SYSTEM PERFORMANCE REPORT

APRIL'2023

SLDC, OPTCL
BHUBANESWAR – 17

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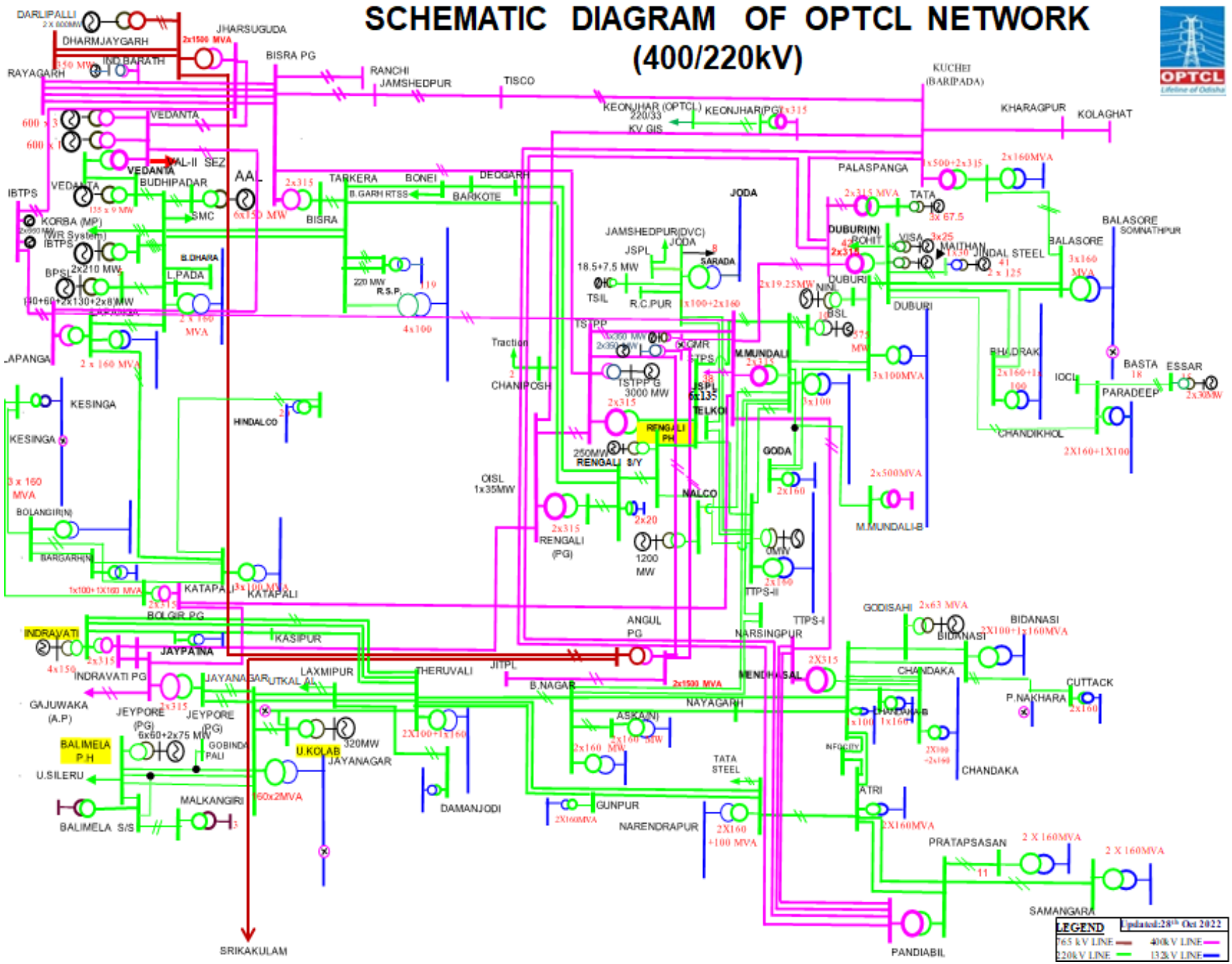
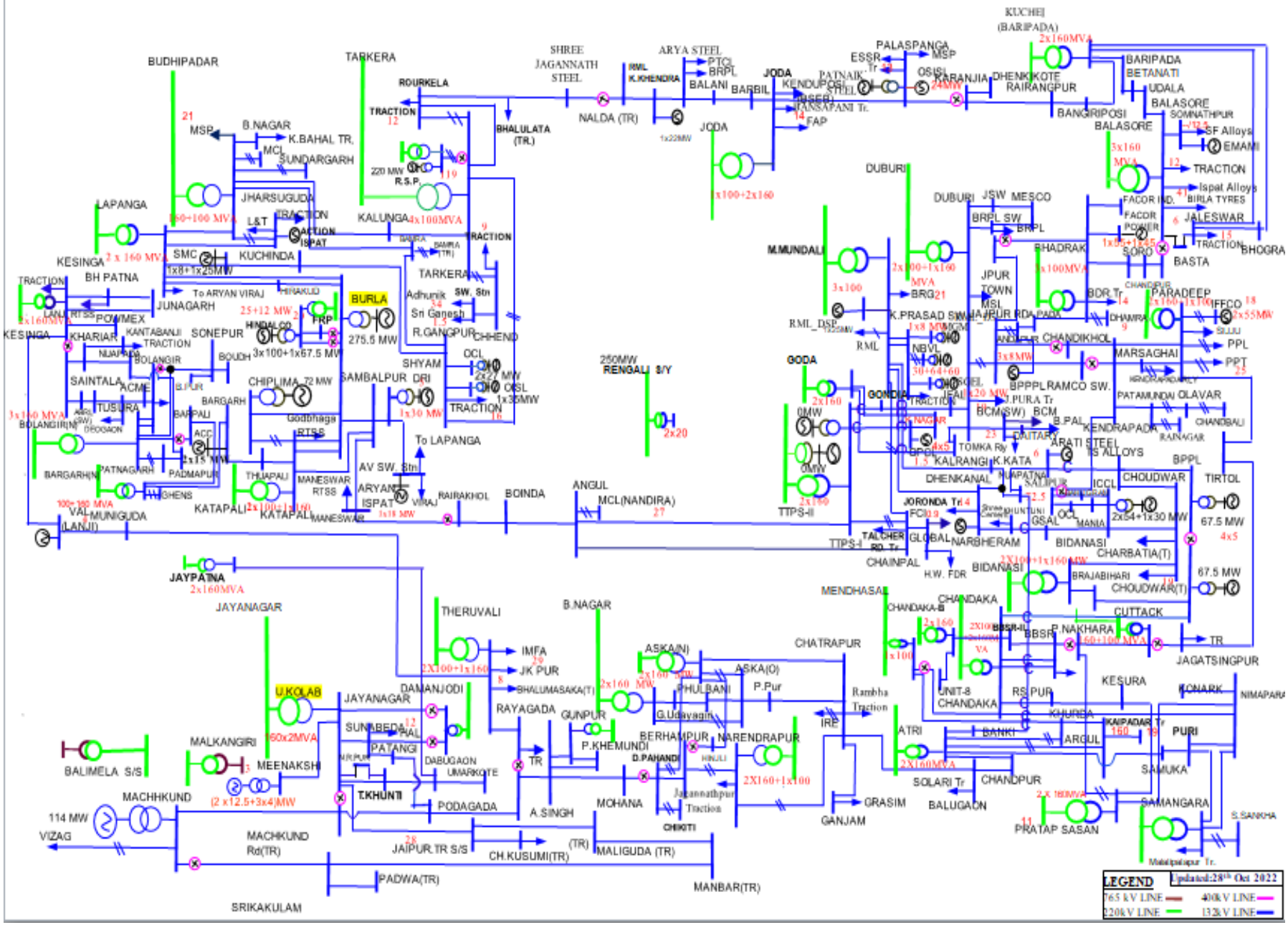
SCHEMATIC DIAGRAM OF OPTCL NETWORK (400/220kV)



SCHEMATIC DIAGRAM OF OPTCL NETWORK (132kV)



SUMMARY REPORT FOR APRIL- 2023

A. Voltage Profile

			Date & Time	Location
220 KV				
	Maxm. -	241.84 kV	23.04.2023 04:15Hrs	Malkangiri
		>240 KV		Balimela, Laxmipur,Malkangiri
	Minm. -	200.22 kV	19.04.2023 16:30 Hrs	Bargarh
		< 200 KV		Nil.
132 KV	Maxm. -	147.50 kV	21.04.2023 06:00 Hrs	Khariar
		>145 KV		Khariar
	Minm. -	108.45KV	19.04.2023 16:30 Hrs	Nuapada
		< 120 KV		Bargarh, Duburi, Jajpur Town, Kantabanji, Nuapada, Puri

B. Frequency Profile

		Date & Time
Maxm. -	50.33 Hz	23.04.23 09:00 Hrs.
Minm. -	49.50 Hz	15.04.23 22:08 Hrs.
Average -	49.99 Hz	

% of time the freq. is within 49.9 Hz to 50.05 Hz (IEGC band) -	69.23%
% of time the freq. is > 50.05 HZ -	20.14%
% of time the freq. is ≤49.9 HZ -	10.63%
% of time the freq.is < 48.5 HZ -	0.00%

C. Demand Profile

Peak System Demand	6392.15 MW	At 22:00 Hrs on 19.04.23
Minimum System Demand	3286.85 MW	At 03:00 Hrs on 23.04.23
Average System Demand	4830.60 MW	

D. Major events

Sl. No	Date	Details of event
1	13-04-2023	At 19:21hrs, 220KV LILO line from Loc No-277 of existing 220KV New Duburi-Balasore Line was charged up to Gantry of 220/132/33KV Grid S/S, Dhamra.
2	15-04-2023	At 15:13 hrs, 3.64MW Solar PV Plant at 11kV level was synchronised in 132/11kV switchyard of M/S Shree Cement Limited connected through 132kV OPTCL Khuntuni-Shree cement feeder.
3	16-04-2023	At 20:45hrs, 220/33kV GSS, Kantabada having LILO connectivity from loc no-453 & 455 of 220kV Chandaka-Mendhasal Ckt-III was charged along with 02 nos of 220/33kV 63MVA Power Transformers.
4	17-04-2023	At 13:20hrs, 2MW GEDCOL PV power plant having 33kV connectivity was synchronised with OPTCL system at 220/132/33kV GSS, Bolangir New.
5	20-04-2023	At 14:22hrs, 30MW Thermal Unit of M/S Jagannath Steel & Power Ltd. Keonjhar was synchronised with OPTCL system.
6	24-04-2023	At 20:47hrs, 132/33kV GSS, Boriguma having LILO connectivity from loc no-98A of 132kV Jayanagar-Tentulikhunti Ckt-II (132kV Jayanagar-Nabarangpur Line) was charged.
7	24-04-2023	At 17:06 hrs, 220kV Switchyard (02nos of 220kV fdr bay, 01 no of 220kV Transformer bay, 01 no of 220kV Bus-Coupler bay, 220/132kV 160MVA Auto TRF-II) at 220/132/33kV GSS, Dhamra was charged
8	27-04-2023	At 13:36 hrs, 132/33kV 40MVA Power Transformer No-II was charged at Rourkela.
9	28-04-2023	At 17:16hrs, 33kV Solar Bay was extended at 132/33kV GSS, Baripada.
10	29-04-2023	At 20:08 hrs, 132kV Brajarajnagar-Lakhanpur DC Line & 132/33kV Lakhanpur GSS (05nos of 132kV bay, 08nos of 33kV bays, 132/33kV 20MVA Power TRF-I & II) were charged.

GENERATION CAPACITY

STATE SECTOR GENERATION **All Figures in MW**

SL.NO.	NAME OF POWER STATION	INSTALLED CAPACITY		FIRM POWER (MW)
1	O.H.P.C.			
	HIRAKUD POWER STATION			
	(a)BURLA	2x49.5 = 99 2x32 = 64 2x43.65 =87.3 1x37.5 = 37.5	287.8	134
	(b)CHIPLIMA	3x24	72	
	BALIMELA POWER HOUSE	6x60 + 2x75	510	135
	RENGALI POWER HOUSE	5x50	250	60
	UPPER KOLAB POWER HOUSE	4x80	320	95
	INDRAVATI POWER HOUSE	4x150	600	224
	MACHHKUND POWER HOUSE (Orissa Share 50%)	3x17 = 51.00 3x23= 69	60	60
	TOTAL HYDRO (A)	**2099.8**		
2	O.P.G.C.			
	IB TPS	2x210 = 420	342.09 (Auxilliary 9.5 %, Avalability 90%)	342.09 (Auxilliary 9.5 %, Avalability 90%)
	IB TPS-Stage-II	2x660 = 1320	833.085 (Share 75%, Auxilliary 6.25 %,	835.312 (Share 75%, Auxilliary 6.25 %, Avalability 90%)
	TOTAL THERMAL (B)	**1740**		

CENTRAL SECTOR GENERATION

SL.NO.	NAME OF POWER STATION	INSTALLED CAPACITY	OPTCL'S SHARE OF INSTALLED CAPACITY 0N REALTIME BASIS.		AUX. CONS.	% AGE AVAILABILITY (excluding UA)
			% age	MW	%	%
1	CHUKHA (BHUTAN)	4 x 84 = 336 (Considering 270 MW, total availability)	15.19	41.00		85
2	TALA HEP (BHUTAN)	6 x 170 = 1020	4.25	43.40		
3	FARAKKA (WEST BENGAL)*	3 x 200 = 600 2 x 500 = 1000 1 x 500 = 500	- 16.62	- 83.10	7.5	85
4	KAHALGAON (BIHAR)*	4 x 210 = 840	-	-	-	-
		3 x 500 = 1500	2.05	39.30	9	62.11
5	TSTPP, KANIHA (ORISSA)	2 x 500 = 1000	31.8	318.00	7.5	85
		4 x 500 = 2000	10	200.00	7.5	
6	TEESTA HEP (SIKKIM)	3 x 170 = 510	20.59	105.00		85
7	MANGDECHU HEP, BHUTAN	4x180	10.97	78.98		
8	MTPS (Mujafarpur) (BIHAR)	2x195	-	-		
9	DARLIPALI STPS	2X800	58.82	941.18		
		TOTAL ISGS		**1849.96**		

GRAND TOTAL, (A) + (B) + (C) = 5689.76

Firm power for OHPC stations has been computed as per design energy of the stations approved by CEA. Firm availability of State Thermal as per CERC /OERC nerms. ISGS share of power is as per CGS power allocation sheet of CEA as on 01.07.2013.

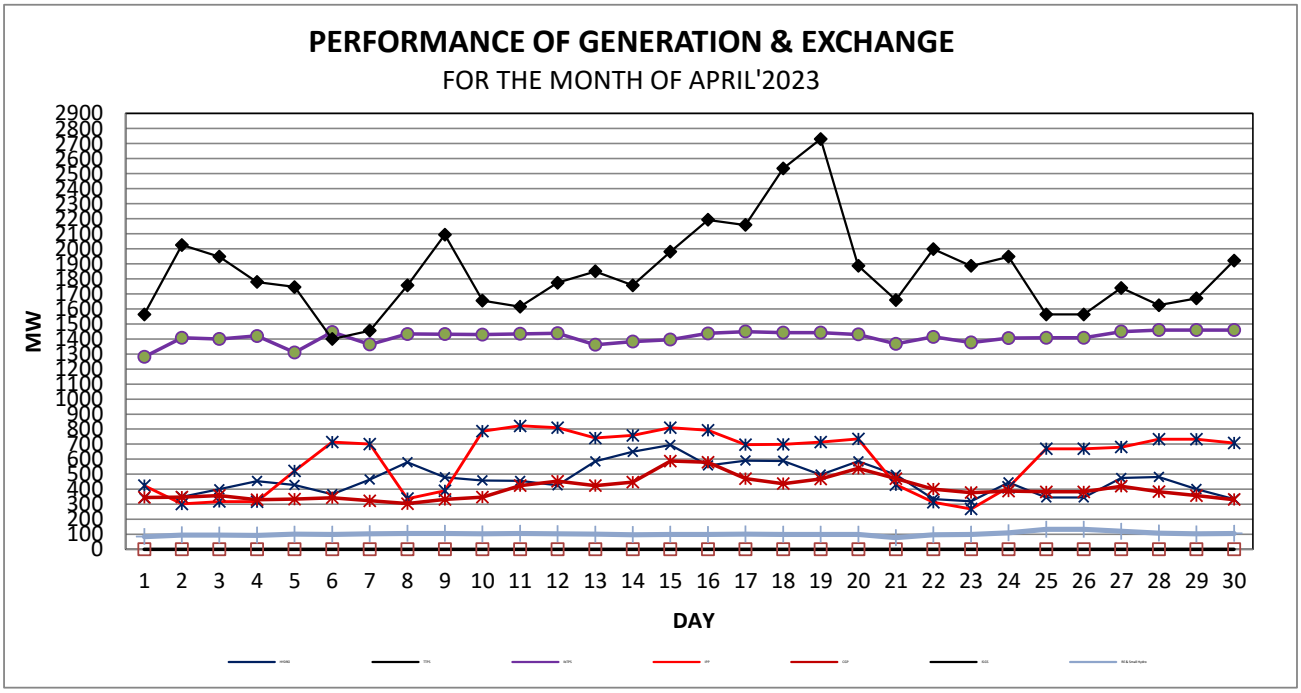
*** Odisha Share in FSTPS I & II and in KHTPS I surendered (346 MW) by Odisha and reallocated to Gujarat wef 00:00Hrs of 04.09.2021.**

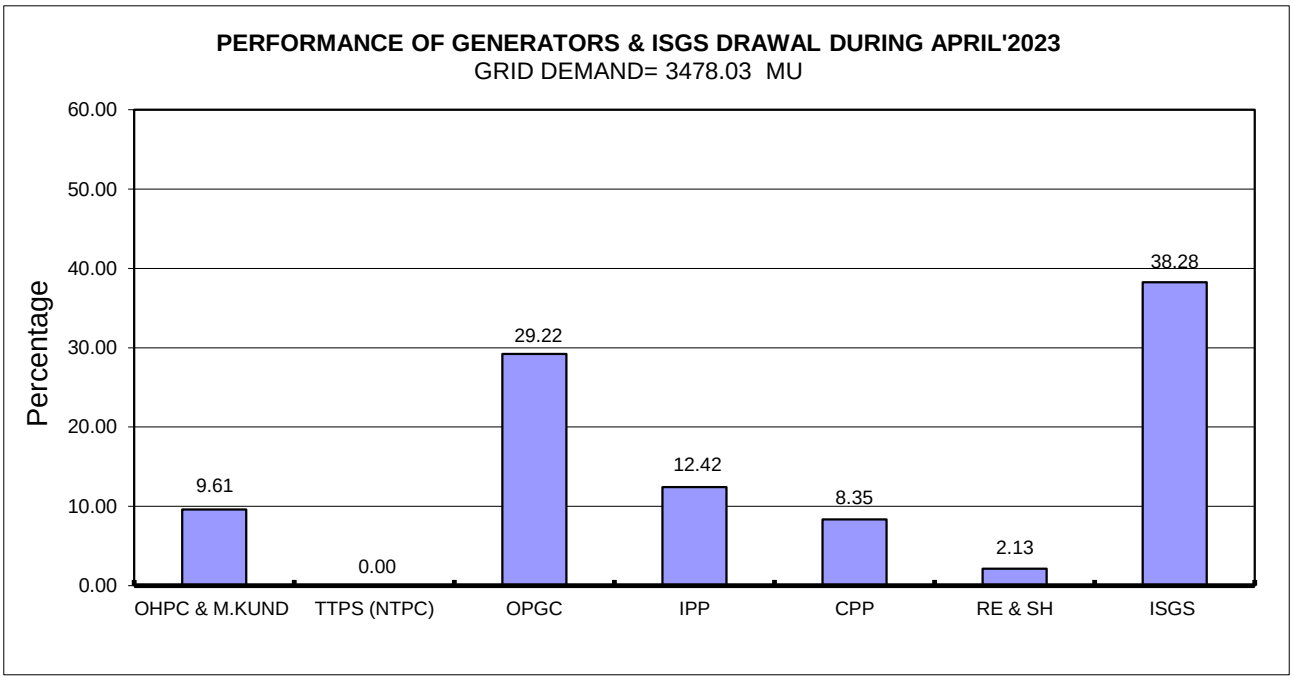
CAPACITY OF IPP, CPP, SMALLL HYDRO & RENEWABLE

Sl.No	POWER STATION	INSTALLED CAPACITY	TOTAL	TYPE	VOLTAGE LEVEL
IPP & SMALL HYDRO					
1	MEENAKSHI POWER LTD.	3 X 4 + 2 X 12.5	37	SMALL HYDRO	132 kV
2	ORISSA POWER CONSORTIUM LTD.	4 X 5	20	SMALL HYDRO	132 kV
3	VEDANTA LTD., JHARSUGUDA(IPP)	1 X 600	600	THERMAL	400kV
4	GMR KAMALANGA ENERGY LTD.	3 X 350	1050	THERMAL	400kV
5	NBVL (MERAMUNDALI)	1 X 60=60	60	THERMAL	132 kV
6	JITPL			THERMAL	400kV
7	BPPPL	3X8=24	24	SMALL HYDRO	132kV
8	SAPTADHARA SHEP	3X6=18	18	SMALL HYDRO	33kV
9	KAKATIYA	1 X 4.5	4.5	SMALL HYDRO	33kV
		TOTAL	**1813.5**		
CPP					
1	AARATI STEEL GHANTIKHAL	1 X 40 + 1 X 50	90	THERMAL	132 kV
2	ACC, BARGARH	1 X 30	30	THERMAL	132 kV
3	ACTION ISPAT & POWER PVT. LTD.	1 X 12 + 1 X 25 + 1 X 43	80	THERMAL	132 kV
4	ARYAN ISPAT & POWER PVT. LTD.	1 X 18	18	THERMAL	132 kV
5	ADITYA ALUMINIUM Ltd	6X 150	900	THERMAL	220 kV
6	BHUBANESWAR POWER PVT. LTD.	2 X 67.5	135	THERMAL	132 kV
7	BHUSAN STEEL LTD.,MERAMUNDALI	1 X 33+1 X 77+ 2 X 150+2 X 165	740	THERMAL	220 kV
8	BHUSAN POWER & STEEL LTD,	1X60 + 1X40 +3X130 + 2 X 8	506	THERMAL	220 kV
9	EMAMI PAPER MILLS.	1 X 15 + 1 X 5	20	THERMAL	132 kV
10	ESSAR POWER LTD	2x30	60	THERMAL	220 kV
11	FACOR POWER	1X 45	45	THERMAL	132 kV
12	HPCL(HINDALCO),(HIRAKUD)	1 X 67.5 + 4 X 100	467.5	THERMAL	132 kV
13	IMFA(CHOUDWAR)	2 X 54 + 1 X 30 + 2 X 60	258	THERMAL	132 kV
14	IFFCO (PARADEEP)	2 X 55	110	THERMAL	132 kV
15	JINDAL STAINLESS LTD., DUBURI	2 X 125 + 1 X 13	263	THERMAL	220 kV
16	JINDAL STEEL & POWER LTD., ANGUL	6 X 135	810	THERMAL	400 kV
17	NINL (DUBURI)	2 X 19.25 + 1 X 24	62.5	THERMAL	220 kV
18	MAHAVIR FERRO ALLOYS PVT. LTD.	1 X 12	12	THERMAL	33 kV
19	MGM MINERALS LTD, DHENKANAL.	1 x 8	8	THERMAL	132 kV
20	MSP METTALLICS LTD.	1 X 25	25	THERMAL	132 kV
21	NALCO(ANGUL)	10 X 120	1200	THERMAL	220 kV
22	NALCO(DAMANJODI)	18.5 X 4	74	THERMAL	132 kV
23	NARBHERAM POWER & STEEL PVT. LTD.	1 X 8	8	THERMAL	132 kV
24	NBVL (MERAMUNDALI)	1 X 30 + 1X 64	94	THERMAL	132 kV
25	OCL INDIA LTD., RAJGANGPUR	2 X 27	54	THERMAL	132 kV
26	OISL, RAJGANGPUR	1 X 35	35	THERMAL	132 kV
27	ORISSA SPONGE IRON & STEEL LTD.	1 X 24	24	THERMAL	132 kV
28	PATTANAIK STEEL, (KEONJHAR)	1 X 15	15	THERMAL	33 kV
29	RATHI STEEL & POWER LTD. (Katapalli)	1 X 20	20	THERMAL	33 kV
30	RSP(ROURKELA)	2 X 60 + 4 X 25	220	THERMAL	220 kV
31	RML, DSP, DHENKANAL	1 X 25	25	THERMAL	33 kV
32	SEVEN STAR STEELS LTD.	1 X 8	8	THERMAL	33 kV
33	SMEL, (PANDOLI, SAMBALPUR)	3 X 30	90	THERMAL	132 kV
34	SMC POWER GENERATION LTD.	1 X 8 + 1 X 25	33	THERMAL	132 kV
35	SREE GANESH	1 X 32	32	THERMAL	132 kV
36	TATA SPONGE IRON (JODA)	1 X 18.5 + 1 X 7.5	26	THERMAL	220 kV
37	TATA POWER & STEEL, (K NAGAR)	2 X 67.5	135	THERMAL	220 kV
38	UTKAL ALUMINA, LAXMIPUR	3x30	90	THERMAL	220 kV
39	VEDANTA LTD.(SEZ),JHARSUGUDA	3 X 600	1800	THERMAL	400 kV
40	VEDANTA (JHARSUGUDA))	9 X 135	1215	THERMAL	220 kV
41	VEDANTA (LANJIGARH)	3 X 30	90	THERMAL	132 kV
42	VISA STEEL LTD., (NEW DUBURI)	3 X 25	75	THERMAL	220 kV
43	YAZDANI STEEL & POWER.	1 X 10	10	THERMAL	33 kV
		TOTAL	**10013**		

RENEWABLE PROJECTS

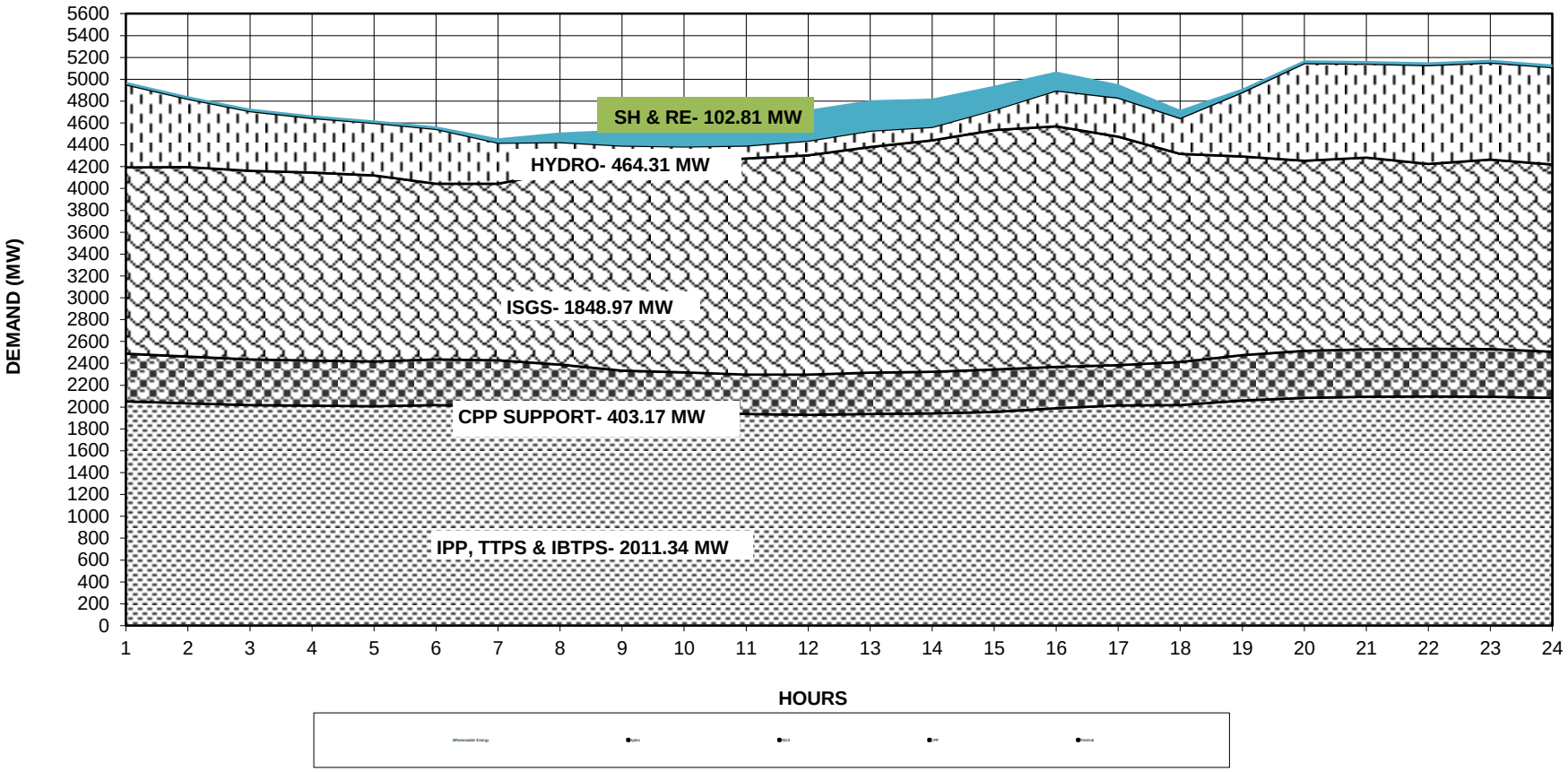
Sl.No	POWER STATION	INSTALLED CAPACITY	TOTAL	TYPE		CONNECTIVITY VOLTAGE
1	ABACUS HOLDINGS PVT. LTD, SONEPUR	1 MW	1	SOLAR		11 KV
2	AFTAAB SOLAR PVT. LTD. ,BOLANGIR (N)	5 MW	5	SOLAR		33 KV
3	ALEX GREEN ENERGY PVT LTD. PATNAGARH	5 MW	5	SOLAR		33 kV
4	JAY IRON & STEEL, BAMARA	1 MW	1	SOLAR		11 KV
5	J.K. PAPER LTD., THERUVALI	25 MW	25	BIOMASS		132 KV
6	M.G.M. GREEN ENERGY., CHANDPUR	1 MW	1	SOLAR		11 KV
7	MOLISATI VINIMAY PVT. LTD. BARKOTE	1 MW	1	SOLAR		11 KV
8	OCL SOLAR, SALIPUR	2.5 MW	2.5	SOLAR	SELF	132 kV
9	OCL SOLAR, SALIPUR	10 MW	10	SOLAR	SELF	11 kV
10	VIVACITY R.E PVT. LTD , CHANDPUR	1 MW	1	SOLAR		11 KV
11	RAAJRATNA ENERGY PVT. LTD. BOLANGIR (N)	1 MW	1	SOLAR		11 KV
12	S. N. MOHANTY, BARANGA, CHANDAKA	1 MW	1	SOLAR		11 KV
13	SHALIVAHAN GREEN ENERGY LTD.	20 MW	20	BIOMASS		132 KV
14	MAHAVIR FERRO ALLOYS (SOLAR), BANEI	1 MW	1	SOLAR		33 KV
15	MCL, BURLA, KATAPALI	2 MW	2	SOLAR	SELF	11 kV
16	ACME SOLAR, MURSING, BOLANGIR-SAINTALA	25 MW	25	SOLAR		132 kV
17	GEDCOL, MANMUNDA, SONEPUR	20 MW	20	SOLAR		33 kV
18	JYOTI SOLAR SOLUTIONS(P) LTD	10 MW	10	SOLAR		33 kV
19	SADIPALI SOLAR	20 MW	20	SOLAR		33 kV
20	BEL, SAINTALA	7.5 MW	7.5	SOLAR		132 kV
21	DAKSHIN ODISHA URGA PVT. LTD, PADMAPUR	40 MW	40	SOLAR		132 kV
22	VENTO POWER& ENERGY LTD, Dendugoda, KESINGA	2x40 MW	80	SOLAR		132 kV
23	VENTO POWER& ENERGY LTD, Tusara	2x40 MW	80	SOLAR		132 kV
24	VENTO POWER& ENERGY LTD, Tentulikhunti	1x40 MW	40	SOLAR		132 kV
25	IMFA SOLAR, Theruvali	4.5 MW	4.5	SOLAR	SELF	33 kV
26	ADITYA BIRLA RENEWABLES LTD, BOUDH	25 MW	25	SOLAR		
27	ADITYA BIRLA RENEWABLES LTD, BARGARH(N)	25 MW	25	SOLAR		33 kV
28	ADITYA BIRLA RENEWABLES LTD, SAINTALA	25 MW	25	SOLAR		132 kV
		TOTAL	**479.5**			
	GRAND TOTAL (SMALL HYDRO,IPP & CPP)		**17995.76**			


PERFORMANCE OF GENERATION & EXCHANGE
FOR THE MONTH OF APRIL'2023
MW
DAY

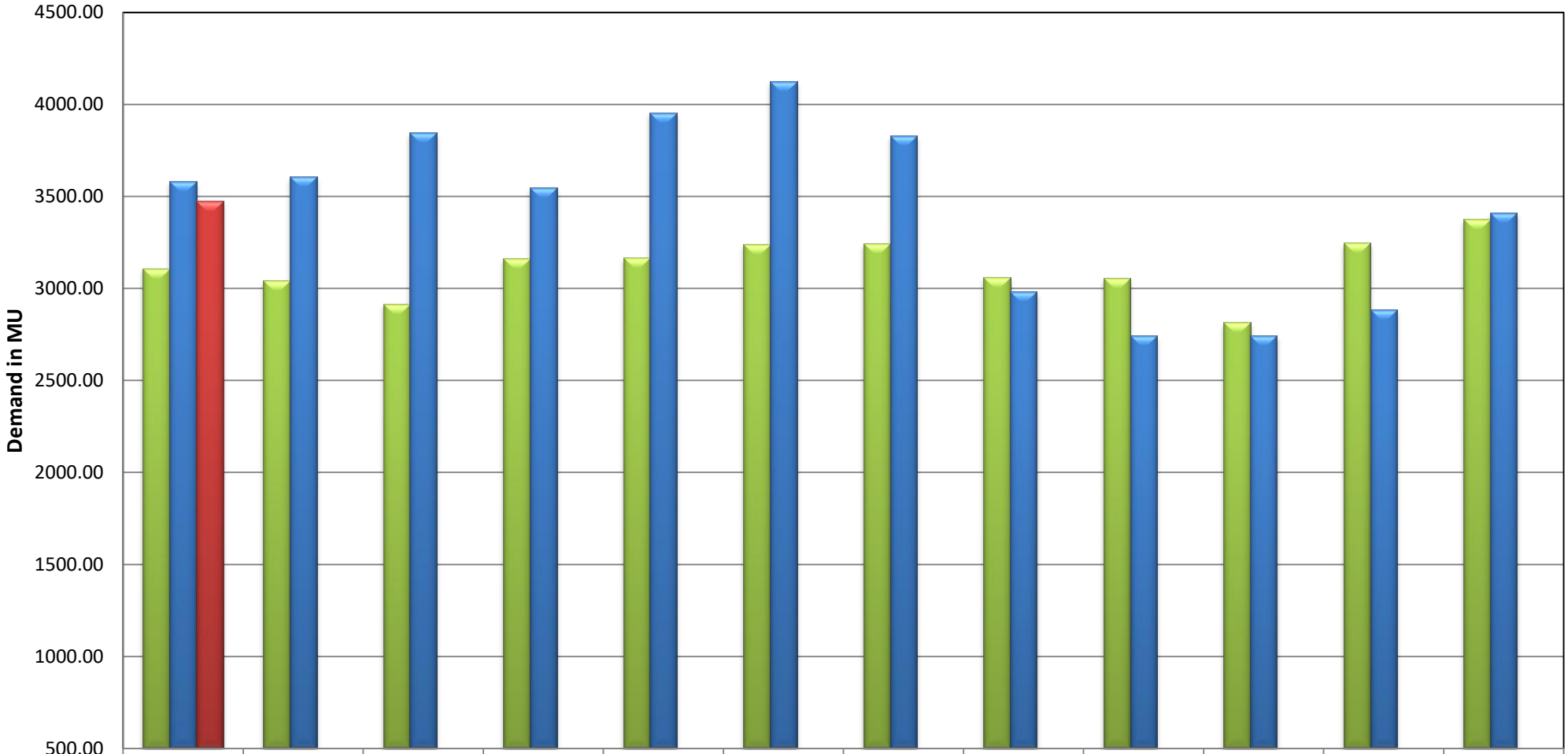

PERFORMANCE OF GENERATORS & ISGS DRAWAL DURING APRIL'2023
GRID DEMAND= 3478.03 MU
Percentage
9.61
0.00
29.22
12.42
8.35
2.13
38.28
OHPC & M.KUND
TTPS (NTPC)
OPGC
IPP
CPP
RE & SH
ISGS

AVERAGE GRID DEMAND [HOURLY] FOR THE MONTH OF APRIL'2023

Average Demand= 4830.60 MW



COMPARISION SYSTEM DEMAND WITH PREVIOUS FINANCIAL YEAR



	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR
2021-22	3109.36	3043.21	2917.04	3165.84	3167.77	3239.050998	3242.92	3061.57	3055.28	2817.25	3247.00	3376.87
2022-23	3582.08	3606.47	3846.34	3550.46	3957.33	4124.96	3830.94	2982.39	2742.14	2744.09	2884.28	3410.51
2023-24	3478.03											

MONTHLY GENERATION & DEMAND REPORT FOR THE STATE OF ODISHA IN THE MONTH OF APRIL- 2023

(A)SELF GENERATION

SL No.	Name of Gen. Station	Unit wise generation (MU)									Average MW	Auxiliary MU	Maximum Generation in MW	DATE	Time
		Unit-I	Unit-II	Unit-III	Unit-IV	Unit-V	Unit-VI	Unit-VII	Unit-VIII	Total					
1	Burla	1.012	0.499	1.953	2.987	5.788	9.519	0.000	0.000	21.758	30.219	0.169	166.31	15	20:00
2	Chipilima	7.358	4.540	2.366	-	-	-	-	-	14.264	19.811	0.090	45.78	15	11:00
4	Balimela	5.583	8.052	0.000	0.000	5.821	18.184	4.289	3.415	45.344	62.977	0.454	306.45	17	23:00
5	Rengali	8.784	0.000	9.486	9.078	7.750	-	-	-	35.097	48.746	0.110	180.91	12	20:00
6	Upper Kolab	27.622	0.000	18.406	22.713	-	-	-	-	68.741	95.474	0.237	232.65	3	23:00
7	Upper Indravati	53.082	27.368	52.334	0.000	-	-	-	-	132.783	184.420	2.683	451.95	15	24:00
8	Total Hydro (OHPC)	-	-	-	-	-	-	-	-	**317.987**	441.648				
9	Machhakund (Odisha drawal)	-	-	-	-		-	-	-	23.245	32.285		45.43	7	09:00
10	Total Hydro	-	-	-	-	-	-	-	-	341.232	473.933		1372.47	15	20:00
11	TTPS-I	-	-	-	-	-	-		-	0.000	0.000		0.00	1	01:00
12	TTPS-II	-	-	-	-	-	-	-	-	0.000	0.000		0.00	1	01:00
13	Total TTPS	-	-	-	-	-		-	-	0.000	0.000	0.000	0.00	1	01:00
14	IBTPS-I	121.27	135.707	-	-	-	-	-	-	256.972	356.906	29.049	1473.24	27.00	15:00
15	IBTPS-II			416.591	428.054	-	-	-	-	844.645	1173.118	46.099			
16	Total IBTPS									1101.617	1530.024				
17	IPPs & CGPs Support	-	-	-	-	-	-	-	-	734.411	1020.016				
18	Total Thermal & IPPs & CGP	-	-	-	-	-	-	-	-	1836.028	2550.040		2936.41	20	23:00
19	Injection by Renewable projects	70.901								70.901	98.474				
20	Total self generation	-	-	-	-	-	-	-	-	2248.161	3122.446	78.893	4228.57	15	20:00

Note: 1. All the figures stated above are taken from operational meters. Those figures should not be used for any commercial calculation.

(B) IPPs / CGPs injection :-

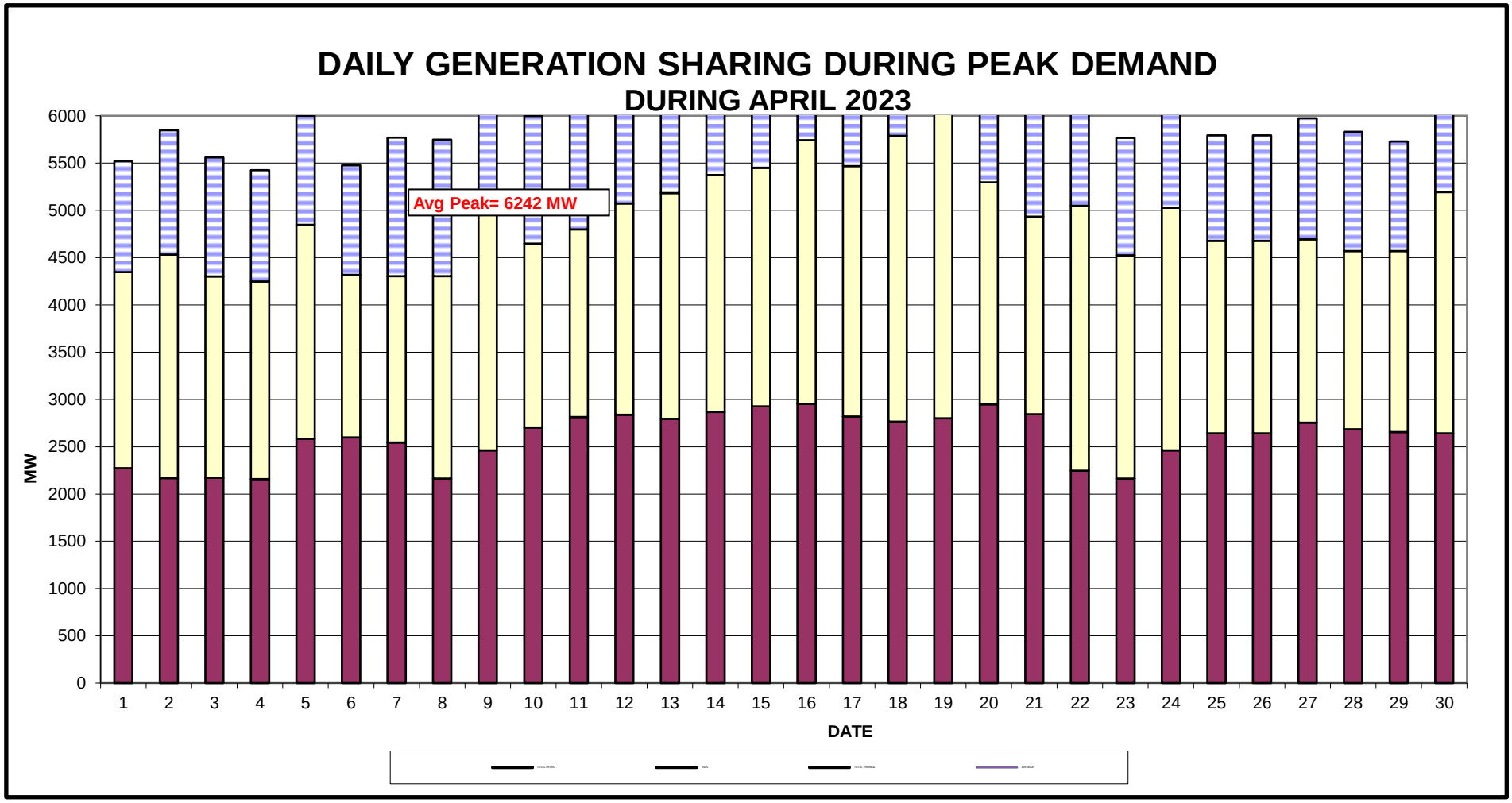
SL No.	Name of IPP / CGPs	Injection in (MU)	Average (MW)	Maximum Injection (MW)	DATE	TIME (Hr.)
1	Aarti Steel Ltd, ghantikhal	9.116	12.661	20.00	1	01:00
2	AAL	0.830	1.153			
3	Action Ispat	0.000	0.000			
4	Aryan Ispat,	4.257	5.912			
5	BPPL	59.501	82.640	125.69	17	23:00
6	BPSL, Jharsuguda	4.975	6.910	71.20	15	14:00
7	TSBSL, Meramundali	43.794	60.825	110.16	12	20:00
8	GMR Kamalanga Energy Ltd.(IPP)	211.539	293.803			
9	HINDALCO, Hirakud	3.302	4.586			
10	IFFCO, Paradeep	0.0000	0.000			
11	IMFA , Choudwar	29.553	41.046	53.89	3	20:00
12	JINDAL, New Duburi	3.576	4.966	23.32	18	19:00
13	JSPL, Angul	10.332	14.350	16.77	25	20:00
14	Mahavir Ferro Alloys	0.000	0.000			
15	Maithan Ispat Ltd.	3.872	5.378			
16	Meenakshi Power Ltd. (SH)	9.719	13.498			
17	MSP, Jharsuguda	0.000	0.000			
18	NALCO , Angul	10.851	15.071	48.68	6	21:00
19	Narbheram	0.258	0.358			
20	NBVL , Kharag Prasad	74.448	103.400	118.40	20	05:00
21	NINL , Duburi	0.000	0.000			
22	OCL	3.703	5.143			
23	OPCL, Samal (SH)	7.045	9.785			
24	BPPLT	0.354	0.492			
25	Saptadhara	0.170	0.236			
26	Kakatiya	2.529	3.512			
27	PSAL, Keonjhar	0.000	0.000			
28	RSP , Rourkela	0.552	0.766			
29	Shree Ganesh	0.184	0.255			
30	Shyam Metallics	0.152	0.210			
31	SMC Power	0.000	0.000			
32	TSLPL	10.803	15.004			
33	Vedanta Ltd. (IPP-Unit-2)	201.673	280.101			
34	Vedanta, Jharsuguda	26.769	37.179			
35	Vedanta, Lanjigarh	0.556	0.773			
36	VISA Steel, New-Duburi	0.000	0.000	0.34	25	16:00
37	Yazdani Steel & Power Ltd., J.J Rd	0.000	0.000			
38	Vedanta Ltd. (3*600)	0.000	0.000			
	Total support from CPPs	734.411	1020.016			

(C)EXCHANGE OF ENERGY WITH CENTRAL SECTOR

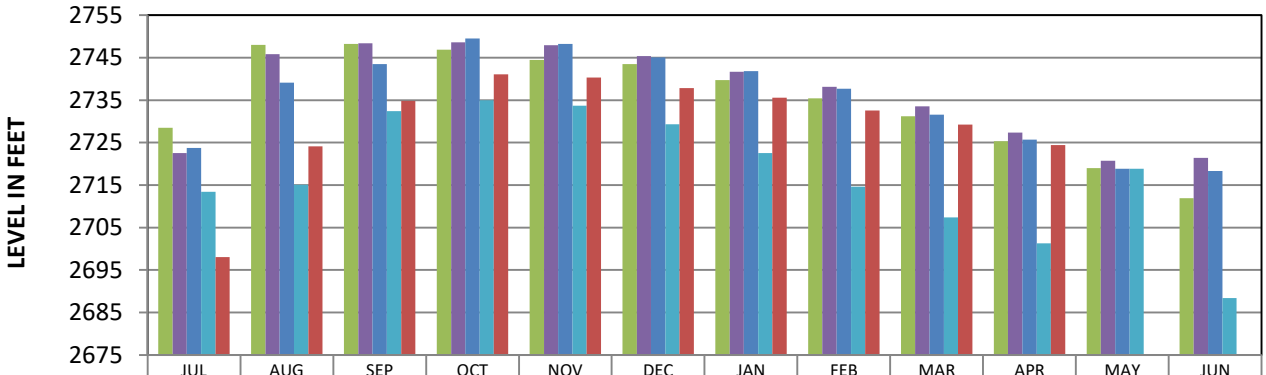
Name of the Tie line	Net MU	Avg MW	Maximum Import (MW)	DATE	TIME	Maximum Export (MW)	DATE	TIME
132KV JODA-KENDUPOSI	-14.07	-19.55	-7.02	8	17:00	-32.26	2	09:00
132KV KALABADIA-BANGIRIPOSI	32.23	44.77	69.89	18	23:00	6.23	22	20:00
132KV KALABADIA-BARIPADA	-0.76	-1.05	0.00	15	10:00	-1.82	19	16:00
132 KV BHOGRAI-KUCHEI	15.06	20.91	28.74	14	14:00	8.57	24	11:00
132 KV JALESWAR-KUCHEI	20.54	28.53	40.79	14	14:00	13.84	22	22:00
220KV JODA-JAMSHEDPUR	6.08	8.44	65.25	2	15:00	-40.42	7	21:00
220KV JODA-RAMCHANDRAPUR	70.69	98.18	158.06	12	08:00	0.00	10	15:00
220KV RENGALI SY- RENGALI P.G-I	31.11	43.21	89.97	20	15:00	0.00	25	09:00
220KV RENGALI SY- RENGALI P.G-II	35.84	49.77	131.17	25	12:00	10.08	2	14:00
220KV JAYANAGAR JEYPORE PG-I	-15.17	-21.07	16.31	5	14:00	-76.92	14	20:00
220KV JAYANAGAR JEYPORE PG-II	-16.47	-22.88	18.12	5	14:00	-83.91	14	20:00
220KV RENGALI P.H-KANIHA	-33.24	-46.17	7.02	6	17:00	-108.65	20	20:00
220KV TTPS-KANIHA	52.24	72.55	111.33	19	16:00	6.00	8	18:00
220KV MERAMUNDALI-KANIHA-I	52.29	72.63	113.53	8	18:00	0.00	3	11:00
220KV MERAMUNDALI-KANIHA-II	53.52	74.33	114.77	20	15:00	0.00	6	16:00
220KV TARAKARA-BISRA-I & II	177.58	246.65	374.73	24	16:00	105.20	22	18:00
220 KV KALABADIA-BALASORE-I&II	169.37	235.23	323.66	20	15:00	136.70	22	22:00
220KV KATAPALI- BOLANGIR(PG)	-3.03	-4.21	4.58	22	18:00	-9.88	4	10:00
220KV SADEIPALI - BOLANGIR(PG)	127.17	176.62	311.32	19	20:00	17.88	23	13:00
220KV BUDHIPADAR-KORBA-I	-56.24	-78.10	45.99	30	11:00	-160.36	11	07:00
220KV BUDHIPADAR-KORBA-II	18.68	25.95	122.67	30	15:00	-160.36	11	07:00
220KV BUDHIPADAR-KORBA-III	17.43	24.21	112.78	30	15:00	-24.19	13	07:00
220KV ATRI- PANDIVIL	162.41	225.57	332.32	11	15:00	-22.78	13	07:00
220KV SAMANGHARA- PANDIVIL	0.00	0.00	0.08	15	04:00	144.66	6	19:00
220KV KEONJHAR GR-KEONJHAR PG-I	4.42	6.14	10.30	18	23:00	0.94	18	23:00
220KV KEONJHAR GR-KEONJHAR PG-II	4.42	6.14	10.30	18	23:00	0.94	18	23:00
400KV INDRAVATI P.H-P.G	2.70	3.75	146.38	1	19:00	-86.84	5	14:00
400KV MERAMUNDALI-KANIHA	457.12	634.89	862.49	11	23:00	48.07	1	14:00
400KV MERAMUNDALI-ANGUL-I&II	0.85	1.18	8.65	12	14:00	-5.74	1	07:00
400KV MENDHASAL - PANDIABIL-I &II	-76.18	-105.80	72.45	2	16:00	-211.20	17	24:00
400KV DUBURI - PANDIABIL	-61.75	-85.76	0.00	11	17:00	-123.57	23	03:00
400KV DUBURI - BARIPADA	99.72	138.50	291.52	12	15:00	38.18	21	11:00
400KV VEDANTA-JHARSUGUDA Ckt-I	32.69	45.40	309.37	23	15:00	-144.68	11	07:00
400KV VEDANTA-JHARSUGUDA Ckt-II	32.58	45.25	309.38	23	13:00	-145.12	11	07:00
400KV_OPGC-JHARS_PG - I	-76.89	-106.79	78.03	23	15:00	-236.28	11	07:00
400KV_OPGC-JHARS_PG - II	-76.16	-105.77	78.43	23	15:00	-234.72	11	07:00
220KV JAYANAGAR JEYPORE PG-III & IV	-13.39	-18.59	33.64	5	14:00	-186.58	12	07:00
220KV KESINGA- BOLANGIR_PG	3.40	4.72	16.05	2	14:00	-6.36	1	02:00
220KV PRATAPSASAN-PANDIAVIL CKT-I	45.65	63.40	92.33	18	23:00	18.49	23	03:00
220KV PRATAPSASAN-PANDIAVIL CKTII	46.30	64.31	94.00	19	24:00	18.34	23	03:00
Net ISGS	**1328.75**	1845.48	**3221.83**	**19**	**16:00**	**906.06**	**11**	**07:00**

ABSTRACT OF SYSTEM DEMAND

Particulars	Energy MU	Average MW	Peak MW	DATE	TIME
Total gross generation(Including CPP+IPP)	2248.161	3122.446	4228.57	15	20:00
Power Station Auxiliary consumption	78.893	109.573			
Total net generation(Including CPP+IPP)	2169.269	3012.873	4215.25	15	20:00
Net ISGS	1328.747	1845.481	3221.83	19	16:00
System Demand	3498.015	4858.355	6392.15	19	22:00
Trading					
Average of Peak Demand (MW)		**5366.472**			
Average of Minimum Demand (MW)		**4328.808**			


DAILY GENERATION SHARING DURING PEAK DEMAND
DURING APRIL 2023
Avg Peak= 6242 MW
MW
DATE
6000
5500
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

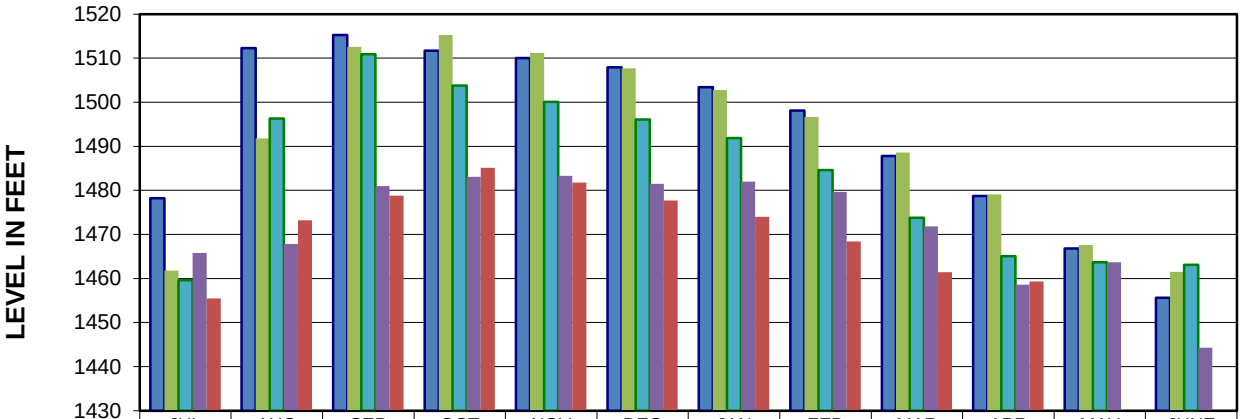
JOLAPUT RESERVOIR LEVEL



	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
2018-19	2728.50	2748.00	2748.20	2746.90	2744.50	2743.50	2739.70	2735.40	2731.20	2725.35	2719.00	2711.90
2019-20	2722.50	2745.85	2748.40	2748.60	2747.90	2745.40	2741.65	2738.15	2733.50	2727.35	2720.75	2721.40
2020-21	2723.75	2739.15	2743.45	2749.50	2748.20	2745.10	2741.85	2737.65	2731.55	2725.70	2718.85	2718.30
2021-22	2713.40	2715.05	2732.40	2735.00	2733.70	2729.35	2722.50	2714.60	2707.35	2701.30	2718.85	2688.40
2022-23	2698.00	2724.15	2734.80	2741.10	2740.35	2737.80	2735.55	2732.55	2729.25	2724.45		

MONTH (End)

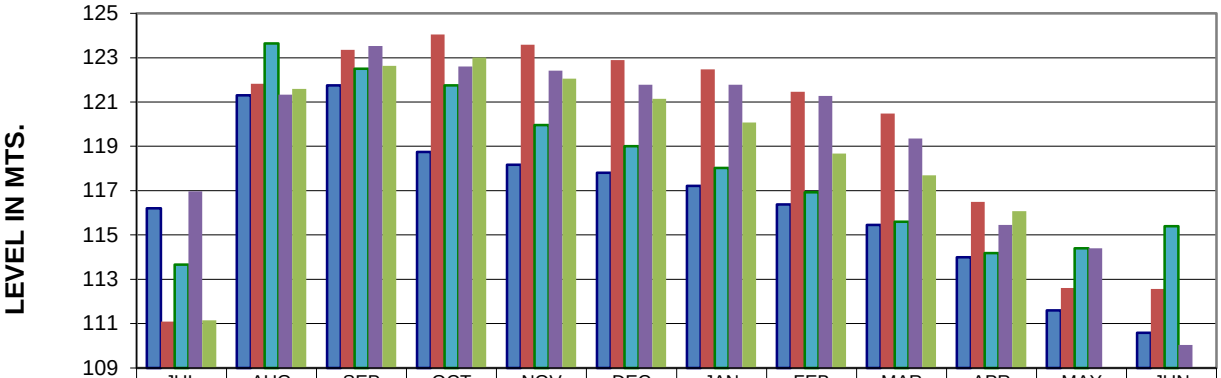
BALIMELA RESERVOIR LEVEL



	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE
2018-19	1478.20	1512.30	1515.30	1511.70	1510.00	1507.90	1503.40	1498.10	1487.80	1478.70	1466.80	1455.60
2019-20	1461.80	1491.80	1512.60	1515.30	1511.20	1507.70	1502.80	1496.70	1488.60	1479.10	1467.60	1461.50
2020-21	1459.60	1496.30	1510.90	1503.80	1500.10	1496.10	1491.90	1484.60	1473.80	1465.10	1463.70	1463.10
2021-22	1465.80	1467.80	1481.00	1483.10	1483.30	1481.50	1482.00	1479.70	1471.80	1458.60	1463.70	1444.30
2022-23	1455.50	1473.20	1478.80	1485.10	1481.80	1477.70	1474.00	1468.40	1461.40	1459.30		

MONTH (End)

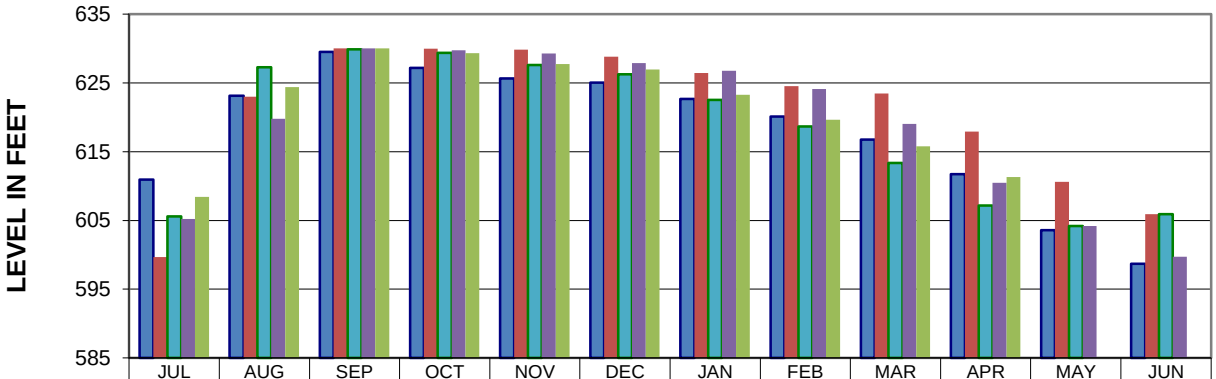
RENGALI RESERVOIR LEVEL



	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
2018-19	116.21	121.30	121.75	118.75	118.17	117.81	117.22	116.38	115.45	114.00	111.60	110.59
2019-20	111.09	121.82	123.35	124.05	123.58	122.90	122.47	121.47	120.48	116.49	112.60	112.56
2020-21	113.66	123.64	122.50	121.75	119.96	119.01	118.02	116.93	115.60	114.18	114.40	115.40
2021-22	116.97	121.34	123.53	122.61	122.42	121.78	121.78	121.28	119.35	115.45	114.40	110.04
2022-23	111.14	121.59	122.64	123.01	122.06	121.15	120.07	118.67	117.69	116.08		

MONTH (End)

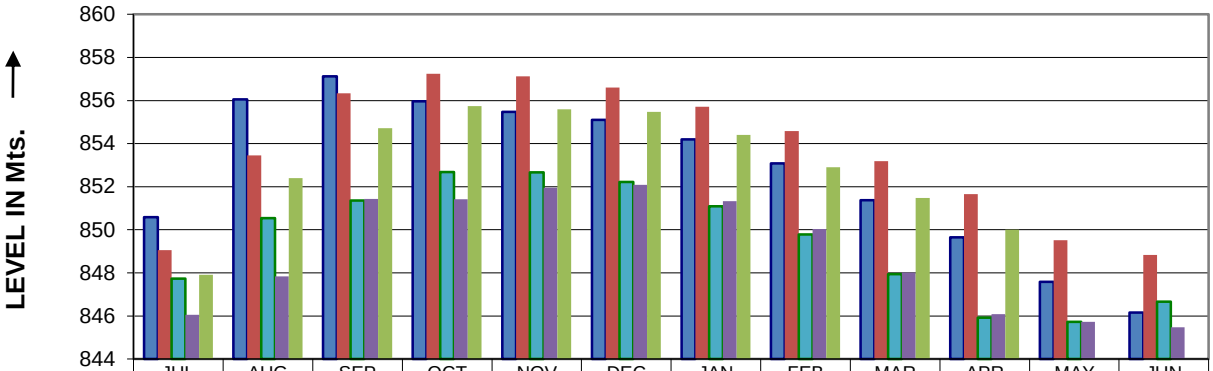
HIRAKUD RESERVOIR LEVEL



	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
2018-19	610.93	623.12	629.50	627.17	625.62	625.04	622.65	620.08	616.77	611.71	603.60	598.69
2019-20	599.69	623.00	630.00	629.97	629.81	628.79	626.45	624.50	623.43	617.91	610.60	605.89
2020-21	605.58	627.29	629.89	629.37	627.58	626.23	622.52	618.65	613.37	607.15	604.21	605.91
2021-22	605.23	619.79	630.00	629.75	629.29	627.89	626.75	624.12	619.02	610.47	604.21	599.73
2022-23	608.43	624.39	630.00	629.31	627.73	626.95	623.25	619.65	615.77	611.33		

MONTH (End)

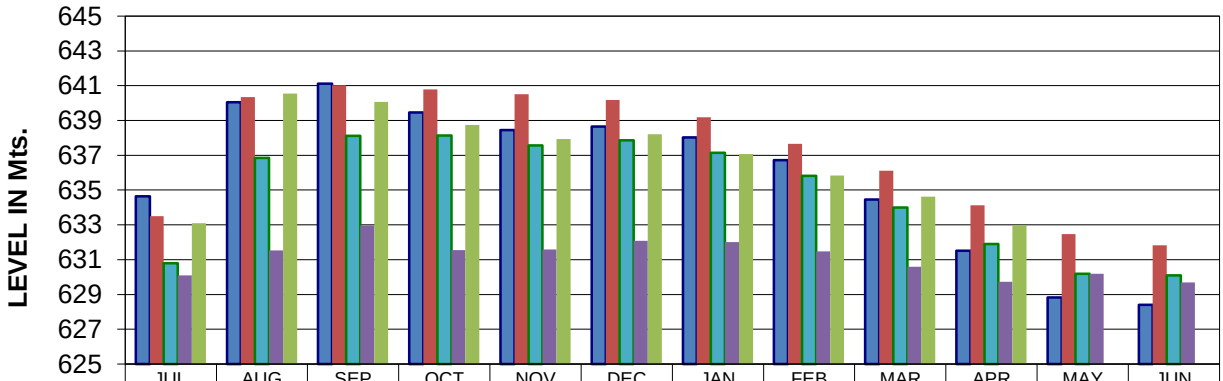
U.KOLAB RESERVOIR LEVEL



	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
2018-19	850.58	856.05	857.12	855.96	855.48	855.11	854.20	853.08	851.38	849.65	847.59	846.16
2019-20	849.06	853.46	856.33	857.25	857.12	856.60	855.72	854.58	853.18	851.66	849.52	848.84
2020-21	847.73	850.54	851.36	852.68	852.66	852.22	851.09	849.79	847.94	845.92	845.72	846.66
2021-22	846.06	847.83	851.44	851.42	851.95	852.09	851.33	850.03	848.01	846.09	845.72	845.47
2022-23	847.91	852.40	854.71	855.74	855.59	855.48	854.41	852.91	851.48	850.01		

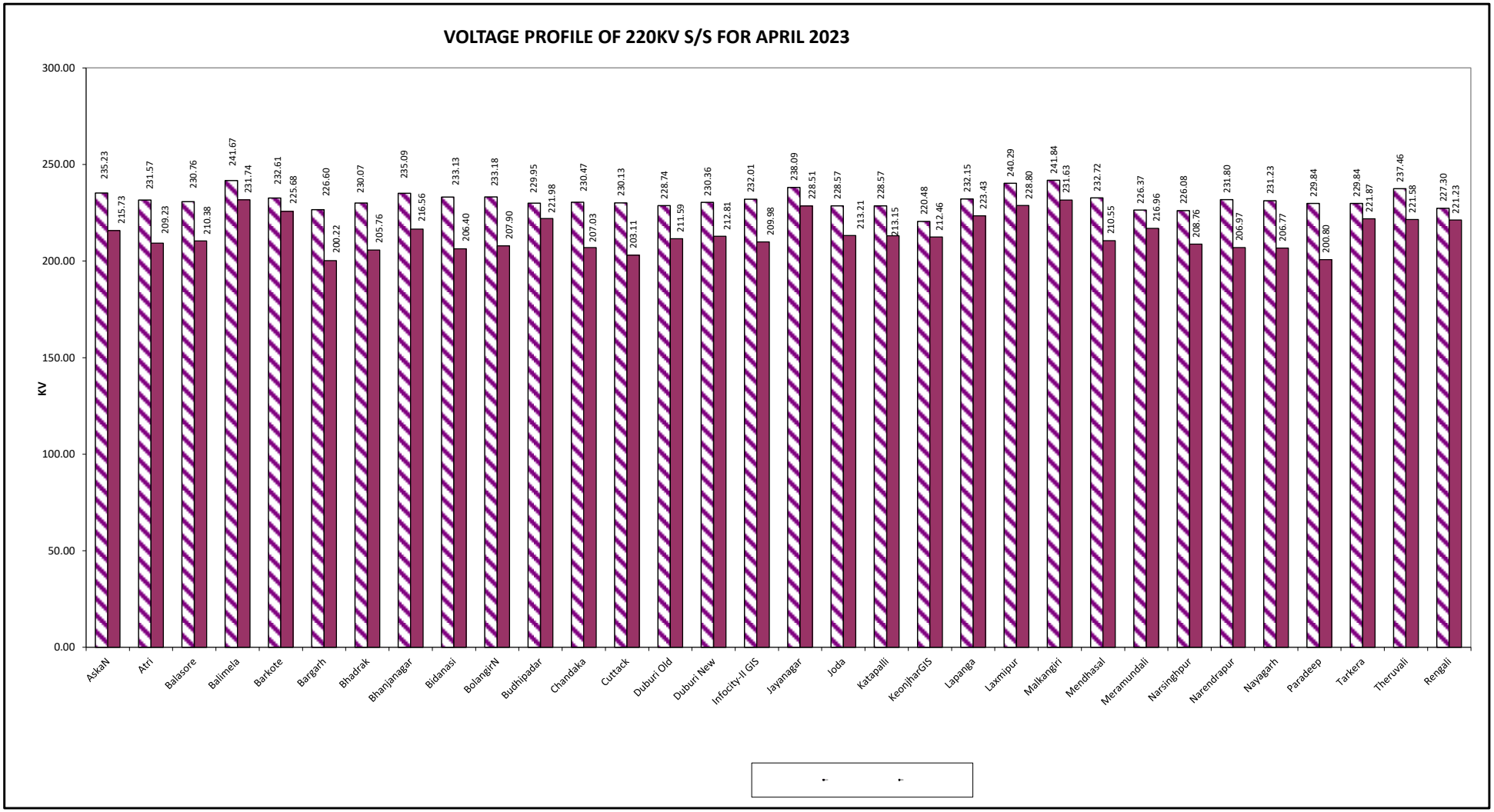
MONTH (End)

INDRAVATI RESERVOIR LEVEL



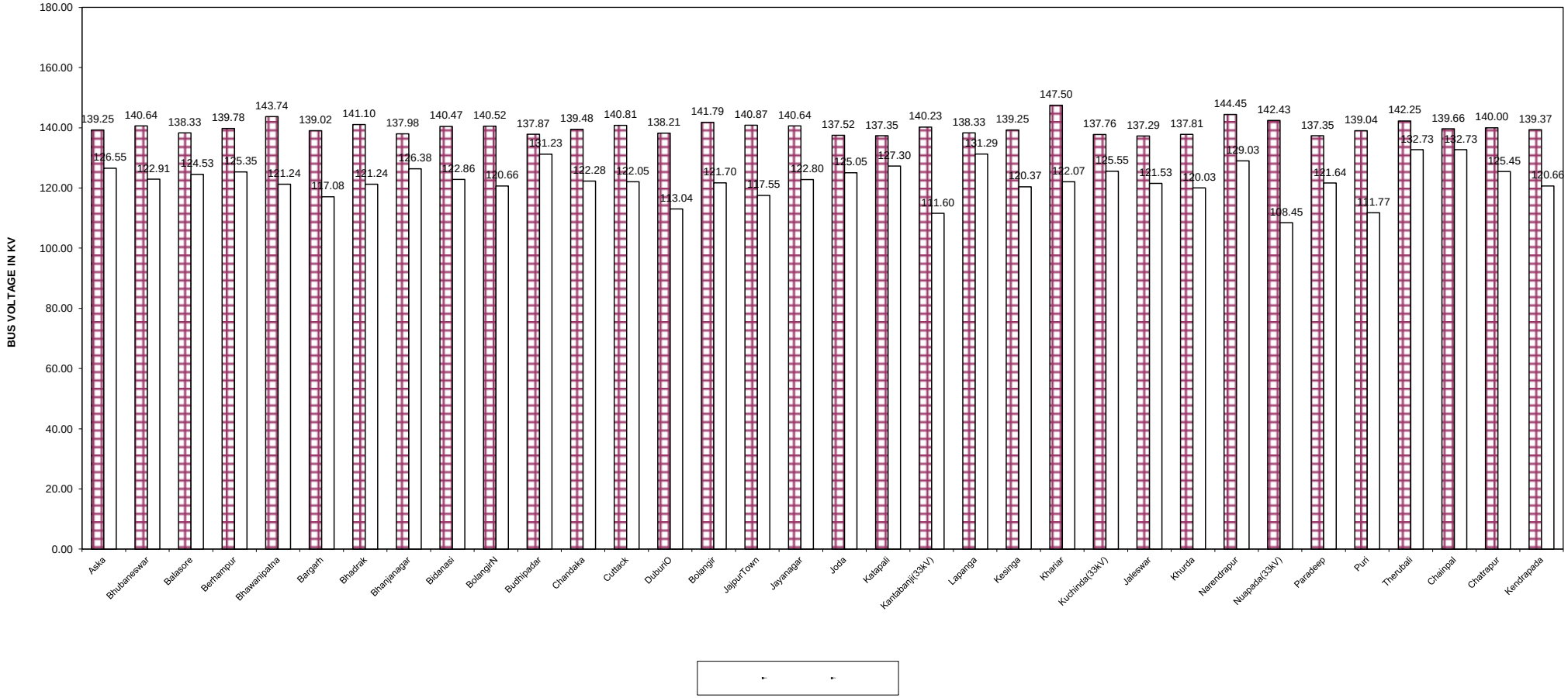
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
2018-19	634.64	640.04	641.12	639.46	638.45	638.65	638.03	636.72	634.45	631.52	628.82	628.40
2019-20	633.50	640.34	641.03	640.79	640.50	640.17	639.19	637.66	636.11	634.13	632.47	631.82
2020-21	630.80	636.85	638.12	638.14	637.56	637.85	637.14	635.82	634.00	631.90	630.18	630.10
2021-22	630.10	631.53	632.97	631.54	631.59	632.08	632.01	631.48	630.60	629.72	630.18	629.69
2022-23	633.09	640.55	640.06	638.75	637.94	638.20	637.07	635.83	634.62	632.99		

MONTH (End)



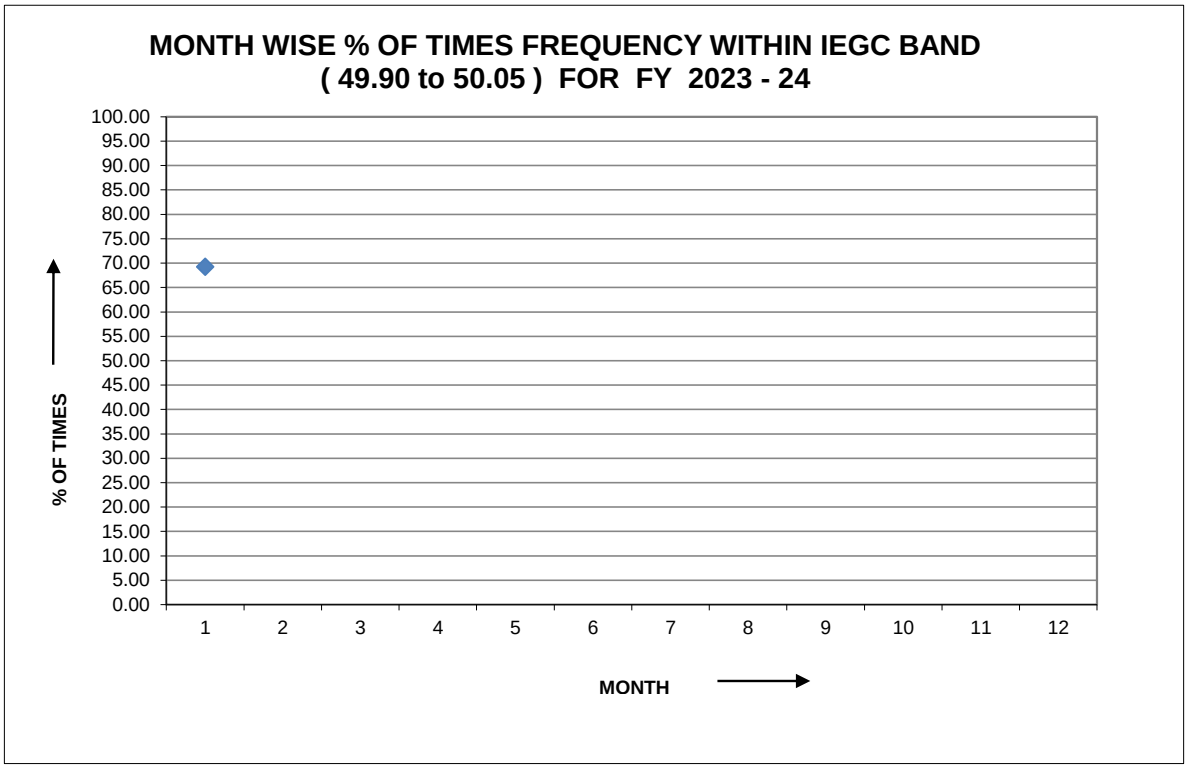
STATION	ATRI		BALASORE		BARKOTE		BARGARH(N		BHADRAK		BHANJNAGAR		BIDANASI		BOLANGIR		BUDHIPADAR		CHANDAKA		CUTTACK		DUBURI		DUBURI (N)		JAYANAGAR		JODA		KATAPALI		LAPANGA		LAXMIPUR		MENDHASAL		MERAMUNDALI		NARENDRAPUR		NAYAGARH		PARADEEP		TARKERA		THERUVALI	
	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.
MAXM.	#REF!	01:45	#REF!	01:45	45039	03:00	45039	06:45	45039	08:45	45037	02:30	45039	03:00	45037	01:30	45039	01:45	45039	06:30	45039	04:00	45037	01:30	45037	01:45	45039	09:30	45039	03:45	45037	01:45	45039	02:15	45039	02:30	45039	02:30	45037	03:00	45037	03:15	45039	02:15	45037	02:15	45039	01:45	45039	02:30
MINM.	#REF!	14:45	#REF!	14:45	45035	14:45	45035	14:45	45035	14:45	45035	16:30	45035	22:45	45035	14:45	45036	14:30	45035	16:00	45036	16:15	45035	14:45	45035	14:30	45035	14:30	45036	14:30	45027	14:45	45027	14:45	45035	16:30	45035	16:30	45035	14:30	45035	16:30	45033	14:45	45035	14:45	45035	14:45	45035	14:45

VOLTAGE PROFILE OF 132KV S/S FOR APRIL 2023



STN	CHATRAPUR		BALASORE		CHAINPAL		BARGARH (N)		BHADRAK		BHANJNAGAR		BIDANASI		BOLANGIR		BUDHIPADAR		CHANDAKA		CUTTACK		DUBURI		KHURDA		JAYANAGAR	
	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.
MAX	45039	1:30	45039	01:30	45039	02:45	45039	01:45	45038	21:45	45044	03:30	45039	03:00	45039	01:30	45039	01:45	45037	06:30	45037	3:00	45039	01:30	45039	01:45	45037	09:30
MIN	45035	14:45	45034	14:45	45027	14:30	45035	14:45	45035	16:00	45036	15:45	45027	22:30	45035	14:45	45034	14:45	45027	17:15	45035	16:15	45034	14:45	45035	15:00	45036	12:00

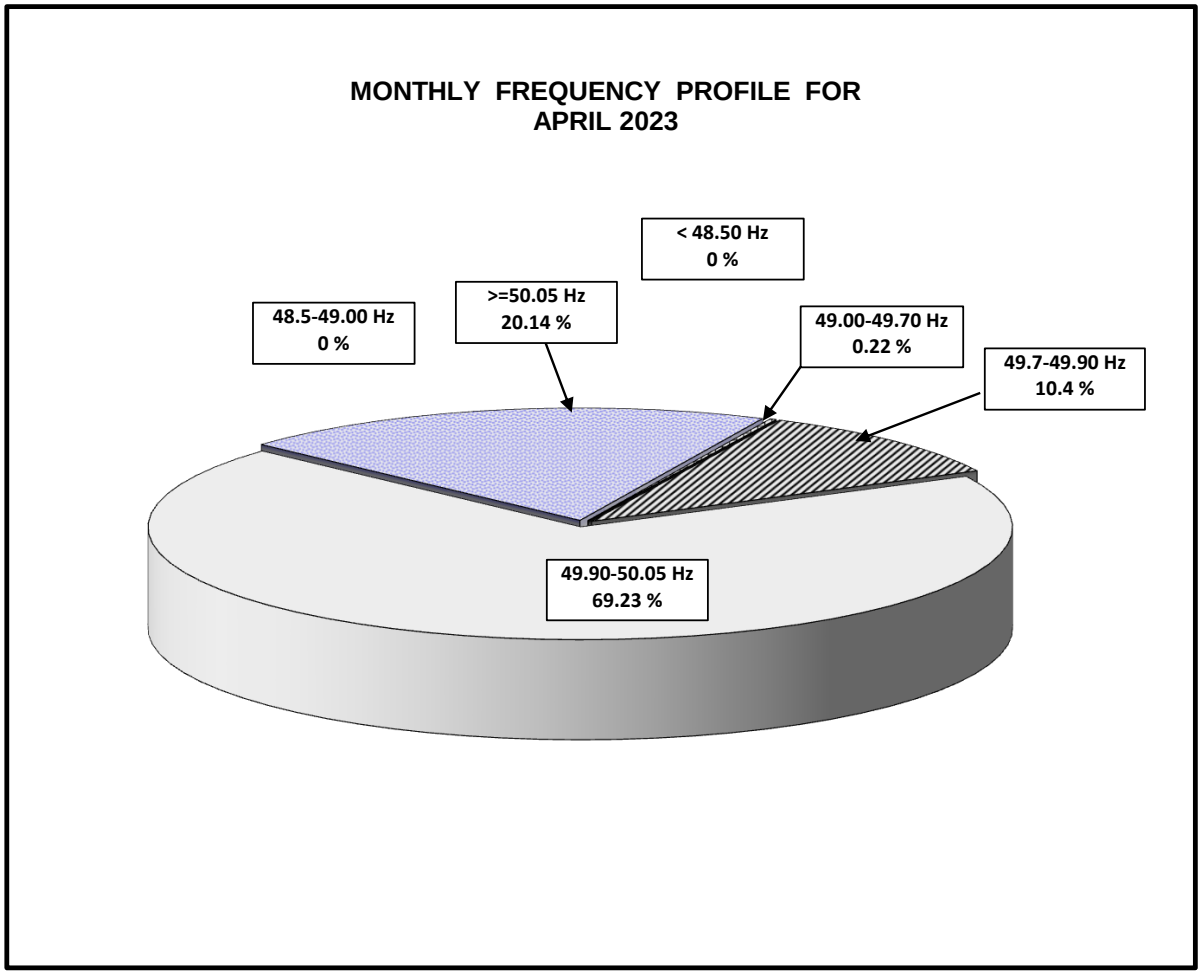
STN	JODA		KATAPALI		LAPANGA		MANCHESWAR		PURI		MERAMUNDALI		NARENDRAPUR		BERHAMPUR		PARADEEP		TARKERA		THERUVALI		Bhubaneswar	
	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.
MAX	45037	06:30	45039	03:00	45038	18:45	45040	06:15	45037	03:00	45037	6:00	45037	02:45	45037	06:30	####	06:00	45038	17:30	45038	21:00	45039	01:30
MIN	45027	17:15	45027	22:30	45033	12:15	45035	19:15	45035	16:30	45035	16:30	45035	16:15	45035	16:15	####	16:15	45034	16:45	45033	15:00	45027	14:30



FREQUENCY WITHIN THE STANDARD BAND & ABOVE .

(FROM 2021-2022 TO 2023- 2024)

YEAR	FREQUENCY	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	ANNUAL
2021- 2022	Average in Hz	49.99	50.00	50.00	50.00	49.99	50.00	49.99	50.00	49.97	50.00	50.00	49.96	49.99
	% of time (49.9 to 50.05 Hz)	75.39	75.07	75.03	75.64	77.28	77.53	74.77	74.44	73.84	76.8	77.98	72.63	75.53
	% of time (above 50.05 Hz)	16.63	18.39	18.96	18.98	15.12	18.37	14.29	17.50	18.91	16.83	15.57	9.60	16.60
2022- 2023	Average in Hz	49.93	49.99	49.98	50.00	49.99	49.99	50.00	49.99	50.00	49.99	49.99	50.00	49.99
	% of time (49.9 to 50.05 Hz)	60.42	72.79	73.99	74.08	78.08	83.03	78.80	77.07	57.92	59.61	65.45	66.47	70.64
	% of time (above 50.05 Hz)	8.02	14.97	12.64	17.23	13.24	10.86	15.83	15.10	28.92	26.70	23.37	23.85	17.56
2023- 2024	Average in Hz	49.99												
	% of time (49.9 to 50.05 Hz)	69.23												
	% of time (above 50.05 Hz)	20.14												



FREQUENCY DISTRIBUTION FOR THE MONTH OF APRIL - 2023 IN MINUTES

(No of minutes during the month frequency remained)

Frequency/Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<48.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48.5-49.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49.00-49.7	0	0	5	0	1	0	0	0	0	6	5	0	0	0	25
49.7-49.9	136	123	200	177	138	201	104	150	140	244	214	119	171	193	302
49.9-50.05	929	1043	1049	1058	1009	949	1014	1036	986	951	995	929	1051	1013	910
>50.05	375	274	186	205	292	290	322	254	314	239	226	392	218	234	203
>=50.1Hz	137	97	45	33	102	65	71	50	114	61	58	111	63	64	46
	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440

Frequency/Day	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Total
<48.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48.5-49.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49.00-49.70	10	10	0	0	0	0	0	0	0	2	0	1	32	0	0	2
49.7-49.90	160	173	77	133	74	112	38	70	178	167	0	152	199	139	210	75
49.9-50.05	960	873	1071	955	993	926	1049	936	1042	978	1440	1026	982	958	798	498
>50.05	310	384	292	352	373	402	353	434	220	293	0	261	227	343	432	145
>=50.10Hz	90	100	66	89	104	134	97	162	61	87	0	66	56	108	256	43
	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	**720**

ENERGY DRAWAL OF TPCODL CONTROL AREA GRID SUBSTATIONS FOR THE MONTH OF APRIL' 2023								
Sl.No	Name of Sub Station	Name of Feeder	Installed Capacity	SMD	Average Drawal	MAX DEMAND		
			MVA	MW	MW	MW	Date	Time
1	Angul	MCL Feeder-1&2	132 kV	26.760	22.794	31.640	15th Apr 2023	16:00
		Angul	2x40+1x20=100	43.437	29.182	44.495	19th Apr 2023	22:30
2	Angul PG	PGCIL Stn. Tertiary		0.086	0.086	0.086	1st Apr 2023	00:00
3	Arati Steel	Arati Steel	132 kV	0.000	0.071	3.440	2nd Apr 2023	23:45
4	Argul	Argul	2x40+1x20=100	21.400	17.237	26.000	19th Apr 2023	15:30
5	Badagada	Badagada	2x63=126	53.956	30.904	56.119	17th Apr 2023	23:00
6	Balugaon	SOLARI Traction	132kV	3.240	3.445	11.840	1st Apr 2023	16:30
		Balugaon	1x40+1x20+1x12.5=72.5	33.120	26.007	35.803	20th Apr 2023	18:30
7	Banki	Banki	2x20=40	20.424	10.562	21.272	18th Apr 2023	22:15
8	Bhubaneswar	Bhubaneswar	3x63=189	85.714	61.999	114.087	18th Apr 2023	15:00
9	Bidanasi	Bidanasi	2x63+1x40=166	93.266	58.284	115.078	18th Apr 2023	23:00
10	Boinda	Boinda Traction	132 kV	1.440	3.142	12.120	4th Apr 2023	11:30
		Boinda	1x20+2x12.5=45	16.095	12.184	17.000	11th Apr 2023	19:00
11	BPPL S/W	BPPL Fdr-I&II	132 kV	0.000	0.001	0.040	1st Apr 2023	00:15
12	Brajabiharipur	Brajabiharipur	2x40=80	0.000	0.771	1.312	9th Apr 2023	08:15
13	Chainpal	FCI Feeder	132 kV	0.284	0.268	0.518	28th Apr 2023	18:45
		Talcher Rd. Trac.	132 kV	8.560	8.901	19.880	8th Apr 2023	09:00
		Chainpal	2x40+1x20=100	52.832	36.978	57.824	16th Apr 2023	22:30
14	Chandaka	Chandaka	3x63=189	114.838	77.404	139.045	13th Apr 2023	10:45
15	Chandaka GIS	Chandaka GIS	2x40=80	16.160	0.000	21.560	17th Apr 2023	15:00
16	Chandpur	Chandpur	2x12.5=25	19.787	12.269	19.871	18th Apr 2023	22:30
17	Choudwar	Choudwar Traction	132 kV	7.240	8.824	17.760	1st Apr 2023	16:30
		Choudwar	3x40=120	58.430	41.046	64.104	19th Apr 2023	15:00
18	Cuttack	Cuttack	3x40=120	84.164	52.378	85.921	20th Apr 2023	23:00
19	Dhenkanal	Joranda Trac.	132 kV	7.300	7.841	16.188	8th Apr 2023	12:45
		Narveram CGP Fdr	33 kV	0.000	0.358	5.354	2nd Apr 2023	11:00
		Dhenkanal	3x40=120	54.912	36.744	55.269	19th Apr 2023	22:45
20	Global	Heavy Water Feeder	132 kV	0.400	0.354	0.520	8th Apr 2023	18:00
		Global	1x20=20	0.451	1.100	2.107	16th Apr 2023	02:00
21	Godisahi	Godisahi	2x63=126	0.408	0.543	0.908	22th Apr 2023	15:45
22	Goda	Goda	1x40=40	8.075	5.929	8.984	19th Apr 2023	19:45
23	Grid Steel Alloy S/W	GSAL Feeder	132kV	0.000	0.000	0.000	1st Apr 2023	00:00
24	Kharagprasad	MGM Feeder	132kV	0.000	0.030	2.012	23th Apr 2023	07:15
		NBVL Fdr-1&2	132kV	0.000	0.000	0.573	22th Apr 2023	21:45
		SGEL Feeder	132kV	0.000	0.080	1.900	28th Apr 2023	22:45
		Meramundali Trac.	132 kV	2.363	7.254	17.182	22th Apr 2023	12:15
		Kharagprasad	132 kV	4.448	2.913	4.552	19th Apr 2023	22:15
25	Infocity-II GIS	Infocity-II GIS (220/33)	2x40=80	8.120	7.431	17.160	12th Apr 2023	03:15
26	Jagatsinghpur	Gorakhnath Trac.	132 kV	4.780	5.014	10.928	14th Apr 2023	13:00
		Jagatsinghpur	1x40+2x20=80	40.098	27.335	40.714	20th Apr 2023	22:30
27	Kalarangi	Kalarangi	1x20+2x12.5=45	4.459	4.058	6.314	18th Apr 2023	19:15
28	Kamakhyanagar	Kamakhyanagar	1x20+2x12.5=45	18.004	15.260	21.000	16th Apr 2023	22:15
		Kamakhyanagar Traction	132kV	3.840	1.191	7.440	14th Apr 2023	11:00
29	Kendrapada	Kendrapada	2x40+1x12.5=92.5	38.920	26.252	39.160	19th Apr 2023	22:30
30	Khajuriakata	Khajuriakata	2x40=80	8.292	5.430	8.528	14th Apr 2023	21:45
31	Khuntuni GIS	ShreeCementFeeder	132kV	0.456	1.399	10.164	3rd Apr 2023	15:30
		Khuntuni GIS	2x40=80	18.480	14.943	23.520	15th Apr 2023	19:30
32	Khurda	Kaipadar Trac.	132 kV	14.080	9.545	20.040	22th Apr 2023	07:45
		Khurda	4x40=160	82.221	70.904	93.838	18th Apr 2023	15:15
33	Konark	Konark	2x20=40	12.612	9.648	16.604	12th Apr 2023	21:30
34	Mancheswar-B GIS	Mancheswar-B GIS	2x40=80	27.720	24.317	49.360	14th Apr 2023	15:00
35	Mania	Mania	1x20+1x12.5=32.5	6.036	8.599	19.820	27th Apr 2023	19:30
36	Marshaghai	Marshaghai	2x20=40	20.624	13.605	21.216	18th Apr 2023	22:45
		Kendrapada Traction	132 kV	2.600	2.185	6.800	15th Apr 2023	09:15
37	Mendhasal	Mendhasal(220/33)	2x20=40	10.332	10.890	21.736	27th Apr 2023	09:15
38	Meramundali	BSL-TATA Fdr-1&2	220 kV	0.000	1.600	43.760	14th Apr 2023	18:30
		BRG Feeder	132kV	12.760	6.349	23.160	27th Apr 2023	16:30
		JSPL Feeder-1&2	400 kV	0.356	17.665	95.632	5th Apr 2023	14:30
		RUNGTA Feeder	132kV	13.600	12.774	14.160	1st Apr 2023	04:30
		RUNGTA DSP	132kV	9.279	0.000	22.944	4th Apr 2023	00:00
39	Narsinghpur	Narsinghpur(220/33)	1x40=40	9.552	6.632	10.752	16th Apr 2023	22:00
40	Nayagarh	Nayagarh (220/33)	2x40+1x20=100	62.092	41.318	64.135	27th Apr 2023	22:30
41	Nimapara	Nimapara	3x40=120	53.895	40.183	54.525	19th Apr 2023	22:30
42	Nuapatana	Nuapatana	1x40+1x20+1x12.5=72.5	20.704	15.953	27.644	10th Apr 2023	21:00
43	Olaver	Olaver	2x12.5=25	9.156	6.610	11.100	18th Apr 2023	22:00
44	Pandiabil PG	PGCIL Stn. Tertiary		0.049	0.049	0.049	1st Apr 2023	00:00
45	Paradeep	Essar Steel Fdr-1&2	220kV	18.613	20.458	30.513	4th Apr 2023	03:30
		IFFCO Fdr-1&2	132kV	9.400	9.914	14.960	29th Apr 2023	07:15
		IOCL Feeder	220kV	5.863	4.158	7.363	17th Apr 2023	18:30
		PPL Fdr-1&2	132kV	8.920	11.380	22.400	30th Apr 2023	08:45
		PPT Fdr-1&2	132kV	15.880	16.748	29.640	17th Apr 2023	19:00
		Paradeep	3x20=60	15.972	11.749	16.576	17th Apr 2023	21:30
		Sijiu RTSS	132kV	4.720	0.000	10.106	12th Apr 2023	13:15
46	Pattamundai	Pattamundai	2x20+1x12.5=52.5	21.210	14.624	21.764	18th Apr 2023	22:45
47	Phulnakhara	Phulnakhara	1x40+2x20=80	39.812	31.756	45.540	26th Apr 2023	22:30
48	Pratapsasan	Pratapsasan	2x40=80	10.136	8.052	11.840	18th Apr 2023	22:45
49	Puri	Puri	3x40=120	36.688	30.990	50.108	20th Apr 2023	23:30
50	Ranasinghpur	Ranasinghpur	3x63=189	113.099	68.134	113.889	18th Apr 2023	23:00
51	Rengali PG	PGCIL Stn. Tertiary		0.044	0.044	0.044	1st Apr 2023	00:00
52	Rengali S/W	Rengali S/W (220/33)	2x20=40	15.100	9.684	15.536	17th Apr 2023	22:00
53	Rajnagar	Rajnagar	2x20=40	11.822	7.274	12.098	18th Apr 2023	22:45
54	Salipur	OCL Feeder	132kV	9.993	6.227	11.540	2nd Apr 2023	19:30
		Salipur	3x20=60	39.221	27.369	44.858	15th Apr 2023	22:45
55	Samangara	Samangara	2x20=40	17.036	9.222	21.252	25th Apr 2023	23:30
		Malatipatapur Traction	132kV	2.148	0.000	7.535	8th Apr 2023	12:30
56	Shamuka	Shamuka	2x31.5=63	25.680	20.260	30.360	16th Apr 2023	23:15
57	Tirtol	Tirtol	2x40=80	28.560	19.813	29.440	18th Apr 2023	22:15
58	TS Alloys S/W	RAWMET Feeder	132kV	19.306	19.221	23.988	9th Apr 2023	00:45
59	TTPS	TTPS	TTPS Net Drawal	1.736	1.788	2.301	13th Apr 2023	18:30
60	Ultratech	Ultratech Feeder		0.653	0.000	10.683	28th Apr 2023	19:00
61	Unit-8 GIS	Unit-8 GIS	2x40=80	35.573	23.847	46.359	13th Apr 2023	15:45
62	Balugaon	Khallikote Feeder	33kV	-7.924	-10.359	-19.884	20th Apr 2023	18:30
63	Chandikhol	Badachana Feeder	33kV	13.075	9.885	13.880	19th Apr 2023	18:45
		Kundala Feeder	33kV	1.950	1.406	2.235	17th Apr 2023	20:00
64	Rairakhol	Bamur Feeder	33kV	2.436	1.863	2.740	18th Apr 2023	16:00
65	Rengali	BUDHAPAL Feeder	33kV	-1.468	-1.082	-1.612	13th Apr 2023	18:45
66	Barkote	Pallhara Feeder	33kV	2.981	1.935	3.781	23th Apr 2023	13:00
67	Chandaka	S.N. Mohanty(Solar)	11kV	0.000	0.154	0.718	2nd Apr 2023	11:15
68	Chandpur	MGM SOLAR	11kV	0.000	0.158	0.704	25th Apr 2023	11:00
		VIVACITY Solar	11kV	0.000	0.103	0.421	2nd Apr 2023	11:45
		TPCODL TOTAL ENERGY (MU)		**1,870.9405**	**980.4923**	**2,468.2417**		

ENERGY DRAWAL OF TPWODL CONTROL AREA GRID SUBSTATIONS FOR THE MONTH OF APRIL'2023								
Sl.No	Name of Sub Station	Name of Feeder	Installed Capacity	SMD	Average Drawal	MAX DEMAND		
			MVA	MW	MW	MW	Date	Time
1	Aryan-Viraj S/W	Aryan Ispat Feeder	132 kV	0.000	0.085	2.488	6th Apr 2023	11:45
		Aryan-Viraj	132 kV	1.328	2.362	6.813	25th Apr 2023	05:30
2	Bamra	Bamra Traction	132 kV	8.678	0.000	24.136	7th Apr 2023	07:15
		Bamra	2x40=80	7.811	4.175	10.724	18th Apr 2023	22:45
3	Barapalli	Dunguripali Tr.	132kV	4.840	3.550	10.880	1st Apr 2023	23:30
		Barapalli	1x40+1x20=60	45.364	33.450	51.932	17th Apr 2023	09:15
4	Bargarh	ACC Feeder-1&2	132kV	2.200	5.869	9.400	16th Apr 2023	21:00
		Bargarh	3x40=120	88.066	69.580	92.811	18th Apr 2023	16:15
5	Bargarh (New)	Bargarh (New)	2x12.5=25	0.000	0.000	0.000	1st Apr 2023	00:00
6	Barkote	Barkote (220/33)	2x40=80	6.903	6.286	9.476	18th Apr 2023	22:00
7	Bhalulata	Bhalulata Traction	132 kV	6.240	4.437	12.360	19th Apr 2023	15:45
8	Bhawanipatna	Lanjigarh Traction	132kV	2.029	5.693	17.530	3rd Apr 2023	18:15
		Bhawanipatna	2x12.5=25	13.504	12.861	21.039	14th Apr 2023	23:00
9	Birmaharajpur	Birmaharajpur	1x20=20	7.731	6.616	9.195	20th Apr 2023	07:45
10	Bolangir PG	415V side Tertiary		0.035	0.035	0.035	1st Apr 2023	00:00
11	Bolangir	Bolangir	3x40=120	75.526	41.388	75.526	19th Apr 2023	10:45
12	Bolangir (New)	Bolangir (New)	1x40+1x12.5=52.5	1.252	3.806	9.324	28th Apr 2023	17:00
13	Bonai	Bonai(220/33)	2x20=40	8.804	10.063	14.896	17th Apr 2023	23:15
		Bimlagarh Traction	132kV	0.600	1.956	8.840	2nd Apr 2023	18:45
14	Brajarajnagar	Kechobahal Traction	132kV	2.000	0.000	5.600	16th Apr 2023	16:45
		Brajarajnagar	1x40+3x20=100	29.820	27.517	38.444	11th Apr 2023	19:15
15	Budhipadar	AAL Feeder-1&2	220 kV	0.080	1.543	49.600	20th Apr 2023	03:45
		BPSL Fedr-1&2	220 kV	116.094	54.712	180.031	27th Apr 2023	02:15
		MCL Fder-1&2	132 kV	15.981	13.524	23.806	10th Apr 2023	18:00
		MSP Feeder	132 kV	0.000	0.144	5.600	2nd Apr 2023	09:45
		SMC Power	220 kV	0.000	0.000	10.600	8th Apr 2023	11:45
		Budhipadar	1x20+1x12.5=32.5	10.166	8.634	17.681	17th Apr 2023	01:30
		Vedanta Ltd	220 kV	228.000	0.000	294.800	23th Apr 2023	18:00
16	Burla P.H.	Island & Incomer	11 kV	0.020	0.022	0.060	9th Apr 2023	18:45
17	Chandiposh	Chandiposh Trac	220 kV	4.040	2.930	10.600	17th Apr 2023	16:15
18	Chhend	Adhunik Metallic Fdr.	132 kV	2.738	1.135	3.088	18th Apr 2023	23:15
		Nuagaon Trac.	132 kV	4.160	2.480	11.440	26th Apr 2023	00:00
		Sri Ganesh Metallics	132 kV	5.388	3.203	5.431	10th Apr 2023	09:00
		Chhend	3x40=120	65.325	61.521	84.344	19th Apr 2023	23:30
19	Chipilima P.H.	Chipilima P.H.	1x20+1x12.5=32.5	9.612	15.593	21.840	11th Apr 2023	19:00
20	Deogarh	Deogarh	2x20=40	6.376	5.866	8.767	20th Apr 2023	22:30
21	Ghens	Ghens	1x40=40	46.560	41.115	60.760	14th Apr 2023	06:00
22	Hirakud	Hirakud	1x40=40	4.392	2.089	5.746	15th Apr 2023	19:15
23	Jayapatna	Megalift Feeder-I &II	132 kV	4.120	4.134	5.600	21th Apr 2023	06:30
		Jayapatna	2X40=80	9.426	9.121	14.214	17th Apr 2023	21:30
24	Jharsuguda	Jharsugda Trac.	132 kV	14.320	14.749	26.720	7th Apr 2023	06:15
		Jharsuguda	2x40=80	23.080	21.395	31.240	19th Apr 2023	22:45
		Ultratech Feeder	132kV	7.436	10.991	15.136	21th Apr 2023	03:00
25	Junagarah	Junagarah	3x20=60	20.852	20.293	30.056	19th Apr 2023	22:30
26	Kalunga	Kalunga	2x40=80	65.022	53.727	70.741	14th Apr 2023	17:00
27	Kantabanji	Kantabanji Trac.	132 kV	1.760	3.181	11.400	30th Apr 2023	03:00
		Kantabanji	2x40=80	13.240	11.292	19.160	10th Apr 2023	17:00
28	Kakatiya SHEP	Kakatiya	33KV	3.480	3.512	4.661	1st Apr 2023	15:45
29	Katapali	HINDALCO Fdr-1&2	220 kV	0.920	2.992	36.040	14th Apr 2023	20:00
		GodbhagaRTSS	132kV	2.640	3.241	9.080	5th Apr 2023	20:00
		Katapali	1x40+2x20=80	21.749	21.757	32.131	5th Apr 2023	18:45
30	Kesinga	POWMEX Fdr	132 kV	1.263	0.777	3.478	20th Apr 2023	16:15
		Kesinga Traction	132 kV	7.520	6.096	14.800	2nd Apr 2023	14:00
		Kesinga	1x40+2x20=80	20.199	31.670	50.420	18th Apr 2023	18:30
31	Khariar	Khariar	2x40=80	37.520	29.600	41.640	19th Apr 2023	16:30
32	Kuchinda	Kuchinda	2x20=40	12.953	11.568	19.838	13th Apr 2023	19:30
33	Kutra S/W	Shiva Cement	132kV	7.469	4.374	9.231	17th Apr 2023	04:45
34	Lapanga	Rengali Traction	132KV	11.200	9.070	19.200	27th Apr 2023	17:00
		Lapanga	2x20=40	10.996	10.455	17.104	4th Apr 2023	10:15
35	Lephripada	Basundhara	220kV	3.412	2.328	3.688	20th Apr 2023	18:00
		Lephripada	2x20=40	7.581	6.057	11.362	19th Apr 2023	22:15
36	Maneswar	Maneswar	2x40=80	4.491	4.134	5.970	7th Apr 2023	19:15
37	Nuapada	Nuapada Trac.	132 kV	3.520	2.592	4.400	19th Apr 2023	12:45
		Nuapada	2x20=40	15.388	14.658	21.736	17th Apr 2023	22:30
38	OPGC	Darlipali	33kV	2.341	1.874	2.496	28th Apr 2023	16:00
39	Padampur	Padampur	1x40+2x20=80	36.260	27.122	40.436	19th Apr 2023	17:00
40	Patnagarh	Patnagarh	1x40+2x20=80	14.455	17.618	32.376	20th Apr 2023	17:00
41	Rairakhol	Rairakhol Trac.	132kV	5.200	3.535	12.160	4th Apr 2023	15:45
		Rairakhol	3x12.5=37.5	6.680	6.595	9.164	18th Apr 2023	19:15
42	Rajgangpur	OCL Feeder	132kV	0.000	2.767	23.960	24th Apr 2023	04:45
		OISL Feeder	132kV	0.000	0.000	0.000	1st Apr 2023	00:00
		Rajgangpur Trac-1&2	132 kV	10.800	7.762	19.080	15th Apr 2023	20:00
		Rajgangpur	3x40=120	49.120	48.892	59.360	20th Apr 2023	23:30
43	Rourkela PG	PG Tertiary	33kV	0.032	0.032	0.032	1st Apr 2023	00:00
44	Rourkela	Rourkela	1x40+3x35=145	45.720	43.016	62.000	19th Apr 2023	15:15
45	Saintala	ORDNANCE Feeder	132 kV	3.520	1.419	3.840	20th Apr 2023	10:15
46	Sambalpur	Sambalpur	1x40+2x31.5=103	52.977	52.569	68.320	10th Apr 2023	19:30
		Shyam DRI Feeder	132 kV	4.960	17.270	37.800	17th Apr 2023	23:15
47	SMC S/W	SMC Power	132kV	11.370	8.770	19.739	25th Apr 2023	09:00
48	Sonepur	Sonepur	2x40+1x20=100	40.243	39.793	56.108	19th Apr 2023	19:30
49	Sundargarah PG	PG TERTIARY	33 kV	0.118	0.118	0.118	1st Apr 2023	00:00
50	Sundargarh	Sundargarh	1x40+2x20=80	17.539	18.423	28.870	17th Apr 2023	22:15
51	Tarkera	RSP Feeder-1&2	220 kV	38.719	0.000	109.125	25th Apr 2023	13:30
		RSP Feeder-3&4	220 kV	0.000	0.000	22.800	1st Apr 2023	00:00
52	Tusura	Tusura	1x40+1x20=60	18.096	15.203	24.548	28th Apr 2023	17:00
		Deogaon Tr.	132kV	2.560	3.796	14.240	22th Apr 2023	19:15
53	Thuapali	Thuapali	2x20=40	8.203	6.850	10.065	18th Apr 2023	16:45
54	VAL Lanjigarh	Vedanta Al. fdr-1&2	132 kV	0.040	0.094	4.720	5th Apr 2023	09:30
55	Vedanta S/W	Vedanta SEZ	400 kV	915.125	566.293	1039.823	16th Apr 2023	14:15
56	Barkote	Pallhara Feeder	33kV	-2.166	-1.935	-3.781	23th Apr 2023	13:00
57	Joda	Joda-Tensa Feeder	33 kV	8.643	7.247	11.431	10th Apr 2023	19:15
58	Rairakhol	Bamur Feeder	33 kV	-1.704	-1.863	-2.740	18th Apr 2023	16:00
59	Rengali	BUDHAPAL Feeder	33kV	1.192	1.082	1.612	13th Apr 2023	18:45
60	Sonepur	Manamunda Feeder	33 kV	-12.340	-10.827	-15.392	20th Apr 2023	16:15
		GEDCOL Solar	33 kV	10.980	3.356	13.392	1st Apr 2023	11:45
		ABACUS Holdings Solar	11 kV	0.650	0.179	0.817	23th Apr 2023	11:15
61	Tentulikhunti	Mukhiguda Fdr	33KV	0.336	0.645	2.492	12th Apr 2023	19:30
		GEDCOL Solar	11KV	0.000	0.169	0.835	2nd Apr 2023	11:30
62	ACME SOLAR	ACME SOLAR	132 kV	0.000	0.032	0.120	1st Apr 2023	18:15
63	Bamra	Joy Iron Steel (Solar)	11 kV	0.517	0.152	0.678	2nd Apr 2023	12:45
64	Barkote	Molisati Solar	11 kV	0.564	0.163	0.709	2nd Apr 2023	12:45
65	Kesinga	SADIPALI Solar	33kV	16.280	5.060	20.440	2nd Apr 2023	11:30
		Vento Power Solar -1	132 kV	0.000	0.044	0.160	3rd Apr 2023	18:15
		Vento Power Solar -2	132 kV	0.000	0.027	0.120	7th Apr 2023	18:15
66	Bonei	Mahavir Solar	33 kV	0.455	0.122	0.826	1st Apr 2023	13:30
67	Padampur	Dakshin UPL solar	132kV	0.000	0.041	0.160	1st Apr 2023	18:15
68	Patnagarh	ALEX Solar Pvt. Ltd.	33 kV	3.120	0.945	4.176	30th Apr 2023	13:00
		JYOTI Solar	33 kV	7.852	2.319	9.772	2nd Apr 2023	12:15
69	Bolangir (New)	REHPL(Solar)	11kV	0.648	0.205	0.842	30th Apr 2023	10:45
70	Saintala	BEL-OFBL Solar	132kV	0.000	0.020	0.056	21th Apr 2023	02:00
72	Tusura	Vento Power Solar-I	132 kV	0.000	0.036	0.160	14th Apr 2023	18:00
		Vento Power Solar-II	132 kV	0.000	0.035	0.120	7th Apr 2023	18:00
73	Bargarh	Aditya Solar Fdr-I & II	33 kV	0.000	0.018	0.127	14th Apr 2023	18:30
74	ABSL Sw. Station	Aditya Solar	132kV	0.000	0.055	0.258	20th Apr 2023	18:15
75	Barbil	IOBP Fdr	132kV	0.000	0.000	0.000	1st Apr 2023	00:00
		Kamanda Steel Plant Fdr	132kV	13.385	8.034	16.278	15th Apr 2023	20:30
		TPWODL TOTAL ENERGY (MU)		**2,495.7098**	**1,204.6883**	**3,519.5343**		

ENERGY DRAWAL OF TPNODL CONTROL AREA GRID SUBSTATIONS FOR THE MONTH OF APRIL'2023								
Sl.No	Name of Sub Station	Name of Feeder	Installed Capacity	SMD	Average Drawal	MAX DEMAND		
			MVA	MW	MW	MW	Date	Time
1	Agarpada	Agarpada	1x40=40	12.680	7.869	13.160	18th Apr 2023	22:15
2	Anandpur	Anandpur	1x20+2x12.5=45	20.791	12.721	21.349	18th Apr 2023	22:15
3	Arya Ispat S/w	ARYA Steel Fdr	132kV	7.656	7.713	10.280	26th Apr 2023	15:45
		BRPL Feeder	132kV	1.400	8.663	10.360	8th Apr 2023	15:15
		IMTCPL Fder	132kV	0.128	0.795	2.508	2nd Apr 2023	21:15
4	Balasore	BIRLA Tyre Fder	132kV	0.236	0.190	0.284	28th Apr 2023	20:15
		ISPAT Feeder	132kV	56.360	47.265	58.400	30th Apr 2023	05:00
		Balasore Traction	132kV	9.680	7.569	17.120	19th Apr 2023	16:00
		Balasore	2x63+1x40=166	82.274	53.216	82.274	19th Apr 2023	23:00
5	Bangiriposi	Bangiriposi	2x12.5=25	14.080	9.559	14.664	18th Apr 2023	22:00
6	Barbil	Barbil	2x12.5=25	12.056	9.177	12.603	19th Apr 2023	20:00
7	Baripada PG	Baripada PG Stn.		0.062	0.062	0.062	1st Apr 2023	00:00
8	Baripada	Baripada	3x40=120	36.715	21.634	36.926	19th Apr 2023	22:45
9	Basta	Basta	2x20+1x12.5=52.5	31.564	20.638	33.133	17th Apr 2023	21:45
10	BC Mohanty sw	BC Mohanty fdr	132 kV	9.472	8.184	9.960	21th Apr 2023	03:45
		TOMKA Traction	132kV	6.960	4.202	14.160	7th Apr 2023	17:45
11	Betanati	Betanati	1x20=20	24.753	16.045	25.475	18th Apr 2023	22:00
12	Bhadrak	Dhamra Port (Trac.)	132 kV	5.425	3.163	7.856	14th Apr 2023	12:00
		Dhamra Port Fdr	132 kV	8.756	7.950	14.306	5th Apr 2023	22:00
		FACOR Feeder	132kV	0.360	0.000	21.760	4th Apr 2023	12:00
		FACOR Power	132kV	0.240	0.000	2.360	11th Apr 2023	14:45
		Bhadrak Traction	132 kV	8.560	7.661	15.400	13th Apr 2023	12:30
		Bhadrak	2x63+1x40=166	81.360	50.393	82.760	19th Apr 2023	22:30
13	Bhograi	Bhograi	2x40=80	24.440	16.316	29.880	11th Apr 2023	22:00
14	Bolani	Bolani(132/11)	2x10=20	3.204	2.394	4.440	19th Apr 2023	10:30
15	BRPL S/w	BRPL Feeder	132kV	1.400	8.663	18.838	12th Apr 2023	03:00
		Mesco Feeder	132kV	0.000	0.000	0.000	1st Apr 2023	00:00
16	Chandbali GIS	Chandbali GIS	1x40+1X20=60	9.884	6.481	10.484	18th Apr 2023	22:45
17	Chandikhol	Chandikhol	3x20=60	35.543	26.447	37.524	19th Apr 2023	20:30
18	Chandipur	Chandipur	1x20=20	13.318	9.029	14.190	19th Apr 2023	12:30
19	Daitary	Bamnipal	132kV	20.605	18.361	21.775	27th Apr 2023	02:00
		Daitary	1x12.5=12.5	0.818	0.870	1.837	14th Apr 2023	18:45
20	Dhenkikote	Dhenkikote	2x20=40	9.357	5.908	10.920	19th Apr 2023	20:00
21	Duburi	Jakhapura Traction	132 kV	5.600	10.290	18.800	14th Apr 2023	17:45
		JFAL Feeder	132 kV	0.844	6.147	7.706	10th Apr 2023	19:45
		Mishrilal Feeder	132 kV	12.844	12.981	13.925	10th Apr 2023	07:45
		NINL Feeder	220 kV	25.306	23.393	39.200	19th Apr 2023	06:30
		Duburi(220/33)	2x40=80	23.244	14.983	23.244	19th Apr 2023	23:00
22	Duburi-New	Duburi New(220/33)	1x20=20	0.312	0.000	6.152	14th Apr 2023	20:15
		NU Vista Feeder	220 kV	9.760	0.000	11.400	5th Apr 2023	16:15
		Jindal Stainless-1&2	220 kV	34.360	20.061	45.120	30th Apr 2023	10:15
		Maithan Feeder	220 kV	0.000	0.153	3.763	17th Apr 2023	15:30
		Rohit Ferrotech	220 kV	25.400	31.135	32.680	30th Apr 2023	12:30
		TATA Steel Fdr-1&2	400 kV	133.520	100.125	207.960	17th Apr 2023	10:00
		VISA Steel	220 kV	18.040	16.867	20.320	10th Apr 2023	23:15
23	Shree Jagannath steel switching station	Shree Jagannath Steel Fdr	132kV	0.029	0.472	6.597	3rd Apr 2023	10:00
24	Haridaspur	RAMCO Feeder 132kV	132 kV	4.984	4.981	6.708	7th Apr 2023	19:15
25	Jajpur Road	Jajpur Road	3x40=120	48.760	31.621	50.080	20th Apr 2023	22:45
		Yazdani CGP Feeder	33 kV	0.000	0.000	0.001	20th Apr 2023	12:15
26	Jajpur Town	Jajpur Town	2x40+1x20=100	48.154	32.474	52.058	18th Apr 2023	23:00
27	Jaleswar	Jaleswar Trac.	132 kV	6.200	6.998	15.080	4th Apr 2023	15:15
		Jaleswar	2x31.5+1x12.5=75.5	23.176	15.143	25.872	14th Apr 2023	21:45
28	Joda	Bansapani Trac.	132 kV	10.100	6.190	18.275	23th Apr 2023	21:45
		FAP Feeder	132kV	15.831	11.337	19.259	28th Apr 2023	22:00
		JSPL Trf-1,2&3(220/33)	2x50+1x20=120	51.483	47.657	53.080	13th Apr 2023	02:15
		KJS Ahluwalia	33kV	5.980	0.000	8.448	17th Apr 2023	18:45
		TATA STEEL	220kV	6.520	6.820	10.160	5th Apr 2023	18:45
		TATA Steel Long	220 kV	0.000	0.000	0.025	12th Apr 2023	11:15
		Joda	1x40+3x20+1x160=260	28.304	23.394	38.133	28th Apr 2023	18:45
		Sarada Ind (220/33)	1x15=15	0.000	0.000	0.000	1st Apr 2023	00:00
29	JSW Cement S/W	JSW Cement Fdr	132kV	3.760	3.199	6.320	25th Apr 2023	10:30
30	Karanjia	Karanjia	1x20+2x12.5=45	20.959	13.171	21.081	19th Apr 2023	21:45
31	Keonjhar GIS	Keonjhar GIS	2x20=40	20.672	13.155	22.412	18th Apr 2023	22:30
32	Keonjhar PG	PGCIL Stn. Tertiary	33 kV	0.036	0.036	0.036	1st Apr 2023	00:00
33	Nalda	Nalda Traction	132 kV	3.200	4.108	16.880	7th Apr 2023	17:00
34	Polasponga	ESIL Feeder	132 kV	12.419	10.256	21.956	27th Apr 2023	01:30
		MSP Feeder	132 kV	5.724	5.206	7.580	9th Apr 2023	19:45
		OSISL CGP Feeder	33 kV	2.312	1.555	2.652	23th Apr 2023	16:00
		Patnaik Steel CGP	33 kV	0.000	0.000	0.000	1st Apr 2023	00:00
		Palasponga Trac.	132 kV	12.568	7.467	21.090	27th Apr 2023	21:45
		Polasponga	1x40+2x20=80	18.668	14.946	23.392	16th Apr 2023	13:45
35	Rairangpur	Rairangpur	2x20+1x12.5=52.5	18.262	15.384	23.365	18th Apr 2023	21:45
36	RML Karakhendra	Karakolha	132kV	0.681	1.029	3.958	26th Apr 2023	16:15
37	Somnathpur	IMAMI Feeder	132 kV	6.647	6.822	8.581	16th Apr 2023	06:00
		Stork Feeder	132 kV	21.638	21.654	23.941	9th Apr 2023	10:30
		Somnathpur	2x12.5=25	9.692	6.139	10.476	19th Apr 2023	14:30
38	Soro	Soro	1x40+2x20=80	61.944	38.988	63.843	18th Apr 2023	22:15
39	Telkoi	Telkoi	2x20=40	3.250	1.575	3.453	16th Apr 2023	22:15
40	Udala	Udala	2x40=80	17.400	10.562	18.560	18th Apr 2023	22:00
41	Chandikhol	Badachana Feeder	33kV	-13.075	-9.885	-13.880	19th Apr 2023	18:45
		Kundala Feeder	33kV	-1.950	-1.406	-2.235	17th Apr 2023	20:00
42	Joda	Joda-Tensa Feeder	33 kV	-8.886	-7.247	-11.431	10th Apr 2023	19:15
		TPNODL TOTAL ENERGY (MU)		**1304.8072**	**704.9353**	**1663.1250**		

ENERGY DRAWAL OF TPSODL CONTROL AREA GRID SUBSTATIONS FOR THE MONTH OF APRIL'2023								
Sl.No	Name of Sub Station	Name of Feeder	Installed Capacity	SMD	Average Drawal	MAX DEMAND		
			MVA	MW	MW	MW	Date	Time
1	Akhusingh	Akhusingh	2x12.5=25	8.396	5.723	9.015	17th Apr 2023	21:45
2	Aska	Aska	4x40=160	40.760	33.034	47.960	20th Apr 2023	07:15
3	Aska New	Aska New	1x40=40	13.478	10.818	16.335	18th Apr 2023	18:45
4	Balimela	Balimela (220/33)	1x40+1x20=60	12.024	9.675	12.872	20th Apr 2023	19:00
5	Berhampur	Berhampur	2x40+1x20=100	46.681	41.691	59.934	20th Apr 2023	23:00
6	Bhanjanagar	Bhanjanagar	2x40+1x16=96	27.810	21.952	29.758	19th Apr 2023	19:30
7	Boudh	Boudh	2x20=40	11.296	5.300	13.092	27th Apr 2023	22:45
8	Chatrapur	IRE Feeder-1&2	132kV	6.753	7.453	10.244	6th Apr 2023	18:45
		Rambha Traction	132 kV	4.400	4.638	13.520	5th Apr 2023	17:00
		Chatrapur	3x20=60	28.143	19.469	34.587	24th Apr 2023	20:45
9	Chikiti	Chikiti	1x40=40	4.760	6.577	10.600	25th Apr 2023	10:00
10	Dabugaon	Dabugaon	2x12.5=25	10.604	6.745	14.604	16th Apr 2023	19:45
11	Digapahandi	Digapahandi	2x20+1x12.5=52.5	23.419	20.449	28.794	12th Apr 2023	18:30
12	Ganjam	GRASIM Ind. Ltd.	132kV	19.775	18.731	20.544	22th Apr 2023	12:15
		Ganjam	2x12.5=25	17.020	11.059	20.564	1st Apr 2023	06:45
13	G Udaigiri	G Udaigiri	1x20=20	5.249	0.000	6.824	18th Apr 2023	08:45
14	Gunupur	Gunupur	2x20=40	6.428	4.933	8.384	16th Apr 2023	22:30
15	Hinjli GIS	Hinjli GIS	2x20=40	8.612	0.000	11.294	7th Apr 2023	06:15
16	Jeypore PG	Jeypore PG Ter.	28KV	0.031	0.031	0.031	1st Apr 2023	00:00
17	Jayanagar	Jeypore Trac.	132 kV	18.000	12.511	29.880	22th Apr 2023	16:30
		Jayanagar	2x20+1x12.5=52.5	41.175	28.760	42.784	13th Apr 2023	19:45
18	Kalimela	Kalimela	2x20=40	9.082	6.304	9.751	13th Apr 2023	19:30
19	Kasipur	Kasipur(220/33)	1x20=20	1.584	0.834	2.424	29th Apr 2023	14:00
20	Laxmipur	Laxmipur RTSS	220kV	1.347	0.000	10.337	8th Apr 2023	14:45
		Laxmipur(220/33)	1x20=20	7.588	5.161	9.800	20th Apr 2023	19:00
		Utkal Alumina Fdr-I&II	220kV	0.080	0.094	5.920	1st Apr 2023	10:30
21	Malkangiri	Malkangiri (220/33)	2x40=80	8.040	6.440	10.120	13th Apr 2023	20:15
22	Meenakshi s/w	Megalift Feeder	33kV	0.000	0.004	0.476	3rd Apr 2023	10:15
23	Mohana	Mohana	2x12.5=25	7.996	5.632	9.576	19th Apr 2023	19:45
24	Muniguda	Muniguda	1x12.5=12.5	8.108	6.117	8.807	19th Apr 2023	22:15
		Bissam-Cuttack Tr	132 kV	12.800	6.222	23.480	24th Apr 2023	09:00
25	Narendrapur	TATA Feeder-I&II	220 KV	24.920	22.996	25.960	2nd Apr 2023	17:30
		Narendrapur Trac	132 kV	5.400	4.722	12.920	21th Apr 2023	18:45
		Narendrapur	3x40+1x20=140	37.684	31.739	45.428	20th Apr 2023	23:00
26	Nabarangpur	Nabarangpur	1x20=20	5.080	5.358	15.055	16th Apr 2023	19:15
27	Paralakhemundi	Paralakhemundi	3x12.5=37.5	15.664	13.143	20.624	14th Apr 2023	23:30
28	Phulbani	Phulbani	2x40+1x12.5=92.5	18.016	14.396	21.876	18th Apr 2023	19:45
29	Podagada	Podagada	1x12.5=12.5	3.666	3.694	12.232	4th Apr 2023	07:15
30	Potangi	Potangi	1x40=40	3.892	1.758	5.248	13th Apr 2023	06:00
31	Purushottampur	Purushottampur	1x20+2x12.5=45	15.581	13.219	17.178	11th Apr 2023	19:15
32	Rayagada	Rayagada Trac.	132 kV	4.160	5.507	16.320	12th Apr 2023	17:00
		Rayagada	2x12.5=25	13.180	10.075	17.068	19th Apr 2023	23:00
33	Sunabeda	HAL Feeder	132kV	6.936	3.867	9.692	24th Apr 2023	09:45
		Sunabeda	1x20+2x12.5=45	23.652	14.453	25.860	20th Apr 2023	20:30
34	Tentulikhunti	Tentulikhunti	3x20=60	17.179	10.235	17.679	10th Apr 2023	19:45
		Guhipita	33kV	0.000	0.407	1.680	23th Apr 2023	11:45
35	Therubali	JK Feeder	132kV	0.000	0.000	0.468	14th Apr 2023	07:00
		Bhalumaska Trac.	132kV	2.000	0.000	13.600	13th Apr 2023	16:45
		IMFA	132kV	43.040	0.000	49.800	9th Apr 2023	04:45
		Therubali	2x12.5=25	6.288	4.972	8.332	10th Apr 2023	10:15
36	Umerkote	Umerkote	2x20=40	33.884	21.722	35.780	17th Apr 2023	19:30
37	Balugaon	Khallikote Feeder	33kV	15.880	10.359	19.884	20th Apr 2023	18:30
38	Sonepur	Manamunda Feeder	33kV	13.812	10.827	15.392	20th Apr 2023	16:15
39	Tentulikhunti	Mukhiguda Fdr	33KV	-2.456	-0.645	-2.492	12th Apr 2023	19:30
		Vento Energy Solar	132 kV	0.080	0.045	0.360	13th Apr 2023	18:15
40	Boudh	Aditya Birla Solar-I 33kV	33kV	0.000	0.000	25.703	1st Apr 2023	11:45
41	Damanjodi	Nalco	220kV	23.000	0.000	49.400	5th Apr 2023	08:00
		Nalco	132kV	0.000	0.000	18.640	1st Apr 2023	05:00
		TPSODL TOTAL ENERGY (MU)		**741.9760**	**366.6295**	**1,031.9958**		

SYSTEM DISTURBANCE IN THE MONTH OF APRIL-2023
(A) TRIPPING OF Line / EQUIPMENT WITHOUT LOAD LOSS

Sl. No.	Sub-Station	Date	from	To	Duration	Lines / Equipments / Generating Units Tripped	Relay Indication / Cause	Grid Sub-stations affected (it can be more than one)	Area interruption period	Remarks	Energy Loss (In MU)
1	Bhanjanagar	01.04.23	15:46	16:18	00:32	220kV Bhanjanagar - Therubali circuit-II	**At Bhanjanagar end**:- CN, Z-None, D=None, IC=809 A **AT Therubali end**:- CN, Zone-2, Dist-64.28km, IC =1.61kA				
2	Meramundali	02.04.23	12:49	18:59	06:10	400 kV Meramundali-Mendhasal-II	At Meramundali-Main 1: R-E,IR= 4.66 KA,Dist= 60.3 KM,SOTF,A/R Unsuccessful Main 2: R-E,IR= 3.96 KA,Dist= 71.69 KM,Z1,A/R Unsuccessful At Mendhasal-Main 1: R-E,IR= 5.78 KA,Dist= 32.9 KM,A/R Unsuccessful Main 2: R-E,IR= 5.78 KA,Dist= 32.6 KM,Z1,A/R Unsuccessful				
3	Joda	02.04.23	14:32	15:23	00:51	220kV JODA-RAMCHANDRAPUR FDR.	Tripped at both end with following relay Relay at Joda end: DP relay Main-I: Tripped phase :ABC,Zone-I, Dist=78.35KM, Fault Current: Ia=1.461KA,Ib=449.9A,Ic=118.3A,VAN=107.7KV,VBN=127.9KV,VCN=132.5KV At Ramchandrapur end : DP relay : Zone-I, Dist=59.9KM,Fault Current: Ia=1.62KA,Ib=0.27KA,Ic=0.31KA				
4	Mendhasal	02.04.23	17:17	18:59	01:42	400kV Mendhasal-Meramunduli ckt-2	Ir=5.78KA,Iy=0.61KA,Ib=0.64KA, Dist=32.9KM, at our end. Ir=4.66KA, 60.3KM, Dist= 71.69KM, at their end.				
5	Tarkera	03.04.23	07:14	14:29	07:15	220kV Tarkera-Bonai	MT-ABB REL 670			SPS	
			07:14	14:29	07:15	220kV Tarkera-Rengali	MT-ABB REL 670				
6	Meramundali	03.04.23	10:11	11:28	01:17	400 kV Meramundali- Mendhasal-1 MAIN CB(402- 52 A)	At Meramundali-B-E,IB=1.24 KA, DIST: 51.1 KM				
			10:11	16:05	05:54	400 kV Meramundali-Mendhasal-II	MAIN I: BEFORE AR: R-E,IR= 3.91 KA, DIST: 72.5 KM AFTER AR: SOTF, R-E,IR= 4.52 KA, DIST: 55.1 KM A/R UNSUCCESSFUL MAIN II: BEFORE AR: R-E,IR= 3.92 KA, DIST: 70.89 KM AFTER AR: SOTF, R-E,IR= 4.98 KA, DIST: 57.63 KM A/R UNSUCCESSFUL				
			16:05	19:44	03:39	400kV Mendhasal-Meramunduli ckt-II	At Mendhasal: Ir=5.33KA,Iy=0.51KA,Ib=0.81KA, Dist=33.2KM, at our end. At Meramundali: MAIN 1: R-E ,IR=4.63 KA, Dist=56.2K M , SOTF Main 2: R-E,IR=4.9 KA, SOTF				
7	TARKERA	03.04.23	12:41	13:42	01:01	220 kV Tarkera-Bamra	DP-2: ALSTHOM P444; DP1:ABB DP1:- LOOP:- L3_N, ZONE-1, DIST:- 6.163 KM, IL3=10.64 KA, IN=10.877 KA DP2 : ZONE-1, DIST= 6.405 KM, IC= 10.73 KA ,LOOP : C-N, MT				
			12:42	13:05	00:23	220kV Budhipadar - Bamra feeder	At Budhipadar end:- DP operated, FL-L3-E, FD-115.2km(223.6%), IL3-2.04kA, Zone-2 At Bamra end:- CB did not trip At Tarkera end:- FD=6.163km, FL=L3-E, Zone-1, IL3=10.64kA				
8	Meramundali	03.04.23	16:05	19:43	03:38	400 kV Meramundali- Mendhasal-II	At Meramundali-MAIN 1: R-E ,IR=4.63 KA, Dist=56.2K M , SOTF ,Main 2: R-E,IR=4.9 KA, SOTF At Mendhasal-R-E,IR= 5.33 KA, Z1, DIST= 33.2 KM A/R UNSUCCESSFUL				
9	TARKERA	03.04.23	16:11	07.04.23 08:12	16:01	220kV Tarkera-Bonai	MT-ABB REL 670			SPS	
			16:11	07.04.23 08:12	16:01	220kV Tarkera-Rengali	MT-ABB REL 670				
10	Meramundali	04.04.23	09:56	18:26	08:30	400 kV Meramundali-Mendhasal-II	At Meramundali: MAIN 1: R-E , IR=3.86 KA, Z1B, Dist=76.3 K M Main 2: R-E ,IR=4.03 KA,Z1, Dist=72.3 K M At Mendhasal-R-E,IR= 5.47 KA, DIST= 33.5 KM			After rectication of faulty cable on dated 06.04.23 at 11:16 hr main CB (404-52 B) charged at MRDL	
			09:56	18:35	08:39	400kV Mendhasal-Meramunduli ckt-II	Ir=6.67KA,Iy=0.08KA,Ib=0.08KA, Dist= 27.6 KM, at our end. Ir=3.86KA, Dist= 76.3KM, at their end.				
11	Meramundali	04.04.23	12:45	18:53	06:08	220 kV Meramundali-TTPS-I	At Meramundali-NOT TRIPPED At TTPS-DP relay operated Dist= 17.99 KM, IA= 91.83 A, IB- 7.9 A, IC= 26.31 A				
			12:45	19:38	06:53	220 kV Meramundali- TTPS-II	At Meramundali-NOT TRIPPED At TTPS-DP relay operated Dist= 17.69 KM, IA= 101.3 A, IB-8.59 A, IC= 28.14 A				
12	Narasinghpur	04.04.23	12:46	16:51	04:05	220 kV Narasinghpur-Meramundali FDR-1	DP Operated, Zone-1, Dist: 42.2 KM, Ir: 1.34 kA[Fire Inside Meramundali Switchyard as per info from SI, Meramundali.] At Meramundali-Main 1: R-E,IR=24.4 KA, Dist=887.8 M ,Z1, SOTF main 2: R-E,IR=24.4 KA, Dist= 0 M At Narasinghpur-R-E,IR=1.34 KA, Dist=42.2 KM, Z1				
13	Akhusingh	04.04.23	17:56	18:19	00:23	132kV Akhusingh - Rayagada feeder	E/F				
14	Therubali	04.04.23	19:46	0.852083333	00:41	220kV Therubali-Indravati Ckt-1	At Therubali-A-B, Z-1, 9.91KM, Ia=7471A, Ib=7594A, Ic=128A At Indravati-A-B, Z-1, 70.34KM, Ia=1.671KA, Ib=1.538KA, Ic=145.7A				
			19:54	0.853472222	00:35	220kV Therubali-Gunupur Ckt-1	At Therubali-A-G, Z-1, -2.99KM, Ia=4724A, Ib=595A, Ic=77A, Ig=5215A No tripping at Gunupur end.				
15	Kendrapara	05.04.23	12:24	14:23	01:59	132 kV KENDRAPARA-CHANDIKHOLE CKT-I	At KENDRAPARA END: TRIPPED ON DP RELAY, ZONE-1, DIST.=14.46KM, B-PH, Ir=8.84A, Iy=9.94A, Ib=1.7KA ,				
16	Therubali	05.04.23	17:11	17:19	00:08	220kV Therubali-Indravati Ckt-3	At Therubali-CGT, Z-1, 72.64KM, Ia=327A, Ib=325A, Ic=2.7kA. At Indravati-CG, Z-1, 20 km, Ic=6.73 kA.				
17	TARKERA	06.04.23	00:01	00:35	00:34	220 kV Tarkera-KUARMUNDA	DP-2: ALSTHOM P444; DP1: SIEMENS SIPROTEC DP1 NOT OPERATED :- LOOP:- L3_E, ZONE-1, DIST:- 6.5 KM, IL3=11.85 KA, DP2 : ZONE-1, DIST= 6.347 KM, IC= 11.39 KA ,LOOP : C-N, MT At Kaurmunda-B/U RELAY OPERATED : O/C & E/F TRIP	Kaurmunda	00:34		
18	Sundargarh	06.04.23	14:39	19:38	04:59:00	132 kV Budhipadar-Sundargarh Ckt-2	At Sundergarh-CGT, Zone-1, Dist: 7.69 Km, Ir=116 A, Iy=183 A, Ib=1887 A, In=2179 A At Budhipadar-L3-E, Zone-1, Dist: 22.18 KM, Ir=136 A, Iy=136 A, Ib=3469 A, In=3265 A IR-Ph Suspension Insulator String damaged at loc. no.77[			suspension insulator string punctured at loc no. 77 of Bph. Replaced with new one and line charged from both ends	
19	Meramundali	06.04.23	14:54	17:41	02:47	220 kV Meramundali-Kaniha-1	At Meramundali-Carrier received MAIN I: BEFORE AR: Z1,C-N,IA= 253.5A,IB=253.5 A, IC= 11.44 KA, DIST: 10:54 KM AFTER AR: Z1,C-N,IA= 250.6A,IB=254.2 A, IC= 11.42 KA, DIST: 10:57 KM MAIN II: BEFORE AR: Z1,C-N,IA= 253.5A,IB=253.5 A, IC= 11.44 KA, DIST: 10:54 KM AFTER AR: Z1,C-N,IA= 282.2 A,IB=251.7 A, IC= 11.38 KA, DIST: 10:60 KM At Kaniha- Zone-1, B phase ,Fault current: 4.62 KA, Distance: 27.1 km Carrier fail and Auto reclosure operated				
			14:55	17:42	02:47	220 kV Meramundali-Kaniha-2	At Meramundali-MAIN I: BEFORE AR: Z1,A-N,IA= 11.55KA ,IB=194.3 A, IC= 179 A, DIST: 10:58 KM AFTER AR: Z1,A-N,IA= 12.84 KA,IB=17.17 A, IC= 15.47 A, DIST: 10:57 KM MAIN II: BEFORE AR: Z1,A-N,IA= 11.55KA ,IB=195.2 A, IC= 178.7 A, DIST: 10:61 KM AFTER AR: Z1,A-N,IA= 12.83 KA,IB=17.21 A, IC= 15.33 A, DIST: 10:11 KM At Kaniha- Zone-1, R phase Fault current: 4.27 KADistance: 28.8 km Carrier fail and Auto reclosure operated				
20	Kendrapara	06.04.23	15:47	17:26	01:39	132 kV KENDRAPARA-RAMCO CKT-II	AT KENDRAPARA End: TRIPPED ON DP RELAY, B/U E/F, ZONE-1, DIST=26.01KM, R-PH, Ir=2.671KA, Iy=42.3A, Ib=69.8A, **AT RAMCO END :** TRIPPED ON DP RELAY, ZONE-1, DIST=13.3 KM, Ir=0.14 KA, Iy=30 A, Ib=70 A				
21	PHULNAKHARA	06.04.23	16:50	17:56	01:06	132kV Phulnakhara - Cuttack feeder	At Phulnakhara-Zone-1, B-ph to E/F , Ib = 4.615kA, Distance = 9.159 km At Cuttack-Zone-1, B-ph to E/F, Ib = 4.20 kA, Distance = 7.75 km			During the time of fault in 132KV Phulnakhara- Cuttack feeder , the 132KV P/S continued to receive from Pratapsasan GSS & Mancheswar GSS via 132KV Pratapsasan- Phulnakhara feeder 1& 2 and 132KV Mancheswar- Phulnakhara feeder respectively.	
22	Tirtol	06.04.23	17:04	18:27	01:23	132 kV Tirtol-Jagatsinghpur Feeder	Tirtol End: DP Relay (Micom P442),ZONE-1, B-N, Ib-2.489KA, Dist-5.789 KM (No tripping at Jagatsinghpur)			Analysis: Weather: Heavy lightening & wind.	
23	Laxmipur	06.04.23	17:11	18:58	01:47	220kV Laxmipur-Aditya ckt-1	R-Ph,Z-1,Fault current-4.77KA				
24	Nuapatna	06.04.23	17:17	07.04.23 19:14:00	25:57	132kV Nuapatna - Banki feeder	**At Nuapatna end**:- H/T **At Banki end**:- R-ph E/F, Dist-6.18km, Ir=3.14kA			Thunder storm and lightning occurred	
25	Jayanagar	06.04.23	18:04	22:30	04:26	132kV Jayanagar- Machkund fdr	A-N,Z-1,Dist-9KM			CB tripped at machkund power house end only.	
26	Mendhasal	06.04.23	19:24	20:19	00:55	220kV Mendhasal-Nayagarah	Ir=3.10KA, Dist=47.2KM, 861 862 optd				
27	TARKERA	07.04.23	15:56	22:42	06:46	220kV Tarkera-Bonai	MT-ABB REL 670			SPS	
			15:56	22:42	06:46	220kV Tarkera-Rengali	MT-ABB REL 670				
28	Joda	08.04.23	01:55	19:39	17:44	220kV JODA-TTPS CKT-II FDR.	Tripped at both end but A/R success at Joda end with following relay indication Relay at Joda end: DP relay Main-I: Zone-I,C-Ph Dist=105.1KM, A/R Success Fault Current: Ia=52.13A,Ib=53.43A,Ic=946.3A, VAN=127.3KV,VBN=127.3KV,VCN=90.96KV DP relay Main-II:CGT, Zone-I, A/R Success, Dist=115.21KM,Fault Current:Ia=57A,Ib=58A, Ic=977A,In=1030A, IG=1030A At TTPS end : DP relay : Zone-I, Dist=75.65KM, Fault Current: Ia=2.23KA,Ib=62.31A,Ic=235.6A				
29	Kesinga	08.04.23	15:57	16:41	00:44	220kV Kesinga-Sadeipali line	Over load				
30	Udala	08.04.23	16:36	17:02	00:26	132kV Udala-Betnoti Feeder	At UDALA : DP RELAY INDICATION: General trip, distance trip, Y-Ph pickup, Z1 trip, Distance=10Km, Ia=0.13KA, Ib=1.39KA, Ic= 0.06KA, Loop=Yph-Ground. BACK-UP RELAY INDICATION: Y-Phase pickup, FACIA WINDOW INDICATION: Distance protection operated, GR-A/B trip relay operated. At BETNOTI :General trip, Y-Ph ground, Trip-Z1, Distance=33.36Km, Ia=124.2A, Ib=1.490KA, Ic=39.31A, Van=39.31V, Vbn=36.04V, Vcn=77.77V			**During the period of tripping of above line, Udala S/S availed 132KV Power supply from Balasore grid end.**	

Sl. No.	Sub-Station	Date	from	To	Duration	Lines / Equipments / Generating Units Tripped	Relay Indication / Cause	Grid Sub-stations affected (it can be more than one)	Area interruption period	Remarks	Energy Loss (In MU)
31	Therubali	08.04.23	18:53	19:02	00:09	220kV Therubali-U.Kolab Ckt	At Therubali-AN, Z-1, 101.9 km, Ia= 1.6 kA, Ib= 55A, Ic=49 A. At Kolab- AN, Z-1, 86.5 KM, Ia=5.64 kA.				
32	Telkoi	08.04.23	19:12	20:25	01:13	220kV Telkoi-TTPS feeder	Tripped on distance protection from both Telkoi & TTPS end . **DP relay indication at Telkoi end:-** **Main-I DP:-**(1) Started phase C N (2) Tripped phase A B C (3) Distance Trip Zone-1 (4) Fault distance 40.44KM (5) IA=181.1A, IB=216.3A, IC=749.4A (6) VAN=141.8KV, VBN=148.4KV, VCN=27.20KV **Main-II DP:-** (1) Fault type C G(2) Fault location 42.2 KM (3) Distance Zone-1 (4) IA=140.685A,IB=133.775A,IC=753.973A,IN= 746.212A **DP Relay indication at TTPS end:-** (1) Started phase C (2) Tripped phase A B C (3) Trip Zone-1 (4) Fault distance 40.44KM (5) IA=189.8A, IB=231.2A, IC=2.912KA				
33	Budhipadar	09.04.23	06:53	10.04.23 16:36:00	33:43	132kV Budhipadar - MCL circuit-I	**At Budhipadar end**:- DP, Bph to E fault loop, Zone 1, Dist- 5.177km, IL3-9.964kA			Line was faulty. Restrining of conductor done & changing of insolator string from loc no. 19 to 21	
34	Palaspanga	09.04.23	11:58	12:04	00:06	132kV Palaspanga-KJR RTSS FEEDER	O/C TRIP,IA=299.2A,IB=273.6A,IC=35A, INM=6.68A,IND=6.652A	KJR RTSS	00:06		
35	TARKERA	09.04.23	16:31	13.04.23 08:24	15:53	220kV TKR-Bonai	MT-ABB REL 670			SPS	
			16:31	22.04.23 18:17	25:46	220kV TKR-Rengali	MT-ABB REL 670				
36	LAPANGA	10.04.23	11:35	15:56	04:21	22OkV LAPANGA-KATAPALI CKT-I	At Lapanga-BPH-G, DIST-40.83KM,Z2, IL1-0.01KA,IL2-0.01KA,IL3-5.15KA At Katapalli-BPH-G, DIST-21.9KM,Z1,IL2-3.6KA				
37	Bhanjanagar	10.04.23	12:31	12:40	00:09	220kV Bhanjanagar - Therubali circuit-I	**At Bhanjanagar end**:- A/R successful, AN, Zone-1, Dist=46.08, IA=2.46kA **At Therubali end:-** AN, Zone-1, Dist-117.4km, IA=1.44kA, Ib= 334A, Ic=79 A.				
38	Balugaon	10.04.23	12:45	12:51	00:06	132kV Balugaon - Chhatrapur feeder	**At Chhatrapur end**:- Zone-1, Dist-17.92km, Y-B PH, O/C, IR=152.2A, IY=4.344kA, IB=4.211kA **At Balugaon end:-** H/T	Balugaon		I/C P/S failure from chhatrapur	
39	Joda	10.04.23	13:12	15:14	02:02	220kV JODA-RAMCHANDRAPUR FDR.	Tripped at both end with following relay indication Relay at Joda end: DP relay Main-I: Tripped phase :AN, SOTF,Zone-I, Dist=75.39KM, Fault Current: Ia=1.361KA,Ib=48.15A,Ic=47.03A,VAN=99.09KV, VBN=128.00KV,VCN=129.7KV DP Main-II : Not operated At Ramchandrapur end : DP relay : Zone-I, Trip Phase : AG,Fault Current: Ia=2.08KA,Ib=0.33KA,Ic=0.40KA			Source failure at Ramchandrapur end.	
40	Meramundali	10.04.23	13:35	16:53	03:18	400 kV Meramundali-Lapanga-II	At Meramundali-Main-I:- Z1,Y-E , before AR: IY= 7.91 KA,Dist: 26.2 KM , After AR: IY= 8.58 KA, DIST= 25 KM, Main-II:- Z1,Y-E, Before AR: IY= 7.9 KA, Dist: 26 KM After AR: IY= 8.6 KA, DIST= 24.7 KM A/R Unsuccessful At Lapanga- Y-E,IY= 2.5 KA,Dist= 151 KM,Z1,A/R Unsuccessful [Meramundali tree fault found between Loc no-76 &77]				
41	Dhenkanal	11.04.23	10:58	15:45	04:47	132kV DHENKANAL-KHAJURIAKATA-NUAPATNA FEEDER	DP relay operated with indication: R_Y fault loop,Z_1,Ir=2.408 kA,Iy=2.3kA,dist=18.77 kM .			As per fault record fault was suspected to be on NPTN side.Line Charged after patrolling done by NPTN grid end & it stood OK.	
			10:59	14:09	03:10	132kV Nuapatna - Khajuriakata - Dhenkanal T-Line	**At Nuapatna end:-** R and B -ph O/C, DP- 25.37km, Zone -1, Ir=1.17kA, Iy=203.6A, Ib=991.9A **At Dhenkanal end:-** DP- 18.7km, Ir=2.4kA, Iy=2.3 kA **At Khajuriakata end:-** DP- 46.1km				
			10:59	15:30	04:31	132kV Khajuriakata-Dhenkanal-Nuapatna T line	**At Khajuriakata end**: Z-1,R &Y-Ph, O/C indication, Dist-46.1 KM, Ir-1.85 KA & Iy-1.83 KA, **At Dhenkanal end:** Z-1,R &Y-Ph, O/C indication, Dist-18.72 KM, Ir-2.4 KA & Iy-2.3 KA NPT End- O/C, Y & B-Ph, Z-1, Dist-25.3 KM, Iy-1.17 KA & Ib-0.991 KA				
42	Joda	11.04.23	11:51	13:04	01:13	220kV JODA-RAMCHANDRAPUR FDR.	Tripped at both end with following relay : Relay at Joda end: DP relay Main-I: Tripped phase :BC,Zone-I, Dist=26.74KM, Fault Current: Ia=355.4A,Ib=2.937KA,Ic=3.259KA,VAN=124.5KV, VBN=75.85KV,VCN=67.55KV DP Main-II :Trip phase: BCT,,Zone-I,Dist=28.40KM,Fault Current: A=329A,B=3002A,C=3299A,N=21A,G=24A. At Ramchandrapur end :DP relay: Zone-I, Trip Phase : BCT,Dist=94.07KM, Fault Current: Ia=0.31KA,Ib=2.68KA,Ic=2.40KA				
43	Bhanjanagar	11.04.23	12:38	13:25	00:47	220kV Bhanjanagar - Narsinghpur feeder	**At Bhanjanagar end**:- AN, Zone-1, Dist-8.43km, IA=1.92kA **At Narsinghpur end:-** AN, Zone-1, Dist-16km, IA=2.31kA				
44	Bhanjanagar	11.04.23	14:06	16:46	02:40	220kV Bhanjanagar - Narsinghpur feeder	**At Bhanjanagar end**:- AN, Zone-1, Dist-66.27km, IA=1.97kA **At Narsinghpur end:-** AN, Zone-1, Dist-19.28km. IA=2.52kA			Line Charged after pattroling	
			14:06	16:48	02:42	220 kV Narasinghpur-Bhanjanagar FDR-2	DP Operated, Zone-1,Dist:19.28 KM, Ir:2.52 kA				
45	Therubali	11.04.23	16:13	17:37	01:24	220kV Therubali-Kashipur Ckt	At Therubali-CGT, Z-1, 30.86KM, Ia=100A, Ib=28A, Ic=3.78kA. No tripping at Kasipur end. (B-ph conductor snapped at Location-97.)				
46	Nimapara	11.04.23	16:48	17:04	00:16	132kV Nimapara-Samangara Feeder	Local End:- O/C,R-Y-B ph to ph,Ia=2.178KA,Ib=2.16KA, Ic=1.90KA Remote End:- Not tripped	NIL	NIL		
47	Samangara	11.04.23	16:51	17:52	01:01	132 kV Samangara-Satasankha-I	D/P,Zone-1,FL-L2-E,Dist-0.4 Km(1.4%) , IL1-0.01 KA,IL2-2.14 KA & Il3-0.00 KA [Y-Phase CVT bursted at Samangara end]	NONE	NONE	Y-Phase CVT bursted at Samangara end. And replaced with anew one on dt.12.04.2023	
			16:51	17:05	00:14	132 kV Samangara-Nimapara FDR	CB Only tripped at Nimapara end dueto burst of Y-ph CVT of 132KV Satasankha Feeder at Samangara				
48	Jayanagar	12.04.23	01:30	02:24	00:54	220kV Jayanagar- Laxmipur ckt-1	B-N,Z-1,Dist-42.75KM,Ib-3.661KA				
49	Jayanagar	12.04.23	01:30	02:08	00:38	220 kV Jayanagar- jeypore PG ckt-III	Feeder tripped because of bus protection operated and pulled out Bus-1 and the concerned tie breaker is faulty				
50	Joda	12.04.23	01:55	13:26	06:59	220kV JODA-RAMCHANDRAPUR FDR.	Tripped at both end but A/R success at Joda with following relay : Relay at Joda end: DP relay Main-I: A/R Success,Tripped phase :AN,Zone-I, Dist=3.150KM, Fault Current: Ia=4.981KA,Ib=249.6A,Ic=787.6A,VAN=31.89KV, VBN=132.8KV,VCN=127.6KV DP Main-II :Trip phase: AGT,A/R success, Zone-I,Dist=3.92KM,Fault Current: A=4818A,B=258A,C=772A,N=5680A,G=5678A. At Ramchandrapur end : DP relay:Zone-II, Trip Phase : AG,Dist=126.5KM, Fault Current: Ia=1.63KA,Ib=0.18KA,Ic=0.23KA				
51	Joda	12.04.23	11:09	18:08	06:59	220kV JODA-RAMCHANDRAPUR FDR.	Tripped at both end with following relay : Relay at Joda end: DP relay Main-I: Tripped phase :AN,Zone-I, Dist=74.44KM, Fault Current: Ia=955.6A,Ib=382.0A,Ic=428.1A,VAN=109.8KV, VBN=128.9KV,VCN=129.7KV B/U Relay: E/F trip:R-Ph,Fault Current: IL1=0.50KA,IL2=0.05KA,IL3=0.05KA At Ramchandrapur end :DP relay: Zone-I, Trip Phase : AG,Dist=54.6KM				
			11:09	03:50	16:41	132/33kV Power Transformer-IV	Tripped with O/C relay				
52	Therubali	12.04.23	11:46	12:20	00:34	220kV Therubali-Indravati Ckt-1	At Therubali-ABT,Z-2, 73.18km, Ia=2.89kA, Ib=2.88kA, Ic= 25A, At Indravati-ABT,Z-1, 14.4km, Ia=5.18kA, Ib=5.12kA, Ic=117 A.				
			11:46	12:21	00:35	220kV Therubali-Gunupur Ckt-1	At Therubali-AGT, Z-1, 35.5km, Ia= 1.8 kA, Ib= 262 A, Ic= 111A No tripping at Gunupur end.				
53	BC Mohanty	12.04.23	12:30	15:31	03:01	132kV BC Mohanty - Bamnipal feeder	**At BC Mohanty end**:- DP optd, Ia=5.61kA, Ib=5.36kA, Ic=0.01kA, Zone-1, Dist-7.8km				
54	Baripada	12.04.23	13:18	16:39	03:21	132kV Baripada - Betnoti feeder	**At Baripada end:-** DP, B-Ph trip, Zone-I, Dist-15.8km, L3-E, PU Time=50 ms, Trip time=0 ms, IL1=0.11kA, IL2=0.35kA, IL3=2.63kA, Rp=7.63ohm, Xp=6.12ohm, Rs=2.54ohm, Xs=2.04ohm **At Betnoti end:-** DP, Started phase-CN, Tripped phase-ABC, Distance tripped zone-I, Fault duration-81.64ms, Relay trip time -79.97ms, Fault location XY -2.501km, IA=126.4A, IB=363.3A, IC=1.030kA, VAN=77.70kV, VBN=76.32kV, VCN=17.63kV, Fault resistance XY =18.90ohm	NIL	NIL	During this interruption of 132 KV Baripada- Betnoti Line, Baripada Grid Avail P/S from Baripada (PGCIL) Grid Through 132 KV Baripada (PGCIL)-Baripada(OPTCL) Line. Weather Condition-Normal.	
55	LAPANGA	12.04.23	14:32	15:04	00:32	22OkV LAPANGA-KATAPALI CKT-I	At Lapanga-BPH-G, DIST-36KM,Z2,IL1-0.04KA,IL2-0.05KA,IL3-3.214KA At Katapalli-BPH-G, DIST-35.055KM,Z1,IL1-0.41KA,IL2-0.59KA,IL3-2.837KA				
56	Mendhasal	12.4.23	18:14	19:05	00:51	132kV Mendhasal - Khurdha	tripped on following relay condition on dp relay=Iy=7.18KA, dist=6.2KM at remote end AR not successful Iy=4.33A, Dist= 17.1KM	NIL		Tripped at Khurda end only ,at Msal end A/R	
			18:14	19:00	00:46	100MVA AUTO-1 at Mendhasal	Tripped on following relay condition on O/C and E/F dp relay=Ir= 0.11KA,Iy=0.11KA,Ib= 0.11KA 861 and 862 relay opt.				
57	Laxmipur	13.04.23	01:30	02:24	00:54	220kV Laxmipur-Jayanagar ckt-1	B-N,Z-1,42.75KM				
58	Joda	13.04.23	09:38	10:45	01:07	220kV JODA-RAMCHANDRAPUR FDR.	Tripped at both end but A/R success at Joda with following relay : Relay at Joda end: DP relay Main-I: A/R Success,Tripped phase :AN,Zone-I, Dist=74.62KM, Fault Current: = 853.5A,Ib=366.8A,Ic=407.8A,VAN=111.1KV, VBN=128.2KV,VCN=129.4KV At Ramchandrapur end : DP relay:Zone-I, Trip Phase : AG, Fault Current: Ia=1.87KA,Ib=0.35KA,Ic=0.38KA				
59	Bhanjanagar	13.04.23	10:09	10:20	00:11	220kV Bhanjanagar - Therubali circuit-II	**At Bhanjanagar end:-** A/R Successful, CN, Zone-1, Dist-56.65km, IC=1.97kA **At Therubali end:-** CN, Zone-1, Dist-113.8km. IC=1.38kA				
60	Joda	13.04.23	13:00	15:36	02:36	220kV JODA-RAMCHANDRAPUR FDR.	Tripped at both end with following relay : Relay at Joda end: DP relay Main-I: Tripped phase :BN,Zone-II, Dist=115.3KM, Fault Current: Ia=248.1A,Ib=1.147KA,Ic=434.6A,VAN=127.9KV, VBN=100.3KV,VCN=128.6KV DP Main-II :Trip phase: BGT,,Zone-II, Dist=106.73KM,Fault Current: A=45A,B=1197A,C=47A,N=1247A,G=1247A. At Ramchandrapur end :DP relay: Zone-I, Trip Phase : BN,Dist=14.3KM, Fault Current: Ia=0.27KA,Ib=6.06KA,Ic=0.40KA				
61	Aska	13.04.23	13:06	14:13	01:07	132kV Aska - Purussottampur feeder	**At Aska end**:- DIR O/C, R-Y ph, Zone-1, Dist-9.3km, IR-5.31kA, IY-5.11kA, IB-215.3A **At Purushottampur end:-** DP, L1-2, Dist-18.8km, Zone-1, IL1-1.54kA, IL2-1.73kA, IL3-0.19kA				

Sl. No.	Sub-Station	Date	from	To	Duration	Lines / Equipments / Generating Units Tripped	Relay Indication / Cause	Grid Sub-stations affected (it can be more than one)	Area interruption period	Remarks	Energy Loss (In MU)
62	TARKERA	13.04.23	15:38	22.04.23 18:17	26:45	220kV Tarkera-Bonai	MT-ABB REL 670			SPS	
63	Baripada	14.04.23	11:19	11:41	00:22	132kV Baripada - Betnoti feeder	**At Baripada end**:- DP, B-Ph trip, Zone -I, Dist-15.8km, Distance pick up-L3-E, PU Time=50ms, Trip time=1 ms, IL1=0.11kA, IL2=0.34kA, IL3=2.62kA, Rp=7.45ohm, Xp=6.11ohm, Rs=2.48 ohm, Xs=2.04 ohm **At Betnoti end**:- DP, Started phase-CN, Tripped phase-ABC, Distance tripped zone-I, Fault duration-70.01ms, Relay trip time -80.02ms, Fault location XY -2.501km, IA=121.2A, IB=356.6A, IC=1.032kA, VAN=77.01kV, VBN=75.47kV, VCN=17.24kV, Fault resistance XY =11.86 ohm	NIL	NIL	During this interruption of 132 KV Baripada- Betnoti Line, Baripada Grid Avail P/S from Baripada (PGCIL) Grid Through 132 KV Baripada (PGCIL)-Baripada(OPTCL) Line. Weather Condition-Normal.	
64	Baripada	14.04.23	12:33	18:02	05:29	132kV Baripada - Betnoti feeder	**At Baripada end**:- DP, B-Ph trip, Zone -I, Dist-15.8km, Distance pick up-L3-E, PU Time=50 ms,Trip time=0 ms, IL1=0.11kA, IL2=0.35kA, IL3=2.61kA, Rp=7.47ohm, Xp=6.12ohm, Rs=2.44 ohm, Xs=2.04ohm **At Betnoti end:-** DP, Started phase-CN, Tripped phase-ABC, Distance tripped zone-I, Fault duration-70.01ms, Fault location XY -1.887km, IA=121.2A, IB=356.6A, IC=1.032kA, VAN=77.01kV, VBN=75.47kV, VCN=17.24kV, Fault resistance XY =11.86ohm	NIL	NIL	During this interruption of 132 KV Baripada- Betnoti Line, Baripada Grid Avail P/S from Baripada (PGCIL) Grid Through 132 KV Baripada (PGCIL)-Baripada(OPTCL) Line. Weather Condition-Normal.	
65	Therubali	15.04.23	**01:41**	**02:29**	00:48	220kV Therubali-Narendrapur Ckt-2	At Therubali-No tripping At Narendrapur- Master trip with no indication.				
66	Jayanagar	16.04.23	11:19	11:54	00:35	220kV Jayanagar- Laxmipur ckt-1	A-N,Z-1Dist-25.81KM,Ia-105.5A				
67	Bhanjanagar	16.04.23	11:36	12:14	00:38	220kV Bhanjanagar - Therubali circuit-I	**At Bhanjanagar end:**- AB, Zone-1, Dist-132.2km, IA=1.39kA, IB=1.25kA **At Therubali end**:- ABT, Zone-1, Dist-27.98km, IA=4.22kA, IB=4.34kA				
68	Bhanjanagar	16.04.23	12:56	17.04.23 12:54:00	23:58	220kV Bhanjanagar - Mendhasal feeder	**At Bhanjanagar end:**- CN, Zone-1, Dist-8.92km, IC=5.54kA **At Mendhasal end:**- CN, Zone-1, Dist-117.5km, IC=1.41kA			L/C was taken by Bhanjanagar SD	
69	Bargarh	16.04.23	19:34	19:59	00:25	132kV Bargarh - Bargarh New feeder	**At Bargarh end**:- Zone-2, Y-B, O/C, Dist-31km, IY=1.3kA, IB=1.3kA **At Bargarh New end:**- No tripping			132KV Side of Auto TFR-I&II tripped at BGH New Grid end after charging of 132KV BGH New-Bhatli FDR-I	
70	Joda	17.04.23	11:14	12:10	00:56	220kV JODA-RAMCHANDRAPUR FDR.	Tripped at both end with following relay : Relay at Joda end: DP relay Main-I:Tripped phase :AN,Zone-I, SOTF trip,Dist=75.03KM, Fault Current: Ia=1.320KA,Ib=46.37A,Ic=45.04A,VAN=100.9KV, VBN=126.0KV,VCN=126.7KV DP Main-II: Not operated At Ramchandrapur end : DP relay:Zone-I, Dist=57KM, Fault Current: Ia=2.13KA,Ib=0.33KA,Ic=0.39KA				
71	Rajgangpur	17.04.23	12:33	16:28	03:55	132 kV Rajgangour-Tarkera Ckt - 1	At Rajgangpur-O/C in R & Y phase-DP relay Readings - Ia-6.180 KA, Ib-6.122 KA, Ic-84 A, Ig-100 A, ABGT, Distance - 3.57 KM, Zone - 1 At Tarkera-DP : SEL ; B/U : ABB REF DP:- LOOP:- ABGT, ZONE-2, DIST:- 22.22 KM, IA=4.623 KA, IB=4.49 KA B/U : E/F & O/C PICK-UP, MT			TRANSIENT FAULT Lightening.	
72	kuchinda	17.04.23	23:42	19.04.23 12:42:00	37hrs	132 kV SMC feeder (Incoming)	tripped from both ends. Distance rotection. Zone-1, Tripped phase Rph-N, Location:10.14km, IR=1.04kA ,IY-95A,IB-191A	NIL	Nil	power drawn from Rajgangpur end Via Kutra switching station.	
73	Cuttack	18.04.23	10:58	12:40	01:42	132kV Cuttack-Jagatsinghpur line	Started Ph: RYN, Tripped Ph: RYB, Dist. Protec: Zone 2, Distance:33.07km, IR: 432.4A IY:185A,IB:192.1A, Relay trip time: 83.34ms Fault duration:605.1ms, VRN: 72.62kV VYN:74.22kV, VBN: 73.89kV, Fault resistane:816.3 mOhm	NIL		Jagatsinghpur grid availed p/s from Tirtol end	
74	Joda	18.04.23	11:35	13:03	01:28	220kV JODA-RAMCHANDRAPUR FDR.	Tripped at both end with following relay : Relay at Joda end: DP relay Main-I: Tripped phase :BN,SOTF trip,Zone-I, Dist=17.27KM, Fault Current: Ia=360.8A,Ib=3.027KA,Ic=478.0A,VAN=123.0KV, VBN=60.12KV,VCN=121.2KV DP Main-II :Trip phase: BGT,,Zone-I, Dist=18.86KM,Fault Current: A=553A,B=2273A,C=385A,N=2878A,G=2876A. At Ramchandrapur end :DP relay: Zone-I, Dist=111.2KM, Fault Current: Ia=17.09A,Ib=2.72KA,Ic=0A				
75	Nimapara	19.04.23	05:25	08:55	03:30	132kV Chandaka-Nimapara Feeder	Due to 132KV Bus PT out	NIL	NIL		
76	Nuapada	19.04.23	10:58	11:05	00:07	132 kV Khariar- Nuapada line	DP Operated	Nil		Line was in ideal charged	
77	Telkoi	19.04.23	11:08	11:25	00:17	**220kV Telkoi-Joda feeder**	Tripped on distance protection from Telkoi end while autoreclosure successful at Joda end with following indication observed in DP relay at both end. **DP relay indication at Telkoi end**:- **Main-I DP**:-(1) Started phase C N (2) Tripped phase A B C (3) Distance Trip Zone-1 (4) Fault distance 49.77KM (5) IA=95.40A, IB=138.8A, IC=1.023KA (6) VAN=138.9KV, VBN=126.9KV, VCN=93.64KV **Main-II DP**:- (1) Fault type C G (2) Fault location 46.3KM (3) Distance Zone-1 (4) IA=96.325A,IB=134.514A,IC=970.049A,IN= 805.371A **DP Relay indication at Joda end:-** (1) Started phase C N (2) Trip Zone-1 (3) Fault distance 48.92KM (4) IA=124.4A, IB=143.8A, IC=1.316KA				
78	Nuapada	19.04.23	11:11	11:20	00:09	132kV Khariar- Nuapada line	DP Operated	Nil		Line was in ideal charged	
79	Joda	19.04.23	13:07	21.04.23 18:07:00	48:53	220kV JODA-RAMCHANDRAPUR FDR.	Tripped at both end with following relay : Relay at Joda end: DP relay Main-I: Tripped phase :AN,Zone-I,SOTF trip, Dist=75.77KM, Fault Current: Ia=1.372KA,Ib=45.02A,Ic=43.12A,VAN=96.44KV, VBN=125.1KV,VCN=126.2KV DP Main-II :Not operated At Ramchandrapur end :DP relay: Zone-I, Trip Phase : AN,Dist=Not showing, Fault Current: Ia=1.77KA,Ib=0.31KA,Ic=0.36KA At 13:33Hrs 220KV Joda-Ramchandrapur fdr.charged at RCPUR end w.r.t ERLDC Switch ON code 1349 but immediately tripped with following relay indication At RCPUR end: DP relay: Dist=111.5KM,Zone-II,Fault current: Ia=0.04KA,Ib=1.31KA,Ic=0.05KA			S/D taken by RCPUR end for replacement of damaged insulator at different loc no. i.e 130, 156, 157, 182, 187,190,194,195, 195 & tree trimming.	
80	Baripada	19.04.23	13:15	17:11	03:56	132kV Baripada - Betnoti feeder	**At Baripada end**:- DP, B-Ph trip, Zone -I, Dist-15.7km, Distance pick up-L3-E, PU Time=50 ms,Trip time=0 ms, IL1=0.12kA, IL2=0.37kA, IL3=2.61kA, Rp=7.44ohm, Xp=6.07ohm, Rs=2.48 ohm, Xs=2.02 ohm **At Betnoti end**:- DP, Started phase-CN, Tripped phase-ABC, Distance tripped zone-I, Fault duration-82 ms, Relay trip time=80.33 ms, Fault location XY -1.741km, IA=136.7A, IB=383.8A, IC=1.035kA, VAN=75.94kV, VBN=74.78kV, VCN=16.80kV, Fault resistance XY =11.73 ohm	NIL	NIL	During this interruption of 132 KV Baripada- Betnoti Line, Baripada Grid Avail P/S from Baripada (PGCIL) Grid Through 132 KV Baripada (PGCIL)-Baripada(OPTCL) Line. Weather Condition-Normal.	
81	Therubali	19.04.23	13:57	18:12	04:15	220kV Therubali-Narendrapur Ckt-2	At Therubali-BCT, Z-1, 44.2 KM, Ia= 74.66A, Ib= 3.65kA, Ic= 3.63kA, At Narendrapur- BCT, Z-1, 150 KM, Ib= 1.19kA, Ic= 1.16kA,			LC availed and Charged after tree cutting.	
82	Meramundali	19.04.23	15:02	15:11	00:09	132 kV RML-DSP	At Meramundali-O/C Trip,IR=130.5 A,IY=128.3 A,IB=127 A				
83	Samangara	20.04.23	07:35	07:37	00:02	132 kV Samangara-Nimapara FDR	Source Failure	NONE	NONE	Source Failure.Availed supply from 132KV Puri	
84	Nimapara	20.04.23	07:36	07:45	00:09	132kV Nimapara-Samangara Feeder	No relay indication Remote End:- Not tripped	NIL	NIL		
85	Jajpur Road	20.04.23	11:57	21.04.23 19:02:00	30:05	132kV J.ROAD-DUBURI CKT-II	At Jajpur Road end: DP RELAY OPERATED, FAULT CURRENT: IA=3.697KA,IB=197.1A,IC=426.9A;F. VOLTAGE: VAN=20.13KV,VBN=77.83KV,VCN=71.47KV; F. ZONE-I; FAULT RESISTANCE=1.757Ω; FAULT LOCATION=4.81 KM, At Duburi end: DP RELAY OPERATED, FAULT CURRENT: IA=5.649KA,IB=187.3A,IC=419.6A;F. VOLTAGE: VAN=36.05KV,VBN=74.55KV,VCN=73.33KV; F. ZONE-I; FAULT RESISTANCE=807.9Ω; FAULT LOCATION=7.561 KM				
86	Baripada	20.04.23	12:40	13:43	01:03	132kV Baripada - Betnoti feeder	**At Baripada end:-** DP, B-Ph trip, Zone -I, Dist-15.7km, Distance pick up-L3-E, PU Time=50 ms, Trip time=0 ms, IL1=0.12kA, IL2=0.37kA, IL3=2.62kA, Rp=7.40ohm, Xp=6.07ohm, Rs=2.47 ohm, Xs=2.02 ohm **At Betnoti end:-** DP, Started phase-CN, Tripped phase-ABC, Distance tripped zone-I, Fault duration-65.04 ms, Relay trip time=80.55 ms, Fault location XY -1.858km, IA=138.8A, IB=386.8A, IC=1.03kA, VAN=76.17kV, VBN=74.59kV, VCN=17.4kV, Fault resistance XY =11.72 ohm	NIL	NIL	132 KV Baripada-Betonati line charged from Baripada grid S/s at 14:37 Hrs & it stood ok. During this interruption of 132 KV Baripada- Betnoti Line, Baripada Grid Avail P/S from Baripada (PGCIL) Grid Through 132 KV Baripada (PGCIL)-Baripada(OPTCL) Line. Weather Condition-Normal	
87	Mendhasal	20.4.23	13:20	13:41	00:21	220kV Mendhasal - chandaka-I	IL1=0.30KA, IL2=0.23KA,IL3=0.43KA, 861 862 OPTD				
			13:20	16:21	03:01	220kV Mendhasal-Bidanasi ckt-2	dist=12.4KM Ia=6.29KA A/R block RYB phase pickup				
88	Budhipadar	21.04.23	04:08	20:08	16:00	132kV Budhipadar - Sundergarh circuit-II	At Budhipadar end:- DP:- VT fuse fail, Ia-19A, Ib-18A, Ic-21A, In-1A, B/U:-Rph trip, E/F, IL1- 13.64kA Weather: windy At Sundargarh end:- DP, Fault loop Bph to E, Dist- 30.92km, Zone 1, Tr-2.35kA, Iy- 2.443kA, Ib- 7A, In- 2.057kA			Rph CVT burst at Budhipadar end. Fire broke out near switchyard. Line declared faulty. CVT replaced and charged from both ends	
			04:08	05:13	01:05	220/132kV 160MVA Auto-I at Budhipadar	**132kV side**:- B/U: E/F, Rph to E, O/C, Ia- 5.598kA **220kV side**:- intertripped				
			04:08	04:25	00:17	132kV side of 160MVA Auto-II at Budhipadar	B/U: Rph-Yph to N, Ia- 5.99kA, Ib- 1.119kA				
89	Paradeep	21.04.23	09:53	10:02	00:09	220 kV N.DUBURI CKT-I	O/C ,B - PH , ZONE 1,	NIL	NIL		
90	Paradeep	21.04.23	13:07	15:14	02:07	132kV IFFCO CKT-II	O/C ,R Y B- PH ,E/F ,IL1-0.08KA,IL2-1.584KA,IL3-6.03KA	NIL	NIL	BUS FAULT AT IFFCO END.	
91	Salipur	21.04.23	14:04	14:12 22.04.23	24:08	132kV Kendrapara-Salipur Line	AT KENDRAPARA End: TRIPPED ON B/U EARTH FAULT, Ir=454.5A, Iy=5.39A, Ib=144.1A, AT SALIPUR END: TRIPPED ON DP, ZONE-2, DIST.=38.5 KM, Ir=0.44 kA, Iy=2.85 KA, Ib=0.13 KA				
92	Balasore	21.04.23	14:13	16:06	01:53	220kV Balasore - New Duburi feeder	**At Balasore end:-** Main-I: C-N, Zone-1, Distance-103.0km, fault current-Ia=91.23A, Ib=112.0A, Ic=1.424kA, Main-II: Fault Loop-L3-N, Zone-1, Dist=-1km, Fault current IL1=77.80A, IL2=72.93A , IL3=419.18A **At New Duburi end:-** Main-I: B-ph Trip, Zone-I, Dist-111.9km, fault current- Ib=1.61kA, Main-II: B-ph Trip, Zone-I, Dist-106.1km, Fault current Ib=1.11kA			Patrolling of the line was done by 220KV Line S/D team & no fault was found.	
93	Budhipadar	21.04.23	14:23	17:02	02:39	132kV Budhipadar - MCL circuit-II	**At Budhipadar end**:- DP, Bph to Efault, Zone 1 trip, Dist- 10.69km, IL3-1.56kA Weather- windy			Line patrolling done and no fault found	
94	Budhipadar	21.04.23	16:35	17:00	00:25	132kV Budhipadar - Kalunga feeder	**At Budhipadar end:**- DP, R-Yph to E fault, Zone 2 trip, Dist- 119.5km, Ia-1.35kA, Ib-1.33kA, Ic-261A 1.56kA, Weather- windy, No tripping at Kalunga end			Tripped due to sR-PH JUMPER SNAPPED AT LOC.83 in 132 KV Kalunga-Tarkera ckt. L/c issued to T/L S/D Rourkela for rectification of the same. After rectification, the line was charged and stook OK	

Sl. No.	Sub-Station	Date	from	To	Duration	Lines / Equipments / Generating Units Tripped	Relay Indication / Cause	Grid Sub-stations affected (it can be more than one)	Area interruption period	Remarks	Energy Loss (In MU)
95	Jajpur Road	21.04.23	19:05	22.04.23 12:25:00	17:20	132kV J.ROAD-DUBURI CKT-II	At Jajpur Road end: DP RELAY OPERATED, FAULT CURRENT: IA=100.2A,IB=221.0A,IC=2.13KA;F. VOLTAGE: VAN=74.79KV,VBN=73.61KV,VCN=17.6KV; F. ZONE-I; FAULT RESISTANCE=2.279Ω; FAULT LOCATION=8.091 KM, At Duburi end: DP RELAY OPERATED, FAULT CURRENT: IA=98.93A,IB=219.33A,IC=8.24KA;F. VOLTAGE: VAN=73.38KV,VBN=73.83KV,VCN=28.94KV; F. ZONE-I; FAULT RESISTANCE=268.6mΩ; FAULT LOCATION=4.064KM				
96	Chhatrapur	21.04.23	22:11	25.04.23 15:52:00	88:41	132kV Chatrapur-IRE ckt-1	Tripped on O/C(B-Ph) with M/R,Ir-0KA,Iy-0KA,Ib-5.4KA			A CT has burst at M/S IREL end.	
97	Budhipadar	22.04.23	02:03	07:45	05:42	132kV Budhipadar - MCL circuit-II	**At Budhipadar end:-** DP, Bph to E fault, Zone 1 trip, Dist- 10.19km, IL3-1.759kA			Line patrolling done no fault found	
98	New Duburi	22.04.23	08:23	19:05	10:42	220kV New Duburi-Balasore	At New Duburi end: MAIN-I GENERAL TRIP,B PH TRIP, E/F TRIP,ZONE-1 TRIP, DIST. PICK-UP L3E, DIST.=114.7KM, PICK-UP TIME=154ms, TRIP TIME=100ms, IL1=0.08KA, IL2=0.12KA, IL3=1.63 KA MAIN-II ANY TRIP, B PH START,ZONE-1 TRIP, L3E FAULT, FAULT DURATION=143.5ms, TRIP TIME=80.07ms, DIST. = 99.68KM, IL1=62.02A, IL2=51.52A, IL3=1.162 KA BACK UP B-PHASE PICK-UP, E/F PICK-UP, AT Balasore End: MAIN-I B-N, Zone-1, DIST=96.7KM, IL3=1.537KA MAIN-II			NO PHYSICAL FAULTS FOUND AT THE LOCATION	
99	Balasore	22.04.23	08:24	12:19	03:55	220kV Balasore - New Duburi feeder	**At Balasore end:-** Main-I: C-N, Zone-1, Dist-96.7km, fault current- Ia=96.6A, Ib=68.67A, Ic=1.537kA, Main-II: Fault Loop-L3-N, Zone-1, Dist=95.30km, Fault current IL1=97.15A, IL2=66.46A , IL3=1523.48A **At New Duburi end:-** Main-I: B-ph Trip, Zone-I, Dist-114.7km, fault current- Ib=1.63kA, Main-II: B-ph Trip, Zone-I, Dist-99.68km, Fault current Ib=1.162kA			Patrolling of the line was done by 220KV Line S/D team & no fault was found. The feeder was charged at 12:19hrs from Balasore end only but immediately tripped on same fault.	
			12:19	19:07	06:48		**At Balasore end:-** Main-I: C-N, Zone-1, Dist-76.71km, fault current- Ia=76.98A, Ib=80.11 A, Ic=1.888kA, Main-II: Fault Loop-L3-N, Zone-1, Dist=180.08km, Fault current IL1=77.14A, IL2=80.48A , IL3=845.37A			Patrolling of the line was done by 220KV Line S/D team & no fault was found. The feeder was charged at 19:07 hrs after getting clearance from DGM , 220kV line SDO and stood ok.	
100	Kendrapara	22.04.23	08:32	08:52	00:20	132 kV KENDRAPARA-CHANDIKHOLE CKT-I	AT KENDRAPARA End TRIPPED ON B/U E/F , Ir=126.7A, Iy=147.3A, Ib=439.1A, No tripping at Chandikhole end	Chandikhol	00:20		
101	Budhipadar	22.04.23	10:06	23.04.23 14:21:00	28:15	132kV Budhipadar - MCL circuit-II	**At Budhipadar end**:- DP, Bph to E fault, Zone 1 trip, Dist- 10.82km, IL3-1.82kA			Line patrolling done found clearance of said line to low fro loc no 38 to 42 & loc no. 03-04	
102	Rajgangpur	22.04.23	16:28	18:01:00	01:33:00	132 kV Rajgangour-Tarkera Ckt - 1	At Rajgangpur-O/C in R,B & Y phase-DP relay Readings - Ia-6.297 KA, Ib-6.466 KA, Ic-5.834 KA, Ig-305 A, ABCT, Distance - 5.10 KM, Zone - 1				
103	Katapali	22.04.23	17:04	17:21	00:17	220kV Katapali-Bolangir PG	Main II- Tripped with distance protection optd.,zone-1 trip, fault distance=8207mtrs in R phase Ir=12.22 kA , Iy=526.9A, Ib=206.9A				
104	Bargarh	22.04.23	18:36	19:11	00:35	132kV Bargarh - Thuapali feeder	**At Bargarh end**:- Dist-44.76km, IB=1.51kA, Zone-1, B-E **At Thuapali end:-** Dist-1.7km, IL3=2.39kA, Zone-1, B-E			Weather-Heavy rain and Thunderstorm	
105	Balasore	22.04.23	21:26	23.04.23 18:12:00	20:56	220kV Balasore - New Duburi feeder	**At Balasore end:-** Main-I: C-N, Zone-1, Dist-93.36km, fault current- Ia=86.95A, Ib=47.35 A, Ic=1.517kA, Main-II: Fault Loop-L3-N, Zone-1, Dist=123.55km, Fault current IL1=84.13A, IL2=45.38A , IL3=1497.67A **At New Duburi end:-** Main-I: B-ph Trip, Zone-I, Dist-93.6km, fault current- Ib=1.73kA, Main-II: B-ph Trip, Zone-I, Dist-92.2km, Fault current Ib=1.28kA			Bamboo tree in location no-277 of 220KV Balaore-Newduburi line & newly charged Dhamara line was caught fire during the tripping period.The Bamboo tree was cut down and line was charged.	
106	Nimapara	23.04.23	01:18	07:52	06:34	132kV Pratapsasan-Nimapara Feeder	VT fuse fail/Over voltage trip indication in Backup relay Remote End:- Not tripped	NIL	NIL		
107	TARKERA	23.04.23	08:36	18.05.23 18:57	600:34	220kV TKR-Bonai 220kV TKR-Rengali	MT-ABB REL 670			SPS	
108	MARSHAGHAI	24.04.23	00:00	00:15	00:15	132 kV MARSHAGHAI-KENDRAPARA FDR	B/U RELAY OPTD.			ALTERNATE SUPPLY AVAILED THROUGH 132KV MGH-KDP FEEDER	
109	Nuapatna	24.04.23	13:09	14:36	01:27	132kV Nuapatna- Arati feeder	**At Nuapatna end:-**Tripped due to R,B- ph O/C and E/F at a distance of 553.9 mtr, zone-1 operated, Ir= 2.74 kA, Iy=171.2 A, Ib= 2.61 kA **At Arati end:-** Zone-2, Y-ph and B-ph O/C, Distance-67.02km, Iy-1.523kA, Ib-9.388kA. [Touching of tree branches]				
110	Bargarh	24.04.23	16:19	17:05	00:46	132kV Bargarh - Thuapali feeder	**At Bargarh end**:- Dist-0.44km, IY=3kA, Zone-1, Y-E **At Thuapali end:-** Dist-33.9km, IL2=1.63kA, Zone-1, Y-E			Weather-Normal	
111	Jayanagar	24.04.23	18:44	20:45	02:01	132kV Jayanagar- Borigumma fdr	B-N,Z-2,Dist-35.32KM,Ib-1.5KA				
112	Nuapada	24.04.23	20:06	20:20	00:14	132kV Khariar- Nuapada line	DP Operated			Line was in ideal charged	
113	Jayanagar	25.04.23	11:11	11:27	00:16	132kV Jayanagar- Tentulikhunti-1 fdr	O/C & E/F, A-N, Z-1, Dist=10.05KM,If=3.46KA			LIGHTENING	
114	TARKERA	25.04.23	13:22	15:29	02:07	220 kV TKR-RSP III	DP RELAY: SIEMENS 7SA611; DIFF RELAY: SIEMENS 7SD5 DP RELAY: ZONE-1, LOOP AG FWD, TRIP A PH, IA=15.30KA, DIST-3.0 KM, %-67.5%, DIFF RELAY: R-PH TRIP, DIFF FAULT L1-ON, DIFF FAULT E-ON, DIFF TRIP L123 ON, IL1=15.09 KA, MASTER TRIP OPERATED At RSP end-ALREADY IN TRIPPED CONDITION			LIGHTENING	
115	Nuapatna	25.04.23	15:32	15:53	00:21	132kV Nuapatna- Banki feeder	**At Nuapatna end**:- Tripped due to B-ph O/C, Dist-12.49km **At Banki end**:- Ib=1.382kA. Dist-7.295kmIr=3.122 kA zone-1 operated			Heavy lightning followed with thunderstorm	
116	Therubali	25.04.23	16:30	18:43	02:13	220kV Therubali-U.Kolab Ckt-3	At Therubali-AC-N, Z-1, 76.5KM, Ia=2.3KA, Ib=52.4A, Ic=2.39KA At Kolab-RB-N, Z-1, 59KM, Ir=1.2KA, Iy=190A, Ib=1.8KA			Test charged but did not stand & tripped on Y-N fault(SOTF).	
117	Kalunga	25.04.23	17:59	19:06	01:07	132 kV Kalunga- Budhipadar	**At kalunga end:** DP Relay- Tripped Phase- R-N, Zone- 1, Fault location- 59.28 km, Fault duration- 48.22 ms, Ir-1.224 KA, Iy-65.4 A, Ib-103.6 A, Fault Resistance- 17.76 ohm , **At Budhipadar end:** Fault Location:34 km zone=2 R-N Ir= 2.60 KA			Due to severe thunder and lightning Charged and stook OK	
118	Jayanagar	25.04.23	18:19	20:35	02:16	132kV Jayanagar- Borigumma fdr	B-C-N,Z-1,Dist=31.03KM,Ib=37A,Ic=401.5A				
119	Jayanagar	25.04.23	20:35	26.04.23 15:29:00	18:54	132kV Jayanagar- Borigummafdr	B-N,A-1, Dist=39.34KM,Ib=652.4A				
120	Anandapur	25.04.23	23:24	26.04.23 12:23:00	12:59	132kV Anandapur - Jajpur Road circuit-I	**At Anandapur end**:- Zone-1, Dist-0.4km, Ia-1.98kA, Ib-0A, Ic-0A, Va-27.54kV, Vb-77.22kV, Vc-73.44kV [' R'phase LA punctured]			Punctured LA was replaced with new one and bay was charged at 12.23Hrs on dt 26.04.2023.	
121	Kendrapara	27.04.23	06:06	08:16	02:10	132 kV Kendrapara-Paradeep CKT-II	**AT KENDRAPARA END:** TRIPPED ON DP RELAY, ZONE-1, DIST.=26.63KM, Ir=208.1A, Iy=19.44A, Ib=1.367KA, **AT PARADEEP END:** TRIPPED ON DP RELAY, ZONE-1, DIST.=3.756 KM, Ir=211.6 A, Iy=22.6 A, Ib=6.3 KA				
122	Joda	27.04.23	13:15	13:35	00:20	220kV JODA-TELKOI FDR.	Tripped at both end with following relay indication Relay at Joda end: DP relay Main-I: Tripped phase :CN, SOTF,Zone-I, Dist=55.57KM, Fault Current: Ia=41.00A,Ib=40.14A,Ic=0.00A,VAN=128.4KV, VBN=129.7KV,VCN=15.55KV DP Main-II : FL: CGT,Dist=54.92KM, Zone-I Fault Current: A=73A,B=122A,C=1861A,N=2022A,G=2022A At Telkoi end : DP relay : Zone-I, Trip Phase : CGT,Dist=53.43KM,Fault Current: Ia=42.40A,Ib=117.2A,Ic=1.259KA				
123	Laxmipur	27.04.23	17:10	17:55 28.04.23	24:45	220kV Laxmipur-Aditya ckt-2 (problem in conductor at location 54-55 of ckt-2)					
124	Balasore	27.04.23	20:36	28.04.23 19:55:00	23:19	132kV Balasore - Birla tyres feeder	**At Balasore end**:- O/C & E/F. Started Phase-A-N. Dist-1.483km, Ia-7.468kA, Ib-23.55A, Ic-26.43A			R-ph suspension insulator string punctured at Loc. No-09 and conductor staying on Y-ph cross arm.	
125	Therubali	28.04.23	08:03	16:21	08:18	220kV Therubali-U.Kolab Ckt-3	At Kolab-Y-ph LA failure occurred at Kolab end.				
126	Kendrapara	28.04.23	18:48	29.04.23 12:44:00	17:56	132 kV KENDRAPARA-SALIPUR SC LINE	**AT KENDRAPARA END:** TRIPPED ON DP RELAY, ZONE-1, DIST=3.846 KM, Ir=193.1A, Iy=301.6A, Ib=3.417KA, **AT SALIPUR END:** TRIPPED ON DP RELAY, ZONE-2,DIST=77.1 KM, Ir=0.01 KA, Iy=0.01 KA, Ib=1.98 KA			No fault found	
127	Therubali	29.04.23	14:21	30.04.23 09:29:00	19:08	220kV Therubali-U.Kolab Ckt-3	At Therubali-R-N, Z-1, 14.04KM, Ir=6KA, Iy=121.8A, Ib=65.72A At Kolab-R-N, Z-2, 127KM, Ir=1049A, Iy=76.66A, Ib=39.90A				
128	Balasore	30.04.23	16:36	20:46	04:10	220kV Balasore - New Duburi feeder	**At Balasore end:-** Main-I: A-N, Zone-1, Dist-61.56km, fault current- Ia=2.224kA, Ib=29.55A, Ic=164.9A, Main-II: Fault Loop-L1-N, Zone-1, Dist=59.708km, Fault current IL1=2364.84A, IL2=34.05A , IL3=180.13A **At New Duburi end:-** Main-I: R-ph Trip, Zone-I, Dist-104.7km, fault current- Ir=1.89kA, Main-II: R-ph Trip, Zone-I, Dist-104.4km, Fault current Ir=1.758kA			Patrolling of the line was done by 220KV Line S/D team & no fault was found.	

SYSTEM DISTURBANCE IN THE MONTH OF APRIL- 2023
(B) TRIPPING OF Line / EQUIPMENT WITH LOAD LOSS

Sl. No.	Sub-Station	Date	From	To	Duration	Lines / Equipments / Generating Units Tripped	Relay Indication / Cause	Grid Sub-stations affected (it can be more than one)	Area interruption period	Remarks	Energy Loss (In MU)
1	Kantabanji	01.04.23	11:57	11:58	00:01	132 kV Kantabanji-RTSS fdr	Tripped on Overcurrent (line to line fault)	Kantabanji Tr.	00:01		5.30243E-05
2	Chhatrapur	01.04.23	12:26	23:18	10:52	132kV Chatrapur-Rambha Traction feeder	Tripped on Y-G, Z-1,Dist-18.48KM,Ir=6A,Iy=3.08KA,Ig=3.081KA.[Earthwire snapped from location no-82 to 86 Weather condition; Heavy rain fall lightening and Thunderstorm.]	Rambha Tr	10:52		0.050403222
3	Kantabanji	03.04.23	12:38	12:43	00:05	132 kV Kantabanji-RAILWAY FEEDER	Tripped on Overcurrent (line to line fault)	Kantabanji Tr.			0.000265122
4	Muniguda	04.04.23	11:03	11:05	00:02	132kV Muniguda-RTSS Feeder	OVER LOAD	RTSS	00:02		0.00020739
5	Bhadrak	04.04.23	15:32	16:16	00:44	132kV Bhadrak - Jajpur Town feeder	B Phase E/F, Zone-I, Distance-1.35km, IL1=70.45A, IL2=151.7A, IL3=8.570kA	Jajpur Town	00:44:00		0.023814618
6	Dhenkanal	04.04.23	16:06	16:28	00:22	132kV DHENKANAL-JORANDA ROAD TRACTION FEEDER	DP relay operated with indication: B_N,Z_2,Ib=2.36 kA,dist=17.29 kM (weather condition was not good)	JORANDA ROAD TR	**00:22**	*Line test charged after weather condition was normal & it stood OK.*	0.002782298
7	Akhusingh	04.04.23	23:44	23:57	00:13	132kV Akhusingh - Rayagada feeder	E/F	Akhusingh Mohana Paralakhemundi	00:13		0.005305443
8	Muniguda	06.04.23	15:14	15:16	00:02	132kV MunigudaRTSS Feeder	***Transient fault***	Muniguda RTSS	00:02		0.00020739
9	Salipur	06.04.23	16:13	23:32	07:19	132kV OCL-Salpur Line	I.DP Relay(Micom Alstom P442) Active Group 2 Started Phase AN Tripped Phase A B C Started Elements Distance Dist. Trip Zone 1 Fault Duration 61.90 ms Relay Trip Time 80.30ms Fault Location 845.7m Ia=4.432kA Ib=22.82A Ic=118.8A Van=8.553kV Vbn=82.27kV Vcn=80.56kV Fault Resistance 1.663 Ohm [Insulators punctured at Loc. No.95(B-phase)]	OCL	07:19		0.045559898
10	Jayanagar	06.04.23	23:28	23:33	00:05	132kV Jayanagar- Railway fdr	A-N,Z-1,Dist-24KM,If=1.3KA	Jayanagar Railway	00:05		0.00104262
11	Sonepur	07.04.23	07:00	10:26	03:26	132 kV Balangir new- Sonepur line	L/C OPTCL for tree cutting under 132 KV Balangir new- Sonepur CKT-1 line	Sonepur, Birmaharajpur, Boudh,	03:29		0.203893458
			07:00	10:29	03:29	132kV Birmaharjpur - Sonepur feeder	Incoming failure				
12	Palaspanga	07.04.23	16:38	16:40	00:02	132kV Palasponga-KJR RTSS	O/C TRIP,IA=305.2A,IB=224.9A, IC=103.8A,INM=6.395A,IND=7.035A	KJR RTSS	00:02		0.000248895
13	Joda	08.04.23	15:58	16:06	00:08	132kV JODA-PALASPONGA FDR.	Tripped at Joda end with following relay indication. Relay at Joda end: B/U relay: Direction O/C trip, Fault Current: Ia=0.27KA,Ib=0.84KA,Ic=0.24KA, At Palasponga end : Not tripped	Palaspanga, OSISL, MSP, Essar, KJR RTSS, Patnaik Steel	00:08		0.00508772
14	Deogarh	10.04.23	11:43	11:54	00:11	220kV RENGALI S/Y-DEOGARH FDR	At Rengali-B/U Relay Operated Ia=59.2A Ib=159.9A Ic=744.7A In=584.07A Ig=592.53A	Barkote, Deogarh	00:11		0.002227861
			11:46	11:55	00:09	220kV Bonai - Barkote feeder	Incoming failure from Rengali end				
15	Kamakhyanagar	10.04.23	07:21	07:51	00:30	132 kV Kamakhyanagar-RTSS	Y,B phase tripped on O/C	RTSS	00:30		0.000595417
16	Khurda	11.04.23	02:40	03:24	00:44	132 kV Khurda-Atri CKt-1	S/F	Khurda Kaipadar Tr.	00:44	Failed from ATRI End.	0.081001909
			02:40	03:24	00:44	132 kV Khurda-Atri CKt-2					
			02:40	03:24	00:44	132kV Khurda-Mendhasal		Argul	00:38		
			02:40	03:24	00:44	40 MVA TRF-1 at Khurda		Banki	01:03		
			02:40	03:24	00:44	40 MVA TRF-2 at Khurda					
			02:40	03:24	00:44	40 MVA TRF-3 at Khurda					
			02:40	03:24	00:44	40 MVA TRF-4 at Khurda					
	Atri	11.04.23	02:41	03:19	00:38	132kV Argul - Atri circuit-I	Incomer failed			I/C P/S Failed from ATRI end	
			02:41	03:19	00:38	132kV Argul - Atri circuit-I					
			02:41	03:44	01:03	132kV ATRI -Banki	ATRI END POWER FAILURE.AS POWER WAS AVAILED FROM ATRI END,BANKI GRID PULLED OUT.COMPLETE POWER FAILURE			132KV NUAPATNA WAS AVAILING POWER FROM BANKI END.HENCE POWER COULD NOT BE AVAILED FROM NUAPTNA END AND BANKI GRID WAS UNDER COMPLETE POWER FAILURE DURINGTHIS PERIOD.	
17	Joda	11.04.23	12:14	02:52	14:38	132kV JODA-RTSS BANSPANI FDR.	Tripped at Joda end with following relay At Joda end: B/Y relay: O/C trip,Fault Current: IL1=0.25KA,IL2=0.25KA,IL3=0	RTSS Banspani	14:38		0.090581512
18	Bhadrak	11.04.23	14:32	14:38	00:06	132kV Bhadrak - RTSS feeder	Y phase B phase O/C, IL2=0.29kA, IL3=0.29kA	Bhadral Tr.	00:06		0.000766128
19	Shamuka	12.04.23	02:40	04:03	01:23	132kV ATRI-SHAMUKA LINE	Breaker didn't trip at Shamuka end At Atri-Fault occurs at atri grid premises	Shamuka	00:34		0.011480438
20	Nuapatna	12.04.23	02:41	03:22	00:41	132kV Nuapatna - Banki feeder	Nuapatna-Banki supply failed from Atri end (Breaker H/T at 02:45 hrs at Nuapatna end)	Chandpur Nuapatana	00:31 00:41	Failed from Atri Grid end due to mal operation of Isolator 89A of 132Kv side Auto-Trf-1 at Atri grid.	0.017321786
			02:41	03:46	01:05	132kV Chandpur - Atri feeder	**At Atri end**:- Due to mal operation of Isolator 89A of 132kV side Auto-Trf-1 at Atri Grid. **At Chandpur end**:- no breaker operated.				
			02:41	02:45	00:04	40 MVA transformer-II at Nuapatana	Source failure				
			02:41	02:45	00:04	12.5 MVA transformer-III at Nuapatana	Source failure				
21	Nuapatna	12.04.23	03:22	07:15	03:53	132kV Nuapatna - Banki feeder	During closing of Banki line again P/S failed, Total supply to Nuapatna grid failed (Khajuriakata supply failed)	Nuapatna	00:13	Charged through B/C and restored P/S	0.003456532
			03:22	03:35	00:13	132kV Nuapatna - Khajuriakata - Dhenkanal T-Line	Tripped				
			03:22	03:35	00:13	40 MVA transformer-II at Nuapatana	Source failure				
			03:22	03:35	00:13	12.5 MVA transformer-III at Nuapatana					
22	Nuapatna	12.04.23	03:42	03:46	00:04	132kV Nuapatna- Khajuriakata-Dhenkanal T-Line	Charged through B/C and restored P/S	Nuapatna	00:04		0.001063548
			03:42	03:46	00:04	40 MVA transformer-II at Nuapatana	Due to failure of Incomer/source				
			03:42	03:46	00:04	12.5 MVA transformer-III at Nuapatana					
23	Bhawanipatna	12.04.23	06:46	06:49	00:03	132kV Bhawanipatna - RTSS feeder	O/C	Lanjigarh Tr.	00:03		0.000284668
24	Kantabanji	12.04.23	23:44	23:45	00:01	132 kV Kantabanji-RAILWAY FEEDER	Tripped on Overcurrent (line to line fault)	Kantabanji Tr.	00:01		5.30243E-05
25	Salipur	13.04.23	09:19	15:21	06:02	132kV OCL-Salpur Line	I.DP Relay at OCL end Started Phase AN Tripped Phase A B C Started Elements Distance Dist. Trip Zone 1 Frequency 49.88 Hz Fault Duration 71.88 ms Relay Trip Time 80.19ms Fault Location 24.14km Ia=2.142kA Ib=7.513A Ic=10.040A Fault Resistance 3.829 Ohm [Insulators punctured at Loc. No.85(R-phase)]	OCL	06:02		0.006434427
26	Kamakhyanagar	13.04.23	10:40	10:47	00:07	133 kV Kamakhyanagar-RTSS	Y,B phase tripped on O/C	Kamakhyanagar-RTSS	00:07		0.000138931
27	Bhanjanagar	13.04.23	11:49	13:17	01:28	132kV Bhanjanagar - G.Udaygiri feeder	**At Bhanjanagar end**:- CN, Zone-1, Dist-4.23km, IC=5.92kA	G.Udaygiri Phulbani	01:28	Line Charged after pattroling	0.026430536
			11:49	13:17	01:28	132kV G.Udaygiri-Phulbani	Tripped on Bph E/F , Dist-4.323 KM, Z1, Ic=5.923 kA at Bhanjanagar end.				
28	Sonepur	13.04.23	17:30	17:39	00:09	132kV Birmaharjpur - Sonepur feeder	Incoming failure	Sonepur, Birmaharajpur, Boudh,	00:10		0.009725947
			17:30	17:39	00:09	132kV Boudh - Sonepur feeder	Failed from Source				
			17:30	17:40	00:10	132 kV Balangir new- Sonepur line	Tripped from Balangir-new end on Distance protection (Zone-1)				
29	Pattamundai	14.04.23	09:10	09:42	00:32	132kV Olaver-Pattamundai Ckt-I&II	Incomer failed from Pattamundai Gss end.	Olaver GSS, Chandbali GIS Rajnagar Pattamundai	00:31	No power supply to Chandabali grid	0.018077123
			09:11	09:42	00:31	132kV Olaver - Chandabali circuit-I & II	Source failure				
		14.04.23	09:11	09:42	00:31	132kV PATAMUNDAI-RAJNAGAR CKT-I FEEDER.	132 KV P/S failed from source.				
			09:11	09:42	00:31	132kV PATAMUNDAI-RAJNAGAR CKT-II FEEDER.	133 KV P/S failed from source.				
		14.04.23	09:11	09:42	00:31	132kV Kendrapara-Pattamundai	At Pattamundai end: Tripped on DP Zone-1, fault loc- 13.38km, fault duration- 53.59ms, Ia=504.3A,Ib=359.7A,Ic=274.1A				
		14.04.23	09:11	14:50	05:39	132kV Kendrapara-M/S RAMCO Ckt	AT KENDRAPARA End: TRIPPED ON DP RELAY, ZONE-1, DIST=2.77KM, Ir=512.234A, Iy=404.977A, Ib=275.684A, AT RAMCO END:tripped on DP Zone-1, fault loc- 35.8km at RAMCO end. Y-Ph jumper at Loc. No.-205 of 132kV Kendrapara-RAMCO Ckt snapped				
30	Karanjia	14.04.23	12:51	13:05	00:14	132 kV Karanjia-Denkikote	INCOMER FAIL FROM KARANJIA END	Dhenkikote Karanjia	00:22	R- phase Insulator Puncture at Location no-312 of said line KARANJIA GRID P/S AVAILED FROM POLASPANGA END. Test charged but again	0.008619314
			13:39	13:46	00:07		INCOMER FAIL FROM KARANJIA END				
			12:51	13:01	00:10	132kV Karanjia-Rairangpur line	No relay indication at Karanjia GSS, **At Rairangpur end:** R phase to N,Zone-1,fault distance- 7.30km,IR-1.717KA,IY-91.28A,IB-237A				
			13:01	17:54	04:53		At Rairangpur - ZONE-1,R-PHASE -N,DIST-7.062KM IA-1.665KA,IB-159.1A, IC-247.2A				
31	Palaspanga	14.04.23	13:38	13:46	00:08	132kV JODA-Polasponga LINE	O/C TRIP ONLY AT PALASPANGA END, IA=507.5A,IB=421.5A,IC=370A, IG=4.0A	Polasponga ESIL,MSP, Polasponga Tr.	00:08		0.005257312
32	Balasore	14.04.23	15:37	16:24	00:47	132kV Balasore - Alloys feeder	**At Balasore end**:- fault indication-Overpower, fault current=Ir-275.2A, Iy-268.0A, Ib-270.0A	Alloys	00:47	The feeder was tripped due to overpower.	0.037023924
33	Bargarh New	15.04.23	19:34	19:44	00:10	160MVA 220/132/33kV Auto-I	Back up operation operated	GHESS	00:11		0.00753775
			19:34	19:44	00:10	160MVA 220/132/33kV Auto-II					
			19:34	19:45	00:11	132kV Bargarh New - Ghess circuit-I					
34	Palaspanga	16.04.23	08:55	08:57	00:02	132kV RTSS-Keonjhar FEEDER	O/C TRIP,IA=304.9A,IB=275.8A,IC=42.79A, INM=6.786A,IND=5.209A	Keonjhar RTSS	00:02		0.000248895
35	Karanjia	16.04.23	18:05	18:21	00:16	132kV Karanjia-Rairangpur line	At Rairangpur -ZONE-1,B-PHASE -N, DIST-44.05KM IA-963.8A, IB-1.332KA,IC-177.6A At Karanjia-ZONE-1,LOOP L2-E, DIST-46.1KM IA-0.25KA,IB-0.29KA,IC-0.20A [ISULATOR PUNCHER FOUND AT LOC. NO 226]	Karanjia Dhenkikote	00:16	Test charge done & stood ok. T	0.006379472

Sl. No.	Sub-Station	Date	From	To	Duration	Lines / Equipments / Generating Units Tripped	Relay Indication / Cause	Grid Sub-stations affected (it can be more than one)	Area interruption period	Remarks	Energy Loss (In MU)
			18:06	18:22	00:16	132 kV Karanjia-Denkikote	INCOMER FAIL FROM KARANJIA END				
36	Narasinghpur	16.04.23	20:49	21:20	00:31	220 kV Narasinghpur-Meramundali FDR-1	At Meramundali-MAIN-1 : NOT OPERATED MAIN-2 : Y-E,IY=3.4 KA,DISTANCE : 46.2 KM,Z1 At Narasinghpur-LBB OPERATED. [Y-ph CT(220 KV side) of 40 MVA Transformer failure occurred at N.pur end.]	Narasinghpur	00:35		0.003868445
			21:20	21:44 17.04.23	24:24		LBB operated[When 220 kV side of 40 MVA PT-1 was test charged it operated LBB. Tripped at both ends of Meramundali-Nspur Fdr-1 and only Local end of Nspur-Bhanjanagar end.]				
			20:50	21:20	00:30	220 kV Side of 40 MVA Power Transformer-I	HV REF Operated, HV O/C & E/F Operated.Mater Trip Relay Operated [Due to failure of Y-Phase CT of 220 kV Side which was replaced with a new one.]				
			21:20	12:22 20:04.23	87:02		Differential Protection OPTD,HV REF, HV O/C & E/F, LBB				
			21:20	21:48	00:28	220 kV Side of 20 MVA Power Transformer-II	LBB operated				
			21:20	21:55	00:35	220 kV Narasinghpur-Bhanjanagar FDR-2	LBB operated				
37	Bhadrak	18.04.23	13:06	13:27	00:21	132kV Bhadrak - DPCL circuit-I	Started Phase AN, Tripped phase ABC, Zone-I, Dist-21.62km, IA=2.398kA,IB=104.1A, IC=157.9A	DPCL	00:21		0.002782653
38	Nuapada	18.04.23	14:15	14:18	00:03	132 kV Khariar- Nuapada line	DP Operated	Nuapada Nuapada Tr.	00:03		0.000862497
39	Balangir new	18.04.23	16:52	17:03	00:11	132 kV Balangir new- Sonepur line	Failure from source	Sonepur, Birmaharajpur, Boudh, Padampur, Nuapada Patnagarh ACME, Tusura Ordnance	00:11 00:08 00:05		0.019356957
			16:52	17:06	00:14	132kV Boudh - Sonepur feeder	Failed from Source				
			16:52	17:17	00:25	132kV Barapali - Bolangir feeder	Supply failure				
			16:52	17:03	00:11	132kV Birmaharjpur - Sonepur feeder	Incoming failure				
			16:52	16:59	00:07	132kV Kesinga-ABRL Line	O/C				
			16:52	17:00	00:08	132kV Patnagarh-Padampur Line	Source Failure				
			16:52	17:00	00:08	132 kV Padampur- Nuapada line	Source failure				
			16:54	16:59	00:05	132kV Tusura-Bolangir Fdr					
40	Rourkela	19.04.23	10:20	10:38	00:18	132 kV Rourkela-BKSTeel	At Rourkela-D.P & M/T relay indication,D.P relay details-:loc=57.71 km, zone-2,event =ABT,Fault current details-: IA=2143 A,IB=2237 A,IC=34 A, IN=0 A,IG=207 A	Bhalulata RTSS,BKSteel	00:18	FDR CHARGED & STOOD OK	1.33115E-05
41	Balasore	19.04.23	10:25	11:41	01:16	132kV Balasore - Alloys feeder	**At Balasore end**:- fault indication-Overpower, fault current:- Ir-259.7A, Iy-270.0A, Ib-270.8A	Alloys	01:16	The feeder was tripped due to overpower.	0.059868472
42	Kantabanji	19.04.23	10:34	10:35	00:01	132 kV Kantabanji RAILWAY FEEDER	Tripped on Overcurrent (line to line fault)	Kantabanji Tr.	00:01		5.30243E-05
43	Kendrapara	20.04.23	12:52	13:16	00:24	132 kV KENDRAPARA-CHANDIKHOLE CKT-I	KENDRAPARA End TRIPPED ON DP, ZONE-1, DIST.=17.95KM, Ir=151A, Iy=212.1A, Ib=2.384KA, No tripping at Chandikhole end	Chandikhol	00:24		
44	Bidanasi	20.04.23	13:21	16:30	03:09	220 kV Bidanasi-Godisahi ckt-I [Fault in 220kV Mendhasal-Bidanasi(Circuit-II) line]	Tripped	Godisahi	03:09		0.001709908
45	Kantabanji	21.04.23	05:38	05:40	00:02	132 kVKantabanji RAILWAY FEEDER	Tripped on Overcurrent (line to line fault)	Kantabanji Tr.	00:02		0.000106049
46	Brajrajnagar	21.04.23	07:54	09:25	01:31	132kV Budhipadar - Brajrajnagar incomer SC feeder	FFS, D/P operated, Zone-1, FD=5.6km, FL=Rph-E, Ir=7.697kA, Iy=8.75kA, Ib=413A	Brajrajnagar RTSS Kechhobahal Remja	01:31	132kV Budhipadar-Brajrajnagar incomer tripped at Budhipadar end only. After line patrolling, the said line was charged and stood ok.	0.044261399
			07:54	09:25	01:31	132/33kV TRF-I(NGEF)	FFS				
			07:54	09:25	01:31	132/33kV TRF-III(HHE)	FFS				
			07:54	09:25	01:31	132/33kV TRF-IV(T & R)	FFS				
			07:54	09:25	01:31	132/33kV TRF-V(NGEF)	FFS				
			07:54	09:25	01:31	132kV Brajrajnagar - RTSS Kechhobahal feeder	FFS				
			07:54	09:25	01:31	132kV Budhipadar - Remja feeder	**At Budhipadar end**:- D/P, Rph to Efault, Zone 1 trip, Dist- 7.697km, Ia-8.75kA Weather- windy				
47	Ganjam	22.04.23	00:55	23.04.23 01:06:00	00:11	132kV Chatrapur-Ganjam Circuit	Z-1 R-G DIST -1.1 KM TRIPPED AT CHATRAPUR END	GANJAM Grasim		WEATHER CONDITION-RAIN AND WIND STORM	0.005461533
48	Bhadrak	22.04.23	02:51	23:58	21:07	132kV Bhadrak - Facor feeder	Zone-I, Active group-I, Started Phase A,B,N, Triped Phase A,B,C IA=6.25KA, IB=5.950kA, IC=63.29A, Dist-4.25km	FACOR	21:07		0.127484292
49	Konark	22.04.23	04:31	04:36	00:05	132kV Nimapara-Konark feeder	Tripped	Konark	00:05		0.000803986
50	Balasore	22.04.23	19:53	20:46	00:53	132kV Balasore - Alloys feeder	**At Balasore end:**- fault indication- E/F & O/C, fault current= Ir-292.1A, Iy-255.3A, Ib-247.6A	Alloys	00:53	The feeder was charged and stood ok .During tripping there was heavy wind and rain.	0.041750382
51	Kesinga	22.04.23	20:49	21:08	00:19	132kV Kesinga-Khariar Line	DP	Khariar Kantabanji	00:20		0.014691222
			20:50	21:10	00:20	132kV Kantabanji-Khariar Line	INCOMER SUPPLY FAILED FROM GSS KHARIAR END				
52	Jajpur Road	22.04.23	22:23	22:33	00:10	132kV J.ROAD-DUBURI CKT-I	**At Jajpur Road end:** DP RELAY OPERATED, FAULT CURRENT: IA=3.668KA,IB=206.3A,IC=122.2A;F. VOLTAGE: VAN=122.2KV,VBN=191.6KV,VCN=67.4KV; F. ZONE-IV; FAULT RESISTANCE=33.85Ω; FAULT LOCATION=9.127 KM, No tripping at Duburi end	Jajpur Road Chandikhol	00:10		0.009678027
			22:23	22:32	00:09	132kV J.ROAD-DUBURI CKT-II	DP RELAY OPERATED, FAULT CURRENT: IA=3.520KA,IB=224.4A,IC=301.9A;F. VOLTAGE: VAN=12.36KV,VBN=83.35KV,VCN=99.29KV; F. ZONE- ; FAULT RESISTANCE= mΩ; FAULT LOCATION=2.638 KM, No tripping at Duburi end				
53	Dabugaon	22.04.23	22:33	23.04.23 17:39:00	18:06	132kV JAYPATNA-DABUGAON LINE	DP Operated at Dabugaon end,no relay operated at Jaypatna end [Jumper snapped at Loc-40]	Dabugaon Umerkote	00:22		0.010438037
			22:52	23:14	00:22	132kV TENTULIKHUNTI-DABUGAON LINE	O/C & E/F,DP Operated at Tentulikhunti end,no relay operated at Dabugaon end				
54	Kesura	23.04.23	01:18	07:41	06:23	132kV Kesura - Pratapsasan feeder	Over Voltage trip	Kesura	00:06	Supply failed from Pratapsasan end but immediately availed supply from Ranasinghpur end within 6 mins.	0.003090421
55	Konark	23.04.23	07:04	07:07	00:03	132kV Konark-Nimapara Feeder	Tripped	Konark	00:03		0.000482392
56	Tentulikhunti	23.04.23	16:18	16:38	00:20	132kV Jayanagar-Tentulikhunti Ckt-I	Source end failure	Dabugaon ,Umerkote ,Nabarangapur	00:20		0.011275219
			16:20	16:39	00:19	132kV Tentulikhunti-Dabugaon line	Source failure from GSS Jaynagar				
57	Jayanagar	23.04.23	21:53	22:55	01:02	132kV Jayanagar- Sunabeda fdr	A-N , Z-1 , If=6.1KA, Dist=8.6KM	Sunabeda, HAL Pottangi	01:02		0.020747663
58	Joda	24.04.23	06:05	07:05	01:00	220kV Joda-Telkoi fdr	Tripped at both Joda,Telkoi,TTPS end with following relay indication Relay at Joda end: Relay Details For 220KV JODA-TELKOI-TTPS Ckt-I fdr:- Fault Details at Joda end(DP-I) DP Relay Tripped Tripped PH- ABC Zone-I Fault Dist-61.15KM Fault Current:- IA-1.27KA, IB-143.6A, IC-2.72KA Fault Details at Joda end(DP-II) DP Relay Tripped Tripped PH- CAT Zone-I Fault Dist-79.98KM Fault Current:- IA-1.189KA, IB-105A, IC-2.67KA, IN-2.041KA Fault Details of Telkoi-Joda relay at Telkoi end (Telkoi-TTPS relay not tripped) end:- DP Relay Tripped Tripped PH – ABC Zone-I Fault Dist- 49.95KM Fault Current:- IA-1.74KA, IB-93.5A, IC-2.372KA Fault Details at TTPS end:- DP Relay Tripped Zone-II Dist-126.7KM Fault Current:- IA-442.5A, IB-33.94A, IC-855.8A	Telkoi	01:00	At 07:20Hrs 220KV Telkoi-TTPS fdr. charged at both Telkoi & TTPS end.	0.001937507
			06:05	6:59	00:54	220kV JODA-TTPS CKT-II FDR.	220KV Joda-TTPS CKT-II fdr. tripped at both Joda & TTPS end. Fault Details at Joda end(DP-I) DP Relay Tripped Tripped PH- A Zone-I Fault Dist-61.09KM Fault Current:- IA-1.23KA, IB-166.9A, IC-887.1KA Fault Details at Joda end(DP-II) DP Relay Tripped Tripped PH- AGT Zone-I Fault Dist-45.58KM Fault Current:- IA-1.248KA, IB-164A, IC-908KA, IN-2.135KA Fault Details of TTP-II end:- Relay Details Not showing at TTPS end				
59	Palaspanga	24.04.23	06:08	06:11	00:03	132kV RTSS-KJR FEEDER	E/F TRIP, DP Relay: Started phase C-N,ZONE-2, D=21.75KM,IA=43.14A,IB=9.857A,IC=2.035KA B/U RELAY:IA=36.05A,IB=9.27A,IC=2.032KA, IND=2.053A	Keonjhar RTSS	00:03		0.000373342

Sl. No.	Sub-Station	Date	From	To	Duration	Lines / Equipments / Generating Units Tripped	Relay Indication / Cause	Grid Sub-stations affected (it can be more than one)	Area interruption period	Remarks	Energy Loss (In MU)
60	PADAMPUR	24.04.23	17:05	17:17	00:12	132kV Padampur-Nuapada Line	Phase-AN, Distance=54.93KM, Ia=951.6A, Ib=108.4A, Ic=141.1A, In=701.8A	Nuapada Nuapada Tr.	00:12		0.003449983
61	Barkote	24.04.23	21:33	21:54	00:21	220kV Barkote - Bonai feeder	**At Barkote end:-** start ph- AN, Trip ph- ABC, fault location- 43.98km, Zone-2, Ia- 1.688kA, Ib-73.79A, Ic- 102.6A, Van-52.41kV, Vbn-440.8kV, Vcn-138.8V At Bonai end:- Fault type- AGT, Dist-44.40km, Zone-2, Ia-1700A, Ib-75A, Ic-107A, In-1530A	Bonai Bimlagarh RTSS	00:21:00		0.004131944
62	ROURKELA	25.04.23	07:20	08:35	01:15	133 kV Rourkela-BKSTeel	At Rourkela-D.P & M/T relay indication,D.P relay details-:loc=0.75 km, zone-1,event =BGT,Fault current details-: IA=226 A,IB=13480 A,IC=179 A, IN=1 A,IG=13076 A	Bhalulata RTSS, BKSteel	01:15	FDR CHARGED & STOOD OK	5.54646E-05
63	Sonepur	25.04.23	11:06	11:19	00:13	132kV Birmaharjpur - Sonepur feeder	Incoming failure	Sonepur, Birmaharajpur, Boudh,	00:13		0.01264373
			11:06	11:20	00:14	132kV Boudh - Sonepur feeder	Failed from Source				
			11:06	11:19	00:13	132 kV Balangir new- Sonepur line	Failure from source				
64	Karanjia	25.04.23	14:05	14:29	00:24	132kV Karanjia-Dhenkikote line	**At Karanjia:** R phase to N,Zone-1,fault distance- 11.58Km,IR-1.129KA,IY-43.03A,IB-73.42A, No relay indication at Dhenkikote end	Dhenkikote	00:24		0.002363186
65	Jayanagar	25.04.23	17:11	17:32	00:21	132kV Jayanagar- Railway fdr	A-N, Z-1, Dist=1.55KM,If=8.6KA	Jayanagar Tr.	00:21		0.004379006
66	Jayanagar	25.04.23	18:32	18:50	00:18	132kV Jayanagar- Railway fdr	B-N, Z-1, Dist=47.62KM,If=1.72KA	Jayanagar Tr.	00:18		0.003753433
67	Jayanagar	26.04.23	10:33	14:06	03:33	132kV Jayanagar- Railway fdr	A-B-C-N,Z-1, Dist=6.69KM,Ia=7.43KA,Ib=7.22KA,Ic=7.17KA	Jayanagar Tr.	03:33		0.044415628
68	Bhadrak	26.04.23	18:34	18:36	00:02	132kV Bhadrak - RTSS feeder	Y phase B phase O/C, IL2=0.29kA, IL3=0.28kA	Bhadrak Tr.	00:02		0.000255376
69	Padampur	26.04.23	19:16	19:26	00:10	132kV Patnagarh-Padampur Line	Phase-AN, Zone-1, Distance=7.162KM, Ia=375.2A, Ib=309.7A, Ic=605.3A	Padampur,Nuapada Nuapada Tr.	00:10	Supply was availed from Khariar- Nuapada line and extended to Padampur GSS	0.007402102
			19:26	02:35 27.04.23	429 Minutes		S/D Availed for replacement of R phase Jumper at Loc No 140				
			19:16	02:40 27.04.23	05:24	132 kV Padampur- Nuapada line	Source failure				
70	Sonepur	27.04.23	11:21	11:43	00:22	132kV Boudh - Sonepur feeder	Failed from Source	Sonepur, Birmaharajpur, Boudh,	00:20		0.019451893
			11:22	11:42	00:20	132kV Birmaharjpur - Sonepur feeder	Incoming failure				
			11:22	11:42	00:20	132 kV Balangir new- Sonepur line	Failure from source				
71	Rourkela	27.04.23	15:33	15:43	00:10	133 kV Rourkela-BKSTeel	At Rourkela-D.P & M/T relay indication,D.P relay details-:loc=40.21 km, zone-1,event =AGT,Fault current details-: IA=2338 A,IB=369 A,IC=388 A, IN=0 A,IG=1585 A	Bhalulata RTSS,BKSteel	00:10	FDR CHARGED & STOOD OK	7.39528E-06
72	Jayanagar	28.04.23	15:25	15:32	00:07	132kV Jayanagar- Railway fdr	A-N, Z-1, Dist=66.99KM,If=1.66KA	Jayanagar Tr.	00:07		0.001459669
73	Balugaon	29.04.23	14:24	14:28	00:04	132kV Balugaon - Chhatrapur feeder	**At Chhatrapur end:**- Back-up relay operated with indication: R-ph O/C, E/F, IR=0.56kA, IY=0.05kA, IB=0.09kA **At Balugaon end**:- breaker H/T	Chhatrapur IRE Rambha Tr.	00:04	I/C P/S failure from chhatrapur	0.002104035
74	Balugaon	29.04.23	14:33	18:29	03:56	132kV Balugaon - Chhatrapur feeder	**At Chhatrapur end:**- Zone-1, Dist-37.58km, O/C, IR=2.176kA, IY=184A, IB=413.1A **At Balugaon end**:- DP relay operated with Zone-I indication, IR=3A,IY=3A,IB=4A	Chhatrapur IRE Rambha Tr.	00:09	Balugaon Availed power suppy from Chandpur end at 14:42Hrs	0.004734078
75	Kantabanji	29.04.23	19:37	19:38	00:01	132 kV Kantabanji-RTSS fdr	Tripped on Overcurrent (line to line fault)	Kantabanji Tr.	00:01		5.30243E-05

AUTO TRANSFORMER LOADING FOR THE MONTH OF APRIL'2023

Name of the 220 kV Sub-Station (Feeding Sub-stations/Feeders)	Capacity	Drawal details						REMARKS
		Maximum			Minimum			
	MVA	MW	Day	Time	MW	Day	Time	
ATRI	2x160	121.52	20th Apr 2023	21:45	15.16	23rd Apr 2023	01:30	
{ Banki, Khurda, Chandpur & Argul}		121.56	20th Apr 2023	21:45	15.12	23rd Apr 2023	01:30	
ASKA NEW	2x160	87.00	15th Apr 2023	01:45	23.56	4th Apr 2023	16:15	
		86.40	15th Apr 2023	01:45	23.44	4th Apr 2023	16:15	
BALASORE 220/132 KV	3x160	96.76	10th Apr 2023	14:45	22.36	22nd Apr 2023	21:00	
{ Balasore, Birla Tyre(I), Ispat Alloy(I),		94.68	8th Apr 2023	14:45	22.20	22nd Apr 2023	21:00	
Jaleswar, Jaleswar(T)}		95.24	10th Apr 2023	14:45	16.96	3rd Apr 2023	10:30	
BAMRA 220/132/33KV	1x160							
BARGARH 220/132 kV	1x100	102.04	24th Apr 2023	16:45	0.28	28th Apr 2023	03:30	
	1x160	66.28	24th Apr 2023	16:45	0.04	12th Apr 2023	10:45	
BHADRAK 220/132 KV	1x100	52.92	20th Apr 2023	21:45	0.12	25th Apr 2023	16:45	
{Bargarh, Ghensh}	1x160	107.80	20th Apr 2023	22:15	11.52	25th Apr 2023	16:30	
	1x160	108.28	20th Apr 2023	22:15	11.80	25th Apr 2023	16:30	
BHANJANAGAR 220/132 KV	1x160	78.28	7th Apr 2023	18:30	20.20	4th Apr 2023	16:30	
{ Bhanjanagar, Aska, Phulbani,	1x160	69.12	7th Apr 2023	18:30	17.64	4th Apr 2023	16:15	
BIDANASI 220/132 KV	1x100	60.96	18th Apr 2023	23:00	0.20	23rd Apr 2023	08:15	
{Bidanasi, Khurda }	1x100	0.00	UNDER SHUTDOWN				00:00	
	1x160	86.48	18th Apr 2023	23:00	1.40	6th Apr 2023	17:00	
BOLANGIR (SADAIPALLI) 220/132 KV	3x160	98.52	17th Apr 2023	19:30	0.32	1st Apr 2023	12:15	
		98.52	17th Apr 2023	19:30	0.32	1st Apr 2023	12:15	
{ Bolangir, Patnagarh, Sonepur,		103.24	12th Apr 2023	18:45	0.36	1st Apr 2023	12:15	
BUDHIPADAR 220/132 KV	2x160	98.24	21st Apr 2023	17:30	32.24	22nd Apr 2023	16:45	
{ Jharsuguda, Jharsuguda Tr,		80.08	19th Apr 2023	16:00	18.64	22nd Apr 2023	16:45	
CHANDAKA 220/132 KV	1x100	59.64	19th Apr 2023	13:00	8.56	6th Apr 2023	17:30	
{ Chandaka, Bhubaneswar, Nimapada,	1x160	98.28	20th Apr 2023	15:45	14.84	6th Apr 2023	17:30	
Ransinghpur, Puri,Kesura, Kaipadar Tr.	1x100	64.16	19th Apr 2023	13:00	9.12	6th Apr 2023	17:30	
}	1x160	99.36	19th Apr 2023	12:45	14.16	6th Apr 2023	17:30	
CUTTACK	1x160	70.32	19th Apr 2023	23:15	4.80	6th Apr 2023	17:30	
	1x100	43.08	19th Apr 2023	23:15	2.56	6th Apr 2023	17:30	
DUBURI 220/132 KV	1x160	63.60	14th Apr 2023	23:30	14.56	20th Apr 2023	13:15	
{Duburi, Bamnipal(I), BRPL, MESCO,	1x160	61.24	14th Apr 2023	23:30	13.96	20th Apr 2023	13:15	
Jajpur Road, Kalarangi, Jajpur Town}	1x160	38.36	14th Apr 2023	23:30	8.72	20th Apr 2023	13:00	
GODA	1x160							
	1x160							
Gunupur	1x160							
	1x160							
JAYAPATNA 220/132 KV.								
JAYANAGAR 220/132 KV.	1x160	9.16	17th Apr 2023	16:15	0.00	30th Apr 2023	10:00	
[Damanjodi(NALCO), Traction S/Ss,	1x160	46.64	3rd Apr 2023	19:45	0.04	23rd Apr 2023	13:30	
JODA 220/132 KV	1x160	67.44	14th Apr 2023	12:45	22.20	8th Apr 2023	16:00	*"*" - Alternate P/S*
{ Joda,Tensa, FAP(I), Bolani(I), Nalda	1x160	68.44	14th Apr 2023	13:00	22.36	8th Apr 2023	16:00	*from Kuchei.*
*Tr.,Polasponga, *Rairangpur, Bhalulata*	1x160	52.96	28th Apr 2023	18:15	18.68	8th Apr 2023	16:00	
KAURMUNDA 220/132 KV	1x160							
KATAPALI 220/132 KV	1x100	24.28	24th Apr 2023	10:30	0.04	22nd Apr 2023	16:45	*Supported by Burla*
{Chipilima,Bargarh, ACC,Sonepur &	1x100	24.24	24th Apr 2023	10:30	0.04	21st Apr 2023	01:00	*& Chipilima power.*
Katapali area load.}	1x160	36.40	24th Apr 2023	10:30	0.12	28th Apr 2023	03:45	
KESINGA	2x160	77.99	12th Apr 2023	18:45	2.46	1st Apr 2023	11:30	
		79.43	12th Apr 2023	18:45	2.97	1st Apr 2023	11:30	
LAPANGA	2x160	81.92	24th Apr 2023	10:45	16.32	22nd Apr 2023	17:15	
{Kuchinda, Aryan Viraj, Shyam		80.08	19th Apr 2023	15:45	0.04	24th Apr 2023	10:15	
MERAMUNDALI 220/132 kV	3x100	53.60	8th Apr 2023	09:45	0.92	21st Apr 2023	08:30	
{Meramundali Traction, Dhenkanal,		52.76	8th Apr 2023	09:45	1.08	21st Apr 2023	08:30	
Navchrome(I), Hind Metal, Aarti,BRG}		47.04	4th Apr 2023	13:00	0.40	21st Apr 2023	08:45	
Mendhasal *{ Part area load of Khurda*	2x100	45.47	28th Apr 2023	23:00	0.02	12th Apr 2023	18:30	
S/S}		41.71	18th Apr 2023	23:15	6.63	23rd Apr 2023	01:30	
NARENDRAPUR 220/132KV	2x160	76.80	7th Apr 2023	18:30	7.40	4th Apr 2023	16:45	
{ Narendrapur, NarendrapurTr,		74.12	7th Apr 2023	18:30	7.52	4th Apr 2023	16:45	
Berhampur, Chhatrapur, Ganjam,	1x100	42.84	7th Apr 2023	18:30	3.64	4th Apr 2023	16:45	
PARDEEP 220/132 KV	1x100	61.80	12th Apr 2023	12:00	12.96	1st Apr 2023	07:45	
{ Paradeep, Kendrapada, Pattamundai,	1x160	100.72	12th Apr 2023	12:00	21.52	1st Apr 2023	07:45	
Chandikhol, Cuttack, Jagatsinghpur,	1x160	88.68	13th Apr 2023	19:30	21.36	1st Apr 2023	07:45	
Pratapsasan	1x160							
TARKERA 220/132 KV	1x100	68.40	13th Apr 2023	11:15	4.56	1st Apr 2023	18:45	
[Rourkela, Rourkela Tr.,RSP(I),	1x100	68.88	13th Apr 2023	11:15	5.28	1st Apr 2023	18:45	
Chhend , Adhunik Metal, Rajgangpur,	1x100	66.20	7th Apr 2023	12:15	4.72	1st Apr 2023	18:45	
OCL(I), Rajgangpur Tr.]	1x100	66.48	13th Apr 2023	11:15	5.08	1st Apr 2023	18:45	
THERUVALLI 220/132 KV.	1x100	35.16	15th Apr 2023	00:00	2.60	29th Apr 2023	14:30	*Rayagada &*
{Theruvali, IMFAL(I), JK(I), Junagarh,	1x100	36.76	15th Apr 2023	00:00	1.96	30th Apr 2023	13:30	*Paralakhemundi can be*
Kesinga,Powmex(I), Rayagada, }	1x160	56.60	23rd Apr 2023	20:45	1.36	30th Apr 2023	13:30	*fed from Machhkund*
								system.
TTPS 220/132 KV	1x160							
{ Chainpal, FCI (I), Angul, MCL	1x160							
SAMANGARA	2x160							
{ Puri, Nimapara & Konark}								

STATEMENT OF UFR OPERATION IN GRIDCO SYSTEM DURING THE MONTH OF APRIL-2023											
Sl.No	UFR Stage	Name of S/S	Name of feeder	Voltage level KV	Tripping details		Load Relief in MW	Restoration details		Duration of interruption in Minutes	Remarks
					Date	Time		Date	Time		
Nil											

MAJOR EVENT FOR THE MONTH OF APRIL- 2023		
Sl. No	**Date**	**Details of event**
1	13-04-2023	At 19:21hrs, 220KV LILO line from Loc No-277 of existing 220KV New Duburi-Balasore Line was charged up to Gantry of 220/132/33KV Grid S/S, Dhamra.
2	15-04-2023	At 15:13 hrs, 3.64MW Solar PV Plant at 11kV level was synchronised in 132/11kV switchyard of M/S Shree Cement Limited connected through 132kV OPTCL Khuntuni-Shree cement feeder.
3	16-04-2023	At 20:45hrs, 220/33kV GSS, Kantabada having LILO connectivity from loc no-453 & 455 of 220kV Chandaka-Mendhasal Ckt-III was charged along with 02 nos of 220/33kV 63MVA Power Transformers.
4	17-04-2023	At 13:20hrs, 2MW GEDCOL PV power plant having 33kV connectivity was synchronised with OPTCL system at 220/132/33kV GSS, Bolangir New.
5	20-04-2023	At 14:22hrs, 30MW Thermal Unit of M/S Jagannath Steel & Power Ltd. Keonjhar was synchronised with OPTCL system.
6	24-04-2023	At 20:47hrs, 132/33kV GSS, Boriguma having LILO connectivity from loc no-98A of 132kV Jayanagar-Tentulikhunti Ckt-II (132kV Jayanagar-Nabarangpur Line) was charged.
7	24-04-2023	At 17:06 hrs, 220kV Switchyard (02nos of 220kV fdr bay, 01 no of 220kV Transformer bay, 01 no of 220kV Bus-Coupler bay, 220/132kV 160MVA Auto TRF-II) at 220/132/33kV GSS, Dhamra was charged having LILO connectivity with 220KV New Duburi-Balasore Line.
8	27-04-2023	At 13:36 hrs, 132/33kV 40MVA Power Transformer No-II was charged at Rourkela.
9	28-04-2023	At 17:16hrs, 33kV Solar Bay was extended at 132/33kV GSS, Baripada.
10	29-04-2023	At 20:08 hrs, 132kV Brajarajnagar-Lakhanpur DC Line & 132/33kV Lakhanpur GSS (05nos of 132kV bay, 08nos of 33kV bays, 132/33kV 20MVA Power TRF-I & II) were charged.