

**ODISHA ELECTRICITY REGULATORY COMMISSION
BIDYUT NIYAMAK BHAWAN,
PLOT NO. 4, CHUNOKOLI, SHAILASHREE VIHAR,
BHUBANESWAR-751021

**Present: Shri G. Mohapatra, Officiating Chairperson
Shri S. K. Ray Mohapatra, Member**

Case No. 34/2022

M/s TPCODL

Vrs.

M/s GRIDCO & Others

.....Petitioner

..... Respondents

In the matter of: Application under Clause 9.4 of the OREC (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2014 for approval of maintaining inventory of material for meeting the urgency in Cyclone (“Cyclone Inventory”) over and above the inventory permitted under the Tariff Regulations.

For Petitioner: Shri Puneet Munjal, (Head Regulatory Affairs) and Shri Pourush Garg, the representative of TP Central Odisha Distribution Ltd.

For Respondents: Shri Baishnab Charan Padhiary, CGM(F), GRIDCO Ltd. and Shri Bijay Kumar Das, GM (Regulation Tariff & Commerce) OPTCL and Ms. Sonali Patnaik, ALO I/c., DoE, GoO, Shri R. P. Mahapatra

Nobody is present on behalf of Shri Lalatendu Dikhit and Shri Anil Kumar Sahu.

ORDER

Date of hearing: 13.09.2022

Date of order:18.10.2022

1. The Petitioner-TPCODL has filed the application under Clause 9.4 of the OERC (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2014 for approval of maintaining inventory of materials for the purpose of meeting the urgency in Cyclone (“Cyclone Inventory”) over and above the inventory permitted under the Tariff Regulations with the following prayers :
 - (a) to permit TPCODL to maintain inventory (“Cyclone inventory”) estimated to be about Rs.120 cr for use of the same to meet the need during the restoration work of the network by all the DISCOMs in Odisha
 - (b) to approve the cost of maintaining of inventory as well as consumption from the inventory in ARR of DISCOMs.

2. The averments of the Petitioner are submitted in summarised manner as mentioned hereinafter:

- (a) Odisha is a multi hazard prone State in the eastern part of India and in the last two decades the State has faced frequent Cyclones as well as floods. The frequency & severity of cyclone have increased in last two decades. The highest wind speed of (260-270 Km/Hr) was experienced during the Super Cyclone in 1999. The wind speed during other cyclones like Phalin (2013), Hudhud (2014), Fani (2019), Amphan (2020) and Yaas (2021) was about 214 km/hr, 180-190 km/hr, 200-215 km/hr, 120 km/hr and 130-140 km/hr respectively.
- (b) The density of electricity network is higher in coastal belt and chance of disruption is higher in the coastal zone. The LT lines, DTRs, 11 kV, 33 kV, 33 kV/11 kV substations within a distance upto 30Kms from the coastal zone are at high risk. The Government of Odisha, OPTCL and Distribution utilities are also working to setup a Cyclone resilient network. The capital expenditure for such network is being proposed by the (a) Government of Odisha and (b) the concerned Transmission and Distribution License in their Capex plans.
- (c) The proposed inventory created would be utilised by all the DISCOMs of the State. However, the present requirement has been prepared for TPCODL considering its own requirement alone.

The estimation of major materials required as inventory includes poles of 67144 number (Rs.41.58 cr), LT cable of 1617 Kms (Rs.29.42 cr), LA of 17325 Nos. (Rs.14.88 cr), UG cable of 84 Kms (Rs.7.10 cr), DT of 947 Nos. (Rs.6.86 cr), conductor of 1288 Kms (Rs.5.80 cr), O/Accessories of 92400 Nos. (Rs.5.84 cr) besides other equipments such as AB switch, Channels, LTDB, substations equipment etc.

The above estimation has been made based on the assessment of present situation and in case of any further requirement of inventory TPCODL will approach the Commission. This Cyclone inventory would be required for a period of 8 years and this inventory will only be used for meeting the need of material for restoration of supply after the cyclone and cannot be used for meeting the need of normal R&M and CAPEX Schemes undertaken by DISCOMs. This material may also be used by other three DISCOMs

restricted only to the extent of restoration of network affected by the Cyclone. If other DISCOMs use this inventory they would reimburse TPCODL for inventory used which can be claimed by them in their ARR.

- (d) The normal R&M is not adequate for meeting the expenditure arising out of such eventualities like Cyclones and hence the expenditure towards restoration of supply needs to be allowed separately. TPCODL may be allowed to include the cost of the average balance of Cyclone inventory in the ARR at the rate applicable for interest on working capital. In addition cost of insurance, storage, billing and security of such inventory would also be allowed.
 - (e) At the end of 8 years this inventory would be liquidated and the difference between the amounts realised by such liquidation and the book value of inventory would be charged in the ARR. The Commission may also allow using such inventory in R&M or CAPEX after end of 8 years.
 - (f) The impact on tariff would be 1.3 P/Kwh considering opening inventory value Rs.116.48 cr and sales of 15753 MU by TPCODL & TPNODL. The advantage of maintaining such inventory would be the early restoration of the network which would benefit of consumers in terms of the improved reliability. This would also insulate the consumers from the vagaries of prices and availability of material at the time of restoration as the expenditure is charged at the cost in books and not market value.
3. The Respondent-Mr. Lalatendu Dikhit has stated that Govt. of Odisha is providing full support to all the DISCOMs for restoration work. By spending and allowing TPCODL, this additional Cyclone inventory will be an extra burden to the consumers. Moreover, Govt. of Odisha and DISCOMs have proposed for setting up cyclone resilient network that would withstand the severity of cyclone.
4. The Respondent-GRIDCO has submitted that the Commission has already approved CAPEX of Rs.1075.29 cr for FY 2021-22 and Rs.1342.4 cr for FY 2022-23. There is also committed CAPEX of Rs.1171 cr for 2023-24 and Rs.1101 cr for FY 2024-25. In comparison to the previous utilities the current utilities are getting adequate R&M expenses in the ARR. As a comparison R&M approved by the Commission was to the tune of Rs.354.44 cr. for the FY 2019-20, Rs.372.91 cr for the FY 2020-21, Rs.481.75 cr. for the FY 2021-22 and Rs.627.55 cr. for the FY 2022-23. The current

DISCOMs are getting adequate R&M expenses and the DISCOMs should plan in advance regarding procurement of materials as per the approval of the Commission.

5. GRIDCO has further stated that it agrees with the proposal and the materials needed to be procured in advance and the quantity should be decided considering factor such as availability of materials and available materials towards R&M and CAPEX. The availability of existing assets in the vulnerable areas may be taken into consideration for meeting the exigencies and it has proposed for harnessing the resources of other DISCOMs for meeting need of the hour. The working capital requirements for balance materials to be procured by DISCOMs, may be considered in ARR along with interest on working capital.
6. Respondent-OPTCL in its submission has stated as under:
 - (a) After Cyclone FANI in 2019, many bare conductors have been replaced with AB cables, predominantly in cyclone prone area along with replacement of old poles with new poles. Therefore, the projected inventory of 1617 Kms of AB cables at a cost of Rs.29.42 cr and 67144 Nos. of poles at a cost of Rs.41.58 cr seems to be unrealistic. The Commission has allowed additional OPEX in their first year of operation and approved CAPEX plan for two years. For the year 2021-22, the actual expenditure incurred so far is Rs. 440.52 cr against the approved CAPEX for Rs.1075.28 cr, out of which so far the capitalisation has been made for Rs.165.44 cr. Therefore, the DISCOM have only been able to spend around 40% of the approved CAPEX, hence asset capitalisation is very low. The DISCOMs, therefore, may not be able to fully utilise the approved CAPEX of Rs.1342.39 for FY 2022-23.
 - (b) Due to such less capitalisation of asset the projects under the CAPEX investment are in various stages of completion and the materials procured for such projects are still lying unutilised. These un-utilised materials can be used to mitigate any such situation arising out of cyclone which can be replenished. The Commission in the CAPEX orders has directed DISCOMs to take stock of the inventory for its effective utilisation. The petitioner should disclose the inventory available in the store and may create the proposed cyclone inventory. In case of any eventuality due to cyclone the damaged infrastructure can also be claimed from State Disaster Response Fund (SDRF) or National Disaster Response Fund (NDRF).

- (c) The State Government in the plan budget for FY 2022-23 has made some provisions towards developing Disaster Material Bank. The material required under the scheme can be procured for immediate restoration of electrical infrastructure and DISCOMs may also request the Government for creating cyclone inventory. The cyclone inventory may be kept at strategic location of TPCODL, TPSODL and TPNODL for minimizing transportation time and cost.
7. Respondent Shri Anil Kumar Sahoo has submitted that both Government of Odisha and Government of India are excellent in disaster management. They are providing finance for cyclone restoration works. The proposal of TPCODL for creation of cyclone inventory for Rs.120 cr is not good.
8. The Response of Petitioner-TPCODL to the queries raised by the Respondents are as follows:
- (a) In response to objections raised by Shri Lalatenda Dixit, it is stated that by maintaining cyclone inventory, which is a pro-active measure, will save time and efforts for restoration works. This insulates the consumers from the vagaries and impact of maintaining such inventory works out to 1.3 p/Kwh. The proposed cyclone inventory has taken into account the Govt. of Odisha and DISCOM's investment plans for building a cyclone resilient network and accordingly, inventory for the period of 8 years have been proposed so that by that time, the cyclone resilient infrastructure will be in place. The materials to be kept as cyclone inventory cannot be used for normal R&M or CAPEX works and this will meet the requirement of all DISCOMs.
- (b) In response to suggestions made by Shri R P Mohapatra the list of the materials along with voltage rating, estimated quantity and unit rate has been provided. A table showing the amount of Govt. funding received by all Discoms in last 9 years for restoration work for post cyclone has been given. As shown in the table, Rs.740.75 cr (Rs.674.47 cr toward FANI) has been received by TPCODL and Rs.196.48 cr by TPNODL, Rs.239.93 cr by TPSODL and Rs.3.79 cr by TPWODL. Therefore, the total funding received by four DISCOM for last 9 years is Rs.1180.95 cr and average quantum per year is Rs.131 cr. Thus, the proposed inventory of Rs.120 cr is quite reasonable.

- (c) Further, in the report on “Cyclone Resilient Power System Infrastructure in AMPHAN affected district of Odisha” prepared by DoE, Govt. of Odisha recognises the need for maintaining a dedicated material inventory for quick restoration of power supply post a cyclone. Such report estimates material bank of Rs.75.03 cr for NESCO and Rs.85.20 cr for TPCODL. Though the report has not highlighted the requirement of TPSODL but TPSODL is also venerable so far as cyclone is concerned. Therefore, the recommendation in the report substantiates the proposal for maintaining a dedicated cyclone inventory estimated by the TPCODL to the tune of Rs.120 cr.
9. The Petitioner has further stated that the proposal is for maintaining same level of cyclone inventory for 8 years which may be reviewed by the Commission each year taking into account the utilisation made.
10. TPCODL stated that the inventory will be insured and it will be utilised for the intended purpose only. In case of utilisation of inventories, the replenishment requirement shall be assessed and approved by the Commission. TPCODL has further stated that the investment plan of Government of Odisha, DISCOMS and OPTCL in building cyclone resilient network have been taken into account and therefore, it has been proposed to maintain this inventory for the period of 8 years only.
11. The Commission had raised following queries during the hearing:
- (a) utilisation of common pool of spares for all DISCOMs during cyclone,
 - (b) additional provision of spares (%) over and above normal spares to meet the requirement of cyclone prone areas,
 - (c) why not replacement of spares can be done on rolling basis instead of blocking spares for a long time,
 - (d) justification for provision of underground cable, large quantities of LA, AB cables& poles,
 - (e) status of strengthening of existing distribution infrastructure& development of a cyclone resilient distribution system for which provision has been made in the CAPEX.
12. TPCODL in its reply to the queries raised by the Commission stated that most of the 33 kV/11 kV and LV network consist of overhead lines running on different type poles and towers. In TPCODL area, the inherited network consist of LT lines on 8

m, PSC poles, 11 kV lines on 9 m PSC poles, 33 kV lines on 11 m/13 m RS Joist poles. About 200 Kms of entire coast line of Odisha comes under TPCODL license area and large number of poles and other assets get damaged due to cyclone, which have increased over the years.

13. TPCODL has stated that as per the CEA (Ministry of Power) report published in March, 2021 on cyclone resilient infrastructure, the East Coast of India is one of the most affected area in the world due to cyclone. As per the data of Regional Specialised Meteorological Centre (RSMC, IMD), there has been 13 cyclonic storm observed with intensity of wind greater than 18 Km/hr and Odisha was impacted by 7 of such cyclones such as Phailin, Hudhud, Titli, Fani, Bulbul and Amphan and damages caused by these cyclones were huge and devastating. The distribution network located approximately 20 Kms from coast are the most vulnerable to the gusting winds. TPCODL have worked out for critical area within 30 Kms from the coast line which have 77 sections from 9 divisions. TPCODL has considered the assets of these sections such as distribution transformer (22810 nos. of all capacities), 11 kV feeders (poles of 27200 nos. and conductor of 40800 Kms), LT over head line (pole of 126380 nos. and conductor of 25276 Kms) and LT AB cable (poles of 199120 nos. and LT AB cable of 9956 Kms).
14. TPCODL has proposed the cyclone inventory such as LT pole (61600 nos.), LT conductor (231 Kms), LT AB cable (231 Kms), 11 kV pole (3850 nos.), Conductor (924 Kms) and DT (947 nos.). As per the proposal, 77 vulnerable sections has been considered and accordingly cyclone inventories has been proposed i.e. about 19% of the existing asset base for LT poles, about 16% of the existing asset base for LT AB cable and less than 5% of the other assets.
15. The Commission heard the Petitioner and the Respondents and considered their written submission & argument during hearing. After hearing the parties, the Commission does observe as follows:
 - (a) The Commission recognises that coastal areas of the state covering some areas of operation of TPCODL, TPNODL & TPSODL are vulnerable to vagaries of the natural calamities and are affected very frequently by cyclone. High speed wind during cyclone is causing large scale damage to transmission and distribution infrastructure of the State for last two decades, but distribution infrastructure is worst affected. The Government of Odisha along with the DISCOMs, SDRF and NDRF used to take up restoration of power supply, which has improved over the years and restoration process has

become much faster. The past experience shows that availability of required material has played an important role in faster restoration of supply. At times, it is felt that non-availability of required materials at short notice is most likely to worsen the remedial measures during the restoration process. Hence material bank/cyclone inventories is indispensable.

- (b) Govt. of Odisha in its report on “Cyclone Resilient Power System Infrastructures in Amphan affected districts of Odisha” has also recognised the need for a dedicated material bank for quick restoration of power supply post a cyclone. As per data submitted by the TPCODL, all four DISCOMs have received funds from Govt. of Odisha for restoration of distribution network. CESU (now TPCODL) has received Rs.740.75 cr since 2013 to 2021 for restoration of distribution network after cyclones. Similarly, NESCO (now TPNODL), SOUTHCO (now TPSODL) and WESCO (now TPWODL) have received Rs.196.48 crs., Rs.239.93 crs. and Rs.3.79 crs. respectively during the same period. Govt. of Odisha is providing adequate financial support for restoration of distribution network. The Government of Odisha may provide similar support for creation of material bank required for quick restoration of the Distribution network to avoid tariff burden on consumers.
- (c) The Commission is not inclined to allow under this petition for creation of the material bank, exclusively for the purpose of cyclone, as this will be an additional burden on the consumers. The DISCOMS may approach the Government of Odisha for financial support for the creation of material bank. The DISCOMs may approach the Commission regarding additional provision for the material bank, if required, while submitting the ARR to meet any such exigencies. The Commission would examine such proposal with due diligence for additional funding under the head R&M.
- (d) The Commission exercising powers conferred on it under Section 86(2) of the Electricity Act, 2003 advises the State Government to consider for providing necessary grant for creation of material bank in DISCOMs to meet any exigency arising out of natural calamity. The Government of Odisha has recognised creation of Material Bank, in its report on Cyclone Resilient Power System Infrastructures in Amphan affected Districts of Odisha prepared by Department of Energy, Government of Odisha.

- (e) The material bank created by DISCOMs should be located at strategic locations for faster delivery to the affected sites and for reducing cost of transportation.
- (f) The material bank created for cyclone by one DISCOM may be utilised by another DISCOM (on reimbursable basis) for faster restoration of power supply on cyclone affected areas.
- (g) TPCODL & other DISCOMs shall provide the detailed information to the Commission on the utilisation of the Cyclone Inventory every year for review of the Commission. Based on review, the Commission will allow replenishment of inventory, if required. For this purpose, TPCODL & other DISCOMs will be required to submit an audit report on the cyclone inventory from a qualified Auditor.
- (h) This order will be applicable to all the DISCOMs although this petition has been filed by the TPCODL.

16. With the above observations, the case is accordingly disposed of.

Sd/-
(S. K. Ray Mohapatra)
Member

Sd/-
(G. Mohapatra)
Officiating Chairperson