Appellate Tribunal for Electricity
(Appellate Jurisdiction)

Appeal No. 122 of 2010

Dated: 04th Nov, 2011

Present: Hon'ble Mr. Justice M. Karpaga Vinayagam, Chairperson
Hon'ble Mr.V J Talwar, Technical Member,

In The Matter Of

Union of India,
Southern Railway,
7th Floor, NGO Annex,
Park Town,
Chennai-600 003 **… Appellant(s)**

Versus

1. **Tamil Nadu Electricity Board,**
NPKRR Maligai, No.800, Anna Salai,
Chennai-600 002

2. **Tamil Nadu Electricity Regulatory Commission,**
19-A, Rukmimi Lakshmipathy Salai,
Egmore,
Chennai-600 008 **….Respondent(s)**

Counsel for Appellant(s): **Mr. V.S.R. Krishna, Sr. Adv. with**
Mr. Abhishek Yadav,
Mr. Narendra Yadav.

Counsel for Respondent(s): **Mr. Ramji Srinivasan,Sr Adv**
Mr.S.Vallinayagam
Mr. H.S. Mohd Rafi **(R-1)**
Mr. Zeyaul
Mr. M P Parthiban

JUDGMENT

PER HON'BLE MR. JUSTICE M. KARPAGA VINAYAGAM, CHAIRPERSON

1. Union of India, Southern Railway is the Appellant herein.

2. The orders dated 29.6.2009 and 01.4.2010 passed by the Tamilnadu Electricity Regulatory Commission are challenged in this Appeal filed by Southern Railway.

3. The Appellant filed a Review Petition in RP No.2/2009 before the Tamil Nadu Electricity Regulatory Commission (State Commission) seeking for the review of the its order dated 29.6.2009. The petition was dismissed by the State Commission vide its Order dated 1.4.2010. Aggrieved by this order, the Appellant has filed this Appeal against the orders dated 29.6.2009 and 1.4.2010.

4. The short facts are as follows:

   I. Union of India, Southern Railway is the Appellant herein. Tamil Nadu Electricity Board is the 1st Respondent. Southern Railway, the Appellant availed power supply at 110 KV for 20 traction substations from Tamil Nadu Electricity Board on Chennai-Coimbatore, Gummidipundi-Chennai-Tiruchchirappalli sections for running electric locomotive hauled trains and EMU services.

   II. The Tamil Nadu Electricity Board, the 1st Respondent unilaterally introduced a modified system of metering during the period between January, 2005 and August, 2006 in which leading kVAh was also taken into consideration for computing billing power factor, which hitherto was ignored and leading power factor was treated as unity power factor.

III. The Southern Railway, the Appellant, filed a Petition before the State Commission in MP No.5 of 2006 aggrieved by the implementation of the modified metering software system by the 1st Respondent Electricity Board praying the State Commission to direct 1st Respondent to adopt lag only logic for metering Railway Traction Load. The State Commission by its order dated 2.4.2007, rejected the said prayer. However, State Commission directed the 1st Respondent Electricity Board to defer implementation of the new metering software system for a period of three years from 01.04.2007 to 31.3.2010 and directed the Appellant to install suitable Dynamic Reactive Power Compensation (DRPC) equipment at all Traction Sub Stations within the said 3 years.

IV. Accordingly, the Southern Railway initiated action for installing Dynamic Reactive Power Compensation equipment at all the Traction Sub Stations after obtaining sanctions from the Railway Board.

V. The Appellant conducted a study for obtaining Carbon Credit after receipt of detailed technical offers for DRPC equipment. In the process, it was found that the energy loss in DRPC equipment installed at two locations was many fold higher than the energy loss in fixed HT Capacitor banks installed earlier.

VI. On noticing that the use of the DRPC equipment causes significant energy loss, the Appellant filed a Petition before the State Commission in MP No.3 of 2009 with a prayer to direct the 1st Respondent Electricity Board to consider the special nature of the Railway Traction load and to adopt 'Lag Only' logic for computing billing power factor for Railway Traction Load and to allow the Appellant to continue with the HT fixed shunt

capacitor banks for reactive power compensation at Traction Sub Stations.

VII. However, by the order dated 29.6.2009, the State Commission dismissed the Petition on the ground that the issue had already been decided in the earlier order dated 2.4.2007 and as such, the Petitioner could not seek for the review of the original order dated 2.4.2007 by filing this Petition that too in the year 2009 which was barred by limitation. Since this order dated 29.6.2009 did not deal with the grievance of the Appellant that DRPC equipment installed have caused significant additional energy loss, the Appellant filed a Review Petition in RP No.2 of 2009 on 29.7.2009 praying for the review of the order dated 29.6.2009 on merits by reconsidering the facts indicating the energy loss actually incurred.

VIII. However, the State Commission dismissed the Review Petition on 1.4.2010 as no ground was made out for 2nd review.

IX. Aggrieved by this order, the Appellant has filed this Appeal as against both the orders dated 29.6.2009 and 1.4.2010. Along with this Appeal, the Appellant filed an application to condone the delay, and the same was condoned.

5. The Learned Senior Counsel for the Appellant has urged the following contentions in this Appeal assailing the order dated 29.6.2009:

I. The order passed by the State Commission in MP No.3 of 2009 dated 29.6.2009 holding that the issue had already been decided in MP No.5 of 2006 by the order dated 2.4.2007 is clearly wrong as both MP No.5/2006

and MP No.3 of 2009 are totally different Petitions involving different causes of action raising different substantial questions of law.

II. In the earlier Petition i.e. MP No.5 of 2006, the Appellant have sought the relief for directions to the Electricity Board not to introduce the modified software in the energy meters of Traction Substations and to revert back to the prevailing software. That Petition in MP No.5 of 2006 had been disposed of by the State Commission on 02.4.2007 with a direction to the Electricity Board to defer implementation of the new metering software system for a period of 3 years and with a direction to the Appellant to install the DRPC equipments in consonance with the modified software system within the said period of 3 years.

III. In pursuance of the said order in MP No.5 of 2006 dated 2.4.2007, the DRPC Equipments were installed by the Appellant at few locations. After the installation, it was found by the Appellant that there was an increase in energy losses and therefore, the Appellant filed MP No.3 of 2009 praying for the relief in the form of direction to the 1st Respondent Electricity Board not to insist for DRPC equipment in view of the increased system losses.

IV. Thus, the prayer of these two Petitions would show that they are of different nature wherein they sought different reliefs at different point of time. Therefore, the State Commission is wrong in dismissing the M.P. No.3 of 2009 treating the said petition as review of the earlier order.

V. It is settled law that on implementation of the earlier order, when fresh issues arise, then fresh cause of action accrues to the parties concerned and in that event, the party concerned has a right to move to the

competent forum for adjudication of its grievances involving the said fresh course of action. The State Commission instead of adjudicating the said Petition on merits by taking into consideration the fresh cause of action wrongly dismissed the Petition on the ground that the issue had already been decided.

6. The Learned Senior Counsel for the 1st Respondent Electricity Board in justification of the impugned order, submits that the issue relating to the installation of DRPC equipment had been dealt with, in detail, and decision was already taken in MP No.5 of 2006 on 02.4.2007 and in fact, the State Commission passed the said order in favour of the Appellant by granting 3 years time to install the DRPC equipment as requested by the Appellant and the said issue cannot be reopened by filing a Review Petition belatedly, without challenging the original order in the Appeal and as such the impugned order is perfectly valid.

7. In the light of the above rival contentions, two questions would arise for consideration. They are as under:

(i) Whether the State Commission was right in dismissing the Petition in M.P. No.3 of 2009 by the order dated 29.6.2009 and subsequent Petition in RP No.2 of 2010 by the order dated 1.4.2010 on the ground that the issue had already been adjudicated and decided in the earlier proceedings i.e. MP No.5 of 2006 by the order dated 2.4.2007 ?

(ii) Whether a substantial right to agitate would accrue to the Appellant when a new cause of action arises on implementation of the earlier order dated 2.4.2007 passed by the State Commission?

8. Before dealing with these questions, the basic relevant facts have to be borne in mind.

9. The State Commission passed the original tariff order on 15.3.2003. As part of tariff rationalization measure, the State Commission introduced a system of penalty and incentive for improving the system power factor. As per this order, HT consumers and LT consumers were required to maintain their power factor more than 0.9 lag & 0.85 lag respectively failing which the consumer was required to pay penalty charges to the 1st Respondent Electricity Board. Like wise, whenever power factor of HT service exceeds above 0.95, incentive has to be given to the consumer by the Board. This arrangement encouraged the consumers to install reactive compensation to bring their power factor to near unity. It is to be noted that the metering software installed at the relevant time was not capable of registering the leading power factor and leading power factor was being registered as unity. Due to this new arrangement, the consumers have to be given more incentive. Due to over compensation provided by the consumers, the excessive capacitive VAR were pumped into the system which were detrimental to the Electricity Board's Grid.

10. At this stage the 1st Respondent Electricity Board implemented modified metering software which was capable of recording leading power factor and gives average power factor of HT consumers taking into account the leading power factor as well.

11. Aggrieved by this action on part of the 1st Respondent, the Appellant Southern Railway filed a Petition in MP No.5 of 2006 before the State Commission against the introduction of modified software by the Electricity

Board to record 'lead power factor' and alternatively sought time for installation of suitable DRPC systems at all the 17 traction substations. The State Commission after hearing the parties disposed of the petition by an order dated 2.4.2007. The State Commission through this order rejected the main prayer of the Appellant to direct 1st Respondent to adopt lag only logic for metering Railway Traction Load. The State Commission, however, issued directions to the 1st Respondent Electricity Board to defer the implementation for three years for the introduction of the Dynamic Reactive Power compensation Equipment and directed the Appellant to install the same within 3 years and after 3 years, the Southern Railway (the Appellant) would be bound by the tariff order prevailing at that time.

12. Thus, the State Commission acceded to the request of the Southern Railway seeking time to install the necessary equipment to improve the power factor. Accordingly, the Appellant had taken required steps to install the Dynamic Reactive Power Compensation equipment at various locations. After having DRPC installed at few of its locations, the Appellant found that the energy loss in new DRPC equipment was many fold higher than the energy consumed by fixed shunt capacitors installed earlier. Therefore the Appellant Southern Railway filed another Petition before the State Commission in MP No.3/2009 requesting for re-consideration of the earlier decision on the ground that the implementation of the orders dated 2.4.2007 would cause severe financial strain to the Southern Railway and that the installation of dynamic compensation system would consume much higher power than the existing fixed compensation system. However, the State Commission after considering the submissions of the parties dismissed the said Petition by the order dated 29.6.2009 on the ground that that the earlier order passed by the Commission dated 2.4.2007

cannot be reconsidered on the reason that the issue had already been decided by the State Commission and having decided the said issue, three years time was granted to the Southern Railways and therefore, this Petition being a review in nature cannot be maintained as it was barred by limitation.

13. Having aggrieved over the said order, Southern Railway again filed another Review Petition in RP No.2 of 2009 requesting to reconsider the matter on merits taking note of the financial strain and the loss of energy due to implementation of the earlier order.

14. The above Review Petition No.2/09 was also dismissed by the order dated 1.4.2010. Hence this Appeal is as against both the orders dated 29.6.2009 and 1.4.2010.

15. We have heard the Learned Senior Counsel for both the parties and we have carefully considered their respective submissions. Let us now deal with the questions framed above.

16. The first issue raised in the present Appeal is as follows:

> "Whether the State Commission was right in dismissing the Petition in MP No.3/09 by the order dated 29.6.2009 and subsequent Petition in RP No.2/2010 by the order dated 1.4.2010 on the ground that the issue already stood adjudicated and decided in earlier proceedings in MP No.5/06 by the order dated 2.4.2007?.

17. In regard to **this Issue**, the Appellant submits that the prayer sought for in M.P.No.5 of 2006 and M.P. No.3 of 2009 were totally different and the Petitions filed on different causes of action raising different substantial

questions of law cannot be held to be on the same issue as if the said issue had already been adjudicated and decided.

18. In order to deal with this question we have to refer to the prayer made by the Appellant (Petitioner) before the Commission in MP No.5 of 2006 which resulted in the order dated 2.4.2007:

> **4.0** *Relief Sought*
>
> *In view of the above Southern Railways requests Hon'ble Commission to:*
>
> *(i) direct TNEB not to introduce the modified software in the energy meters of Traction Substations and to revert back to the prevailing software at Bommidi and Tambaram Traction Substations.*
>
> *(ii) direct TNEB to refund the power factor surcharges levied at Tambaram, Samalpatti and Bommidi Traction Substations".*

19. Through this prayer, the Appellant expressed its grievance that the Electricity Board has wrongly introduced modified software system and requested to revert back to the prevailing software system. Alternatively, the Appellant sought at least 3 years time to implement the same since the investments on this account would be about Rs. 24 crores for 17 Traction Substations. The following are the objections made by the Southern Railway in the said Petition with regard to the implementation of the modified software system by the Electricity Board:

> *"1.2. Tamil Nadu Electricity Board are suddenly implementing certain modifications in the software of the energy meters at traction substations without any prior intimation to Railways, for the measurement of kVAh and Power Factor by considering both lagging and leading kVarhs. Through this petition we are filing our objections to the TNEB's implementation of software modification in energy meter for the purpose of measurement of kVah and Power Factor by considering both lagging and leading kVArhs.*

3.5 Railway have spent huge amount in providing fixed shunt capacitor bank at all the 17 TSSs at a cost of about Rs.6 Crores. Further for highly dynamic load like electric traction, it is not practicable to maintain constant power factor with fixed shunt capacitors. Providing dynamic reactive power compensation at such high voltage and kVAr rating will be highly expensive. The outlay required for this purpose will be about Rs.24 Crores and time period for implementation will be about 3 years. This is considering the fact that such proposals shall require the approval of the Ministry of Railways during Annual budget only.

20. Above prayer as well as objections would indicate that the Southern Railway opposed to the implementation of the modified software system introduced by the 1st Respondent Electricity Board indicating the difficulties that would be experienced by the Southern Railway.

21. This issue had been dealt with by the State Commission in the order dated 2.4.2007 in MP No.5 of 2006. The relevant findings given by the State Commission in the order dated 2.4.2007 is as follows:

Findings of the Commission

(a) There are two points which need consideration of the Commission. The first issue is whether the introduction of modified software in the energy meter for recording both lagging and leading kVArh at the premises of the Petitioner is on the directions of the Commission. The Petitioner in Para 5.0 at Page 3 of the rejoinder has stated that the Respondent have no authority to change the metering software without express orders of the Commission and that the Respondent has wrongly stated that the changing of metering software is being done as per the orders of TNERC. The Respondent Board in Para 1.1 at page 2 of the counter-affidavit filed by SE/Chennai Electricity Distribution Circle have stated that they introduced modified software in the energy meter for recording both lagging and leading kVArh at HT installations as per tariff orders issued by TNERC dated 15.3.2003 effective from 16.3.2003. Para 7.14 of the tariff order is extracted below for reference:

Several representations have been received for a corresponding rebate to be extended for HT consumers having PF above 0.9. In other States, too, the PF incentive is extended to units having PF above 0.95. The Commission has provided for a PF rebate at 0.5% of the current consumption charges for PF above 0.95, for every increase of 0.01 in PF above 0.95. In line with the above, the LTCT Industrial Services under LT Tariff III-B with a connected load of 75 HP and above are also covered under the power factor incentives and penalty. It is proposed to introduce power factor penalty as well as the incentive for all industrial services under the bracket of 25 HP to 75 HP also. Since all such services may not have the power factor measurement facility through electronic meters, TNEB is being directed to install such meters within a period of three months from the effective date of this order and then introduce the incentive/penalty suitably as per the tariff schedule".

The above paragraph stipulates that the Respondent Board should install electronic meter for measuring power factor. The said para 7.14 of the tariff order of the Commission does not lend any support to the contention of Respondent Board that the introduction of modified software for recording both lagging and leading kVArh at HT installations is as per the Tariff order of the Commission. Hence the above contention of the Respondent Board is not correct.

(b) The introduction of modified software is not in pursuance of the tariff order of March, 2003. However, as per section 42 (1) of the Electricity Act 2003 which came into force in June 2003, it is the duty of the Respondent Board as a distribution licensee to develop and maintain an efficient co-ordinated and economical distribution system in the area of supply of the Respondent Board. In paragraph 1.1 at pages 3-4 of the counter, the Respondent Board has stated as follows:

"As per reference (2) (or) of the said Code "Power Factor" means the ratio of the real power to the apparent power and average power factor means the ratio of the Kilowatt-hours to the kilovolt-ampere-hours consumed during the billing month. In this connection, it is to be stated that simply connecting the shunt capacitors could not solve the low power factor problem. The capacitors should come into

circuit proportionate to the load connected into the circuit wherever necessary. Connecting extra capacitors other than required by the consumer is over compensation which will lead to line loss and could damage the transmission lines and equipments. To avoid this condition and to stabilize the grid, the blocking of leading power factor has been removed in the existing electronic meters by changing the software programme in the meter to record power factor lead as lead during power factor leading conditions".

The above statement of the Respondent Board is not disputed by the Petitioner in their rejoinder. In view of the provisions contained in Section 42 (1) of the Act referred to above, namely the duty to maintain distribution system in an efficient and economical manner, modified software system is necessitated in order to avoid line loss and damage to transmission lines and equipment as contended by the Respondent Board. The Respondent Board has given due notice for the introduction of the modified software system to the Petitioner as early in 2005 itself. The Petitioner ought to have implemented the modified software system to suit the requirement with dynamic compensation from the Respondent Board. Had the petitioner implemented the above modified software system in the year 2005 when they received the notice, the need for the levy of penalty by the Respondent Board would not have arisen at all. There is a delay of nearly one year on the part of the Petitioner in approaching the Commission.

(c) *The second issue is whether the levy of penalty for leading power factor in accordance with the Tariff order of the Commission. With regard to the above issue, it may be stated that para 7.17 at page 182 of the tariff order stipulates that in respect of High Tension Service connections the average power factor of the consumer installation shall not be less than 0.90 lag and where the average power factor of HT service connection is less than the stipulated limit of 0.90 lag, the Compensation charges as specified in the said para 7.17 will be levied. From the above, it is seen that the penalty is leviable only on lag and not on lead.*

(d) *In view of the above circumstances, both the first and second issue are answered in favour of the Petitioner. In this connection, it may be relevant to state that the Commission is considering tot issue an amendment to the Tariff order dated 15.3.2003 so as to delete the*

expression "lag" occurring therein, based on the proposal of TNEB. Measurement of over compensation with leading pf which was blocked as unit will also be accounted now since over compensation causes problem of over voltage which is detrimental to the distribution network, besides increased line loss. Levy of compensation for the low power factor of less than 0.9 taking into account the leading VAR can be made only after the relevant amendment is notified by the Commission.

(e) The Petitioner has prayed for grant of three year time for implementation of the modified software scheme due to heavy investment of about Rs.24 Cr. for 17 Traction substations. The Commission is inclined to grant the above prayer of the Petitioner.

(f) In view of the special privilege considered by the Commission to Railways viz. grant of three years period to have dynamic compensation which will benefit the railways in not paying the likely compensation charges, the TNEB shall levy only compensation charges for less than 0.9 lag as per tariff orders and no incentive need to be paid to Railway for power factor exceeding 0.95 lag with the old software.

(g) The Petitioner has raised some objections to the Commission in regard to the said proposal for amendment of the Tariff Order. The Commission is of the view that pending the issue of final notification incorporating the above amendment to the tariff order, no incentive shall be allowed and no penalty shall be levied by the Respondent Board wherein new software is installed taking into leading VAR also.

*7. **Conclusion***

In the above circumstances, the following directions are issued in this MP No.5 of 2006 namely:

*(a) **(i)**The Respondent Board is directed to defer the implementation of the modified software system in the energy meters of the petitioner (Southern Railway) for a period of three years.*

(ii)Till the restoration of the old system the Respondent Board is directed not to allow any incentive nor to levy any penalty

(iii) TNEB shall revert to the old system of blocking the leading VAR to unity early.

(b) (i) The Petitioner (Southern Railway) is granted three years time from the date of issue of this order for the introduction of new technology of on-line dynamic reactive power compensation equipment to maintain higher power factor so as to meet the technical requirements of the modified software system of the Respondent Board.

(ii) In view of the special privilege given to Railways for three years period to have dynamic compensation which will benefit the railways in not paying the likely compensation charges, the TNEB shall levy only compensation charges for less than 0.9 lag as per Tariff Orders and no incentive need to be paid to Railway for pf exceeding 0.95 with old system of software reverted back in the meter, blocking leading VAR as unity.

(iii) After three years Railway will be bound by the Tariff order prevailing at that time.

22. The crux of the findings and directions given in the above order is as follows:

I. As per Section 42(1) of the Electricity Act, it is the duty of the State Electricity Board as a Distribution Licensee to develop and maintain an efficient co-coordinated and economical distribution system in the area of supply of the Electricity Board.

II. In view of the provisions contained in Section 42(1) of the Act, a modified software system is installed in order to avoid line loss and damage in the transmission lines and equipments due to over voltage.

III. The Electricity Board has already given due notice for the introduction of the modified software system to the Southern Railway as early as in 2005 itself. The Southern Railway ought to have implemented the modified software system to suit the requirement with dynamic compensation from the Board. Had the Southern Railway

implemented the modified software system in the year 2005 itself, the need for relief of penalty by the electricity Board would not have arisen at all. Now there is a delay of nearly one year on the part of the Southern Railway in approaching the State Commission.

IV. Southern Railways has prayed for grant of 03 years time for implementation of the modified software system due to heavy investments of Rs.24 Crores in 17 Traction Substations.

V. The State Commission is inclined to grant the above prayer of the Southern Railway. The State Commission considered the grant of 03 years period to the Southern Railways as a special privilege to have dynamic compensation which will benefit the railways in not paying the likely compensation charges.

VI. The State Electricity Board is directed to defer the implementation of the modified software system in the energy meters of the Southern Railway for a period of 03 years.

VII. Till the restoration of the old system, the State Electricity Board is directed not to allow any incentive nor to levy any penalty.

VIII. Southern Railway is granted 03 years time from the date of the issue of this order for the introduction of the new technology of on-line dynamic reactive power compensation equipment to maintain higher power factor so as to meet the technical requirements of the modified software system of the Electricity Board.

IX. After three years, the Southern Railway will be bound by the tariff order prevailing at that time.

23. These findings would clearly indicate that the State Commission has dealt with the issue and specifically held that the new metering system of reading the lead and lag was introduced by the Electricity Board only with the object of determining the actual power factor with a view to inducing the consumers to maintain their power factor to near unity; Injection of capacitive VAR (over compensation) in to the grid would cause problem of over voltage which is detrimental to the distribution network and that the maintenance of power factor to unity is beneficial to both the consumers as well as the utility which is justified.

24. The State Commission having held that the introduction of the new metering system is perfectly justified, granted 03 years time to the Appellant, Southern Railway to install DRPC equipment to improve the power factor. It is also specifically held that the Southern Railway, the Appellant shall be bound by the tariff order after 03 years. There is also specific direction to the Appellant to allow the State Electricity Board, the Respondent to implement new metering system after expiry of 03 years period. So, the order that was passed by the State Commission on 2.4.2007 was mainly on the basis of the tariff order dated 15.3.2003 and the amendment to the said order later.

25. So, findings of State Commission in the Order dated 2.4.2007 on this issue have become final particularly when these orders dated 2.4.2007 and 22.05.2007 have not been challenged before the Appellate Forum.

26. Let us now refer to the prayer in the subsequent Petition in MP No.3 of 2009 which is as follows:

"In view of the special nature of Railway Traction load and increased system Losses if DRPC is used, Hon'ble Commission may be pleased to

direct TNEB to adopt ' Lag only' logic for metering Railway traction load so as to permit the Railways to continue with the HT fixed shunt capacitor banks for reactive power compensation at Traction Substations".

27. This prayer would indicate that the Appellant Southern Railway sought for directions to the State Electricity Board to adopt 'lag only' logic for metering the railway traction load so as to permit the Southern Railway to continue with the old system. Therefore, the prayer in both the Petitions i.e. MP No.5 of 2006 as well as MP No.3 of 2009 is more or less the same.

28. The finding of the Commission in MP No.3 of 2009 in the order dated 29.6.2009 is as follows:

*"**6.2** TNEB introduced in 2006, a modified software in the energy meter to reflect both Lag and Lead. This resulted in the Railways traction system recording a lower average power factor thus disadvantaging the Railways. Consequently, the Railways moved the Commission on 18.8.2006 in M.P. No.5 of 2006 for restoration of the old system of computation of power factor. The Commission did not accept the plea of the Railways in its Order dated 2.4.2007 and directed the Railways to introduce the dynamic compensation system within a period of three years. The Railways were given the benefit of the old system of computation of the power factor during this three year period as the TNEB unilaterally introduced in 2006 the modified software without the approval of the Commission. After 2.4.2007, the Commission issued an amendment to the Tariff Order 22.5.2007 deleting the word lag in the Tariff Order of 15.3.2003. This amendment implied that lead also would be reckoned for computation of power factor.*

***6.3.** Now, nearly two years after the Order of the Commission, the Railways have pleaded that implementation of the Order would cause severe financial strain on the Railways. They have, further, pleaded that the dynamic compensation system would consume much higher power than the existing fixed compensation system. These are grounds, which the Railways were well aware of, at the time of passing order of the Commission on 2.4.2007. The Railways could have moved a Review Petition before the Commission within 30 days as provided in Clause 43 (1) of the Conduct of Business Regulations 2004 or appealed against the*

Order before the Appellate Tribunal for Electricity. At this point of time, we are unable to entertain the Petition of the Railways and therefore, the Petition is dismissed".

29. The above paragraphs would indicate that the State Commission has given a clear finding that that the issue had already been dealt with and decided in the order dated 2.4.2007 and that the findings given in that order cannot be reopened and reviewed in this Petition that too after two years. The same had been reiterated in the subsequent review order in RP No.2 of 2009 dated 1.4.2010. So in the absence of the challenge to the order dated 2.4.2007 before the Appellate Forum, the filing of the Review Petition in MP No.3 of 2009 which resulted in the order dated 29.2.2009 and RP No.2 of 2009 which resulted in order dated 1.4.2010 cannot be entertained as the decided issue cannot be re-opened.

30. So the, **First Question is answered, as against the Appellant, accordingly**.

31. Now let us deal with **2nd Question**. The 2nd Question is this:

"Whether a fresh cause of action would accrue on the implementation of the earlier order dated 2.4.2007 passed by the Commission which would give rise to the substantial right to agitate in the fresh proceedings?

32. According to the Appellant, whenever a fresh issue arises on implementation of the earlier orders, then a fresh cause of action would accrue to the parties concerned and in that event, the party concerned has a right to move the competent forum for adjudication of its grievances. It is submitted by the learned Senior Counsel for the Appellant that the Appellant found that on installation of DRPC equipment, the object and purpose for which it was installed was not being achieved and therefore

they moved the State Commission for adjudicating the said petition on merits taking into account the fresh cause of action.

33. Per Contra, the Learned Senior Counsel for the State Electricity Board, the Respondent, contended that the submissions made by the Appellant that abnormal energy is consumed on installation of DRPC is misleading. To substantiate the said contention, the Respondent Electricity Board has furnished a comparative statement of energy consumed by the Railways at Bommidi Traction Station for the year 2009-2010 showing the actual readings before and after installation of DRPC equipment by the Railways.

34. We have considered this rival contention. It is to be stated that only after taking into consideration of all the submissions made by both the parties and also the documents furnished by the parties, the decision to remove the lag in power factor taken by the electricity board was approved by the State Commission in pursuance of their letter sent to the Electricity Board on 2.12.2006. This fact cannot be disputed.

35. The Appellant 's main contention is that the installation of DRPC equipment at some of its locations has resulted in increase in system losses. However, as pointed out by the Respondent the Appellant could not substantiate its claim by any documentary proof to establish the increase in system losses. The statements furnished by the Appellant in support of its claim only show that the energy loss in new DRPC equipment was much higher than that of the energy loss in existing fixed capacitor banks. Loss in one equipment is entirely different from overall system losses. It is an engineering fact that injection of VAR – inductive or capacitive – results in increased system losses. Further, electrical power system being predominantly inductive in nature, injection of inductive VAR results in low voltages and injection of

capacitive VAR causes over voltages. Excessive over Voltages may result in equipment flashover and failure endangering the system stability. In order to keep system losses to minimum and system voltage with in permissible limits, it is always advisable to keep power factor close to unity. This fact is endorsed by the data submitted by the 1st Respondent Electricity Board showing the consumption of the Appellant at locations where DRPC equipment has been installed has reduced after installation of DRPC equipment.

36. It is to be taken note of the undisputed fact brought to our notice by the 1st Respondent Electricity Board that the specifications of DRPC equipment had been approved by the common centralized organization of Indian Railways viz., IRDO. It is also brought to our notice that the Indian Railways has installed similar DRPC equipments approved by IRDO in various Traction sub-Stations in other Zonal Railways as well. To name few of locations where these equipment have been installed are Lasalgoan, Pimperkeda, Nagpur, Bhadii, Maxsi and Mohamed Keda.

37. The traction load is highly inductive in nature with a poor power factor in the range of 0.7 to 0.8. Because of the presence of nonlinear components like thyristors, power-diodes etc., locomotive load is highly nonlinear and is prominent source of generation of odd current harmonics (16-20% THD). Moreover, wide variation of load in a very short duration would lead to voltage flickers and fluctuations and would result in poor voltage regulation. In fact, Dynamic Reactive Power Compensation is one of the techniques to improve the quality of power which has been polluted by traction load for the above said reasons.

38. In view of the above findings, the relief sought for by the Appellant is neither based on authentic data nor on detailed study. Southern Railway, being the Government concern has to act as a role model by obeying the statutory obligations. The State Commission has already pointed out that the Southern Railway has enjoyed the benefit of Rs.8,00,00,000 in the form of incentive and escaped from the clutches of penalty for 3 years. Therefore, the Appellant cannot be allowed to challenge the main order passed in MP No.5 of 2006 dated 2.4.2007 in this Appeal especially when the orders passed in M.P. No.5 of 2006 has already attained finality and the fruits of the said order have been enjoyed by the Appellant.

39. Therefore, the ground urged by the Appellant for reconsidering the decision already taken by the State Commission by the order dated 2.4.2007 under the garb of fresh cause of action, cannot be countenanced as it has no merits as such, the same would fail. So, the **second point** is also answered as against the Appellant.

40. Summary of Our Findings:

a. **The State Commission has given a clear finding that that the issue in question had already been dealt with and decided in the order dated 2.4.2007 and that the findings given in that order cannot be reopened and reviewed in this Petition that too after two years. The same had been reiterated in the subsequent review order in RP No.2 of 2009 dated 1.4.2010 as well. So in the absence of the challenge to the order dated 2.4.2007 before the Appellate Forum, the filing of the Review Petition in MP No.3 of 2009 which resulted in the order dated 29.2.2009 and RP No.2 of 2009 which**

resulted in order dated 1.4.2010 cannot be entertained as the decided issue cannot be re-opened.

b. **The Appellant has claimed that installation of DRPC equipment at some of its locations has resulted in increase in system losses. However, the Appellant could not substantiate its claim by any documentary proof of increase in system losses. The statements furnished by the Appellant in support of its claim only show that the energy loss in new DRPC equipment was much higher than the energy loss in existing fixed capacitor banks. Loss in one equipment is entirely different from overall system losses. It is an engineering fact that injection of VAR – inductive or capacitive – results in increased system losses. Further, electrical power system being predominantly inductive in nature, injection of inductive VAR results in low voltages and injection of capacitive VAR causes over voltages. Excessive over Voltages may result in equipment flashover and failure endangering the system stability. In order to keep system losses to minimum and system voltage with in permissible limits, it is always advisable to keep power factor close to unity. This fact is endorsed by the data submitted by the 1st Respondent Electricity Board showing the consumption of the Appellant at locations where DRPC equipment has been installed has reduced after installation of DRPC equipment.**

c. **In view of our above findings, the relief sought for by the Appellant which is neither based on authentic data nor on detailed study can not be granted. Southern Railway, being the Government concern has to act as a role model by obeying the**

statutory obligations. The State Commission has already pointed out that the Southern Railway has enjoyed the benefit of Rs.8,00,00,000 in the form of incentive and escaped from the clutches of penalty for 3 years. Therefore, the Appellant cannot be allowed to challenge the main order passed in MP No.5 of 2006 dated 2.4.2007 in this Appeal especially when the orders passed in M.P. No.5 of 2006 has already attained finality and the fruits of the said order have been enjoyed by the Appellant.

41. Therefore, even assuming that there is some fresh development the ground urged by the Appellant for reconsidering the decision already taken by the Commission by the order dated 2.4.2007 under the garb of fresh cause of action, cannot be countenanced as the said ground is not valid ground to reconsider the decision already taken.

42. In view of our above findings, the Appeal is dismissed as devoid of merits. However, there is no order as to costs.

(V J Talwar) **(Justice M. Karpaga Vinayagam)**
Technical Member **Chairperson**

Dated: 04th Nov, 2011

REPORTABLE/~~NON-REPORTABALE~~