Appellate Tribunal for Electricity
(Appellate Jurisdiction)

Appeal Nos. 192 & 206 of 2010

Dated: 28th July, 2011

Present: Hon'ble Mr. Rakesh Nath, Technical Member
Hon'ble Mr. Justice P.S. Datta, Judicial Member

Appeal No. 192 of 2010

In the matter of:

Tamil Nadu Electricity Consumers' Association,
Represented by its President,
No. 8/732, Chamber Towers, Avinashi Road,
Coimbatore-641 018 ... Appellant(s)

Versus

1. **Tamil Nadu Electricity Board,**
   Represented by its Chairman,
   No. 144, Anna Salai,
   Chennai-600 002

2. **Tamil Nadu Electricity Regulatory Commission,**
   TIDCO Office Building,
   No. 19-A, Rukmani Lakshmipathy Salai,
   Marshalls Road, Egmore,
   Chennai-600 008 ... Respondent(s)

Appeal No. 206 of 2010

In the matter of:

The Southern India Mills' Association,
Represented by its Joint Secretary (Legal),
No. 41, Race Course Road,
Coimbatore-641 018 ... Appellant(s)

Versus

1. Tamil Nadu Electricity Board,
Represented by its Chairman,
No. 144, Anna Salai,
Chennai-600 002

2. Tamil Nadu Electricity Regulatory Commission,
TIDCO Office Building,
No. 19-A, Rukmani Lakshmipathy Salai,
Marshalls Road, Egmore,
Chennai-600 008 ... Respondent(s)

Counsel for the Appellant(s): Mr. M.L. Rajah
Mr. Nikhil Nayyar
Mr. Arun Anbumani
Mr. RVS Raghvendra

Counsel for the Respondent(s): Mr. Mohan Parasaran,
Addl.Solicitor General of India
Mr. P.Soma Sundram &
Mr. N. Meyyappan for TNEB
Mr. G Umapathy &
Ms. Sudha Umapathy
Mr. S. Ram Subramaniam
Mr. H.S. Mohammed Rafi R-1
Mr. Neduraman

JUDGMENT

HON'BLE MR. RAKESH NATH, TECHNICAL MEMBER

Appeal No. 192 of 2010 has been filed by Tamil Nadu Electricity Consumers' Association against the order dated 31.7.2010 passed by the Tamil Nadu Electricity Regulatory Commission determining the

tariff for generation, intra-state transmission and retail supply tariff. Appeal No. 206 of 2010 has been filed by Southern India Mills Association challenging the same order. The appellants in both the appeals are the associations of electricity consumers in the state of Tamil Nadu. Tamil Nadu Electricity Board (Electricity Board) and Tamil Nadu Electricity Regulatory Commission (State Commission) are the first and second respondents respectively.

2. The brief facts of the case are as under:

2.1. The State Commission issued its first tariff order under Section 29 of the Electricity Regulatory Commission Act, 1998 on 15.3.2003 based on the petition filed by the Electricity Board (Respondent-1) on 25.9.2002.

2.2. The State Commission notified its Tariff Regulations, 2005 under the 2003 Act on 3.8.2005.

2.3. The State Commission also notified the Regulations regarding Terms and Conditions for determination of tariff under the Multi Year Tariff framework in the year 2009.

2.4. After the issuance of the first tariff order by the State Commission on 15.3.2003, there was no revision of tariff in the state for about seven years because the first respondent did not file any petition for determination of Annual Revenue Requirement and tariff.

2.5. On 18.1.2010, the first respondent filed a petition for tariff determination before the State Commission. On 30.7.2010, the first respondent filed a petition praying for withdrawing the proposal for revision of

tariff for domestic consumes consuming 201 to 400 units bio-monthly and 401 to 600 Units bio-monthly, made in its petition dated 18.1.2010.

2.6. After the public hearing, the State Commission decided the tariff by its order dated 31.7.2010 which came into effect on 1.8.2010. Aggrieved by the said order, the appellants have filed this appeal.

2.7. As the order challenged as well as the issues raised in both the appeals are same, a common judgment is being rendered.

3. The appellants have raised the following issues in the appeal.

3.1. **Maintainability of a single petition for Generation, Transmission and Distribution tariff:** The first respondent had filed a single petition for determination of tariff and Aggregate Revenue

Requirement for all the functions viz. generation, transmission and distribution with bundled information whereas the regulations provide for separate applications to be filed for different functions. Even though the State Commission has recorded in the impugned order about non-compliance with the provisions regarding the procedure for filing the petition by the respondent no. 1, it failed to reject the tariff petition on this ground.

3.2. **Part recovery of the Revenue Requirement:** The respondent no. 1 had filed the petition for recovery of only a part of the revenue requirement. The cumulative deficit for the three tariff years works out to Rs. 27644 Crores whereas the revised tariff would fetch only Rs. 6249 Crores leaving a staggering Rs. 21395 Crores as deficit. The attempt by the first respondent to stagger the recovery process of its huge

accumulated losses over several years from the consumers is not in accordance with the statute. Besides, the huge accumulated losses of the first respondent for the previous years are on account of the populist measures and inefficiency and the consumers cannot be asked to bear the burden of the same.

3.3. **<u>Creation of the Regulatory Asset:</u>** The State Commission has permitted the revenue shortfall of the first respondent to be treated as the regulatory asset which is not in consonance with the Regulation 13 of TNERC (Terms & Conditions for Determination of Tariff) Regulations, 2005. According to the Regulations the regulatory assets could only be permitted if it is established that the licensee could not fully recover the reasonably incurred cost at the tariff allowed with his best efforts after achieving the

benchmark standards, for the reasons beyond his control under natural calamities and force majeure conditions. Further a regulatory asset cannot be created in anticipation of the first respondents' viability to collect the shortfall in the ensuing years.

3.4. **Failure to arrive at cost of supply and supply details for each category of consumer:** The 2005 Regulations provide for working out the voltage-wise cost to serve each category of consumers which shall form the basis for estimating the cross subsidy. This has not been done. In the absence of the details regarding the voltage-wise cost of supply, the petition of respondent no. 1 ought to have been rejected by the State Commission. This is violative of the provision of the Tariff Policy, according to which the tariff for any category of consumer should be ±20% of the cost of supply to that category of consumer.

3.5. **Assumed transmission & distribution loss as basis for tariff determination:** The first respondent did not furnish the actual T&D losses in its petition. It is clear from the impugned order that the tariff has been determined on assumed T&D loss of 18% which is not as per the Tariff Regulations. Even in situation where the exact figure of T&D losses is not available, an accepted methodology should have been adopted and applied.

3.6. **Incentive for Power Factor:** The first respondent had not prayed for withdrawal of the incentive for power factor but, however, the State Commission has proceeded to unilaterally withdraw the incentive for power factor. This is violative of the Regulation 12 of the 2005 Regulations.

3.7. **Incorrect consideration of morning peak hours:** It is not justified to permit the first respondent to treat 6.00 A.M. to 9.00 A.M. as peak hour when admittedly no statistics or study has been produced by the first respondent to show that 6.00 A.M. to 9.00 A.M. could be considered as peak hour slot. While the peak hour charges are collected at 20%, the incentive for consumption during 10.00 P.M. to 5.00 A.M. is provided at 5%. This is unreasonable.

4. On the above issues Shri N.L. Rajah, senior counsel for the appellants argued at length. Shri Mohan Parasaran, learned Additional Solicitor General appearing on behalf of the first respondent argued forcefully supporting the impugned order and refuting the points raised by learned senior counsel for the appellants. Shri Umapathy, learned counsel for the

State Commission also argued vehemently supporting the findings of the State Commission.

5. After considering the contentions of the parties, the following questions would arise for our consideration:

i) Was a single petition for determination of tariff and ARR by the respondent no. 1 for generation, transmission and distribution businesses before the State Commission maintainable?

ii) Can the consumers of respondent no. 1 be loaded with the past financial losses of the respondent no. 1?

iii) Was the State Commission correct in creating regulatory assets for the expected revenue gap of the respondent no. 1 during the Control Period?

iv) Has the State Commission failed to determine the cost of supply and cross subsidy in respect of different categories of consumers in violation of its own Regulations and the Tariff Policy?

v) Has the State Commission incorrectly determined the tariff based on the assumed transmission and distribution losses?

vi) Has the State Commission erred in withdrawing the incentive for power factor?

vii) Was the State Commission justified in permitting to treat the morning peak hours from 06.00 A.M. to 09.00 A.M. without consideration of any study or statistics?

6. The first issue is regarding maintainability of single petition for generation, transmission and retail

supply tariff preferred by the first respondent before the State Commission.

6.1. According to Shri Rajah, learned senior counsel for the appellants, the first respondent has not complied with the Regulations by not submitting the information for generation, transmission and retail supply tariff in distinct formats as specified in the Tariff Regulations and therefore, the State Commission ought to have rejected the tariff petition.

6.2. According to the learned Counsel for the State Commission, the State Electricity Board has been unbundled, pursuant to a transfer scheme, into three Corporations, viz. Tamil Nadu Transmission Corporation, Tamil Nadu Generation & Distribution Corporation Ltd. and TNEB Ltd. The TNEB has been permitted to continue to function as an integrated

utility till 15.9.2010. Hence, even though TNEB had filed a single application, it was maintainable. The State Commission has determined the generation, transmission and retail tariff in accordance with the Tariff Regulations by calling for additional information.

6.3. Learned counsel for the first respondent argued that at the time of the submission of the tariff petition on 18.1.2010, TNEB was functioning as an unbundled utility. Subsequently, the State Commission directed the TNEB to furnish details separately in distinct format as specified under the Regulations. Thereafter, the State Commission determined the generation, transmission and retail supply tariff in accordance with the Regulations and on the basis of the subsequent details furnished by the TNEB.

6.4. According to the Multi Year Tariff (MYT) Regulations dated 11.2.2009, the State Transmission Utility/Transmission licensee and the distribution licensee have to file application for determination of tariff in accordance with the procedure notified in the Tariff Regulations. The Tariff Regulations of 2005 specify that the licensee may file the tariff application in requisite form accompanied by information in the respective formats. Regulation 7 empowers the State Commission to reject the application for determination of tariff for reasons recorded in writing, if the application is not in accordance with the provisions of the Act or Regulations.

6.5. After the reorganization of the TNEB, each company is expected to file separate petition for the distinct functions. However, in this case the companies had been incorporated during the

FY 2009-10. The Generation & Distribution Corporation and TNEB Ltd. had been incorporated on 1.12.2009. However, the State Electricity Board was permitted to function as an integrated utility till 15.9.2010. Thus when the application for MYT tariff petition was filed, the reorganization of the State Electricity Board was in the transition stage. Accordingly, TNEB filed a composite application for all the functions. However, the State Commission sought additional information from TNEB which was submitted by TNEB. Even though the State Commission had the authority to reject the application but, in view of the prevailing circumstances, it rightly sought the additional information from TNEB and after receipt of the information, the State Commission admitted the petition and determined the tariff. We do not find any fault with the decision of the State

Commission and, therefore, reject the contention of the appellants in this regard.

7. The second issue is regarding the past accumulated financial losses of the respondent no. 1 and whether the consumers could be loaded with such losses by way of increase in tariff.

7.1. According to learned Senior counsel for the appellant, attempt by the first respondent to stagger the recovery process of its huge accumulated losses over several years from the consumers is not in accordance with the statute. The consumers are not responsible for the huge accumulated losses of the first respondent.

7.2. Learned counsel for the first respondent has clarified that even though it had sought to treat the accumulated losses for all the previous years as

"regulatory asset", it was not approved by the State Commission. The regulatory asset has been created only with regard to the revenue deficit expected for the control period.

7.3. According to the learned counsel for the State Commission, the Commission has not accepted to treat the accumulated loss of previous years as regulatory asset.

7.4. Let us examine the findings of the State Commission regarding the treatment given to the accumulated financial loss of previous years.

> *"2.29.1.* ***General Issues:***
>
> **..................................**
>
> *(5) The major reasons for the loss are shortage of power, exponential growth of demand and the need for power purchase from the market at high price coupled with tariff remaining constant for a period of 7 years, notwithstanding the increase in*

various input costs. The Commission is concerned with

a) the accumulated losses upto the current year and

b) the continuing losses during the ensuing period.

(6) The first step should be for reversing the trend and to cut down the losses. Simultaneously the treatment of accumulated losses needs to be considered carefully at the time of unbundling of the TNEB. This issue has also received the attention of the Central Government at the time of formulation of National Electricity Policy (NEP) under Section 3 of the Electricity Act, 2003 and finalized in consultation with State Governments. The NEP stipulates that "For ensuring financial viability and sustainability, State Governments would need to restructure the liabilities of the State Electricity Boards to ensure that the successor companies are not burdened with past liabilities." The past burden of the utility should not be passed on to the future consumers as also decided in some of the judgments of Courts even in the short term. Further, in accordance with the Government of

India's Tariff Policy, under business as usual conditions, the opening balances of uncovered gap must be covered through transition financing arrangement or capital restructuring. The Commission has also sent a statutory advice to Government of Tamil Nadu in this regard in their letter dated 04-05-2010. The present endeavour is to add generation capacity, resort to demand side management, improve efficiency in operation, so that the trend of losses be arrested. It is also stated that barring commercial consumers, all other consumers are paying below costs. At the same time, the Board has proposed to increase tariff only to certain category of consumers leading to increase in revenue of Rs.2000 crores leaving a huge gap. The TNEB's proposal is to create a Regulatory asset which could be recovered from the consumers in future. It is to be noted that the regulatory asset is actually a liability to be recovered from the consumers by the TNEB in future years. With the continuing deficit of the Board, it is not possible to amortize the regulatory assets within the next 3 years as stipulated by the

tariff policy. These issues can only be dealt with in the long term and no short term solutions are available. If they are to be recovered in the short term, there will be a huge tariff shock to almost all categories of consumers. The Commission is not aware of the approach of the State Government, with regard to subsidy as the Government would be deciding the subsidy after the announcement of tariff by the Commission. The practice adopted by the neighbouring state of Andhra Pradesh which is almost similarly placed to Tamil Nadu in respect of the demand served, energy served and consumer mix etc. is to indicate the stand of the Government with respect to subsidy in advance. It is seen from the latest order issued by the APERC that the AP Government gave direction to APERC under section 108 to maintain uniform tariff across the state and also considered subsidy to the extent of Rs.3652.81 Crores before the issue of the order and APERC has distributed the subsidy for the 4 Discoms at the time of issuing the order. The TNERC leaves this issue to the best judgment of the Government of Tamil Nadu for appropriate action".

"9.15.3

…………………………….

"9. TNEB has projected revenue gap for the years 2010-11, 2011-12 and 2012-13 in tariff petition. The Commission has arrived at the gap for these years as Rs. 7905.04 crores, Rs. 6062.24 crores and Rs. 3489.18 crores respectively and this gap is after allowing a tariff increase of Rs. 1650.46 crores. It is to be noted here that the last tariff hike in Tamil Nadu was in June 2003 and the TNEB has not preferred any tariff revision thereafter, even though their operating costs have been going up. The Commission had also advised them to file tariff revision petition but in vain. There is an accumulated loss of about Rs. 16500 crores upto 2008-09. The estimated revenue gap for 2009-10 is not available. Had there been regular tariff adjustments over the last 7 years the revenue shortfall would not have grown to this extent. There has been no major capacity addition by TNEB for the last 10 years.

The Board has been buying expensive power from the market which is a major reason for the gap, besides increase in employee expenses consequent to the implementation of the 6th Pay Commission Report for the TNEB employees. The Commission observes that if the on going projects are commissioned according to schedule, the revenue gap would start coming down. The restructuring of the TNEB is expected to address the accumulated loss of previous years. Since a huge gap exists even after the proposed tariff hike, the Commission has no choice but to treat the remaining portion as regulatory asset. The regulatory asset would further increase in the next two years as the trend of revenue gap continues. This issue can be addressed only in long term. To prevent the tariff shock to the consumers, per force it to resort to creation of regulatory asset as a last resort".

7.5. Thus, even though the first respondent had prayed for creation of regulatory assets for un-recovered revenue gap as on 31.3.2010, the State

Commission has neither created the regulatory asset for the accumulated loss for the previous years nor passed on the same in any way on the consumer in the tariff order. On the other hand, the State Commission is of the opinion that the restructuring of the TNEB is expected to address the accumulated loss of previous years. Perhaps it is the apprehension of the appellants that the accumulated loss for the previous years may be passed on to them in future. We do not think that we should deliberate on something which has not been permitted in the impugned order but is based on some presumptions. The State Commission has only decided to create regulatory assets for the anticipated revenue gap during the Control Period which we will discuss while answering the third question.

7.6. While we do not want to interfere with the findings of the State Commission regarding the accumulated losses for the previous years, we are concerned with the fact that the first respondent filed a petition for determination of ARR and tariff after a gap of seven years. The first tariff petition was filed by the first respondent in September, 2002 on the basis of which the State Commission passed the tariff order dated 15.3.2003. Thereafter, the petition for determination of tariff/ARR was filed only on 18.1.2010 for the Control Period 2010-13. During the intervening period the respondent no. 1 has accumulated huge financial losses, to the tune of Rs. 16700 Crores ending FY 2008-09. We fail to understand as to why the first respondent did not file the petition for ARR and tariff every year during this period and if the first respondent was failing to do so why the State

Commission did not initiate suo motu proceedings in the matter. Besides the retail tariff, the State Commission has to regulate the electricity purchase and procurement process and approve capitalization of the assets of the distribution licensee for which the Annual Revenue Requirement has got to be approved by the State Commission.

7.7. In this connection let us examine the 2005 Regulations. The relevant Regulation 5 is reproduced below:

> *"5. Filing of Aggregate Revenue Requirement*
>
> *(1) The Distribution / Transmission licensee shall file the Aggregate Revenue Requirement (ARR) on or before 30th November of each year in the format prescribed, containing the details of the expected aggregate revenue that the licensee is permitted to recover at the prevailing tariff and the estimated expenditure.*

(2) ARR shall be filed every year even when no application for determination of tariff is made".

"6. Procedure for making application for Determination of Tariff:

…………………………………

(8) In case the licensee does not initiate tariff filings in time, the Commission shall initiate tariff determination and regulatory scrutiny on suo motu basis".

Thus, according to the Regulations the licensee has to file the ARR every year even when no application for determination of tariff is made and in case the licensee does not initiate the tariff filing in time, the State Commission has to initiate the same suo motu.

7.8. In the present case the Regulations were clearly violated by the first respondent and the State Commission also remained a silent spectator.

7.9. The present situation in which the first respondent has landed itself with large accumulated financial losses, is neither in its own interest for smooth operation of the system nor in the interest of the consumers for maintaining a reliable power supply. If the first respondent is in poor financial health, then it is doubtful that it can maintain a reliable power supply to the consumers. We, therefore, direct the first respondent and its successor companies to regularly file their respective petitions for determination of Annual Revenue Requirement and Tariff every year, in time, according to the Regulations. In case the successor companies do not file the petition for determination of ARR and tariff in time, the

State Commission should initiate the tariff determination and regulatory scrutiny on suo motu basis.

8. The third issue is regarding creation of the Regulatory Asset for the anticipated revenue gap of the first respondent during the control period.

8.1. According to the learned Senior counsel for the appellants, creation of the Regulatory Asset is not in consonance with Regulation 13 of the Tariff Regulations, 2005.

8.2. According to the learned counsel for the respondent no. 1 the creation of the Regulatory Asset would fall within the scope of powers of the State Commission under Regulation 13 of the 2005 Regulations.

8.3. The learned counsel for the State Commission has contended that creation of the Regulatory Assets became necessary to avoid the tariff shock.

8.4. Let us first examine the provisions of the Tariff Policy in this regard. The relevant extracts are as under:

> *"**8.2.2**. The facility of a regulatory asset has been adopted by some Regulatory Commissions in the past to limit tariff impact in a particular year. This should be done only as exception, and subject to the following guidelines:*
>
> *a. The circumstances should be clearly defined through regulations, and should only include natural causes or force majeure conditions. Under business as usual conditions, the opening balances of uncovered gap must be covered through transition financing arrangement or capital restructuring;*

b. Carrying cost of Regulatory Asset should be allowed to the utilities;

c. Recovery of Regulatory Asset should be time-bound and within a period not exceeding three years at the most and preferably within control period;

d. The use of the facility of Regulatory Asset should not be repetitive.

e. In cases where regulatory asset is proposed to be adopted, it should be ensured that the return on equity should not become unreasonably low in any year so that the capability of the licensee to borrow is not adversely affected".

The Tariff Policy stipulates creation of the regulatory asset only as an exception subject to the guidelines specified above. According to the guidelines the circumstances under which the regulatory assets

should be created are under natural causes or force majeure conditions.

8.5. Let us now examine Regulation 13 of the 2005 Tariff Regulations of the State Commission:

"13. Regulatory Asset:

(1) Wherever the licensee could not fully recover the reasonably incurred cost at the tariff allowed with his best effort after achieving the benchmark standards for the reasons beyond his control under natural calamities and force majeure conditions and consequently there is a revenue shortfall and if the Commission is satisfied with such conditions, the Commission shall treat such revenue shortfall as Regulatory Asset.

(2) The regulatory asset shall first be adjusted against the contingency reserve. The balance regulatory asset, if any, will be allowed to be recovered within a period of three years as decided by the Commission.

(3) The licensee shall intimate the Commission then and there when such contingency arises.

(4) Any un-recovered gap at the beginning must be covered through transition financing arrangement or capital restructuring".

Under the State Commission's Regulations also the regulatory asset is to be created when the licensee is not able to recover the reasonably incurred cost for reasons beyond its control under natural calamities and force majeure conditions. Further, the regulatory asset has to be recovered within a period of three years. Admittedly, in the present case occurrence of natural calamities and force majeure conditions did not arise.

8.6. Now we shall examine the findings of the State Commission in this regard. The relevant extracts from

the impugned order under paragraph 9.15.3 (9) are reproduced in paragraph 7.4 above.

8.7. The State Commission has justified creation of the regulatory asset for the anticipated revenue gap during the control period to prevent the tariff shock. The order does not clearly state the total amount of the regulatory asset created but if we add up the projected revenue gap of Rs. 7904.04 Cr., Rs. 6062.24 Cr. and Rs. 3489.18 Cr. for FY 2010-11, 2011-12 and 2012-13 respectively it totals upto Rs. 17445.46 Cr. It is also noticed that the State Commission has also not provided for any carrying cost on the regulatory asset and the programme for recovery of the amount to be taken as expenses in future tariff.

8.8. We are of the opinion that the regulatory asset created by the State Commission is not in consonance

with the Tariff Policy and its own Regulations. Moreover, the impugned order does not provide for recovery of the regulatory assets with the carrying cost as envisaged in the Regulations and the Tariff Policy.

8.9. The State Commission has justified creation of regulatory asset for avoiding tariff shock. Now, let us examine the increase in tariff decided in the impugned order. We reproduce below the response of TNEB (Respondent-1) recorded in the impugned order regarding the tariff increase.

> *"2.27.2 Domestic users consume 15 million units/ day. Individual consumption has already crossed more than 1000 units, whereas the per capita consumption envisaged in the 11th Plan is 1000 units only. Last year, the average cost of supply was Rs.4.70/unit and it is expected to increase to Rs.4.90 / unit. As on date, the average recovery is Rs.2.60/unit. For every consumer, the average subsidy is Rs.2.30/unit. In Tamil Nadu, except*

Commercial and Industry, other categories come under subsidized tariff. Out of 2.09 crores consumers, no hike is proposed for 1.65 crores consumers. Out of 1.50 crores domestic consumers, there is no hike for 1.40 crores consumers. Hike is proposed for only 10 to 12 lakh domestic consumers. The average increase is 65 ps. Only".

Thus, despite huge gap between average cost of supply and average recovery, TNEB had proposed no hike in tariff for 1.65 crores consumers out of total 2.09 crores consumers i.e. tariff was not to be increased for about 79% of the consumers. Out of 1.5 Crores domestic consumers no hike was proposed for 1.4 Crores (93%) consumers. In fact, the first respondent withdrew its own petition for tariff increase for domestic consumers consuming from 201 units to 600 units bio-monthly and the State Commission permitted the same. In its response to the comments

of the stakeholder the State Commission has recorded in para 2.29.1(6) of the impugned order that it had proposed to increase tariff only to certain categories of consumers. We do not understand why no tariff was increased for majority of consumers even though the Respondent no. 1 was facing huge revenue gap while it had proposed to carry out a number of system improvement works for which funds were required and considering that the tariff was being increased after a span of seven years. When the tariff has not been increased for most of the consumers, how the creation of the regulatory asset of such high magnitude, that too without any direction for its amortization, can be justified on the pretext of avoiding tariff shock?

8.10. Now, the question arises whether the creation of the regulatory asset is in the interest of the distribution company and the consumers. The

respondent no. 1 will have to raise debt to meet its revenue shortfall for meeting its O&M expenses, power purchase costs and system augmentation works. It is not understood how the respondent no. 1 will service its debts when no recovery of the regulatory asset and carrying cost has been allowed in the ARR. Thus, the respondent no. 1 will suffer with cash flow problem affecting its operations and power procurement which will also have an adverse effect on maintaining a reliable power supply to the consumers. Thus, creation of the regulatory asset will neither be in the interest of the respondent no. 1 nor the consumers.

8.11. A question would arise whether the State Commission should have allowed a tariff increase even though the respondent no. 1 had not proposed or had withdrawn its request for tariff hike for certain categories of domestic consumers. To answer this

question, we have to examine the object and reasons and the provisions of the Electricity Act, 2003. The relevant extracts are as under:

> *"1.3. Over a period of time, however, the performance of SEBs has deteriorated substantially on account of various factors. For instance, though power to fix tariffs vests with the State Electricity Boards, they have generally been unable to take decisions on tariffs in a professional and independent manner and tariff determination in practice has been done by the State Governments. Cross-subsidies have reached unsustainable levels. To address this issue and to provide for distancing of government from determination of tariffs, the Electricity Regulatory Commissions Act, was enacted in 1998".*

The relevant provisions of Electricity Act, 2003 are reproduced below:

> "61. **Tariff Regulations**- The Appropriate *Commission shall, subject to the provisions of this Act, specify the terms and conditions for the*

determination of tariff, and in doing so, shall be guided by the following, namely:-

(a)………….

(b) the generation, transmission, distribution and supply of electricity are conducted on commercial principles;

(c)----------------------

(d) safeguarding of consumers' interest and at the same time, recovery of the cost of electricity in a reasonable manner;

(e)-------------------------

(f)--------------------------

(g) that the tariff progressively reflects the cost of supply of electricity, and also, reduces cross-subsidies within the period to be specified by the Appropriate Commission;

(h)-------------------------

(i) the National Electricity Policy and tariff policy".

Thus, one of the factors guiding the determination of tariff will be that it progressively reflects the cost of supply. Also the cross subsidies have to be reduced progressively.

We feel that the above objects & provisions of the Act have been given a go by in the impugned order. In our opinion, the State Commission inspite of the proposal of the respondent no. 1 not to increase tariff for majority of the consumers or its request for withdrawal of proposal for increase in tariff for the some section of consumers should have determined the tariff objectively as per the provisions of the Act and its Regulations.

8.12. According to Shri Rajah, learned Senior counsel for the appellants, the regulatory assets could not be created for the anticipated shortfall in revenue.

We are in agreement with the contention of the Senior counsel. The Regulations clearly state that the Regulatory Asset can be created when the licensee could not fully recover the reasonably incurred cost at tariff allowed for reasons beyond his control under natural calamities and force majeure conditions. Thus, we hold that the creation of the regulatory assets on the basis of projected shortfall in revenue, that too without any directions for time bound recovery for the regulatory asset alongwith its carrying cost, is in contravention of the Tariff Policy and the 2005 Regulations.

8.13. Now that the first year of the Control Period is already over, the regulatory asset created for the first year of the control period can not undone. It has become a reality. However, its amortization along with the interest charges has to be carried out as per the

provisions of the Act, Policy and the Regulations. We accordingly direct the State Commission to true up the ARR for the FY 2010-11 and give consequential directions for recovery of the revenue gap derived after the true up alongwith the carrying cost within a period of three years, the period prescribed in the Regulations. The true-up exercise should be initiated by the State Commission immediately.

9. The fourth issue is regarding cost of supply.

9.1. According to the learned Senior counsel for the appellants, the cost to serve each category of consumer should have been the basis for determination of tariff as per the Tariff Policy and the Regulations.

9.2. According to the learned counsel for the first respondent the target of ± 20% of average cost of supply can be achieved only in a progressive manner

over a period of time. Any attempt to achieve the target on the basis of cost to serve each group, in light of the fact that there has been no tariff revision during the last seven years would result in a major increase in tariff of the LT consumers.

9.3. The learned counsel for the State Commission has argued that the National Tariff Policy permit the State Commission to fix the tariff based on the average cost of supply instead of cost to serve each category of consumers. Moreover, the target of ± 20% of the average cost of supply could be achieved over a period of time. Tariff based on cost to serve each category would require a major increase in the tariff for LT consumers.

9.4. Let us first examine the Tariff Regulations of the State Commission in this regard. The relevant

extracts from the 2005 Regulations are reproduced below:

"84. Cost of supply to various categories of consumers

(1) The licensee shall conduct a study to work out voltage level cost to serve each category of consumer and furnish the details to the Commission.

(2) The licensee shall furnish the details along with the tariff application as required in regulation 69(2) and also along with Annual Accounts.

(3) The Commission shall consider and approve the cost to serve with modifications if any required.

(4) The cost to serve a category of consumer and realization of revenue at the tariff from each

category of consumer shall form the basis for estimating the cross subsidy.

85. Cross subsidy, reduction and elimination

(1) The difference between the cost to serve and the revenue realized from the consumer category at the approved tariff level is the cross subsidy. The consumer paying more than the cost to serve is subsidizing consumer and the consumer paying less than the cost to serve is the subsidized consumer.

(2) The Commission may endeavour to hold the tariff of the subsidizing categories at the nominal rates until the tariff to subsidized categories approaches the cost to serve such categories.

(3) ***1[****The Commission may endeavour to reduce the cross subsidy progressively in accordance*

*with the road map to be notified by the Commission***]**.

(4) *In view of the necessity to make electricity affordable for households of very poor category, the domestic consumers including hut dwellers consuming 30 kWh per month may be designated as lifeline categories requiring minimum level of supply. The tariff for such category may be pegged at 50% of the cost to serve the domestic consumers.*

(5) *However, if the State Government requires grant of any subsidy to any consumer or class of consumers in the tariff determined by the Commission, the State Government shall pay the amount to compensate the licensee in advance as may be required by the Commission.*

1 *Substituted as per Commission's Notification No. TNERC/TR/5/2-4, dated 18-12-2007 (w.e.f. 06-02-2008), which before substitution stood as under :*

"(3). The Commission may endeavour to reduce and eliminate the cross subsidy progressively and the licensee shall prepare a road map towards this object and get it approved".

The Regulations stipulate determination of voltage-wise cost to serve each category of consumer which will be the basis for estimating the cross subsidy. The cross subsidy may be reduced progressively in accordance with the road map to be notified by the State Commission.

9.5. However, it is noticed that in the impugned order the provisions of the above Regulations have not been complied with. The relevant extracts from the impugned order are reproduced below:

"2.29.4 Cost of Supply :

(1) ……………

(2) The National Tariff Policy (NTP) envisages that the tariff for consumers should be within + 20% of

the average cost of supply. It can be seen from the Tariff Schedule that most of the consumers pay tariff within this range except for huts and agricultural consumers. A proper view of tariffs for these categories can be taken only when their actual consumption is known. Even after ascertaining the consumption and setting up of the tariff on realistic basis, if the policy of free power is to be continued, the same may have to be provided by the Government by way of subsidy. The same logic is true for domestic consumers who are subsidised at present. As already stated, in the long run, a healthy electricity utility is necessary for serving the interests of the consumers".

The State Commission in the impugned order failed to deliberate on the issue of voltage-wise cost of supply and also did not determine the variation in tariff of different categories of consumers with respect to average cost of supply. In the absence of this information, it is not possible for us to verify if the

tariff of all categories of consumers is within ± 20% of the average cost of supply and whether the cross subsidy has reduced or increased in different categories as compared to the previous year as per the provisions of the Act and Tariff Policy. However, it is apparent that the cross subsidy to consumers whose tariff has not been increased, has increased. This is against the provisions of the Act, the Policy and the Regulations.

9.6. This issue has been dealt with by this Tribunal in its Judgment dated 30.5.2011 in Appeal Nos.102, 103 and 112 of 2010 in the matter of Tata Steel Limited and Ors vs. Orissa Electricity Regulatory Commission, etc. The relevant extracts from the Judgment are as under:

> *"17………Thus the intention of the Parliament in amending the above provisions of the Act by removing provision for elimination of cross subsidies appears to be that the cross subsidies*

may be reduced but may not have to be eliminated. The tariff should progressively reflect the cost of supply but at the same time the cross subsidy, though may be reduced, may not be eliminated. If strict commercial principles are followed, then the tariffs have to be based on the cost to supply a consumer category. However, it is not the intent of the Act after the amendment in the year 2007 (Act 26 of 2007) that the tariff should be the mirror image of the cost of supply of electricity to a category of consumer".

"22. After cogent reading of all the above provisions of the Act, the Policy and the Regulations we infer the following:

i) The cross subsidy for a consumer category is the difference between cost to serve that category of consumers and average tariff realization of that category of consumers. While the cross-subsidies have to be reduced progressively and gradually to avoid tariff shock to the subsidized categories, the cross-subsidies may not be eliminated.

ii) The tariff for different categories of consumer may progressively reflect the cost of electricity to the consumer category but may not be a mirror image of cost to supply to the respective consumer categories.

iii) Tariff for consumers below the poverty line will be at least 50% of the average cost of supply.

iv) The tariffs should be within ±20% of the average cost of supply by the end of 2010-11 to achieve the objective that the tariff progressively reflects the cost of supply of electricity.

v) The cross subsidies may gradually be reduced but should not be increased for a category of subsidizing consumer.

vi) The tariffs can be differentiated according to the consumer's load factor, power factor, voltage, total consumption of electricity during specified period or the time or the geographical location, the nature of supply and the purpose for which electricity is required.

Thus, if the cross subsidy calculated on the basis of cost of supply to the consumer category is not increased but reduced gradually, the tariff of consumer categories is within ±20% of the average cost of supply except the consumers below the poverty line, tariffs of different categories of consumers are differentiated only according to the factors given in Section 62(3) and there is no tariff shock to any category of consumer, no prejudice would have been caused to any category of consumers with regard to the issues of cross subsidy and cost of supply raised in this appeal.

"29. The State Commission has indicated in the impugned order that the voltage-wise cost determination is the first step in determining the consumer-wise cost of supply but has expressed difficulties in determination of voltage-wise cost of supply due to non-segregation of costs incurred by the licensee related to different voltage levels and determination of technical and commercial losses at different voltage levels due to non-availability of meters. The State Commission has also noted that

the data submitted by the distribution licensee does not have technical or commercial data support".

"31. We appreciate that the determination of cost of supply to different categories of consumers is a difficult exercise in view of non-availability of metering data and segregation of the network costs. However, it will not be prudent to wait indefinitely for availability of the entire data and it would be advisable to initiate a simple formulation which could take into account the major cost element to a great extent reflect the cost of supply. There is no need to make distinction between the distribution charges of identical consumers connected at different nodes in the distribution network. It would be adequate to determine the voltage-wise cost of supply taking into account the major cost element which would be applicable to all the categories of consumers connected to the same voltage level at different locations in the distribution system. Since the State Commission has expressed difficulties in determining voltage

wise cost of supply, we would like to give necessary directions in this regard.

32. Ideally, the network costs can be split into the partial costs of the different voltage level and the cost of supply at a particular voltage level is the cost at that voltage level and upstream network. However, in the absence of segregated network costs, it would be prudent to work out the voltage-wise cost of supply taking into account the distribution losses at different voltage levels as a first major step in the right direction. As power purchase cost is a major component of the tariff, apportioning the power purchase cost at different voltage levels taking into account the distribution losses at the relevant voltage level and the upstream system will facilitate determination of voltage wise cost of supply, though not very accurate, but a simple and practical method to reflect the actual cost of supply.

33. The technical distribution system losses in the distribution network can be assessed by carrying

out system studies based on the available load data. Some difficulty might be faced in reflecting the entire distribution system at 11 KV and 0.4 KV due to vastness of data. This could be simplified by carrying out field studies with representative feeders of the various consumer mix prevailing in the distribution system. However, the actual distribution losses allowed in the ARR which include the commercial losses will be more than the technical losses determined by the system studies. Therefore, the difference between the losses allowed in the ARR and that determined by the system studies may have to be apportioned to different voltage levels in proportion to the annual gross energy consumption at the respective voltage level. The annual gross energy consumption at a voltage level will be the sum of energy consumption of all consumer categories connected at that voltage plus the technical distribution losses corresponding to that voltage level as worked out by system studies. In this manner, the total losses allowed in the ARR can be apportioned to different voltage levels including the EHT consumers directly

connected to the transmission system of GRIDCO. The cost of supply of the appellant's category who are connected to the 220/132 KV voltage may have zero technical losses but will have a component of apportioned distribution losses due to difference between the loss level allowed in ARR (which includes commercial losses) and the technical losses determined by the system studies, which they have to bear as consumers of the distribution licensee.

34. Thus Power Purchase Cost which is the major component of tariff can be segregated for different voltage levels taking into account the transmission and distribution losses, both commercial and technical, for the relevant voltage level and upstream system. As segregated network costs are not available, all the other costs such as Return on Equity, Interest on Loan, depreciation, interest on working capital and O&M costs can be pooled and apportioned equitably, on pro-rata basis, to all the voltage levels including the appellant's category to determine the cost of

supply. Segregating Power Purchase cost taking into account voltage-wise transmission and distribution losses will be a major step in the right direction for determining the actual cost of supply to various consumer categories. All consumer categories connected to the same voltage will have the same cost of supply. Further, refinements in formulation for cost of supply can be done gradually when more data is available".

9.7. Accordingly, the State Commission is directed to undertake the exercise of determination of voltage-wise cost of supply within next six months of the date of this judgment and ensure that in the future tariff orders cross subsidies for different categories of consumers are determined according to the Regulations and the cross subsidies are reduced as per the provisions of the Act. The State Commission is also directed to work out the variation of tariff of different categories of consumers with respect to

average cost of supply and provide consequential relief, if any, to the appellant's consumer category in terms of our findings after hearing all concerned.

10. The fifth issue is regarding determination of tariff on the assumed transmission & distribution (T&D) losses.

10.1. According to the learned senior counsel for the appellants, the tariff has been determined wrongly on the assumptive figures of T&D losses.

10.2. According to the respondent no.1 the figure of 18% has been arrived based on the reasonable assumptions based on data available. T&D losses can only be accurately calculated once 100% metering is completed.

10.3. According to the learned counsel for the State Commission, the State Commission had expressed its

apprehension on the T&D loss figure of 18% submitted by the Electricity Board. The State Commission made its own assumptions and calculation before finalizing the tariff. The State Commission has extended the period of 100% metering upto September 2012. In the absence of 100% metering in the consumer service connections, the State Commission calculated the consumption based on the CEA formula. Accordingly, the State Commission fixed the T&D loss trajectory at 17.6%, 17.2% and 16.8% for 2010-11, 2011-12 and 2012-13 respectively.

10.4. Let us first examine the Tariff Regulations in this regard. The relevant Regulation is Regulation 73 which is reproduced below:

"73. Transmission and Distribution Loss

(1) The Distribution licensee shall endeavor to have proper metering arrangements for accurate measurement of transmission loss.

(2) Appropriate sample study with the approval of the Commission shall be conducted to estimate the consumption in unmetered services so that distribution losses are estimated fairly accurate.

(3) The licensee shall compute and furnish loss levels at every supply voltage level.

(4) The Distribution licensee shall furnish the Transmission and Distribution losses during the previous year and the proposed target for the Current and Ensuing Year as well as for the next three years with the details of measures proposed to achieve the target in each year.

(4) The Commission shall fix target for reduction of losses in the next three years".

The Regulations provide for proper metering arrangements for accurate measurement of transmission loss. It also stipulates appropriate sample survey as approved by the State Commission

to estimate the consumption of unmetered services so as to arrive at fairly accurate estimate of distribution losses.

10.5. We shall now examine the relevant portions of the impugned order on this issue which are reproduced below:

> ***"2.29.3 Metering and Energy Audit:***
>
> *(1) Section 55 of the Electricity Act envisages that all connections shall be energized through a correct meter. The relationship between Utility and the Consumer is through the meter. The specification of the meters has already been laid down by Regulation by the Central Electricity Authority (CEA) in accordance with the Act. A time bound programme for 100% metering needs to be worked out by TNEB and submitted to the Commission. This shall be done within six months of the issue of this Order.*

(2) It is also necessary to meter all the feeders and the distribution transformers and the meters shall have the facility for remote reading. Appropriate technology needs to be selected and SCADA/ data management system needs to be established. Such an arrangement will enable carrying out of Energy Audit and will also facilitate Demand Side management (DSM) . In the interim period, the TNEB is directed to submit the programme for carrying out the Study for Assessment of Transmission and Distribution (T&D) losses. This will help in properly assessing the power purchase to be allowed for an estimated sales projection".

Thus, the State Commission has directed the first respondent to submit a time bound programme for 100% metering within six months of the date of issue of the order. The first respondent has also been directed to submit a programme for carrying out the study on assessment of T&D losses.

Regarding agriculture consumers, the State Commission records as under:

"(3) The Commission has been advocating measuring of electricity supplied to various consumers. In fact, Section 55 of the Electricity Act envisages supply of electricity through correct meters. The specification of the meters has already been laid down by the Central electricity Authority way back in May 2006. Extension of time was sought from the Commission for providing meters for all service connections which has been granted for a period of 3 years from 2009. The Commission has also directed the TNEB to install meters on all feeders so that energy audit could be conducted, Besides, an estimate of the agricultural consumption was also to be made by a scientific process. The TNEB has indicated in its petition that an expert was appointed and he has conducted some studies and submitted a report which is known as Raheja Report. Time and again it has been reported that they had difficulty in "Run time error" and accordingly the matter did not progress

further. The Commission is unable to accept this explanation of Run time error. Sincere efforts should have been made to assess the energy supply in various feeders and the same should have been compared with the energy for which revenue has been realized and to work out the transmission and distribution losses as well as commercial losses separately. This has not happened. In the absence of such an exercise, all unmetered consumption as well as the losses are estimated based on certain assumptions. Until and unless the assumptions are clearly validated by a third party, the Commission finds it difficult to accept the figures furnished by the Petitioner. It should also be noted that a wrong estimation of AT&C losses would underestimate the power purchase requirement and the fallacy of such an estimate would be seen at the end of the year, when the actual power purchase is more than the estimated power purchase.

"(4) From the above it could be seen that the actual level of retail sale needs to be grossed up by

normative level of T & D losses for allowing power purchase costs. It is therefore necessary to properly estimate the AT & C as well as T & D losses. Till such time 100% metering is done and AT & C / T&D losses are calculated based on actual meter reading, the Commission directs that the TNEB shall carry out an exercise to arrive at proper estimate of AT & C and T&D losses within a period of six months"

"3.2.16.6. The TNEB probably predetermines the percentage of loss and then estimates the agricultural consumption so as to maintain the loss level without adopting any specific method to compute agricultural consumption.

3.2.16.7. In the 17th Electric Power Survey (EPS), the CEA has adopted the following formula to forecast the electrical consumption of pumpsets/tube wells.

Y=N x S x H

Where,

Y= Electrical consumption in KWh

N= Number of pumsets at the middle of the year
S= Average capacity of pumpset in KW at the middle of the year
H= Average electricity consumption per year per kilowatt of connected electric load (KWh/KW)

3.2.16.8. The consumption by agricultural services is computed for the control period by adopting CEA's formula with the following assumption:

(i) No. of consumers (service connections) is increased @ 40,000 year after year.

(ii) The number of consumers as on 31.03.2009 is taken as 1884750 and the number consumers for the subsequent periods may be arrived at with the addition of 40,000 consumers every year.

(iii) Capacity of the pump sets is adopted on HP basis against the kW basis.

(iv) The average consumption per HP per year is taken as 1051 units based on the sample study report submitted for earlier tariff revision.

(v) Connected load may be increased @ 5.47 HP / service".

Thus the State Commission did not accept the assessment of the Electricity Board for agriculture consumption (unmetered) and assessed the same based on some assumption of energy consumption per HP load of the agriculture pump.

"3.5. <u>Assessment of Unmetered Consumption:</u>

3.5.1. In the Action Plan on various activities received on 05.03.2003, the TNEB had reported that as a part of World Bank assisted T.N. Water Resources Consolidation Project, the Board has awarded a Consultancy to Dr. S.K. Raheja, Retired Director of ICAR for recommending analytical procedures and sample size assessment of energy consumption by unmetered agricultural and hut connection.

3.5.2 The TNEB in the petition have now reported the following status:

"The Consultant has identified providing meters in 6600 Nos. Agricultural services and 4620 Nos. hut services selected at random.

- *Installation of meters has been completed:*
- *Meter readings taken from 01.12.2006 to 31.11.2007;*
- *While analyzing the data for estimation of energy consumption,* ***"run time error"*** *occurred in the software;*
- *The error has been referred to Dr. S.K. Raheja, Consultant and reply is awaited;*

3.5.3 The contention of TNEB is unacceptable. Two years period is too long get error rectified or to use alternate method to arrive at the loss. Having measured 50% of their DTs the reading of the DTs should have been used to arrive more accurate consumption of agricultural and HUT services".

Thus, the first respondent has totally neglected the provision of consumer and energy accounting and audit metering as also study for estimation of unmetered supply.

"3.6 Commission's Rulings on T&D Loss

3.6.10 The Commission directs that the T & D loss be reduced by 0.40% every year from 2010-11. The trajectory for reduction of loss is fixed as below:

Table – 45 T & D loss trajectory fixed by TNERC

Year	*2009-10*	*2010-11*	*2011-12*	*2012-13*
Loss level (in %)	*18*	*17.6*	*17.2*	*16.8*

Thus, the State Commission only revised the agricultural Consumption based on its own assumptions but retained the base level T&D loss @ 18% as estimated by the Electricity Board, which in our opinion and as recorded by the State Commission in the impugned order, has not been correctly

assessed. If the agriculture consumption is less than what was projected by the first respondent, then the actual T&D loss would be higher than 18%. However, the T&D loss trajectory fixed by the State Commission for the Control Period appears to be following good industry practice and, therefore, we do not feel prudent to interfere with the same.

10.6. According to Section 55 of the 2003 Act, the licensee has to supply electricity through installation of a correct meter in accordance with the regulations of the Authority after the expiry of two years from the appointed date i.e. by June 2005. However, the State Commission can extend the said period of two years for a class or classes of persons. It is noted that the State Commission has since extended the time limit in September 2009 for a period of three years. Thus, the first respondent approached the State Commission for

extension after about 4 years of the expiry of the deadline and the same was granted for a period of another three years. The progress of providing energy accounting & audit meters on distribution transformers is far from satisfactory. As on 31.3.2009 only about 50% of the distribution transformers have been metered. Even on the feeders where the distribution transformers have been provided, no energy accounting has been carried out to determine the losses. It is surprising to note that the first respondent has been assuming the T&D losses at 18% and then back working the agriculture consumption.

10.7. We agree that T&D losses have been assumed without the metered data or on the basis of any scientific study to assess the unmetered consumption. The first respondent despite instructions from the State Commission has not come out with a proper

study. However, the State Commission has revised the agriculture consumption based on its own assumption and CEA formula to work out the total consumption and the power purchase requirements. The State Commission in the impugned order has directed the first respondent to come out with a study on assessment of unmetered consumption. The State Commission should monitor and get the same expedited.

10.8. The State Commission is also directed to review the progress of installation of consumer meters and energy accounting and audit meters and ensure that the 100% metering is achieved well within the approved time frame.

11. The sixth issue is regarding incentive for power factor.

11.1. According to the learned Senior counsel for the appellants, withdrawal of incentive for power factor is violative of Regulation 12. This has been done suo motu without any request from the first respondent.

11.2. According to the learned counsel for the respondent no. 1, the State Commission's suo motu withdrawal of incentive for power factor is not bad in law.

11.3. According to the learned counsel for the State Commission, the incentive for high power factor was introduced for the industrial consumers in its first tariff order of 15.3.2003 in order to create awareness. Subsequently, all such consumers who maintained high power factor have been rewarded by way of lesser charges due to lesser maximum demand. This

incentive has been withdrawn as the consumers have already been benefited by reduced maximum demand and they will continue to benefit on this account in future too. It is obligatory for the consumer to generate adequate reactive power at his load end in accordance with the State Distribution Code, Grid Code and Indian Electricity Grid Code. Earlier, there was a provision for incentive/disincentive for power factor in its Supply Code which has since been deleted by an amendment w.e.f. 1.8.2010.

11.4. Let us first examine the provisions of Tariff Regulations regarding power factor incentive. The relevant Regulation 12 is reproduced below:

> ***"12. Power Factor***
> *The Commission may direct certain categories of consumers to maintain power factor at a prescribed level and allow incentive/disincentive for maintaining above /below the prescribed level".*

11.5. Section 61(e) of the 2003 Act provided for consideration of the principles rewarding efficiency in performance.

11.6. The State Commission in the impugned order has specified the power factor required to be maintained for certain categories of consumers and disincentive for not maintaining the same but has not specified any incentive for maintaining a higher power factor than the benchmark. The impugned order is also silent about the reason for withdrawing the incentive which was earlier available. The learned counsel for the State Commission has now tried to provide a reasoning for the same.

11.7. The State Commission's Regulation provides for the State Commission prescribing the power factor benchmark and allowance of incentive for power factor

above the benchmark and disincentive below the benchmark power factor. While the State Commission has prescribed the disincentive for power factor below the benchmark, it did not provide for incentive for power factor above the benchmark. In our opinion, the incentive and disincentive for maintaining power factor above and below the benchmark have to go together as per the Regulation-12.

11.8. It is now argued by the learned counsel for the respondents that the consumer gets benefit for improving the power factor above the benchmark as its maximum demand also reduces. Thus, additional incentive for improving power factor is not required. This reasoning, though not forming the part of the impugned order, does not have any force. If the same reasoning is advanced for disincentive for low power factor, the consumer has to pay higher maximum

demand charges if it maintains a low power factor. The basic purpose of specifying the benchmark power factor and incentive for power factor is to reduce the reactive power drag on the system which results in lower voltage and higher T&D losses and, therefore, the consumer has to be encouraged to maintain a higher power factor. Technically also it is most beneficial for reducing T&D losses if the reactive compensation is provided at the consumer's end and therefore incentive/disincentive for power factor is provided. It is correct that it is obligatory on the consumer to maintain the benchmark power factor as per the Distribution Code, Grid Code, etc., but if a higher power factor than the benchmark is maintained it helps the system and needs to be incentivised.

11.9. The learned counsel for the State Commission has argued that the Supply Code

provided for incentive for higher power factor has since been amended on 25.10.2010 retrospectively w.e.f. 1.8.2010. Thus, when the impugned order was passed, the Supply Code had a provision for incentive for higher load factor. The decision of the State Commission has to be based on the prevailing regulations. While we agree with the learned counsel for the State Commission that the State Commission is empowered to change tariff suo motu without a request from the distribution company, the State Commission in this case should have allowed incentive for higher power factor according to the prevailing Regulations. Accordingly, this issue is decided in favour of the appellants. We are, however, not giving any finding on the quantum of incentive and the State Commission may decide the incentive after giving proper reasoning for the same.

12. The last issue is regarding the peak hour tariff during the period 06:00 A.M. to 09:00 A.M.

12.1. According to the appellants, no statistics or study has been produced by the State Commission to show that 06:00 A.M. to 09:00 A.M. could be considered as a peak hour slot.

12.2. According to the first respondent, the peak hours have been fixed according to Regulation 11(2) of the 2005 Tariff Regulations.

12.3. The relevant Regulation 11 is reproduced below:

> ***"11. Time-of-the- Day Tariff***
>
> *(1) To promote demand side management peak and off-peak tariff may be implemented.*

(2) The time between 0600 hrs and 0900 hrs and between 1800 hrs and 2100 hours shall be treated as peak hour.

(3) The duration between 2200 hours and 0500 hours shall be off-peak hours".

The Regulations clearly provide for the time between 06:00 hrs. and 09:00 hrs., between 18:00 to 21:00 hours as peak hour. Thus, the State Commission has correctly decided the peak hour. We also agree with the argument given by the respondents about the quantum of incentive for off peak hours.

This issue is accordingly decided against the appellants.

13. **Summary of findings:**

13.1. On the first issue regarding maintainability of the single petition for generation, transmission and distribution, we find that even though three companies were incorporated following restructuring

of the Electricity Board during the FY 2009-10, the TNEB was permitted to function as an integrated utility till 15.9.2010. When the application for MYT tariff was filed the Electricity Board was in the transition stage of restructuring. Thus, the State Commission has rightly sought the additional information from the Electricity Board and after receipt of the information the State Commission admitted the petition and determined the tariff. We, therefore, do not find any fault with the decision of the State Commission and reject the contention of the appellants in this regard.

13.2. The second issue is regarding the past accumulated financial losses of the respondent no. 1. We have noticed that the State Commission has neither created the regulatory asset for the accumulated loss for the previous years nor has passed on the same in any way on the consumer in

the impugned order. Therefore, there is no substance in the contention of the appellant and the same is rejected. However, the Tribunal is concerned about the non-submission of the application for ARR and tariff determination during the period 2003 to 2010 and find that the Regulations relating to filing of ARR every year with the State Commission have been violated by the first respondent. We, therefore, direct the first respondent and its successor companies to regularly file their respective petitions for Annual Revenue Requirement and Tariff every year and in case of their failure to file the Petition in time, the State Commission should initiate the tariff determination and regulatory scrutiny suo motu, according to the Regulations.

13.3. The third issue is regarding creation of the Regulatory Asset for the anticipated revenue gap of

the first respondent during the control period. We are of the opinion that creation of the regulatory asset by the State Commission for the anticipated revenue gap, that too without any directions for its recovery with carrying cost, is not in consonance with the Tariff Policy and its own Regulations. The State Commission has justified the same for avoiding tariff shock. We fail to understand that when the tariff has not been increased for most of the consumers even after a gap of seven years, how creation of the regulatory asset of such high order can be justified on the pretext of avoiding tariff shock. We also feel that creation of regulatory asset is neither in the interest of the distribution company nor the consumers. The State Commission should have decided the tariff objectively as per the provisions of the Act, the tariff policy and its own regulations. Thus, this issue is decided in favour of

the appellant. In this regard we have given directions to the State Commission in paragraph 8.13.

13.4. The fourth issue is regarding cost to serve each category of consumer. We have noticed that the State Commission has not determined the cost of supply according to its Regulations as also the variation in tariff of different categories of consumers with reference to average cost of supply. In the absence of this information, we are not able to verify that the tariff of categories of consumers is within ± 20% of the average cost of supply and whether the cross subsidy has been reduced or increased with respect to the previous year. The issue regarding cost of supply has been dealt with in this Tribunal's Judgment dated 30th May, 2011 in Appeal Nos. 102, 103 and 112 of 2010 in the matter

of Tata Steel Limited vs. Orissa Electricity Regulatory Commission, etc. Accordingly, the State Commission is directed to determine the voltage wise cost of supply within six months from the date of this Judgment to ensure that in the future tariff orders cross subsidies for different categories of consumers are determined according to the Regulations and the cross subsidies are reduced as per the provisions of the Act. The State Commission is also directed to determine the variation of tariff of different categories of consumers with respect to average cost of supply and provide consequential relief, if any, to the appellant's consumer category in terms with our findings after hearing all concerned.

13.5. The fifth issue is regarding determination of transmission & distribution (T&D) losses. We find that even though the agriculture consumption has been revised by the State Commission according to

its assumptions but the base level T&D losses of 18% as estimated by the respondent no. 1 have been retained. These T&D losses, in our opinion, are not correctly assessed. However, the T&D loss trajectory fixed by the State Commission for the Control Period appear to be following good industry practice and, therefore, we do not feel prudent to interfere with the same. The progress of installation of meters by the first respondent is far from satisfactory. We have given some directions to the State Commission regarding completion of study on assessment of un-metered consumption and also installation of consumer meters and energy accounting and audit meters in para 10.7 and 10.8 for necessary action.

13.6. The sixth issue is regarding incentive for power factor. In our opinion, the State Commission

without giving any reason in the impugned order has withdrawn incentive for higher power factor against the provisions of the Regulations. According to the learned counsel for the State Commission the Supply Code providing for incentive for higher power factor has since been amended on 25.10.2010 retrospectively w.e.f. 1.8.2010. We are of the opinion that the State Commission should have decided the matter based on the prevailing regulations at the time of passing the order. Accordingly, this issue is decided in favour of the appellant.

13.7. The last issue is regarding fixation of morning peak hours from 06:00 A.M. to 09:00 A.M. We find that the morning peak hours have been fixed according to the Regulations. Therefore, there is no substance in the submissions of the appellant and the same is rejected.

14. In view of above, the appeal is partly allowed and the impugned Order is set aside to the extent indicated above. The State Commission is directed to pass consequential orders based on the findings of this Tribunal. No order as to costs.

15. Pronounced in the open court on this **28th day of July, 2011.**

(Justice P.S. Datta)
Judicial Member

(Rakesh Nath)
Technical Member

REPORTABLE / NON-REPORTABLE

Vs