Odisha Power Transmission Corporation Ltd. Bhubaneswar.

Agenda for 145th PSOC Meeting to be held on 15.04.2023 through Video Conferencing

PART A

A. Confirmation of the minutes of the 144th PSOC Meeting held on 17.03.2022

The minutes of meeting was circulated vide letter No. SGM (PS)-Pl-15/2019/1017(46) dated 12.05.2022 to all the members and also uploaded in the SLDC website. Members may offer their comments. If there are no comments, the minutes of the meeting may please be confirmed.

PART B: GRID PERFORMANCE

Review of Grid Performance for the month of March-2023.

A. Frequency:

Hourly frequency variation for the month of March'23.

Month	% of time frequency remained					Average
	<49.00	49.00-49.70	49.70-49.90	49.90-50.05	>50.05	
Jan'23	0	1.29	12.40	59.61	26.70	49.99
Feb'23	0	0.34	10.85	65.45	23.34	49.99
Mar'23	0	0.19	9.50	66.47	23.85	50.00

Maximum & Minimum frequency during the month of Feb'23 & Mar'23.

Month	Freq (Hz)	Date	Time
Feb'23	Maximum –50.40	10.02.23	11:02 Hrs
	Minimum – 49.54	15.02.23	15:42 Hrs
Mar'23	Maximum –50.47	04.03.23	18:03 Hrs
	Minimum – 49.55	30.03.23	09:45 Hrs

B. Grid Demand up to the month of March'23

Month	Max. Consumption		Demand		Maximum Demand			Minimum Demand		
	MU	Date	MU	Avg. (MW)	MW	Date	Time	MW	Date	Time
Apr'22	134.088	11.04.22	3712	5156	5587	11.04.22	23:00	3904	22.04.22	07:00
May'22	150.168	20.05.22	3623	5035	6257	20.05.22	24:00	3532	03.05.22	21:00
Jun'22	152.688	13.06.22	3846	5342	6362	13.06.22	16:00	4028	14.06.22	19:00
Jul'22	150.000	23.07.22	3820	5134	6250	23.07.22	21:00	3913	09.07.22	18:00
Aug'22	156.528	04.08.22	3963	5327	6522	04.08.22	22:00	4492	12.08.22	24:00
Sep'22	154.176	25.09.22	3991	5544	6424	25.09.22	23:00	4771	11.09.22	07:00
Oct'22	144.864	25.10.22	3831	5149	6036	25.10.22	20:00	4039	30.10.22	15:00
Nov'22	129.408	08.11.22	2982	4142	5395	08.11.22	20:00	3255	03.11.22	17:00
Dec'22	114.768	25.12.22	2833	3808	4782	25.12.22	19:00	3238	30.12.22	15:00
Jan'23	121.008	23.01.23	2744	3688	5042	23.01.23	20:00	2862	17.01.23	12:00
Feb'23	132.624	20.02.23	2884	4292	5526	20.02.23	20:00	3323	15.02.23	03:00
Mar'23	134.448	12.03.23	3410	4584	5602	12.03.23	20:00	3236	18.03.23	21:00

C. Voltage Profile of 220 kV Buses in OPTCL system for the month of: March'23

SUBSTATIONS	MAXIMUM			MINIMUM			AVERAGE
	KV	DATE	TIME	KV	DATE	TIME	KV
AskaN	236.60	18-03-2023	19:45	220.37	28-03-2023	10:30	227.90
Atri	234.11	18-03-2023	19:45	217.14	23-03-2023	11:30	224.49
Balasore	232.49	18-03-2023	21:15	217.37	30-03-2023	15:00	222.84
Balimela	243.29	20-03-2023	20:00	232.26	23-03-2023	18:00	235.64
Barkote	232.72	22-03-2023	04:15	225.16	31-03-2023	10:30	229.10
Bargarh	230.93	18-03-2023	16:00	206.22	17-03-2023	06:15	216.31
Bhadrak	231.80	18-03-2023	21:15	214.13	04-03-2023	18:30	221.15
Bhanjanagar	258.70	16-03-2023	17:15	221.06	28-03-2023	10:30	228.37
Bidanasi	235.55	18-03-2023	20:00	216.62	27-03-2023	12:30	224.87
BolangirN	234.11	18-03-2023	16:00	211.13	04-03-2023	16:45	220.59
Budhipadar	231.51	20-03-2023	02:30	223.60	30-03-2023	09:30	226.79
Chandaka	232.78	18-03-2023	19:45	214.36	27-03-2023	12:30	222.61
Cuttack	232.61	18-03-2023	20:00	211.25	01-03-2023	16:45	221.62
Duburi Old	227.35	18-03-2023	21:15	216.44	30-03-2023	10:45	220.98
Duburi New	228.97	18-03-2023	21:15	217.71	30-03-2023	15:15	222.72
Infocity-II GIS	234.14	18-03-2023	20:00	216.90	23-03-2023	11:30	224.54
Jayanagar	239.13	03-03-2023	02:15	228.45	23-03-2023	09:15	232.27
Joda	230.64	18-03-2023	16:00	211.36	25-03-2023	12:15	222.32
Katapalli	230.70	18-03-2023	16:15	211.36	25-03-2023	12:15	222.27
KeonjharGIS	222.04	20-03-2023	14:00	215.00	14-03-2023	15:30	217.65
Lapanga	233.07	20-03-2023	02:15	225.51	30-03-2023	16:45	228.39
Laxmipur	241.38	03-03-2023	03:15	231.11	23-03-2023	09:45	234.94
Malkangiri	243.35	20-03-2023	18:45	232.38	23-03-2023	17:45	235.68
Mendhasal	234.80	18-03-2023	19:45	217.19	23-03-2023	11:30	225.17
Meramundali	227.53	20-03-2023	04:45	219.27	28-03-2023	11:45	223.22
Narsinghpur	224.54	20-03-2023	04:45	213.65	28-03-2023	11:15	218.85
Narendrapur	238.67	18-03-2023	19:45	220.89	28-03-2023	12:30	228.64
Nayagarh	234.00	18-03-2023	19:45	215.40	12-03-2023	18:30	222.32
Paradeep	229.43	18-03-2023	21:15	211.19	30-03-2023	15:15	219.60
Tarkera	230.93	08-03-2023	14:00	219.85	17-03-2023	16:45	227.29
Theruvali	239.19	02-03-2023	23:30	225.62	23-03-2023	09:45	231.85
Rengali	227.47	02-03-2023	21:45	221.52	13-03-2023	15:00	224.89

The maximum voltage of **258.70 kV** occurred at **Bhanjanagar 220 kV Bus.**, while **Bargarh** 220 kV bus has experienced the minimum Voltage of **206.22 kV.** The 220 kV Voltage profile of all the major 220kV & 132kV Bus during the month of **March'2023** are indicated in System performance presentation.

Members may discuss.

D. Loading of 220/ 132 kV Auto at 220 kV S/Ss in OPTCL system for the month of March-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 *{Banki, Khurda, Chandpur & Argul}*	2x160	78.76	2nd Mar 2023	19:30	5.76	18th Mar 2023	20:00	
		78.76	2nd Mar 2023	19:30	5.76	18th Mar 2023	20:00	
ASKA NEW	2x160	76.08	21st Mar 2023	09:45	27.64	18th Mar 2023	19:45	
		75.80	21st Mar 2023	09:45	27.32	18th Mar 2023	19:45	
BALASORE 220/132 KV *{ Balasore, Birla Tyre(I), Ispat Alloy(I), Jaleswar, Jaleswar(T)}*	3x160	70.40	3rd Mar 2023	07:15	23.64	20th Mar 2023	06:45	
		69.80	3rd Mar 2023	08:15	23.52	20th Mar 2023	06:45	
		69.20	3rd Mar 2023	07:15	23.28	20th Mar 2023	06:45	
BAMRA 220/132/33KV	1x160							
BARGARH 220/132 kV	1x100	78.28	25th Mar 2023	19:15	0.56	18th Mar 2023	17:00	
	1x160	47.88	25th Mar 2023	19:15	0.28	31st Mar 2023	00:00	
BHADRAK 220/132 KV {Bargarh, Ghensh}	1x100	32.12	2nd Mar 2023	20:45	7.88	18th Mar 2023	20:15	
	1x160	54.72	2nd Mar 2023	20:45	13.88	18th Mar 2023	20:15	
	1x160	55.04	2nd Mar 2023	20:45	14.04	18th Mar 2023	20:15	
BHANJANAGAR 220/132 KV *{ Bhanjanagar, Aska, Phulbani, Ganjam, Chatrapur}*	1x160	89.28	6th Mar 2023	18:45	11.56	21st Mar 2023	13:15	
	1x160	78.64	6th Mar 2023	18:45	9.92	21st Mar 2023	13:15	
BIDANASI 220/132 KV *{Bidanasi, Khurda }*	1x100	41.28	3rd Mar 2023	12:00	0.08	20th Mar 2023	15:45	
	1x100	0.00	UNDER SHUTDOWN				00:00	
	1x160	58.68	3rd Mar 2023	12:00	0.52	21st Mar 2023	13:30	
BOLANGIR (SADAIPALLI) 220/132 KV { Bolangir, Patnagarh, Sonepur, Saintala, Khariar, Barpalli }	2x160	91.84	3rd Mar 2023	19:00	0.20	23rd Mar 2023	12:00	
		91.84	3rd Mar 2023	19:00	0.20	23rd Mar 2023	12:00	
		96.20	3rd Mar 2023	19:00	0.20	23rd Mar 2023	12:00	
BUDHIPADAR 220/132 KV *{ Jharsuguda, Jharsuguda Tr, Cemco(I), MCL, Sundergarh,Brajarajnagar, Rajgangpur}*	2x160	99.48	3rd Mar 2023	16:30	42.72	30th Mar 2023	23:45	
		60.28	3rd Mar 2023	16:30	24.04	30th Mar 2023	23:45	
CHANDAKA 220/132 KV *{ Chandaka, Bhubaneswar, Nimapada, Ransinghpur, Puri,Kesura, Kaipadar Tr. }*	1x100	45.84	6th Mar 2023	18:45	9.16	20th Mar 2023	06:00	
	1x160	79.28	6th Mar 2023	18:45	7.24	18th Mar 2023	20:00	
	1x100	49.72	6th Mar 2023	18:45	4.32	18th Mar 2023	20:00	
	1x160	73.40	2nd Mar 2023	18:00	6.52	18th Mar 2023	20:00	
CUTTACK	1x160	53.52	13th Mar 2023	19:15	12.60	18th Mar 2023	20:15	
	1x100	32.80	13th Mar 2023	19:15	0.08	1st Mar 2023	10:00	
DUBURI 220/132 KV *{Duburi, Bamnipal(I), BRPL, MESCO, Jajpur Road, Kalarangi, Jajpur Town}*	1x160	55.88	4th Mar 2023	20:45	17.12	18th Mar 2023	20:00	
	1x160	62.28	23rd Mar 2023	18:30	16.32	18th Mar 2023	20:00	
	1x160	39.00	23rd Mar 2023	18:30	10.16	18th Mar 2023	20:00	
GODA	1x160							
	1x160							
Gunupur	1x160							
	1x160							
JAYAPATNA 220/132 KV.								
JAYANAGAR 220/132 KV. *[Damanjodi(NALCO), Traction S/Ss, Tentulikhunti, Sunabeda, Jayanagar]*	1x160	8.48	28th Mar 2023	11:30	0.53	18th Mar 2023	16:45	
	1x160	57.60	1st Mar 2023	17:45	0.04	20th Mar 2023	14:15	
JODA 220/132 KV *{ Joda,Tensa, FAP(I), Bolani(I), Nalda Tr.,Polasponga, *Rairangpur, Bhalulata traction}*	1x160	58.32	9th Mar 2023	19:15	20.92	20th Mar 2023	06:00	*"*" - Alternate P/S from Kuchei.*
	1x160	59.32	9th Mar 2023	19:15	21.00	20th Mar 2023	06:00	
	1x160	48.52	9th Mar 2023	19:15	17.56	20th Mar 2023	06:00	
KAURMUNDA 220/132 KV	1x160							
KATAPALI 220/132 KV {Chipilima,Bargarh, ACC,Sonepur & Katapali area load.}	1x100	29.00	31st Mar 2023	00:00	0.04	8th Mar 2023	06:45	*Supported by Burla & Chipilima power.*
	1x100	29.00	31st Mar 2023	00:00	0.04	16th Mar 2023	23:30	
	1x160	83.44	24th Mar 2023	11:45	0.08	16th Mar 2023	23:30	
KESINGA	2x160	69.47	9th Mar 2023	19:00	0.15	11th Mar 2023	11:45	
		70.53	9th Mar 2023	19:00	0.67	11th Mar 2023	11:45	
LAPANGA *{Kuchinda, Aryan Viraj, Shyam Metallics}*	2x160	89.88	3rd Mar 2023	16:15	21.48	18th Mar 2023	16:30	
		85.52	1st Mar 2023	15:15	2.04	30th Mar 2023	23:45	
MERAMUNDALI 220/132 kV *{Meramundali Traction, Dhenkanal, Navchrome(I), Hind Metal, Aarti,BRG}*	3x100	43.84	28th Mar 2023	21:00	0.20	18th Mar 2023	20:30	
		43.52	28th Mar 2023	21:00	0.12	18th Mar 2023	20:30	
		38.88	28th Mar 2023	21:15	0.04	20th Mar 2023	05:00	
Mendhasal *{ Part area load of Khurda S/S}*	2x100	53.09	30th Mar 2023	18:30	3.08	18th Mar 2023	20:00	
		49.90	30th Mar 2023	18:30	3.05	18th Mar 2023	20:00	
NARENDRAPUR 220/132KV *{ Narendrapur, NarendrapurTr, Berhampur, Chhatrapur, Ganjam,*	2x160	69.16	6th Mar 2023	18:45	10.40	21st Mar 2023	16:45	
		67.12	6th Mar 2023	18:45	10.40	21st Mar 2023	16:45	
	1x100	38.48	6th Mar 2023	18:45	5.32	21st Mar 2023	16:45	

Balugaon, Digapahandi, Mohana.}								
PARDEEP 220/132 KV { Paradeep, Kendrapada, Pattamundai, Chandikhol, Cuttack, Jagatsinghpur, Phulnakhara}	1x100	38.68	10th Mar 2023	16:00	6.40	21st Mar 2023	15:00	
	1x160	60.16	30th Mar 2023	15:15	10.56	21st Mar 2023	15:00	
	1x160	63.00	10th Mar 2023	16:00	10.08	21st Mar 2023	15:00	
Pratapsasan	1x160							
TARKERA 220/132 KV *[Rourkela, Rourkela Tr.,RSP(I), Chhend , Adhunik Metal, Rajgangpur, OCL(I), Rajgangpur Tr.]*	1x100	61.72	25th Mar 2023	11:00	6.04	30th Mar 2023	20:15	
	1x100	62.24	25th Mar 2023	11:15	7.16	20th Mar 2023	01:15	
	1x100	61.00	25th Mar 2023	11:00	6.68	20th Mar 2023	01:15	
	1x100	53.60	25th Mar 2023	21:00	6.92	20th Mar 2023	01:15	
THERUVALLI 220/132 KV. *{Theruvali, IMFAL(I), JK(I), Junagarh, Kesinga,Powmex(I), Rayagada, }*	1x100	34.68	17th Mar 2023	19:00	0.24	16th Mar 2023	14:00	*Rayagada & Paralakhemundi can be fed from Machhkund system.*
	1x100	46.56	2nd Mar 2023	17:00	0.32	16th Mar 2023	14:30	
	1x160	57.24	1st Mar 2023	07:00	0.76	16th Mar 2023	14:15	
TTPS 220/132 KV *{ Chainpal, FCI (I), Angul, MCL Nandira(I), Rairakhole,Boinda,Kamakhyanagar, Kalarangi,Nuapatna, Choudwar }*	1x160							
	1x160							
SAMANGARA *{ Puri, Nimapara & Konark}*	2x160							

ICT LOADING FOR THE MONTH OF MARCH'23

Name of the 400 kV Sub-Station	Capacity MVA	Drawal details						REMARKS
		Maximum			Minimum			
		MW	Day	Time	MW	Day	Time	
MERAMUNDALI	2x315	101.20	29th Mar 2023	10:30	0.80	31st Mar 2023	00:00	
		104.80	29th Mar 2023	10:30	0.80	29th Mar 2023	15:30	
MERAMUNDALI GIS	1X500							
MENDHASAL	2x315	235.60	25th Mar 2023	22:00	59.60	18th Mar 2023	20:30	
		185.20	6th Mar 2023	18:30	60.40	18th Mar 2023	20:30	
		234.80	25th Mar 2023	22:00	59.60	18th Mar 2023	20:30	
DUBURI(N)	2x315	199.60	16th Mar 2023	08:30	70.00	20th Mar 2023	06:30	
		239.60	3rd Mar 2023	18:45	70.80	20th Mar 2023	07:00	
LAPANGA	2x315	221.60	31st Mar 2023	00:00	0.40	12th Mar 2023	15:00	
		220.40	31st Mar 2023	00:00	0.40	12th Mar 2023	15:00	

E. Energy Generation / Import up to the month of March'23

Figures in MU

Month	Thermal	OHPC	CGP Support	IPP Inj.	RE	ISGS	Total
Apr'22	634.39	433.73	349.01	428.96	72.67	1528.00	**3446.76**
May'22	947.26	303.78	281.10	561.05	72.99	1579.61	**3745.79**
Jun'22	947.54	201.60	201.91	498.05	76.27	1920.98	**3846.34**
Jul'22	830.47	426.38	217.76	407.77	92.64	1844.90	**3819.93**
Aug'22	847.09	650.85	167.75	316.71	95.35	1879.58	**3957.33**
Sep'22	926.12	829.23	214.70	381.49	105.68	1534.68	**3991.90**
Oct'22	996.68	751.02	183.18	439.52	107.75	1352.79	**3830.94**
Nov'22	916.42	398.85	281.27	457.37	81.71	846.77	**2982.39**
Dec'22	1016.89	189.40	274.97	413.89	69.38	869.00	**2833.54**
Jan'23	827.22	309.69	338.05	435.51	70.31	763.30	**2744.09**
Feb'23	895.46	320.05	386.17	475.62	69.87	737.11	**2884.28**
Mar'23	1024.25	290.54	419.74	536.35	69.05	1070.59	**3410.51**
Total	**10809.78**	**5105.12**	**3315.61**	**5352.29**	**983.68**	**15927.32**	**41493.81**

F. Drawal of Machakund Power

The drawal of Machhakund power up to the month of **March'2023** are as detailed**:**

Drawl of Machhakund Power						
Month	**Total Generation**		**Odisha Drawl**		**AP Drawl**	
	MU	**Avg (MW)**	**MU**	**Avg (MW)**	**MU**	**Avg (MW)**
Apr'22	50.53	70.18	24.39	33.87	24.05	33.41
May'22	40.56	54.16	19.36	26.02	19.52	26.24
Jun'22	46.91	65.15	22.68	31.49	22.12	30.73
Jul'22	55.71	74.87	27.26	36.63	25.90	34.82
Aug'22	40.58	54.54	18.80	25.27	19.34	25.99
Sep'22	37.49	52.08	16.36	22.73	18.83	26.15
Oct'22	51.67	69.45	23.82	32.01	25.20	33.80
Nov'22	46.02	63.92	21.04	29.23	22.51	31.27
Dec'22	51.15	68.75	23.69	31.84	24.92	33.50
Jan'23	41.16	55.32	18.55	24.93	19.97	26.84
Feb'23	36.02	53.60	17.17	25.54	16.96	29.71
Mar'23	45.93	61.73	21.19	28.49	22.79	30.64

In the 143rd PSOC meeting, members opined to maximize the Machhkund drawal by putting matching load.

Presently, Machhkund supply is being availed by Jayanagar, Podagada, Pottangi, Rayagada, Akhusingh, Paralakhemundi, Mohana as per the Machhkund generation availability. Sunabeda can also avail Machhkund supply**.**

In the 144th PSOC meeting, PSOC advised OHPC to schedule a meeting with Machhkund through VC in presence of GRIDCO/OPTCL/SLDC. GRIDCO shall communicate to APGENCO/ Machhkund regarding shortfall in drawal of Machhkund prior to the meeting. SLDC stated that present load arrangement of putting load by frequent changeover is not in the interest of the consumers. GRIDCO was requested to explore alternate arrangement and take up with higher authorities to avoid frequent switching of loads.

Status of proposed energy accounting of Machhkund Hydro Project incorporating peak and off-peak hours and installation of new APEX Main and check meters in the outgoing feeders of Macchkund-Vizag fdr-I & II may be deliberated.

GRIDCO / OHPC/O&M / TPSODL may discuss.

G. . Under Frequency Relay operation in OPTCL System during the month of March'23.

Since, the frequency had never gone beyond the lowest setting of UFR, there was no UF Relay operation occurred during the month of **March'23.**

Members may note

H. Status of Open Access applications up to the month of March 2023

The status of different types of Open Access applications received and disposed by SLDC is as tabled.

	RECEIVED					DISPOSED						
		INTER					**INTER**					
MONTH	**INTRA**	ST	LT/MT	PX	TOTAL	**INTRA**	ST	LT/MT	PX	TOTAL	Rejected	**SCHEDULED ENERGY IN MU**
Apr'22	229	443	0	34	706	229	443	0	34	706	0	1033.68
May'22	424	458	0	38	920	424	458	0	38	920	0	1582.24
Jun'22	362	379	0	37	778	362	379	0	37	778	0	1109.92

Jul'22	287	373	0	39	699	287	373	0	39	699	0	1031.04
Aug'22	336	463	0	41	840	336	463	0	41	840	0	1171.16
Sep'22	393	389	0	45	827	393	389	0	45	827	0	1122.92
Oct'22	431	307	0	34	772	431	307	0	34	772	0	906.83
Nov'22	413	141	0	40	594	413	141	0	40	594	0	621.96
Dec'22	429	157	0	42	628	429	157	0	42	628	0	611.98
Jan'23	458	284	0	31	773	458	284	0	31	773	0	664.82
Feb'23	450	278	0	37	765	450	278	0	37	765	0	664.69
Mar'23	475	317	0	45	837	475	317	0	45	837	0	1081.69
TOTAL	4687	3989	0	463	9139	4687	3989	0	463	9139	0	11602.94498

Note: The general trend of approval for STOA found normally in order, however, there were few instances where in clear denial was not issued by respective DISCOM in a stipulated timeline. Therefore, for smooth and trouble free STOA transaction all DISCOMs are kindly requested to issue their clear cut denial/ approval without any condition therein.

Members may note:
All OHPC stations are hereby requested that the timings of planned and forced outages and standby declaration of machines must be intimated to SLDC vide Email at hydpafm@sldcorissa.org.in and hydpafm@gmail.com for record and calculation of PAFM.

PART C – Issues discussed in the earlier OCC meetings of ERPC

C.1: Outage of Important Transmission System.

C.1.1. **220kV Pandiabili - Samangara D/C**

220kV Pandiabili-Samangara D/C line tripped on 03-02-2019 during the event of Fani due to Tower collapse. 48 no towers got fully damaged and 12 no towers got partially damaged. Presently the line is charged from Pandiabilli end up to location no 58. It is a very important line for supplying power to Puri area and is under outage for more than 2 years.

In the 182nd OCC meeting, OPTCL representative submitted that the restoration work redesigning of tower in view of change of wind zone from Zone 4 to Zone 6 for 220kV Pandiabili - Samangara D/C line is being carried out by PowerGrid. OPTCL representative informed that the line is expected to be restored by March'2022.

In the 183rd OCC meeting, OPTCL representative informed that design of all the tower foundations of subjected line has been changed from open cast to pile foundation-based tower. Therefore, the restoration of the line would take considerable time and so expected by June'23.

In the 184th OCC meeting, OPTCL representative submitted that DA & DD type tower design has already been tested and passed by CPRI, however, the prototypes of DB & DC type tower are under testing. The action plan of the restoration work would be submitted by PowerGrid after successful testing.

In the 185th OCC meeting, OPTCL representative informed that permission for testing of type DB & DC towers has been taken from CPRI but the tentative timelines for completion of test are yet to be received from CPRI.

In the 186th OCC meeting, OPTCL representative informed that the type testing of DB & DC towers is under progress at CPRI. Type testing of DB & DC type tower is expected to be completed by 22nd and 28th December 2021 respectively. Further, the foundation work of towers has also started and is under progress.

In the 187th OCC meeting, OPTCL representative informed that the type-testing for all the towers had been completed at CPRI. The foundation work has been started at three places and the tower materials would be procured shortly.

Construction wing may update.

C.2: Performance of Primary Frequency Response of Generating Units.

After every event as communicated by ERLDC, the details of frequency response is being shared with the generators but no response is received regarding the reason behind non-satisfactory response. In several discussions with ERLDC, it has been communicated that frequency response of the generators need to be analysed at generator end.

In the 144th PSOC meeting, OHPC assured of sharing the response of their generators to SLDC after intimation of event from SLDC/ERLDC. OPGC was not present during the meeting.

All the generators OHPC, OPGC, Vedanta, GMR are requested to update SLDC regarding the status of governor action (whether FGMO/RGMO).

SLDC/ OPGC/OHPC may deliberate.

C.3. Testing of primary frequency response of state generating units by third party agency--ERLDC

In the 171st OCC Meeting, OCC advised all the SLDC's to prepare the action plan for their state generators and submit the details to ERPC and ERLDC at the earliest.

In the 183rd OCC meeting, OHPC representative submitted that work order has been placed on M/s Solvina and they are planning to conduct the test in the month of Nov'21 for unit#5 of Rengali & Unit #4 of Indravati HEP.

In the 184th OCC meeting, OHPC representative submitted that the order has been placed to M/s Solvina on 3rd Sept'21 and the testing of unit#5 of Rengali & Unit #4 of Indravati HEP are scheduled to be conducted in the month of Nov'21.

In the 186th OCC Meeting, OHPC representative informed that the testing of Primary Frequency Response of all the units of Rengali and Indravati would be done by the 2nd week of January 2022.

In the 144th PSOC meeting, OPGC was not present during this meeting. OHPC stated that testing shall be done at Rengali and then Indravati by Solvina and testing of two units are likely to be completed by 15th April'2022

SLDC, OHPC & OPGC may deliberate.

C.4: 220 kV Inter-connecting lines of OPTCL with Keonjhar PG

In 144th PSOC meeting the status has been updated as follows:

Sl.	Name of the transmission line	Completion schedule
1.	**400/220 kV Keonjhar S/S.**	
a.	Keonjhar (PG)-Turumunga (220/132 kV) & 220 kV D/C Line.	June'2023

Construction / Telecom wing may update. Any other upcoming new projects may be updated.

C.5: Update on status of telemetry

CERC vide order dated 28.02.2016 on Petition No. 007/SN/2014 directed NLDC and respective RLDCs to update the status of telemetry every month at their respective websites and take up the issue of persistent non-availability of data from Generating Stations/substations at RPC meetings for appropriate action. Major issues are given below:

Issues relating OPTCL Network:

NALCO data: DGM (Telecom) stated that the vendor list and rate will be provided to NALCO for placement of order by them.

In the 137th PSOC meeting, NALCO stated that the estimate has already been received from OPTCL (Telecom). Approval from higher authority in under process.
In the 139th PSOC meeting, NALCO stated that they need protection scheme to be incorporated in the estimate. PSOC advised NALCO to write Telecom wing of OPTCL for revise estimate.
In the 140th PSOC meeting, DGM (Telecom) stated that protection scheme has already been incorporated in the estimate. NALCO representative was not present in the meeting for deliberation.
In the 141th PSOC meeting, NALCO stated that the file is under process by their Finance wing.
In the 143rd PSOC meeting, NALCO intimated that file has been sent for administrative approval to their corporate office and the approval is expected within one month.
In the 144th PSOC meeting, NALCO stated that tender has been floated for NALCO and accordingly work order shall be placed.

NALCO may deliberate the status.

C.6: Monitoring of Next Six-Month New Element Integration in OCC and Its Update on Monthly Basis --ERLDC

It has been observed that many elements are getting interconnected into the system and beforehand details are not available with the system operator resulting in difficulty in carrying our operational planning activity. In view of this, as a regular agenda all ISTS and ISGS/IPP to update the OCC regarding any new elements at 220 kV and above which will be integrated in next six month with the grid. For State Grid, SLDC will be submitting the details on behalf of its intrastate Generation and transmission system. The format is given below:

Transmission Elements	Agency/ Owner	Scheme (ERSS/ TBCB/ Standing Committee/State	Schedule Completion	Projected Month for Completion	Issue Being Faced

In previous several OCC, Transmission licensees and SLDCs are requested to submit RLDC/RPC following details on monthly basis

- List of transmission element /generators of State and ISTS licensees synchronised in the last month.
- List of transmission element /generators expected to be synchronised during next month or in near future

Some SLDCs are submitting the list of intrastate and interstate line on regular basis, however transmission element /generators expected to be synchronised during next month or in near future is not submitted by any SLSC/Transmission licensee to RLDC/RPC.

In 163rd OCC, OCC advised all the constituents, SLDCs and ISTS licensees to submit the details to erldcprotection@posoco.co.in as per the format.

List of upcoming Transmission Element is received from Bihar and Jharkhand.

In the 141st PSOC meeting, DGM (Const) stated that the information has already been submitted.
In the 143rd PSOC meeting, O&M and construction wing stated that the information shall be submitted to SLDC on regular basis.
As per the list received from Construction wing, the status is as follows:

Sl. No.	Name of the Project	Expected month of charging
1	132/33kV Bhatli S/s	April 2023
2	132/33kV Boriguma S/s	April 2023
3	220/132/33kV Dhamra S/s	April 2023

4	132/33kV Lakhanpur S/s	April 2023
5	220/33kV Daspalla S/s	April 2023
6	132/33kV R Udaigiri S/s	April 2023
7	220/132/33kV Turmunga S/s	June 2023
8	220/33kV Balichandrapur (Palei) S/s	June 2023

O&M / Construction wing may deliberate.

C.7: Preparation of crisis management plan for Cyber Security in Power Sector in line with CERT-IN.

The activity of the preparation of Crisis Management Plan for countering the cyber-attacks and its implementation including the Mock Drills, audits etc. is being monitored by CEA regularly in line with crisis management plant of Ministry of Power. Power Utilities (including generation, transmission & distribution utilities) of eastern region are to furnish regularly the updated status to on the same to Chief Engineer, Distribution Planning & Development Division, CEA.

In 142nd OCC, ERLDC informed that, in line with Enquiry Committee Recommendation, cyber security audit is being conducted on regular basis for SCADA system installed at ERLDC and SLDC as well but cyber security audit for telecom infrastructure installed in Eastern Region is not being carried out.

OCC advised all the constituents to conduct the cyber security audit on telecom infrastructure installed in Eastern Region. It is further advised that compliance / mitigation of the points observed during the audit should also be completed for improvement of the telecom infrastructure in ER.

As suggested by CEA, a format has been circulated among ER constituents for furnishing the information of the respective systems for discussion in OCC Meeting. The format is enclosed at Annexure-E1.

OCC advised all the constituents to submit the information to ERPC as per Annexure-E1.
OPTCL has submitted the required data

In the 139th PSOC meeting, IT stated that the Auditing is under process since 20th Nov'19 and will be completed today. The information has been submitted to ERPC in the prescribed format.

In the 140th PSOC meeting, SLDC stated that IT wing have forwarded the report in the prescribed format to ERPC for the Qr. ending Sept'2019.

In the 141st PSOC meeting IT stated that ISO certification for cyber security has been renewed for one year. Telecom may provide 3 Nos. CCTV, Fire alarm and biometric arrangement for their server room.
In the 144th PSOC meeting, Telecom wing stated that Cyber security has been resolved for IT wing of OPTCL Headquarters but for SLDC, work shall be completed within a week

IT /Telecom may update.

C. 8. Islanding scheme of IBTPS

IB-TPS Islanding Scheme: The scheme was finalized in the special Meeting on Islanding Scheme of IB-TPS held at ERPC, Kolkata on 12th December 2018. In special meeting held on 06.08.2021, OPGC representative informed that work order had been placed on OEM (M/s BHEL) for implementation of the Islanding scheme at IB TPS units. OPGC was also advised to take up the issue with their highest authority as well as with the OEM for expediting the implementation of islanding scheme.

In the 195th OCC meeting, OPTCL representative submitted that the testing of Islanding scheme was planned on the 2nd week of September 2022 which could not be done due to some issues. The testing would be carried out after consultation with OPGC.

In the 201st OCC meeting, Representative of OPGC informed that during AOH in the month of March'2023 if the turbine vibration issue gets resolved then they would go ahead with the testing.

OPGC may deliberate.

C. 9. Status of implementation of AGC as a pilot project

In the 183rd OCC meeting, OPGC representative informed that work order has been issued to M/s Siemens for implementation of AGC. The work would be carried out during the unit shutdown which is scheduled from 18.10.2021.

OPGC vide email dated 25th Oct'21 informed that some additional data is needed from SLDC Odisha and after getting the same AGC would be implemented.

OPGC informed SLDC that the order has been placed to M/s Siemens for AGC implementation and the feasibility test would be conducted on 3rd May 2022.

OPGC may deliberate.

C. 10. List of lines of Eastern Region violating N-1 security criteria

The list of such lines for which necessary planning needs to be done to make the system N-1 secure are given below:

Sl No.	**Name of element**	**Short term measures**	**Long term measures**	**The target date for long term measures**
1	i. 220 kV Budhipadar Lapanga D/C, ii. 220 kV Budhipadar Vedanta D/C iii. 220 kV Rourkela-Tarkera D/C	SPS available only for 220 kV Rourkela-Tarkera D/C. However, even with SPS N-1 criteria is not satisfied for all the conditions. Action Required:- Load trimming scheme needs to be planned	Reconductoring of 220 kV Rourkela-Tarkera D/C with HTLS. 2. 220 kV Rourkela-Tarkera second D/C 3. Shifting of Vedanta from 220 kV to 400 kV	OPTCL to provide a target date for Long term measures
2	i. 220 kV Lapanga Katapalli D/C ii. 220 kV Katapali New Bargarh Sadepalli (New Bolangir) S/C iii. 220 kV Katapali-Bolangir (PG)- S/C	No SPS Available. Action Required:- SPS/Load trimming scheme needs to be planned	Odisha to share long-term remedial action to make the system N-1 secure.	OPTCL to provide a target date for Long term measures

PART-D – Operational Issues

D.1: Compliance of CEA Regulations for Grid Connectivity of Renewable Energy Sources.

As per CEA (Technical Standards for connectivity to Grid) Regulations, 2007, dated 21st February 2007, the pertinent clauses 6 (iii) & 6 (iv) (b) of general Connectivity Conditions shall be applicable to all the Generating Projects including the renewable, which are getting connected to the Grid at voltage level of 33kV & above. Subsequently, CEA have notified the CEA (Technical

Standards for Connectivity of the Distributed Generation Resources) Regulations 2013 dated 30.09.2013. These Regulations are applicable for "Distributed Generation Resources", which means A Generating Station feeding electricity into the System at voltage level below 33kV. Needless to mention that these Regulations also cover the renewable projects connected to the Distribution Licensee's System at voltage level of below 33kV. The letter received from CEA is annexed herewith.

SLDC has already forwarded the Regulations & a letter received from DoE, Govt. of Odisha to the Distribution Licensees.

A meeting has been convened by Gridco in this regard with the RE generators, OPTCL, Telecom & SLDC. In the meeting, two nos of agencies presented their data acquisition logic from the RE sources. It was decided that each agency will take up a pilot project for data communication from one RE source to SLDC. On completion of the above project next course of application shall be decided.

A committee has been constituted with representatives of GRIDCO, O&M, Telecom & SLDC. This issue was also discussed in the 16th GCC meeting held on 09.08.2019. GRIDCO assured to make a demo of data communication from MGM Solar at Tangi to SLDC by end of August'19.

After successful demonstration of the data communication from the pilot Solar plant by Chemtrol, A meeting was convened by GRIDCO with all the Solar developers, Telecom, SLDC, OPTCL & DISCOMs to discuss the commercial issue.

In the 140th PSOC meeting GRIDCO stated that the rate offered by M/s Chemtrol for integration of real time solar data is being examined by the developers. The next meeting is scheduled to be held on 27th December'19 to discuss and finalize the issue.

In the 141st PSOC meeting GRIDCO stated that 15th January'20 was the dead line fixed for placing order by the developers. Data communication is expected by end of March'2020.

In the 143rd PSOC meeting, Sr.GM(Telecom) informed that 14nos of RTU panels are ready for despatch while Chemtrol requested for waiver of inspection charges claimed by OPTCL.
In the 144th PSOC meeting, Telecom stated that out of 14nos, 13RTUs's have been installed and data is reporting at SLDC except Molisati Solar. Chemtrol will proceed next month to Molisati. GEDCOL shall depute their officer to meet GM, Telecom for discussion regarding RTU installation and data reporting at SLDC.
Telecom may deliberate the status.

D.2: Data communication from newly commissioned RE sources connected at 132 kV- SLDC

There are as many **10** Nos. of Solar projects with installed capacity of **345.5** MW have connected with OPTCL network through 132 kV lines. The real time data of these plants are yet to be received at SLDC control room. Since the generation quantum is quite substantial (to the tune of 0.6 MU during a day), this has an impact on real time generation monitoring.

In the 133rd PSOC meeting CGM (Telecom) stated that Vento Solar data can be integrated only after laying of optical fiber, which has been proposed for PSDF funding

In the 137th PSOC meeting CGM (Telecom) stated that laying of optical fiber is expected to be completed by December'2019. DGM (Telecom) suggested that SLDC may write a letter to Vento Power (Solar) at Kesinga to explore the data communication, since all communication equipment are available with them. Data communication can be made through after visit of the service Engineer of the company.

In the 138th PSOC meeting, it was suggested that Telecom may ensure establishment of data communication facility before recommending for connectivity for any Solar Plant.

In the 139th PSOC meeting Telecom stated that data communication from all the Solar stations connected through 132 kV is expected by January'2020.

In the 140th PSOC meeting, DGM (Telecom) stated that the Despatch Instruction for OPGW has already been issued. Laying of optical fiber is expected by June'20. As suggested by DGM (Telecom), SLDC may write a letter to Vento Power (Solar) at Kesinga to explore the data communication, since all communication equipment are available with them.

In the 141st PSOC meeting DGM (Telecom) stated that Vento Solar at Kesinga has procured PLC in place of RTU resulting non- communication of data. It was decided that GRIDCO shall approach all the RE projects to speed up the process of data communication. Telecom may explore the process for laying of optical fiber.
In the 143rd PSOC meeting, GM (Telecom) informed that he will submit the status report to SLDC.
In the 144th PSOC meeting, Telecom intimated that OPGW work of Tusura, Padampur has been completed. SAS work is being carried out at Kesinga so data can be received after two-three months.

SLDC /Telecom may deliberate the status.

D.3. Damage of Bharatnet PH-II Optical fibre cable

The Bharatnet PH-II Optical fibre cable are getting damaged while carrying out maintenance activities by DISCOM utilities.

Telecom/DISCOM may deliberate

D.4.Incorporation of distance protection scheme over optical fibre network

Telecom wing have installed DTPC in 37 no. of 220kV & 400kV feeders working over optical fibre communication system. 85 no. of feeders are yet to be covered under DTPC facility. As PLCC system is no more in use in our network, necessary action may be taken up for incorporation of distance protection scheme over optical fibre network.

Telecom/O&M / CGPs connected over 220kV & 400kV may deliberate.

D.5: Despatch Scheduling for RE Generation.

At present about **19** Nos of RE generating plants having **340** MW installed capacity operating in the State. None of the plants are furnishing day ahead schedule except 2-3 Nos. In absence of day ahead Declared injection Schedule, there is a substantial mismatch of day ahead generation planning. Also SLDC is not aware of the PPA made by GRIDCO with the Solar plants. As such, it is requested that GRIDCO may forward the copy PPA made with the Solar plants and insist the plants to submit day ahead DC in respect of their plants to SLDC in 15 minute blocks.

In the 139th PSOC meeting GRIDCO assured to forward the PPAs before next PSOC meeting also to write all the Solar stations to submit day ahead injection schedule to SLDC. The said documents are yet to be received by SLDC.

In the 140th PSOC meeting, SLDC stated that the PPAs made by GRIDCO with Solar plants have been received by SLDC. GRIDCO was requested to ask the Solar plants to forward their day-ahead generation schedule to SLDC.

In the 141st PSOC meeting it was decided that GRIDCO shall convene a meeting with solar developer to discuss the issue of day ahead scheduling of solar power injection.
In the 143rd PSOC meeting, GRIDCO informed that all RE generators have been informed to submit the day ahead schedule to SLDC since February 2020. PSOC advised SLDC to further pursue the matter with RE generators.

In the 144th PSOC meeting, GRIDCO was advised to convene a meeting with all RE generators in presence of SLDC on this matter.

Till date, no day ahead availability is furnished by many RE generators, GRIDCO may further take up the matter under intimation to SLDC.

GRIDCO may update.

D.6. Replacement/Rectification of Billing meters

It has been observed that some billing meters used for energy accounting purpose are time desynchronized frequently.

In the 144th PSOC meeting, O&M stated to take up the matter with Secure. GRIDCO stated that interface meters should be tested once in five years. But, many OHPC meters are due for testing. O&M stated that all interface meters of OHPC have been tested and updated database shall be shared with GRIDCO. Vedanta intimated that routine testing of energy meters of 4 X 600MW plant need to be carried out in presence of representatives of GRIDCO, TPWODL and OPTCL. PSOC advised Vedanta to propose a suitable date to GRIDCO/OPTCL for testing of energy meters.

Such meters are not supposed to be re-calibrated at site and need to be set right at OEM works facility/high-tech NABL Lab and therefore, the owner entity of these defective meter(as per Annexure-A) are kindly requested to arrange to replace in a time bound manner. The schedule thereof may please be intimated to SLDC in the interest of accurate, precise and timely error free energy accounting for the State.

SLDC/O&M/ GRIDCO/Vedanta may deliberate

D.7.Regarding Monthly Deviation Bill of SMC

Detail calculation of monthly deviation bill provided from GRIDCO.

SMC/GRIDCO may deliberate.

D.8. Non-payment/ Partial payment of Transmission charges by ABReL

RT&C(OPTCL)/ ABReL may deliberate

D.9. Non-payment of Transmission charges by BEL

RT&C(OPTCL)/ ABReL may deliberate

D.10. Regarding issues related to TTPS switchyard

a) Changing of tap position of Auto transformer as and when required.

b) Timely execution of maintenance activities.

c) Reversal of polarity of Genus make meter of 220kV TTPS-Kaniha fdr

OPTCL O&M wing may expedite the process of taking up TTPS switchyard.

OPTCL/ TTPS may deliberate.

PART E: OPERATIONAL PLANNING

E.1. Outage planning of thermal generators

In view of the high demand scenario in the upcoming summer months, planned outages of thermal units must be avoided so that all machines are readily available and the State is relieved from major power crisis during peak demand season. OPGC and IPPs like GMR, VAL are requested to maintain full generation during this summer period.

OPGC/GMR/VAL may deliberate

E.2. Commissioning status of new Transmission elements.

The status of 33 kV bays and takeoff arrangement by DISCOMs are as tabled

Sl no	Name of Project	Voltage	Date of Charging	Bays Available	Bays utilised
TPCODL					
1	Marshaghai	132/33	16-10-2015	5	3
2	Atri	220/132/33	24-02-2016	4	0
3	Chandaka - B	220/132/33	28-03-2017	4	3
4	Khajuriakata	132/33	28-03-2017	5	2
5	Mancheswar B	132/33	28-02-2020	5	2
6	Goda	220/132/33	29-05-2020	5	1
7	Satasankha	132/33	25-06-2020	5	0
8	CDA, Cuttack	132/33	30-10-2021	5	1
9	Pratapsasan	132/33	30-10-2021	5	2
10	Rajnagar	132/33	11-08-2021	5	2
11	Gondia	132/33	31-08-2021	5	0
12	Bahugram	132/33kV	03-08-2022	5	0
13	Godisahi	220/33kV	21-06-2022	5	1
14	Kalimela	220/33kV	13-11-2022	4	2
	TOTOL			**67**	**19**
TPSODL					
15	Malkangiri	220/33	27-03-2017	4	3
16	Muniguda	132/33	29-11-2017	4	2
17	Chikiti	132/33	25-02-2019	5	2
18	Aska New	220/132/33	31-03-2019	5	2
19	Kasipur	220/33	30-06-2019	4	1
20	Govindpalli	220/33	17-11-2021	4	2
21	G Udayagiri	132/33	28-03-2021	5	2
22	Gunupur	132/33	14-07-2021	5	3
23	Nawrangpur	132/33	29-12-2021	5	2
24	Hinjili	132/33kV	29-07-2022	5	2
	Total			**46**	**21**
TPNODL					
25	Bangiriposi	132/33	03-10-2016	4	3
26	Bhogarai	132/33	28-03-2017	4	2
27	Chandbali	132/33	20-02-2019	4	2
28	Telkoi	220/33	14-07-2021	5	2
29	Chandipur	132/33	30-08-2022	5	1
	TOTAL			**22**	**10**
TPWODL					
30	Jayapatana	220/132/33	11-07-2019	4	2

31	Maneswar	132/33	03-02-2021	5	2
32	Thuapalli	132/33	14-07-2021	5	2
33	Deogarh	220/33	06-08-2021	5	2
34	Lephripara	220/33	08-08-2021	5	2
35	Hirakud	132/33	17-03-2022	5	3
36	Bamra	132/33kV	04-09-2022	2	1
37	Birmaharajpur	132/33kV	03-05-2022	5	2
38	Kuanramunda	220/132/33	25-01-2023	5	0
	TOTAL			**41**	**16**
	ALL TOTAL			**176**	**66**

Construction wing(OPTCL) / DISCOMs may deliberate.

E.3. Major Events in the month of March 2023

1. On Dt. 03.03.23 at 12:44 Hrs, 1X25MW TG#2 of 132kV Rungta Mines Ltd, Dhenkanal Steel Plant was synchronized with OPTCL system through 132kV Meramundali - RML DSP Feeder at M/S RML, DSP end.
2. On Dt. 03.03.23 at 14:44 Hrs, 132kV 2-Phase S/C line on DC tower was charged from M/S Jabamayee Ferro Alloys sub-station to proposed RTSS at Sukinda along with 01no 132KV feeder bay extension at M/S Jabamayee Ferro Alloys sub-station.
3. On Dt. 10.03.23 at 17:21 Hrs, 3X20MW CGP of M/S Rungta Mines Ltd at Kamanda Steel Plant was synchronised with OPTCL network through dedicated 132KV Barbil-Kamanda Line.
4. On Dt. 17.03.23 at 15:00 Hrs, 3.66MW Solar PV Plant at 11kV level was synchronized in 132/11kV switchyard of M/S Shree Cement Limited connected through 132kV OPTCL Khuntuni-Shree cement feeder.
5. On Dt. 14.03.23 at 12:42 Hrs, 400/220kV 315 MVA ICT-III was charged at BPRS, Tata Steel Limited Kalinganagar along with associated bay.
6. On Dt. 22.03.23 at 19:30 Hrs, 132kV Bhatli feeder Bay extension was done at 220/132/33kV GSS, Bargarh New.
7. On Dt. 23.03.23 at 13:17 Hrs, 33kV GEDCOL Solar Bay extension was done at 220/132/33kV GSS, Bolangir New for 2.0MW Soalr PV Plant.
8. On Dt. 30.03.23 at 11:52 Hrs and on Dt. 31.03.23 at 14:00 Hrs, 220kV and 400kV side of 400/220kV 315 MVA ICT-I at Indravati PH were charged respectively after breakdown work.

Members may note

E.4. Outage of major transmission Elements during the month of March-2023. (above 10 hrs).

Sl No	Transmission line / element	Tripping Dt/time	Restoration Dt/time	Reason
1	400kV Meramundali - Mendhasal Ckt-1	18.03.2023 19:22	19.03.2023 18:05	Y-E, IY=3.84kA, Dist=85.7km, Zone-1
2	132kV Rairangpur - Bangiriposi Feeder	18.03.23 00:00	18.03.23 18:27	Zone-1, R-ph, R-N, Dist-9.528km, IA=510.5A, IB=447.5A, IC=572.8A
3	220kV Lapanga - Katapali Ckt-2	16.03.23 23:18	17.03.23 18:50	Insulator string of Y-ph broken at LOC No 191, DP Operated, Dist-63.4km(142.5%), Zone-3
4	400kV Lapanga - Meramundali Ckt-2	21.03.23 11:01	22.03.23 14:01	Bph-G, Dist-200.1km, Zone-2, IL1-0kA, IL2-0.12kA, IL3-2.2kA
5	132kV Padampur -	18.03.23	19.03.23	Phase-CN, Zone-1, Ia=151.7A,

	Nuapada Feeder	14:48	18:07	Ib=81.37A, Ic=1.79kA
6	132kV Balangir(New) - Patnagarh Ckt-1	12.03.23 08:54	13.03.23 16:24	B/U O/C &E/F relay operated, IL1=0.15kA, IL2=0.18kA, IL3=2.11kA
7	132kV Therubali - Rayagada Feeder	19.03.23 17:44	20.03.23 06:28	A-G, Ia=6.64kA, Ib=2.5A, Ic=84A
8	132kV Joda - Polasponga Feeder	26.03.23 20:02	17.03.23 14:02	DP relay: FL:L1-N, Dist=50.16km, Ia=1.972kA, Ib=8.46A, Ic=9.50A
9	132kV Baripada - Betanati Feeder	18.03.23 20:38	19.03.23 14:23	DP, Zone-1, Dist-0.2km, started phase-A.N, IL1=5.15kA, IL2=0.01A, IL3=0.11A
10	132kV Dhenkanal - Khajuriakata - Nuapatna Feeder	18.03.23 19:04	19.03.23 08:25	DP Operated, Zone-1, Y-N, Dist-11.68km, IY-3.5kA

O&M may discuss

E.5. Prolonged outage of Transmission elements

Sl. No.	Transmission line/element	Date of outage	Reason	Expected date of restoration
1	220kV Samangara-Pandiabili ckt-I & II	03.05.2019	Breakdown due to extremely severe cyclonic storm "FANI"	
2	20MVA Power TRF-III at Paradeep	18.03.2022	Completely burnt due to fire on OLTC	
3	100MVA Auto-II at Bidanasi	05.10.2022	132kV Y- ph bushing burst	
4	220kV Narendrapur-TATA ckt-I	06.01.2021	Completion of civil works at TATA end	
5	132/33kV 35MVA Power TRF-II at Rourkela	31.10.2022	Replacement of 35MVA old Siemens TFR by new 40MVA ECE Transformer	
6	132/33kV 20MVA Power TRF-I at Padampur	22.02.2023	Oil filtration of the TRF	
7	220kV Main Circuit Breaker of 220kV Katapali-Hindalco ckt-I	28.02.2023	Replacement old pneumatic breaker with spring charge type new CGL breaker	

O&M may discuss

E.6. Review of Outage Program of State Generators for the month of May'23:

Tentative Outage program for State Generators for the month of **May'23**

Sl.	Station	Unit	Period	Remarks
1	Burla	# 2	03.04.2023 to 17.04.2023	Annual Maintenance
2	Balimela	# 3	08.07.2022 to 31.05.2023	Renovation & Modernization

		# 4	08.07.2022 to 31.05.2023	Renovation & Modernization
3	Rengali	# 2	12.11.2022 to 15.04.2023	Annual Maintenance & Replacement of GT
4	Upper Kolab	# 2	29.03.2023 to 31.05.2023	Stator Earth Fault
5	Indravati	# 4	09.12.2022 to 16.07.2023	Capital Maintenance

OHPC may deliberate

E.7. Generation Program for the month of April'23.

Generation schedule for the month of April'23 furnished by OHPC are given below.

Name of Hydro Gen. Station	Generation Program (MW) Apr'23	Reservoir Level as on 31.03.2023	Reservoir Level as on 28.02.2023	MDDL	High Flood Reservoir Level
HPS-I, Burla	35	615.77 ft.	619.65 ft.	590 ft.	630 ft.
HPS-II, Chiplima	25				
Balimela	70	1461.40 ft.	1468.40 ft.	1440 ft.	1516 ft.
Rengali	110	117.69 mtr.	118.67 mtr.	109.72 mtr.	123.5mtr
U.Kolab	100	851.48 mtr.	852.91 mtr.	844 mtr.	858 mtr.
U. Indravati	240	634.62 mtr.	635.83 mtr.	625 mtr.	642 mtr.
MKD (O/D)	30	2729.25 ft.	2732.55 ft.	2685 ft.	2750 ft.
TOTAL	**610**				

Generation schedule may change depending on inflow & availability of machine.

SLDC / OHPC may deliberate.

E.8. Anticipated power generation and demand for the month of May'2023.

Sl. No	Discom	Average	Peak
1	TPCODL	1530	1730
2	TPWODL	1630	1720
3	TPNODL	1020	1200
4	TPSODL	580	650
5	**Total Discom**	4760	5300
	System Loss & others	100	150
	Total Demand	**4860**	**5450**
Availability			
1	Hydro	410	750
2	State Thermal	1440	1470
3	IPP, small hydro &RE	900	1050
4	ISGS share (including OA& purchase)	1950	1950
5	CGP support (OA)	250	250
6	**Total availability**	**4950**	**5470**
7	**Surplus / Deficit**	**90**	**20**

Members may discuss.

PART F: GENERAL

F.1. Considering, connectivity path for evacuation of power after maiden synchronization, as consumer connection.

It is learnt that power consumed during the construction stage is not billed by the DISCOM as such generators are not consumers. To maintain precise accounting, this is to be treated as drawl by respective DISCOM and DISCOM may issue consumer bill as per provision. After synchronization, the auxiliary consumption of the plant may be accounted from gross generation.

SLDC/ DISCOMs/ GRIDCO may deliberate

F.2. FTC of transmission element and/ generator:

Periodically, it is observed that the field offices are silent about this mandatory consent and approach at the last moment mostly with insufficient document under the pretext of immediate charging requirement to achieve milestone.

All field offices are requested to comply fully statutory details as available on SLDC website at least 7 working days in advance to avoid last moment embarrassment.

SLDC will always help and support for any clarification in the document requirement.

F.3. Renewable purchase obligated entity were requested to convey their RE power requirement up to FY-2030 vide letter no.114/ Dt.19.01.2023 (Annexure-B), this being very important details to plan for storage requirement as per RE policy, details may be furnished at the earliest.

Annexure-A

SUBSTATION	METERING POINT	METER SL.	METER TYPE	ISSUE
TPSODL				
Rayagada	Traction FDR	OPT00803	CHECK	Meter data cannot be downloaded
	Transformer-1	OPT01847	CHECK	Meter data cannot be downloaded
	Transformer-3	OPT01808	MAIN	Meter data cannot be downloaded
Sunabeda	Trf2-12.5MVA 132/33kV	OPT01888	MAIN	time dysynchronised
Therubali	Trf2-12.5MVA 132/33kV	OPT01226	MAIN	Meter data cannot be downloaded
Akhusingi	132/33 KV Trf 1-A	OPT00491	AUDIT	time dysynchronised
	132/33 KV Trf 2-A	OPT00303	AUDIT	time dysynchronised
	Mohana Fdr-A	OPT00275	AUDIT	time dysynchronised
	Paralekhamundi Fdr-A	OPT00309	AUDIT	time dysynchronised
	Rayagada Fdr-A	OPT00593	AUDIT	time dysynchronised
Bhanjanagar	220 KV Auto Trf 1-A	OPT00490	AUDIT	time dysynchronised
Phulbani	132/33 KV Trf 1-A	OPT00557	AUDIT	time dysynchronised
	132/33 KV Trf 2-A	OPT00414	AUDIT	time dysynchronised
	132/33 KV Trf 3-A	OPT00442	AUDIT	time dysynchronised
	132kV Bhanjanagar Fdr-A	OPT00499	AUDIT	time dysynchronised
Sunabeda	132/33 KV Trf 1-A	OPT00425	AUDIT	time dysynchronised
	132/33 KV Trf 2-A	OPT00243	AUDIT	time dysynchronised
	132/33 KV Trf 3-A	OPT00497	AUDIT	time dysynchronised
Balimela	220 KV Trf 1-A	OPT00295	AUDIT	time dysynchronised
	220 KV Trf 2-A	OPT00264	AUDIT	time dysynchronised
Jayanagar	220 KV Auto Trf 1-A	OPT00316	AUDIT	time dysynchronised
	220kV Balimela Fdr 1-A	OPT00299	AUDIT	time

				dysynchronised
	220kV Balimela Fdr 2-A	OPT00265	AUDIT	time dysynchronised
	220kV Balimela Fdr 3-A	OPT00244	AUDIT	time dysynchronised
	220kV Upper Kolab Fdr 1-A	OPT00269	AUDIT	time dysynchronised
Therubali	220kV Bhanjanagar Fdr 2-A	OPT00503	AUDIT	Meter data cannot be downloaded

TPNODL

SUBSTATION	METERING POINT	METER SL.	METER TYPE	REMARKS
BILLING METERS				
Arya Ispat Sw. Stn.	IMTCPL Feeder	OPT00672	Main	Frequent time drift
Bhadrak	FACOR Power 132kV	OPT00852	Check	Time drift
Joda	Trf6-20MVA 132/33kV-A	OPT00693	Main	Frequent time drift
OMC Daitari	12.5MVA 132/33KV TRF-1	ORA00033	Main	CT reverse
OMC Daitari	12.5MVA 132/33KV TRF-2	ORA00034	Check	CT reverse
Polasponga	OSISL Feeder 33kV	APM03745	Check	mtr defective
Telkoi	Trf1-20MVA 220/33kV	OPT02215	Main	CT reverse
Telkoi	Trf1-20MVA 220/33kV	OPT02216	Check	CT reverse
Telkoi	Trf2-20MVA 220/33kV	OPT02217	Main	CT reverse
Telkoi	Trf2-20MVA 220/33kV	OPT02218	Check	CT reverse
Udala	Trf2-40MVA 132/33kV	OPT01611	Main	mtr defective
AUDIT METERS				
Anandpur	Jajpur Road-I Fdr-132kV-A	OPT00871	Audit	time drift
Balasore	Trf1-63MVA 132/33kV-A	OPT00382	Audit	time drift
Bhadrak	Auto-II 160MVA 220kV-A	OPT00755	Audit	mtr defective
Duburi-New	Balasore Feeder 220kV-A	OPT00795	Audit	mtr defective
Duburi-New	Bhadrak Feeder 220kV-A	OPT00822	Audit	mtr defective
Jajpur Road	Chandikhol Feeder 132kV-A	OPT00690	Audit	time drift
Jajpur Road	40 MVA TRF-II	OPT00768	Audit	time drift
JFAL	TTPS Feeder 132kV-A	OPT00958	Audit	time drift
JFAL	Duburi Feeder 132kV-A	OPT00987	Audit	time drift
Joda	Barbil Feeder 132kV-A	OPT01074	Audit	time drift
Joda	TTPS Feeder-I 220kV-A	OPT01197	Audit	time drift
Joda	Trf2-20MVA 132/33kV-A	OPT01419	Audit	time drift
Joda	Trf5-40MVA 132/33kV-A	OPT00995	Audit	usb port broken
Karanjia	132KV Rairangpur Feeder	OPT00427	Audit	can't find usb port
Karanjia	Trf1-12.5MVA 132/33kV-A	OPT00599	Audit	time drift
Karanjia	Trf3-20MVA 132/33kV-A	OPT01781	Audit	CT reverse
Nalda	ARYA Ispat Feeder 132kV-A	OPT01289	Audit	time drift
Nalda	BEEKAY Steel Feeder 132kV-A	OPT00759	Audit	time drift
OMC Daitari	Trf1-12.5MVA 132/33kV-A	ORA00035	Audit	CT reverse
Polasponga	Trf3-40MVA 132/33kV-A	OPT01235	Audit	time drift
Telkoi	Trf1-20MVA 220/33kV-A	OPT02211	Audit	CT reverse
Telkoi	Trf2-20MVA 220/33kV-A	OPT02213	Audit	CT reverse

TPCODL

Boinda	Trf-III	MAIN	OPT00661	TIME DRIFT
Chainpal	TRF-I	MAIN	OPT01064	TIME DRIFT
	Trf-II	AUDIT	OPT00288	TIME DRIFT
	MERAMUNDALI CKT-II 132KV-A	AUDIT	OPT00647	TIME DRIFT
Dhenkanal	Trf1-40MVA 132/33kV-A	AUDIT	OPT01065	TIME DRIFT
Bhubaneswar	CHANDAKA CKT-II 132KV-A	AUDIT	OPT00486	TIME DRIFT
Kharagprasad	MERAMUNDALI CKT-I 132kV-A	AUDIT	OPT00507	TIME DRIFT
Kalarangi	Goda 132kV-A	AUDIT	OPT00752	TIME DRIFT
	Trf1-12.5MVA 132/33kV-A	AUDIT	OPT00844	TIME DRIFT

TPWODL

Aryan-Viraj S/W	Aryan-Viraj feeder	APM12608	CHECK	Download problem
Bamra Solar	Joy Iron Feeder	XD595254	MAIN	time DRIFTED
Jharsuguda	Ultratech feeder	OPT00946	CHECK	Download problem
Khariar	Trf2-40MVA 132/33kV	APM03760	CHECK	Download problem
Rajgangpur	Trf3-40MVA 132/33kV	OPT00907	CHECK	Download problem
Tarkera	RSP Feeder-3 220kV	ORU41192	CHECK	Meter data cannot be downloaded

TPWODL-AUDIT

Barapalli	Balangir Fdr	OPT00388	AUDIT	time DRIFTED
Barapalli	Bargarh Fdr	OPT00410	AUDIT	time DRIFTED
Bargarh	Trf1-40MVA	OPT00554	AUDIT	time DRIFTED
Bolangir	Bolangir N 132kV Fdr-I-A	OPT00344	AUDIT	time DRIFTED
Burla P.H.	LAPANGA Feeder1 132kV	OPT01229	AUDIT	time DRIFTED
Brajrajnagar			AUDIT	All the meters to be shifted to new panel.(pending since a long)
Budhipadar	Trf2-12.5MVA	OPT00366	AUDIT	time DRIFTED
Chipilima P.H.	Burla TIE-II	OPT00921		time DRIFTED
Chipilima P.H.	Bus Coupler 132kV	APM03693		Download problem
Chipilima P.H.	Katapalli Feeder-I 132kV	OPT01058		time DRIFTED
Katapalli	Auto TRF-2 132kV side-	OPT00298	AUDIT	time DRIFTED
Kesinga	132/33 KV Trf 2	OPT00370	AUDIT	time DRIFTED
Kesinga	Saintala Fdr	OPT00258	AUDIT	time DRIFTED
Kesinga	Therubali Fdr	OPT00412	AUDIT	time DRIFTED
Khariar	132/33 KV Trf 1	OPT00467	AUDIT	time DRIFTED
Khariar	132/33 KV Trf 2	OPT00348	AUDIT	time DRIFTED
Lapanga	Katapalli Feeder-2 132kV	OPT01926	AUDIT	time DRIFTED

Patnagarh	132/33 KV Trf 2	OPT00403	AUDIT	time DRIFTED
Rairakhol	Trf2-12.5MVA 132/33kV	OPT00521	AUDIT	Meter data cannot be downloaded
Rajgangpur	Tarkera Feeder-I 132kV	OPT00234	AUDIT	
Rajgangpur	Trf2-40MVA 132/33kV	OPT00655	AUDIT	
Rourkela	JODA Fdr 132kV	OPT00560	AUDIT	
Rourkela	Trf4-40MVA 132/33kV	OPT00665	AUDIT	time DRIFTED
Rourkela	TARKERA Fdr-II 132kV	OPT00477	AUDIT	time DRIFTED
Saintala	OPTCL B/C-	OPT00372	AUDIT	time DRIFTED
Saintala	Ordnance Fdr 132kV-	OPT00204	AUDIT	time DRIFTED
Sambalpur	Burla Fdr 132kV-	OPT00266	AUDIT	time DRIFTED
Sambalpur	Kesinga Fdr-	OPT00595	AUDIT	time DRIFTED
VAL Lanjigarh	Trf1-31.5MVA 132/33kV-	OPT00567	AUDIT	time DRIFTED

Annexure-B

ରାଜ୍ୟ ବିଦ୍ୟୁତ୍ ଭାର ପ୍ରେରଣ କେନ୍ଦ୍ର
STATE LOAD DESPATCH CENTRE,ODISHA
ODISHA POWER TRANSMISSION CORPORATION LIMITED
GRIDCO Colony, P.O.-Mancheswar Rly. Colony, Bhubaneswar-751017, FAX-0674- 2748509
CIN – U40102OR2004SGC007553

No. SGM(PS)-PL-241/2018/ 1124 (31) Dt.19.01.2023

From:

Shri B. B Mehta
Director/Chief Load Despatcher,
SLDC, OPTCL, Bhubaneswar-17.

To

The Obligated Entities of Odisha
(As per the distribution List)

Sub: Planning of Resources to meet RPO Compliance-Balancing

Ref: Odisha Renewable Energy Policy, 2022

Sir,

As you are aware that Ministry of Power, Govt. of India has planned that every consumer becomes stakeholder to contribute in achieving India's commitment of 500GW of Non Fossil fuel based generation by 2030.In order to promote generation, purchase and use of green energy and to reduce fossil fuel based generation so as to reduce carbon footprint the RPO trajectory till 2030 has been outlined in the Odisha Renewable Energy Policy,2022 as tabled below.

	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
WPO	0.81%	1.60%	2.50%	3.40%	4.30%	5.20%	6.20%	6.90%
HPO	0.35%	0.70%	1.10%	1.50%	1.80%	2.20%	2.50%	2.80%
Other RPO	23.44%	24.80%	26.40%	28.20%	29.90%	31.40%	32.70%	33.60%
TOTAL	**24.60%**	**27.07%**	**29.91%**	**33.01%**	**35.95%**	**38.81%**	**41.36%**	**43.33%**

The share of RE in the energy mix of the State is slated to rise to about 43% by 2030 as per the RPO trajectory notified by the MoP. The MoP has also notified Energy Storage Obligation (ESO) which is set to rise to 4% in 2030. There would be issues of intermittency in the grid due to the increase in share of RE in the energy mix.

SLDC needs to estimate balancing / aggregate the total ESO requirement of the State as per Odisha Renewable Energy Policy, 2022 also in line with MOP notification dated 22.07.2022. In this context you are requested to prepare your year wise anticipated energy demand and the ESO requirements thereof in the format enclosed herewith.

DISTIBUTION LIST (OBLIGATED ENTITIES)

1	JSPL,BARBIL
2	ULTRATECH CEMENT LTD.
3	TSML,ATHAGARH
4	KCMW, TANGI
5	M/S AARTI STEELS LTD
6	VEDANTA LTD,SEZ UNIT
7	THE DHAMRA PORT COMPANY LIMITED
8	PARADEEP PHOSPHATES LIMITED
9	JSW CEMENT LTD.
10	M/s NU VISTA Ltd,Kalinganagar
11	M/S JINDAL STAINLESS LTD
12	M/S JINDAL STEEL & POWER LTD,Angul
13	ODISHA CEMENT LTD,SHREE CEMENT LTD
14	RUNGTA MINES LTD ,FAD,DENKANAL
15	THE RAMCO CEMENT LTD
16	M/S RSP,SAIL
17	M/S SHYAM METALICS & Energy Ltd
18	M/S VISA STEEL LTD
19	EMAMI PAPER MILLS
20	GRASIM INDUSTRIES LTD
21	B R G IRON AND STEEL CO P LTD
22	AMNSIL,PARADEEP
23	AMSIL,POLASPONGA
24	FERRO ALLOYS CORPORATION
25	DCBL,RAJGANGPUR
26	SMC POWER GENERATION,LTD
27	TSL,KALINGANAGAR
28	BALASORE ALLOYS LTD.
29	TSL,FAP JODA
30	TSL,FAP,BAMANIPAL

Name of the Obligated Entity	Total Projected Energy Demand of the Obligated Entity (MU)	ESO	
FY		ESO to be met In % as per Odisha Renewable Energy Policy-2022	ESO to be met In MU as per Odisha Renewable Energy Policy-2022
A	B	C	D=(BXC)*0.01
2022-23			
2023-24		1	
2024-25		1.5	
2025-26		2	
2026-27		2.5	
2027-28		3	
2028-29		3.5	
2029-30		4	

Such details are very much instrumental for planning of precious balancing resources and therefore it is desired to convey the accurate planning as stated above by end of January-2023.For any further clarification please contact Er.S.K Mishra, DGM (Electrical),(mobile:9438907471).

Yours faithfully,

Encl: As above

19/1

Director/Chief Load Despatcher

Copy submitted to the:
1. MD, GRIDCO Ltd for kind information.