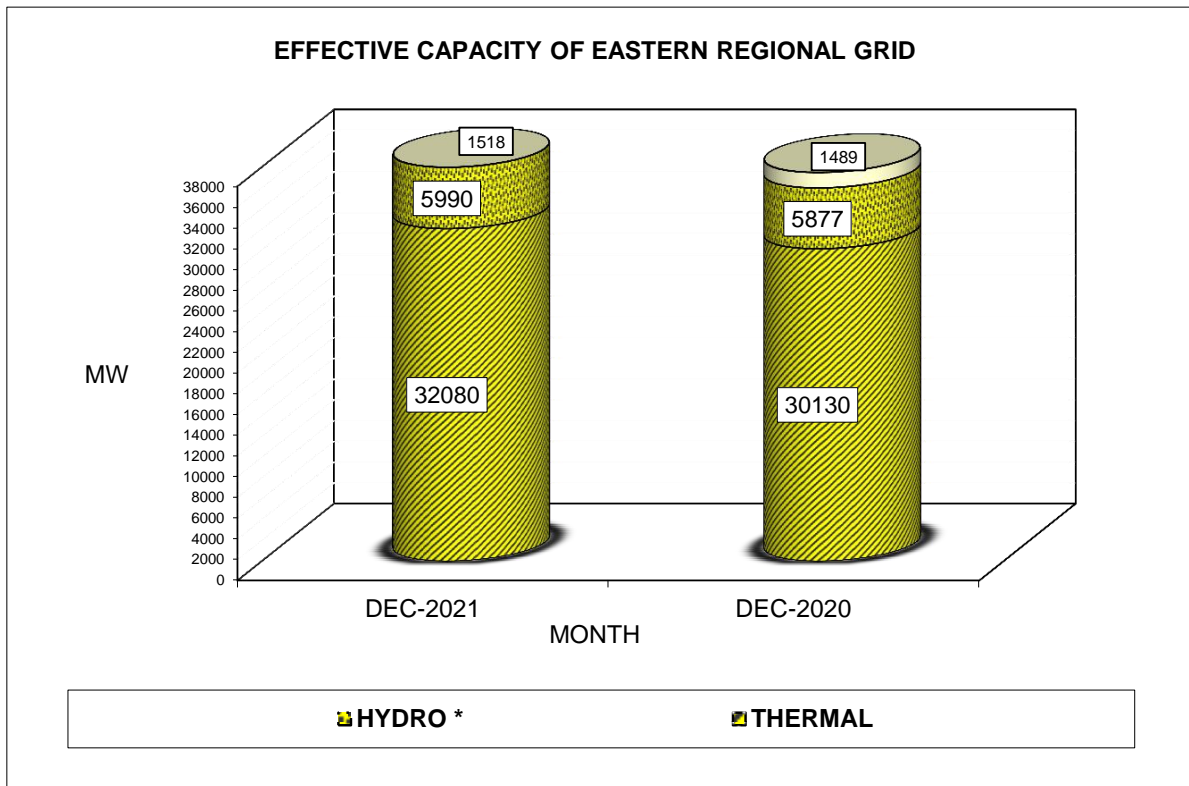
System	Tata Power	Crescent Power	JSPL, Angul	Sterlite	Jindal	NALCO	TISCO	Others	Total
JUVNL	0	0	0	0	0	0	0	0	47.47
West Bengal	77.39	26.78	0	0	0	0	0	200.82	304.99
ODISHA	0	0	40.44	320.94	8.65	0.00	0	390.51	760.53
DVC	0	0	0	0	0	0	8.31	0	8.31
<b>TOTAL</b>	<b>77.39</b>	<b>26.78</b>	<b>40.44</b>	<b>320.94</b>	<b>8.65</b>	<b>0.00</b>	<b>8.31</b>	<b>591.32</b>	<b>1121.30</b>

C.

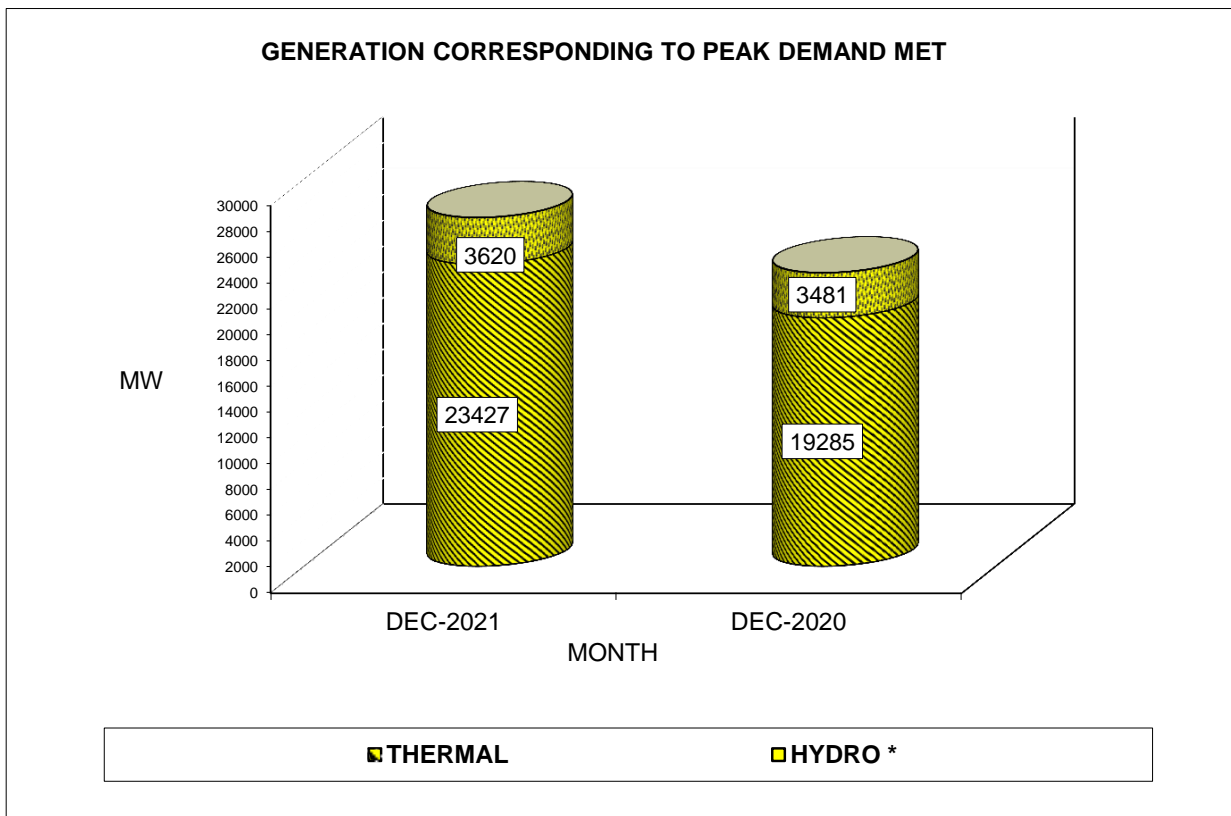
**Distribution of Schedule Supply among Key Customers by IPPs during  
Dec-21**

(All figs. are in MU)

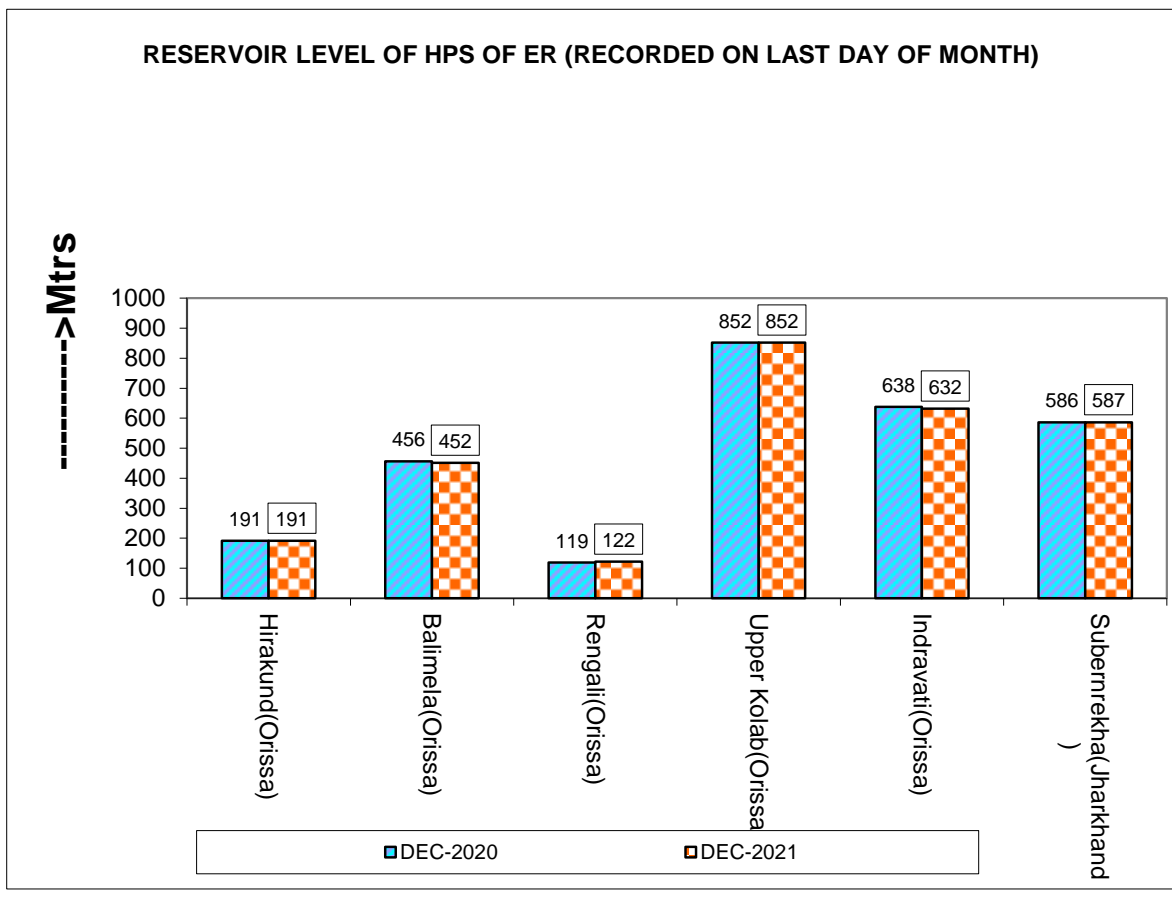
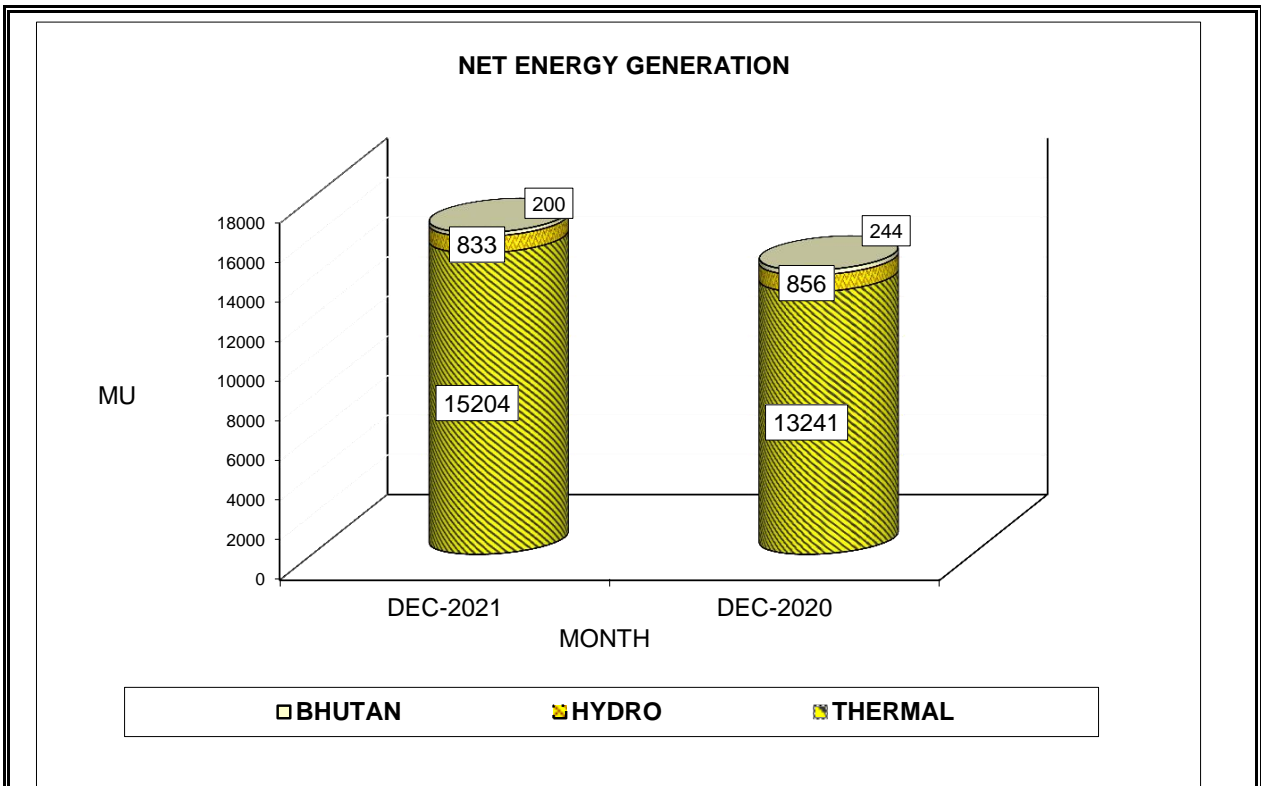
IPP	TPDDL	WBSSEDCL/ WBPDCCL	DVC	Sale at IEX/NPCL	ODISHA	JSEB	CTU/Others	Total (Excl. Tr. Loss)
MPL	170.51	173.89	101.18	0.00	0	0	137.68	583.26
Sterlite	0	0	0	0	0.00	0	0.00	0.00
APNRL	0	0.00	0	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>170.51</b>	<b>173.89</b>	<b>101.18</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>137.68</b>	<b>583.26</b>



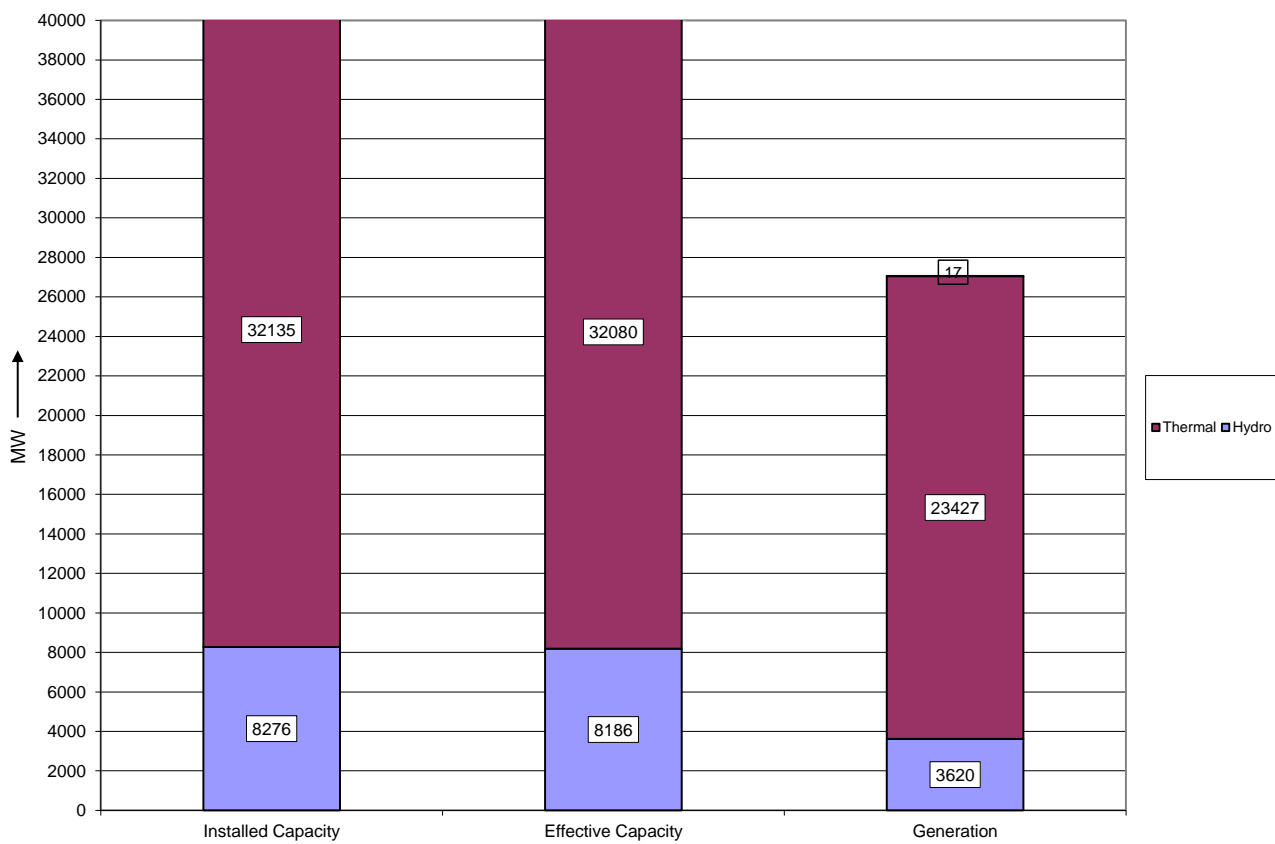
\*Excludes contribution from HEPs of Bhutan



\*Includes contribution from HEP of Bhutan

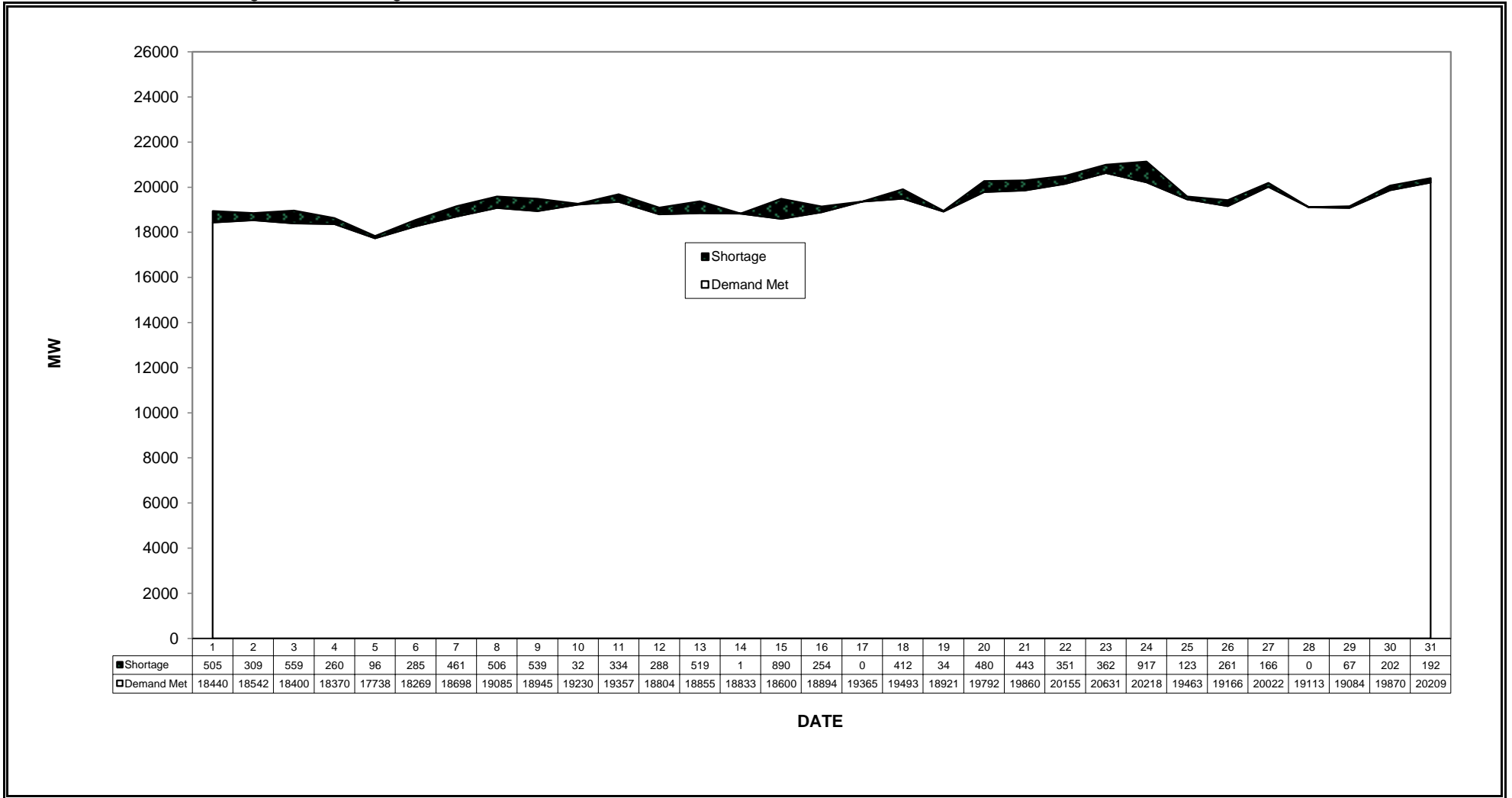


**Capacity / Actual Generation Pattern of ER on Peak Day (23-12-2021) at 19.00 hrs.**

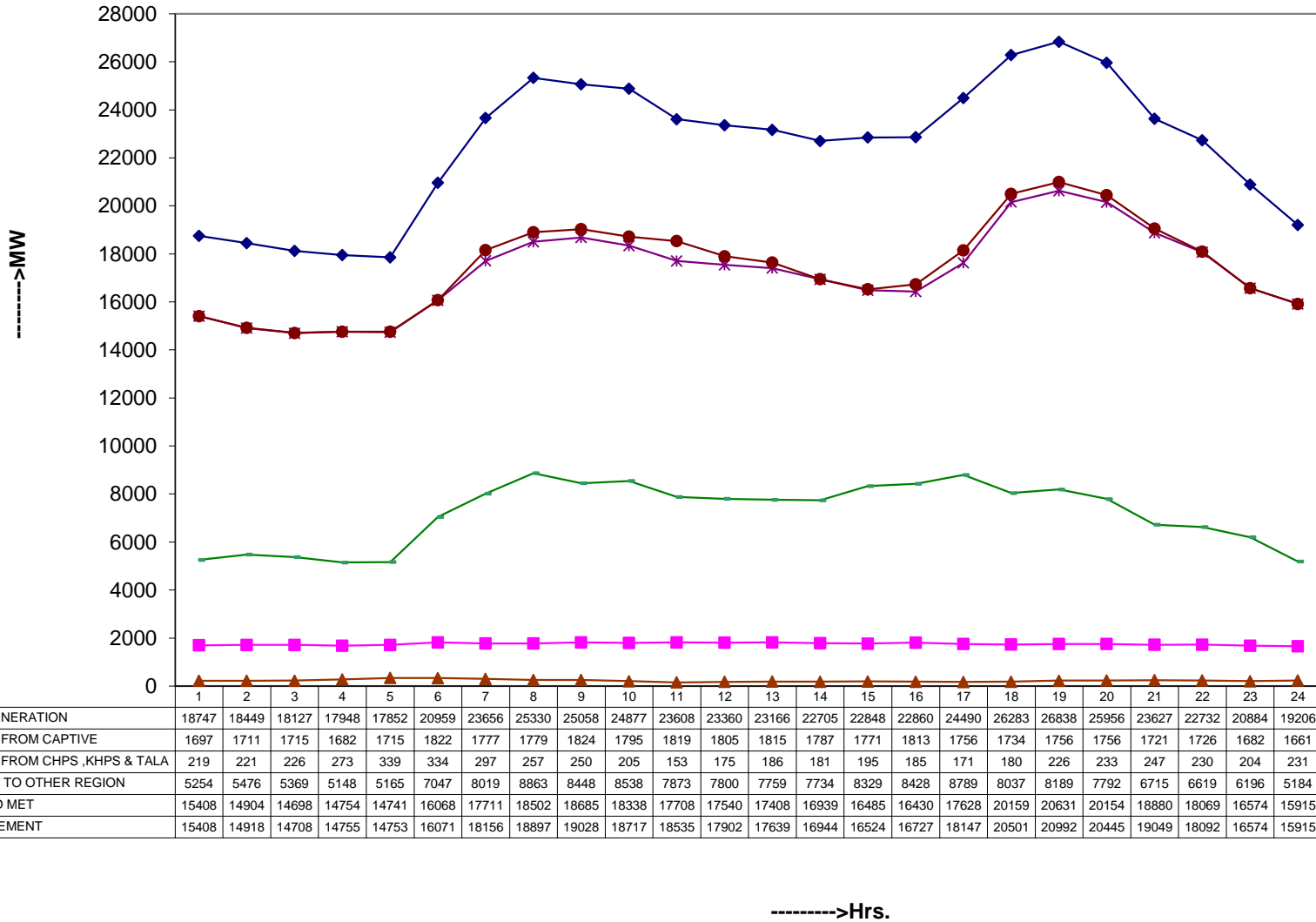


(\*)--Includes contribution from HEP of Bhutan (Chukka, Kurichhu & Tala)

Peak Demand Met / Shortage of Eastern Region For The Month Of DEC'2021

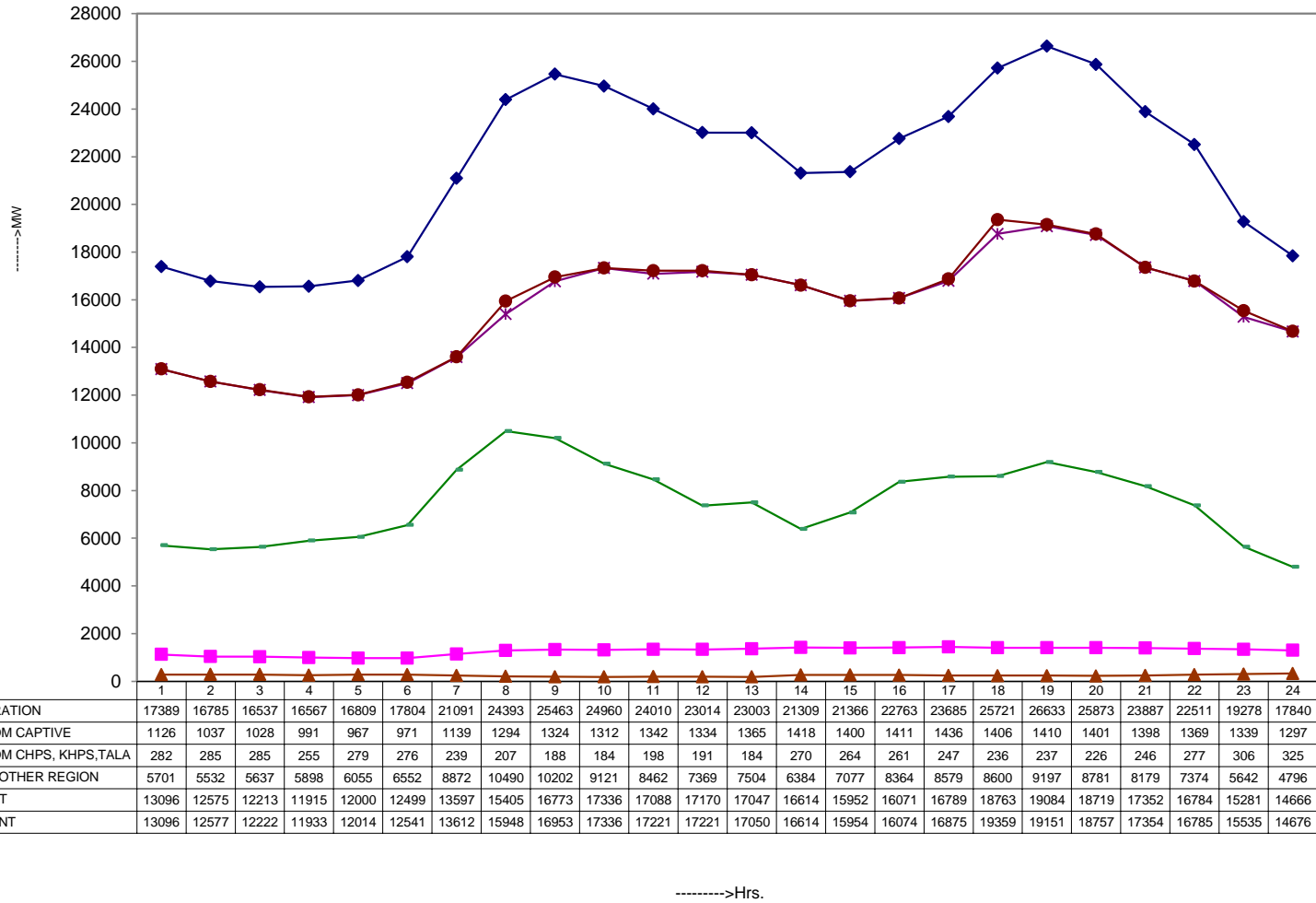


Hourly Load Generation Data OF ER On Regional Peak Day During The Month of DEC'2021 (23-12-2021)



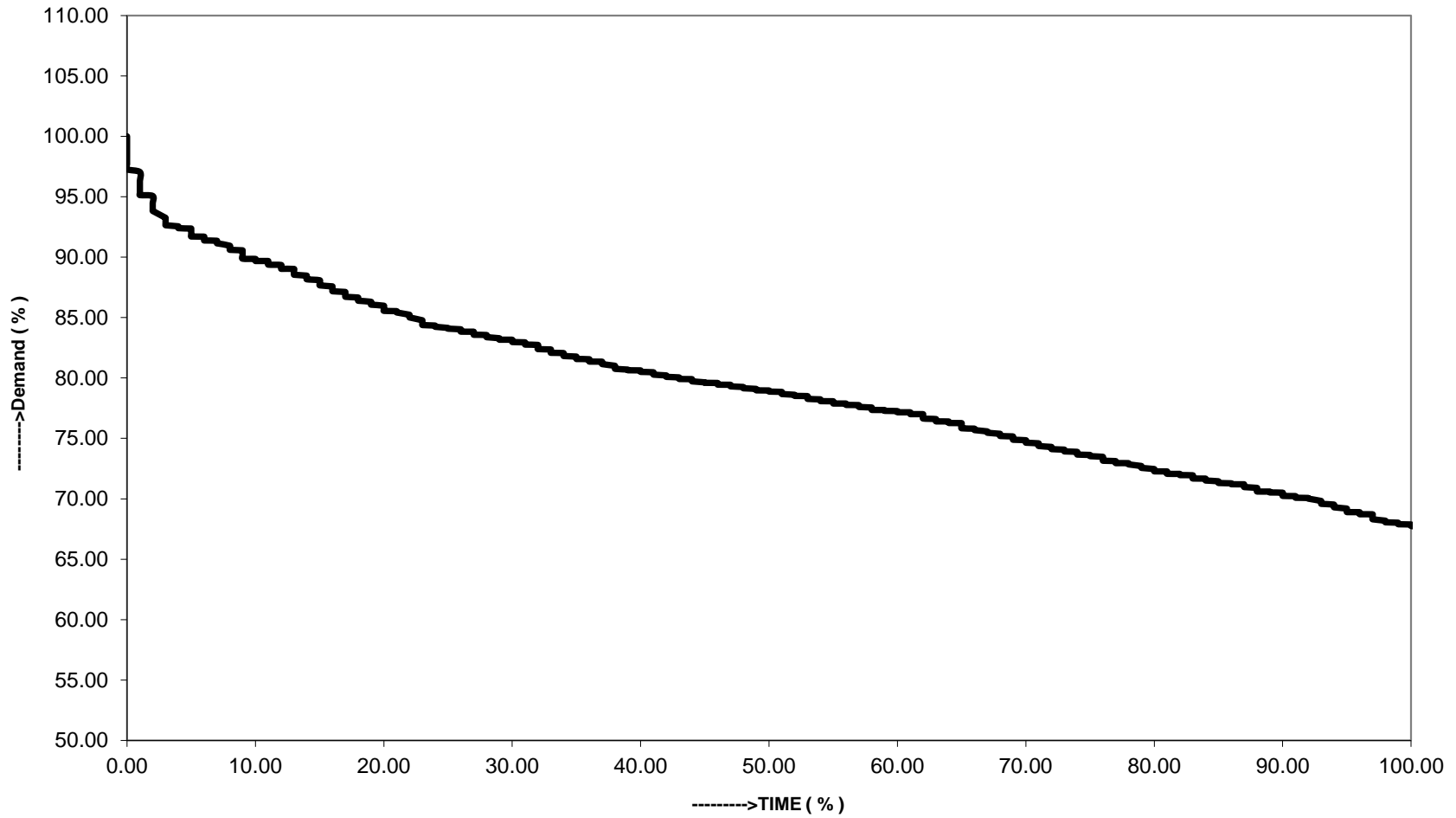


Hourly Load Generation Data of ER On Regional Lean Day During The Month of DEC'2021 (29-12-2021)



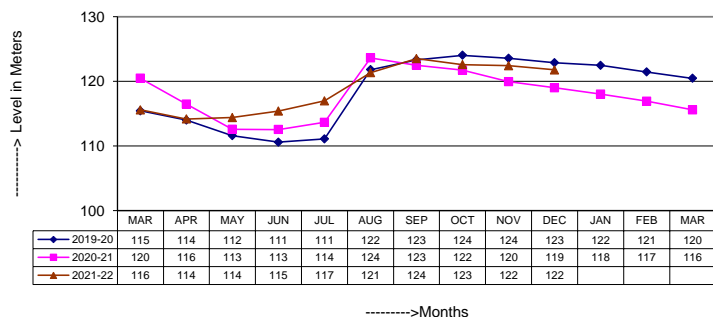
Monthly Load Duration Curve of Eastern Region for DEC-2021

Maximum Demand met : 20631 MW  
Minimum Demand met: 11915 MW

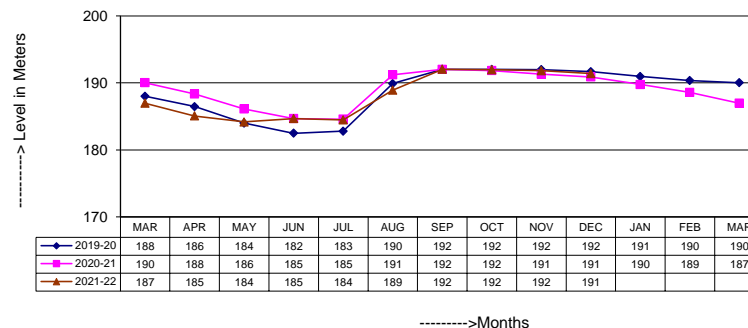


WATER LEVEL IN MAJOR RESERVOIRS ON LAST DATE OF MONTH

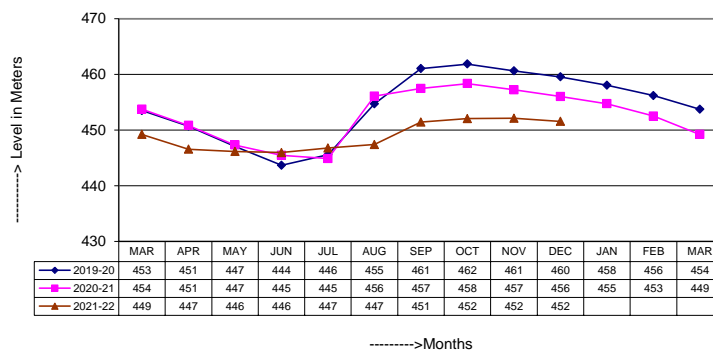
RENGALI RESERVOIR LEVEL



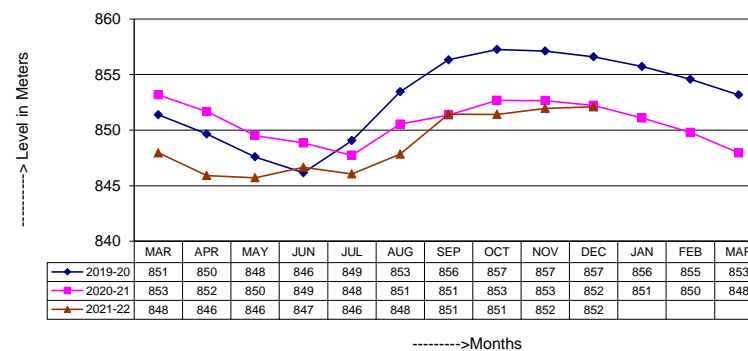
HIRAKUD RESERVOIR LEVEL



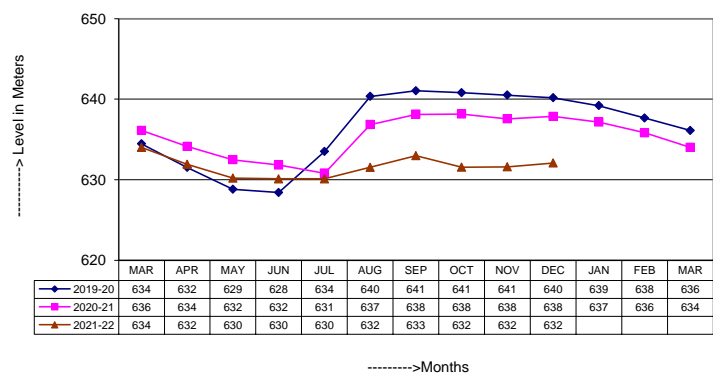
BALIMELA RESERVOIR LEVEL



UPPER KOLAB RESERVOIR LEVEL



INDRAVATI RESERVOIR LEVEL



SUBERNREKHA RESERVOIR LEVEL

