

TAMIL NADU ELECTRICITY REGULATORY COMMISSION
(Constituted under section 82 (1) of the Electricity Act, 2003)
(Central Act 36 of 2003)

PRESENT:-

Thiru S.Akshayakumar	Chairman
Thiru.G.Rajagopal	Member
and		
Dr.T.Prabhakara Rao	Member

M.P.No.3 of 2016

Chennai Metro Rail Limited
Rep. by its Managing Director
CMRL Depot, Admin Building
Koyambedu, Chennai – 107.

... Petitioner
(Thiru Jayesh B. Dolia,
Advocate for the Petitioner)

Vs.

Tamil Nadu Generation and Distribution
Corporation Ltd.,
NPKRR Malligai, 144, Anna Salai
Chennai – 600 002.

... Respondent
(Thiru M.Gopinathan
Standing Counsel for TANGEDCO)

Dates of hearing: 11-02-2016 and 28-04-2016

Date of Order: 01-08-2016

The M.P.No.3 of 2016 came up for final hearing on 28-04-2016. The Commission upon perusal of the Petition, Counter affidavit filed by the Respondent and all other connected records and after hearing the arguments of both sides hereby makes the following:

ORDER

1. Prayer of the Petitioner in the above M.P.No.3 of 2016:-

The prayer of the Petitioner in the above M.P.No.3 of 2016 is to fix the Railway Traction Tariff for Chennai Metro Rail Ltd. (CMRL) CMRL for the period of

trial operation from July 2013 to June 2015 and to include CMRL as a special category consumer and provide tariff during revenue operation based upon the actual cost of supply at 110 KV level excluding both the subsidy and cross-subsidy elements in line with National Tariff Policy and on par with DMRC / BMRCL.

2. Contentions of the Petitioner in the Affidavit filed in the above M.P.No.3 of 2016:-

2.1. Chennai Metro Rail Project (CMRL) is being executed based on the growing traffic of Chennai city which is increasing at rapid rate. The aim of the project is to provide a safe, fast, reliable, accessible, convenient, comfortable, efficient and affordable public transport service. It is an essential public utility and social sector green field project with a view to improve the mobility of commuters and to reduce traffic congestion and pollution level on roads and faster travel at affordable rates, for which electricity is the only source of energy for operation of metro system. Energy cost contributes to about 1/3rd of operation and maintenance cost.

CMRL Phase I consists of two corridors:

- i) Corridor 1: Washermentpet to Airport (23.1kms)
- ii) Corridor II : Chennai Central to St. Thomas Mount (22.0Kms)

Among this, CMRL has planned for commissioning of the project in three stages,

- a. Stage-1. From Koyambedu to Alandur Elevated Route has been commissioned on 29.06.2015 and the revenue operation is going on.
- b. Stage-1A: From Little Mount to Chennai Airport (7.7 Kms)and Alandur to St.Thomas Mount by July 2016.
- c. Stage -2: From Koyambedu to Egmore (UG) - by December -2016.
- d. The remaining length by December-2017.

2.2. The power supply requirement for the project is in the order of 30 million units in 2015 and is expected to be 200 million units in 2026 . CMRL receives power from

Koyambedu, Alandur & Chennai Central 230/110KV GIS TANTRANSCO Sub-stations at the Voltage level of 110KV at the respective receiving Sub-station (RSS). The 110 KV grid supply has been stepped down to 25 KV single phase and supplied for traction through Catenary and 33KV for Ring Main distribution through cable network along the route to provide power supply at Depot, Operation Control Centre and stations for auxiliary systems. At every station, it is being further stepped down from 33 kV to 415 V three phase for running of the passenger facilities and safety services viz, Lifts, Escalators, Air-Conditioning arrangements with platform screen doors (for energy conservation) Lighting, Water pumps, Fire detection & suppression system, Signaling etc. The above amenities need to be provided especially in all Under Ground Stations for benefit of commuters and to ensure ventilation inside tunnels. This will certainly increase the energy consumption.

2.3. CMRL is a new category of consumer to TANGEDCO to avail power for the purpose of Urban Transport. CMRL had availed power supply for a maximum demand of 5 MVA from TANTRANSCO 230/110KV GIS Sub-Station at Koyambedu (vide HT S.c. No.1843) for commissioning activities and trial operations from 26.07.2013 and also had availed power supply for a maximum demand of 5 MVA from TANTRANSCO 230/110 KV GIS Sub-Station at Alandur (vide HTSC No. 965) for commissioning of stage-I operation, and the demand will subsequently rise.

2.4. From July 2013, HT commercial tariff (III) has been fixed by TANGEDCO at the rate of 700paise / unit with a fixed Demand Charges of Rs.300/kVA/month, and it is subsequently revised & billed as 800Paise/unit and demand charges is Rs.350.00/kVA for the Traction and Utilities of CMRL.

2.5. In the DPR Prepared by Delhi Metro Rail Corporation (DMRC) for CMRL, it was stated that the cost of energy was considered as Rs.300 Paise/unit for all the calculations on consumption charges, based on which further calculations were worked out for evaluating the operational cost including repayment of loan, else the escalated cost of energy may lead to financial burden on CMRL.

2.6. Already DMRC is considered as a special category with a lower tariff from the inception of operation. Initially in the DERC Tariff order for the FY 2001-2002, Tariff was fixed to DMRC as 340paise/unit with a Fixed Demand Charges of Rs.150/KVA. In the latest MYT order for the FY2015-16 also DMRC is considered as special category and tariff was fixed at the rate of 610 paise/unit with a fixed Demand charges of Rs.125/KVA, whereas for Railways it was fixed as 680paise/unit with a Fixed Demand Charges of Rs.150/KVA. Further BMRCL is also classified as special category in the KERC Tariff order for FY 2015-16 with tariff at the rate of 520 paise per unit for energy consumption and fixed Demand charges of Rs.180/-per KVA/month.

2.7. The Commission may consider for fixation of special tariff to CMRL during revenue operation on par with DMRC and BMRCL and on cost to serve basis to run Metro Rail as on - commercial mode of public transport for the following reasons:-

- a. CMRL is a public oriented passenger service and not at all a profit sector like Railways as the later handle the commercial freight operation in addition to providing commuter service and cross subsidise the passenger cost. Further Urban transport does not generally make any Fixation.

- b. CMRL Should be in a position to provide reliable, economical and speedy weaning away public from personal (polluting) transport, since roads also are unable to take the huge spurt in cars, two wheelers etc. CMRL is involved in reducing the load on the transport system of the Chennai City.
- c. There is no subsidy or cross-subsidy to CMRL in any manner to meet the operational cost.
- d. CMRL is taking various measures to reduce Aggregate Technical and operational cost.
 - (i) CMRL is receiving power at three locations in the voltage level of 110KV and distributing by its own network, so that line losses in Traction & Distribution network are not attributed to TANGEDCO Ltd.
 - (ii) CMRL utilizes the latest energy efficient technology to operate trains with regeneration facility and also in auxiliary equipments like ventilation and Air-conditioning system etc. and at the same time to provide other basic amenities to commuters.
 - (iii) CMRL will also be utilizing some solar energy by installations on roof tops.
- e. CMRL will form a base load for TANGEDCO Ltd., and it will not exceed its demand under normal conditions. In addition to the above, the required Maximum Demand itself is not at all a continuous load with feature like regeneration during train operation.
- f. Net annual energy consumption for both traction and auxiliaries will be about 30 million units in the year 2015 and it will raise to 200 million units in 2026 depending upon the headway operation. This will impact operational cost of CMRL, if tariff is not fixed on par with DMRC/BMRCL.

- g. Further CMRL has the commitment to pay back the loan from JICA in time.
- h. Already DMRC and BMRCL were considered as a special category and energy tariff was fixed on cost to serve due to the fact that they are public oriented service and there is no subsidy and cross subsidy from commercial freight operation as in Railways.
- i. KERC has already approved the proposal to charge the average cost of supply to BMRCL. This means the Tariff would cover the complete cost of the supply based approved ARR of BESCO for the financial year.
- j. Moreover, all the Metro Rail Corporations have availed separate special Metro Tariff from their Respective State Regulatory Commissions.
- k. As per MOU between GOI, GOTN and CMRL dated 15.02.2011 electric power is to be made available to CMRL on a no-profit-no-loss basis, subject to the approval of TNERC.

3. Contentions of TANGEDCO in their Counter dated 17-03-2016:-

3.1. Delhi Metro Rail Corporation was classified under separate category for the usage of Railway Traction load and other than traction load is not included in Metro Rail Tariff and it is classified under non-domestic (Commercial) category. The Bangalore Metro Rail Corporation was classified under separate category. In Tamil Nadu, Railway Traction is being classified under HT Tariff 1-B including Mass Rapid Transit System (MRTS) exclusively used for metro transport. Other than Railway Traction consumption is being classified under miscellaneous category.

3.2. The CMRL obtained service connection in the month of July 2013 for its operation at Koyambedu. This classification exists even before availing service connection by CMRL. The CMRL entered into an agreement by knowing that under

which category their service was classified. The Commission issued tariff order in June 2013 and December 2014. The CMRL has not represented with the Commission at the time of tariff revision either in public hearing or in written submission. Recently, the CMRL availed service connection in the month of September 2015 for its operation at Alandur. In this case also, the CMRL availed service connection by knowing that under which category in their service connection has been classified.

3.3. (a) Section 62(3) of the Electricity Act 2003 provides that the Appropriate Commission shall not, while determining the tariff under this Act, show undue preference to any consumer of electricity but may differentiate according to the consumer's load factor, power factor, voltage, total consumption of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required. Accordingly, the Commission determined the tariff by classifying the traction usage under Railway Traction tariff.

(b) CMRL's nature of operation and operational environment is like that of Railways.

(c) TANGEDCO is not receiving any subsidy for operational cost. The cross-subsidy already exists to recover the Annual Revenue Requirement (ARR). The existence of cross-subsidy does not contribute anything more than that of ARR.

(d) The CMRL's effort in reducing line loss in their Traction & Distribution network does not give any benefit to TANGEDCO. The line loss in the network of consumer's

premises attributed to consumer and any reduction on this will only reduce the consumer's consumption charges.

(e) Every consumer has to follow the terms and conditions for availing supply. The recorded demand of the consumer should not exceed sanctioned demand. If it exceeds, the consumer has to pay the penal levy for excess demand over sanctioned demand. In the present case, the CMRL availed sanctioned demand based on their nature of operation.

(f) The Commission determines the tariff taking into consideration of various factors such as consumer's load factor, power factor, voltage, total consumption of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required to match and the Annual Revenue Requirement. The terms and conditions in respect of consumer's load factor, power factor, voltage, total consumption of electricity during any specified period or the time at which the supply electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required may vary State to State. In such a case the request of the petitioner to fix the tariff on par with other State is not justifiable.

3.4. The APTEL in order dated 30-11-2015 in Appeal No.68 of 2015 directed the Commission to implement the voltage wise/category wise cost of supply in the next tariff order. Determination of tariff on cost of supply to CMRL alone at present is not appropriate. It is appropriate to consider at the time of issue of next tariff order only. Hence, their petition may be rejected summarily. The Commission approved the tariff

based the average cost of supply. The tariff determined by the Commission is to recover the complete cost of supply based on the approved ARR of the TANGEDCO for a financial year. Even the tariff in the present tariff order is not sufficient to recover the entire ARR of TANGEDCO.

3.5. All the Metro Rail Corporations have availed separate tariff for their Traction load. They have represented before the respective Commissions at appropriate time for separate classification to Metro Rail Corporation. In Tamil Nadu, the Chennai Metro Rail Corporation have failed to represent for separate classification at the time of tariff revision process. Hence, CMRL may claim separate tariff classification during the next tariff revision.

3.6. The MOU between GOI, GOTN and CMRL in respect of electric power supply tariff is subject to the approval of the Commission. The Commission has not approved a separate tariff classification for CMRL and hence it has been brought under the approved classification of traction load under Railway Traction category and other than traction load under miscellaneous category. TANGEDCO is levying the charges from the CMRL under the category in which it has been classified in the present tariff order.

3.7. The tariff rate could not be determined retrospectively and during the operation period of tariff order. If it is classified either retrospectively or during the operation period of tariff order, it will give negative impact in the recovery of ARR for the operational year. Hence, the request of CMRL could be considered only during the next tariff revision process so that the recovery of ARR will be adjusted accordingly.

3.8. CMRL is availing power supply from July 2013 under HT Miscellaneous Tariff-III (HT service connection No.1843). The power supply is being utilized for traction load and for its day to day activities, viz.,

- (i) Escalators for admin building;
- (ii) Elevators for admin building;
- (iii) Air conditioners for admin building;
- (iv) Lightings for admin building;
- (v) Escalators for cargo building;
- (vi) Elevators for cargo building;
- (vii) Air conditioners for cargo building;
- (viii) Lightings for cargo building etc.

It is seen that the HT service connection is being utilized not only for the traction purpose but also for other than traction purpose. In view of mixed load, the tariff automatically comes under residual category.

3.9. CMRL had already been advised to segregate the load so as to effect tariff change for the existing High Tension service connection. CMRL commenced the commercial operation only in June 2015. From the date of availing supply in July 2013 to June 2015, the power supply was used for the purpose of trial operation and was billed and continued in HT tariff III. The trial operation period is to be considered as construction period. During construction period, the power supply should have been billed under HT tariff V (Temporary supply). To recover this difference in amount, necessary bill revision will have to be made and CMRL is also liable to pay the difference in amount.

3.10. CMRL requested the Commission to determine the tariff under special tariff category excluding subsidy and cross subsidy elements in line with National Tariff Policy (NTP). The above provision in the NTP in no way lends support to the claim of CMRL and as such CMRL have misunderstood the above provision. As such, there

is no concession extended to CMRL in National Tariff Policy. The request of CMRL to fix the railway traction tariff for the period of trial operation from July 2013 to June 2015 may not be considered, since it will severely affect the recovery of TANGEDCO's ARR.

3.11. The Commission's observation in para 5.38 of SMT order dated 11-12-2014 is reproduced as below:-

"The Commission takes cognizance of the direction of the Hon'ble Appellate Tribunal with respect to notifying a roadmap for reduction of cross subsidy with a view to move towards tariffs reflective of \pm average cost of supply. The Commission as stated above is underway in reviewing the study report submitted by TANGEDCO for voltage wise cost to serve. It intends to use the findings of this study as the basis for chalking out the said roadmap which will have intermediate milestones with an intention of gradual reduction in cross subsidy levels. Hence, the Commission shall along with the determination of cross subsidy for 2012-13 to 2014-15 for all consumer categories also design a forward looking road map along with its next tariff order."

4. Contentions of CMRL in the Rejoinder dated 07-04-2016:-

4.1. In DMRCL all the load such as traction and non-traction for metro rail services are built under single special category tariff.

4.2. The contention of TANGEDCO that CMRL and MRTS are identical in nature and thus to be considered in same line is legally and factually incorrect. MRTS is integral part of Indian Railways, with their own self subsidizing components by way of freight transport and very wide passenger network. CMRL also submitted the application under Tariff IB during June 2013 (existing Railway Traction Category) hoping that it will get the benefit of special tariff to be notified by the Commission on par with other metros and also based on the MOU signed with GOTN/GOI. CMRL was left with no other option than to take to TANGEDCO's terms at the time of taking

power supply since the project was to take off at that time. Even the payment is being made to TANGEDCO under protest only. The statement of TANGEDCO that CMRL has not represented with the commission at the time of tariff revision either in public hearing or in written submission is factually incorrect. CMRL has all along been taking the issue for separate tariff with the Commission right from the year 2013 and the same has been referred to in the tariff order for 2013-14. Here also TANGEDCO agrees to the claims CMRL for consideration, but expect the Commission to take up the issue in the next tariff order whereas CMRL requests the Commission to take up this issue right now for favorable order to give some financial relief to CMRL.

4.3. Section 62 (3) of Electricity Act, 2003 though prohibits undue preference to any consumer, has also a provision to distinguish the consumer on many grounds. That is why different tariff structure for different types of consumers are being considered by the Commission. On similar lines only, based on the geographical position, nature of supply and purpose for which the supply is requested, CMRL now claim for a single special tariff for all the connected loads in connection with Metro services operation.

4.4. CMRL project has been envisaged by a policy assurance supported by the MOU with GOTN & GOI for supply of power under 'No Profit No Loss' concept. Hence it is requested not to take CMRL into the ring of subsidizing consumers of TANGEDCO to contribute to TANGEDCO's Aggregate Revenue Requirement. (ARR). Moreover CMRL is a government owned public service oriented company and hence may be treated as a non-subsidising consumer. Since CMRL is a public service utility, fixation of tariff should be given due consideration. While fixing the

tariff, CMRL does not want the tariff rates to be on par with other metros but to be fixed on par with the tariff policy considered by the respective commissions only.

4.5. The revenue realised by CMRL as a whole is not even sufficient to meet the electricity bills as on date. Moreover further augmentation of revenue by some fare increase is also not viable. In this condition payback position of CMRL seems to be more alarming.

4.6. Both the points regarding the steps taken by CMRL from the beginning for a special tariff and situation under which CMRL agreed to the terms of TANGEDCO at the time of service connection have been already well explained. By stating that the claim of CMRL may be considered at the time of next tariff order, TANGEDCO comes to agree to the reasonable claim of CMRL. Since APTEL has already come out with a direction to implement the cost of supply concept, CMRL submits that special tariff may please be extended as CMRL which is already burdened with day to day losses.

4.7. The 'Complete cost of supply recovery' concept if applied to a public utility government owned company such as CMRL and that too covered by the MOU with both GOTN/GOI, may jeopardise the very motive of the company. Instead a reasonable COS preferably cost to serve without any cross subsidy loading may please be approved by the Commission.

4.8. It is very clear that the MOU between GOI, GOTN and CMRL ensures that power supply is to be made available to CMRL on a 'No Profit No Loss' basis. However, since any order on tariff is to be given only by the respective Commission,

the MOU speaks about the approval of Commission. TANGEDCO agrees to the claim of CMRL but only seeks to postpone the issue till next tariff order in which case CMRL will stand to lose heavily if not considered with retrospective effect.

4.9. Cargo handling is totally not connected to the principle of metro services. All the buildings referred to, are only associated with the operation and maintenance of metro services for passenger transport. Hence the escalator, elevator, lighting and air conditioners are only the integral parts of metro services and not to be considered as mixed loads. Such loads connected to CMRL network are integral parts of metro services only with traction load. CMRL is not for load segregation. Hence CMRL is requesting to go for a special tariff taking into consideration of all the loads under one head as considered and ordered in other metros like DMRCL, BMRCL, etc. However any commercial loads like ATMs, kiosks, stalls, hotels etc. if connected to metro supply may be billed separately under respective tariff and the same may be subtracted from the main energy consumption as done in DMRC.

4.10. The Commissioning and construction are totally of different nature. Temporary supply is for construction only which our contractors avail and TANGEDCO is well aware of it. The claim of relief now sought for by CMRL under separate tariff is to have retrospective effect from July 2013 (as done in BMRCL) since TANGEDCO has already been billing under higher category, i.e. Commercial. Hence the claim of TANGEDCO to bill under temporary supply tariff is not correct and against the general principles of justice.

4.11. The National Tariff Policy (NTP) is referred only not to load any cross subsidy element while fixing the tariff since the cross subsidy is to have been phased out

over a period of time. As per NTP, the tariff is expected to be not more than 20% of COS. NTP also ensures availability of electricity at reasonable and competitive rates to consumer.

4.12. As the Commission has already started taking steps for a road map for reduction of cross subsidy in respect of all tariffs with a move towards fixing the same around COS, the request of CMRL for a single separate tariff for the entire integral loads connected to the metro operation at a reasonable COS basis without any cross subsidy loading preferably at cost to serve of TANGEDCO under 'No profit No Loss' basis as envisaged in the MOU with the GOTN and GOI may please be approved with effect from July 2013. CMRL cannot be discriminated when DMRCL and BMRCL have been provided similar benefits

5. Written Submission of CMRL dated 13-05-2016:-

5.1. The benefits of Metro Rail are not restricted to the people of Chennai alone. The estimated floating population of Chennai city is around 1 million. Further, the Metro Rail network covers all the major transit points like Central, Egmore, Guindy and St.Thomas Mount Railway Stations, CMBT, Parrys bus stands and Chennai International Airport which benefits not only the people of Chennai but also those from the other parts of the State and country.

5.2. The single source of supply for the traction and other interconnected auxiliary loads like lifts, escalators, connected platform and underground lighting and controls and signaling centers, etc. which are most essential for the completeness of Metro System is a unique standard design which has been adopted originally in Delhi Metro Rail Corporation (DMRC), Delhi and then followed subsequently in all the

other metros. The auxiliary loads fed by the 33 kv network form the integral part which is incidental to the Metro Operation.

5.3. Air-conditioning is being utilized for all critical equipment rooms in all the metro stations and to provide ventilation for the comfort and mainly safety of the passengers in underground (UG) stations. CMRL is with more underground stations which are more energy intensive.

5.4. Since the platforms of the metro stations are either above or below the ground level, Lifts are to be necessarily provided for access to the platform for the aged and physically challenged persons. Escalators form the most standard part of design of the modern systems like Metros.

5.5. The depot is for maintenance works and the operational control centre (OCC) is for the control of the train operation and allied works. There is no cargo handling as said by the TANGEDCO in their counter. Moreover the Electrical network of Railway and Metros are of totally different nature and hence does not entertain any direct comparison.

5.6. CMRL is spending an amount of Rs.100 Crores for developing its own network for the essential auxiliaries connected with its operation which are primarily needed for the reliability, redundancy and system stability of the Metro.

5.7. GOTN and GOI have already committed through a MOU dated 15.2.2011 for supply of power to CMRL at 'No profit No loss' basis concept with the cost per unit to be around the Average Cost of Supply (ACS) of TANGEDCO with the approval of

the Commission. Separate tariff for other Metros like Delhi Metro Rail Corporation, Bangalore Metro Rail Corporation Limited have been approved by the respective commissions (to DMRC by Uttar Pradesh Electricity Regulatory Commission (UPERC), Haryana Electricity Regulatory Commission (HERC), Delhi Electricity Regulatory Commission (DERC) and to BMRC by Karnataka Electricity Regulatory Commission (KERC). The tariff fixed for the above Metros are well below the tariff fixed for Railways and it is true that even the Railway tariff is well below the ACS of respective utilities supplying the concerned Metros.

5.8. Even during the trial operation itself, concessional tariff has been fixed for DMRC and BMRCL. Recently KSERC has approved Railway Traction tariff for the trial operation of Kochi Metro Rail Limited (KMRL) and has agreed to consider the request of KMRL for a separate tariff in the next Tariff Order vide a recent order dated 07-04-2016. The claim of TANGEDCO which is already levying a higher tariff to go for a tariff under temporary supply category during the trial operation from July 2013 to June 2015 is totally against the principles of natural justice and practical point of view. Since trial operation does not come under the purview of construction, the claim of TANGEDCO for revision of electricity charges under temporary supply category is not correct and hence totally unacceptable.

5.9. Metro Rail transport is more of public service oriented rather than profit making due to its geographical and operational limitations. Further the revenue of Railways is being augmented by the freight operations which form 250% of the estimated earnings through passenger services. The operational nature of Metro Rail and Railways are different and hence cannot be equated and Metro Rail needs preferential consideration which has been categorically stated in the APTEL order

dated 13.3.2007 against Appeal No.386 of 2006 filed by Northern Railways, New Delhi.

5.10. CMRL originally submitted the application to TANGEDCO under IB (existing Railway Traction Category) hoping that it will get the benefit of special tariff to be notified by the Commission on par with other metros and also based on the MOU signed with GOTN/GOI. CMRL was left with no other option than to take to TANGEDCO's terms at the time of taking power supply since the project was to take off at that time. Even the payment is being made to TANGEDCO under protest only.

5.11. The contention of TANGEDCO that CMRL has not represented with the commission at the time of tariff revision either in public hearing or in written submission is factually incorrect. CMRL has all along been taking the issue for separate tariff with the Commission right from the year 2013 and the same has been referred to in the tariff order for 2013-14 (ref. Tariff order page no.65-67) wherein the Commission's view was to submit the necessary data on consumer and consumption pattern for the category and also ensure that the categorisation is in accordance with the criteria for differentiation provided under Section 62(3) of the Electricity Act, 2003, for the Commission's consideration. Even earlier when the same was taken upto the GOTN, it was stated that CMRL may represent to the Commission at the time of commercial operation.

5.12. The Commission has already observed in the SMT order dated 11.12.2014 to take cognizance of the direction of the Hon'ble APTEL with respect to notifying a road map for reduction of cross subsidy with a view to move towards tariff reflective of \pm ACS on cost to serve basis.

5.13. The Commission may approve to connect any commercial loads like ATMS, kiosks, stalls, hotels, etc. to the metro supply and to bill them separately under respective tariff with separate meters and to subtract the above energy consumptions from the main energy consumption as CMRL done in DMRC & BMRCL.

6. Findings of the Commission:-

6.1. We have heard the prayers of the Petitioner which are as below:

- a) to fix the Railway Traction tariff for CMRL for the period of trial operation from July 2013 to June 2015 and
- b) to include CMRL as a special category consumer and to provide tariff during revenue operation based upon the actual cost of supply at 110 KV level excluding both the subsidy and cross-subsidy elements in line with the National Tariff Policy and on par with DMRC/BMRCL.

6.2. The Petitioner CMRL contended that the CMRL Project is being executed based on the growing traffic of Chennai city which is increasing at rapid rate. The aim of the project is to provide a safe, fast, reliable, accessible, convenient, comfortable, efficient and affordable public transport service. The energy cost contributes to about 1/3rd of operation and maintenance cost.

6.3. The power supply requirement for the project is in the order of 30 million units in 2015 and is expected to be 200 million units in 2026.

6.4. CMRL receives power from Koyambedu, Alandur and Chennai Central 230/110KV GIS TANTRANSCO substations at the Voltage level of 110KV at the

respective receiving Substation. The 110 KV grid supply has been stepped down to 25KV single phase and supplied for traction through Catenary and 33 KV for Ring Main distribution through cable network along the route to provide power supply at Depot, Operation Control Centre and stations for auxiliary systems. Further, at every station, it is being stepped down from 33kV to 415 V three phase for running of the passenger facilities and safety services, viz. Lifts, Escalators, Air-Conditioning arrangements with platform screen doors (for energy conservation) Lighting, Water pumps, Fire detection & suppression system, Signaling, etc. The above amenities need to be provided especially in all Under Ground Stations for benefit of commuters and to ensure ventilation inside tunnels.

6.5. CMRL had availed power supply for a maximum demand of 5 MVA from TANTRANSCO 230/110 KV GIS Substation at Koyambedu (vide HT SC. No.1843) for commissioning activities and trial operations from 26-7-2013 and also had availed power supply for a maximum demand of 5 MVA from TANTRANSCO 230/110 KV GIS Sub-station at Alandur (vide HT SC No. 965) for commissioning of stage-I operation, and the demand will subsequently rise.

6.6. From July 2013, HT tariff (III) has been fixed by TANGEDCO at the rate of 700 paise/unit with a fixed Demand Charges of Rs.300/KVA/month and subsequently revised and billed at 800 paise/unit and Demand Charges at Rs.350/kVA for the Traction and Utilities of CMRL. CMRL has referred to the Tariff Orders issued by DMRC and BMRCL wherein they have considered the tariff for Metro Rail under special category. Further CMRL has requested that as per MOU between GOI, GOTN and CMRL dated 15-02-2011 electric power is to be made available to CMRL on a no-profit-no-loss basis, subject to the approval of TNERC.

6.7. In response to the above averments, TANGEDCO in its counter dated 17-03-2016 has contended that in Delhi, DMRC was classified under a separate category for usage of Railway Traction load and other than traction load is not included in Metro Rail Tariff and it is also classified under non-domestic (Commercial) category. Further, the BMRCL was classified under HT Tariff 1-B including MRTS exclusively used for metro transport. Other than Railway Traction consumption is being classified under miscellaneous category.

6.8. TANGEDCO contended that the CMRL obtained service connection in the month of July 2013 for its operation at Koyambedu. This classification exists even before availing service connection by CMRL. The Commission issued tariff order in June 2013 and in December 2014. Further, TANGEDCO contended that CMRL has not represented with the Commission at the time of tariff revision either in public hearing or in written submission. CMRL availed service connection in the month of September 2015 for its operation at Alandur.

6.9. TANGEDCO insisted that CMRL's nature of operation and operational environment is similar to that of Railways. TANGEDCO stated that it does not receive any subsidy for operational cost and the cross subsidy already exists to recover only the Annual Revenue Requirement (ARR). The existence of cross-subsidy does not contribute anything more than ARR.

6.10. The effort of CMRL on reduction of line loss in their Traction & Distribution network does not give any benefit to TANGEDCO. Any reduction in line loss in the network of the consumers will benefit only the consumers.

6.11. Further, TANGEDCO has also represented that the Hon'ble APTEL in its order dated 30-11-2015, in Appeal No.68 of 2015 directed the Commission to implement the voltage wise/category wise cost of supply in the next tariff order. Determination of tariff on the basis of cost of supply to CMRL alone at present is not appropriate. It is appropriate to consider only at the time of issue of next tariff order and requested the Commission to summarily reject the present petition of CMRL. The Commission approved the tariff based on the average cost of supply. The tariff determined by the Commission is to recover the complete cost of supply based on the approved ARR of TANGEDCO for a financial year. Even the tariff allowed in the present tariff order is not sufficient to recover the entire ARR of TANGEDCO.

6.12. TANGEDCO further contended that the tariff could not be determined retrospectively or during the operation period of tariff order, as it will give negative impact in the recovery of ARR for the operational year. In view of the above submissions, TANGEDCO requested the Commission not to consider any tariff change so that the recovery of ARR will not be impacted.

6.13. TANGEDCO submitted that CMRL is availing power supply from July 2013 under HT Miscellaneous Tariff – III. The Power supply is being utilized for traction load and for its day-to-day activities like,

- i. Escalators, Elevators, Air conditioners and Lightings for admin building
- ii. Escalators, Elevators, Air conditioners and Lightings for cargo building

6.14. TANGEDCO has stated that the HT service connection is not only being utilized for the traction purposes but also for other than traction purposes. In view of the mixed load, the tariff automatically comes under residual category.

6.15. TANGEDCO in its counter has also stated that they have advised CMRL to segregate the load as to effect tariff change for the existing High Tension service connection. Further, CMRL has commenced the commercial operation only in June 2015. From the date of availing supply in July 2013 to the date of commercial operation in June 2015, the power supply should have been billed under HT Tariff V (Temporary Supply). CMRL requested the Commission to determine the tariff under special tariff category excluding subsidy and cross subsidy elements in line with National Tariff Policy (NTP). CMRL has not justified the provision available in the Tariff Policy to extend such concession. The provision in NTP does not support to the claim of CMRL and as such CMRL have misunderstood the above provision. As such there is no concession extended to CMRL in National Tariff Policy.

6.16. With the above submissions, TANGEDCO requested the Commission not to consider the request of CMRL to fix the railway traction tariff for the period of trial operation from July 2013 to June 2015 as the same will severely affect the recovery of TANGEDCO's ARR.

6.17. In reply to the submissions made by TANGEDCO in its Counter affidavit, CMRL in their rejoinder dated 07-04-2016 has contended that in DMRCL all the loads such as traction and non-traction for metro rail services are built under single special category tariff. CMRL has further stated that the MRTS should not be compared with the CMRL as MRTS forms an integral part of Indian Railways, with

their own self subsidizing components by way of freight transport and very wide passenger network. It is observed from the submissions of CMRL, that CMRL is not preferring load segregation and states that the escalator, elevator, lighting and air conditioners are only integral parts of metro services and not to be considered as mixed loads and to be reckoned as traction load as considered by other ERCs like DMRCL, BMRCL, etc. However, CMRL has agreed that any commercial loads like ATMs, kiosks, stalls, hotels, etc. if connected to metro supply may be billed separately under respective tariff and the same may be subtracted from the main energy consumption as done in DMRC.

6.18. In the light of submissions and counter submissions, let us analyse the issues one by one, the first issue being

- i. to fix the Railway Traction tariff for CMRL for the period of trial operation from July 2013 to June 2015.

6.18.1 The period requested to fix the Railway Traction tariff for CMRL is from July 2013 to June 2015. CMRL has filed the present miscellaneous petition on 20-01-2016. The period sought to be covered in this petition is much earlier to filing of this Miscellaneous Petition before the Commission. The period starts from July 2013 to June 2015 and in the interregnum Commission has issued two Tariff Orders one in June 2013 and another one in December 2014. Any reduction in tariff can only be made applicable prospectively and not retrospectively. Hence the first prayer seeking to retrospectively fix the tariff applicable for Railway Traction to CMRL for the period of trial operation from July 2013 to June 2015 is not acceptable to the Commission.

6.19. The second part of the prayer of the petitioner CMRL is

- ii. inclusion of CMRL as a special category consumer and provide tariff during revenue operation based upon the actual cost of supply at 110 KV level excluding both the subsidy and cross-subsidy elements in line with National Tariff Policy and on par with DMRC/BMRC.

6.19.1. The above request of CMRL to provide a special tariff category as in the tariff orders issued by the above Regulatory Commissions needs to be analysed in detail.

6.19.2. Commission issued Tariff Order in June 2013 based on the Tariff Petition filed by TANGEDCO in which revision of tariff was sought by TANGEDCO only in respect of Hut Services and Agriculture Services and not for any other category.

6.19.3. Further, in December 2014 Commission issued a Suo-motu Tariff Order in respect of Determination of Tariff for Generation and Distribution. As TANGEDCO did not file any Tariff Petition, Commission on its own initiated the process of Tariff determination, issued Public Notice with the provisionally determined Aggregate Revenue Requirement and the tariff schedule for FY2014-15 along with the Summary of ARR with details. During the course of determination tariff Suo-motu by the Commission there were requests from several classes of consumers for creation of several new tariff categories.

6.19.4 Any distribution licensee would file details relating to the number of consumers, energy required, sales, revenue requirement, line losses, power purchase, etc. while filing the Tariff Petition or ARR. The Commission would also

study the details submitted by the Distribution licensee and only after prudence check they will determine the ARR of the DISCOM and approve the rate schedule/tariff schedule applicable for each category of consumers. Hence, referring to the tariff order of other Commissions will not alone be sufficient for issuing a separate category or lower tariff but the actual information of the consumer, consumption pattern and load details are required by the Commission to create a separate tariff category. Further, the BMRL tariff is approved by KERC while issuing the Tariff Order for 2014 in respect of BESCO.

6.19.5 The Commission in its SMT Order No. 9 of 2014, dated 11-12-2014 in para 2.222 & 2.223 has conveyed its views in respect of Tariff related comments which are as follows:

2.222 In the present Order, tariff categorization is dealt in detail in the tariff schedule.

2.223 Determination of tariff has to be made according to section 62 of the Electricity Act, 2003. Further, the tariff is determined based on the Annual Revenue Requirement of the licensee after prudence check considering all the components of variable charges and fixed charges. Due to price escalation in fuel cost, plant load factor, auxiliaries, primary fuel cost, secondary fuel cost, O & M, Depreciation, Interest on Loan, Interest on Working Capital, Return on Equity, etc. the increase in tariff is stipulated.

6.19.6. Further, in respect of Request for separate category under Chapter 2– Stakeholders Comments, TANGEDCO’s reply and Commission’s view, Commission in para 2.304 has stated as follows:

“2.304 As regards submission by different consumers for creation of new categories is to protect their own interest, the past experience has shown that whenever the Commission created some new categories, the same was challenged on the ground that such creation of new category was neither proposed by the Utility nor the public or the concerned consumer was put to notice. In the result such matters were remanded to the Commission for reconsideration by the concerned Appellate authorities. Hence, in case the distribution licensee feels the justification and on necessity for the creation of a new category, then it should submit the necessary data on consumer and consumption pattern and also ensure that the categorization is in accordance

with the criteria for differentiation provided under Section 62(3) of the EA 2003, for the Commission's consideration."

6.19.7 Hence, in view of the above discussions, it is clear that creation of special category during the mid-period cannot be undertaken by the Commission as it is to be ensured that the categorization is in accordance with the criteria for differentiation provided under Section 62(3) of the Electricity Act, 2003.

6.19.8 From the submissions of both the parties, it can be seen that they have agreed that the HT service connection in respect of CMRL has not only the traction load but also a mixed load as detailed supra. It is pertinent to mention here that even State Government Departments and Commission's office is also billed under Commercial/Miscellaneous category only. Even for Railways also, the load relating to railway traction is covered under HT I (B) and the other loads relating to Railway Stations, Railway offices, cargo handling, elevators, etc. have been covered only with Miscellaneous Category/Commercial. Further, as stated by TANGEDCO, the load segregation has to be done but it can be seen that till filing of written submissions segregation of load has not been made. If the segregation is done the load connected with the Escalators, Elevators, Air conditioners and Lightings for admin building and Escalators, Elevators, Air conditioners and Lightings for cargo building has to be necessarily billed under Commercial/Miscellaneous category as the same is not covered under any other tariff category in respect of CMRL.

6.19.9. But here the Petitioner has contended that the railways has both passenger transport and also cargo transport one subsidizing the other category but with respect to CMRL, Commission recognizes from the submissions of CMRL, CMRL is only handling the passenger traffic and hence subsidizing of the passenger tariff with

the cargo handling charges is not possible in CMRL and these services are incidental to the main service of CMRL i.e. passenger services.

6.19.10. Changing CMRL from the HT III to any other special category will definitely lead to reduction in revenue realization of TANGEDCO

6.19.11. At this juncture let us also analyse the request of the petitioner to fix the tariff based on the actual cost of supply at 110 KV level excluding both the subsidy and cross-subsidy elements.

6.19.12 The APTEL in its Order in Appeal No. 68 of 2015, vide order dated 30-11-2015, has examined the relevant part of the National Tariff Policy and Electricity Act, 2003 in the case of adoption of voltage wise cost of supply. The relevant part considered in the said order is as below:

(1) “ In accordance with the National Electricity Policy, consumers below poverty line who consume below a specified level, say 30 units per month, may receive a special support through cross subsidy. Tariffs for said, designated group of consumers will be at least 50% of the average cost of supply. This provision will be re-examined after five years.

(2) For achieving the objective that the tariff progressively reflects the cost of supply of electricity, the SERC would notify roadmap within six months with a target that latest by the end of year 2010-2011 tariffs are within $\pm 20\%$ of the average cost of supply. The road map would also have intermediate milestones, based on the approach of a gradual reduction cross subsidy.

Thus, the Tariff Policy provides for progressively and gradual reduction of cross subsidies of the subsidizing consumers without giving tariff shocks to the subsidized consumers.”

6.19.13. The GOI has notified a revised Tariff Policy effective from 28th January 2016. In the revised Tariff Policy, under 8.3 Tariff design, Linkage of tariffs to cost of service, the relevant part is extracted below:

1. *“Consumers below poverty line who consume below a specified level, as prescribed in the National Electricity Policy may receive a special support through cross subsidy. Tariffs for such designated group of consumers will be at least 50% of the average cost of supply.*
2. *For achieving the objective that the tariff progressively reflects the cost of supply of electricity, the Appropriate Commission would notify a roadmap such that tariffs are brought within $\pm 20\%$ of the average cost of supply. The road map would also have intermediate mile stones, based on the approach of a gradual reduction in cross subsidy”.*

6.19.14 Section 62(3) of the Electricity Act which stipulates conditions for differentiation of tariff among different consumers is quoted below:

Section 62(3)

(3) The Appropriate Commission shall not, while determining the tariff under this Act,. Show undue preference to any of the consumer of electricity but may differentiate according to the consumer’s load factor, power factor, voltage, total consumption of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required”.

In para 10.17, of its Order in the Appeal No. 68 of 2015, Hon’ble APTEL has observed that the State Commission while determining the tariff should not show any undue preference to a particular category of consumers and hence the cross subsidy of the subsidizing consumers have to be gradually reduced.

6.19.15 *In the above Appeal No. 68 of 2015, the Hon’ble APTEL has also examined the Tariff Regulations of the State Commission in this regard and the relevant provision dealing with cost of supply and cross subsidy reduction and elimination from the 2005 Regulations are as below :*

“84. Cost of supply to various categories of consumer and 85. Cross subsidy, reduction and elimination.”

6.19.16. Hon'ble APTEL in the Appeal No. 68 of 2015 has discussed in detail the issue relating to the voltage wise cost of supply and cross subsidy charges payable by the consumers. In the said order, Hon'ble APTEL has also observed that there is an increase in the recovery from the LT Category as a percentage of average cost has increased at the same rate as that of the increase in tariff of HT consumers.

6.19.17 In view of the foregoing, it is concluded that the fixing of tariff based on voltage wise cost of supply cannot be done now without necessary data. We are in the MYT regime and arriving voltage wise cost of supply for this consumer category alone is not possible now. Hence, this task can be taken up only during next tariff determination process in order to adopt the directions of Hon'ble APTEL's directions in Appeal No. 68 of 2015 in the light of the revised National Tariff Policy dated 28-01-2016.

6.19.18 The Commission is not inclined to create any special category as on date for revenue operation period based on the actual cost of supply at 110 KV level excluding both the subsidy and cross subsidy elements during the mid-course of operation of Tariff Order and therefore the Commission directs that the TANGEDCO can study the load, consumption pattern, etc. of CMRL and other consumer classes who have also made similar demand for Special Categorization and while filing next tariff petition, the creation of a special/separate category can be proposed if supported by necessary data.

6.19.19 However, the Commission is also seized of the fact that the CMRL is in the service of public necessarily catering to the commuting passengers to provide reliable, faster, economical and ecofriendly transport services in the city of Chennai. The Commission finds it unwise to categorise them under miscellaneous tariff even though they have mixed load. The petitioner has also cited various reasons for non-segregation of their load. However, they are willing to include other commercial services like Kiosks, Stalls, ATM, hotels, etc. under miscellaneous tariff category. There is a separate tariff for railway traction, HT I (B), which is the lowest among all the HT Categories. Though the CMRL has mixed load of railway traction and other miscellaneous activities as it is incidental to the main service, Commission considers that ends of justice will be met only if CMRL is classified under HT Tariff I (B) for all the connected load of CMRL. Other loads like, ATM, Kiosks, stalls, hotels, etc. shall be separately metered and charged under miscellaneous category and the above consumption shall be deducted from the main energy consumption metered at the CMRL's point of supply. This Order shall take effect from the date of this order.

With the above orders the present petition is disposed of.

7. Appeal:-

An appeal against this order shall lie before the Appellate Tribunal for Electricity under section 111 of the Electricity Act, 2003 within a period of 45 days from the date of receipt of a copy of this order by the aggrieved person.

(Sd)
(Dr.T.Prabhakara Rao)
Member

(Sd.....)
(G.Rajagopal)
Member

(Sd.....)
(S.Akshayakumar)
Chairman

/ True Copy /

Secretary
Tamil Nadu Electricity
Regulatory Commission