Odisha Power Transmission Corporation Ltd.
Bhubaneswar.

Agenda
for
140th Power System Operational Co-ordination Meeting

Date: 24.12.2019
Venue: Power Training Center, Chandaka, Bhubaneswar

Odisha Power Transmission Corporation Ltd. Bhubaneswar.

Agenda for 140th PSOC Meeting to be held on 24.12.2019 at OPTCL Power Training Center, Chandaka, Bhubaneswar

A. Confirmation of the minutes of the 139th PSOC Meeting held on 22.11.2019

The minutes of meeting was circulated vide letter No. SGM (PS)-Pl-15/2019/3790(49) dated 30.11.2019 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 A

(List of items to be discussed for which the details are given in the subsequent parts)

B : Grid Performance for the month of November'2019

C.1: Review of implementation of PSDF approved projects of Eastern Region

C.2: Automatic Under Frequency Load Shedding (AUFLS) Scheme

C.3: Implementation of Automatic Generation Control in Eastern Region--ERLDC

C.4: Implementation of Automatic Demand Management Scheme.

C.5: Auxiliary power consumption by Powergrid Sub-stations--GRIDCO

C.6: Review of the PSS Tuning of Generators in Eastern Region --ERLDC

C.7: 220 kV Inter-connecting lines of OPTCL with 400/220 kV Bolangir (PG), Keonjhar & Pandiabil S/s

C.8: Bypassing arrangement of LILO of 400kV Lines at Angul

C.9: Update on status of telemetry

C.10: Mock Black start exercises in Eastern Region

C.11: Collection of modeling data from Renewable as well as conventional energy generators:

C.12: Monitoring of Next Six-Month New Element Integration in OCC and Its Update on Monthly Basis --ERLDC

C.13: Long term outage of transmission elements

C.14: Preparation of crisis management plan for Cyber Security in Power Sector in line with CERT-IN.

C.15: Submission of Thermal loading of transmission line and associated terminal equipment by ISTS Licensee.

D.1: Non-compliance of drawal schedule by DISCOMs

D.2: Compliance of CEA Regulations for Grid Connectivity of Renewable Energy Sources.

D.3: Data communication from newly commissioned RE sources connected at 132 kV- SLDC

D.4: Despatch Scheduling for RE Generation.

D.5: Information regarding RE Sources for RPO Compliance monitoring.

D.6: Implementation of Automatic Meter Reading for OPTCL-Discom interface points.

D.7: Repair of OPGW, Ground wire and doubling of jumpers & summation meters for 220 kV RSP DC lines. – RSP Agenda

E.1: Commissioning status of New Transmission elements.

E.2: HT metering at DISCOM interface points.-SLDC.

E.3: Major Events in the month of November'19

E.4: Important grid incidences during the month of November'19.

E.5: Outage of major transmission Elements during the month November'19. (above 10 hrs).

E.6: Prolonged outage of Transmission elements

E.7: Review of Outage Program of State Generators for the month of January'20

E.8: Generation Program for the month of January'20.

E.9: Anticipated power generation and demand for the month of January'20.

F.1: Date and Venue of the next (141st) PSOC meeting.

PART B: GRID PERFORMANCE

B. Review of Grid Performance for the month of November'19.

A. Frequency:

Hourly frequency variation for the month of November'19.

Month	% of time frequency remained					Average
	<49.00	49.00-49.70	49.70-49.90	**49.90-50.05**	>50.05	
Sept'19	0.00	0.08	4.56	74.71	20.64	50.00
Oct'19	0.00	0.00	2.97	75.24	21.79	50.00
Nov'19	0.00	0.01	3.59	67.77	28.63	50.00

Maximum & Minimum frequency during the month of Oct'19 & Nov'19.

Month	Freq (Hz)	Date	Time
Oct'19	Maximum –50.18	26.10.19	13:00 Hrs
	Minimum – 49.74	24.10.19	07:00 Hrs
Nov'19	Maximum –50.18	07.11.19	13:00 Hrs
	Minimum – 49.72	18.11.19	06:15 Hrs

B. Grid Demand up to the month of November'19

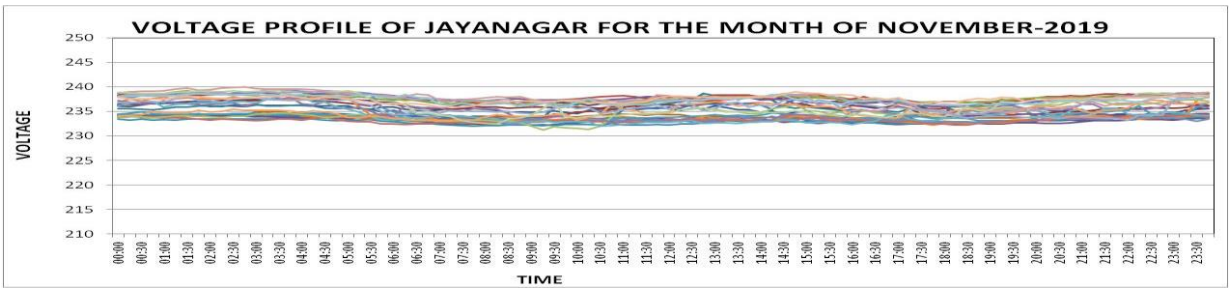
Month	Max. Consumption		Demand		Maximum Demand			Minimum Demand		
	MU	Date	MU	Avg. (MW)	MW	Date	Time	MW	Date	Time
Apr'19	113.14	05.04.19	2786	3869	5151	04.04.19	20:00	2689	20.04.19	05:00
May'19	102.99	19.05.19	2638	3545	4635	18.05.19	24:00	1720	03.05.19	18:00
June'19	105.24	11.06.19	2653	3684	4790	11.06.19	23:00	2556	13.06.19	06:00
July'19	106.80	15.07.19	2744	3688	4899	15.07.19	21:00	2640	02.07.19	04:00
Aug'19	105.41	21.08.19	2924	3930	4901	16.08.19	21:00	3161	08.08.19	05:00
Sept'19	107.91	19.09.19	2780	3862	4969	18.09.19	20:00	2982	30.09.19	05:00
Oct'19	89.89	12.10.19	2519	3386	4385	20.10.19	19:00	2430	25.10.19	03:00
Nov'19	**83.34**	**02.11.19**	**2166**	**3008**	**4086**	**02.11.19**	**19:00**	**2020**	**09.11.19**	**03:00**
Nov'18	**92.71**	**06.11.18**	**2615**	**3632**	**4522**	**08.11.18**	**19:00**	**2959**	**26.11.18**	**03:00**

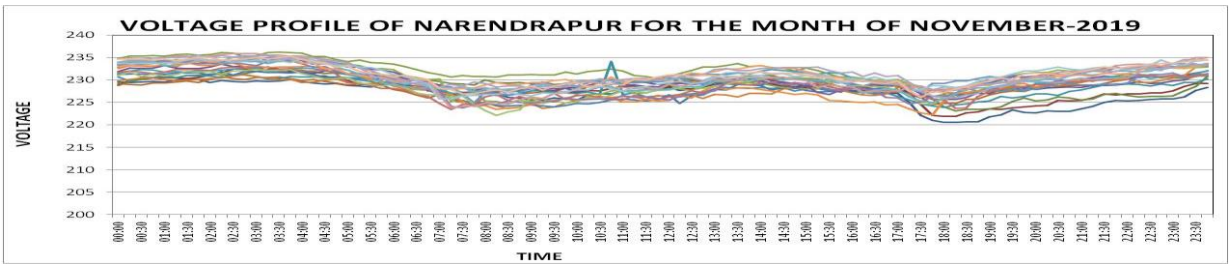
C. Voltage Profile of 220 kV Buses in OPTCL system for the month of: November'19

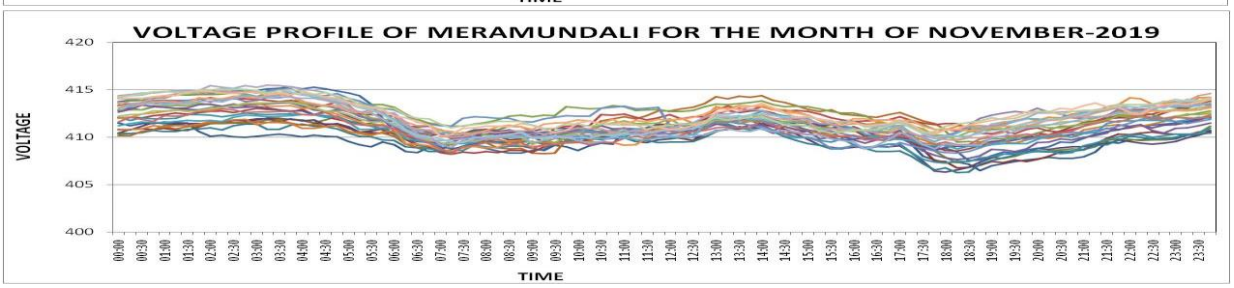
SUBSTATION	MAX VOLTAGE (KV)	DATE	TIME	MIN VOLTAGE (KV)	DATE	TIME
Atri	235.73	09-11-2019	03:15	222.86	01-11-2019	18:00
Balasore	237.00	09-11-2019	01:15	221.36	01-11-2019	17:30
Barkote	232.21	14-11-2019	02:00	224.70	20-11-2019	09:15
Bargarh	227.71	30-11-2019	01:45	215.87	26-11-2019	16:45
Bhadrak	234.17	09-11-2019	00:45	215.99	01-11-2019	17:30
Bhanjanagar	237.70	27-11-2019	03:15	226.32	01-11-2019	18:00
Bidanasi	238.33	30-11-2019	04:00	225.40	06-11-2019	18:00
Bolangir	230.42	27-11-2019	13:30	219.68	26-11-2019	16:30
Budhipadar	235.67	23-11-2019	05:30	222.45	29-11-2019	10:00
Chandaka	235.10	09-11-2019	03:15	220.78	01-11-2019	18:00
Cuttack	235.91	09-11-2019	03:30	221.01	01-11-2019	18:00
Duburi Old	233.77	09-11-2019	01:15	223.72	05-11-2019	18:30
Duburi New	242.20	09-11-2019	01:15	227.07	01-11-2019	17:30
Jayanagar	240.00	26-11-2019	02:45	231.29	21-11-2019	09:15
Joda	235.50	28-11-2019	03:00	224.88	04-11-2019	17:30
Katapalli	229.61	29-11-2019	01:00	220.66	23-11-2019	08:30
Lapanga	238.79	23-11-2019	05:45	227.53	10-11-2019	09:00
Laxmipur	239.89	05-11-2019	13:30	230.65	01-11-2019	18:00
Mendhasal	238.33	09-11-2019	03:15	224.53	01-11-2019	18:00
Meramundali	229.15	27-11-2019	03:45	222.34	04-11-2019	17:30
Narendrapur	236.19	09-11-2019	03:30	220.55	01-11-2019	18:15
Nayagarh	237.18	09-11-2019	02:15	206.86	26-11-2019	18:00
Paradeep	236.66	09-11-2019	01:15	213.85	01-11-2019	18:45
Tarkera	225.17	24-11-2019	14:00	219.57	05-11-2019	17:15
Theruvali	240.81	05-11-2019	13:15	228.63	01-11-2019	18:00
Rengali	229.32	14-11-2019	02:00	224.47	05-11-2019	17:45

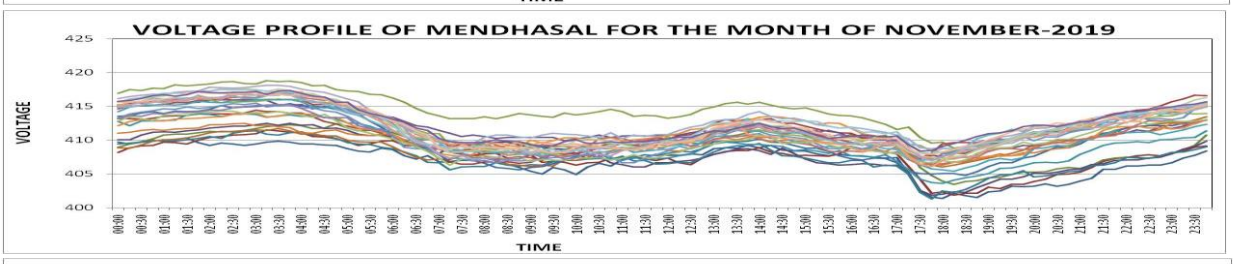
The maximum Voltage of **242.20 kV** occurred at **New Duburi 220 kV bus.**, while **Nayagarh** 220 kV bus has experienced the minimum Voltage of **206.86 kV.** The 220 kV Voltage profile of Jayanagar and Narendrapur ,and 400 kV Voltage profile of Mendhasal, Meramundali and New Duburi bus during the month of **Nov'2019** are indicated in System performance presentation.

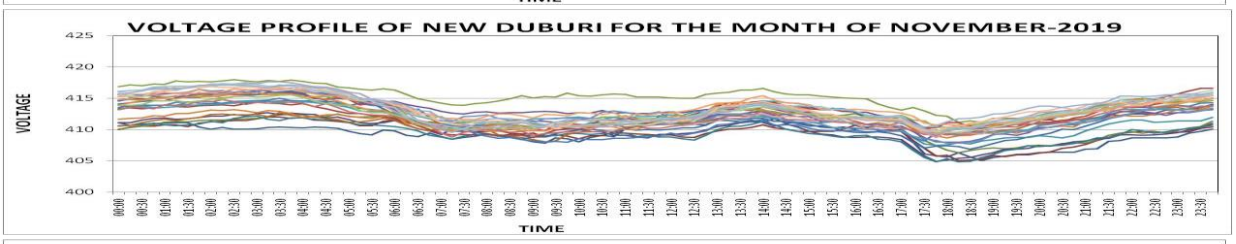
Members may discuss.

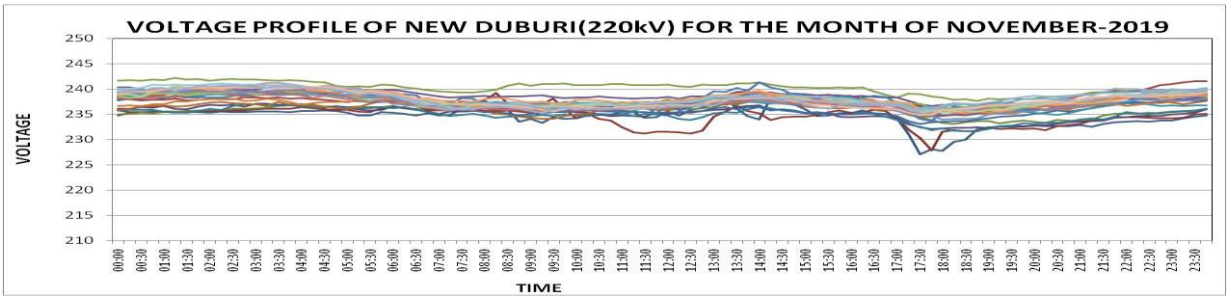


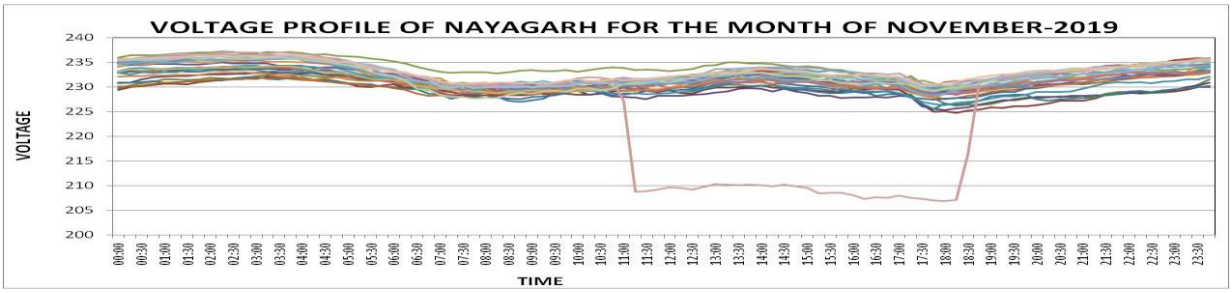












D. Loading of 220/ 132 kV Auto at 220 kV S/Ss in OPTCL system for the month of Nov– 2019.

AUTO TRANSFORMER LOADING FOR THE MONTH OF NOVEMBER'2019

Name of the 220 kV Sub-Station (Feeding Sub-stations/Feeders)	Capacity	Drawal details						REMARKS
		Maximum			Minimum			
	MVA	MW	Day	Time	MW	Day	Time	
ATRI	2x160	46.56	29th Nov 2019	18:00	3.28	17th Nov 2019	13:15	
{ Banki, Khurda, Chandpur &		46.56	29th Nov 2019	18:00	3.24	17th Nov 2019	13:15	
BALASORE 220/132 KV	3x160	80.52	5th Nov 2019	10:30	15.92	9th Nov 2019	06:30	
{ Balasore, Birla Tyre(I), Ispat		79.64	5th Nov 2019	10:30	16.00	9th Nov 2019	06:15	
Alloy(I), Jaleswar, Jaleswar(T)}		108.24	28th Nov 2019	07:15	16.76	9th Nov 2019	05:30	
BARGARH 220/132 kV	1x100	11.56	1st Nov 2019	16:45	1.72	14th Nov 2019	23:15	
	1x160	6.44	1st Nov 2019	16:45	0.52	14th Nov 2019	23:15	
BHADRAK 220/132 KV	1x100	26.84	1st Nov 2019	20:45	0.04	4th Nov 2019	23:30	
{Bargarh, Ghensh}	1x160	48.64	4th Nov 2019	23:45	0.80	9th Nov 2019	09:15	
	1x160	48.72	4th Nov 2019	23:45	1.28	9th Nov 2019	09:15	
BHANJANAGAR 220/132 KV	1x160	85.28	9th Nov 2019	08:45	10.84	7th Nov 2019	11:45	
{ Bhanjanagar, Aska, Phulbani,	1x160	59.12	1st Nov 2019	17:45	9.36	7th Nov 2019	11:45	
BIDANASI 220/132 KV	1x100	19.12	16th Nov 2019	17:30	0.04	5th Nov 2019	03:15	
{Bidanasi, Khurda }	1x100	18.96	16th Nov 2019	17:30	0.04	11th Nov 2019	05:15	
	1x160	27.12	16th Nov 2019	17:30	0.04	8th Nov 2019	09:30	
BOLANGIR (SADAIPALLI)	2x160	118.08	5th Nov 2019	17:45	1.20	22nd Nov 2019	12:15	
220/132 KV		124.16	5th Nov 2019	17:45	1.32	22nd Nov 2019	12:15	
BUDHIPADAR 220/132 KV	2x160	123.36	23rd Nov 2019	05:30	38.12	4th Nov 2019	00:15	
{ Jharsuguda, Jharsuguda Tr,		124.12	23rd Nov 2019	05:30	35.80	10th Nov 2019	12:15	
CHANDAKA 220/132 KV	1x100	64.12	6th Nov 2019	17:45	18.72	9th Nov 2019	02:45	
{ Chandaka, Bhubaneswar,	1x160	112.32	6th Nov 2019	17:45	33.20	9th Nov 2019	03:00	
Nimapada, Ransinghpur,	1x100	58.76	5th Nov 2019	18:15	20.60	9th Nov 2019	03:00	
Puri,Kesura, Kaipadar Tr. }	1x160	108.72	6th Nov 2019	17:45	31.96	9th Nov 2019	03:00	
CUTTACK	1x160	39.96	27th Nov 2019	21:15	7.92	9th Nov 2019	02:30	
	1x100	47.40	15th Nov 2019	17:45	4.68	8th Nov 2019	23:30	
DUBURI 220/132 KV	1x160	35.40	6th Nov 2019	18:15	0.08	16th Nov 2019	15:15	
{Duburi, Bamnipal(I), BRPL,	1x100	22.32	6th Nov 2019	18:15	0.28	16th Nov 2019	15:15	
MESCO, Jajpur Road, Kalarangi,	1x100	21.28	6th Nov 2019	18:15	0.28	16th Nov 2019	15:15	
JAYANAGAR 220/132 KV.	1x160	42.96	22nd Nov 2019	18:45	0.04	10th Nov 2019	13:30	
[Damanjodi(NALCO), Traction	1x160	43.36	22nd Nov 2019	18:45	0.04	2nd Nov 2019	13:45	
JODA 220/132 KV	3x100	56.64	29th Nov 2019	19:15	26.32	21st Nov 2019	14:45	*"*" - Alternate P/S*
{ Joda,Tensa, FAP(I), Bolani(I),		66.48	19th Nov 2019	20:30	27.68	21st Nov 2019	14:45	*from Kuchei.*
Nalda Tr.,Polasponga,		66.00	19th Nov 2019	20:30	27.28	21st Nov 2019	14:45	
KATAPALI 220/132 KV	1x100	27.20	7th Nov 2019	10:30	0.04	4th Nov 2019	11:45	*Supported by Burla*
{Chipilima,Bargarh, ACC,Sonepur	1x100	24.64	15th Nov 2019	18:15	0.04	1st Nov 2019	06:45	*& Chipilima power.*
& Katapali area load.}	1x160	41.00	7th Nov 2019	10:30	0.04	2nd Nov 2019	21:30	
LAPANGA	2x160	64.48	15th Nov 2019	18:00	8.84	23rd Nov 2019	05:30	
{Kuchinda, Aryan Viraj, Shyam		64.28	15th Nov 2019	18:00	8.88	23rd Nov 2019	05:30	
MERAMUNDALI 220/132 kV	3x100	25.52	16th Nov 2019	18:15	0.04	9th Nov 2019	14:00	
{Meramundali Traction,		25.16	30th Nov 2019	18:00	0.04	9th Nov 2019	07:00	
Dhenkanal, Navchrome(I), Hind		24.52	17th Nov 2019	18:00	0.04	23rd Nov 2019	00:00	
Mendhasal *{ Part area load of*	2x100	54.60	5th Nov 2019	09:00	12.60	9th Nov 2019	00:30	
Khurda S/S}		46.80	24th Nov 2019	05:00	0.60	5th Nov 2019	08:00	
NARENDRAPUR 220/132KV	2x160	97.80	1st Nov 2019	18:15	37.48	19th Nov 2019	12:15	
{ Narendrapur, NarendrapurTr,		112.88	2nd Nov 2019	11:45	37.28	19th Nov 2019	10:15	
Berhampur, Chhatrapur, Ganjam,	1x100	65.44	2nd Nov 2019	11:45	21.20	19th Nov 2019	12:15	
PARDEEP 220/132 KV	1x100	47.72	4th Nov 2019	19:00	1.68	8th Nov 2019	23:45	
{ Paradeep, Kendrapada,	1x160	79.00	4th Nov 2019	18:45	3.08	8th Nov 2019	23:45	
Pattamundai, Chandikhol,	1x160	80.68	4th Nov 2019	19:00	3.12	8th Nov 2019	23:45	
TARKERA 220/132 KV	4x100	61.16	30th Nov 2019	08:15	13.00	2nd Nov 2019	21:00	
[Rourkela, Rourkela Tr.,RSP(I),		61.80	30th Nov 2019	08:15	18.00	2nd Nov 2019	20:45	
Chhend , Adhunik Metal,		60.12	30th Nov 2019	08:15	20.12	23rd Nov 2019	05:45	
Rajgangpur, OCL(I), Rajgangpur		60.24	30th Nov 2019	08:15	17.12	2nd Nov 2019	20:45	
THERUVALLI 220/132 KV.	2x100	46.56	20th Nov 2019	17:45	6.52	30th Nov 2019	13:30	*Rayagada &*
{Theruvali, IMFAL(I), JK(I),		66.00	6th Nov 2019	16:45	4.60	6th Nov 2019	13:30	*Paralakhemundi can be*
Junagarh, Kesinga,Powmex(I),	1x160	75.68	20th Nov 2019	17:45	9.28	30th Nov 2019	13:30	*fed from Machhkund*
								system.
TTPS 220/132 KV	1x160	89.99	22nd Nov 2019	02:30	0.00	15th Nov 2019	11:00	
{ Chainpal, FCI (I), Angul, MCL	1x160	89.99	22nd Nov 2019	02:30	0.00	15th Nov 2019	11:00	
SAMANGARA	2x160							
{ Puri, Nimapara & Konark}								

E. DISCOM Drawal up to the month of November'19

Name of DISCOM	Month	Approved Energy Drawal Prorated for the month (MU)	Scheduled Energy (MU)	Actual Energy Drawal (MU)	Open Access Import Schedule (MU)	Net Energy Drawal (MU)	Overdraw (MU)
		1	2	3	4	5=(3-4)	6=(5-2)
CESU	Apr'19	798	760.542	857.404	18.345	839.059	78.517
	May'19	770.33	664.438	689.035	16.166	672.869	8.431
	June'19	798	758.651	793.853	17.431	776.422	17.771
	July'19	770.33	778.505	798.994	15.847	783.147	4.642
	Aug'19	770.33	745.852	785.057	14.196	770.861	25.009
	Sept'19	798	766.486	755.33	15.336	739.994	-26.492
	Oct'19	770.33	739.392	740.459	16.154	724.305	-15.087
	Nov'19	798	**595.388**	**610.682**	**17.688**	**592.994**	**-2.394**
WESCO	Apr'19	635	649.188	856.374	149.999	706.375	57.187
	May'19	604.71	703.036	841.28	100.32	740.96	37.924
	June'19	635	656.64	789.792	110.175	679.617	22.977
	July'19	604.71	670.083	835.876	143.639	692.237	22.154
	Aug'19	604.71	637.41	1043.79	423.111	620.682	-16.728
	Sept'19	635	650.296	908.15	281.184	626.966	-23.33
	Oct'19	604.71	605.866	678.503	71.157	607.346	1.48
	Nov'19	635	**564.911**	**695.851**	**165.109**	**530.742**	**-34.169**
NESCO	Apr'19	517	478.905	600.692	99.608	501.084	22.179
	May'19	521.48	508.934	629.852	89.858	539.994	31.06
	June'19	517	490.244	607.403	105.15	502.253	12.009
	July'19	521.48	532.112	660.208	131.831	528.377	-3.735
	Aug'19	521.48	493.554	627.779	128.157	499.622	6.068
	Sept'19	517	451.669	557.042	99.737	457.305	5.636
	Oct'19	521.48	446.652	556.344	105.563	450.781	4.129
	Nov'19	517	**372.351**	**482.904**	**103.582**	**379.322**	**6.971**
SOUTHCO	Apr'19	331	303.576	334.361	0	334.361	30.785
	May'19	310.85	320.055	336.003	0	336.003	15.048
	June'19	331	318.393	324.819	0.116	324.703	6.31
	July'19	310.85	315.891	305.83	0.061	305.769	-10.122
	Aug'19	310.85	291.711	296.609	0	296.609	4.898
	Sept'19	331	298.482	290.17	0.007	290.163	-8.319
	Oct'19	310.85	285.153	283.453	0.263	283.19	-1.963
	Nov'19	331	**262.522**	**254.704**	**0**	**254.704**	**-7.818**

The figures are as per EBC data. Energy drawal by SOUTHCO are excluding of energy consumed by NALCO at Damanjodi and IMFA at Theruvali.

Members may please discuss.

F. Energy Generation / Import up to the month of November'19

Figures in MU

Month	Thermal (TTPS+IbTPS)	OHPC & MKD	CGP Support	IPP Inj.	RE	ISGS	Total
April'19	588.681	538.473	308.480	263.019	29.852	1057.035	2785.540
May'19	608.185	571.561	290.845	203.850	46.247	916.949	2637.637
June'19	581.856	414.962	329.321	212.683	47.362	1066.419	2652.603
July'19	566.902	407.505	363.839	198.433	46.030	1171.210	2753.919
Aug'19	359.551	836.840	345.534	56.723	46.535	1278.578	2923.761
Sept'19	828.709	808.759	328.938	75.013	44.608	694.453	2780.479
Oct'19	931.846	815.124	201.462	170.221	43.395	357.406	2519.453
Nov'19	**1002.867**	**462.376**	**284.32**	**174.39**	**39.004**	**202.254**	**2165.561**
Total	**5468.60**	**4855.60**	**2452.74**	**1354.33**	**343.03**	**6744.30**	**21218.95**

G. Drawal of Machhakund Power

The drawal of Machhakund power up to the month of **November'19** are as detailed**:**

Month	Total Generation		Odisha Drawl		AP Drawl	
	MU	Avg (MW)	MU	Avg (MW)	MU	Avg (MW)
Apr'19	53.168	73.84	24.896	34.58	26.401	36.67
May'19	60.577	81.42	26.811	36.04	31.821	42.77
June'19	52.203	72.50	22.395	31.10	30.840	42.84
July'19	59.779	80.35	26.579	35.73	31.116	41.82
Aug'19	53.318	71.66	24.773	33.30	27.139	36.48
Sept'19	52.348	72.706	23.869	33.151	26.276	36.494
Oct'19	51.532	69.263	23.229	31.222	25.936	34.860
Nov'19	**55.359**	**76.888**	**26.311**	**36.543**	**26.995**	**37.493**
Total	**438.284**		**198.863**		**226.524**	

In the 136th PSOC meeting Southco stated that Dasmantpur feeder in expected to be charged today i.e. on 21.08.2019.

Sr.GM (O&M), Zone –I suggested to explore the following link lines for providing adequate matching load in Machhakund system.

i. Connecting Patangi S/S or Proposed Lamtaput S/S with Podagada S/S through 132 kV link.
ii. Providing Sunabeda S/S area load in Machhakund system
iii. Modification of Jayanagar S/S to accommodate Jayanagar load

In the 137th PSOC meeting, SOUTHCO stated that 33 kV Dasmantpur feeder did not stand after charging. Insulators are being changed by the contractor. Sr. GM (Const) stated that 132 kV Patangi-Podagada line is under construction and expected by March'2020. He also suggested to utilize 132 kV NALCO-Sunabeda line to feed Sunabeda area load from Machhakund system by bus splitting.

In the 139th PSOC meeting SOUTHCO stated that insulator changing of Dasmantpur feeder is under progress. It was suggested that GRIDCO may convene a meeting with PMU for early restoration of the feeder, so that, more matching load can be provided in Machhakund system. SLDC may write to PMU to ascertain the status of feeders at Podagada S/S.

GRIDCO / O&M/SLDC/SOUTHCO may deliberate.

H. Under Frequency Relay operation in OPTCL System during the month of November'19.

Since, the frequency had never gone beyond the lowest setting of UFR, there was no UF Relay operation occurred during the month of **November'19.**

I. Status of Open Access applications up to the month of November'2019

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

Sl. No	Month	No of Applications received					No of Applications Disposed					No of App. Rejected	MU
		Intra - State	Inter-State			Total	Intra - State	Inter-State			Total		
			Bilateral		PX			Bilateral		PX			
			ST	MT/ LT				ST	MT/ LT				
1	April'19	48	100	0	24	172	48	100	0	24	172	0	522.98
2	May'19	21	92	0	29	142	21	92	0	29	142	0	487.30
3	June'19	49	106	0	32	187	49	106	0	32	187	0	641.01
4	July'19	94	60	0	28	182	94	60	0	28	182	0	726.36
5	Aug'19	114	132	0	38	284	110	132	0	38	284	4	904.48
6	**Sept'19**	66	122	0	58	246	66	122	0	58	246	1	576.64
7	**Oct'19**	42	43	0	34	119	42	43	0	34	119	0	360.33
8	**Nov'19**	66	50	0	35	151	66	50	0	35	151	0	593.07
	Total	**458**	**662**	**0**	**244**	**1364**	**458**	**662**	**0**	**244**	**1364**	**5**	**4812.17**

PART C – Issues discussed in the 164th OCC meeting of ERPC on 23.12.2019

C.1: Review of implementation of PSDF approved projects of Eastern Region.

NLDC (POSOCO) being the Nodal Agency for PSDF schemes, is carrying out PSDF Secretariat function under directions of MoP. Recently NLDC is directed by MoP to disburse the PSDF sanctioned funds as early as possible as its non-utilization is being viewed seriously by MoP on various fora.

All the constituents are requested to furnish/update the status of their respective project in every OCC and also requested to submit requisition for disbursement to NLDC at the earliest by 1st February 2020, so that amount may be released by 31st March 2020C.

The latest status as updated by OPTCL / OHPC is as given below:

Sl No	Name of Constituent	Name of Project	Date of approval from PSDF	Target Date of Completion	PSDF grant Approved (in Rs.)	Amount Drawn till date (in Rs.)	Status as updated in 129th meeting
4	OPTCL	Renovation & Up-gradation of protection and control systems of Sub-stations in the State of Odisha in order to rectify protection related deficiencies.	11.05.15	31.03.20	162.5 Cr. Total expenditure may not exceed Rs. 68 Cr.	38.09 Cr. Received Rs. 8.00 Cr on 28.03.19	***Work almost completed*.**
7		Implementation of OPGW based reliable communication at 132kV and above substations	15.11.2017		51.22 Cr	2.56 Cr received as 10 % DPR. Claimed for 20 %.	Order placed. Expected by Nov'19. Inspection under process.
13	OHPC	Renovation & up-gradation of protection & control system of 4 nos. OHPC sub-stations		U.Kolab-March 19 Balimela-Feb 2019 U.Indravati-Jan 19 Burla-Nov18 Chiplima Dec 2018	22.35 Cr.	2.674 Cr	***Placed work order for Balimela. PO for other units amounting Rs. 12.79 Crs placed. Order under process.***
Projects under process of approval:							
	OPTCL	Installation of 125 MVAR Bus Reactor along with construction of associated bay each at 400kV Grid S/S of Mendhasal, Meramundali & New Duburi for VAR control & stabilisation of system voltage	27-07-18		31.94 Cr Ested. Cost. Approved amount 30.26 Cr. Grant amount 27.23 Cr.	Rs.2.72 Cr received as 10% of DPR. Retendering under process.	Agreement sent to NLDC for signature. The L-1 bidding proce ia higher than the estimated cost..Expected by end of Dec'19.
Projects recently submitted:							
	OPTCL	Implementation of Automatic Demand Management System (ADMS) in SLDC, Odisha	22-12-17 Date of submission		3.26 Cr Estt cost. 2.93 Cr recommended by Appraisal committee.		CERC approval received. Tendering under process.
	OPTCL	Protection up gradation and installation of SAS for seven numbers of 220/132/33kV Grid substations (Balasore, Bidanasi, Budhipadar, Katapalli, Narendrapur, New-Bolangir & Paradeep).	12.03.2018 Date of submission		41.1 Cr Estt cost	10% of DPR to be asked.	Project approved. Tender to be opened on 16th Dec'19. Agreement will be sent to NLDC after signature byGovt.

CGM (Const)/CGM (O&M) / OHPC may deliberate

C.2: Automatic Under Frequency Load Shedding (AUFLS) Scheme

In the 2nd meeting of NPC held on 16th July 2013, the following AUFLS scheme with 4 stages of frequency viz. 49.2 Hz, 49.0 Hz, 48.8 Hz & 48.6 Hz had been decided to implement in all the regions:

AUFLS	Frequency (Hz)	Load Relief in MW					
		NR	WR	SR	ER	NER	Total
Stage –I	49.4	2160	2060	2350	820	100	7490
Stage –I	49.2	2170	2070	2360	830	100	7530
Stage –I	49.0	2190	2080	2390	830	100	7590
Stage –I	48.8	2200	2100	2400	840	100	7640
Total		8720	8310	9500	3320	400	30250

The scheme had been implemented throughout the country.

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In 9th NPC meeting held on 22.11.2019, it was decided to implement the AUFLS scheme with 4 stages and raising the frequency by 0.2 Hz viz. 49.4, 49.2, 49.0 & 48.8 Hz by keeping the quantum for AUFLS same as decided in 2nd NPC Meeting. It was also decided that a committee with all RPCs and NLDC would study and review the required quantum for each slab of AUFLS and submit a report to NPC. Minutes of the meeting are awaited.

The total load quantum for ER constituents is given below:

Control Area	Stage –I (49.4 Hz) (MW)	Stage –II (49.2 Hz) (MW)	Stage–III (49.0Hz) (MW)	Stage–IV (48.8Hz) (MW)	Total Relief by Control Area
Bihar	98	99	99	101	397
Jharkhand	61	62	61	62	246
DVC	134	135.5	136	137	542.5
Odisha	181.5	183.5	184	186	735
WB & CESC	345.5	350	350	354	1399.5
Total	820	830	830	840	3320

In 42nd TCC, all the constituents were advised to implement the revised AUFLS scheme as per the NPC decision within a month and submit a report to ERPC Secretariat and ERLDC.

TCC decided to review the implementation status in the next OCC Meeting.
O&M may update.

C.3: Implementation of Automatic Generation Control in Eastern Region--ERLDC

In compliance to CERC's direction in order dated 06/12/2017 in petition no 79/RC/2017, AGC was commissioned in NTPC Barh on 01st August 2019 and operationalized since 23rd August, 2019.

Vide order dated 28th August 2019, CERC in Petition No.: 319/RC/2018 directed that all the ISGS stations whose tariff is determined or adopted by CERC shall be AGC-enabled and the ancillary services including secondary control through AGC be implemented as per the following direction:

I. All thermal ISGS stations with installed capacity of 200 MW and above and all hydro stations having capacity exceeding 25 MW excluding the Run-of-River Hydro Projects irrespective of size of the generating station and whose tariff is determined or adopted by CERC are directed to install equipment at the unit control rooms for transferring the required data for AGC as per the requirement to be notified by NLDC. NLDC shall notify the said requirements within one month of this order.

II. All such ISGS stations whose tariff is determined or adopted by CERC shall have communication from the nearest wide band node to the RTU in the unit control room.

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IX. All new thermal ISGS stations with installed capacity of 200 MW and above and hydro stations having capacity exceeding 25 MW excluding the Run-of-River Hydro Projects irrespective of size of the generating station and whose tariff is determined or adopted by CERC shall mandatorily have the capability to provide AGC support.

In the 162nd OCC, it was clarified that AGC signal for intra-state generating stations would be generated by the concerned SLDC and the relevant communication path is to be established between SLDC to plant. For ISGS stations, the AGC signal would be sent from NLDC.

All concerned plants may please ensure taking necessary action for arranging the communication (through redundant and alternate paths) from the existing nearest wideband communication node to their unit control rooms through two fibre optic cables, in coordination with CTU. It may please be noted that all the ISGS stations whose tariff is determined by or adopted by CERC should be AGC-enabled before 28th February 2020, as per order of CERC.

OCC suggested that even though the total capacity is tied up with GRIDCO, depending the area control error during low/high frequency scenario, the generation can be increased / decreased up to 5% by sending AGC signal from SLDC. Member Secretary advised OPGC to submit their action plan within 7 days for implementation of AGC. Further OPGC may depute their officers to visit Barh NTPC station to study the mechanism they have adopted for AGC. SLDC may interact with NLDC in this regard.

Summary status of implementation of AGC

Unit#3 of OPGC	SLDC, Odisha and OPGC agreed to submit their plan by 1st week of Nov19

In 42nd TCC, DVC intimated that AGC shall be implemented in unit 7 and 8 of Mejia as per the given schedule by 31st July 2020.

Odisha informed that SLDC and OPGC will sit together and finalise the scheme.

WBPDCL informed that they have already collected offer from Siemens for implementation of AGC and they are awaiting the concurrence from SLDC.

SLDC, WB informed that they are not in a position to implement AGC unless a clear direction is given by WBERC. Further, implementation of intra state DSM is a prerequisite for implementation of AGC in the state.

It was decided to request CERC to include this as an issue in the Agenda for discussion in the meeting of Forum of Regulators.

SLDC/ OPGC may deliberate

C.4: Implementation of Automatic Demand Management Scheme

The latest status along with proposed logic as follows:

Sl. No	State /Utility	Logic for ADMS operation	Implementation status/target	Proposed logic (if different from under implementation logic
1	Odisha	1. System Frequency < 49.9 Hz 2. Odisha over-drawl > 150 MW 3. DISCOM over-drawl > (40 MW)	10 Months Sent for PSDF approval	Logic 2 and 3 is AND or OR, in case it is AND then ADMS may not operate when DISCOMs are in schedule but GRIDCO is over drawing due to less generation at State embedded generators.

In the 138th PSOC meeting SLDC stated that technical sanction has been done and forwarded to CPC for tendering.

In the 139th PSOC meeting SLDC stated that tendering is expected by December'2019.

SLDC may deliberate.

C.5: Auxiliary power consumption by Powergrid Substations--GRIDCO

As per decision of Special meeting on this issue held at ERPC on 10.07.2018, drawal of auxiliary power through tertiary winding by Powergrid substations shall be treated as drawal by Powergrid from the DISCOM (s). For this, Powergrid shall approach the concerned DISCOM(s) and shall complete all the necessary formalities to become a consumer of the concerned DISCOM.

Powergrid is not becoming the consumer of DISCOM Utility as a result of which, GRIDCO/DISCOM(s) are unable to realize the revenue from Powergrid, whereas GRIDCO is paying for the said quantum of energy consumed by Powergrid since October, 2017.

The above issue was deliberated in 163rd OCC meeting held at Puri, Odisha on 15.11.2019, wherein Powergrid informed that DISCOMS (WESCO & CESU) are asking POWERGRID to pay for the Security Deposit, Maximum Demand charges and Meter rent etc. Powergrid stressed that, as the entire infrastructure for auxiliary power consumption through tertiary was provided by POWERGRID only and not by the DISCOMs, these charges are not applicable in this case. Powergrid further informed that they are not paying such charges for other states. DISCOMs informed that they are requesting for the payment of Security Deposit, Maximum Demand charges and Meter rent etc. in line with the OERC Regulations.

DISCOMs informed that they would not have any objection in case OERC allows any exemption to Powergrid in this matter.

After detailed deliberation, OCC advised Powergrid to file a petition before OERC for exemption of Security Deposit, Maximum Demand charges and Meter rent etc.

WESCO vide letter dated 16/11.2019/ 12.12.2019 requested GRIDCO to withdraw the quantum of energy billed to DISCOM towards auxiliary power consumption of Powergrid through its tertiary winding of ICT till finalization of Petition to be filed by PGCIL before OERC.

In view of the above, GRIDCO suggest that DISCOMs need to raise the bill to Powergrid on the quantum of energy billed to DISCOMs by GRIDCO on monthly basis till finalization of the issue of Security deposit, Maximum demand charges & Meter rent. A copy of the bill should be marked to GRIDCO every month**.**

All DISCOMS/ POWERGRID may deliberate.

C.6: Review of the PSS Tuning of Generators in Eastern Region --ERLDC

On 31st January 2019, PSS Tuning Meeting was held at ERPC. All generating utilities were advised to complete the PSS tuning of their plant at earliest for improvement of damping in the grid during transients. In addition, the tuning reports have also to be submitted to ERLDC/ERPC for their validation.

In line with this ERLDC has communicated to following utilities in view of the recent oscillation observed during various events:

Generating Power Plant	**Remarks**	**Status of Action Plan to be informed to OCC**
All Units of OPGC and OHPC,	PSS are tuned long back and in many units PSS have not been tuned but are in service.	OPGC Units-February;2010.
GMR	Was done in 2013 and retuning is required with change in the network at Angul.	During overhauling in Dec'2020
Sterlite 4 X 600 MW	Due to network changes.	Plan not yet submitted (Orissa SLDC)

In the 139th PSOC meeting, Vedanta assured to submit the plan before the next meeting.

OHPC/ GMR / OPGC / Vedanta may deliberate.

C.7: 220 kV Inter-connecting lines of OPTCL with 400/220 kV Bolangir(PG), Keonjhar & Pandiabil S/s

PGCIL has already commissioned the 2 X 315MVA 400/220kV Bolangir S/s by LILOing of 400 kV Meramandali-Jeypore S/C line and 400/220 kV Keonjhar S/s with an objective of supplying power from ER grid to its adjoining areas in Odisha.

In 139th PSOC meeting the status has been updated as follows:

Sl.	Name of the transmission line	Completion schedule
1.	**2 X 315MVA 400/220kV Bolangir S/s**	
a.	LILO of one circuit of Sadeipalli-Kesinga 220 kV D/C line at Bolangir (PG) S/S.	Construction of 220 kV Sadeipali- Kesinga line has started. 220 kV Sadeipali-Bolangir (PG) portion of the line is expected by March'20.
2.	**400/220 kV Keonjhar S/S.**	
a.	Keonjhar (PG)-Keonjhar (220/33 kV) & 220 kV D/C line	220 kV S.C line and Keonjhar S/S (220/33 kV), 2x20 MVA charged on 31.12.2018. 2nd ckt; charged on 03.08.2019.
b.	Keonjhar (PG)-Turumunga (220/132 kV) & 220 kV D/C Line.	By 2021. Order placed.
3.	**400/220 kV Pandiabil Grid S/s**	
a.	Pratapsasan(OPTCL)-Pandiabil (PG) 220 kV D/C	December'2019

C.GM (Cont) / CGM (Telecom) may update.

C.8: Bypassing arrangement of LILO of 400kV Lines at Angul

LILO of Meramundali-Bolangir/Jeypore 400 kV S/C line and LILO of one Ckt of Talcher-Meramundali 400 kV D/C line has been done at Angul 765/400kV Sub-station. The bypass arrangement for these circuits is under implementation at Angul by Powergrid.

In 158th OCC, Powergrid informed that bypass arrangement would be completed by August 2019.
OPTCL informed that 2nd circuit of 400 kV Meramundali-Mendhasal line would be commissioned by 1st week of August 2019.
OPTCL informed that 2nd circuit of 400kV Meramundali-Mendhasal line would be commissioned by end of August 2019.

As per POWERGRID email dated 16th September, the anticipated date for commissioning of the LILO by-pass arrangements at Angul SS is by end of Oct'2019.

OCC advised POWERGRID to take urgent steps for commissioning of the bypass arrangement. Delay in implementation of the arrangement is causing loss of operational flexibility besides subjecting the grid to the risk of high fault current.

In the 137th PSOC meeting, DGM (Const) stated that 3rd ICT at Mendhasal in under testing. O&M stated that tree clearance has already been completed. After commissioning of the ICT, 400 kV Mendhasal-Meramundali 2nd ckt will be charged.

Const. wing stated that a committee has been formed to examine the oil sample test result for charging of the 3rd ICT at Mendhasal. A decision shall be taken after receiving the views of the Committee.

O&M stated that 3rd ICT at Mendhasal is expected to be charged by end of December'19
In 139th PSOC meeting, O&M stated that 3rd ICT at Mendhasal is expected to be charged by end of December'19.

O&M may update.

C.9: 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:

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Issues relating OPTCL Network:

Narsingpur data:
In the 132nd PSOC meeting CGM (Telecom) stated that survey work for Meramundali-Bhanjanagar line is under process. OPGW will be reached at site after completion of survey and preparation of drum schedule.

In the 134th meeting CGM (Telecom) stated that delivery of OPGW has already been started.

In the 135th PSOC meeting DGM (Telecom) stated that replacement of earth wire by OPGW in 220 kV Bhanjanagar-Meramundali is expected by December'2019

NALCO data: DGM (Telecom) stated that the vender 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.

Telecom / NALCO may deliberate the status

C.10: Mock Black start exercises in Eastern Region – ERLDC

Schedule and tentative date for conducting mock black start exercise in OHPC stations is as tabled.

Sl.	Name of Hydro Station	Schedule	Tentative Date	Schedule	Tentative Date
		Test-I		Test-II	
1	Upper Kolab	Last week of May-2019	Done on 19th July19	Last week of January 2020	
3	Rengali	2nd week of June 2019	Done on June'19	Last week of November 2019	
4	U.Indravati	3rd week of June 2019	Done on June'19	2nd week of February 2020	
6	Balimela	3rd week of October 2019	Done on 17th July19	1st week of March 2020	Dec'2019
9	Burla	Last week of June 2019	Done on 20th July' 2019	Last week of February 2020	Dec'2019

SLDC / O&M/ OHPC may deliberate

C.11: Collection of modeling data from Renewable as well as conventional energy generators: ERLDC

As a National Grid operator, POSOCO is continuously working for ensuring reliability and security of the Grid. With penetration of more and more renewable energy source the task is becoming complicated day by day. An accurate dynamic modeling of the National Grid needs modeling of conventional as well as renewable / distributed generation sources. World Bank has engaged Digsilent as consultant for assisting POSOCO for building dynamic model of the Grid. A guideline for dynamic data collection has been developed in consultation with Digsilent Pacific team. All the utilities are requested to collect data from the grid scale renewable power plants as well as from conventional power plants under their jurisdiction and submit the same to ERLDC/ERPC as early as possible.

In the 157th OCC advised all the SLDCs to submit the details to ERPC and ERLDC Format along with an explanation for collection of Wind and Solar Data had been shared by ERLDC with all SLDCs.

Bihar/ West Bengal and Orissa are having Solar Plant with more than 5 MW capacity. However, details have not yet been received in terms of modeling data.

In the 132nd PSOC meeting, all generators as well as RE sources were requested to furnish data to SLDC for onward transmission to ERPC.

In the 138th PSOC meeting, GRIDCO stated that they have received some of the Solar plant data, which will be forwarded to SLDC. SLDC requested GRIDCO to forward all the PPAs made with the Solar projects of the State.

SLDC has forwarded data for 5 Nos of Solar projects of the State namely: 1.Sadipali, Aftab, Jyoti, Dakhin Odisha and Vento Power at Kesinga to ERLDC. GRIDCO may explore for collection of the remaining plants data.

In the 139th PSOC meeting, GRIDCO stated that they have asked the remaining Solar projects to submit the information of their respective plant.

GRIDCO / SLDC may update

C.12: 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 the 139th PSOC meeting, O&M wing assured to furnish the data in coordination with Const. wing of OPTCL.

CGM (O&M) / C.G.M. (const.) may deliberate.

C.13: Long term outage of transmission elements

400 kV main bay at Indravati (PG) is out of service since last 2 years for breaker problem at Indravati (PG). Line is charged through main bay of 125 MVA B/R breaker on bus-II. As decided in the meeting between POWERGRID and OPTCL, the breaker has to be replaced by OPTCL. OPTCL may expedite the work for operational flexibility.

In the 16th GCC meeting Sr. G.M (O&M) Zone – I stated that the breaker was transferred to the site. Removal of old breaker foundation is under progress. The delay was due to difficulty in breaking the foundation.

OPTCL stated in the OCC meeting that the breaker commission work is expected to be completed by end of November'19

O&M may update the status

C.14: 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.

Sr. G.M (IT) /Telecom may update.

C.15: Submission of Thermal Loading of Transmission line and associated terminal equipment by ISTS licensee

Thermal Loading of Transmission line and associated terminal equipment is one of the most vital data which is utilized for Operation Purpose, calculation of ATC/TTC and various other studies. This information has to be submitted by the transmission utilities. However even after regular follow-up in past several OCC meetings, significant delay has been observed in submission. Status of submission of data up to first week of December 2019 is as follows:

Name of Utility	**Whether End Equipment Rating Submitted or Not?**
OPTCL	Submitted (Revised list given to OPTCL for submission)

O&M may update the status

PART-D – Operational Issues

D.1: Non-compliance of drawal schedule by DISCOMs

Non-compliance of drawal schedule messages issued to Discoms during the month of **Nov'19**:

Sl. No	Name of Discom	No. of message issued	Over drawal (MU)	Deviation (%)
1	CESU	0	-2.394	0.402
2	WESCO	0	-34.169	6.048
3	NESCO	0	6.971	1.872
4	SOUTHCO	0	-7.818	2.978
	Total	**0**	**-37.410**	

It is noticed that all DISCOMs except NESCO were underdrawn while NESCO had overdrawn during the month. **WESCO** has deviated **6.048%** followed by SOUTHCO 2.978**%** from the scheduled energy while **NESCO & CESU** have deviated **1.872 %** & **0.402 %** respectively. DISCOMs may forecast their drawal in realistic approach to minimise deviation. Daily drawal profile of all DISCOMs is as indicated in the presentation.

SLDC/ Discoms may deliberate.

D.2: 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.

GRIDCO may deliberate the status.

D.3: Data communication from newly commissioned RE sources connected at 132 kV- SLDC

There are as many 8 Nos. of Solar projects with installed capacity of 272.5 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 Vinto 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.

SLDC /Telecom may deliberate the status.

D.4: 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.

GRIDCO may deliberate the status.

D.5: Information regarding RE Sources for RPO Compliance monitoring.

MNRE, Govt. of India has asked to provide information regarding source wise contracted capacity and power drawl from Solar/ Non Solar and large Hydro generators on monthly basis for RPO Compliance monitoring. GRIDCO has forwarded the information up to the month of September 2019, which was submitted to MNRE. It is requested that GRIDCO may furnish the information to SLDC by end of 1st week of each month, so that the same shall be submitted to MNRE by 1oth day of each month. The letter of MNRE and format was enclosed as Annexure-1.

In the 139th PSOC meeting GRIDCO agreed to forward the information in the prescribed format to SLDC by 1st week of each month. The information for the month of October'19 & November'19 is yet to be received.

GRICO may deliberate.

D.6: Implementation of Automatic Meter Reading for OPTCL-Discom interface points.

In the 116th PSOC meeting, IT stated that out of 840 nos. of meters integrated, around data from 750 nos. of meters will be received each month. Data from the remaining 90 meters are to be collected manually.

In the 138th PSOC meeting IT stated that software development is under progress and expected to be completed for CESU area energy meters.

In the 139th PSOC meeting IT stated that M/S TCS has assured to extract 90% of meter data from CESU & SOUTHCO interface meters.

IT / SLDC may update the status

D.7: Repair of OPGW, Ground wire and doubling of jumpers & summation meters for 220 kV RSP DC lines. – RSP Agenda

1. Repair of OPGW at Tower-33 &34 zone of 220 kV RSP-Tarkera DC line, which was defective on 2nd Sept'19 due to disturbance.
2. Restoration of fallen ground wire at diamond crossing with PGCIL line.
3. Doubling of all jumpers in 220 kV RSP-Tarkera ckt-1&2, damaged due to over loading.
4. Summation meters for all 4 Nos 220 kV RSP-Tarkera lines.

In the 139th PSOC meeting, Telecom/ O&M stated that the work will be taken up by next week after inspection. O&M shall make a thorough check of the line and take up the restoration work of the ground wire and examine for doubling the jumpers. Regarding providing summation meter, members stated that there is no such provision in the CEA Metering Code.

Sr. G.M (Telecom)/ CGM (O&M)/RSP may deliberate the status.

PART E: OPERATIONAL PLANNING

E.1: Commissioning status of new Transmission elements.

The status of commissioning of new transmission elements deliberated in the last meeting is as follows:

Sl. No	Transmission element details	Present Status
1	220 kV Jayanagar-Jeypore(PG) 2nd DC line	December'2019
2	400 kV Meramundali-Mendhasal 2nd ckt.	December'2019
3	132 kV Kesinga-Junagarh line	Charged on 03.12.2019
4	220 kV Pandiabili-Pratapsasan line	March'20
5	132 kV Pratapsasan-Phulnakhara line	February'20
6	220/132/33 kV, Pratapsasan S/S	March'20
7	220/33 kV, Deogarh S/S	March'20
8	132/33 kV, Maneswar S/S	March'20
9	132/33 kV, Boriguma S/S	Feb'20
10	220/33 kV, 2x20 MVA Baliguda S/S	Forest clearance awaited
11	220/33 kV, 2x20 MVA Kalimela S/S	Forest clearance awaited
12	220/132/33 kV, Goda Chhak S/S (320 MVA)	March'20
13	220/132 kV Kesinga S/S	Mar'20
14	132/33 kV R.Udyagiri S/S	Mar'20
16	220/33 kV Laxmipur S/S 2nd 20 MVA Tfr.	Nov'19
18	132/33 kV, Mancheswar GIS	Dec'19
19	132/33 kV, Satasankha S/S	February'20

In the 138 PSOC meeting, All the Discoms stated that the contractors have failed to execute the HT infrastructure work awarded to them. O&M stated that the DISCOMs shall intimate the name of contractor/ Agency/Scheme to OPTCL for necessary action.

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

Sl No.	Name of Project	DISCOM	Voltage	Date of Charging	Bays Available	Bays utilised
1	Atri	CESU	220/132/33	2/24/2016	4	NIL
2	Chandaka - B	CESU	220/132/33	3/28/2017	4	NIL
3	Muniguda	Southco	132/33	11/29/2017	4	NIL
4	Baragarh New	Wesco	220/132/33	3/21/2018	1	NIL
5	Aska New	Southco	220/132/33	3/31/2019	5	NIL
6	Betanati	Nesco	132/33	4/19/2019	3	1
7	Kasipur	Southco	220/33	6/30/2019	2	NIL
8	Jayapatana	Southco	220/132/33	7/11/2019	4	NIL
9	Agarpada	Nesco	132/33	8/30/2019	5	NIL
10	Patangi	Southco	132/33	9/15/2019	4	NIL
11	Konark	CESU	132/33	6/29/2015	4	1
12	Mania	CESU	132/33	3/31/2016	5	1
13	Bangiriposi	Nesco	132/33	10/3/2016	4	1
14	Infocity-II	CESU	220/33	12/23/2016	4	1
15	Bhogarai	Nesco	132/33	3/28/2017	4	1
16	Tirtol	CESU	132/33	1/5/2018	5	1
17	Chandbali	Nesco	132/33	2/20/2019	4	1
18	Unit-8, BBSR	CESU	132/33	4/1/2019	5	1
19	Samagara	CESU	220/132/33	7/14/2015	5	2
20	Marshaghai	CESU	132/33	10/16/2015	5	2
21	Malkangiri	Southco	220/33	3/27/2017	4	2
22	Khajuriakata	CESU	132/33	3/28/2017	5	2
23	Podagada	Southco	132/33	2/9/2018	4	2
24	Kantabanji	Wesco	132/33	2/28/2018	5	2
25	Ghens	Wesco	132/33	4/13/2018	4	2
26	Khuntuni	CESU	132/33	5/31/2018	5	2
27	Narasinghpur	CESU	220/33	8/24/2018	5	2
28	Udala	Nesco	132/33	9/16/2018	5	2
29	Keonjhar	Nesco	220/33	12/31/2018	5	2
30	Chikiti	Southco	132/33	2/25/2019	4	2

Deliberation in the meeting

In the 139th PSOC meeting NESCO stated that one No 33 kV feeder will be charged during the month of November'19 to draw power from Agarapada S/S. It was decided that PSOC may write a letter to all Discoms to intimate their action plan for drawal of load from the newly commissioned grid S/Ss. AGM const. suggested NESCO to draw load from the 220/33 kV Keonjhar S/S.

CGM (Construction) / DISCOMs may deliberate

E.2: HT metering at DISCOM interface points.-SLDC.

As per the Central Electricity Authority (Installation and Operation of Meters) Amendment Regulations, 2010, the interface meters shall be installed at the High Voltage side of the Inter Connecting Transformer. Accordingly POWERGRID has implemented the amended Regulation. GRIDCO / OPTCL may examine for metering in the High Voltage side of the ICT, which is done in the Low Voltage side at present.

This issue was also discussed in the 16th GCC meeting, where the DISCOMs highlighted the PPA provision for receiving power at 33 kV Voltage level by them. Director (Commercial) agreed to

convene a meeting between DISCOMs, O&M & SLDC to discuss the issue. If required, GRIDCO shall approach the Hon'ble OERC for amendment of the PPA/ Supply Code if required to comply CEA Regulation.

In the 137th PSOC meeting it was requested that GRIDCO may convene a meeting to discuss the issue

In the 138th PSOC meeting GRIDCO stated that a meeting will be convened in the month of November'19 to discuss the issue

In the 139th PSOC meeting, it was suggested by the members that GRIDCO may convene a meeting soon. GRIDCO has assured to convene the meeting during the month of December'19.

OPTCL / GRIDCO may deliberate

E.3: Major Events in the month of November'19

On Dt 27.11.19 at 22:45 Hrs - 132 kV Duburi-JSW Cement Ltd feeder charged by LILO arrangement in existing 132 kV Duburi - MESCO ckt –I.

Members may note

E.4: Important Grid Incidences during the month of November'19.

There was no major incidences occurred during the month of November'19

E.5: Outage of major transmission Elements during the month of November'19. (above 10 hrs).

Sl No	Transmission line / element	Tripping Dt/time	Restoration Dt/time	Reason
1	132 kV Paradeep – PPL ckt -II	08.11.19/ 21:02 Hrs	09.11.19 /18:34 Hrs	LA failure at PPL Switch yard
2	100 MVA Auto Transformer at Grid S/S, Paradeep.	09.11.19/ 03:35 Hrs	10.11.19/ 14:38 Hrs	Cross bus tension insulator damaged due to impact of cyclone BULBUL.
3	132 kV Paradeep – Jagatsinghpur ckt	09.11.19 /04:36 Hrs	09.11.19 / 16:23 Hrs	Conductor snapped in line
4	132 kV Paradeep – PPT ckt -II	09.11.19 / 04:37Hrs	09.11.19 / 18:33 Hrs	Earth wire snapped in between at Loc 18 & 20
5	132 kV Bhadrak –DPCL ckt - I	09.11.19 / 03:22	09.11.19 / 14:23	Tripped on E/F. Charged after patrolling.
7	220 kV Rengali(SY) – Rengali (PH) ckt -I	10.11.19 / 17:14 Hrs	11.11.19 /12:37 Hrs	B-Phase conductor snapped at gantry.
8	220 kV Budhipadar – Tarkera ckt -I	20.11.19 / 05:19 Hrs	20.11.19 / 22:05 Hrs.	B-Phase Conductor snapped between Loc No-225 & 226
10	220 kV Theruvali – Laxmipur ckt -I	28.11.19 / 11:28	29.11.19 / 12:54 Hrs	Due to falling of Tree on line

E.6: Prolonged outage of Transmission elements

Sl No	Transmission line / element	Date of outage	Reason	Expected date of restoration
1	220 kV Samangara – Pandiavil ckt – I& II	03.05.19	Tower collapsed during the severe cyclonic storm FANI.	

O&M may discuss

E.7: Review of Outage Program of State Generators for the month of January'20:

Tentative Outage programe for State Generators for the month of **January'20**

Sl.	Station	Unit	Period	Remarks
1	Burla	# 1 # 3 # 5 # 6 # 7	14.03.18 to continue 01.01.20 to 30.01.20 25.10.16 to continue 16.10.15 to continue 06.12.19 to 04.01.20	T&G coupling cover water leakage Annual Maintenance Under R,M & U Under R, M & U Annual Maintenance
2	Chipilima	# 2	01.01.20 to 30.01.20	Annual Maintenance
3	Balimela	# 1 # 2 # 8	05.08.16 to continue 20.11.17 to continue 07.01.20 to 31.01.20	Under R,M work Under R,M work Annual Maintenance
4	Rengali	# 3	01.12.19 to 31.12.19	Annual Maintenance & PSDF work
5	U. Kolab	# 1	04.12.19 to 03.01.20	Annual Maintenance
5	U. Indravati	# 1 # 2	17.12.19 to 16.01.20 20.01.19 to 19.02.20	Annual Maintenance Annual Maintenance

OHPC may deliberate

E.8: Generation Program for the month of January'20.

Generation schedule for the month of January'20 furnished by OHPC are given below.

Name of Hydro Gen. Station	Generation Program (MW)		Reservoir Level as on 01.12.19	Reservoir Level as on 01.12.18	MDDL	High Flood Reservoir Level
	Jan'20 (1st fortnight)	Jan'20 (2nd fortnight)				
HPS-I, Burla	40	40	629.79 ft.	625.56 ft.	590 ft.	630 ft.
HPS-II, Chiplima	25	25	-	-	-	-
Balimela	190	190	1511.00 ft.	1510.00 ft.	1440 ft.	1516 ft.
Rengali	50	50	123.57 mtr.	118.15 mtr.	109.72 mtr	123.5 mtr.
U.Kolab	100	100	857.11 mts.	855.49 mtr.	844 mtr	858 mtr.
U. Indravati	250	250	640.50 mtr.	638.42 mtr.	639.40 mtr	642 mtr
MKD (O/D)	30	30	2747.85 ft.	2747.00 ft.	2685 ft.	2750 ft.
TOTAL	**685**	**685**				

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

SLDC / OHPC may deliberate

E.9: Anticipated power generation and demand for the month of January'20.

Sl. No	Discom	Average	Peak
1	CESU	850	1050
2	WESCO	850	1100
3	NESCO	650	800
4	SOUTHCO	350	500
5	**Total Discom**	2700	3450
	System Loss & others	**200**	**250**
	Total Demand	**2900**	**3700**
Availability			
1	Hydro	685	1000
2	State Thermal	1100	1100
3	IPP, small hydro &RE	350	300
4	ISGS share (including OA& purchase)	900	1000
5	CGP support (OA)	300	300
6	**Total availability**	**3335**	**3700**
7	**Surplus / Deficit**	**435**	**0**

Members may discuss.

PART F: OTHER ISSUES

F.1: Date and Venue of the next (141st) PSOC meeting.