

# SYSTEM PERFORMANCE REPORT



**FEBRUARY'2019**

,SLDC, OPTCL  
BHUBANESWAR – 17

## CONTENTS

Sl. No.	DESCRIPTION	PAGE
1	SINGLE LINE SCHEMATIC DIAGRAM OF GRIDCO NETWORK	1
2	SUMMARY REPORT	2
3	GENERATION CAPACITY OF GRIDCO, CENTRAL SECTOR GENERATION & CPPs	3
4	DAILY ENERGY GENERATION, EXCHANGE AND DEMAND	5
5	PERFORMANCE OF GENERATORS & ISGS DRAWAL	5
6	GENERATION SHARING & AVG. DEMAND CURVE	6
7	COMPARISON OF SYSTEM DEMAND WITH PREVIOUS YEAR	7
8	MONTHLY GENERATION OF STATE GENERATORS, IPP& CPP	8
9	DAILY GENERATION SHARING DURING PEAK DEMAND	9
10	RESERVOIR LEVEL OF DIFFERENT HYDRO POWER STATIONS	10
11	VOLTAGE PROFILE ( 220 kV / 132kV )	13
12	MONTHLY FREQUENCY PROFILE	15
13	FREQUENCY DISTRIBUTION	15
14	MONTHWISE % OF TIMES FREQ. WITHIN STD. BAND (49.50 TO 50.05 Hz)	16
15	MONTHLY FREQ. WITHIN STANDARD BAND & ABOVE (2016 - 17, 2017-18, 2018-19)	16
16	LOAD DATA OF GRID SUB STATIONS	17
17	AUTO TRANSFORMER LOADS	21
18	SYSTEM DISTURBANCES	22
19	STATEMENT OF UFR OPERATION	25
20	MAJOR EVENTS	26



## **SUMMARY REPORT FOR FEBRUARY- 2019**

### **A. Voltage Profile**

<b><u>220 KV</u></b>			<b><u>Date &amp; Time</u></b>	<b><u>Location</u></b>
Maxm. -	236.59	>240 KV	01.02.19 02:45Hrs	Bidanasi Nil
Minm. -	205.01 kV	< 200 KV	26.02.19 18:15 Hrs	Narendrapur Nil
<b><u>132 KV</u></b>	Maxm. -	143.35 kV	01.02.19 02:45 Hrs	Chainpal Nil
	Minm. -	119.28 kV	26.02.19 18:15 Hrs	Berhampur Chatrapur, Paredeep, Berhampur

### **B. Frequency Profile**

		<b><u>Date &amp; Time</u></b>
Maxm. -	50.16 Hz	11.02.19 3:15 Hrs.
Minm. -	49.75 Hz	21.02.19 00:45 Hrs.
Average -	49.99 Hz	
% of time the freq. is within 49.9 Hz to 50.05 Hz (IEGC band)	-	67.21%
% of time the freq. is > 50.05 HZ	-	26.87%
% of time the freq. is ≤49.9 HZ	-	5.91%
% of time the freq. is < 48.5 HZ	-	0.00%

### **C. Demand Profile**

Peak System Demand	4223 MW	At 22:00 Hrs on 14.02.2019
Minimum Syatem Demand	2142 MW	At 05:00 Hrs on 16.02.19
Average System Demand	3144 MW	

### **D. Major events**

<b><u>Sl. No</u></b>	<b><u>Date</u></b>	<b><u>Details of event</u></b>
1	20.02.2019	At 15:50Hrs 132 KV Olavar-Chandbali ckt I & II charged. 132/33 KV GIS Grid S/S, Chandbali also charged along with 40MVA Power Transformer.
2	25.02.2019	At 11:38 Hrs,132 KV Digapahandi - Chikiti ckt - I & II charged. One 40 MVA (132/33 KV) Power Transfomer also charged at Grid S/S, Chikiti.
3	27.02.2019	At 15:25 Hrs, 220/33 KV, 20 MVA Transformer at Narasinghpur Grid S/S charged.
4	27.02.2019	At 17:18 Hrs, 220 kV Narendrapur-TATA ckt-1 charged. Ckt-2 charged at 17:28 Hrs.
5	28.02.2019	At 12:38 Hrs , 315 MVA ( 400/220 KV) ICT -03 at Grid S/S, Mendhasal charged.

# **GENERATION CAPACITY**

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 20+1x37.5 = 57.5	220.5	134 Combined capacity of # 5&6 has been derated to 20 MW as per OERC order
	(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 30%, Purchase upto 20% extra)	3x17 = 51.00 3x23= 69	36	30
	<b>TOTAL HYDRO (A)</b>	<b>2008.5</b>		
2	N.T.P.C.(TAKEN OVER)			
	TTPS STAGE-I	4x60 = 240	160.2 (Auxilliary 10.5 %, Availability 80%)	160.2 (Auxilliary 10.5 %, Availability 80%)
	TTPS STAGE - II	2x110 = 220	146.85 (Auxilliary 10.5 %, Availability 80%)	146.85 (Auxilliary 10.5 %, Availability 80%)
	<b>TOTAL TTPS</b>	<b>460</b>		
3	O.P.G.C.			
	IB TPS	2x210 = 420	342.09 (Auxilliary 9.5 %, Availability 90%)	342.09 (Auxilliary 9.5 %, Availability 90%)
	<b>TOTAL THERMAL (B)</b>	<b>880</b>		

## **CENTRAL SECTOR GENERATION**

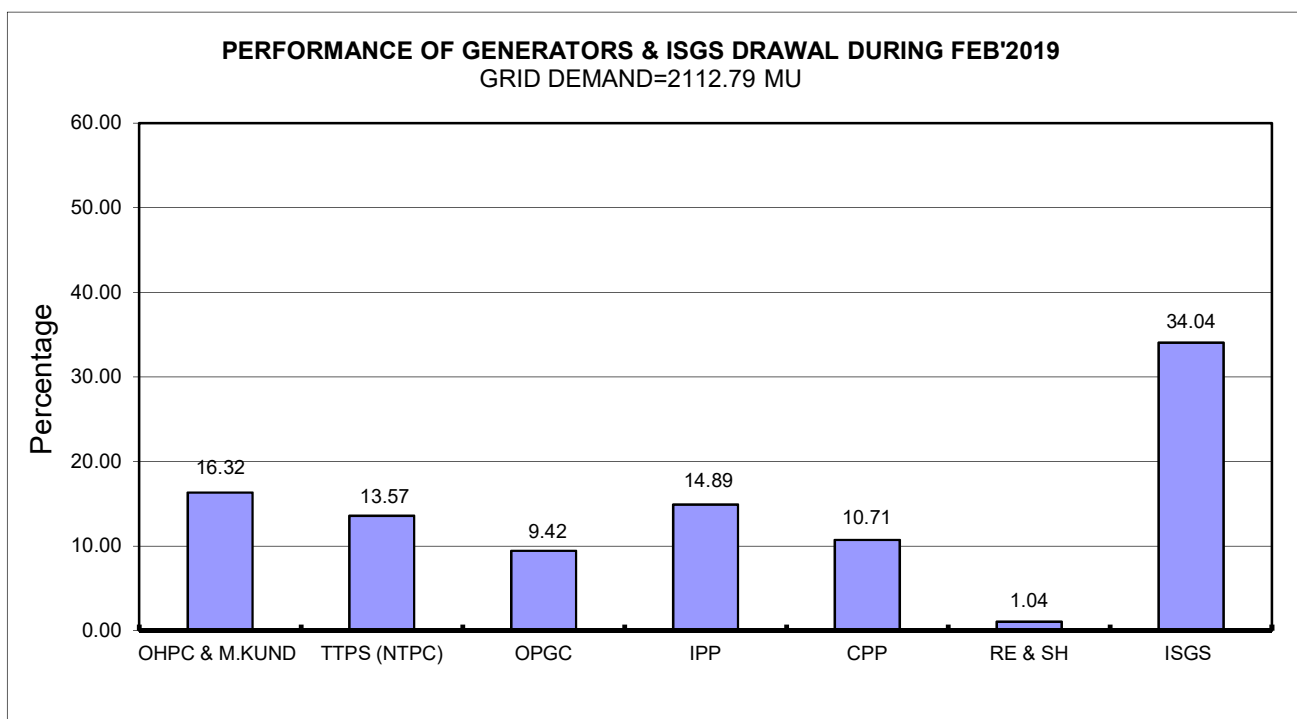
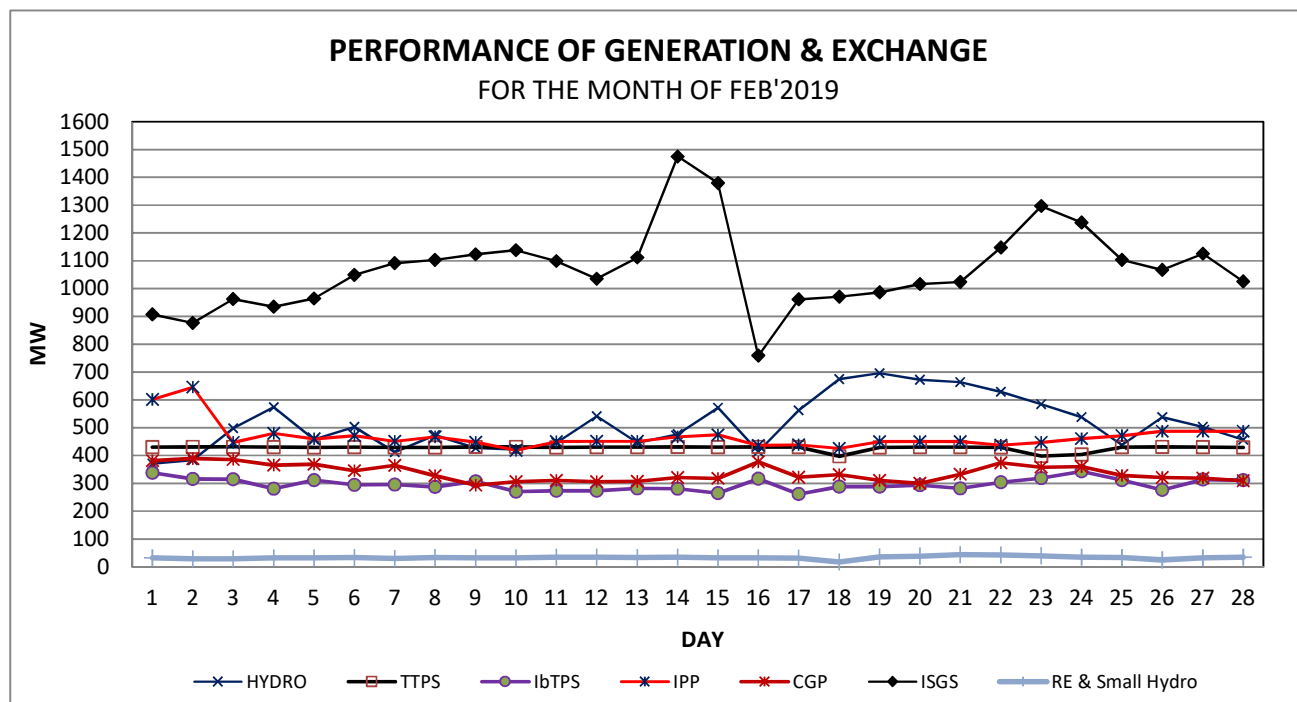
SL.NO.	NAME OF POWER STATION	INSTALLED CAPACITY	OPTCL'S SHARE OF INSTALLED CAPACITY		AUX. CONS.	% AGE AVAILABILITY
			% age	MW	%	%
1	CHUKHA (BHUTAN)	4 x 84 = 336 (Considering 270 MW, total availability )	15.19	41.00		85
2	TALA(BHUTAN)	6 x 170 = 1020	4.25	43.40		
3	FARAKKA (WEST BENGAL)	3 x 200 = 600 2 x 500 = 1000 1 x 500 = 500	14.18 17.06	226.88 85.75	7.5	77.91 85
4	KAHALGAON (BIHAR)	4 x 210 = 840 3 x 500 = 1500	15.24 2.05	132.47 39.30	9 9	53.98 62.11
5	TSTPP, KANIHA (ORISSA)	2 x 500 = 1000 4 x 500 = 2000	32.26 10	323.40 200.00	7.5 7.5	85
6	TISTA	3 x 170 = 510	20.59	105.00		85
	<b>TOTAL ISGS</b>			<b>1197.20</b>		

**GRAND TOTAL, (A) + (B) + (C) 4085.70**

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 norms. ISGS share of power is as per CGS power allocation sheet of CEA as on 01.07.2013.

## CAPACITY OF IPP, SMALL HYDRO &amp; RENEWABLE

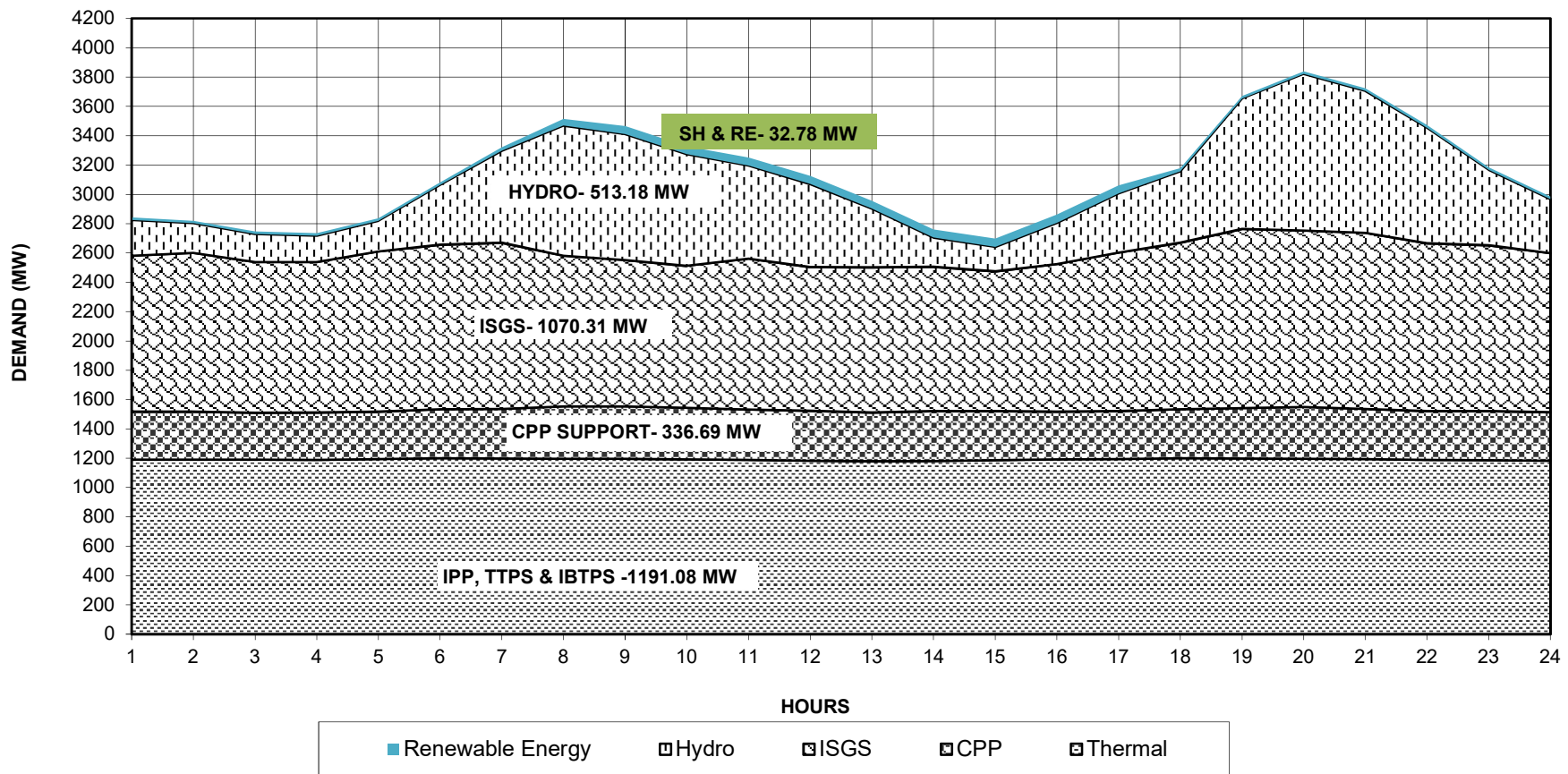
Sl.No	POWER STATION	INSTALLED CAPACITY	TOTAL	TYPE	VOLTAGE
<b>IPP &amp; SMALL HYDRO</b>					
1	MEENAKSHI POWER LTD.	3 X 4 + 2 X 12.5	37	SMALL HYDRO	132 kV
2	ORISSA POWER CONSORTIUM LTD.	4 X 5	20	SMALL HYDRO	132 kV
3	VEDANTA LTD., JHARSUGUDA(IPP)	1 X 600	600	THERMAL	400kV
4	GMR KAMALANGA ENERGY LTD.	3 X 350	1050	THERMAL	400kV
5	JITPL	2 X 600	1200	THERMAL	400kV
6	NBVL (MERAMUNDALI)	1 X 60=60	60	THERMAL	132 kV
		<b>TOTAL</b>	<b>2967</b>		
<b>CPP</b>					
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	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
10	FACOR POWER	1X 45	45	THERMAL	132 kV
11	HPCL(HINDALCO),(HIRAKUD)	1 X 67.5 + 3 X 100	367.5	THERMAL	132 kV
12	IMFA( CHOUDWAR )	2 X 54 + 1 X 30 + 2 X 60	258	THERMAL	132 kV
13	IFFCO (PARADEEP)	2 X 55	110	THERMAL	132 kV
14	JINDAL STAINLESS LTD., DUBURI	2 X 125 + 1 X 13	263	THERMAL	220 kV
15	JINDAL STEEL & POWER LTD., ANGUL	6 X 135	810	THERMAL	220 kV
16	NINL ( DUBURI )	2 X 19.25 + 1 X 24	62.5	THERMAL	220 kV
17	MAHAVIR FERRO ALLOYS PVT. LTD.	1 X 12	12	THERMAL	33 kV
18	MAITHAN ISPAT NIGAM LTD., Jaipur Rd	1 X 30	30	THERMAL	220 kV
19	MSP METTALLICS LTD.	1 X 25	25	THERMAL	132 kV
20	NALCO( ANGUL )	10 X 120	1200	THERMAL	220 kV
21	NALCO( DAMANJODI )	18.5 X 4	74	THERMAL	132 kV
22	NARBHERAM POWER & STEEL PVT. LTD.	1 X 8	8	THERMAL	132 kV
23	NBVL (MERAMUNDALI)	1 X 30 + 1X 64	94	THERMAL	132 kV
24	OCL INDIA LTD., RAJGANGPUR	2 X 27	54	THERMAL	132 kV
25	OISL, RAJGANGPUR	1 X 35	35	THERMAL	132 kV
25	ORISSA SPONGE IRON & STEEL LTD.	1 X 24	24	THERMAL	132 kV
26	PATTANAIK STEEL. (KEONJHAR)	1 X 15	15	THERMAL	33 kV
27	RATHI STEEL & POWER LTD. (Katapalli)	1 X 20	20	THERMAL	33 kV
28	RSP( ROURKELA )	2 X 60 + 4 X 25	220	THERMAL	220 kV
29	SEVEN STAR STEELS LTD.	1 X 8	8	THERMAL	33 kV
30	SHYAM DRI. (PANDOLI, SAMBALPUR)	1 X 30	30	THERMAL	132 kV
31	SMC POWER GENERATION LTD.	1 X 8 + 1 X 25	33	THERMAL	132 kV
32	SREE GANESH	1 X 32	32	THERMAL	132 kV
33	TATA SPONGE IRON (JODA)	1 X 18.5 + 1 X 7.5	26	THERMAL	220 kV
34	TATA POWER & STEEL, (K NAGAR)	2 X 67.5	135	THERMAL	220 kV
35	UTKAL ALUMINA, LAXMIPUR	3x30	90	THERMAL	220 kV
36	VEDANTA LTD.(SEZ),JHARSUGUDA	3 X 600	1800	THERMAL	400 kV
37	VEDANTA (JHARSUGUDA))	9 X 135	1215	THERMAL	220 kV
38	VEDANTA (LANJIGARH)	3 X 30	90	THERMAL	132 kV
39	VISA STEEL LTD., (NEW DUBURI)	1 X 25	75	THERMAL	220 kV
40	YAZDANI STEEL & POWER.	1 X 10	10	THERMAL	33 kV
		<b>TOTAL</b>	<b>9850</b>		
<b>RENEWABLE PROJECTS</b>					
Sl.No	POWER STATION	INSTALLED CAPACITY	TOTAL	TYPE	CONNECTIVITY
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	VIVACITY R.E PVT. LTD , CHANDPUR	1 MW	1	SOLAR	11 KV
10	RAAJRATNA ENERGY PVT. LTD. BOLANGIR (N)	1 MW	1	SOLAR	11 KV
11	S. N. MOHANTY, BARANGA, CHANDAKA	1 MW	1	SOLAR	11 KV
12	SHALIVAHAN GREEN ENERGY LTD.	20 MW	20	BIOMASS	132 KV
13	MAHAVIR FERRO ALLOYS (SOLAR), BANEI	1 MW	1	SOLAR	33 KV
14	MCL, BURLA, KATAPALI	2 MW	2	SOLAR	SELF 11 kV
15	ACME SOLAR, MURSING, BOLANGIR-SAINTALA	25 MW	25	SOLAR	132 kV
16	GEDCOL, MANMUNDA, SONEPUR	20 MW	20	SOLAR	33 kV
17	JYOTI SOLAR SOLUTIONS(P) LTD	10 MW	10	SOLAR	33 kV
18	SADIPALI SOLAR	20 MW	20	SOLAR	33 kV
19	BEL, SAINTALA	7.5 MW	7.5	SOLAR	132 kV
20	DAKSHIN ODISHA URGU PVT. LTD, PADMAPUR	40 MW	40	SOLAR	132 kV
		<b>TOTAL</b>	<b>190</b>		
	<b>GRAND TOTAL ( SMALL HYDRO,IPP &amp; CPP )</b>		<b>17092.70</b>		





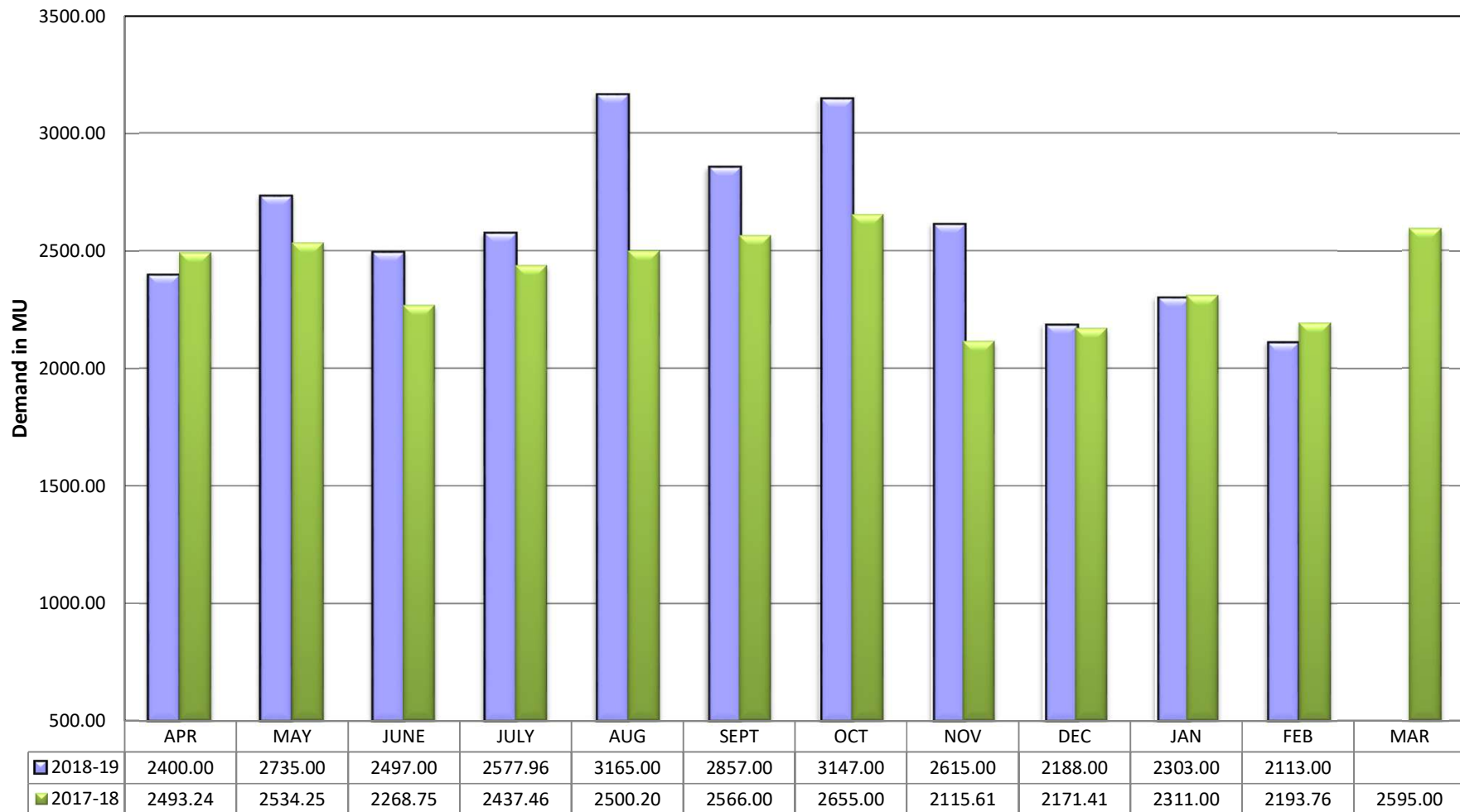
## AVERAGE GRID DEMAND [HOURLY] FOR THE MONTH OF FEB'2019

Average Demand=3144.03 MW





## COMPARISON SYSTEM DEMAND WITH PREVIOUS FINANCIAL YEAR



MONTHLY GENERATION & DEMAND REPORT FOR THE STATE OF ODISHA IN THE MONTH OF FEBRUARY- 2019

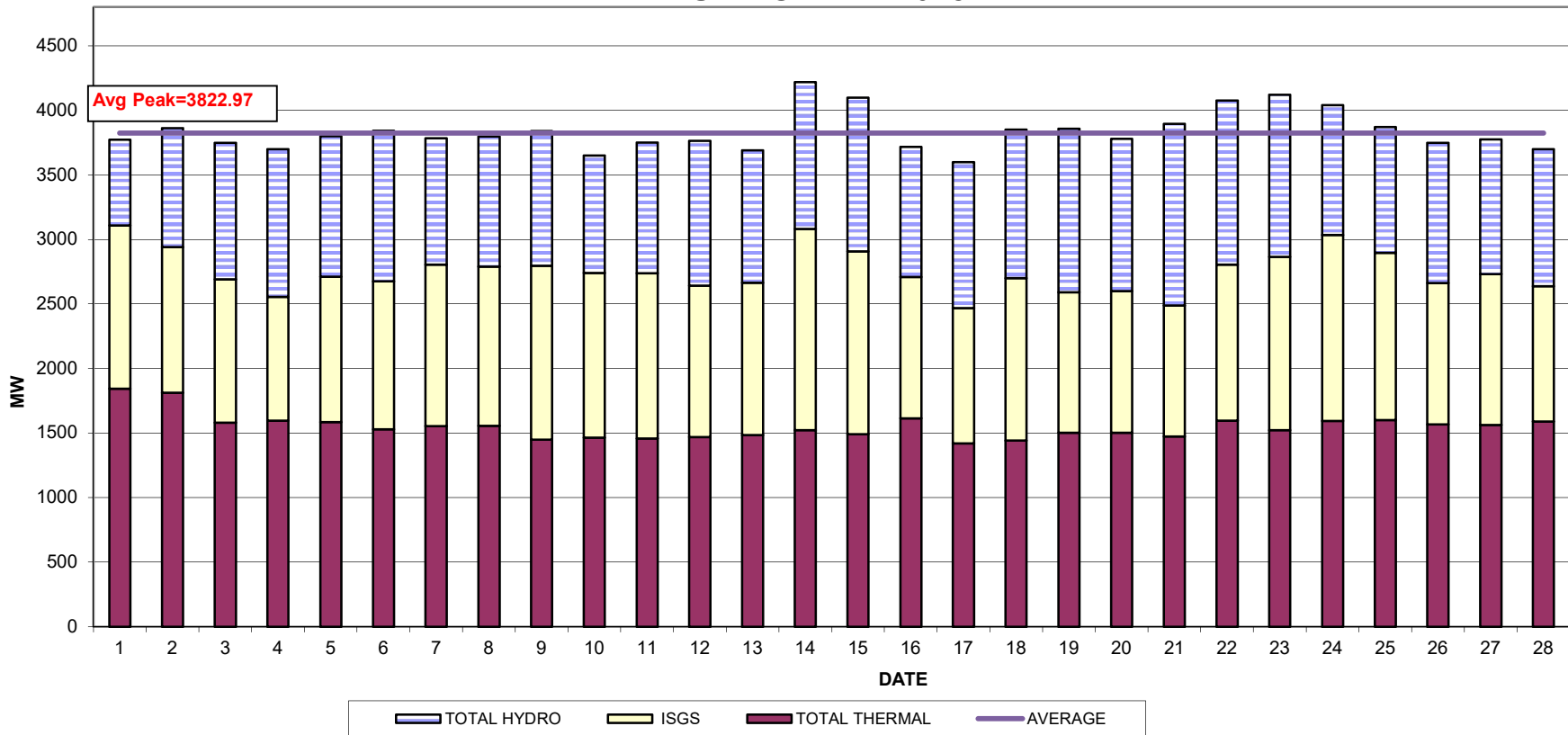
Unit wise generation (MU)									Average MW	Auxiliary MU	Maximum Generation in MW	DATE	Time
Unit-I	Unit-II	Unit-III	Unit-IV	Unit-V	Unit-VI	Unit-VII	Unit-VIII	Total					
0.000	9.771	3.355	0.000	0.000	0.000	1.646	-	14.772	21.982	0.145	99.65	19	8.00
3.591	5.683	0.000	-	-	-	-	-	9.274	13.801	0.058	22.80	19	1.00
0.000	0.000	1.747	14.768	18.306	9.795	8.178	8.083	60.878	90.593	0.487	305.64	23	19.00
7.22	0	4.8148	0.4106	6.846	-	-	-	19.291	28.707	0.095	140.78	11	9.00
34.646	7.046	24.745	0.000	-	-	-	-	66.437	98.865	0.342	229.64	19	20.00
42.025	6.239	53.490	48.559	-	-	-	-	150.313	223.679	2.307	579.41	21	20.00
-	-	-	-	-	-	-	-	320.965	477.626	4.774			
-	-	-	-	-	-	-	-	26.209	39.001		49.95	14	5.00
-	-	-	-	-	-	-	-	347.174	516.628	4.774	1406.63	21	20.00
40.487	42.088	41.719	40.289	-	-	-	-	164.583	244.915		230.23	8	2.00
74.379	74.605	-	-	-	-	-	-	148.984	221.702		208.07	4	6.00
-	-	-	-	-	-	-	-	313.567	466.618	34.044	436.14	8	2.00
109.770	113.313	-	-	-	-	-	-	223.083	331.969	23.979	377.71	1	2.00
-	-	-	-	-	-	-	-	537.606	800.008	-			
-	-	-	-	-	-	-	-	1074.256	1598.595	58.023	1862.56	2	18.00
23.925918								23.926	35.604				
-	-	-	-	-	-	-	-	1445.355	2150.826	62.797	2907.57	21	20.00

oters. Those figures should not be used for any commercial calculation.

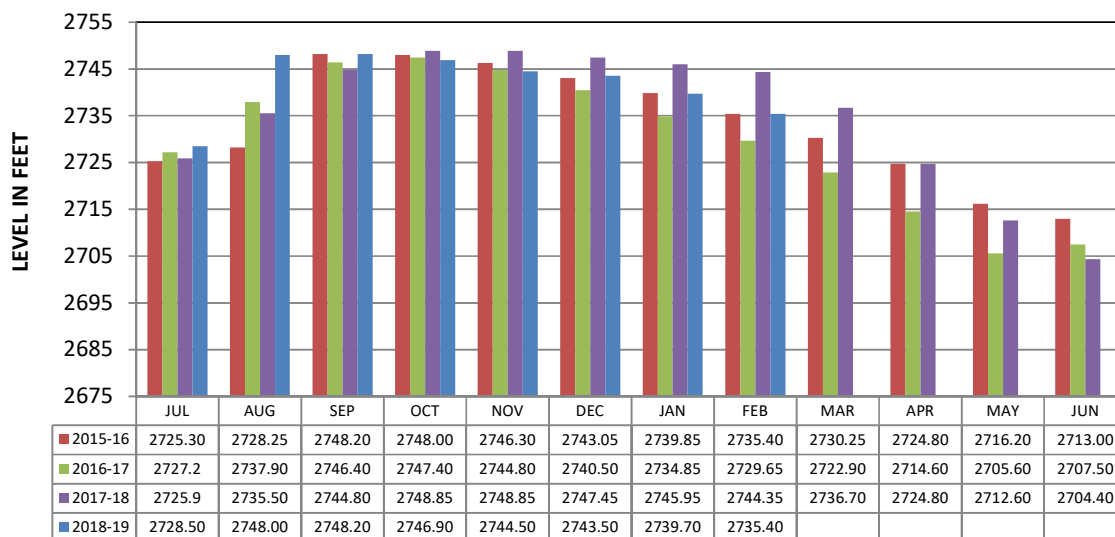
(C)EXCHANGE OF ENERGY WITH CENTRAL SECTOR

Injection in ( MU)	Average (MW)	Maximum Injection (MW)	DATE	TIME (Hr.)	Name of the Tie line	Net MU	Avg MW	Maximum Import (MW)	DATE	TIME	Maximum Export (MW)	DATE	TIME
8.057	11.989	50.16	12	19.00	132KV JODA-KENDUPOSI						-35.44	7	18.00
0.002	0.002				132KV KALABADIA-BANGIRIPOSI	24.28	36.13	58.84	7	20.00			
0.000	0.000				132KV KALABADIA-BARIPADA	17.06	25.38	38.78	23	20.00			
1.142	1.700				132 KV BHOGRAI-KUCHEI	1.26	1.87	9.76	8	8.00	-8.28	2	8.00
49.142	4.869	121.08	7	20.00	132 KV JALESWAR-KUCHEI	15.03	22.36	53.17	1	20.00	-4.59	7	16.00
3.272	4.869	113.82	16	12.00	220KV JODA-JAMSHEDPUR	-37.61	-55.97	41.72	25	2.00	-97.33	10	22.00
0.956	1.422	19.91	1	8.00	220KV JODA-RAMCHANDRAPUR	72.09	107.28	167.77	22	8.00	-0.23	5	12.00
11.501	17.114				220KV RENGALI SY- RENGALI P.G-I	18.26	27.17	78.19	4	10.00	-38.64	20	9.00
1.697	2.525				220KV RENGALI SY- RENGALI P.G-II	18.29	27.22	79.92	4	10.00	-41.54	20	9.00
0.0005	0.001				220KV JAYANAGAR JEYPURE PG-I	-36.18	-53.84	1.32	25	2.00	-163.15	21	19.00
27.743	41.284	49.78	1	3.00	220KV JAYANAGAR JEYPURE PG-II	-38.11	-56.71	0.12	25	2.00	-168.97	21	19.00
6.265	9.323	58.47	5	4.00	220KV RENGALI P.H-KANIHA	-8.57	-12.75	13.31	7	12.00	-60.51	16	20.00
33.220	49.434	113.63	25	8.00	220KV TTPS-KANIHA	20.62	30.69	84.53	7	19.00	-9.89	17	15.00
0.012	0.018				220KV MERAMUNDALI-KANIHA-I	35.17	52.34	119.27	7	19.00			
0.154	0.229				220KV MERAMUNDALI-KANIHA-II	35.17	52.33	105.76	11	20.00			
7.111	10.582				220KV TARAKARA-BISRA-I & II	125.96	187.45	268.94	27	8.00			
0.000	0.000				220 KV KALABADIA-BALASORE-I&II	120.67	179.57	235.89	7	8.00			
0.13	0.199	54.79	25	21.00	220KV KATAPALI- BOLANGIR(PG)	-46.05	-68.53	0.00	29	1.00	-118.50	25	2.00
0.086	0.128				220KV SADEIPALI - BOLANGIR(PG)	71.88	106.96	194.20	8	9.00	-45.18	16	2.00
6.998	10.413	47.45	27	11.00	220KV BUDHIPADAR-KORBA-I	-35.73	-53.17	33.87	15	23.00	-108.53	15	10.00
0.220	0.328				220KV BUDHIPADAR-KORBA-II	29.84	44.40	100.57	21	1.00	-108.53	15	10.00
2.886	4.295				220KV BUDHIPADAR-KORBA-III	31.00	46.13	112.49	15	22.00	-14.63	5	10.00
4.182	6.223				220KV ATRI- PANDIVIL	125.28	186.43	268.82	25	6.00	-21.82	13	10.00
0.000	0.000				220KVSAMANGHARA- PANDIVIL	48.11	71.58	128.93	3	19.00			
0.000	0.000				400KV INDRAVATI P.H-P.G	-67.54	-100.50	34.75	25	6.00	-246.06	23	20.00
0.518	0.771				400KV MERAMUNDALI-KANIHA	154.91	230.52	676.09	3	8.00	-334.80	21	14.00
0.053	0.078				400KV MERAMUNDALI-ANGUL-I&II	172.16	256.19	848.50	21	12.00	-355.26	2	15.00
0.033	0.049				400KV MENDHASAL - PANDIABIL-I &II	-21.33	-31.74	208.20	26	19.00	-96.19	4	21.00
12.651	18.826				400KV DUBURI - PANDIABIL	-83.01	-123.53	0.00	29	1.00	-257.35	26	19.00
288.718	429.640				400KV DUBURI - BARIPADA	36.56	54.40	178.00	25	5.00	-47.12	1	22.00
59.435	88.446				400KV VEDANTA-JHARSUGUDA Ckt-I	-34.11	-50.75	99.52	15	19.00	-152.33	4	15.00
0.591	0.880				400KV VEDANTA-JHARSUGUDA Ckt-II	-34.33	-51.08	99.52	15	19.00	-152.88	4	15.00
0.306	0.455	4.51	26	22.00	Net ISGS (Excluding trading )	731.03	1087.84	1675.28	14	6.00			
0.000	0.000				ABSTRACT OF SYSTEM DEMAND								
10.521	15.656				Particulars	Energy MU	Average MW	Peak MW	DATE	TIME			
537.606	800.008				Total gross generation( Including CPP+IPP)	1445.355	2150.826	2907.57	21	20.00			
					Power Station Auxiliary consumption	62.797	93.448	13.61	21	20.00			
					Total net generation( Including CPP+IPP)	1382.558	2057.378	2893.97	21	20.00			
					Net ISGS(Excluding trading )	731.026	1087.836	1675.28	14	6.00			
					System Demand	2113.584	3145.214	4222.83	14	20.00			
					Average of Peak Demand (MW)		3583.828						
					Average of Minimum Demand (MW)		2474.541						

## DAILY GENERATION SHARING DURING PEAK DEMAND DURING FEB - 2018

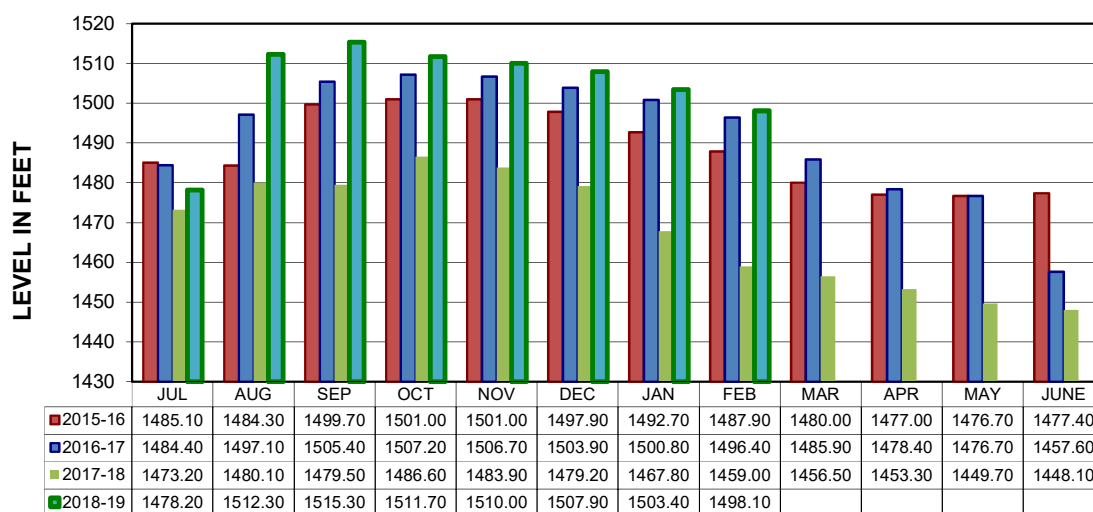


### JOLAPUT RESERVOIR LEVEL



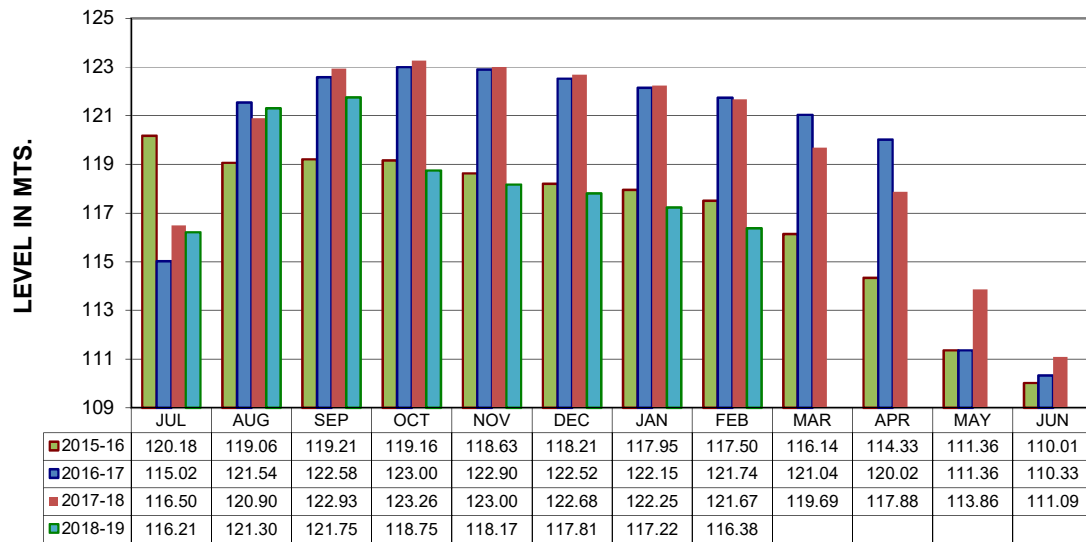
MONTH (End)

### BALIMELA RESERVOIR LEVEL

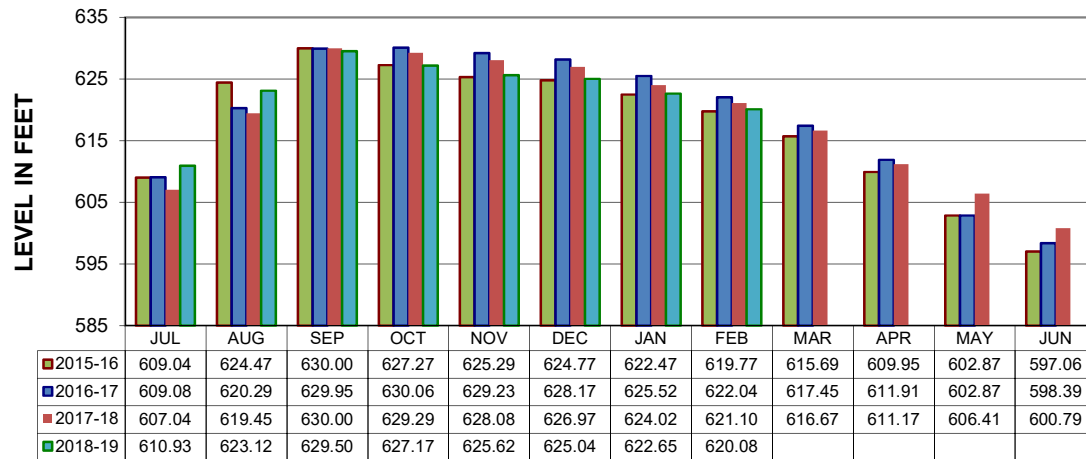


MONTH (End)

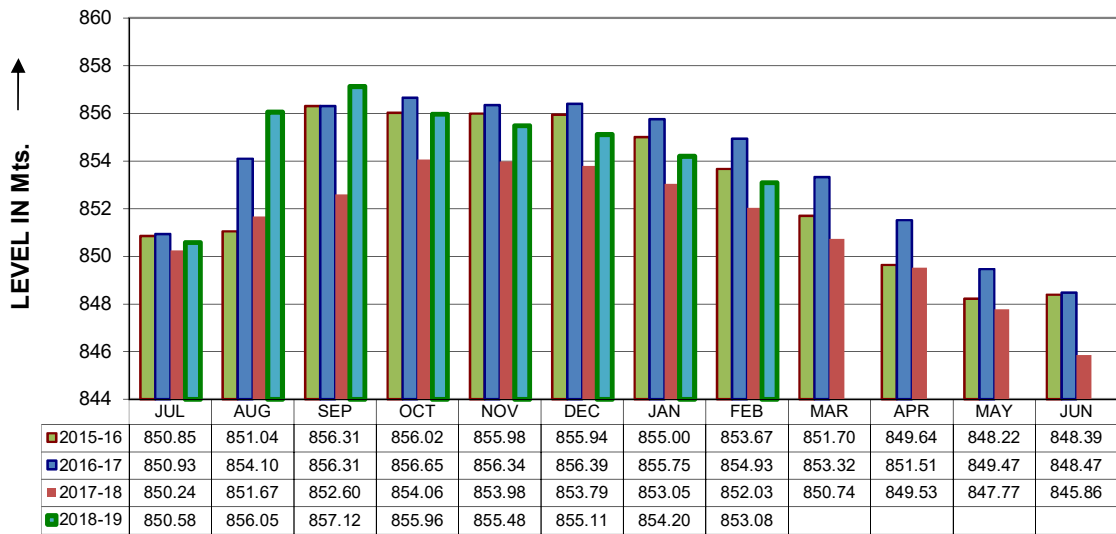
### RENGALI RESERVOIR LEVEL



### HIRAKUD RESERVOIR LEVEL

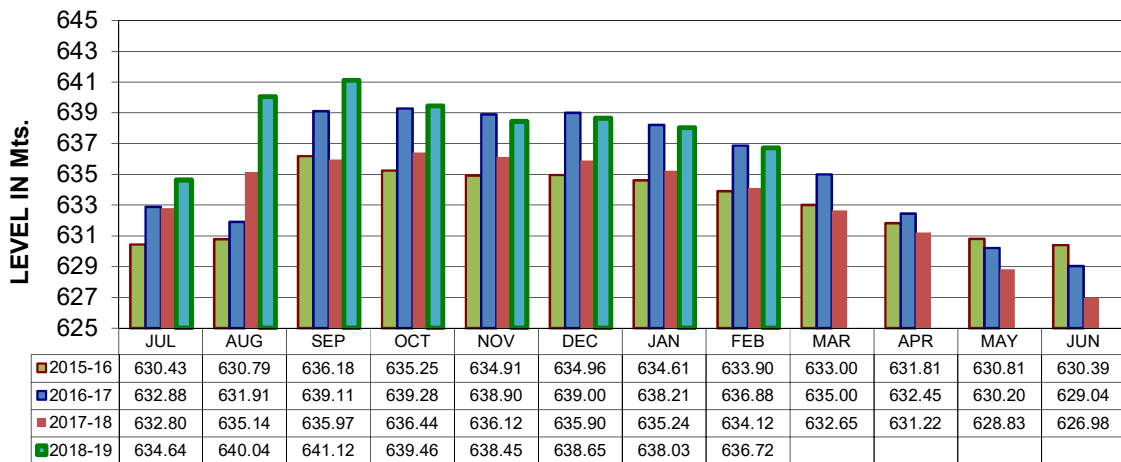


### U.KOLAB RESERVOIR LEVEL



MONTH (End)

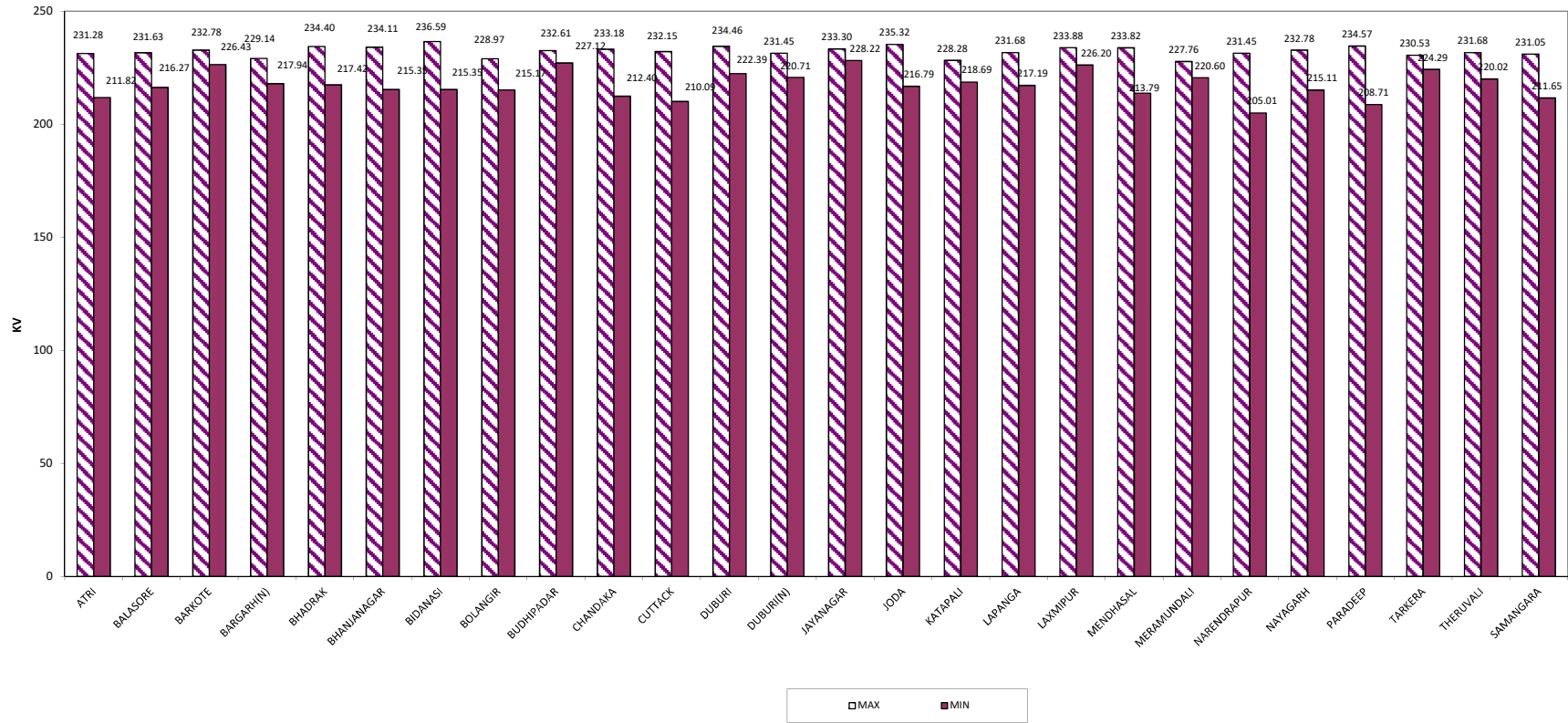
### INDRAVATI RESERVOIR LEVEL



MONTH (End)

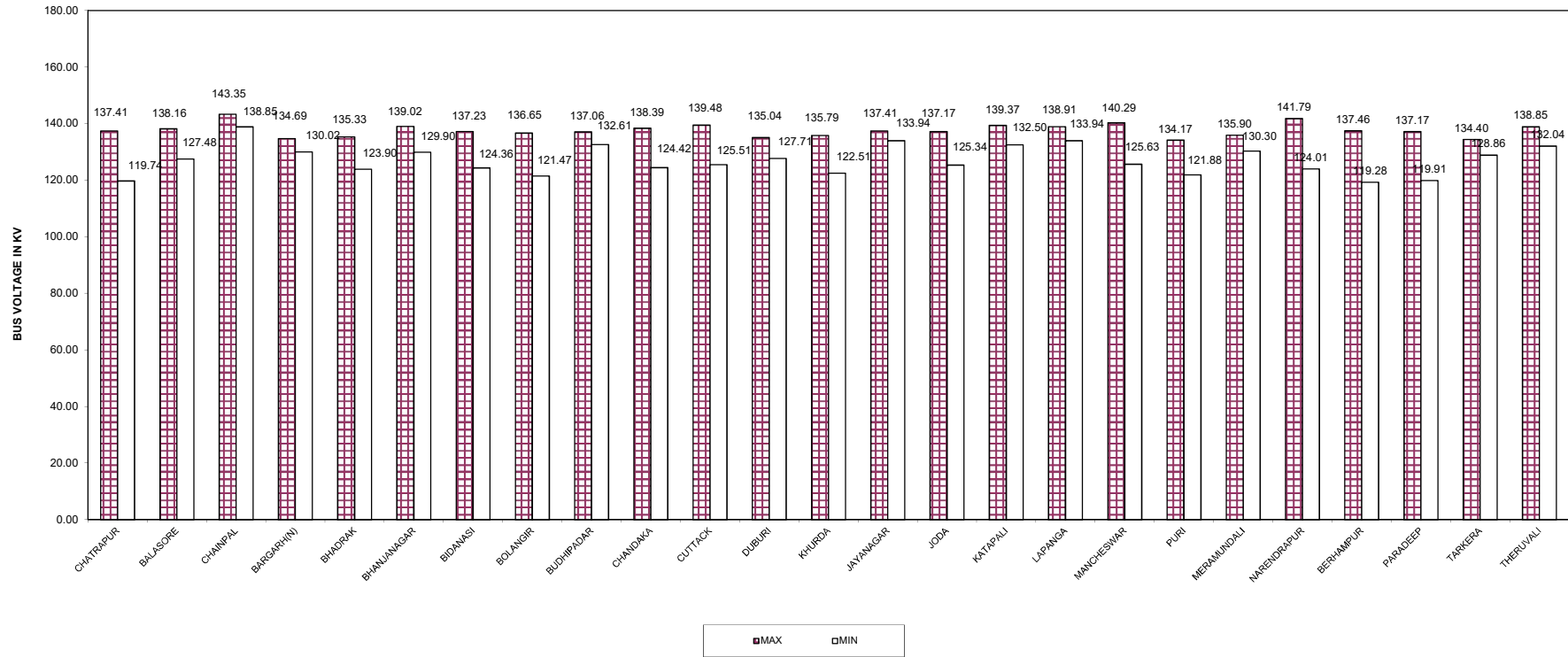


**VOLTAGE PROFILE OF 220KV S/S FOR FEBRUARY-2019**



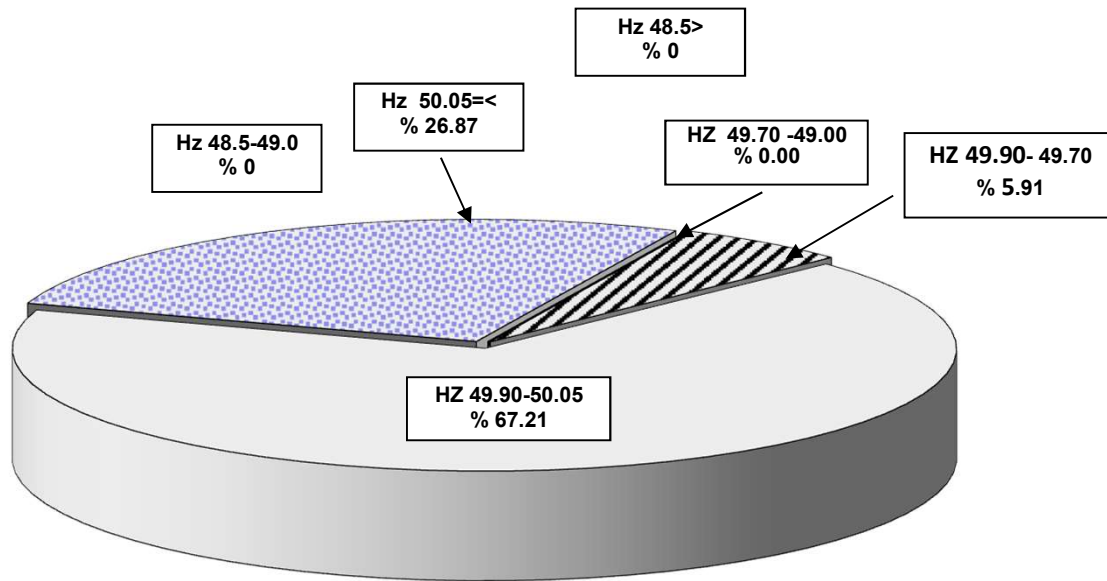
STATION	ATRI		BALASORE		BARKOTE		BARGARH(N)		BHADRAK		BHANJANAGAR		BIDANASI		BOLANGIR		BUDHIPADAR		CHANDAKA		CUTTACK		DUBURI		DUBURI (N)		JAYANAGAR		JODA		KATAPALI		LAPANGA		LAXMIPUR		MENDHASAL		MERAMUNDAL		NARENDRAPUR		NAYAGARH		PARADEEP		TARKERA		THERUVALI	
	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	Hrs.	DAY	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.	28	23:45	25	04:00	25	01:45	16	00:45	28	01:45	5	02:45	1	02:45	16	00:45	26	13:45	27	23:45	28	00:00	4	02:30	1	02:45	5	07:00	16	03:45	16	01:00	16	01:00	5	07:00	27	23:45	1	14:00	5	02:45	27	23:45	27	23:45	25	02:00	5	07:00
MINM.	26	18:15	22	20:00	21	18:30	19	19:00	22	20:00	26	18:15	26	18:15	6	08:15	14	09:15	26	18:15	26	18:15	23	18:45	23	19:30	21	19:00	25	18:15	26	18:30	8	13:00	21	18:45	26	18:15	23	18:45	26	18:15	26	18:15	23	19:30	14	09:00	26	18:15

VOLTAGE PROFILE OF 132KV S/S FOR FEBRUARY- 2019



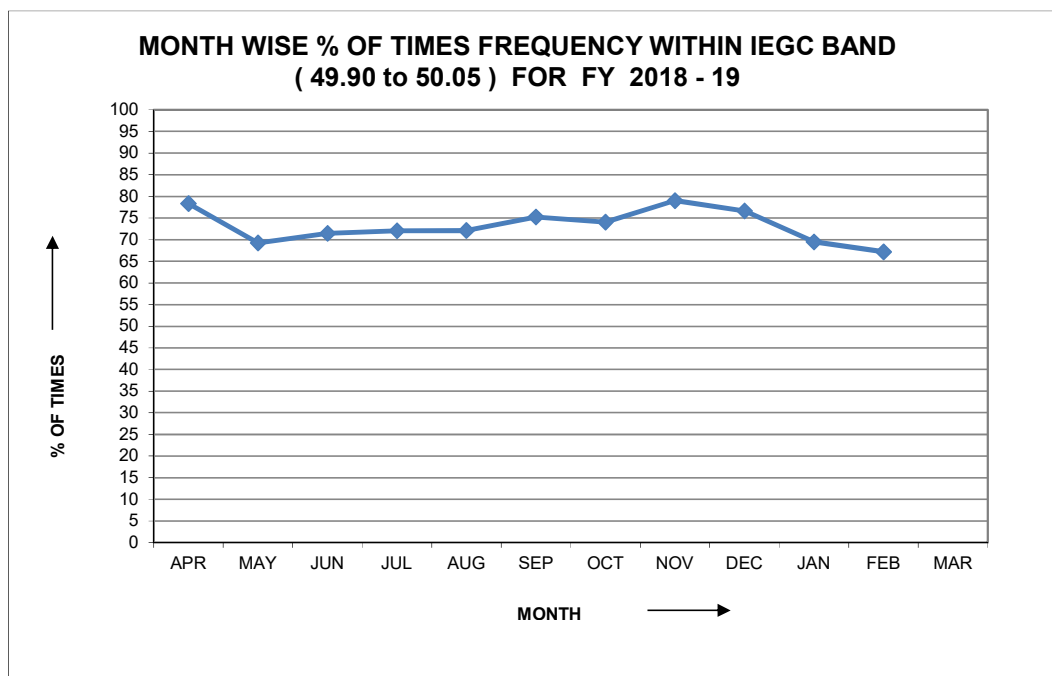
STN	CHATRAPUR		BALASORE		CHAINPAL		BARGARH (N)		BHADRAK		BHANUNAGAR		BIDANASI		BOLANGIR		BUDHIPADAR		CHANDAKA		CUTTACK		DUBURI		KHURDA		JAYANAGAR		JODA		KATAPALI		LAPANGA		MANCHESWAR		PURI		MERAMUNDALI		NARENDRAPUR		BERHAMPUR		PARADEEP		TARKERA		THERUVALI	
	DAY	Hrs	DAY	Hrs	DAY	Hrs	DAY	Hrs	DAY	Hrs	DAY	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
MAX	3	2:45	25	04:00	1	02:45	17	01:30	28	01:45	27	23:45	1	03:45	16	01:13	16	01:00	27	23:45	28	00:00	16	04:30	27	23:45	12	01:15	16	03:45	16	00:45	16	01:00	27	23:45	4	02:30	1	3:45	3	02:45	3	03:00	27	02:15	25	02:00	5	07:00
MIN	26	18:15	22	19:45	23	18:45	24	18:45	22	20:00	21	18:45	26	18:15	6	08:15	23	10:15	26	18:15	26	18:15	26	18:15	26	18:15	8	09:15	23	19:30	19	19:00	19	19:00	3	09:00	26	18:15	23	18:45	26	18:15	26	18:15	23	19:15	9	11:45	26	18:15

# MONTHLY FREQUENCY PROFILE FOR FEBRUARY - 2019



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	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49.7-49.9	152	92	167	36	77	136	20	46	39	17	19	72	129	144	141
49.9-50.05	1062	1132	1015	1003	944	975	840	742	777	985	920	1096	1091	1058	990
>50.05	225	216	258	401	419	329	580	652	624	438	501	272	220	238	309
>=50.1Hz	32	36	41	90	58	52	113	140	166	79	91	34	50	39	61

Frequency/Day	16	17	18	19	20	21	22	23	24	25	26	27	28				Total
<48.50	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
49.00-49.70	0	0	0	0	0	0	0	0	0	0	0	0	0				0
49.7-49.90	84	41	76	105	104	262	99	81	75	31	109	16	13				40
49.9-50.05	1042	904	989	1038	904	953	1023	1010	965	859	962	920	902				452
>50.05	314	495	375	297	432	225	318	349	400	550	369	504	525				181
>=50.10Hz	33	146	54	65	118	27	59	61	138	129	82	83	149				37



**FREQUENCY WITHIN THE STANDARD BAND & ABOVE .  
( FROM 2016-2017 TO 2018- 2019 )**

YEAR	FREQUENCY	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	ANNUAL
2016- 2017	Average in Hz	49.96	49.99	50.00	49.99	49.99	49.99	50.01	49.94	49.98	50.00	49.99	49.99	49.99
	% of time (49.9 to 50.05 Hz)	71.66	75.53	78.29	80.09	77.06	76.00	71.27	71.91	70.61	72.88	76.35	72.57	74.52
	% of time (above 50.05 Hz)	8.56	14.13	10.06	12.95	14.49	17.35	24.11	18.56	15.64	19.23	16.65	19.22	15.91
2017- 2018	Average in Hz	49.99	49.98	49.99	49.99	49.98	49.96	49.98	49.98	49.98	49.99	49.99	49.98	49.98
	% of time (49.9 to 50.05 Hz)	73.15	69.21	70.86	68.33	70.68	77.41	76.19	72.83	72.78	76.51	78.5	78.69	73.76
	% of time (above 50.05 Hz)	18.61	22.47	24.42	27.14	23.13	12.56	13.10	13.38	15.37	14.55	14.41	11.92	17.59
2018- 2019	Average in Hz	49.98	49.91	49.94	49.98	49.97	49.97	49.95	49.95	49.98	49.98	49.99		49.96
	% of time (49.9 to 50.05 Hz)	78.33	69.25	71.44	72.04	72.12	75.23	74.06	79.04	76.66	69.48	67.21		73.17
	% of time (above 50.05 Hz)	11.30	12.17	20.13	21.02	22.54	16.97	18.17	12.49	11.54	20.23	26.87		17.58

**ENERGY DRAWAL OF CESU CONTROL AREA GRID SUBSTATIONS FOR THE MONTH OF FEBRUARY'2019**

Sl.No	Name of Sub Station	Name of Feeder	Installed Capacity	SMD	Average Drawal	MAX DEMAND	
						MW	Date & Time
1	Angul	MCL Feeder-1&2	132kV	19.2982	18.8589	28.8798	02-Feb-2019 7:30
		Angul	2x40+1x20=100	26.1965	18.8869	26.5080	27-Feb-2019 12:00
2	Arati Steel	Arati Steel	132kV	0.0000	0.0255	5.6676	18-Feb-2019 19:45
		Argul	2x40+1x20=100	2.0563	2.0173	4.1941	21-Feb-2019 10:45
3	Badagada	Badagada	2x63=126	33.1194	20.6210	41.9732	03-Feb-2019 10:00
4	Balugaon	Khallikote Feeder	33kV	-13.6897	-10.0573	16.8410	01-Feb-2019 8:15
		SOLARI Traction	132kV	4.9727	6.0914	13.0569	16-Feb-2019 10:15
		Balugaon	1x40+1x20+1x12.5=72.5	26.0310	19.0919	29.4012	08-Feb-2019 6:45
5	Banki	Banki	2x20=40	9.7093	6.1171	12.4135	23-Feb-2019 10:45
6	Bhubaneswar	Bhubaneswar	3x63=189	58.4738	47.5096	81.5471	02-Feb-2019 11:00
7	Bidanasi	Bidanasi	2x63+1x40=166	55.7588	37.3654	57.6360	21-Feb-2019 12:15
8	Boinda	Boinda	1x20+2x12.5=45	17.5896	12.8131	23.4758	27-Feb-2019 9:15
9	BPPL S/W	BPPL Fdr-I&II	132 kV	0.0000	0.0005	0.0360	08-Feb-2019 2:15
10	Chainpal	FCI Feeder	132kV	0.8090	0.4010	0.9029	12-Feb-2019 8:00
		Talcher Rd. Trac.	132kV	2.4400	3.3481	8.0047	03-Feb-2019 21:30
		Chainpal	2x40+1x20=100	41.5815	29.6720	43.8942	14-Feb-2019 7:00
11	Chandaka	Chandaka	3x63=189	81.5024	60.2929	89.8426	08-Feb-2019 8:45
12	Chandpur	Chandpur	2x12.5=25	9.7870	6.1086	10.3312	23-Feb-2019 17:00
13	Choudwar	Choudwar Tract.	132kV	7.1759	6.8515	16.3578	16-Feb-2019 10:15
		Choudwar	3x40=120	49.5453	39.2289	63.3355	07-Feb-2019 11:00
14	Cuttack	Cuttack	3x40=120	29.5327	24.0918	36.1210	28-Feb-2019 11:00
15	Dhenkanal	Joranda Tr.	132kV	4.8220	6.1589	14.5651	23-Feb-2019 15:30
		Narveram CGP Fdr.	33kV	0.5280	0.1281	3.9226	26-Feb-2019 8:15
		Dhenkanal	3x40=120	40.4364	29.4894	42.8814	23-Feb-2019 19:00
16	GSAL S/W	GSAL Feeder	132kV	0.0360	0.0273	0.1080	01-Feb-2019 9:45
17	Hind Metalics	MGM Feeder	132kV	0.0000	0.0000	0.0130	14-Feb-2019 13:30
		NBVL Fdr.-1&2	132kV	0.0000	0.0000	0.0000	01-Feb-2019 0:00
		SGEL Feeder	132kV	0.0000	0.0502	1.8295	12-Feb-2019 10:00
		Meramundli Trac.	132kV	2.1042	4.3323	10.3610	17-Feb-2019 11:45
18	Infocity-II GIS	Infocity-II GIS	2x40=80	14.5205	10.2597	19.8913	11-Feb-2019 21:00
19	Jagatsinghpur	Gorakhanath Traction	132kV	8.0323	6.5765	12.1560	25-Feb-2019 19:45
		Jagatsinghpur	1x40+2x20=80	28.3255	19.0534	30.8554	11-Feb-2019 18:45
20	Kalarangi	Kalarangi	1x20+2x12.5=45	16.9223	11.5191	18.1715	12-Feb-2019 19:00
21	Kamakhyanagar	Kamakhyanagar	1x20+2x12.5=45	15.0230	13.0201	21.9562	16-Feb-2019 19:00
22	Kendrapada	Kendrapada	2x40+1x12.5=92.5	22.4322	15.2793	28.3048	01-Feb-2019 0:00
23	Khajuriakata	Khajuriakata	2x40=80	6.9104	4.3392	7.4613	24-Feb-2019 19:15
24	Khuntuni GIS	Khuntuni GIS	1x40=40	0.0000	0.3804	3.4054	25-Feb-2019 18:45
25	Khurda	Kaipadar Trac.	132kV	11.5484	7.5727	17.3951	20-Feb-2019 11:30
		Khurda	4x40=160	67.1074	54.1901	81.0476	12-Feb-2019 16:30
26	Konark	Konark	2x20=40	6.5364	4.7511	11.2425	28-Feb-2019 19:15
27	Mania	Mania	1x20+1x12.5=32.5	3.5038	1.5856	5.2170	02-Feb-2019 2:45
28	Marshaghai	Marshaghai	2x20=40	11.7601	7.2351	12.7097	24-Feb-2019 19:00
29	Mendhasal	Mendhasal	2x20=40	1.3195	1.0596	2.0824	24-Feb-2019 19:15
30	Meramundali	BSL Fdr-1&2	220 kV	72.6368	40.0296	80.4553	15-Feb-2019 15:00
		BRG Feeder	132kV	3.9641	9.8091	21.8304	11-Feb-2019 12:15
		GMR (IPP)	400kV	0.0000	0.5795	10.8300	03-Feb-2019 0:15
		JSPL Feeder-1&2	400kV	0.0000	0.1550	57.3319	20-Feb-2019 4:15
		RUNGTA Feeder	132kV	0.3415	0.0793	0.4680	16-Feb-2019 5:00
31	Narsinghpur	Narsinghpur (220/33)	1x40=40	3.7169	0.1879	3.7706	22-Feb-2019 20:15
32	Navagarh	Navagarh (220/33)	2x40+1x20=100	41.6685	25.7643	60.7842	09-Feb-2019 18:30
33	Nimapara	Nimapara	3x40=120	43.0842	30.6953	49.9184	04-Feb-2019 18:30
34	Nuapatana	Nuapatana	1x40+1x20+1x12.5=72.5	24.7558	23.3745	35.0129	23-Feb-2019 19:15
35	Olaver	Olaver	2x12.5=25	5.2184	2.9818	7.1635	11-Feb-2019 9:15
36	Paradeep	Essar Steel Fdr-1&2	220kV	19.3725	0.1018	33.0413	11-Feb-2019 5:45
		IFFCO Fder-1&2	132kV	0.0360	0.9474	11.0087	02-Feb-2019 19:15
		IOCL Feeder	220kV	0.8624	0.4110	1.1431	12-Feb-2019 7:30
		PPL Fder-1&2	132kV	0.2160	3.9413	14.7267	05-Feb-2019 18:45
		PPT Fder-1&2	132kV	12.5539	9.1985	13.6889	02-Feb-2019 20:45
		Paradeep	3x20=60	21.0484	13.6691	21.5841	24-Feb-2019 18:45
37	Pattamundai	Pattamundai	2x20+1x12.5=52.5	17.8070	12.1031	23.9654	24-Feb-2019 21:00
38	Phulnakhara	Phulnakhara	1x40+2x20=80	21.3113	14.8363	22.4883	07-Feb-2019 18:15
39	Puri	Puri	3x40=120	29.5299	19.4190	35.6728	25-Feb-2019 10:45
40	Ranasinghpur	Ranasinghpur	3x63=189	55.9408	43.2467	61.8975	22-Feb-2019 17:30
41	Rengali S/W	Rengali S/W (220/33)	2x20=40	13.4908	8.9142	15.9614	14-Feb-2019 10:45
42	Salipur	OCL Feeder	132kV	6.9865	6.9667	8.4918	13-Feb-2019 2:15
		Salipur	3x20=60	23.7654	16.4529	26.9352	27-Feb-2019 16:00
43	Samangara	Samangara	2x20=40	14.6269	8.8977	15.3236	23-Feb-2019 21:30
44	Shamuka	Shamuka	2x31.5=63	9.5880	9.7912	24.6134	19-Feb-2019 18:30
45	Tirtol	Tirtol	1x40=40	4.0872	3.2696	8.0852	27-Feb-2019 20:00
46	TS Allovs S/W	RAWMET Feeder	132kV	20.7894	21.2366	23.1385	05-Feb-2019 8:15
		Barkote	33kV	2.1330	1.5892	7.2860	03-Feb-2019 18:45
	Chandikhol	Badachana Fder	33kV	14.6639	9.7492	14.6639	23-Feb-2019 19:30
	Rairakhol	Bamur Feeder	33kV	3.3436	2.3604	4.3321	02-Feb-2019 18:30
	Rengali S/W	Budhapal Fder	33kV	-1.3751	-0.8682	1.5223	01-Feb-2019 18:45
	Chandaka	S.N. Mohanty(Solar)	11kV	0.0000	0.1495	0.6023	12-Feb-2019 11:15
	Chandpur	VIVACITY Solar	11 kV	0.0000	0.1758	0.6576	18-Feb-2019 11:45
	Chandpur	MGM SOLAR	11 kV	0.0000	0.1632	0.6435	28-Feb-2019 12:00
		<b>CESU TOTAL ENERGY (MU)</b>		<b>1.209.9223</b>	<b>595.7678</b>	<b>1.674.3920</b>	

**ENERGY DRAWAL OF WESCO CONTROL AREA GRID SUBSTATIONS FOR THE MONTH OF FEBRUARY'2019**

Sl.No	Name of Sub Station	Name of Feeder	Installed Canacity MYA	SMD MW	Averase Drawal MW	MAX DEMAND		
						MW	Date & Time	
1	Aryan-Viraj S/W	Arvan Ispat Fder	132kV	0.0000	0.0287	2.1826	25-Feb-2019 5:15	
		Arvan-Viraj Fdr	132kV	0.0240	0.0279	0.0540	16-Feb-2019 1:00	
2	Bamra	Bamra Traction	132kV	4.2842	7.1099	15.0988	28-Feb-2019 11:30	
3	Barapalli	Dunguripali Trac.	132kV	3.0148	1.2537	7.5530	09-Feb-2019 4:45	
		Barapalli	1x40+1x20=60	35.3151	27.6520	42.8493	18-Feb-2019 7:45	
4	Bargarh	ACC Fder-1 & 2	132kV	0.3240	1.1051	9.6157	01-Feb-2019 3:45	
		Bargarh	3x40=120	71.9377	62.2575	83.0286	26-Feb-2019 7:45	
5	Bargarh (New)	Bargarh (New)	1x12.5=12.5	0.0051	0.0155	0.0342	15-Feb-2019 19:30	
6	Barkote	Barkote (220/33)	2x40=80	10.8078	8.3979	22.9876	11-Feb-2019 18:45	
7	Bhalulata	Bhalulata Traction	132kV	4.8877	4.2275	15.5355	25-Feb-2019 8:45	
8	Bhawanipatna	Bhawanipatna	2x12.5=25	10.4729	8.1969	13.0300	01-Feb-2019 17:15	
9	Bolangir	Bolangir	3x40=120	44.0286	30.5846	59.8009	20-Feb-2019 18:45	
10	Bonai	Bonai (220/33)	2x20=40	10.7897	9.1106	12.0998	01-Feb-2019 13:30	
11	Brajarainagar	Brajarainagar	1x40+3x20=100	27.8936	23.3794	35.1314	22-Feb-2019 19:00	
12	Budhipadar	AAL Feeder-I&II	220kV	4.7006	5.8975	31.1846	23-Feb-2019 19:15	
		Basundhara Fdr	220kV	4.9329	1.2630	5.6026	25-Feb-2019 3:30	
		BPSL Fdr-1&2	220kV	86.2031	45.9126	93.0988	18-Feb-2019 0:30	
		MCL Fder-1 & 2	132kV	13.7569	13.0319	21.4080	02-Feb-2019 11:45	
		MSP Feeder	132kV	0.0000	0.0000	0.0000	01-Feb-2019 0:00	
		SPS(CONCAST) Fdr	220kV	0.0000	0.0000	0.0000	01-Feb-2019 0:00	
		Budhipadar	1x20+1x12.5=32.5	6.4422	6.5781	12.9822	21-Feb-2019 18:45	
		Vedanta CGP-1	220 kV	0.0000	0.0055	11.9250	26-Feb-2019 3:30	
13	Burla P.H.	Incomer & Island fdr	11 kV	0.0179	0.0376	0.0991	16-Feb-2019 0:00	
14	Chandiposh	Chandiposh Trac.	220kV	5.1920	2.8629	10.3461	03-Feb-2019 5:00	
15	Chend	Adhunik Metallic Fdr.	132kV	0.0000	0.0000	0.0000	01-Feb-2019 0:00	
		Nuagaon Trac.	132kV	3.4922	1.7710	10.8382	18-Feb-2019 9:45	
		SriGanesh Metallics	132kV	0.3544	1.6140	3.7273	21-Feb-2019 7:00	
		Chend	3x40=120	52.2410	44.9614	69.0607	01-Feb-2019 8:45	
16	Chipilima P.H.	Chipilima P.H.	1x20+1x12.5=32.5	21.3230	16.1331	22.2913	02-Feb-2019 7:00	
17	Ghens	Ghens	1x40=40	16.0062	12.8637	19.9248	03-Feb-2019 10:30	
18	Jharsuguda	Jharsuguda Trac.	132kV	8.0168	10.6656	22.1918	04-Feb-2019 12:45	
		Jharsuguda	2x40=80	18.3445	12.2543	21.2348	16-Feb-2019 18:45	
		Ultratech Fder	132kV	10.8135	9.9004	11.7219	03-Feb-2019 18:45	
19	Junagarah	Junagarah	3x20=60	21.7383	20.5499	29.0835	20-Feb-2019 10:45	
20	Kalunga	Kalunga	2x40=80	42.0961	48.5499	52.8107	20-Feb-2019 15:30	
		Mahavir Ferro CGP	33kV	0.0081	0.0181	1.1167	23-Feb-2019 0:00	
21	Kantabanji	Kantabanji Traction	132kV	0.1138	0.3952	6.6984	20-Feb-2019 9:00	
		Kantabanji	2x40=80	6.5904	6.2442	9.7978	13-Feb-2019 7:30	
22	Hindalco S/W	FRP Feeder	132kV	12.0375	11.2154	18.9563	28-Feb-2019 20:00	
23	Katapali	HINDALCO Fdr-1&2	220kV	0.0000	0.2042	15.2010	28-Feb-2019 7:00	
		Rathi Steel CGP	33kV	0.0000	0.0000	0.0000	01-Feb-2019 0:00	
		Katapali	1x40+2x20=80	27.4067	24.2999	36.9776	12-Feb-2019 18:45	
24	Kesinga	POWMEX Fdr	132kV	1.8772	0.7813	3.3772	15-Feb-2019 12:00	
		Kesinga Trac.	132kV	0.6131	0.8395	8.7858	19-Feb-2019 16:45	
		Kesinga	1x40+2x20=80	24.8467	25.0408	38.6942	03-Feb-2019 19:45	
25	Khariar	Khariar	2x40=80	27.6229	24.4522	33.7698	05-Feb-2019 18:30	
26	Kuchinda	Kuchinda	2x20=40	12.2114	9.5237	18.1258	01-Feb-2019 18:45	
27	Lapanga	Rengali Traction	132kV	2.1531	1.8765	9.1761	01-Feb-2019 22:00	
		Lananga	1x20=20	6.3715	5.3686	8.6227	07-Feb-2019 18:15	
28	Nuapada	Nuapada	2x20=40	7.8482	8.1870	12.1361	13-Feb-2019 15:30	
29	OPGC S/W	BGR Enererv Fdr	33kV	0.1158	0.1287	0.1158	01-Feb-2019 0:00	
		BHEL Ltd. Fdr	33kV	0.3195	0.3550	0.3195	01-Feb-2019 0:00	
30	Padampur	Padampur	1x40+2x20=80	26.0338	19.4827	37.6623	12-Feb-2019 16:45	
31	Patnagarh	Patnagarh	1x40+2x20=80	17.3324	13.1270	24.7400	01-Feb-2019 7:15	
32	Rairakhol	Rairakhol Traction	132kV	0.3671	0.3308	6.2206	25-Feb-2019 21:30	
		Rairakhol	3x12.5=37.5	7.5282	6.1197	13.0121	28-Feb-2019 16:45	
33	Rajgangpur	OCL Feeder	132kV	0.0000	0.1473	8.9280	08-Feb-2019 5:15	
		OISL Feeder	132kV	2.3391	1.0845	2.6306	27-Feb-2019 1:30	
		Raigangpur Trac-1&2	132kV	4.5578	3.0870	13.6497	08-Feb-2019 13:30	
		Raigangpur	3x40=120	48.2903	44.9493	54.5040	09-Feb-2019 18:15	
34	Rourkela	Rourkela Trac. Tfr	1x12.5=12.5	4.8245	4.8925	10.9830	12-Feb-2019 15:30	
		Rourkela	1x40+3x35=145	36.2625	30.1690	59.9425	21-Feb-2019 11:00	
35	Saintala	ORDNANCE Fder	132kV	1.2965	1.2126	2.8163	25-Feb-2019 10:15	
36	Sambalpur	Sambalpur	1x40+2x31.5=103	56.0615	40.0142	67.4142	22-Feb-2019 18:30	
		Shyam Metallics	Shyam DRI Fder	132kV	16.3938	11.1164	19.2132	20-Feb-2019 16:45
37	SMC S/W	SMC Power	132kV	4.5329	5.9220	14.7689	08-Feb-2019 10:30	
38	Sonepur	Sonepur	1x40+2x20=80	38.5354	31.9803	44.5746	23-Feb-2019 18:45	
39	Sundargarah	Sundargarah	1x40+2x20=40	24.2303	20.9755	29.6031	05-Feb-2019 8:15	
40	Tarkera	RSP Feeder-1&2	132kV	0.0000	0.0040	0.0450	02-Feb-2019 3:45	
		RSP Feeder-1&2	220kV	111.1561	95.8376	116.8177	19-Feb-2019 20:45	
41	Tusura	Tusura	1x40+1x20=60	10.1172	6.8124	15.1927	13-Feb-2019 7:45	
42	Vedanta Lanjigarh	Vedanta Al. Fder-1&2	132kV	0.0000	0.0801	8.4372	12-Feb-2019 16:00	
43	Vedanta Ltd S/W	Vedanta Ltd CGP-2	400 kV	423.5392	47.3495	423.5392	14-Feb-2019 8:30	
	Barkote	Pallhara Feeder	33kV	-2.2990	-1.5892	7.2860	03-Feb-2019 18:45	
	Joda	Joda-Tensa Fdr	33kV	6.1178	5.5450	8.5439	11-Feb-2019 19:15	
	Rengali	Budhapal Fder	33kV	1.0657	0.8682	1.5223	01-Feb-2019 18:45	
	Rairakhol	Bamur Feeder	33kV	-3.0151	-2.3604	4.3321	02-Feb-2019 18:30	
	Sonepur	Manamunda Fder	33kV	-10.4464	-9.5930	12.6139	23-Feb-2019 18:15	
	Tentulikhunti	Mukhiguda Fdr	33kV	1.4973	1.3319	2.0454	26-Feb-2019 18:45	
	Bolangir	ACME SOLAR	132kV	0.0000	0.0387	0.1787	14-Feb-2019 17:45	
	Bamra	Jov Iron Solar	11 kV	0.2441	0.1245	0.5389	10-Feb-2019 11:30	
	Barkote	Molisati Solar	11kV	0.2896	0.1608	0.5973	18-Feb-2019 12:00	
	Kesinga	SADIPALI Solar	33kV	9.6840	5.3756	18.4680	19-Feb-2019 12:15	
	Kesinga	Vento Power Solar-I	132kV	0.0000	0.0344	0.2520	05-Feb-2019 6:45	
	Kesinga	Vento Power Solar-II	132kV	0.0000	0.0219	0.0720	01-Feb-2019 0:30	
	Bonei	Mahavir Solar	33kV	0.3041	0.1700	0.6601	10-Feb-2019 12:00	
	Sadeipali	REHPL(Solar)	11kV	0.3287	0.1788	0.6696	18-Feb-2019 12:00	
	Saintala	BEL-OFBL Solar	132kV	0.0000	0.0149	0.1138	16-Feb-2019 0:15	
	Padampur	Dakshin UPL solar	132kV	0.0000	0.0419	0.1080	01-Feb-2019 18:00	
	Sonepur	GEDCOL Solar	33kV	6.9906	3.5424	13.2058	19-Feb-2019 11:45	
	Patnagarh	ALEX Solar Pvt. Ltd.	33 kV	0.0000	0.0000	0.0000	01-Feb-2019 0:00	
	Patnagarh	JYOTI Solar	33kV	4.7052	2.5323	8.9820	10-Feb-2019 12:00	
	Sonepur	ABACUS Holdings Solar	11 kV	0.3436	0.1846	0.7583	19-Feb-2019 12:00	
	Tusura	Vento Power Solar -I	132kV	0.5400	0.0207	1.4760	02-Feb-2019 12:15	
	Tusura	Vento Power Solar-II	132kV	0.0000	0.0220	0.0720	01-Feb-2019 2:45	
		WESCO TOTAL ENERGY (MU)		1,519.3412	637.3860	2,047.5946		



**ENERGY DRAWAL OF NESCO CONTROL AREA GRID SUBSTATIONS FOR THE MONTH OF FEBRUARY'2019**

Sl.No	Name of Sub Station	Name of Feeder	Installed Capacity MVA	SMD MW	Average Drawal MW	MAX DEMAND	
						MW	Date & Time
1	Anandpur	Anandpur	1x20+2x12.5=45	15.0260	11.7564	20.8717	19-Feb-2019 11:15
2	Arya Ispat S/w	ARYA Steel	132kV	6.3073	6.7493	7.5782	19-Feb-2019 2:00
		BRPL Feeder	132kV	8.8079	8.4896	9.3901	06-Feb-2019 19:30
		IMTCPL Feeder	132kV	0.0000	0.0000	0.0000	01-Feb-2019 0:00
3	Balasore	BIRLA Tyre Fder	132kV	2.4601	3.0148	6.3657	28-Feb-2019 23:00
		ISPAT Feeder	132kV	57.4958	60.2745	57.8176	24-Feb-2019 20:15
		Traction Fdr	132kV	5.8142	5.9961	13.1982	26-Feb-2019 3:30
		Balasore	2x63+1x40=166	56.1324	44.8631	68.8216	27-Feb-2019 11:00
4	Bangiriposi	Bangiriposi	2x12.5=25	9.1724	9.2900	15.3100	23-Feb-2019 11:00
5	Barbil	Barbil	2x12.5=25	8.4527	7.4494	10.9044	11-Feb-2019 19:00
6	Baripada	Baripada	3x40=120	32.6586	25.6291	37.9373	08-Feb-2019 10:45
7	Basta	Basta	2x20+1x12.5=42.5	24.9608	17.0984	27.1700	19-Feb-2019 8:30
8	BC Mohanty S/w	Bamniral Fdr	132kV	18.9409	22.0791	22.2127	12-Feb-2019 10:45
		BC Mohanty fdr	132 kV	3.3722	4.1015	4.2339	13-Feb-2019 4:15
		TOMKA Traction	132kV	2.3508	2.7827	10.8512	20-Feb-2019 15:15
9	Bhadrak	Dhamra Port Trac.	132 kV	7.1683	4.2329	11.9367	15-Feb-2019 21:15
		Dhamra Port Fdr	132kV	2.6944	2.3980	8.4757	12-Feb-2019 20:00
		FACOR Feeder	132kV	0.0000	0.4748	21.9960	19-Feb-2019 9:30
		FACOR Power	132kV	0.0000	0.0070	0.9747	28-Feb-2019 22:15
		Bhadrak Traction	132kV	7.0200	6.4311	12.8437	01-Feb-2019 0:00
		Bhadrak	2x63+1x40=166	63.0157	40.4701	66.8895	11-Feb-2019 11:45
10	Bhograi	Bhograi	2x40=80	10.7894	6.5376	12.5075	24-Feb-2019 15:45
11	Bolani	Bolani (132/11)	2x10=20	2.2001	2.3314	5.0093	04-Feb-2019 7:00
12	BRPL S/w Stn.	BRPL Feeder	132kV	14.7982	14.9151	15.9675	07-Feb-2019 21:15
		Mesco Feeder	132kV	2.0569	2.2104	3.9861	02-Feb-2019 12:45
13	Chandabali GIS	Chandabali GIS	1x40=40	0.0000	0.4988	6.7470	27-Feb-2019 21:45
14	Chandikhol	Chandikhol	3x20=60	32.2362	23.7061	33.9450	21-Feb-2019 11:15
15	Dhenkikote	Dhenkikote	1x20=20	3.9879	2.8135	4.4448	04-Feb-2019 18:30
16	Duburi	Jakhapura Traction	132kV	8.6550	9.8418	16.9812	28-Feb-2019 17:30
		JFAL Feeder 132kV	132kV	5.5500	6.2363	6.7156	17-Feb-2019 21:45
		Mishrilal Feeder	132kV	0.6157	0.0600	0.6666	16-Feb-2019 4:30
		NINL Feeder	220kV	5.0288	7.5426	18.2925	08-Feb-2019 22:30
		Duburi	2x40=80	16.2683	13.6279	25.6387	15-Feb-2019 19:30
17	Duburi-New	Emami Feeder	220kV	9.0386	2.0913	9.3251	28-Feb-2019 11:00
		Jindal Stainless Fdr-1&2	220 kV	18.1440	11.3081	59.7240	04-Feb-2019 0:15
		Maithan Feeder	220kV	0.4838	1.2528	10.7623	08-Feb-2019 12:00
		Rohit Ferrotech	220kV	30.0978	27.8522	31.9000	21-Feb-2019 18:00
		TATA Steel Fdr-1&2	220kV	96.2058	72.5848	111.1794	03-Feb-2019 21:30
		VISA Steel	220kV	0.9532	4.9887	22.7311	19-Feb-2019 16:45
18	Jaganath Steel S/w	Jaganath Steel Fdr	132kV	0.0040	0.1253	6.9057	22-Feb-2019 15:45
19	Jajpur Road	Jaipur Road	3x40=120	35.3735	27.3852	40.5331	04-Feb-2019 8:45
		Yazdani CGP Fdr.	33kV	0.4184	0.4936	4.9364	19-Feb-2019 21:00
20	Jajpur Town	Jaipur Town	2x40+1x20=100	35.8169	25.1536	40.2514	10-Feb-2019 18:00
		Jaleswar Traction	132kV	6.4225	5.4833	11.6916	11-Feb-2019 17:30
		Jaleswar	2x31.5+1x12.5=75.5	26.8926	21.7492	43.5927	06-Feb-2019 11:15
21	Joda	Bansapani Trac.	132kV	8.5878	4.8760	15.2925	23-Feb-2019 19:30
		FAP Feeder	132kV	13.6173	15.4264	14.9210	12-Feb-2019 4:30
		JSPL Trf-1.2&3-	2x50+1x20=120	43.1501	40.6512	47.8706	24-Feb-2019 5:45
		TATA Sponge Iron	220 kV	0.0000	0.0000	0.0360	25-Feb-2019 0:45
		TATA STEEL	220kV	6.2520	5.5170	7.6683	04-Feb-2019 19:30
		Joda	1x40+3x20=100	18.0196	15.0231	29.9714	13-Feb-2019 12:30
		Sarada Ind (220/33)	1x15=15	1.0931	0.2933	1.1726	01-Feb-2019 4:30
22	Karanjia	Karanjia	1x20+2x12.5=45	15.2737	10.7021	16.3869	14-Feb-2019 11:45
23	Nalda	Nalda Traction	132kV	3.7807	2.7814	17.6761	08-Feb-2019 22:15
24	Polasponga	ESIL Feeder	132kV	10.6448	10.1603	19.1117	19-Feb-2019 6:15
		MSP Feeder	132kV	9.6758	7.7838	10.6129	07-Feb-2019 23:00
		OSISL CGP Fder	33kV	0.0000	0.0000	0.0288	11-Feb-2019 11:15
		Patnaik Steel CGP	33kV	0.0000	0.0000	0.0036	18-Feb-2019 15:30
		Polasponga Trac.	132kV	6.4731	6.1330	17.2616	20-Feb-2019 23:30
		Polasponga	1x40+2x20=80	30.5174	24.2066	34.7167	05-Feb-2019 7:30
25	Rairangpur	Rairangpur	2x20+1x12.5=42.5	16.0525	12.8079	21.7654	25-Feb-2019 20:00
26	Somnathpur	IMAMI Feeder	132kV	0.5041	3.4014	9.5099	13-Feb-2019 10:15
		Stork Feeder	132kV	11.4581	12.5667	13.3457	28-Feb-2019 14:45
		Somnathpur	2x12.5=25	1.8105	1.8521	3.6820	18-Feb-2019 16:30
27	Soro	Soro	1x40+2x20=80	31.7151	20.8358	32.7226	22-Feb-2019 20:30
28	Udala	Udala	1x40=40	9.4754	6.8898	11.0555	01-Feb-2019 18:15
	Chandikhol	Badachana Fder	33kV	-13.7056	-9.7492	14.6639	23-Feb-2019 19:30
	Joda	Joda-Tensa Fder	33kV	-5.8482	-5.5450	8.5439	11-Feb-2019 19:15
		<b>NESCO TOTAL ENERGY (MU)</b>		<b>912.4349</b>	<b>511.3862</b>	<b>1,328.2329</b>	

**ENERGY DRAWAL OF SOUTHCO CONTROL AREA GRID SUBSTATIONS FOR THE MONTH OF FEBRUARY'2019**

Sl.No	Name of Sub Station	Name of Feeder	Installed Capacity MVA	SMD MW	Average Drawal MW	MAX DEMAND	
						MW	Date & Time
1	Akhusingi	Akhusingi	2x12.5=25	12.1517	9.5522	13.7942	21-Feb-2019 11:15
2	Aska	Aska	3x40=120	54.1307	35.1247	83.3260	26-Feb-2019 7:30
3	Balimela	Balimela (220/33)	1x40+1x20=60	12.5920	10.0909	14.4681	15-Feb-2019 19:15
4	Berhampur	Berhampur	2x40+1x20=100	38.5051	29.5001	42.9748	24-Feb-2019 12:30
5	Bhanjanagar	Bhanjanagar	2x40+1x16=96	27.1349	18.0408	30.4168	20-Feb-2019 11:30
6	Boudh	Boudh	2x20=40	4.9517	5.0614	8.6172	20-Feb-2019 19:30
7	Chatrapur	IRE Feeder-1&2	132kV	7.6263	6.5594	7.5270	03-Feb-2019 23:15
		Rambha Traction	132kV	2.6642	4.5615	12.4377	24-Feb-2019 19:15
		Chatrapur	3x20=60	25.2779	22.9955	36.6431	01-Feb-2019 10:00
8	Dabugaon	Dabugaon	2x12.5=25	6.2737	5.3357	7.0451	03-Feb-2019 18:45
9	Digapahandi	Digapahandi	2x20+1x12.5=52.5	31.2951	21.8741	38.5592	01-Feb-2019 7:15
10	Ganjam	GRASIM Ind. Ltd.	132kV	21.5602	21.0560	21.8079	25-Feb-2019 14:30
		Ganjam	2x12.5=25	6.1685	4.6006	7.4360	14-Feb-2019 8:00
11	Jayanagar	Jaypur Traction	132kV	17.4147	10.1170	28.7572	03-Feb-2019 0:00
		Jayanagar	2x20+1x12.5=52.5	34.4303	28.8467	36.5026	01-Feb-2019 18:45
12	Laxmipur	Laxmipur (220/33)	1x20=20	11.7355	8.6168	12.7525	15-Feb-2019 18:30
		Utkal Aluminadr-1&2	220kV	8.9287	0.0953	9.4331	05-Feb-2019 7:00
13	Malkangiri	Malkangiri (2220/33)	2x40=80	14.0431	9.5489	17.5151	13-Feb-2019 8:30
14	Mohana	Mohana	2x12.5=25	6.7366	5.2432	7.2190	13-Feb-2019 20:00
15	Muniguda	Bissam-Cuttack Tr.	132kV	0.5760	0.6278	9.2699	20-Feb-2019 9:30
16	Narendrapur	TATA Feeder-I&II	220 kV	0.0000	0.0000	2.1240	28-Feb-2019 16:00
		Narendrapur Trac	132kV	3.0735	5.0447	11.5529	27-Feb-2019 15:30
		Narendrapur	3x40+1x20=140	24.1418	18.9557	28.4991	22-Feb-2019 12:15
17	Paralakhemendi	Paralakhemendi	3x12.5=37.5	12.3344	9.4302	14.4782	27-Feb-2019 10:15
18	Phulbani	Phulbani	2x40+1x12.5=92.5	25.5472	17.9447	28.0108	13-Feb-2019 10:30
19	Podagada	Podagada	1x12.5=12.5	0.5580	0.3810	0.6087	28-Feb-2019 19:00
20	Purushottampur	Purushottampur	1x20+2x12.5=45	13.2511	8.8086	17.1103	14-Feb-2019 17:00
21	Rayagada	Rayagada Trac	132kV	5.1620	0.9313	6.9690	23-Feb-2019 11:15
		Rayagada	2x12.5=25	11.5696	8.9719	11.9417	22-Feb-2019 19:45
22	Sunabeda	HAL Feeder	132kV	7.9443	7.0946	13.7683	28-Feb-2019 9:30
		Sunabeda	1x20+2x12.5=45	28.0776	21.6326	30.0379	05-Feb-2019 7:30
23	Tentulikhunti	Tentulikhunti	2x20=40	16.4088	11.5811	16.5014	04-Feb-2019 18:15
24	Therubali	JK Feeder	132kV	0.0360	0.0041	1.8945	02-Feb-2019 3:45
		Therubali	2x12.5=25	13.8191	10.3021	15.1851	02-Feb-2019 18:45
25	Umerkote	Umerkote	2x20=40	18.7364	15.3173	28.8960	06-Feb-2019 10:30
	Balugaon	Khallikote Feeder	33kV	14.7510	10.0573	16.8410	01-Feb-2019 8:15
	Sonepur	Manamunda Fdr	33kV	11.3901	9.5930	12.6139	23-Feb-2019 18:15
	Tentulikhunti	Mukhiguda Fdr	33KV	-1.8548	-1.3319	2.0454	26-Feb-2019 18:45
	Tentulikhunti	Vento Energy Solar	132KV	0.0360	0.0242	0.0720	01-Feb-2019 0:00
		<b>SOUTHCO TOTAL ENERGY (MU)</b>		<b>549.1791</b>	<b>276.9924</b>	<b>705.6527</b>	

# AUTO TRANSFORMER LOADING FOR THE MONTH OF FEBRUARY'2019

Name of the 220 kV Sub-Station ( Feeding Sub-stations/Feeders )	Capacity (MVA)	Drawal details						REMARKS
		Maximum			Minimum			
		MW	Day	Time	MW	Day	Time	
ATRI { Banki, Khurda, Chandpur & Argul}	2x160	46.12	18	20:15	2.76	7	02:30	
		46.16	18	20:15	2.72	7	02:30	
BALASORE 220/132 KV { Balasore, Birla Tyre(I), Ispat Alloy(I), Jaleswar, Jaleswar(T)}	3x160	89.68	7	10:45	30.64	2	08:15	
		89.92	7	10:45	30.64	2	08:15	
		87.12	11	18:15	8.84	7	08:15	
BARGARH 220/132 kV	1x100	23.12	14	14:30	3.52	25	12:15	
	1x160	7.36	28	10:45	2.28	18	13:15	
BHADRAK 220/132 KV {Bargarh, Ghensh}	1x100	48.08	25	04:45	1.12	4	03:30	
	1x160	70.36	2	17:00	5.92	23	15:45	
	1x160	68.32	22	20:15	5.96	23	15:45	
BHANJANAGAR 220/132 KV { Bhanjanagar, Aska, Phulbani, Ganjam, Chatrapur}	1x160	72.60	14	07:15	15.80	11	15:45	
	1x160	64.12	14	07:15	13.64	11	15:45	
BIDANASI 220/132 KV {Bidanasi, Khurda }	1x160	29.92	9	19:00	1.64	5	02:45	
	1x100	31.60	12	18:15	1.64	5	02:45	
	1x100	44.88	12	18:15	2.64	5	02:45	
BOLANGIR (SADAIPALLI) 220/132 KV { Bolangir, Patnagarh, Sonepur, Saintala, Khariar, Barpalli }	2x160	129.96	3	18:45	5.16	16	00:45	
		137.44	14	06:45	5.44	15	00:45	
BUDHIPADAR 220/132 KV { Jharsuguda, Jharsuguda Tr, Cemco(I), MCL, Sundergarh, Brajarajnagar, Rajgangpur}	2x160	96.68	23	08:30	36.24	16	01:00	
		93.40	19	16:45	36.12	16	01:00	
CHANDAKA 220/132 KV { Chandaka, Bhubaneswar, Nimapada, Ransinghpur, Puri,Kesura, Kaipadar Tr. }	1x100	53.56	21	18:15	8.48	27	23:45	
	1x160	93.44	21	18:30	12.72	16	13:45	
	1x100	67.64	8	08:45	5.60	12	10:45	
	1x160	82.96	15	18:15	14.00	27	23:45	
CUTTACK	1x160	55.64	14	18:15	3.72	3	16:00	
	1x100	45.36	28	13:00	7.32	3	16:00	
DUBURI 220/132 KV {Duburi, Bamnibal(I), BRPL, MESCO, Jajpur Road, Kalarangi, Jajpur Town}	1x160	83.80	9	20:00	10.88	15	03:00	
	1x100	54.40	6	14:30	6.44	3	14:15	
	1x100	51.64	6	14:30	6.80	3	14:15	
JAYANAGAR 220/132 KV. {Damanjodi(NALCO), Traction S/S, Tentulikhunti, Sunabeda, Jayanagar}	1x160	137.16	8	09:15	20.08	26	12:15	
	1x160	81.16	6	20:15	4.20	8	09:15	
JODA 220/132 KV { Joda,Tensa, FAP(I), Bolani(I), Nalda Tr.,Polasponga, *Rairangpur, Bhalulata traction}	3x100	62.12	3	08:15	6.40	6	16:00	*** - Alternate P/S from Kuchei.
		65.00	3	07:45	2.40	6	08:00	
		63.56	2	19:00	3.28	3	08:00	
KATAPALI 220/132 KV {Chipilima,Bargarh, ACC,Sonepur & Katapali area load.}	1x100	29.20	3	10:30	2.08	4	19:15	Supported by Burla & Chipilima power.
	1x100	29.16	3	10:30	1.88	4	19:15	
	1x160	13.80	12	15:30	2.68	1	06:00	
LAPANGA {Kuchinda, Aryan Viraj, Shyam Metallics}	2x160	80.60	20	10:00	7.32	15	23:30	
		76.72	19	16:45	6.32	15	23:45	
MERAMUNDALI 220/132 kV {Meramundali Traction, Dhenkanal, Navchrome(I), Hind Metal, Aarti,BRG}	3x100	44.76	26	18:00	2.00	2	13:30	
		43.96	26	18:00	2.12	2	13:30	
		41.56	26	18:15	1.52	2	13:30	
Mendhasal { Part area load of Khurda S/S}	2x100	21.00	15	06:00	6.00	28	12:00	
		34.80	15	05:45	6.60	27	12:00	
NARENDRAPUR 220/132KV { Narendrapur, NarendrapurTr, Berhampur, Chhatrapur, Ganjam, Balugaon, Digapahandi, Mohana.}	2x160	114.08	5	17:15	36.48	1	00:45	
		108.96	26	19:30	2.24	5	10:00	
	1x100	65.72	5	17:15	20.68	1	00:45	
PARDEEP 220/132 KV { Paradeep, Kendrapada, Pattamundai, Chandikhol, Cuttack, Jagatsinghpur, Phulnakhara}	1x160	108.08	5	18:45	4.16	27	02:00	
	1x100	65.88	5	18:45	2.52	27	02:00	
	1x50							
TARKERA 220/132 KV { Rourkela, Rourkela Tr.,RSP(I), Chhend , Adhunik Metal, Rajgangpur, OCL(I), Rajgangpur Tr.}	4x100	65.96	15	07:15	8.44	25	01:30	
		71.16	8	08:30	9.16	25	01:30	
		69.72	8	08:30	8.52	25	01:30	
		69.24	8	08:30	4.36	2	14:45	
THERUVALI 220/132 KV. {Theruvati, IMFAL(I), JK(I), Junagarh, Kesinga, Powmex(I), Rayagada}	2x100	44.20	22	21:15	14.60	7	13:00	Rayagada & Paralakhemundi can be fed from Machhkund system.
		42.04	22	21:15	14.40	7	12:45	
	1x160	68.60	22	19:00	13.84	8	15:00	
TTPS 220/132 KV { Chainpal, FCI (I), Angul, MCL Nandira(I), Rairakhole, Boinda, Kamakhyanagar, Kalarangi, Nuapatna, Choudwar }	1x160	80.99	6	14:30	0.00	18	11:30	
SAMANGARA { Puri, Nimapara & Konark}	2x160	76.36	22	11:45	15.52	21	10:00	
		82.16	21	12:30	9.40	22	10:15	

**SYSTEM DISTURBANCE IN THE MONTH OF FEBRUARY-2019**

**(A) TRIPPING OF LINE / EQUIPMENT WITHOUT LOAD LOSS**

Sl. No.	Sub-Station	Date	From	To	Date	Duration (Hr:Min)	Lines / Equipments / Generating Units tripped	Relay Indication / Cause	Remarks
1	Kuchinda	01.02.19	12:04	12:10	01.02.19	00:06	132Kv SMC feeder (Incomer) tripped at Both SMC end and Kuchinda end	Trip ph B, Distance trip Z 1, Fault duration 60:03ms	
2	Meramanduli	03.02.19	14:13	14:23	03.02.19	00:13	220 KV Meramanduli-Duburi (O) Ckt-I & II	Tripped on O/C.	
3	New Duburi	03.02.19	14:15	14:22	03.02.19	00:07	400/220 KV , 315 MVA ICT-2	Directional O/C ,ILI=0.72 KA,IL2=0.72 KA,IL3=0.69 KA	
4	Balesore	03.02.19	14:15	19:03	03.02.19	04:28	220KV New Duburi-Balasore circuit breaker	AT Balasore end:- PU Time=16109 ms,Dist=70.9 KM,IL3=2.5 Ka,General trip,E/F,B Phase,Zone -1,86.1 & 86.2 optd.	
5	Meramanduli	03.02.19	04:26	05:01	03.02.19	00:24	400 KV Meramanduli-Mendhasala	AT Meramanduli-Master trip,3 ph pole trip, At Mendhasal:-Dt receive.	
6	Bhanjanagar	06.02.19	13:34	13:54	06.02.19	00:20	220 KV Bhanjanagar-Meramanduli ckt-2	SEL 311C D.P relay: CGT=B-phase to earth fault,Z=1,location=60.13Km,IC=1649 Amp. REL 316 *4 D.P relay: 2=trip.5,6=B-phase to earth fault.9= zone-1.Distance=69.71Km.	
7	Meramandauli	07.2.19	17:00	17:30	07.02.19	00:30	400 kV Meramanduli-anugul ckt-I	DTT	
8	THERUBALI	08.02.19	14:53	15:35	08.02.19	0:42	220KV Therubali-Bhanjanagar ckt-2	Zone-1,C-N	Due to Snapping of B- Phase jumper of 220KV Therubali-Laxmipur ckt-2 connecting Tie CT to Isolator.
9	THERUBALI	08.02.19	14:53	15:37	08.02.19	0:44	220KV Therubali-Laxmipur ckt-2	Zone-1, C-G, 3.74Km	
10	THERUBALI	08.02.19	14:53	15:39	08.02.19	0:46	160MVA AUTO TRF No-3	B-N, 86A, 86B, 86C	
11	Baripada	11.02.19	9:31	09:50	11.02.19	00:19	Auto -I & II of Baripada PG		
12	Purustommpur	15.02.19	08:22	08:27	15.02.19	00:05	132/33 KV TFR No-2	B phase ,E/F	
13	Lapanga	15.02.19	23:32	17:49	16.02.19	18:11	132 kV Lapanga-Aryan	ZONE 2, B PHASE,L3E,PU TIME =426 ms,TRIP TIME=349 ms,DISTANCE=4.2 KM,DISTANCE(%)-106.6 % IL3=7.07KA B/U- O/C,E/F IN B PHASE, PU TIME -468 ms,TRIP TIME-426 ms,IL3=3.84 KA.	HEAVY SPARKING AND HUMMING SOUND COMING FROM B PHASE CT AT LAPANGA END
14	Sonepur	16.02.19	00:33	06:32	16.02.19	05:59	132/33 KV TFR No-1	Due to over Voltage.	
15	Bhanjanagar	18.02.19	06:03	06:49	18.02.19	00:46	220 KV Meramanduli ckt-1	CGT,Z=1,MD=81.38KM.TRIPPED	
16	Choudowar	20.02.19	23:59	00:32	20.02.19	00:33	132 kV Iccl -salepur Line	E/F	
17	Nimapara	21.02.19	13:26	13:58	21.02.19	00:32	132 kV Nimapara- chandaka line	O/C ,E/F.	Mendhasala outage
18	Purustommpur	22.02.19	01:49	01:55	22.02.19	00:06	132/33 KV TFR No-1	O/C R phase	
19	Purustommpur	22.02.19	01:49	01:58	22.02.19	00:09	132/33 kV Trf No-2	O/C R phase	
20	Purustommpur	22.02.19	08:43	08:48	22.02.19	00:05	132/33 kV Trf No-1	O/C Y phase	
21	Budhipadhar	22.02.19	08:43	08:49	22.02.19	0:06	132/33 kV Trf No-2	O/C Y phase	

Sl. No.	Sub-Station	Date	From	To	Date	Duration (Hr:Min)	Lines / Equipments / Generating Units tripped	Relay Indication / Cause	Remarks
22	THERUBALI	22.02.19	12:23	12:46	22.02.19	0:23	220KV Therubali- Indravati ckt -1	Zone-1,L1-N, 15.401Km, 86M2A,86M2B, 86M2C, 186A, 186B	
23	Aska	18.02.19	18:36	18:08	25.02.19	167:28	132 Kv Aska-Chatrapur	RYB ZONE-1, 132KV SIDE- MASTER RELAY	R PHASE CT BLASTED
24	Aska	23.02.19	09:47	21:05	23.02.19	11:18	132 Kv Aska-Bhanjanagar-2	132KV SIDE- PT FUSE FAIL	PT SUPPLY FAILED
25	Aska	24.02.19	08:28	18:08	25.02.19	33:38	132 Kv Aska-Bhanjanagar-2	132KV SIDE- PT FUSE FAIL	PT SUPPLY FAILED
26	Rengali	24.02.19	01:44	03:40	24.02.19	01:56	220KV RENGALI S/Y-PGCIL FDR-I	OPERATED,IA=152.6A,IB=116.3A,IC=1148.1A,IN=0.00A, IG=1406.69A	
27	Rengali	24.02.19	01:44	03:40	24.02.19	01:56	220KV RENGALI S/Y-PGCIL FDR-II	OPERATED,IA=152.6A,IB=116.3A,IC=1148.1A,IN=0.00A, IG=1406.69A	
28	Balimela	24.02.19	12:29	13:19	24.02.19	00:49	220 kV Balimela- Jayanagar-III	Incomer failure	CT bust at Balimela PH
29	Rengali	24.02.19	01:44	03:34	24.02.19	01:50	220KV RENGALI S/Y-Barkote FDR-I	DP RELAY OPERATED, VA=1.02VN, VB=1.02VN, VC=0.82VN, IA=0.24IN, IB=0.24IN, IC=3.10IN	
30	Chinpal	26.02.19	08:10	18:31	26.02.19	10:21	132 KV TTPS-CHAINPAL CKT II FDR	E/F,O/C-B ph /Bursting of CT	Bursting of CT
31	chainpal	26.02.19	08:10	17:31	26.02.19	9:21	132 KV CHAINPAL-ANGUL FDR	E/F,O/C-B ph	Bursting of CT
32	Balasore	26.02.19	01:26	01:46	26.02.19	0:20	132 Kv Balasore-Udala	AT BALASORE GRID END, Fault Distance: Ia=30 A, Ib=4532 A, Ic=4515 A Distance=14.88 Km	
33	Bhograi	26.02.19	11:00	11:41	26.02.19	0:41	132 kV kuchi-Bhograi	At Bhograi end-Dp zone -1,R-N 15.4 Km	
34	Meramanduli	26.02.19	17:25	18:26	26.02.19	01:01	400 kv Meramanduli Bus-I	LBB	
35	Meramanduli	26.02.19	17:25	18:31	26.02.19	01:06	400 kV New-Duburi I,II	LBB	
36	Meramanduli	26.02.19	17:25	18:48	26.02.19	01:13	400 kV ICT I	LBB	
37	Balasore	27.02.19	12:15	14:16	27.02.19	02:01	220 kV Baripada(PG)-Balasore fdr	DP ,zone-1,y phase,21.84 Km If-3.49 kA	
38	JODA	25.02.19	00:54	18:26	25.02.19	17:32	220 kV Joda-Ramchandrapur tripped from Both ends	Fdr. tripped at both ends. <u>At Joda end</u> :- D.P, Dist = -1.000Km, L2-N, IL1=315.95A, IL2=162.61A, IL3=311.37A, IN=417.17A <u>B/U</u> (O/C, E/F), IL1=0.05KA, IL2=1.31KA, IL3=0.05KA <u>At RCPUR end</u> :- D.P, Dist=82.13Km, O/C, E/F, fault current magnitude :- IA= 309.6A, IB=458.5A, IC= 314.0A	A big tree has fallen over Y-Ph conductor between Loc-169 & 170, near KNPS race.
39	JODA	27.02.19	1:38	15:55	27.02.19	14:17	132 KV Joda-Kenduposi	Fdr tripped only at Joda end <u>At Joda end</u> :- D.P, Dist = 26.131Km, Zone-1, L1-N, IL1=1633.22A, IL2=41.38A, IL3=46.19A, IN=1591.58A	A big tree has fallen over R-Ph conductor between Loc-214 & 215.

**SYSTEM DISTURBANCE IN THE MONTH OF DISTURBANCE IN THE MONTH OF FEBRUARY -2019**  
**(B) TRIPPING OF LINE / EQUIPMENT WITH LOAD LOSS**

Sl. No.	Sub-Station	Date	From	To	Duration (hr:min)	Lines / Equipments / Generating Units tripped	Relay Indication / Cause	Grid Sub-stations affected (it can be more than one)	Area interruption period (hr:min)	Remarks
1	Duburi	03.02.19	14:13	19:42	5:29	220 KV Duburi-New Duburi II	Directional IDMT over current relay(63 R),Directional IDMT over current relay (67 B),Master trip,Relay-86,Trip circuit Supervision Relay.	Duburi	00:07	
		03.02.19	14:13	18:46	04:33	220 KV side of 40 MVA Transformer No-1	<u>Annunciator Indications:</u> Bulchoz Trip,Winding temprature High,Relay operated <u>Relay operated (Differential Protection),indication -</u> Gen Trip,V/F Alaram,V/F Trip,Harmonic block,IL1=0.01 KA,IL2=0.02 KA,IL3=0.02 KA <u>Relay operated:-</u> Master Trip Relay-86,Bulchoz trip Relay,Winding temperature High.			1.132 KV K.Nagar-Kalarnagi Feeder was Under Shut Down Since 18.01.19 For Railway Diversion work,So Kalarangi Grid load was on Duburi Grid. 2.132 KV TTPS-JFAL Feeder was under Shut down Since 18.01.2019 for Railway Divesion Work ,So JFAL load was on dubri Grid.
2	Duburi	3.02.19	14:15	14:21	00:06	220 KV Duburi-Meramanduli -I	At Meramanduli end-Group A, Group b single phase Trip Relay,O/C Trip,E/f Trip Main 2 Protection,O/C Trip,I>2,Fqault Time-2 s.			
		3.02.19	14:15	14:22	00:07	220 KV Duburi-Meramanduli -II	At Meramanduli end-phase overcurrent.,back up relay-O/C,Ir=1.6 KA,Iy=1.70 kA,Ib=1.51 kA			
3	Sonepur	05.02.19	10:00	12:28	02:28	132 KV Balangir-Sonepur line	Ac supplied failed from Balangir	Boudh		
4	Sonepur	10.02.19	07:17	14:12	06:55	132 KV Balangir-Sonepur line	Ac supplied failed from Balangir		06:55	
5	Baripada	11.02.19	09:31	09:50	00:19	Auto -I & II of Baripada (PG),132 kV Baripada-Pgcil line	Incomer Failure from pgcil end.	Baripada, Jaleswar , Bhograi	00:19	
6	Baripada	11.02.19	10:33	10:57	0:24	40 Mva Trf No-1 & II	Incomer failure From Pgcil end.	Baripada,	00:24	
7	Tentulikhunti	15.02.19	16:13	16:24	0:17	132 KV Jayanagar-Tentulikhunti Line	Incomer Failure	Tentulikhunti,Dabugaon	0:17	Changeover of 132KV BTH Supply and 132KV Machkund Supply at Jayanagar end
8	Tentulikhunti	15.02.19	11:53	12:15	0:22	132 KV Jayanagar-Tentulikhunti Line	Incomer Failure	Tentulikhunti,Dabugaon	0:22	
9	Tentulikhunti	15.02.19	16:54	17:04	0:10	132 KV Jayanagar-Tentulikhunti Line	Incomer Failure	Tentulikhunti,Dabugaon	0:10	
10	Tentulikhunti	15.02.19	12:08	12:27	0:19	132 KV Jayanagar-Tentulikhunti Line	Incomer Failure	Tentulikhunti,Dabugaon	0:19	
11	Tentulikhunti	15.02.19	17:29	17:50	0:21	132 KV Jayanagar-Tentulikhunti Line	Incomer Failure	Tentulikhunti,Dabugaon	0:21	
12	Barpali	19.02.19	16:58	17:08	0:10	TRF-1,TRF-2,RTSS DUNGURIPALI	source Failure	Barpali	0:10	
13	Barpali	19.02.19	17:11	17:18	0:07				0:17	
14	Bhanjanagar	23.02.19	19:59	20:13	00:14	132 KV Bhanjanagar- Phulbani fdr	E/F	Phulbani	00:14	



**STATEMENT OF UFR OPERATION IN GRIDCO SYSTEM DURING THE MONTH OF FEBRUARY-2019**

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 FEBRUARY - 2019**

<b>Sl. No</b>	<b>Date</b>	<b>Details of event</b>
1	20.02.2019	At 15:50Hrs 132 KV Olavar-Chandbali ckt I & II charged. 132/33 KV GIS Grid S/S, Chandbali also charged along with 40MVA Power Transformer.
2	25.02.2019	At 11:38 Hrs,132 KV Digapahandi - Chikiti ckt - I & II charged. One 40 MVA (132/33 KV) Power Transfomer also charged at Grid S/S, Chikiti.
3	27.02.2019	At 15:25 Hrs, 220/33 KV, 20 MVA Transformer at Narasinghpur Grid S/S charged.
4	27.02.2019	At 17:18 Hrs, 220 kV Narendrapur-TATA ckt-1 charged. Ckt-2 charged at 17:28 Hrs.
5	28.02.2019	At 12:38 Hrs , 315 MVA ( 400/220 KV) ICT -03 at Grid S/S, Mendhasal charged.