ODISHA ELECTRICITY REGULATORY COMMISSION
PLOT NO.4, CHUNOKOLI, SAILASHREE VIHAR,
BHUBANESWAR - 751021
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Present : **Shri U. N. Behera, Chairperson**
Shri S. K. Parhi, Member
Shri G. Mohapatra, Member

Case No. 32/2020

M/s. TPCODL ……… Petitioner

Vrs.

GRIDCO Ltd. & Others …....... Respondents

In the matter of: **Application for approval of Detailed Project Report (DPR) for its CAPEX Plan for FY 2020-21 as per order dated 26.05.2020 of OERC in Case No. 11/2020.**

For Petitioner: **Shri Praveen Verma, Chief of Operation & Services**
Shri Manoj Kumar Singh, Sr.GM, TPCODL

For Respondents: **Shri Ramesh Chandra Satpathy, Shri Dhobei Sahoo, Shri Ananda Kumar Mohapatra, Shri A. K. Sahani on behalf of M/s. UCCI Ltd., Ms. Manisha Das, Shri Pravakar Dora, Shri R. P. Mahapatra, Ms. Shailaza Muduli on behalf of M/s. Grinity Power Tech Pvt. Ltd., Shri Amar Jumar Pratap Singh, General Secretary, Odisha Bidyut Karmacharti Mahasangh, Shri Lalatendu Dikhit, Shri Runvijay Singh on behalf of M/s. Karma Re-rollers Pvt. Ltd. and the representative of GRIDCO Ltd.**

O R D E R

Date of Hearing: 05.08.2020 **Date of Order: 08.09.2020**

1. The TP Central Odisha Distribution Limited (TPCODL), the petitioner has submitted an application for approval of Capital Expenditure to the tune of Rs.344.44 Cr. for FY 2020-21 to carry out various system improvement & safety activities in its area of operation. This application has been filed pursuant to the direction of the Commission at para 42 in the vesting order in Case No.11/2020.

2. TPCODL‘s licensed area is spread over a geographical area of 29354 Sq.KM and it serves a registered consumer base of around 26 lakhs. TPCODL procures power from GRIDCO through Odisha Power Transmission Corporation Limited (OPTCL)’s

220/132/33 kV grid substations at sub transmission voltage level of 33 kV and then distributes the power at 33 kV/11 kV/440 volt/230 volt depending on the demands of the consumers. TPCODL has submitted that it has inherited the power distribution network in dilapidated state at some places, which is not compliant to the requisite statutory standards and poses threat to consumers, staff etc. Further, underrated/ undersized/ worn out conductors, poor earthing, presence of either faulty equipments or non-availability of equipments/ switchgears/ protection devices are creating potential safety hazards to the employees, consumers, children, animals, public, etc. TPCODL has therefore come up with this Capital Investment Plan with the primary objective of ensuring safe reliable power supply and ensuring best customer service to its end consumers. TPCODL has categorised the various activities of the capital investment plan under 5 major broad subheads i.e. (i) statutory and safety, (ii) loss reduction, (iii) reliability, (iv) load growth (v) technology and infrastructure.

3. The petitioner has submitted that every area under its operation has different characteristics and thus has different challenges. However, some common challenges have been identified for taking up the work in the first year of its operation. TPCODL receives power from 49 no. of EHT Grid s/s and handles 8160 MU (total consumer of around 2532404). It has 289 no. of 33/11 kV substations (644 nos. of transformer), 33/0.415 kV substations (480 nos. transformer)], 48655 nos. of 11/0.415 kV DTR and 21528 nos. of 11/0.23 kV DTR. There are 3738.32 Ckt. Km. of Over Head (OH) 33 kV line, 169.33 Ckt. Km. of Under Ground (UG) 33 kV line, 35329.81 Ckt. Km. of OH 11 kV line, 389.664 Ckt. Km. of UG 11 kV line, 26568.28 Ckt. Km. of LT bare line and 27372 Ckt. Km. of ABC LT line. The billing efficiency, collection efficiency and AT&C loss are 75.4%, 90.34% and 30.44% respectively for FY 2019-20. It has SCADA facility with remote monitoring and control arrangements at Bhubaneswar (controlling 30 nos. of 33/11 kV substations), Cuttack (controlling 22 nos. of 33/11 kV substations) and Puri (controlling 4 nos. of 33/11 kV substations).

4. The petitioner has submitted that due to vast geography, wide spread network and absence of preventive maintenance, the existing network has become very weak to serve the consumers. Major factors causing damage to the poles/lines include structural deterioration of poles due to flood, cyclone, heavy vegetation, etc. The petitioner has proposed to replace the damaged poles, replace worn out conductors, do re-stinging of the conductor, install the mid-span pole, install stay-wire at start, end of

the line and at every H pole. The petitioner has also proposed to strengthen earthing system by introducing fresh earthing in both Distribution Sub-Station (DSS) and Primary Sub-Station (GSS) as a part of refurbishment activity, which will enhance the life of the equipment with proper functioning of protection relays. The petitioner has also proposed various activities required to be performed for the aforesaid job.

5. The petitioner has further submitted that most of the 33/11 kV and 11/0.415 kV substations either have broken boundary fence or no boundary fence. Hence, it has proposed to put up fencing/build boundary wall under the DSS/GSS refurbishment plan. The petitioner has also proposed to procure Personal Protective Equipment (PPE) and safety equipments for their staff to ensure safety to which the licensee is mandated to comply as per the prevailing Regulations.

6. Therefore, TPCODL has submitted the Detailed Project Report (DPR) for CAPEX plan of Rs.344.44 cr. for the FY 2020-21 categorised under the following five broad subheads.

   (i) **Statutory & Safety** – which includes refurbishing/ life enhancement of feeders in respect of maintaining safe horizontal/ vertical clearance and 11 kV DSS refurbishment, purchase of safety equipments and establishment of meter testing lab.

   (ii) **Loss Reduction** – which includes meter replacement and optimisation of feeder length/ load.

   (iii) **Reliability improvement –** which includes refurbishing/ life enhancement of 33/11 kV S/s for operationalisation of SCADA, installation of RMU/ Auto reclosure/ sectionaliser/ FPI/ LV protection in DSS/ AB switches and replacement of battery/battery chargers.

   (iv) **Load growth –** which includes installation of meters for new connection and network addition/ augmentation.

   (v) **Technology and infrastructure –** which includes call centres/ customer care/ IT application / security system in central store/ civil infrastructure etc.

7. The petitioner has submitted various documents/ information in the Annexures of its DPR as briefed below :

- Annex-1: Existing poor network condition and violation of statutory compliance posing safety threat to public, employees and animals.
- Annex-2: Statutory Guidelines of CEA's safety Regulations which requires that lines, poles, earthing, transformer mounting, substation (S/S) fencing etc should be in order.
- Annex-3: DPR for refurbishment of selected 33 kV feeder assets so as to restore the efficiency of the S/S and feeders and improve the safety and reliability of network assets including enhancing the operational life of the equipments. Some are to be refurbished with 232 sq.mm. AAAC and some with 148 sq.mm. AAAC, totalling to Rs.6.37 crore. This shall result in benefits in the form of improved voltage profile, reduced outages, increased vertical clearance, reduced downtime of the equipment, reduced un-served energy, enhanced reliability of supply and reduced accidents.
- Annex-4: DPR of establishment of meter testing lab has been submitted. It includes cost for both testing lab facilities and on-site testing equipments. The proposed cost would be Rs.6.78 crore. It shall create environment for meeting the statutory requirement.
- Annex-5: DPR for refurbishment of 11 kV DSSs has been submitted. It shall cause major overhauling of the existing DSSs by providing switchgear controlled LV protection and appropriate switches. The 1000/800/630 KVA DSSs shall require Rs.3.331 crore, 500/315/300 KVA shall require Rs.33.794 crore and 250 KVA shall require Rs.13.041 crore totaling to Rs.50.166 crore of investment. It shall cause benefit in the shape of enhancement of life of assets, reduction in the no. of tripping due to LT faults and safety of human/ animal due to fencing/ earthing.
- Annex-6: DPR of personal protective equipment, safety and testing equipment has been submitted. The total projected cost is Rs.9.48 crore. This shall ensure benefit in the shape of reduced physical harm/ hazards, improved quality of work, reduced man-hour loss and quick decision on attempting work on an equipment.
- Annex-7: DPR for loss reduction initiatives. It is in 3 parts.

(a) 1st part relates to consumer meter replacement, which includes meter cost, meter box, cables and metering accessories like modem and poly carbonate seals. Total cost is Rs.44.91 crore. It has been proposed to replace 9.96 lakh single phase and 16,900 nos. of 3 phase meters within 3 years upto end of FY 2022-23.

(b) 2nd part relates to Energy audit at DT level which shall help in the form of area specific energy audit, DT phase balancing, network planning and new connection planning. 4000 meters are proposed to be installed for this purpose first at DT of 250 KVA and above and subsequently at DT of 100 KVA and above. Project cost is Rs.15.36 crore.

(c) 3rd part relates to improvement in meter reading with customized features including server configuration at a cost of Rs.3 crore. This shall improve commercial activity, reduce error, save manpower/ stationery cost etc.

- Annex-8: DPR for 11 kV feeder to optimize existing lengthy 11 kV feeders has been submitted. This shall be effected by segregation, introduction of new 11 kV feeder from nearby area etc. This shall require an expenditure of Rs.9.67 crore. This shall cause benefit in reduced technical loss, improved voltage regulation.
- Annex-9: DPR for refurbishment of 33/11 kV GSS for SCADA operation has been submitted. 110 nos. of 33 kV Sub-stations are proposed to be monitored and controlled through SCADA at cost of Rs.26.43 cr.
- Annex-10: DPR of 3 way RMU, Auto Reclosure, Sectionaliser, FPI and AB switches at 33 kV & 11 kV feeders at a cost of Rs.37.06 crore has been proposed, out of which Rs.23.88 core (for Auto reclosure, sectionaliser, FPI and RMU) and Rs.13.18 crore (for 33 kV & 11 kV AB switches) have been earmarked. These shall cause benefit of easy fault location, reduced power outage, ensuring continuous power supply, ensuring safety to the operator, providing better flexibility to isolate faulty feeders only.
- Annex-11: DPR of supply and installation of LT protection has been submitted. MCCBs shall be installed in the pole mounted 100 KVA (540 nos.) and 250 KVA (360 nos.) Distribution substations. This shall ensure lower

power cut, reduction of consumer complaint, better reliability, reduction of SAIFI/SAIDI. This shall be at a cost of Rs.6.72 crore.

- Annex-12: DPR of supply and installation of Battery and Battery charger has been submitted. To ensure improvement of protection in 33/11 kV S/S, DC supply strength in the shape of battery is required. The cost projected is Rs.2.26 crore for 43 sets of battery/ battery chargers.

- Annex-13: DPR for release of new connection has been submitted. It has been proposed to capture basic/initial information for providing new connection by means of a new concept of site verification at a cost of Rs.1.35 cr., new meter (Rs.4.46 cr.), Meter box (Rs.2.91 cr), service cable (Rs.11.01 cr), metering accessories/ modems (Rs.4.49 cr) and smart tool requirement for release of quality power supply (Rs.0.21 cr) totaling to Rs.24.43 cr.

- Annex-14: DPR for call centres has been submitted. For better customer service including payment facility, Rs.6.36 cr. has been proposed.

- Annex-15: DPR for IT. It has got 9 parts.

(i) ERP, MBC, CIS & Business Intelligence Systems :Rs.33.48cr (Year-1cost) (SAP licence, Hardware, Implementation, Call center solution)

(ii)	Application software	: Rs.0.127 cr
(iii)	Data base software	: Rs.4.71 cr
(iv)	Servers	: Rs.5.28cr(Year-1 cost)
(v)	Laptops/Desktops	:Rs.5.30 cr(Year-1 cost)
(vi)	Printers/Scanners	:Rs.1.55 cr(Year-1 cost)
(vii)	Network & equipment for locations	:Rs.11.02cr(Year-1cost)
(viii)	Communication network	: Rs.3.703 cr
(ix)	Data Centre Extension	: Rs.2.048 cr
	TOTAL	**: Rs.67.218 cr**

- Annex-16: DPR for security system of stores- total cost of Rs.3.48 cr. for high mast lighting, fire protection and alarm system has been proposed.

- Annex-17: DPR for civil works which include work at existing IDCO tower office, offices at power house, store shed and furniture totaling to Rs.7.95 cr.

8. The summary of the above CAPEX as proposed by the petitioner is mentioned in the table below:

Sl. No.	Major Category	Activity in brief	DPR Cost (In Cr.)
i	Statutory & Safety	33 kV Network refurbishment to ensure Horizontal/ Vertical clearances	6.37
		PPEs, FFEs, Safety & Testing Equipment	9.48
		DSS Refurbishment for safety of Employees, Public and Animals	50.17
		Establishment of Meter Testing Lab	6.78
		Total	**72.80**
ii	Loss Reduction	Meter replacement against Burnt/Faulty and Mechanical / No meter	45.24
		Installation of DT meters for energy accounting	15.36
		Solution for meter reading and spot billing	3.00
		Optimize the feeder length / load to reduce technical loss	9.67
		Total	**73.27**
iii	Reliability	110 Nos. GSS refurbishment for SCADA operationalisation	26.43
		Installation of Auto Reclosure/ Sectionalisers, FPI & RMU	23.88
		Installation of LV protection at DSS	6.73
		Replacement of Battery and Battery charger	2.26
		Installation of AB switches for improving reliability	13.18
		Total	**72.48**
iv	Load Growth	Meter installation for all new connection	24.43
		Network augmentation / addition to meet load growth	9.00
		Total	**33.43**
v	Infrastructure	Infrastructure for Customer care, call centre, payment centre and section offices	6.36
		IT and technology for process efficiency and enhanced productivity	67.77
		Implementation of 1st phase of GIS Roadmap	2.00
		Security system in central store	3.48
		Civil upgradation	7.95
		Ready to use assets for offices	4.90
		Total	**92.46**
		Grand Total	**344.44**

9. In addition to the above, which are dealt in different annexures as stated above the Petitioner has submitted as follows:

(a) 80 ckt km 33 kV feeders out of approximately 3700 ckt km are to be refurbished.

(b) Nearly 110 no. of 33/11 kV S/S out of 290 nos. are planned to be controlled/ monitored through SCADA.

(c) Name of the 33/11 kV S/S with capacity and the feeder (33 or 11 kV) which are to be refurbished.

(d) 1136 nos. of DSS shall be refurbished out of 5200 no (250 KVA and above). Details to be furnished along with actual progress on implementation.

(e) The Petitioner has given the status of consumer meters as on 01.06.2020 as follows:

Sl. No.	Particulars	Nos.
Single Phase		
1	Number of Static Meters in Working condition	1787157
2	Number of defective meters	148370
3	Number of electro-mechanical Meters	580259
4	Number of consumers without meters	87894
5	Total nos. of consumers (1+2+3+4)	2603680
Three Phase		
6	Number of Static Meters in Working condition	94550
7	Number of defective meters	6913
8	Number of electro-mechanical Meters	0
9	Number of consumers without meters	6232
10	Total nos. of consumers (6+7+8+9)	107695

The petitioner has submitted a plan for procurement of 10,14,609 nos. of meters in three years from FY 2020-21 to 2022-23 which includes single phase and three phase meters.

(f) The Petitioner states that it shall refurbish 2.05% of ckt. Km of 33 kV feeders (80 ckt-km out of 3908 ckt-km), 2.33% of transformers (1136 no. out of 48,665 no. of 3 phase DTRs) and 160 nos. of auto-reclosure / sectionaliser out of actual requirement of 199 nos. The details are to be furnished along with the initiation of scheme execution.

(g) They propose to procure 4000 smart DT meters which shall be installed on distribution transformers of different capacities.

(h) The prices quoted in the DPR are generally as per the cost data of the Government of Odisha. However, the cost data of TPCODL has been taken in the cases for which there is no mention in the Government of Odisha cost data.

(i) The material requirement in the DPR is as per the field data. However, the materials available in the central stores shall be kept in mind while initiating actual procurement for the CAPEX.

(j) 20% service charge is proposed which includes transportation, watch & ward, erection charges, etc. 3% contingency charge is proposed for catering to variations arising out of arriving at actual material cost over and above the cost arrived at through cost data. 0.5% miscellaneous charge is proposed to take care of petty items.

(k) The price shown in the DPR differs from the government cost data because of addition of 18% GST.

10. The replies of Respondents are summarized below:

One of the Respondent Shri Ananda Kumar Mohapatra states that

(a) The Petitioner must furnish the details of the asset created under different Government schemes. TPCODL should explain whether those assets have deteriorated so that those are not complying to the statutory requirement.

(b) The option of the consumer to install his own meter may please be explained.

(c) The reasons for keeping Rs.9 crores only for network augmentation be explained.

(d) The reasons for higher transformation capacity requirement in 11 kV than 33 kV may be explained.

(e) The petitioner has not given data on the installed capacity of OPTCL's transformers from which the petitioner draws power.

(f) The figure of meters provided by the petitioner is not reconciled properly.

(g) There are also lots of other discrepancies as to the preparation of DPR, costs shown in it etc.

11. Shri Ramesh Chandra Satpathy has stated the Petitioner has not furnished the list of division-wise damaged conductor, poor earthing, damaged/ tilted pole accessories, poor structure, no. of 33 /11 kV S/S and DTRs in bad condition etc. The petitioner has not provided the list of victims of accidents and compensation thereof. The details of temporary works undertaken during FANI have not been furnished. Utilization of

fund from Government aided schemes have not been furnished. Above all the reply of the petitioner lacks correctness.

12. Another Respondent Shri R. P. Mohapatra submits as follows:

(a) Name of the 33/11 kV s/s and DSS to be refurbished have not been given. Name and length of the 33 kV, 11 kV, LT network to be refurbished are also not given. The petitioner has stated that those shall be submitted as the work progresses. Hence, it appears that the DPR has not been prepared with adequate investigation.

(b) The petitioner has not given the cost benefit analysis to indicate the reduction in AT&C loss and consequent reduction of tariff. The petitioner should not claim any increase in tariff for 2021-22 except a nominal rise of 2 paise/unit.

(c) The petitioner has submitted that the existing network are in dilapidated condition and unsafe. The petitioner should submit a report of the Principal Chief Electrical Inspector in this regard.

13. Another Respondent Shri Dhobei Sahoo has replied as below:-

(a) The petitioner has not submitted the present status on the AT&C loss interruptions, system availability, fatal/non-fatal accidents, billing percentage, collection percentage and metering under various schemes. The targeted achievements have also not been furnished.

(b) Quantification of the benefits to be achieved has not been given.

(c) Start and completion of the projects has not been furnished.

(d) Whether all the works proposed to be executed come under CAPEX or not.

(e) The Resource Plan and the Capitalization Plan impacting tariff have not been given.

(f) The petitioner has not stated about the impact of this CAPEX on the MYT approved by the Commission.

(g) Instead of CAPEX Plan, 5 year business plan should have been submitted.

The investment should be initially at the level 11 kV and LT.

14. The Utkal Chamber of Commerce, a Respondent states that a large number of non-metered and defective meter cases result into under billing and poor billing efficiency.

It is seen for years together that even the MI consumers are billed on average basis. When feeders, sub-stations and consumers are not provided with meters then entire AT&C, T&D report furnished by CESU are wrong. One of the major challenges of TPCODL is the present dilapidated network which is not compliant to statutory guidelines and pose threat to safety of employees, public at large and animals. The 33, 11 kV and LV overhead lines are long, redial with undersized, worn out bare conductors having extremely long spans, having damaged, bent, tilted poles and without guard wares in MV overhead feeders. It is understood that almost no CAPEX has been infused by any of the distribution franchisees in the last three years. Network, therefore, needs urgent investment to address the operational, commercial and safety related challenges to improve the reliability of supply, customer services and safety of staff and general public at large. The proposal of the Petitioner for an expenditure Rs.96.46 crores related to technology and infrastructure should be allowed. The Respondent also urges the Petitioner to look into consumer grievances like ToD benefit, remunerative scheme and speedy disposal of cases before Hon'ble High Court.

15. Respondent Shri Prabhakar Dora submits that though the Petitioner has submitted a detailed plan for capital expenditure for a period of 8 years but it has not shown return on the capital investment. Every DPR should be associated with cost benefit analysis. The debt component should be managed in such a way that return from it increase to the level of initial investment. The DPR has been made on the basis of sample survey and not on the basis of a broad workout. The licensee is under obligation to survey the network asset and prepare DPR after that. The old and obsolete infrastructure should be removed and should be shown clearly in digital mode. The existing scrap material in the store yards and in the field should be accounted for. The sale proceeds of the scrap material should be deducted from the proposed capital expenditure.

16. Another Respondent M/s. Grinity Power Tech. Pvt. Ltd. has stated that TPCODL has envisaged around Rs.2600 cr. of investment in 8 years which is a welcome step. Further though approved Capex plan of the Commission as per the vesting order is Rs.201 crore for FY 2020-21, TPCODL has submitted a DPR of Rs.344.44 crs. as Capex for FY 2020-21 which is appreciable and praiseworthy. This investment will bring down AT&C loss if properly implemented. Due to substantial AT&C loss reduction the tariff is likely to be reduced. Hence, there will be no impact on the

consumers. TPCODL may be directed to submit likely AT&C loss reduction, financial saving and probable outcome due to the Capex plan of Rs.344.44 crore for FY 2020-21.

17. The Respondent Odisha Bidyut Karmachari Mahasangha states that their union appreciates the Capex plan of Rs.344.44 crores against proposed Rs.201 crore mentioned in the vesting order. On perusal of component wise Capex expenditure it is observed that good emphasis has been given on IT, SCADA, infrastructure development in urban area of supply system. The system improvement work in 11 kV network, augment of distribution transformers, augmentation of LT network have not particularly been given importance. Though both State and Central Government have lots of schemes in urban areas there is no such scheme in rural areas except massive electrification. Therefore, the rural areas lack supporting infrastructure. The Respondent suggests that in the first year of Capex more emphasis should be given on least focused network portion i.e. 11 kV network or below so far Capex is concerned. Erection of interposing poles, conductor augmentation at 11 kV and LT, upgradation of overloaded DTs, line, AB switch installation, massive replacement of damaged equipments at distribution sub-stations and 11 kV and LT lines, segregation of overloaded lines, construction of new 11 kV and LT linking lines should be taken up after preparation of a revised comprehensive DPR for above unattended portion of supply network. The present first year Capex proposal of TPCODL should be modified and it should be more focused on power supply network i.e. 11 kV network and below so that consumer of the state will get good quality of power supply.

18. Another Respondent Shri Lalatendu Dikhit in his written submission states that in the DPR many operational expenditures are represented as Capex investment. So it should be deducted from Capex plan. More transparency is required in execution of Capex plan. Defective / no meter/ burnt meter analysis (no. of meters) and projection for replacement are not correct. In the name of meter replacement huge amount of expenditure has been planned. This should be rectified.

19. Another respondent M/s. Karma Re-rollers Pvt. Ltd. in his written submission supports the Capex plan of TPCODL for re-conductoring feeders and replacement of sick equipment and augmentation of network to improve the reliability of power supply.

20. Respondent Ms. Manisha Das of RPG Group supports the Capex programme of TPCODL. As a consumer she observes that sagging of wires is leading to frequent accidents which requires replacement. To avoid electrical accidents and to provide reliable supply automation and installation of protective devices are required in the network.

21. In its rejoinder the Petitioner submits as follows:

(a) The Government schemes so far executed for the lines are extension of network for facilitating new connections in rural and urban area. The petitioner has analysed the system on 'as is basis' and has made proposal for refurbishment and strengthening of network. As reiterated earlier by the petitioner, it has proposed for refurbishment of 2.5% of its 33 kV network, i.e. 80-Ckt km out of approximate 3700 Ckt-km. For this, the petitioner has claimed that necessary inspection by the competent authority has been carried out.

(b) In compliance to the provisions in the Supply Code, i.e. consumer having first option to procure meter of approved make from the Licensee's approved vendor, and with an aim of achieving 100% metering, the petitioner has proposed for replacing about 6 lakh old mechanical meters and procuring of 1,99,100 meters for replacement of old defective meters & installing meter in 'No Meter' cases. The petitioner has similarly intended to procure 9409 three phase meters.

(c) As regards to the proposal of Rs.9 crore investment towards load growth, the petitioner has stated the major works for capacity addition have been almost completed through Government funded schemes. So this Rs.9 crore amount is meant for link lines at 33 and 11 kV level with 33/11 kV sub-stations.

(d) As regards to the higher installed capacity of DT compared to 33 kV power transformer, the petitioner states that 33/11 kV transformer are installed at strategic locations to cover mass area for feeding the load whereas 11 kV feeders emanate to serve consumer at 11 kV or below voltage level. Since population is scattered, the number and capacity of 11 kV distribution transformer is higher to cater to this population.

(e) As regards the installed capacity of the Grid s/s of OPTCL from which the supply is drawn, the petitioner has stated that it is 4137 MW.

(f) The Petitioner submits the meter replacement plan for coming three years as follows:

Type of Meter	Reason for Replacement	Year-1 (FY 2020-21)	Year-2 (FY 2021-22)	Year-3 (FY 2022-23)	Total
Single Phase Meters	No Meters	106000	0	0	996000
	Old Defective Meters	93100	56900	0	
	New Defective Expected	0	70000	70000	
	Electromechanical Meter	0	340000	260000	
Three Phase Whole Current meters	No Meters	1100	0	0	16900
	Defective Meters	7000	4000	4000	
	Electromechanical Meter	800	0	0	
Three Phase LT CT meters	No Meters	78	0	0	1425
	Defective Meters	297	500	500	
	Electromechanical Meter	50	0	0	
Three Phase HT CT meters	No Meters	0	0	0	284
	Defective Meters	84	100	100	
	Electromechanical Meter	0	0	0	
Grand Total	Grand Total	208509	471500	334600	1014609

(g) As regards sharing location wise details, where, work in the network is to be executed, the petitioner has stated that since the involvement at 11 kV and below level is huge, it has only mentioned to take up work in 1136 No. of 3 phase DTRS.

(h) As regards sharing location wise temporary restoration work post-FANI, the petitioner states that more than 600 feeders were restored temporarily and now estimate is being prepared to carry out rectification work. The petitioner states that it shall submit the corresponding progress report in regular intervals to the Commission.

(i) Instead of sharing division wise utilization of funds under Government funded scheme, the petitioner has shared the aggregate information with the Respondent and the Commission.

(j) As regards to engagement of Business Associates (BAs), the petitioner has stated that they were selected through transparent tendering process and their performance shall be monitored. The manpower engaged earlier shall be deployed depending upon their satisfactory performance.

(k) As regards to inclusion of cost of meter in the DPR, the petitioner has stated that it shall be incurred for installation of meters.

(l) As regards cost benefit analysis in terms of AT&C loss, the petitioner has estimated that there shall be a reduction of around 1.31% AT&C loss subject to challenge posed by the COVID condition. The impact of safety and statutory scheme shall be less than 2 paise per unit. The impact of loss reduction scheme shall have payback period within 3-4 years. The payback period of reliability improvement scheme shall be 6-7 years. The tariff impact shall be mitigated to the extent of increase in supply quantum resulting in higher billing and revenue realization. Expenditure on meters shall be covered through monthly meter rentals and hence there shall be no impact on tariff.

(m) Infrastructure scheme shall optimize O&M cost in terms of man power, procurement, A&G etc. which will mitigate tariff impact.

(n) As regards the query as to preparation of the DPR based on detail analysis and without any supporting document of the PCEI, the petitioner has clarified that the DPR has been prepared for seeking approval of the Commission and the progress report shall be submitted from time to time.

(o) Regarding funding of the Capex Plan the Petitioner states that the funding shall be done by 30% equity and 70% loan from Commercial Banks / FIs for which negotiation is on.

(p) While explaining the manner of treatment of income through sale of scraps the Petitioner says that such income is a non-tariff income in the ARR. However, treatment of such income needs to be looked in the context of nature of scrap (Capex/ Opex) as well as the depreciated value as amount realized through sale.

22. Heard the parties at length. Before going to the merit of the proposal of the licensee we will discuss the background and provisions basing on which the investment plan shall be approved. As per section 42 of the Electricity Act, 2003 read with Condition 7 of the licence condition and Regulation 4 of the General conditions of Distribution License of the OERC (Conduct of Business) Regulation, 2004, it shall be the duty of

the distribution licensee to develop and maintain an efficient, coordinated, economical distribution system in its area of supply and to supply electricity in accordance with the provisions in the Act, Rules, Regulations and the direction of the Commission. The Commission is guided under section 61(c) of the Electricity Act, 2003 by the factors which would encourage, competition, efficiency, economical use of the resources, good performance and optimum investments while determining the tariff.

23. In the present case as per para 42(b) of the vesting order, the petitioner committed capital expenditure of Rs.1541 crores for the period FY 2021 to FY 2025 as follows :

(Value in Rs. Crore)

FY 2021	**FY 2022**	**FY 2023**	**FY 2024**	**FY 2025**	**Total**
201	393	310	338	299	1541

(i) As per para 42(c) of the vesting order:

"To allow flexibility in the capital expenditure planning, the Commission stipulates that, in the capital expenditure plan to be submitted by TPCODL as per the license conditions, the capital expenditure commitment for each year of the period FY 2021 to FY 2025 must be such that capital expenditure proposed upto a year shall be at least equal to the cumulative capital expenditure committed upto that year in the Bid submitted by TPCL. For avoidance of doubt, the minimum cumulative capital expenditure to be proposed by TPCODL for the period FY 2021 to FY 2025 must be as provided in the table below:

Upto 31-Mar-2021	*Upto 31-Mar- 2022*	*Upto 31-Mar-2023*	*Upto 31-Mar-2024*	*Upto 31-Mar-2025*
201	*594*	*904*	*1,242*	*1,541*

(ii) As per the Licence Condition 11 and 32 the Investment above Rs.5 core is to be made by the distribution licensee in the licensed business area of operation with the approval of the Commission.

24. The main objective of the investment plan is to develop and maintain an efficient, coordinated and economical distribution system in its area of operation. TPCODL shall effect supply of electricity to consumers in accordance with the provisions of the Act, Rules, Regulations, Orders framed there under and the direction of the Commission. The Commission further considers the following major aspects while finalizing the investment plan proposed by TPCODL.

(i) Whether the scheme is required to meet the statutory standards set in the Act, specified under Regulations, standards etc.

(ii) Whether it will be helpful to meet the consumer's expectations of economic, quality and reliable power.

(iii) Whether the investment is cost efficient?

(iv) Whether the proposal shall have any tariff impact on the consumers?

25. The Commission has examined the investments proposed by the petitioner. The Commission, while examining the investment proposals has considered all the views/objections/suggestions expressed by the stakeholders in writing and during the public hearing to the extent they are relevant.

26. As per Regulation 22(vi) 0f Supply Code, the connection charges for a new consumer are Rs.1500/- (up to 2 KW) and Rs.2500/-(beyond 2 KW up to 5 KW) excluding the cost of meter, processing fee & Security deposit. Further, cost of meter is to be recovered through the meter rent as per the Regulations and orders in force, if the same has been supplied by the Licensee. Hence, the Commission is not inclined to allow the proposal for procurement of meter, meter box, metering accessories etc. under CAPEX. Considering the submission of the petitioner that new connection meter shall be funded through monthly rentals with no impact on the tariff, we disallow that part of the cost shown in the DPR.

27. Considering the stocks of DTs and line materials available in the store and comparing certain items with the approved cost data, the Commission approves certain lesser amount as compared to those shown in the DPR. The petitioner is advised to take stock of the inventory and make its effective utilization.

28. In view of the necessity of the proposed capital investment plan, the Commission hereby grants in principle approval to be following proposals except those stated above.

CAPEX Plan FY 2020-21

Sl.No.	Major Category	Activity in brief	DPR Cost (Proposed) (In Cr.)	Approved Cost (Considering approved Cost data, material availability & not considering the CAPEX for Metering) (In Cr.)
1	Statutory & Safety	33 kV Network refurbishment to ensure Horizontal/ Vertical clearances	6.37	4.57
		PPEs, FFEs, Safety & Testing Equipment	9.48	9.48
		DSS Refurbishment for safety of Employees, Public and Animals	50.17	47.34
		Establishment of Meter Testing Lab	6.78	6.78
		Total	**72.80**	**68.17**
2	Loss Reduction	Meter replacement against burnt/Faulty and Mechanical / No meter	45.24	13.65
		Installation of DT meters for energy accounting	15.36	15.36
		Solution for meter reading and spot billing	3.00	3.00
		Optimize the feeder length / load to reduce technical loss	9.67	7.62
		Total	**73.27**	**39.63**
3	Reliability	110 Nos. GSS refurbishment for SCADA operationalisation	26.43	26.43
		Installation of Auto reclosure/ sectionalisers, FPI & RMU	23.88	23.88
		Installation of LV protection at DSS	6.73	6.73
		Replacement of Battery and Battery charger	2.26	2.26
		Installation of AB switches for improving reliability	13.18	13.18
		Total	**72.48**	**72.48**
4	Load Growth	Meter installation for all new connection	24.43	0.00
		Network augmentation / addition to meet load growth	9	9.00
		Total	**33.43**	**9.00**
5	Infrastructure	Infrastructure for Customer care, call centre, payment centre and section offices	6.36	6.36
		IT and technology for process efficiency and enhanced productivity	67.77	67.22
		Implementation of 1st phase of GIS Roadmap	2.00	2.00
		Security system in central store	3.48	2.92
		Civil upgradation	7.95	7.95
		Ready to use assets for offices	4.90	4.90
		Total	**92.46**	**91.35**
		Grand Total	**344.44**	**280.63**

29. The approved cost shall be passed in the ARR as per the norm subject to rational utilization by the petitioner and prudence check through audit. The petitioner is

directed to submit quarterly progress report of the works along with the details of materials utilized vis-à-vis various activities shown in the DPR.

30. Accordingly the case is disposed of.

Sd/-	Sd/-	Sd/-
(G. Mohapatra) **Member**	**(S. K. Parhi)** **Member**	**(U. N. Behera)** **Chairperson**