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ODISHA ELECTRICITY REGULATORY COMMISSION
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No.DIR (T)-368/09/19/ 1236

Dated-28.10.2024

To

The Chief Executive Officer,
TPSODL, At/P.O. Courtpeta,
Berhampur, Dist. Ganjam.

Sub: **Record Note of Discussion on the Annual Review of Performance of TPSODL for the FY 2023-24.**

Sir,

I am directed to send herewith the aforesaid Record note of Annual Performance Review of TPSODL for the period from April 2023 to March 2024 held on 28.08.2024, 03:30 PM for your kind information and necessary action.

Encl: As above.

Yours faithfully,

SECRETARY

28.10.24

Copy to:

- i) The Principal Secretary, Department of Energy, Govt. of Odisha along with copy of the enclosure for favour of information.
- ii) The CMD, OPTCL, Janpath, Bhubaneswar along with copy of the enclosure for favour of information.
- iii) The MD, GRIDCO, Bhubaneswar along with copy of the enclosure for favour of information.

Record Note of Annual Performance Review of TPSODL held on 28.08.2024 at 03:30 PM at OERC in the presence of the Commission

Date of Review : 28th August, 2024

Period of Review : April 2023-March 2024

The performance of TPSODL for the Financial Year 2023-24, i.e. period starting from April, 2023 to March, 2024 was reviewed by the Commission on 28th August, 2024, 03:30 PM in hybrid mode. The Chief Executive Officer, TPSODL presented the performance of TPSODL.

TPSODL started its operation w.e.f. 01.01.2021 through the vesting order dated: 28.12.2020 in Case No.-83/2020 of the Commission. The operational area of TPSODL spreads across 48,751 sq.kms. area of the southern part of the state. Distribution network comprising of 251 Nos. of 33/11 kV sub-stations (150 Nos. are SCADA enabled), 4240.99 kms. of 33 kV lines, 46984.52 kms. of 11 kV lines, 41483.62 kms. of LT lines & 32768.16 kms. of AB cable which caters to a consumer base of about 22.70 lakhs (as on 31.03.2024) covering 8 Nos. of Revenue Districts (6 Circles, 19 Divisions, 51 Sub-Divisions, 135 Sections & 4 GRFs)

In the FY 2023-24, the EHT sales, HT sales and LT sales are 729.48 MU, 419.80 MU and 2045.68 MU respectively. There has been a marginal increase in total sales. The total sales in FY 2023-24 was 3195 MU against 3156 MU in FY 2022-23. The consumer base has been sanitised and is currently 22,70,915 in FY 2023-24 which is 6.3% less as compared to the consumer base of 24,24,624 in FY 2022-23. The employee strength has increased over time and is 2807 as on 31.03.2024 which is 1.24 numbers of employees per 1000 consumers. It has 251 Nos. of PSSs with a 563 Nos. of Power transformers. It has 63,303 Nos. of Distribution transformers with a transformation capacity of 2765.30 MVA. There has been increase in the network length of 33 kV, 11 kV and LT lines at 4.8%, 3.7% and 4.12% in the FY 2023-24 as compared with FY 2022-23.

TPSODL has taken various initiatives like drives to remove illegal hookings, evening raids, OCR billing, women collection team, collection in resistive localities along with police and Special Task Force for high value arrear recovery. As per their submission, the provisional billing trend has also reduced drastically in Domestic category from 27% in FY 2021-22 to 6.85% in FY 2023-24. TPSODL has installed 2,71,215 Nos. of meters in FY 2023-24 out of which 72,443 were smart meters. TPSODL had conducted analysis of the distribution system based on which 3 Nos. of Capacitor Banks have been installed for Reactive energy compensation at Raighar PSS and one at 11 kV Kujendri feeder. They have plans for further installation of Capacitor banks at 7 Nos. of 11 kV feeders. TPSODL has established 6 nos. of Consumer Relation Centres at different cities/ towns and has conducted digital literacy campaign for improving the consumer experience.

TPSODL had submitted the following support from OPTCL for better operation in their area: 1. Grid S/s at Auto Nagar, Berhampur ; (2) Augmentation of PTR to 63 MVA at 132kV/33kV Ambagada GSS ; (3) 33KV Bay Requirement at 220/132/33 kV Narendrapur & 132/33 KV Berhampur GSS ; (4) Early Completion of Govindapalli, Baliguda, R. Udayagiri GSS & Lamtapur GSS.

OPTCL submission

The grid substation at Auto Nagar is under active consideration and all approvals have been received. Survey for underground cabling from Narendrapur to Auto Nagar is under progress. We are planning to augment 40 MVA Power Transformers to 63 MVA Power Transformers in city areas. TPSODL is requested to divert some load from Berhampur Grid S/s to Narendrapur Grid S/s. Further, Govindapalli Grid S/s has been charged since two years and load can be taken immediately. In case of Baliguda and R. Udayagiri, forest clearance issues are involved and might need some more time. Lamtapur Grid S/s had some earthing issues which has been resolved and will be charged by the end of this financial year.

Commission's Observations/ Directions:

1. The Commission took cognizance of the presentation made by the TPSODL and analysed various performance parameters. The summarized crucial performance parameters for FY 2023-24 presented by TPSODL along with previous years are given in the table below:-

ANNUAL PERFORMANCE OF TPSODL as on 31.03.2024				
BULK SUPPLY	2022-23	2023-24	OERC APPROVAL FOR 2023-24	Increase/ Decrease in FY 2023-24 over FY 2022-23
DEMAND (MVA)	722.00	711.00	760.00	-1.52%
Energy input (MU)	4188.45	4345.37	4920.00	3.75%
SALE TO CONSUMERS (MU)				
EHT	704.91	729.48	706.95	3.49%
HT	422.53	419.80	430.42	-0.65%
LT	2028.23	2045.68	2552.77	0.86%
TOTAL	3,155.67	3,194.96	3,690.14	1.25%
% of LT Sales to Total Sales	64.27%	64.03%	69.18%	-0.24%
LOSS (%)				
LT	27.10%	29.62%	25.91%	2.52%
HT & LT	29.65%	31.82%	29.19%	2.17%
OVERALL	24.66%	26.47%	25.00%	1.82%
BILLING EFFECIENCY (%)				
HT	92.0%	92.00%	92.0%	0.00%
LT	72.9%	70.38%	74.1%	-2.52%
HT & LT	70.4%	68.18%	70.8%	-2.17%
OVERALL	75.34%	73.53%	75.00%	-1.82%
BILLING TO CONSUMERS (CR.)				
EHT	454.58	472.69	450.78	3.98%
HT	313.59	309.01	286.82	-1.46%
LT	1046.21	1006.81	1253.17	-3.77%
TOTAL	1,814.38	1,788.51	1,990.77	-1.43%
COLLECTION RECEIVED (CR.)				
EHT	457.74	464.30	446.2722	1.43%
HT	328.53	320.55	283.9518	-2.43%
LT	1072.49	1016.40	1240.6383	-5.23%
TOTAL	1858.76	1801.24	1970.86	-3.09%
COLLECTION EFFICIENCY (%)				
EHT	101%	98.22%	99%	-2.47%
HT	105%	103.73%	99%	-1.03%
LT	102.51%	100.95%	99%	-1.56%
HT & LT	103%	101.61%	99%	-1.43%
OVERALL	102.45%	100.71%	99.00%	-1.73%
AT & C LOSS (%)				
LT	25.27%	28.95%	26.65%	3.68%
HT & LT	27.51%	30.72%	29.90%	3.21%
OVERALL AT & C Loss	22.81%	25.95%	25.75%	3.14%

From the above table it is observed that there has been an increase in sales in EHT and LT level however the HT sales have reduced marginally. The total sales of TPSODL has increased to

3194.96 MU in FY 2023-24 which is merely 1.25% higher compared to total sales of 3155.67 MU in the FY 2022-23. The LT sales amount to 64.03%, HT sales contribute 13.14% and EHT sales contribute 22.83% of the total sales in FY 2023-24. Majority of the energy consumption is in LT category for which TPSODL has to make continued efforts to reduce commercial losses and perform for financial sustainability of the business.

2. The overall Distribution loss has increased to 26.47% in FY 2023-24 as compared to 24.66% in FY 2022-23. The AT&C losses have increased to 25.95 % in FY 2023-24 from 22.81% in FY 2022-23. Despite huge investment in CAPEX, no improvement is seen in loss reduction. TPSODL had presented a roadmap for reduction of technical losses and it must put the efforts as per the plan for suitable outcome. Actions must also be taken to eradicate theft of electricity so as to ensure proper energy accounting.
3. The system improvement can be identified from the details in the table below:

PERFORMANCE OF TPSODL- SYSTEM IMPROVEMENT(2023-24)

Particulars	As on 31st March 2022	As on 31st MAR 2023	As on 31st MAR 2024
No. of consumers			
EHT	18	18	19
HT	548	650	712
LT	2385546	2423956	2270184
Total	2386112	2424624	2270915
No. of New Connections	80328	67544	76853
Network System			
Length of 33 KV Line (km.)	3847	4046.37	4240.99
Length of 11 KV Line (km.)	42786	45309.30	46984.52
Length of LT KV Line (km.)	39270	40216.96	41483.62
Length of LT AB Cable (km.)	30229	31098.41	32768.16
No. of 33 KV feeders (Including GRIDCO interface)	116	131	148
No. of 11 KV feeders	881	906	928
No. of 33 / 11 kv POWER Transformers	524	553	563
No. of Distribution Transformers (11/0.4 & 33/0.4 kv)	55959	58732	63303
No of Interruptions in 33 KV Feeders	6419	6419	5193
MVA Capacity of DTRs	2405.221	2534.98	2765.303
No of Interruptions in 11 KV Feeders	87889	87889	49774

4. TPSODL has added 194.62 kms of 33 kV line, 1675.22 kms of 11 kV lines and 1266.66 kms of LT lines to its network in the FY 2023-24. The percentage of AB cable in the LT network is 79% which is quite commendable. The greater share of AB cable in LT network system ensures less interruptions, better reliability of power supply and less prone to tapping/theft.
5. The numbers of fatal accidents are high even after taking number of safety measures and awareness programs. Hence further effort is required to increase awareness among employees and public regarding risks associated with working on electrical equipment. The sagging of conductors and timely patrolling of lines and maintaining the safety clearances would reduce animal accidents.
6. The total number of defective meters in FY 2022-23 were 55,528 which has increased to 1,01,718 in FY 2023-24. TPSODL must endeavor to replace the defective meters as soon as possible and avoid provisional billing that might lead to further disputes. A timeline must be set to replace a meter once it is identified as defective.

7. TPSODL has achieved capitalization of Rs. 766.26 Crs. against OERC's approval of Rs. 886.86 Crs. as on 31.03.2024.
8. Even though there has been improvement in metering status, the current position of smart metering is 1,19,602. TPSODL has submitted its plan to have smart metering for all three phase consumers (excluding OLI/PLI), all single phase Commercial & Industrial consumers and consumers having consumption greater than 200 units/month. TPSODL must put efforts to act according to its plan. Smart meters have many advantages in the optimum operation of the power system and should be a priority while installing any new meter.
9. TPSODL has 88% feeder metering at 33kV level and 99% feeder metering at 11 kV level. TPSODL has submitted that all these feeders having meters were audited during the FY 2023-24. TPSODL is advised to analyse this data and identify the loss prone areas. Necessary steps must be taken to reduce the losses and improve the system performance.
10. The HT loss is taken on normative basis at 8%. With network strengthening activities, the actual HT loss is expected to be less than 8%. TPSODL must endeavor to complete 100% metering of all the 33 kV & 11 kV feeders and DTRs of capacity greater than 100 kVA so that the actual HT & LT loss can be calculated and loss prone area can be identified. This would help to focus the real loss prone areas which is otherwise shielded from corrective actions.
11. All 33kV & 11kV feeders/lines & 33/11 kV transformers are supposed to be provided with CBs, prioritizing 33kV system followed by 11kV system. Tapping of lines/feeders and Group control breaker arrangement at 33kV and 11kV level should be removed on priority basis to achieve the objective of reliable power supply. It appears that CBs have not been provided at tapping points of 33 kV or 11 kV lines.
12. Action plan should be there to ensure that the protection system including provision of Surge Arresters, is in place complete in all respect at 33 kV & 11 kV level for all feeder/lines/cables, power transformers, etc. and timeline for completion needs to be mentioned. The provision of required protection for DTRs should be taken up and completed in phases as early as possible. The relay coordination should be done properly in consultation with OPTCL to avoid tripping at OPTCL end.
13. Even after completion of three years of operation, asset Mapping and consumer indexing are not yet complete. Necessary steps must be taken to complete the same during current FY 2024-25.
14. As directed earlier, Consumer Average Interruption Duration Index (CAIDI) shall be estimated starting with Industrial & commercial consumers and extending it to other categories of consumers.
15. As advised earlier, the transformer rating (e.g. 5 MVA, 8 MVA, 12.5 MVA & 20 MVA) and MVA capacity in PSS (like 10 MVA, 20-25 MVA, 40 MVA) need to be standardized at PSS level along with associated foundation and technical specification keeping adequate space in PSS for future expansion to facilitate faster procurement, delivery, interchangeability, minimization of inventories and to avoid addition of unnecessary PSSs in nearby area of existing PSS. Similarly, efforts must be made to phase out lower rating DTRs (e.g. 10 KVA, 16 KVA etc.) so that maintenance can be carried out properly due to reduction in numbers. DTRs need to be provided with adequate protection to reduce burning of DTRs.
16. Steps may be taken to towards installation of RMUs and Auto reclosures etc. to improve reliability of power supply to important cities.

17. The DISCOM (TPSODL) is directed to segregate commercial loss and technical loss in AT&C loss.
18. TPSODL is directed to address very common complaint of consumers regarding :
- high meter reading of smart meters compared to other types of meters.
 - non-payment of rebate to consumers having smart meters
 - non-awareness of consumers for availing rebate on digital mode of payment within due date.
 - time taken to give new connection particularly where there is need for enhancement of capacity of DTR.
19. It is understood that the average line length of 33 kV and 11 kV lines are much more than normal length (i.e. about 20-30 kms for 33 kV line & 10-15 kms for 11 kV lines) and some of the lines are even more than 50 kms. There are numbers of direct tapping of 33 kV & 11 kV lines without provision of RMU/AR resulting in widespread outage and affecting power supply to numbers of consumers at a time in case of fault. Long lines are also creating low voltage problem. DISCOM (TPSODL) is directed to address such issues by providing RMU/AR linking GSS with as many PSS as possible, upgrading the existing PSS and diverting load to nearby PSS. The time frame to eliminate direct tapping of 33 kV and 11 kV line needs to be fixed.
20. The DISCOM is directed to provide the details of operational and commercial performance including safety of man & equipment and consumer grievance redressal mechanism to address various issues & increase awareness of consumers regarding various initiatives taken for their benefit in respect of the best Division in the area of operation of DISCOM (TPSODL).
21. TPSODL is directed to submit the list of PSSs where the average incoming voltage from OPTCL grids is less than 33 kV.
22. Since the data submitted by the DISCOM (TPSODL) is undergoing change frequently due to sanitization at different levels, DISCOM (TPSODL) must submit the correct AUDITED performance review data during tariff filing.
23. Following data should be submitted by TPSODL to the Commission:
- Voltage wise arrear status separately for pre-vesting and post-vesting period.
 - Funding mechanism of the already purchased and installed 1,19,602 Nos. of smart meters.
 - Status of RMU installation and sectionalizers at tapping points.


Officiating Chairperson