Andhra Pradesh Electricity Regulatory Commission

Hyderabad

O.P. NO. 01/2003
O.P. NO. 02/2003
O.P. NO. 03/2003
O.P. NO. 04/2003
O.P. NO. 05/2003

Dated:24.03.2003

Present: Shri. G.P. Rao, Chairman
Shri. D.Lakshminarayana, Member
Shri. K Sreerama Murthy, Member

Transmission Corporation of Andhra Pradesh Limited (APTRANSCO)
Eastern Power Distribution Company of Andhra Pradesh Limited (APEPDCL)
Central Power Distribution Company of Andhra Pradesh Limited (APCPDCL)
Northern Power Distribution Company of Andhra Pradesh Limited (APNPDCL)
Southern Power Distribution Company of Andhra Pradesh Limited (APSPDCL)

…………. Applicants

The Andhra Pradesh Electricity Regulatory Commission (**hereinafter called 'the Commission'**) having heard the consumers, representatives of various consumer organizations, political parties, the Staff of the Commission representing the consumers on the 19th, 20th, 21st and 22nd February, 2003 at Hyderabad and on the 24th and 25th February 2003 at Tirupati, the Principal Secretary, Energy Department, Government of Andhra Pradesh on the 22nd February 2003 at Hyderabad, the Chairman & Managing Director, APTRANSCO, Director (Commercial & Coordination), APTRANSCO, the Chairmen and Managing Directors of the Distribution Companies (DISCOMS) and having consulted the members of the Commission Advisory Committee on the 6th March, 2003 and having considered the documents available on record, passed the following order:-

CHAPTER – I : INTRODUCTION

The Transmission Corporation of Andhra Pradesh Limited (APTRANSCO) is the holder of Transmission and Bulk Supply Licence (Licence No. 1/2000) to carry out the Transmission and Bulk Supply business in Andhra Pradesh. The four Distribution Companies (DISCOMS) namely, Eastern Distribution Company of A.P Limited (APEDPCL), Central Distribution Company of A.P Limited (APCPDCL), Northern Distribution Company of A.P Limited (APNPDCL) and Southern Distribution Company of A.P Limited (APSPDCL) are the holders of Distribution and Retail Supply Licences (Licence Nos. 12/2000, 13/2000, 14/2000 and 15/2000 respectively) to carry out Distribution and Retail Supply business in their respective areas of Andhra Pradesh.

2. In terms of section 26 (5) of the Andhra Pradesh Electricity Reform Act, 1998 (Reform Act) read with Amendment to Andhra Pradesh Electricity Regulatory Commission (APERC) (Conduct of Business) Regulations 2000 (Regulation No. 8), the guidelines for Revenue and Tariff Filings framed by the Commission dated 7-10-1999 ("the Guidelines") and the provisions of licences, each licensee is obliged to file every year before the 31st December its calculations related to each licensed business for the ensuing financial year regarding (i) its expected aggregate revenue from charges under its currently approved tariff, (ii) its expected cost of service, and (iii)its expected revenue gap (if any) and a general explanation on how it proposes to deal with the revenue gap.

3. APTRANSCO and the four DISCOMS have filed separately their Aggregate Revenue Requirement (ARR) and Tariff Proposals for FY 2003-04 for Transmission and Bulk Supply business (T&BS) and Distribution and Retail Supply business (D&RS) respectively on 31-12-2002. The Commission has to determine the tariffs for FY 2003-04 both for T&BS and D&RS based on the filings of APTRANSCO and DISCOMS and the objections/suggestions received/heard from general public.

CHAPTER – II : REVIEW OF TARIFF FILINGS FY 2002-03

4. The Commission approved Tariffs for FY 2002-03 on 24-03-2002. This is the third tariff order of the Commission. While the first tariff order attempted the initial steps of reforms in the electricity sector, the second and third Orders focused on rationalisation and consolidation. Towards this end the Commission initiated a number of steps.

5. APTRANSCO in their filing for FY 2002-03 have proposed uniform single part Bulk Supply Tariff (BST) of Rs.2.071 ps/unit to the DISCOMS. However, the Commission felt that the historical factors which have shaped the DISCOMS stand in the way of uniform BST. The area of supply vested in one DISCOM as per the second transfer scheme varies significantly from others, among other things, in terms of consumer mix (i.e., the proportion of different consumer categories), losses and cost structure. The differences in consumer mix between DISCOMS result in differences in cross subsidy available to different DISCOMS. Similarly different losses and different cost structures affect the financial viability differently. Further Section 26(8) of the Reform Act directs the Commission to "endeavour to fix tariffs in such a manner that, as far as possible, similarly placed consumers in different areas pay similar tariff". Considering all the above the Commission preferred to continue with differential BST for the year 2002-03.

6. While finalising the third Tariff order the Commission laid emphasis on greater public participation. Arrangements were made to invite general public as well as media to the public hearings. Notices regarding the public hearing process were issued well in advance and it was ensured that the licensees response to the objectors were made available to the objectors before the public hearing.

7. Of the total revenue requirement projected by APTRANSCO and DISCOMS of Rs.8998.08crores (net of non-tariff income, wheeling, grid support charges, etc.,) the Commission admitted Rs.8243.34crores for the year 2002-03,

reducing the filed revenue requirement by Rs.754.74crores. With the expected revenue requirement from the tariffs existing as on 31-03-2002 of Rs.6388.42crores, a gap of Rs.1854.92crores was required to be covered. The Commission directed DISCOMS to achieve efficiency gains of Rs.300crores leaving a gap of Rs.1554.92 crores to be covered on the basis of fully allocated cost.

8. The Government of Andhra Pradesh (GoAP) u/s. 12(3) of the APER Act, 1998 gave directions to reduce the tariff to certain categories (domestic, cottage industries, local bodies, LT agriculture, RESCOS, HT agriculture, sugarcane crushing and Aqua culture) and agreed to provide Rs.1509.38crores as subsidy. Finally Commission permitted a net increase in revenue of Rs.45.54crores (0.718%) by marginal adjustment of the tariffs prevailing as on 31-03-2002, to fully cover the revenue gap.

9. The Central Power Research Institute (CPRI) engaged by the Commission to assess the Extra High Tension (EHT) losses i.e. above 33 kV, submitted its report on technical losses on EHT during the end of financial year 2001-02 according to which, the transmission losses on EHT within AP was estimated as 6.65%. The Commission noted the difference between the transmission loss of 6.65% as per the CPRI study and the licensee's projected loss of 8% and opined that this difference could be due to commercial losses in the EHV system and directed APTRANSCO to conduct a separate study on commercial losses observed in the EHV system and to submit its findings by identifying the sources of these losses. It also directed APTRANSCO to file a time bound action plan to reduce the transmission losses in the EHV system.

10. Another salient feature of the Tariff Order for FY 2002-03 was the manner in which the Commission wanted the licensees to estimate the agricultural consumption. The Commission wanted a census study to provide data on the number of pumpsets and their capacity. The specific consumption per HP, mandal wise, was also required to be ascertained from meter readings on LV

side of the transformers feeding agriculture pumpsets exclusively. It was directed that the Agricultural consumption be assessed based on the above studies.

11. Major changes initiated with regard to tariffs in the Tariff Order for FY 02-03 are as follows.

(i) Domestic – LT-I

12. The Commission reduced the number of slabs in LT-I Domestic from the existing six slabs to five slabs by merging the two high-end slabs. This decision has been taken after careful examination of the arguments of the public, the Licensees and the GoAP for retaining the number of slabs at six and after taking into account discernible changes in consumption patterns of households and the fact of existence of multiple connections in a single household.

13. Simultaneously, the Commission directed the licensees to undertake a drive on a door-to-door basis for verification and merger of multiple connections. Such door-to-door verification ensures payment of bills on the basis of correct meter readings and also help check a large number of services where only minimum charges are being paid.

(ii) Non-Domestic/Commercial- LT-II

14. The number of slabs in this category were reduced from 3 to 2. Further, the rate for the second slab was reduced and fixed at Rs7.00 per unit as against Rs.7.55 per unit proposed by the DISCOMs and the then prevailing rate of Rs 7.45 per unit for the highest slab.

(iii) General Purpose - LT- VII

15. The Commission reduced the tariff in this category from Rs.4.30 per unit in FY 2001-02 to Rs.4.00 per unit as against the increase proposed by the licensee in tariff to Rs. 4.50 per unit.

(iv) Agriculture – LT -V

16. (a) While retaining the tariff proposed for agriculture on a flat rate basis, the Commission preferred to continue with the 'optional' metered tariff of 20 ps./unit for the first 2500 units of consumption and 50 ps./unit for consumption above 2500 units per annum. This was done to help all farmers who avail themselves of power supply for about 1200 Hrs. in a year with a cheaper metered consumption bill relative to the flat rate, for all capacities of pumpsets. The benefit of 50% rebate continued to be available if the farmers undertook DSM measures as proposed in the tariff order for FY 2001-02. The Scheme was made operative upto 31-3-2004.

17. (b) As on March 02, there was a large waiting list of about 4 lakh consumers for new Agriculture service connections. Service connections to these were being given at the rate of 50,000 nos. per annum. In order to facilitate an out-of-turn allotment, a new Scheme was introduced, whereby a service connection would be given on metering basis and the charge per unit would be Rs.1.25 per unit, which was the full-cost tariff after taking into account the subsidy by Government, the cross-subsidy and the efficiency measures.

(v) Irrigation & Agriculture – HT – IV

18. This category was classified into Government Lift Irrigation Schemes and other Irrigation Schemes. The charges for Government Lift Irrigation Schemes covered the fully allocated cost in line with the decision taken in the Order of FY 2001-02 that all Government Schemes would be charged according to Cost–to–Serve. For the other irrigation schemes the flat rate per HP was increased from Rs.400 per HP per annum to Rs.430/HP/per annum, with an optional metered tariff of 35 paise per unit.

(vi) Industry - LT-III

19. In response to a long standing request from the public to differentiate between connected load and contracted load the Commission provided a two-part tariff – a demand charge of Rs.100/KVA/month and energy charges of

Rs.3.85 per unit. In the Order for FY 2001-02 the Commission had directed that demand meters should be fixed for contracted load between 20 - 50 HP and meters on HT-side for loads between 50 - 75 HP to facilitate the introduction of two-part tariff. This two-part tariff while applicable for loads between 75 HP and 150 HP is only optional for loads between 50-75HP.

20. The rates during FY 2001-02 for LT Industry were 385ps/unit upto 1000 units and 430ps/unit for balance units. For FY 2002-03 the DISCOMS proposed a uniform rate of 403ps/unit for all units consumed. In order to promote Small Industry the Commission reduced the energy rates proposed by the DISCOMs from 403ps/unit to 385ps/unit.

(vii) Industry- HT-I

21. Similarly, changes were effected in the tariffs for industry (HT-I) keeping in mind the need to spur industrial growth within the state and to rationalise tariffs in line with cost-to-serve principle. A rate of 371ps/unit was fixed for HT-I with single slab against the earlier rates of 376ps/unit for first 1lakh units per month, 390ps/unit for next 1lakh units per month and 395ps/unit for balance units during the month.

(viii) Incentive Scheme

22. The incentive scheme introduced during the year 2001-02 for HT-I was continued with modifications to improve the same. The incentives continued to be applicable for increased consumption in excess of the average monthly consumption for FY 2000-01. The discount rate would be applied on the entire incremental consumption. The threshold load factor (LF) was brought down from 40% to 30%. This was to facilitate industries with a LF between 30% and 40% to take advantage of the incentive scheme. The benefit of the Scheme would be available for a period of 3 years up to March 2005.

(ix) Railway Traction- HT-V

23. No tariff increase was made for HT-V Railway traction and the rate applicable was Rs.4.60 per unit.

Subsidies

24. At the tariffs existing as on 24-03-2002, against the total cost to serve of Rs.3069.82crores for the domestic category, the cross subsidy was Rs.717.58crores and Government subsidy was Rs.541.79 cr. It was estimated that the new domestic tariff would fetch 56.19% of the cost to serve for the domestic category. For agriculture, against the total cost to serve of Rs.2361.14 crores the amount of cross subsidy was Rs.1109.09crores and the Govt. subsidy was Rs.837.39 crores. This level of tariff represented 12.93% of the cost to serve for the agricultural category. The other major subsidy by the Government of Andhra Pradesh was to the Rural Electric Co-operative Societies which was Rs.96.22crores to cover Domestic and agriculture categories in their areas.

25. The Tariff Order for FY 2002-03 was in line with the Commission's philosophy to rationalise tariffs.

Wheeling Charges

26. The Commission passed a separate order fixing the wheeling charges on the Joint petitions filed by APTRANSCO and DISCOMs. By this order the wheeling charges allowed to be levied were (i) 50 Ps per unit in cash and (ii) Compensation in kind for system losses of 28.40%.

Commission's Directives

27. The process of issue of specific Directives was continued in the third order. The directives covered different areas such as metering of new services, regularisation of unauthorised agricultural connections, identification of multiple connections, energy audit, completion of census of agricultural pumpsets, Collection of arrears, preparation of databases, reduction in failure of distribution transformers, appropriations for contingencies reserve, approvals for new schemes and details of Capital Works in Progress (CWIP) as on 01-04-2000, credit to non-drawal bank accounts of employee funds and revenue estimation methodology. The individual directives and the extent of compliance by the utilities over the year have been reviewed in detail elsewhere in the order.

CHAPTER – III
FILING OF TARIFF PROPOSALS FY 2003-04

28. APTRANSCO as the Transmission and Bulk Supply Licensee in the State of Andhra Pradesh and the four DISCOMS viz., APEPDCL, APCPDCL, APNPDCL and APSPDCL as the Distribution and Retail Supply Licensees, filed separately their (1) Expected Revenue from existing Charges (ERC) (2) Aggregate Revenue Requirement (ARR) and (3) tariff proposals for carrying out the Transmission & Bulk Supply Businesses and the Distribution and Retail Supply businesses respectively for FY 2003-04 U/S 26(5) of the Reform Act on 31-12-2002.

These filings were taken on record as follows:

Statement showing Original Petition Nos. assigned to ARR/Tariff filings

Table No.1

Sl.No.	Name of the Company	Details of filing	O.P.No. assigned by the Commission
1.	APTRANSCO	ARR/ERC and Tariff proposals for Transmission & Bulk Supply business for FY 2003-04	01/2003
2.	APEPDCL	ARR/ERC and Tariff proposals for Distribution & Retail Supply business for FY 2003-04	02/2003
3.	APCPDCL	-do-	03/2003
4.	APNPDCL	-do-	04/2003
5.	APSPDCL	-do-	05/2003

Notification calling for Objections/Suggestions

29. The APTRANSCO and the DISCOMS were directed on 02-01-2003 to serve Public Notices through publication in newspapers in one issue each of two daily newspapers in English and two in Telugu having the widest circulation in their respective areas informing the general public that APTRANSCO for its Transmission and Bulk supply businesses and each of the DISCOMS for the

Distribution and Retail supply businesses had filed ARR and Tariff proposals for FY 2003-04 with APERC and that copies of the filings (together with supporting materials) made by APTRANSCO, the Transmission & Bulk Supply Licensee (O.P.No.01 of 2003) and DISCOMS, the Distribution & Retail Supply Licensees (O.P.Nos. 02 to 05 of 2003) were available with Chief Engineer/ RAC, APTRANSCO, Vidyut Soudha/Hyderabad and also in the offices of the Superintending Engineers (Commercial) of the DISCOMS with Head Quarters at Visakhapatnam, Hyderabad, Warangal and Tirupathi and all Superintending Engineers in charge of Operation circles in Andhra Pradesh for inspection/perusal/purchase by interested persons and that objections/ suggestions can be filed on these proposals with Secretary/APERC by 03-02-2003.

30. Though Section 26(7) of the Reform Act does not expressly contemplate any public hearing before finalisation of the ARR/Tariff proposals of the Licensee, the Commission by Clause 45(A) (6) of its Regulation No.8 Amendment to the APERC (Conduct of business) Regulations, 2000, stipulated that it shall hold a proceeding on the Revenue calculations and Tariff proposals of the Licensees and hear such persons as the Commission may consider appropriate for taking a decision on such revenue calculations and tariff proposals. Accordingly in the notices that were directed to be published on 03-01-2003 APTRANSCO and the DISCOMS were requested to also notify that the Commission after perusing the comments/objections made by the public, may conduct public hearings on dates to be notified later on by them and that the persons who wanted to be heard in person may make a specific request thereof in their objection/suggestion.

Objections/Suggestions received – Public Hearing

31. Following the public notice, 119 persons/organisations have sent their objections/suggestions to Secretary, APERC on the ARR/Tariff proposals of APTRANSCO/DISCOMS. Of these 105 persons/groups have expressed their

desire to be heard in person. The number of persons/groups who made requests to be heard in person were as follows DISCOM area wise.

Statement showing No. of objections/suggestions received on ARR/Tariff filings:

Table No. 2

Name of the Licensee	No. of objections received	No. of persons who wanted to be heard in person
APTRANSCO	45	41
APEPDCL	02	01
APCPDCL	12	10
APNPDCL	05	04
APSPDCL	55	49
Total:	**119**	**105**

Considering the elaborate arrangements required for conducting a Public hearing and the time available to finalise the new tariffs to make them effective from 01-04-2003, the Commission decided to hold Public Hearings at Hyderabad City (Head Quarters of APERC/ APTRANSCO/APCPDCL) and Tirupati (Head Quarters of SPDCL). As the number of persons who wanted to be heard in person are very few from APEPDCL area and APNPDCL area, the 04 Nos. Objectors from APNPDCL Area and 01 No. objector from APEPDCL Area were proposed to be heard at Hyderabad.

32. The venues fixed for the Public Hearing were Ravindra Bharati Auditorium Hyderabad, APERC Court hall, Hyderabad and Sri Srinivasa Auditorium, S.V.University Campus, Tirupati. The venues Auditoriums and APERC Court hall were large enough to allow the press and the general public to witness the proceedings. Notice of Public Hearings from 19-02-2003 to 25-02-2003 was given to APTRANSCO, the four Distribution Companies and the GoAP. All persons who had expressed their desire to be heard in person were given an opportunity to be heard. They were also intimated in writing the dates on which they would be heard. General public were also informed of the dates of public

hearing on 13-02-2003 through a press release. Media was also invited to attend the public hearings.

33. The Commission held public hearings from 19-02-2003 to 25-02-2003 on the dates given below from 9-30 hrs on each day.

Programme of Public hearings on ARR/Tariff filings by Licensees

Table No. 3

Sl. No.	Place of hearing	Date	Time	Venue	Details of persons/ consumer groups heard
1	Hyderabad	19th and 20th February 2003	9-30 AM to 1-30PM and 3-00 PM to 5-30 PM.	Ravindra Bharati auditorium	All persons/groups who made objections / suggestions on APTRANSCO's filings.
	Hyderabad	21st Feb.03	9-30 AM to 1-30PM and 3-00 PM to 5-30 PM.	APERC Court hall.	All persons/groups who made objections / suggestions on APCPDCL's filings and common objections /suggestions on the filings of all DISCOMS.
	Hyderabad	22nd Feb. 03	9-30 AM to 1-30PM	APERC Court hall.	All persons/groups who made objections / suggestions on the filings of APNPDCL
	Hyderabad	-do-	3-00 PM to 5-30 PM.	-do-	1) All persons/groups who made objections / suggestions on the filings of APEPDCL and 2) Principal Secretary, Energy, Govt. of A.P
2	Tirupathi	24th and 25th Feb 2003	9-30 AM to 2-00PM	Srinivasa auditorium SVU campus	All persons/groups who made objections / suggestions on the filings of APSPDCL

34. The Commission directed APTRANSCO/DISCOMS vide its letter dated: 07-02-2003 to submit replies to all the public objections as and when they were

received. The APTRANSCO/DISCOMS made available copies of their written responses to the objections/suggestions of the general public appearing before the Commission before commencement of public hearing on the ARR/Tariff filings of each of the licensees. Responses for objections/suggestions made during the public hearing were submitted after the public hearing.

As directed by the Commission vide its letter dated 07-02-2003,

(i). APTRANSCO and DISCOMS made short opening presentations separately at the commencement of the public hearings at Hyderabad and Tirupati.

(ii). at the end of the hearing on each day, APTRANSCO and DISCOMS responded on the issues raised by the objectors as directed by the Commission; and

(iii). after hearing all the objectors relating to a particular licensee, the APERC staff made presentations on the issues and concerns relating to that particular licensee i.e on 20-02-2003 on APTRANSCO's filing, on 21-02-2003 on APCPDCL's filing, on 22-02-2003 on APNPDCL's and APEPDCL's filings and on 25-01-2003 about APSPDCL's filing. APTRANSCO and the DISCOMS gave their responses separately to the presentations made by the Commission staff on the filings made by each of the licensees.

35. The Principal Secretary, Energy, GoAP made a presentation before the Commission on 22-02-2003 expressing the views of Government on performance of the utilities, need to continue cross subsidy, settlement of losses, payment of subsidy by Government and other related issues.

36. The ARR/Tariff proposals of Licensees were discussed in the Commission Advisory Committee (CAC) meeting held on 06-03-2003, and suggestions made by the members of CAC were taken into consideration by the Commission while finalising the Tariff Orders.

CHAPTER – IV A
LEGAL ISSUES RAISED BY GENERAL PUBLIC AND RESPONSES OF LICENSEES

LEGAL ISSUES:

ISSUE 1: Cross Subsidies – Regulation of Retail Tariffs

37. The latest tariff filing is not based on the latest judicial orders relating to the regulation of retail tariff.

The Supreme Court of India has ruled that based on relevant sections of 1998 Act, the consumers should be charged only for electricity consumed by them on the basis of the average cost of supply and the tariff should be determined without showing any undue preference to any consumer.

The average cost without cross subsidy should be the basis for tariff. The attempt of APTRANSCO and the DISCOMS to use the cost to serve as the basis for retail tariff, is contrary to law.

LICENSEES: It is permissible for APTRANSCO to have differential tariff and cross subsidy for the following reasons:-

1. The tariff of all licensees in Andhra Pradesh including APTRANSCO are governed by the provisions of the Andhra Pradesh Electricity Reform Act, 1998 (**the Reform Act**). As such, the Electricity Regulatory Commissions Act, 1998 (**ERC Act**) is neither relevant nor applicable to APERC and the licensees including APTRANSCO.
2. Section 26(7)(a) of the Reform Act expressly provides for cross subsidization and differential tariffs based on one or more of consumer's load factor, power factor, total consumption of energy during any specified period, time at which supply is required, and the paying capacity of consumers and need to cross subsidize.

3. The Supreme Court ruling in WBERC vs. CESC is based on the Section 29 of the ERC Act which unlike Section 26(7)(a) does not provide for differentiation on the basis of the paying capacity of consumers and need to cross subsidise. As such, being based on a different provision of law, this aspect of the WBERC vs CESC judgement will not be applicable to APERC and APTRANSCO.

4. This position is vindicated by (a) the Supreme Court of India in the case titled Association of Industrial Electricity Users vs State of AP & Others [reported at (2002) 3 SCC 711, para 11], and (b) the Andhra Pradesh High Court in the judgement passed by a Division bench in the case of S.Bharat Kumar vs Government of AP & Others (reported at 2000 (6) Andhra Law Times 1).

The contention that average cost should be adopted is incorrect since cost based tariffs do not necessarily require the “average” cost to be adopted inspite of the WBERC decision to do so. Category-wise cost of service is a more scientific basis as compared to average costs. However, it must be mentioned that while cost of service is calculated in AP, it is only a basis for subsidy and cross-subsidy determination and there is considerable variance of retail tariffs with costs in many cases.

Domestic and agricultural consumers have been historically cross-subsidised by the industrial and commercial consumers. The reform programme aims to eventually rationalize the tariff structure but the same cannot be implemented overnight.

ISSUE 2: **<u>Tariff Rates for Railways</u>**

38. Provisions of Article 287 (b) of the Constitution clearly state that the cost of electricity sold to the Government of India departments (which includes the

Railways) shall be less by the amount of the tax than the price charged to other consumers of a substantial quantity of electricity.

Categorise Railway as “Power Intensive” like Ferro alloys units and charge similar tariff.

Tariff charged for Railways is higher than that of the other states.

LICENSEES: The claim is unfounded for the following reasons:

1. Railways are an end-user / Consumer and hence cannot claim a tariff based on or linked to the Bulk Supply tariff.

2. Railways already enjoy a special tariff in Andhra Pradesh since they are exempt from payment of Rs.195 per kVA/month Demand Charges applicable to HT-1 category. If they invoke the principle under Article 287(2), the Hon’ble Commission must calculate the same as set out below.

   a). first gross up the existing Railways Tariff by the fixed cost / Capacity Charges applicable to HT-1 category of Rs.195 per kVA/month, and
   b). then deduct the amount of tax, in terms of Article 287(2) to arrive at the Railways Tariff.

3. This Hon’ble Commission by its order dated 26.09.2002 issued in IA No.10 of 2002 in OP No.29 to 33 of 2002, clearly laid down the rationale and criteria for classification of Ferro Alloy industries as a separate class of consumers and fixed the tariff applicable to them. These criteria included (a) Load factor of the industry is high (85%), (b) the industry is non viable at the prevailing tariff and it does not have paying capacity, etc. The Railways draw their power at a load factor between 30% and 35%,

and they have failed to make out a case for claiming parity on these criteria.

ISSUE 3: **Old PPAs to be reviewed**

39. Old PPAs to be reviewed by the Commission as done by MERC in case of Dabhol and corroborated by the judgement of the Bombay High Court.

LICENSEES: This issue is already subject matter of litigation pending before the Hon'ble Andhra Pradesh High Court in a civil writ petition titled Suravaram Sudhakar Reddy vs APTRANSCO bearing CWP No.21391 of 2002.

Further, contrary to certain submissions made by some Objectors, the Mumbai High Court has not pronounced order on the other pending dispute relating to the Dabhol PPA, which also involves this issue as one of the key issues. Without prejudice to the above, and awaiting the outcome of the pending litigation, it is respectfully submitted that APTRANSCO is obliged in law to honour its contractual obligations as imposed by legal and valid agreements.

ISSUE 4: **Tariff for Ferro Alloy units**

40. Is it not mandatory for the Commission to hold public hearing on sale of power to ferro alloy industry?

LICENSEES: Public hearing is not mandatory for tariff setting, which is essentially legislative in nature, in terms of the provisions of the APERA as held by a division bench of the Hon'ble High Court of Andhra Pradesh in the case of S.Bharath Kumar. The matter on public hearing is for consideration of the Hon'ble Commission.

ISSUE 5: **Provisions of the Electricity Bill, 2001**

41. The provisions of the Electricity Bill, 2001 have not been taken into consideration in the ARR filings.

LICENSEES: The Electricity Bill, 2001 was introduced in the Parliament in August 2001. The Bill was referred to the Parliamentary Standing Committee, which after detailed deliberations finalized and submitted its recommendations to the Government of India in December, 2002. The Bill is to be reintroduced with amendments based on the Standing Committee recommendations. Further, the final shape of the Bill including the content of Clause 180(3) which sets out the extent to which the A.P.Reform Act will be saved from impact of the provisions of the new Electricity Act (once enacted) are not known. The fate and shape of the resultant law are not known till the Parliament enacts this.

However, once the law gets enacted, the Licensee and the Hon'ble Commission shall evaluate the consequences and take suitable measures to give effect to it to the extent applicable.

ISSUE 6: <u>Licensee employees' right to participate in the public hearing</u>

42. Licensee employees' right to participate in the public hearing process as objectors/members of public.

LICENSEES: The following is submitted for the consideration of the Hon'ble Commission.

1. The Hon'ble Commission is empowered to direct for production any information that may be required for discharge of its functions, which the utility is duty bound to furnish.

2. Being a company, a licensee functions on the first principles of corporate governance through the collective management of the Board of Directors and its senior management cadre. They are responsible for the consequences of any action of such company.

3. In filing the ARR and FPT, the management of a licensee takes an over-all perspective of the business and collates the data and information gathered from the grass root of the company. As such, the final ARR and FPT is built upon the collective wisdom of the Board. In these circumstances, the employees of the company are not involved in the collective responsibility of the decision-making. Further, the employees may not share and know the issues that have gone into the decision making and their submissions in isolation are likely to be inaccurate and misleading rather than helpful.

4. It is also noteworthy that employees of APTRANSCO are governed by the APSEB Employees Revised Conduct Regulations, which inter-alia, defines Misconduct to include 'to utter, write or do otherwise, discuss or criticize in public or at a meeting or any association or a body any policy pursued or action taken by the Board or a State or Central Government.

CHAPTER- IV B
OTHER IMPORTANT ISSUES RAISED DURING THE PUBLIC HEARING AND REPLIES BY LICENSEES

ISSUE 1: **Consumption of energy in the Agricultural Sector**

43. The method of estimation laid down by APERC among other things is based on the number of pumpsets under operation and the nameplate rating on such sets. The DISCOMS overestimate the energy consumption by the agricultural category leading to the suppression of theft. Agricultural consumption estimates methodology is not accurate. Losses are being combined in agricultural estimates.

LICENSEES: The contention is not based on facts. Loss information provided by the DISCOMS is based on data from the DTR meters, which provide vital information for agricultural consumption estimation, and hence loss estimates.

The methodology for agricultural consumption estimation has been specified by the Commission and has been progressively refined. The Licensees are adhering to this methodology. The total number of DTRs in the State are about 2,32,000 out of which about 70,000 are in urban areas. The total number of agricultural consumers as per records is about 22.42 lakhs. As on date there are about 30,000 DTR meters on predominantly agricultural transformers. Data from the DTR meters are used as primary information for loss calculation based on the agricultural consumption estimation methodology mentioned. Details on the estimation process specific to DISCOMS have been provided in the individual filings.

ISSUE 2: **Unauthorised Agricultural Connections**

44. Regularise unauthorized agricultural connections.

LICENSEE: Bills have been issued to all the unauthorized agricultural services from 01.11.2002. The revenue estimate prepared by the licensees from the agricultural category includes revenue from the above connections as well.

ISSUE 3: <u>Tatkal Scheme</u>

45. The Tatkal scheme for agricultural consumers is very highly priced.

LICENSEES: The tariffs being charged to such consumers have been with the approval of the Hon'ble Commission.

ISSUE 4: <u>Pay revision burden</u>

46. Pay revision burden should not qualify for regulatory asset.

LICENSEES: The Licensee disagrees with the contention of the Objector that the excess costs on account of wage revision should not qualify for regulatory asset. The Licensee's position is borne out of the contents of the Tariff Order of the Commission for FY 2002-03. To quote from the Order of the Commission for FY 2002-03, '*The Commission is of the view that the provision towards Pay Revision requires to be deleted in view of the difficulties in quantifying the benefits at this stage. The Commission however wishes to state that appropriate amounts would be taken into account in the revenue requirement calculations in the ARR of the year after the pay Revision process is completed and implemented'*. Since the impact of the wage revision is known now, the Licensee has requested regulatory asset for this amount.

This ruling of the Commission finds support in Supreme Court judgement in WBERC vs CESC where it was established that wage bill of employees including overtime and welfare benefits pursuant to lawful agreements should be treated as properly incurred for tariff determination.

ISSUE 5: <u>Dividend Control Reserve</u>

47. In case of surplus profits, a portion of this is accumulated in tariff and dividend control reserve as per the provisions of the Sixth Schedule. Any excess profit accumulated in this reserve should be used to offset the excess costs and regulatory asset should not be allowed.

LICENSEES: As for the contention of the Objector that the Tariff and Dividend Control Reserve (TDCR) be used for offsetting the higher costs, the Licensee's view is that such an eventuality will arise only when the reserve has a positive balance. Since this is not the case at present, the question of using the TDCR to offset the cost increase does not arise.

ISSUE 6: <u>Reasonable Return</u>

48. Reasonable return to be permitted by the Commission as in FY 2002-03.

Reasonable return not included inspite of APERC order to the contrary in the previous tariff order.

LICENSEES: The Licensee appreciates the Objector's concern on returns but would like to reiterate that claiming returns through the tariff process while the sector still receives substantial government subsidy potentially exposes the utilities to taxation and hence is better avoided. The impact on consumer tariffs is also an important consideration.

ISSUE 7: <u>Standards of Service & Efficiency Gains</u>

49. Standards of service to be fixed and efficiency gains targets set.

LICENSEES: The Licensee welcomes the concern on service standards and is making its own efforts on improvement of service standards and recording information on service standards.

The contentions of the Objector are materially untrue because,

- The Utilities have very clearly stated how the revenue gap is to be bridged. In the case of APSPDCL for example this is specified in para 14 and para 15 of the application and subsequently in the details. The Licensee has elaborated the beneficial impact of the present tariff structures and the need to continue the existing tariffs to provide tariff stability. Means for bridging the resultant gap has also been elaborated in para 16 of the application and detailed further in subsequent parts of the document. Since the overall gap projected for FY 2003-04 is lower than the actual subsidy levels for FY 2002-03, and since subsidy support is expected to continue for some more time, the Licensees have not found it prudent to press for a tariff revision.
- Efficiency gains expected have been factored into the load and loss forecasts for the year. The Licensees have projected substantial reductions in energy losses in the next year and have also projected reduction in unmetered agricultural consumption as a result of the efficiency improvement measures. The stance of the Licensees is also consistent with the contents of the previous ARR filings for FY 2002-03 and although the Commission stipulated efficiency gains of Rs.300 crores – and the Licensees have made sincere attempts to generate such efficiency gains – it is submitted that the result of the efficiency gains will be manifested in the key operating parameters, particularly in reduction of system losses and unmetered consumption. Hence it is incorrect to state that efficiency gain targets have not been established by the Licensees.

ISSUE 8: <u>Financial cost of excess supply to Agriculture</u>

50. Disapprove the financial cost of excess supply to agriculture in the current year (as done in FY 2000-01). Such costs to be made up by GoAP as subvention.

LICENSEES: It is the Licensees position that it must be fully compensated for costs incurred due to uncontrollable reasons. Support from GoAP only reflects one possible source of financing.

ISSUE 9: **<u>Differential BST</u>**

51. Differential BST may lead to extraction of efficiency gains from an efficient DISCOM.

LICENSEES: The Licensee is aware that the Commission is alive to this issue and has dealt with this matter in its discussion paper on Long Term Tariff Principles (LTTP). It is for the Commission to decide on this matter and prevent such occurrence.

ISSUE 10: **<u>Incentives and Depreciation for APGENCO</u>**

52. Allow RoE, incentives and depreciation for APGENCO which is an efficient organization.

LICENSEE: Allowance of RoE and incentives will only add to sector costs and consumers will have to pay for the same. APTRANSCO is keen that APGENCO has adequate resources to maintain and exceed this level of performance and understands that the Government of Andhra Pradesh has agreed to meet the financial needs of APGENCO for all investment and allied requirements.

ISSUE 11: **<u>Wheeling Charges</u>**

53. Wheeling Charges need to be changed based on the new investments in Transmission & Distribution (T & D) network.

LICENSEE: APTRANSCO has not proposed any revision to the formula applicable for wheeling charges and the in-cash component of 50 ps/kwh since the High Court of AP has stayed the Order of the Commission on wheeling charges for FY 2002-03. However the detailed computation based on the revised ARR filings has been worked out and this has been provided to the staff of the Commission. The cash component based on the ARR filings by the companies is slightly in excess of 50 ps/kwh for FY 2003-04.

ISSUE 12: **Uniform over-drawl charges**

54. Uniform over-drawl charges are discriminatory against poorer DISCOMS. Overdrawl charge is proposed at Rs.2.09 per unit as compared to the common BST of Rs.2.0162 per unit.

LICENSEE: This contention of the Objector is incorrect. The tariff setting process of APERC ensures that the disparities between DISCOMS are taken care of through the differential BST for the base supplies. Incremental supplies are proposed at uniform rates since the financial implication of the same will be dependent on which category the excess sales occur, APTRANSCO would like to state that no over-drawl charges are proposed for excess drawls by the DISCOMS and the same BST rate of Rs.2,0162 is proposed to be applied for over-drawl as well. However, Unscheduled Interchange charges are proposed to be imposed if overdrawl takes place when frequency is low, as per ABT procedure.

ISSUE 13: **EHT Losses**

55. Report on EHT losses requested from the Commission. APTRANSCO has projected a loss reduction of 0.75% in three years despite Rs.1500 crore being spent on the transmission system. Even if Government estimate of Rs.800 crores per 1% technical loss reduction is followed, the losses should have reduced by about 2%. Does APTRANSCO conduct load flow studies.

LICENSEES: Overall loss reduction is 1.25% from 8.5% in FY 2001-02 to 7.25% projected for FY 2003-04. A substantial portion of the transmission network expenses are on evacuation projects. These do not contribute substantially to loss reduction, but help in improving the overall power supply situation in the State. APTRANSCO conducts load flow studies regularly and bases investment and network management decisions on these studies.

ISSUE 14: Merit Order Dispatch

56. Merit Order Dispatch is to be implemented effectively, giving no scope for undue benefit, at the cost of consumers, to generators of power. Excess drawl of power with high rate of incentives from Spectrum etc. should not be permitted. Merit Order not being followed. Stakeholder meetings not being held as per Commission's directives.

LICENSEES: APTRANSCO has already drawn up a comprehensive Merit Order procedure and has submitted the same to the Commission. As such the Merit Order is followed for all procurement decisions. APTRANSCO, in response to APERC directive has drawn up comprehensive merit order guidelines. A merit order committee continuously reviews adherence to the guidelines. Hence there is no scope of dispatching costlier sources lower in the merit order sequence.

Stakeholder meetings as required by the directives of the Commission are also being held on a monthly basis to sort out issues in implementing merit order dispatch to ensure that the process can be conducted smoothly and effectively.

ISSUE 15: Pass-through mechanism

57. Pass-through mechanism needs detailed analysis and separate hearings. Pass-through mechanisms should not be allowed.

- Pass-through arrangements tantamount to tariff increase during the year.
- Pass-through of uncontrollable costs means leaving it to TRANSCO to decide on controllable/uncontrollable factors.

Automatic pass through and true-up should not be allowed because,

- ❖ The Utilities have not stated how the revenue gap is to be bridged.
- ❖ Efficiency improvement gains have not been quantified.
- ❖ Failure to collect amounts due from Efficiency improvement should not be collected by true-up.
- ❖ Unrealistic load forecast is being resorted to for justifying the new projects.
- ❖ APTRANSCO and DISCOMS should confine their activities to the State.

LICENSEES: The Licensee submits that the matter be heard as a part of the present proceedings.

Pass-through mechanisms for external cost variations is a standard feature for all utilities that are regulated on a 'cost plus' basis. This is so since the utilities do not exert any control on the external costs.

Pass-through mechanisms are necessary for adjustment of cost variations during the year since the changes are typically because of macro-economic or climatic conditions and they are not predictable at the time of tariff determination. The utilities are not in a position to bear these risks from these external changes since the variations can be large and often far in excess of the returns the utilities may be allowed in a regulated environment. This year is an example, when the hydro-thermal mix as provided in the ARR has drastically changed.

The uncontrollable factors that APTRANSCO is seeking to address in the pass-through mechanisms *intra-year* would include:

- ❖ Hydro-Thermal mix changes
- ❖ Fuel Cost variations
- ❖ Exchange rate changes
- ❖ Prior period adjustments consequent to regulatory orders

In addition to such pass through arrangements, a *comprehensive true-up* would be needed for calculating all the allowable cost variations during the year and reconciling the elements that the utilities can claim as pass through and what has already been collected under the intra-year pass through mechanism. This will also be done and the Commission would verify all claims for pass through before they can be recovered and hence there is no question of the process being misused in any way.

The contentions of the Objector are materially untrue because,

(a). The Utilities have very clearly stated how the revenue gap is to be bridged. Incase of APSPDCL, for example, this is specified in para 14 and para 15 of the application and subsequently in the details. The Licensee has elaborated the beneficial impact of the present tariff structures and the need to continue the existing tariffs to provide tariff stability. Means for bridging the resultant gap have also been elaborated in para 16 of the application and detailed further in subsequent parts of the document. Since the overall gap projected for FY 2003-04 is lower than the actual subsidy levels for FY 2002-03, and since subsidy support is expected to continue for some more time, the Licensees have not found it prudent to press for a tariff revision.

(b). Efficiency gains expected have been factored into the load and loss forecasts for the year. The Licensees have projected substantial reductions in energy losses in the next year and have also projected reduction in unmetered agricultural consumption as a result of the efficiency improvement measures. The stance of the Licensees is also consistent with the contents of the previous ARR filings for FY 2002-03 and although the Commission stipulated efficiency gains of Rs.300 crores – and the Licensees have made sincere attempts to generate such efficiency gains – it is submitted that the result of the efficiency gains will be manifested in the key operating parameters, particularly in reduction of system losses and unmetered consumption. Hence it is incorrect to state that efficiency gain targets have not been established by the Licensees.

(c). The Commission will undoubtedly consider in detail all the elements that should be eligible for true-up. The only contention of the Licensees is that in an environment where precise quantification of benefits is sometimes difficult due to large unmetered supplies and other operational complexities and the Licensees are technically entitled only to a limited and regulated return, such true-up is necessary to prevent the Licensees from being exposed to excessive and undefined financial risks.

(d). The allegation that the load forecast is unrealistic is incorrect and denied. The Commission has reviewed the load forecast carefully as a part of separate proceedings.

(e). There is no plan to set up capacity for selling outside the state. Only the seasonal and off peak surplus energy is proposed to be sold to reduce the burden on consumers in the State.

ISSUE 16: **Regulatory Asset**

58. Regulatory asset should not be allowed and only the reserves and surplus allowed as per Sixth Schedule should be available for unanticipated costs. Consumers should not be burdened with the recovery of a regulatory asset in the future.

LICENSEES: The Licensee believes that the proposals on regulatory asset are not in contravention with Sixth Schedule provisions in any manner and requests the Commission to consider the same.

APTRANSCO would like to make the following points on this matter.

(a). The proposals for regulatory asset are consistent with the principles of the Sixth Schedule of the ES Act and also with the past tariff orders of the APERC. In the Tariff Orders for FY 2000-01 and FY 2001-02, the Commission has clearly indicated its willingness to consider a regulatory asset.

(b). APTRANSCO has demonstrated that but for the adversities faced during the year, the sector would have probably attained a turn-around during the current year. Turnaround is when we are in conformity to the ARR order and there is no additional gap. In view of the progressive improvement in operational efficiency a situation is likely to arise in the coming years where the regulatory asset created for the current year can be recovered without unduly burdening the consumer. Hence the Licensees have asked for the gap of the current year to be treated as regulatory asset for recovery when turn-around is achieved.

ISSUE 17: <u>APGENCO</u>

59. APGENCO being treated as the Cinderella of the power sector:

(a). RoE, depreciation and incentives being denied
(b). It is forced to negotiate with APTRANSCO every year
(c). GoAP not allowing long-term PPA
(d). APGENCO saddled with terminal benefits
(e). Rebate not allowed for prompt payment
(f). No LC opened and no interest paid for delayed payments
(g). SSLBPH costs to be included in the PPA

LICENSEES: The allegation of the Objector is denied. While transition arrangements had been worked out in the initial years that envisaged a short-term PPA, APTRANSCO is open to signing of a long term PPA with APGENCO based on norms fixed by GoI if it receives such a proposal. However impact of cost increases on consumer tariffs is also an important consideration and this might be borne in mind adequately while determining the appropriate levels of parameters like RoE and incentives.

The present PPA does not envisage any rebate for prompt payment. However, as per the terms of the PPA, APTRANSCO bears the actual working capital costs of APGENCO and hence APGENCO is at no disadvantage on this count. Since LCs impose an additional transaction cost that is avoidable between two companies commonly owned by the GoAP, the present arrangements do not feature LCs as payment mechanisms.

The fixed costs of SSLBPH is included in the overall fixed costs proposed and there is no proposal to exclude the same.

ISSUE 18: **<u>Srisailam Left Bank Power House</u>**

60. Srisailam Left Bank Power House to be separated from the main hydel station and taken out of the books of APGENCO.

LICENSEES: As of now, there is no proposal to do so and can be done if station-wise PPAs are executed.

ISSUE 19: **<u>Supply from Non-Conventional Energy Sources</u>**

61. Commission to consider the following points on non-conventional units:

(a). Capital subsidy is received by these units

(b). Coal and other fuels are used.

(c). Consumers should not be paying high cost of energy.

(d). Cost of purchase is prohibitive.

(e). Cannot be a substitute for cheaper power already available.

(f). Thorough review by Commission

LICENSEES: It is for the Commission to consider and take appropriate action. It has been the policy of the Government of India to promote non-conventional energy in the long-term interests of society and the environment.

Accordingly, the state of Andhra Pradesh has decided to promote non-conventional sources of energy. The cost of non-conventional power sources is determined according to the guidelines of the Ministry of Non-Conventional Energy Sources of the Government of India and is the same for all types of non-conventional power. The responsibility of monitoring and ensuring compliance with requisite guidelines is the responsibility of NEDCAP.

ISSUE 20: **Tariff for Ferro Alloy units**

62. Pooled cost of power for APTRANSCO is higher than the tariff it charges for Ferro Alloy Units. Is it not mandatory for the Commission to hold a public hearing on sale of power to ferro alloy industry?

By allowing concessional tariffs for ferry alloy units the DISCOMS have lost revenues. If concessional tariffs were to be provided GoAP should have provided subsidies.

LICENSEES: The contention that pooled cost of power is higher than the rate charged to ferry alloy units is incorrect. The pooled cost is Rs.1.86 per kwh in 2002-03 Rs.1.79 per kwh in 2003-04 while the tariff charged to Ferro alloy units is Rs.2.12 per kwh.

Public hearing is not mandatory for tariff setting, which is essentially legislative in nature, in terms of the provisions of the APERA as held by a division bench of the Hon'ble High Court of Andhra Pradesh in the case of S.Bharath Kumar. The matter on public hearing is for consideration of the Hon'ble Commission.

By its order dated:26.09.2002 the Commission came to the finding that Ferro Alloy units constitute a category on account of lack of paying capacity, high load factor etc. which justifies differential treatment under 26(7) (a) of the APERA. Accordingly the Commission fixed a lower tariff for such units. No subsidy is envisaged for these consumers.

APTRANSCO would also like to inform the Objectors that these consumers were not consuming from the grid earlier and had direct supply arrangements with NTPC stations as per Government of India policy. Hence the energy consumed by them for FY 2002-03 is incremental to the ARR and Tariff Order levels and has not resulted in losses as contended by the Objectors.

ISSUE 21: <u>Privatisation of sub-stations</u>

63. Privatisation of sub-stations will result in such private concerns not remitting the monies collected to the Licensees. Performance evaluation of such private contractors is necessary. Micro-privatisation would result in selling off APTRANSCO's assets to private parties and will impact employees.

LICENSEES: APTRANSCO would like to allay the fears of the objectors on this issue. No asset transfer is envisaged in the process and only the operations and maintenance and the commercial activities are conducted to be done through franchising arrangements. The exercise is being taken up on a pilot basis in the interest of consumers to evaluate the prospects of cost savings and improvement in customer service under such arrangements. Based on lessons learned by other utilities in the country, the Licensees in AP are fully aware of the risks involved in such an arrangement and have incorporated mitigants to such risks as a part of the terms and conditions. Performance benchmarks are a part of the RFP process and will form a part of the terms and conditions.

ISSUE 22: <u>Standards of Performance</u>

64. Standards of performance to be laid down by the Commission and enforced through incentives and penalties.

LICENSEES: The Licensee submits that such a framework may be introduced in a comprehensive manner as a part of the LTTP framework.

ISSUE 23: Commission Advisory Committee

65. Composition of the Commission Advisory Committee (CAC) is against the consumers. CAC should have representatives from farmer groups.

LICENSEES: The composition of the CAC is based on provisions of Section 32 of the APERA and a matter for consideration of the Hon'ble Commission. The details are provided in the filings as a part of Directives complied with.

ISSUE 24: Requirement of seven copies for filing objections

66. The Commission may liberalise the rules concerning the submission of petitions to the Commission from seven copies to one copy making it easier for the petitioners.

LICENSEES: The matter requires consent of the Commission.

ISSUE 25: Studios to be classified as LT – III(A)

67. Small and medium studios be classified as category LT III (A) customers instead of their current classification under LT II.

- Government of India has given 'industry' status to films.
- Based on the GO of the GoAP, since November 2002, recording has to be carried out in AP to avail subsidies and tax exemption available for producers. In AP, 60-70% of the post production work is carried out by the small and medium recording studios.

The average monthly consumption of small and medium studios is around 30,000 units per month. Based on the tariff difference between LT II and LT III (A), this has resulted in an additional outflow of Rs 87,000 per month.

If the small and medium studio owners approach the court on the above issue, it is expected that the decision of the court will be in the favour of the studio owners as well.

LICENSEE: The Licensees have not proposed any change in category for the small and medium studios from their current status as LT II customers and maintain their position. Classification of consumers is based on certain criteria and purely on tariff considerations such criteria cannot be changed.

Classification of industry by GoI may not be based on the same criteria as adopted for electricity supply.

CHAPTER - V
STAFF PRESENTATION

INTRODUCTION:

68. The Commission staff on behalf of the consumers made a presentation to the Commission on their analysis of the ARR/ERC filings and tariff proposals of APTRANSCO and the four DISCOMS at the public hearings. The analysis was done separately for APTRANSCO and each of the DISCOMS. The staff presentation for APTRANSCO was made on 20.2.03 while for the DISCOMS the staff presentation was on the following days.

Table No.4
DATES OF STAFF PRESENTATION ON DISCOMS FILINGS

Central Power Distribution Company	**21.2.03**
Northern Power Distribution Company	**22.2.03**
Eastern Power Distribution Company	**22.2.03**
Southern Power Distribution Company	**25.2.03**

Staff Presentation on APTRANSCO filings for FY- 04:

69. The Staff made a presentation to the Commission on the key features of the ARR / FPT filings of APTRANSCO on 20-02-2003. A notable feature of this year's filing was that in keeping with the Commission Directive of the Tariff Order of FY2002-03, ARR and FPT were filed together.

Key Features:

70. The Staff made an analysis on the performance of the licensee during the Current Financial year and looked into the key indicators filed for the ensuing year. The scheme of presentation contained the following sections.

An overview of performance during FY 2002-2003

ARR and FPT filings for FY 2003-2004

Analysis of proposed regulatory mechanism

I. <u>Overview of FY 2002-03:</u>

71. The staff examined issues like Power Purchase Cost, Sales and Revenue, Capital Expenditure and Financials of the licensee.

72. A key feature noted by the Staff was that Hydro failure had been a constant feature for the past few years resulting in substitution from costly sources The licensee had shown higher purchase from costlier thermal sources to the tune of 3979 MU due to non-availability of estimated quantum of Hydro Power on account of bad monsoon during FY 2003 and incurred an additional expenditure of Rs. 272 Crs. Only 3020 MU of Hydropower was available against an estimated quantum of 6999 MU approved by the Commission.

73. The impact of drought was discernible with APGENCO Hydro share coming down from 17% in FY01 to 7% of the total in the current year. The difference was made up by purchases from Thermal Stations and other sources. As a result the Power Purchases cost which was estimated at Rs. 1.81 had gone upto Rs. 1.86/unit.

74. Equally significant was the increase in Sales in case of all DISCOMS. The increase in sales had been attributed by the DISCOMS to the use of High Accuracy Meters, efforts to curb theft, and incentive scheme for HT-I category of consumers. The Staff noted that sales had increased from 28,309 MU (Tariff Order) to 31,294 MU due to higher HT Sales (about 18 %); HT-Industrial (26%), HT-Commercial (9%), and Railway Traction (10.8 %) and rise in the consumption of LT-Agricultural Consumers (13.1 %). There was an over all sales growth of 10.5 % which was a positive sign for DISCOMS. Hence APTRANSCO had to

sell more power to DISCOMS without giving effect to the proposed Interstate sales.

Energy Balance:

Table No.5

	FY 02		FY 03	
	Order	Actuals	Order	Estimates
Purchase by TRANSCO (MU)	40,812	40,792	39,529	43,189
Purchase by DISCOM (MU)	37,347	37,439	36,367	39,842
Sales by DISCOM (MU)	27,652	27,944	28,309	31,277
Transmission Losses (MU)	3,465	3,353	3,162	3,347
Distribution Losses (MU)	9,695	9,494	8,058	8,565
Total energy losses (MU)	13,160	12,848	11,220	11,912
Transmission Losses as %	8.49%	8.22%	8.00%	7.75%
Distribution Losses as %	25.96%	25.36%	22.20%	21.50%
Total System Losses	32.25%	31.49%	28.40%	27.50%

75. The FY 2003 revenue, costs and profits (losses) for APTRANSCO and DISCOMS are given below. Some of the revenue items taken into consideration while calculating the loss figures such as revenue from interstate sales, which did not materialize have been projected as a temporary loss in the Staff calculation. In the case of interstate sales, loss on account of decreased sales was of no material consequences as it was compensated by increased sales to DISCOMS. The claim of revenue loss was derived as the difference of 32 ps/unit [Rs.2.40/unit –Rs.2.08/unit (BST)]. The request of Licensee to take this loss into consideration for special treatment by way of regulatory mechanism was not justifiable. Wheeling charges and Grid Support Charges (sub-judice) also could not be included on the basis of accrued income. APTRANSCO claimed to have incurred a loss of Rs. 163 Crs and requested for treatment under a Regulatory Mechanism. The staff stated that the loss should be treated as a temporary loss for APTRANSCO. The DISCOMS showed a consolidated loss of Rs.656 cr. The details are given below:

Table No.6

		Tariff Order (Rs.Crs.)	Act + Est (Rs.Crs.)
APTRANSCO	Total Revenue	8270	8549
	Total Costs	8271	8748
	Profit (Loss)	(1)	(163)

DISCOMS	Total Revenue	8859	9255
	Total Costs	8859	9911
	Profit (Loss)	--	(656)

76. Normally APTRANSCO should not have made any loss for bulk supply business. All its power purchase costs were met by sales to DISCOMS or interstate sales. Any change in power purchase price and mix got passed on through Fuel Surcharge Adjustment (FSA) or year-end adjustment. All network expenditure claimed was met through Tariff. The financial loss was only a temporary lead and lag phenomena in the management of its payables and receivables.

Compliance of Directives:

77. The Table below shows the compliance of various directives issued by the Commission for FY 2002-03 by APTRANSCO.

Table No.7

Directive	Staff Analysis
Working Capital: Discussion Paper	Complied
Approvals for Schemes and Details of CWIP as on 01-04-2000	Complied
Employee Funds – Credit to Non-drawal Bank Accounts:	Complied
Merit Order Procedure:	Complied
Commercial Loss in EHV System	Complied
Contingency Reserve – To make required appropriations in the accounts forFY2001-02	**Not complied**

78. APTRANSCO had thus complied with all the Directives except with regard to provision of Contingency Reserves for FY2000-01. The Commission was requested for a hearing on 16.1.03 to explain that non-compliance is purely

because of lack of funds. The Commission after due consideration passed an Order dt:13.2.03 directing the Licensee for a reversal adjustment to be carried out in FY04.

79. The staff also noted that the completion of Accounts and Audit needed special attention of the Licensee since it had not yet submitted the Audited Accounts of CAG for FY 2000-01. The Licensee stated that the Statutory Audit of Accounts for FY 2001-02 was completed.

II. <u>ARR and FPT filings for FY 2004:</u>

Overview of FY2003-04 Filings:

80. The energy balance for FY 04 as projected by the Licensee and by the Staff differed on the basis of three key features:

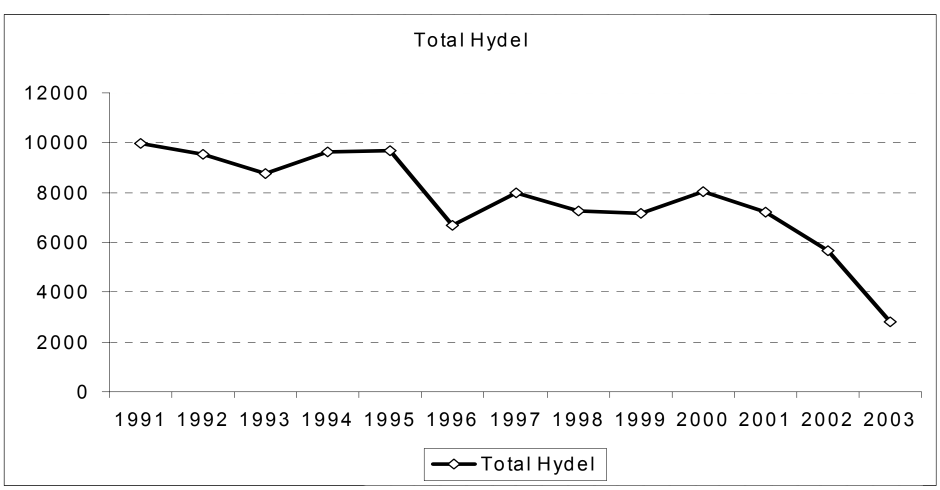
(a). Amount of available power from APGENCO
(b). Interstate Sales availability
(c). Sales projections of DISCOMS.

<u>Review of Hydel Availability:</u>

81. The Staff noted that over the last 12 years Hydel Availability was on the decline as can be seen from the Diagram below.

Review of Hydel Availability

1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
9,516	8,758	9,632	9,687	6,662	7,970	7,245	7,189	8566	7048	5,647	3,020



A look at the trends showed the following three stages:

Stage 1 : 1991-1996
Stage 2 : 1996-2000
Stage 3 : 2000-2003

82. At each successive stage, there was a fall in the hydel availability. Hydrology factor had changed significantly in the last couple of years.

- The average hydel power generated for the years 1991-1995 was 9504 MU
- The average hydel power generated for the years 1996-2000 was 7410 MU
- The average hydel power generated for the last 3 years 2001-2003 was 5231 MU

83. The Staff estimated that taking into account Hydrological data of the past years, available power from Hydel for FY 04 would be 5800 MU. In the Load Forecast, APTRANSCO submitted that due to raising of Alamatti Dam 1000 MU should be deducted. The staff considered that even 5800 MU would also be on the optimistic side as it is important to factor in other developments especially of increase in irrigated area; intensity of irrigation and changes in cropping patterns in the riparian states which APTRANSCO may examine. But under the present data available the staff estimates hydel availability at 5800 MU.

84. The availability of power projected for FY 04 by APTRANSCO at 49745 MU came down to 48132 MU as estimated by the Staff i.e., a difference of 1613 MU. Taking into account the sales by DISCOMS at 32686 MU the staff estimated the total sale of power by APTRANSCO to DISCOMS at 40338 MU. Interstate sales were computed by the staff at 954 MU after taking into account 5% spinning reserve and seasonal availability as against 2684 MU projected by APTRANSCO.

85. The Staff calculations also showed that the Power Purchase Cost per unit projected by APTRANSCO at Rs. 1.79 per unit increased to Rs. 1.89 per unit. The basis for this increase by 10 paise is given in the table below.

Table No.8
BASIS FOR INCREASE IN POWER PURCHASE COST

Sources of Energy	List of Modifications
APGENCO	
Thermal	Variable costs adjusted on the basis of fuel prices in FSA filings
Hydel	Realistic levels of Hydro availability as given in earlier paras
CGS	NTPC (SR) & NLC availability taking into account aux.consumption, NPC Kaiga considered for availability Transmission costs of PGCIL is considered as a fixed cost
NTPC (ER)	Availability considered at 500 MU, Fixed costs based on share in plant capacity considered for ABT regime
Transmission	Eastern Region Transmission, Nunna-Perambudur Line charges
APGPCL	Availability considered at 405 MU based on last year actuals
IPPs	Variable costs on the basis of fuel prices as given in FSA filings
OTHERS & (NEDCAP)	Availability for NBFA & VSP not considered in absence of valid current agreements
Talcher power	Talcher firm power taken including fixed costs

Sales Projections:

86. APTRANSCO projected a sales of 33036.92 MU while the staff projected a lower level of sales at 32686 MU. The staff analysis had been based on the past data moderated by current economic developments. The staff observed that the second half sales projection had invariably been a steep increase over the first half sales. Significant increases in sales projected by licensees in LT – II, III & HT – I were adjusted to industrial contribution in State GDP. Difference in sales projections reflected in the difference in revenue projections

Interstate Sales:

87. The Staff observed that the interstate sales, were over-projected in the Filing of FY 2004 by APTRANSCO. The Staff estimated the availability of Interstate Sales at 954 MU after taking into consideration month-wise surplus availability and keeping a 5% spinning reserve. Further the existing contracts for

400 MW were valid only upto May 2003 and on the basis of the above calculations the Bulk Supply Tariff for APTRANSCO was Rs. 2.16 per unit as against APTRANSCO's calculations of Rs. 2.01 per unit i.e., a difference of 14.3 paise arising from Hydel reduction of about (2.5 paise); Variable Cost adjustment (1.5 paise); fall in Non-Tariff Income (10 paise). Interstate sales were taken at Rs.2.40 per kwh based on existing contracts with PTC.

88. The total revenue as estimated by the staff for DISCOMS came to Rs.8933 Crs for FY 2004 as against the revenue of Rs. 9402 Crs projected by DISCOMS.

Staff Analysis of expenditure Items for FY 2004:

Capital Base

89. As in the previous years, APTRANSCO showed over projection in Capital expenditure. The licensee had submitted a revised estimate of Rs. 480 Crs as against the approved outlay of Rs. 819 Crs for FY 2003 whereas the actual expenditure might further come down to Rs.333 Crs as estimated by the staff. Given this trend, the staff estimated that the Capital Expenditure with IDC for FY 2003-04 projected by APTRANSCO might only be around Rs. 379.88 Crs as against the Filing number of Rs. 644 Crs. The staff noted that a remarkable gap prevailed between the figures of Filings, Tariff Order and Actuals for capital expenditure. APTRANSCO had been sensitized to the futility of over projecting the expenditure plans. The interest claw back for 2001-02 because of the over projections came to Rs.221 Crs.

90. These changes got reflected in the Capital Base. The staff calculation showed Original Cost of Fixed Assets at Rs. 3721 Crs and Net Capital Base at Rs. 115 Crs as against APTRANSCO's projection of Rs. 4145 Crs and Rs. 1432 Crs respectively.

Other expenditure for FY 2004:

91. The staff had added some additional items based on the previous tariff orders, viz. the impact of Wage revision in FY 2003 with carrying cost calculated at Rs. 27 Crs. Interest Expense adjustment due to shortfall of Capital Expenditure in FY 2001-02 to the tune of Rs. 62 Crs and reversal of Contingency Reserve (FY 01, 02) at Rs. 12 Crs. The staff calculated BST at Rs. 2.164 as against licensee's Rs.2.016 per unit. The table below shows the staff estimation of expenditure for FY 2004 as against the expenditure proposed by the licensee in the ARR.

Table No.9
ESTIMATION OF EXPENDITURE

		(Rs. In Crores)
ITEM	**APTRANSCO**	**STAFF**
Expenditure		
Power Purchase Cost (Incl. Inter State Sales)	**8,386**	**8,438**
O & M	**347**	**390**
Interest Cost	**373**	**251**
Spl Appropriations		
a) Contingencies Reserve for FY 03-04	**10**	**9**
b) Adjustments		
1) Impact of Wage Revision in FY 02 -03 with Carrying Cost	**-**	**27**
2) Interest Expense Adj. Due to shortfall in CAPEX FY 01-02	**-**	**(62)**
3) Reversal of Contingency Reserve (FY 01, 02)	**-**	**(12)**
Total Expenditure	**9,117**	**9,042**
Revenue		
Revenue from DISCOMs (Existing BST @ Rs. 2.086ps/kWh for APTRANSCO; Staff at Rs2.164/kWh)	**8,505**	**8,728**
Revenue from Inter-State Sales	**671**	**229**
Other Non-Tariff Income	**226**	**84**
Total Revenue	**9,402**	**9,042**

III. Analysis of Regulatory Mechanism:

92. APTRANSCO made the following proposals for treatment of Power Purchase (PP) Cost Variance.

- Automatic pass through during the year for PP Cost Variance due to price and mix variance

- Post period true up for PP Cost Variance due to quantity variance

93. The staff was of the view that the above proposal could be considered provided-

- all details of PP Cost Variance for any quarter was made available to the Commission by the licensee within gap of one quarter.
- an additional term was incorporated to the FSA formula to take care of any under or over recovery arising out of Mix variance i.e. unanticipated changes in mix of sources of generation which led to liquidity constraints for APTRANSCO.
- the pass-through mechanism was accompanied by careful monitoring of and maintenance of merit order operation.
- UI charges under ABT regime due to over-drawl by any DISCOM could not be passed to the consumers.

Analysis on Working Capital Requirement:

94. The licensee has also requested for regulatory treatment of Working Capital. The licensee has submitted a paper on Working Capital which was discussed in a meeting with the staff in presence of the Commission. Billing cycles and lead lag study made by the licensee for supply to DISCOMS and payment by them depending on factors like category wise collection, Payment of subsidy and electricity dues by Government departments and Agriculture, adherence to code of practice for billing and collection and supply agreements was discussed in greater detail. The staff estimation of the lead-lag study showed that if subsidies were paid by Govt. of AP every month, there is really no requirement of working capital. The Sixth Schedule more than provides for working capital requirement.

Analysis of the filings of DISCOMS:

95. All DISCOMS have proposed to retain the existing tariff structure.

96. In their filings APCPDCL expected to earn a Tariff Revenue of Rs.3528.99 Crs; APNPDCL of Rs. 750.43 Crs; APEPDCL of Rs. 1502.64 Crs and APSPDCL of Rs. 1812.31 Crs. The Staff Analysis of the DISCOM filings is given below:

Key Features

i. Revenue and Sales:

97. All DISCOMS had claimed an increase in sales attributable to

1. Use of high accuracy meters
2. Efforts to curb theft

The increase in sales of HT categories especially HT-1 sales was noticeable. Domestic sales had gone up. But only in the case of APCPDCL there was a decline in the 0-50 slab from 52% to 47%. Non-domestic Sales in LT-II and in LT – III had shown an upward trend in APEPDCL, APCPDCL, and APSPDCL/HT Irrigation & PWS Schemes were showing an upward trend. An increase in total sales by an additional 700MU to generate additional revenue of Rs 408.13 Crs. had been shown for APCPDCL. In APNPDCL projected Sales of 281 MU was expected to generate additional revenue of Rs. 93 Crs; in APEPDCL additional 366 MU was expected to generate additional revenue of Rs. 114 Crs. In the case of APSPDCL additional sales of 422 MU was expected to generate additional revenue of Rs.136 Crs.

Distribution Loss reduction from 23.4% to 19.19% had been shown in APCPDCL; from 21.25% to 20.34% in APNPDCL; from 17% to 16% in APEPDCL and 21.22% to 19.43% in APSPDCL.

ii. Investment Projections:

98. Actual Investments have been much lower than allowed in the Tariff Order. It was a repetition of the same story as given in Tariff Order FY2002-03.

Long term borrowings had not been fully utilized for capital expenditure. Schemes proposed and shown in ARR had not received Commission's approval.

iii. Financial Analysis:

99. The Current Year loss has been estimated for APCPDCL at Rs 227 crs; for APNPDCL at Rs. 200 Crs; APEPDCL at Rs.46 Crs and APSPDCL of Rs.186 Crs. All the DISCOMS have requested the current loss to be treated as a regulatory asset to be recovered in the future years when the financial health of the licensee would improve. Further the Licensees had not claimed Reasonable Return for current and ensuing year.

iv. Another feature was the request for Pass through and post-period 'True-Up' Mechanisms to be based on an agreed loss reduction plan

Overview of the performance of FY 2002-03:

100. The Sales performance of the DISCOMS had shown an upward trend. There were however differences in terms of the additional increase in sales in MU terms and also from the different consumer categories.

APEPDCL

- A noticeable factor in APEPDCL was that the HT sales had increased, by 26% which could be attributed largely to increase in HT-I Sales of 23.6%. Railway traction also indicated a 12% increase.

- In LT category, LT Commercial had also shown a growth rate of 19%, while for LT-III there had been a decline of about 7%.

- Overall LT increase of 4% was due to higher agricultural consumption.

- While HT – I contributed 29 % of revenues for all DISCOMS, APEPDCL's contribution is 18% of the total HT sales revenue.

APCPDCL

- A noticeable factor in APCPDCL was the HT led sales increase, with HT sale going up by 688MU or about 23% which could be attributed largely to HT-I Sales of 41%.

- In LT category, LT Commercial had also shown a growth rate of 7%, while for LT-III it is only 1%.
- Overall LT increase of 12% was due to agricultural consumption.
- While HT – I contributed 29% of revenues for all DISCOMS, APCPDCL's contribution is 50% of the total HT sales revenue.

APNPDCL

- With reference to Tariff Order, there was an increase in HT sales of 108 MU or about 7%.
- In LT category, LT Commercial had shown a growth rate of 15%.
- LT- I had registered a negative growth rate of 4%
- Overall LT increase of 4% was mainly because of higher LT-II.

APSPDCL

- A noticeable factor in APSPDCL was the Industry led sales increase, with LT-III going up by 21% or 115MUs and HT sale going up by 12% which could be attributed largely to HT-I & II Sales of 15% for each category.
- In LT category, besides LT-III, LT Commercial had also shown a growth rate of 13%.
- Overall LT increase of 8% has been due to higher agricultural consumption also.

101. These variations in Sales naturally got reflected in the Revenue Realisation of the DISCOMS for FY 2002-03. In the case of CPDCL increase in Sales of 14% compared to the quantum in the Tariff Order enabled them to earn a revenue of Rs. 3130 Crs. as against the Tariff Order target of Rs. 2641 Crs. In the case of NPDCL the total sales increased by 5% which enabled them to earn a revenue of Rs.1050 Crs. as against the Tariff Order target of Rs. 1009 Crs. For

APEPDCL the increase in sales of 10% enabled them to earn a revenue of Rs. 1383 Crs. as against the Tariff Order target of Rs. 1222 Crs and for SPDCL the total sales increased by 9% giving them a revenue of Rs. 1676 Crs.as against the Tariff Order target of Rs. 1561Crs.

102. **Energy Balance:**

APCPDCL

Table No.10

	FY 03 (Order)		FY 03 (Est.Actual)	
	MUs	%	MUs	%
Metered Sales	7175	48%	7979	48%
LT Agri Sales	4035	27%	4843	29%
Total Sales	11210	75%	12822	77%
DISCOM losses	3739	25%	3917	23%
Total Purchase	14949	100%	16739	100%

- There is an increase in the non-metered agriculture sales from 27% to 29% in the FY 03 estimates. The losses have however come down from 25% to 23%. The total purchases have gone up due to higher sales both in metered and non-metered categories.

APNPDCL

Table No.11

	FY 03 (Order)		FY 03 (Est.Actual)	
	MUs	%	MUs	%
Metered Sales	3151	44%	3240	43%
LT Agri Sales	2534	35%	2742	36%
Total Sales	5685	79%	5982	79%
DISCOM losses	1534	21%	1614	21%
Total Purchase	7219	100%	7596	100%

- There was a slight decrease in metered sales from 44 % to 43 % with reference to the Order for FY03, matched by a slight increase in unmetered agricultural sales

- There was no reduction in DISCOM Losses. The total purchases have gone up due to higher sales both in metered and non-metered categories.

APEPDCL

Table No.12

	FY 03 (Order)		FY 03 (Est.Actual)	
	MUs	%	MUs	%
Metered Sales	3469	63.4%	3878	64.6%
LT Agri Sales	1069	19.6%	1107	18.4%
Total Sales	4538	83.0%	4985	83.1%
DISCOM losses	930	17.0%	1017	16.9%
Total Purchase	5468	100%	6002	100%

- With reference to Tariff Order for FY 03, metered sales have increased from 63.4% to 64.6%, and the DISCOM Losses remained the same.

- The non-metered agricultural sales had seen a downward trend in the FY03 estimates from 20 % to 18%. The total purchases have gone up due to higher sales both in metered and non-metered categories.

APSPDCL

Table No.13

	FY 03 (Order)		FY 03 (Est.Actual)	
	MUs	%	MUs	%
Metered Sales	4578	52.4%	4944	52%
LT Agri Sales	2298	26.3%	2544	27%
Total Sales	6876	78.8%	7488	79%
DISCOM Losses	1855	21.2%	2017	21%
Total Purchase	8731	100%	9505	100%

- There is a marginal fall in the metered sales from 52.4% to 52% while there is a marginal increase in non-metered agriculture sales from 26.3% to 27%. The losses have remained almost at the same level of 21%. The total purchases have gone up due to higher sales both in metered and non-metered categories.

Efficiency Gains:

103. The Efficiency Gains made by all DISCOMS by way of increase in Sales especially of HT Sales and the decrease in Distribution Losses could not compensate the adverse effect of drought as seen in the increased Agricultural Sales. The difference between Average Expenditure and Average Realisation per unit of power purchased is given below:

Table No.14

AVERAGE EXPENDITURE AND REALISATION PER UNIT

(Rs./unit)

	APEPDCL		**APCPDCL**		**APNPDCL**		**APSPDCL**	
	ARR	Actual	ARR	Actual	ARR	Actual	ARR	Actual
Average Expenditure	2.87	2.86	2.38	2.44	2.14	2.24	2.50	2.54
Average Realisation	2.42	2.44	1.94	2.00	1.57	1.52	1.94	1.88

The DISCOMS except APEPDCL have incurred higher expenditure per unit compared to the ARR projections. Only APCPDCL & APEPDCL have achieved a higher average realization than projected in the ARR through the APNPDCL & APSPDCL have a lower realization.

Financial performance of FY 2003:

104. The calculation of Losses as per the Staff was slightly higher than projected by the DISCOMS except in the case of APNPDCL. This was because Wheeling Charges had been removed by the Staff as the matter was sub-judice. The Loss projections DISCOM-wise are given below.

Table No.15
FINANCIAL LOSS PROJECTIONS

(Rs. in Crores)

APCPDCL		APNPDCL		APEPDCL		APSPDCL	
APCPDCL	STAFF	APNPDCL	STAFF	APEPDCL	STAFF	APSPDCL	STAFF
-228	**-272**	**-200**	**-200**	**-46**	**-58**	**-186**	**-196**

All DISCOMS had asked for treatment of losses by way of a Regulatory Mechanism.

105. **Compliance to Commission's Directives:**

Table No.16

Sl.No	**Directive**	**APCPDCL**	**APNPDCL**	**APSPDCL**	**APEPDCL**
1.	LV Side Meter Readings: Agricultural Consumption Estimate	Complied	Partially Complied	Complied	Complied
2.	Unauthorised Agricultural	Partially Complied	Partially Complied	Partially Complied	Complied. No. of

Sl.No	Directive	APCPDCL	APNPDCL	APSPDCL	APEPDCL
	Services				unauthorized connections – (1058) declared during Sadassus were all regularized
3.	Metered Tariff for Agricultural Consumption	Complied. Wide Publicity given	Complied. Wide Publicity given	Complied. Wide Publicity given	Complied. Wide Publicity given
4.	Removal of Phase Converters	Compliance is an on going process.	Compliance is an on going process.	Compliance is an on going process.	Compliance is an on- going process.
5.	Metering of Agricultural Services	Partial compliance.	Partial compliance	Partial compliance.	Partial compliance.
6.	Agricultural Census Reports	Complied.	Partial Compliance Report of Nizamabad & Khammam are provided	Complied and reports submitted on affidavit	Complied The connected load for many services under disconnection is not provided.
7.	Audit of Receivables	Not complied.	Not complied	Not Complied	Not complied
8.	Sales Database	Partially Complied	Not complied.	Partially complied.	Partially complied.
9.	Working Capital: Discussion Paper	Complied and submitted	Complied and submitted	Complied and submitted	Complied and submitted
10.	Efficiency Gains	Not Complied	Not complied	Not complied	Not Complied
11.	High Quality Meters and Decentralization of Billing, Collection, etc.	Partial Compliance	Partial Compliance	Partial Compliance	Complied
12.	Unauthorised Loads – Voluntary Disclosure	Complied (but not satisfactory)	Complied (but not satisfactory)	Complied and (satisfactory)	Complied (but not satisfactory)

Sl.No	Directive	APCPDCL	APNPDCL	APSPDCL	APEPDCL
	Scheme				
13.	Distribution Transformers Failure	Target Met	Target not met.	Target met.	Target met.
14.	Multiple Connections	Partial Compliance	Not complied	Partial compliance.	Partial Compliance.
15.	Approvals for Schemes and Details of CWIP as on 01-04-2000	Not complied.	Not complied.	Not complied.	Not complied.
16.	Employee Funds – Credit to Non-drawal Bank Accounts:	Complied.	Complied.	Complied.	Complied.
17.	Contingencies Reserve	Not complied	Not complied	Not complied	Not complied
18.	Revenue Estimation Methodology	Current filing but without proper databases	Current filing but without proper databases	Current filing but without proper databases	Current filing but without proper databases
19.	Local Bodies and Public Lighting: Sales Volumes	Not complied.	Not complied.	Not complied.	Not complied.

In the case of Audit of Accounts the position is no different from that of APTRANSCO.

<u>Review of ARR filings of DISCOMS for FY04:</u>

Expenditure

<u>Investment</u>

106. The gap between the Filings, Tariff Order and Actuals continued to be wide. Licensees have been sensitized to the futility of over-projecting the expenditure plans on Projects. They have assured a comprehensive re-look. The interest adjustment for 2001-02 came for all DISCOMS to Rs. 161 Crs. For CPDCL the amount came to Rs. 78 Crores, for NPDCL the amount was Rs. 36 Crores; for EPDCL the amount was Rs. 27 Crores while for SPDCL the amount came to Rs.19 Crores

Capital Base Calculations for FY 04:

107. The Capital Base Calculations of the Staff have taken into account the over investment projections and adjustments have been made accordingly.

Table No.17
CAPITAL BASE

(Rs.in crores)

	APCPDCL		**APNPDCL**		**APEPDCL**		**APSPDCL**	
	APCPDCL	STAFF	APNPDCL	STAFF	APEPDCL	STAFF	APSPDCL	STAFF
Original Cost of Fixed Assets	2,142	1,650	1,022	987	862	729	1,252	1,050
Capital Works in Progress	304	312	317	151	347	174	77	172
Stores	64	13	41	6	26	2	38	8
Cash	25	30	15	18	11	15	22	25
Total –A	**2,535**	**2,005**	**1,395**	**1,162**	**1,246**	**920**	**1,389**	**1,255**
Accumulated Depreciation	1,069	1,047	557	555	456	452	716	704
Loans	998	399	745	502	552	342	463	399
Consumer Security Deposits		480		175		280		269
Total – B	**2,067**	**1,926**	**1,302**	**1,332**	**1,008**	**1,074**	**1,179**	**1,372**
Net Capital Base (A-B)	**468**	**79**	**93**	**(70)**	**238**	**(154)**	**210**	**(117)**

Sales for FY 04:

Table No.18
SALES PROJECTION IN MUs

All DISCOMS	FY 03	FY 04	FY 04		
	Est. Actual Filing	Filing Forecast	% Growth	Staff Estimates	% Growth
Domestic	7583	8206	8%	8206	8%
Commercial	1628	1814	11%	1792	10%
Industrial LT	2037	2241	10%	2190	8%
Cottage	31	33	5%	34	9%
Agriculture	11237	10998	-2%	10998	-2%
Public Lighting	653	697	7%	696	7%
General Purpose	91	101	11%	101	11%
Temporary Supply	11	20	90%	20	87%
TOTAL LT	23270	24109	4%	24037	3%
HT-I	4764	5417	14%	5265	10%
HT-II	736	818	11%	741	1%
Irrigation & Agriculture	79	175	122%	176	123%
Railway Traction	1094	1155	6%	1155	6%
Colony Lighting (Cat-VI)	178	183	3%	182	2%
RESCOS (Cat-VII)	1152	1166	1%	1121	-3%
Temporary (Cat-VIII)	3	12	295%	12	295%
TOTAL HT	8006	8927	12%	8649	8%
Total DISCOM Sales	31227	33037	6%	32686	5%

APCPDCL

- Central to the higher overall sales forecast of CPDCL was the projections in industrial category, both HT-I & LT-III. HT-I was projected at growth rate of 12% & LT-III at 10%.

- The Staff subsequent to analyzing the information furnished and taking into consideration the larger macro scenario, preferred to project lower growth rates at 8% for HT-I and 6% for LT-III.

- The overall growth of 5% consists of 13% growth rate in HT segment but a lower LT growth rate of 3%. The DISCOM had shown a negative growth with regard to LT agriculture.

- The Staff estimated an overall growth rate in the HT segment at 9%

APNPDCL

- The Staff subsequent to analysing the information furnished and taking into consideration the larger macro scenario, preferred to project lower growth rates for both LT-II and HT-I.

- With regard to HT – I, the DISCOM had experienced continuous fall in sales, in the past. With the incentive scheme, there had been a comeback in HT – I sales. Taking this into account and moderating the last quarter data, sales from this category were projected at 758 MU.
- The sales to RESCO were rationalized based on the sales growth projected by the RESCO.
- The overall growth of 5% consisted of 7% growth rate in HT segment, but a lower LT growth rate of 4%.
- The Staff estimated a lower overall growth rate at about 3%.

APEPDCL

- Central to the higher overall sales forecast of APEPDCL was the projections in HT-I category. HT-I had been projected at the growth rate of 24%.
- The Staff subsequent to analysing the information furnished and taking into consideration the larger macro scenario, preferred to project a higher growth rate of 31% in HT-I.
- The overall growth of 7% consisted of 24% growth rate in HT segment but a fairly low LT growth rate of 3%.
- The Staff estimated an overall growth rate in the HT segment at 21%.

APSPDCL

- Central to the higher overall sales forecast of APSPDCL was the projections in industrial category, both HT-I & LT-II. LT-II & HT-I were projected at a growth rate of 10%.
- The Staff subsequent to analyzing the information furnished and taking into consideration the larger macro scenario, preferred to project lower growth rates at 3% in HT-I and 7% in LT-II.
- The overall growth of 6% consisted of 8% growth rate in HT segment but a lower LT growth rate of 5%.
- The Staff estimated an overall growth rate in the HT segment at 1%

Revenue of all DISCOMS for FY 04:

108. The projected Revenue for all DISCOMS at Rs. 7987 Crs. as filed by them came down to Rs. 7774 Crs. for FY 04 after adjustments made by the Staff. The

gap therefore for DISCOMS which was projected at Rs. 1500 Crs. increased to Rs. 1870 Crs.

A noticeable feature in the Sales Projections of DISCOMS was the increase in the 0-50 Slab in the Domestic Category with the exception of APCPDCL.

Regulatory Treatment :

109. The Licensee in the context of risk mitigation had requested for the following:

- Working Capital requirement
- Carry forward of Losses

Working Capital Requirement:

110. A paper on Working Capital was submitted and discussed. In this paper the Lead lag study based on Billing cycles, category wise collections, Government and agriculture payments, code of practice, supply agreements were taken into consideration. The Staff estimates of Lead-lag study showed that if subsidies were factored in, there was really no requirement for working capital either for APTRANSCO or DISCOMS. This was in line with the experience of other countries. The Sixth Schedule provision for working capital requirement was more than adequate.

CHAPTER – VI

APTRANSCO'S RESPONSE TO COMMISSION STAFF PRESENTATION

Power Purchase cost due to shortfall of Hydel Power:

111. APTRANSCO's computation given below shows the cost of hydro shortfall for current year to be Rs 464 crores as against Rs.384 cr. estimated by staff.

Table No.19

COST OF HYDRO SHORTFALL

Total PP Cost Variance (for sales to DISCOMS)	Rs. crores	890
Total Qty. Variance	MU	3667
Total Thermal Overdrawl	MU	7636
Cost per unit of Overdrawl	(Rs./unit)	1.16
Hydro Shortfall	MU	3,979
Cost of Hydro shortfall	**Rs crores**	**464**

APTRANSCO would like to analyse the assumptions and the methodology used by the Commission's Staff in arriving at the number computed by them.

APTRANSCO was not clear how the staff proposed to treat this amount.

Profit foregone on interstate sales:

- As for non-acceptance of financial loss of Rs.163 cr. on account of decreased interstate sales, APTRANSCO stated that the net loss of Rs.163 crores was after taking into account the increased sales to DISCOMS. The figure of Rs163 crores, as shown in the P&L account, was after assuming higher revenues of Rs.725 crores due to additional sales to DISCOMS. APTRANSCO had given an explanation for this variance, lower interstate sales being one of the factors.
- APTRANSCO concurred with the Staff's computation of profit foregone for APTRANSCO due to lower interstate sales as the difference between Rs.2.40

per unit and Rs.2.086 per unit. The magnitude of the profit foregone by APTRANSCO was computed below according to the method prescribed by the Staff:

Table No.20
PROFIT FOREGONE ON INTERSTATE SALES

Projected interstate sales as per ARR (MU)	2435
Actual interstate sales (MU)	206
Difference in quantity sold for interstate sales (MU)	2229
ARR assumption for realisation for interstate sales (Rs per unit)	2.40
Actual realisation for APTRANSCO for sale of these units to DISCOMS (Rs per unit)	2.08
Difference in realization	0.32
Net profit foregone by not selling 2229 MU to interstate sales (Rs crores)	71

- However, the licensee disagreed with the reasoning given by the Staff that Rs.2.086 per unit already included the Reasonable Return (RR) and hence any excess price beyond Rs.2.086 per unit amounted to earning profits beyond the reasonable return. It should be noted that the Staff's position ignored the principle of ARR computation for APTRANSCO that all profits on interstate sales are passed on to the DISCOMS in the course of the BST computation. If all the projections made in the ARR including the interstate sales of 2435 MU @ Rs2.40 per unit were exactly achieved, there would be exact cost and reasonable return recovery from the licensed business. Any deficit on account of interstate sales during FY 03 as compared to the ARR estimate would thus lead to a gap.

- Lastly, the licensee did not agree with the Staff's point of view that any shortfall in interstate sales was a business risk to be borne by the licensee. It should be noted that APTRANSCO passed on its entire profits from interstate sales to DISCOMS and hence was not in any position to bear the risks arising out of the interstate sales business. Just as any excess profits over RR would have to be returned to the end-consumer, the licensee should also be compensated for any deficit arising during the course of business.

112. The Licensee requested the Hon'ble Commission to kindly allow APTRANSCO to maintain the amount as computed above as a Regulatory Asset and would like to claim this amount during a future year when the pressure on subsidies and tariffs is significantly lesser than at present.

Higher agricultural sales:

113. APTRANSCO, in its capacity as the sole shareholder of DISCOMS, requested the Hon'ble Commission to consider the adverse effects of higher agricultural sales as shown below as the same were not discussed by the staff:

Table No.21
POWER PURCHASE COST DUE TO HIGHER AGRICULTURAL SALES

Excess Agricultural Consumption (MU)	1301
Excess purchases by DISCOMS for Agri sale (MU)	1657
Cost of excess purchases by DISCOMS for agri sale @ Rs 2.086 per kwh (Rs crores)	345.8

114. Consistent with the Commission's Staff treatment on the interstate sales for APTRANSCO, the cost of excess agricultural consumption for DISCOMS had been computed at the overdrawal BST rate of Rs 2.086 per kwh.

115. APTRANSCO requests that the DISCOMS be allowed to maintain the amount as computed above as a Regulatory Asset and be allowed to claim this amount during a future year when the pressure on subsidies and tariffs was significantly lesser than at present.

Working Capital requirements due to adverse conditions:

116. In addition to the working capital interest (carrying) cost on account of employee wage revisions, APTRANSCO had proposed carrying costs for a number of adverse factors during the current year as provided in the ARR and Tariff filing which are as follows:

Table No.22
WORKING CAPITAL INTEREST REQUIREMENTS

1.	Carrying cost of hydro thermal mix change	It was not clear how the staff had proposed treatment of the hydro thermal mix adversity and the carrying costs of the same. APTRANSCO would like to claim this amount including the carrying cost during a future year when the pressure on subsidies and tariffs was significantly lesser than at present
2.	Carrying cost of lower interstate sales	The profit foregone due to lower interstate sales had already been covered para 111 above. In addition APTRANSCO also requested the Hon'ble Commission to kindly allow the Licensee to allow the carrying cost of this adversity.
3.	Carrying cost of non realization of revenues from wheeling and grid support due to Stay Order	The Commission's Staff in its presentation had admitted that on account of revenues from wheeling and grid support, which did not materialise, APTRANSCO would undergo a temporary loss of Rs 331 crores. APTRANSCO would like to claim for the carrying costs arising out of this 'temporary' loss during a future year when the pressure on subsidies and tariffs was significantly lesser than at present.
4.	Carrying costs of higher agricultural sales	The losses due to higher agricultural sales had already been covered in para 113 above. In addition APTRANSCO, on behalf

		of the DISCOMS, also requested the Hon'ble Commission to kindly allow the DISCOMS to maintain the amount as computed above as a Regulatory Asset and claim it during a future year when the pressure on subsidies and tariffs was significantly lesser than at present.

Computation of cost of working capital due to above:

1. **Hydro-Thermal Mix Variance**

Cost of adverse factors = Rs 464 crores (calculation shown in issue 1)

Carrying Cost for 6 months @ 10.5%
(assuming the amount has
accrued uniformly through the year) = Rs 464 * 10.5% *6/12 = Rs 24.4 crores

2. **Carrying Cost of lower interstate sales**

Cost of adverse factors = Rs 71 crores (calculation shown in issue 2)

Carrying Cost for 6 months @ 10.5%
(assuming the amount has
accrued uniformly through the year) = Rs 71 * 10.5% *6/12 = Rs 3.7 crores

3. **Carrying Cost of non-receipt of wheeling and grid support**

Wheeling Revenue (approved by APERC) = Rs 135 crores

Grid Support Charges = Rs 52.5 crores

Total = Rs 187.5 crores

Carrying Cost for 6 months @ 10.5%
(assuming the amount has
accrued uniformly through the year) = Rs 187.5 * 10.5% *6/12 = Rs 9.8 crores

4. **Carrying cost of higher agricultural sales**

Cost of adverse factors = Rs 346 crores (calculation shown in issue 2)

Carrying Cost for 6 months @ 10.5%
(assuming the amount has
accrued uniformly through the year) = Rs 345 * 10.5% *6/12 = Rs 18 crores

In addition there were certain other adverse factors that have led to additional working capital requirements for the companies.

Outstanding government dues from transfer scheme, etc are given below:

Table No.23
OUTSTANDING GOVERNMENT DUES – TRANSFER SCHEME

Opening balances remaining from first transfer scheme	Rs.323 Crores
Receivables pertaining to 2000-01 (net of FSA bills raised)	Rs.91 Crores
Loss for 2001-02 to be recouped (Transmission &Distribution)–	Rs. 449 Crores
Excess interest adjustment by GoAP in the past years (Transmission & Distribution)	Rs. 489 Crores
Total outstandings of GoAP	Rs. 1352 Crores
Interest implications of outstandings = 1352 x 10.5%	Rs. 142 Crores

Carrying cost of non-collection of agricultural dues:

117. The overall revenues from agricultural sales (including customer charges and other applicable charges) were expected to be about Rs. 480 crores in the current year. Normally the DISCOMS were in a position to collect about 75% of the billings. This year the collections would be less than 50% on account of the directive received from the GoAP not to collect from drought affected farmers resulting in a 25% shortfall.

The overall implication on revenues collected was about Rs. 120 crores (25% of Rs. 480 crores)

Working capital interest implication = Rs.120 x 10.5% x 6/12 = Rs. 6.3 crores

Non payment of dues by local bodies and government departments:

118. In-spite of persistent follow-up there had been significant shortfalls in payment by government departments and local bodies. Disconnection of services had not yielded results since in the absence of adequate budgetary allocations the departments were not in a position to pay. It was also not feasible to effect any disconnection of water supply schemes beyond a point since this had repercussions on water supply to households and establishments.

119. Overall dues of government departments and local bodies as of November 2002 is Rs. 275 Crores.

Working capital interest implication = Rs. 275 x 10.5% = Rs. 28.85 crores

GoAP Directives on rebates and Change in tariffs categorization

120. The DISCOMS received certain GO's during the year that require rebate on recategorisation of some consumers. Some Industries had been given 25% rebate and commercial consumers (hotels and IT organizations) had been reclassified from LT – II(Commercial) to Industrial category. This had resulted in significant loss of revenue.

The Companies had been corresponding with the departments of GoAP for compensation for the difference in revenues. However no response had been received.

Overall dues from the departments of GoAP for concessions provided =Rs.111cr.

Interest cost of revenues not received (111 x 10.5%x 6/12) = Rs. 5.827 cr.

Total financial implication (111+5.827) = Rs 116.827 cr.

Detailed discussions on specific issues for FY 2003-04:

Normal working capital requirements

- APTRANSCO would like to reiterate that it was not in agreement with the Staff's understanding of APTRANSCO'S position on its working capital requirements. APTRANSCO would like to once again request the Hon'ble Commission to consider approving genuine levels of working capital borrowings for normal business operations and interest costs on the same.

- Another related matter which APTRANSCO would like to highlight was with respect to power purchase rebates estimated at Rs 67 crores for current year and Rs 76 crores for ensuing year. As explained in the filings (please refer to 8.1.16 of APTRANSCO's filings), to avail such rebates, APTRANSCO incurred an implicit cost of borrowing short-term loans (Rs 37 crores for the current year). APTRANSCO requested the Hon'ble Commission to consider the same as legitimate interest expenses for availing power purchase rebates as it was being done in the interest of the end-consumer.

121. As pointed out in the Paper on the Licensees working capital requirements, submitted in November, 2002, it was incorrect to compute the 'normal' working capital requirements by applying norms for efficient operations. The companies were willing to accept a reasonable trajectory for performance on this account and feel that calculations of working capital allowance should be computed accordingly. The licensees were of the opinion that imposing 'efficient' norms outright amounts to denying the reality on the ground.

Interest claw-back of Rs 221 crores for interest cost not incurred in FY 2001-02:

122. The Licensee had been consistent in disagreement with the staff regarding claw-back of interest expense of Rs 221 crores for all the five Licensees and specifically Rs 61 crores for APTRANSCO, not incurred by the Licensees for FY

2001-02 in the ARR for FY 2002-03. The Hon'ble Commission in its Order for FY 2002-03 had provided for interest costs of Rs 163 crores not incurred in FY 2000-01 to be reduced from the ARR of FY 2002-03 and even at that time the Licensees had maintained their disagreement. The Licensee would like to once again express their disagreement with this treatment.

123. The Staff's assumption seemed to be that the interest costs purportedly not incurred would result in the utilities having a surplus in the books of accounts. This is not borne out and is contrary to the facts. On the contrary there was a overall financial loss during FY 2001-02, as per the unaudited accounts.

124. The under-investment in FY 2002-03 leading to lower interest costs cannot be looked at in isolation and must be looked at in the context of the higher loss reduction achievement as compared to the orders of the Commission and the increased revenues, in addition to the capital expenditure incurred. The adversities faced in the business resulting in revenue deficit also need to be considered. Conducting selective true-up in isolation only impairs future financial viability further and affects recovery of the sector. APTRANSCO did not agree with the treatment that the Staff had proposed.

<u>Reversal of Contingency Reserve (CR) not invested:</u>

125. As for Contingency Reserve (CR) of Rs 33 crores (Rs 12 crores for APTRANSCO and Rs 21 crores for DISCOMS) for FY 01 and FY 02 for the sector as a whole, proposed by the staff to be reversed in the ARR of FY 04, APTRANSCO contended that CR as provided by the Sixth Schedule was for meeting contingencies / unfavourable circumstances beyond the control of the utilities.

126. The Licensees would like to submit that during the year FY 2000-01 and FY 2001-02 there were unanticipated adversities such as change in

consumer mix (reduction of consumption by HT Industrial consumers), failure of monsoons and the resulting drought conditions. Such adversities resulted in financial losses during FY 2000-01 and FY 2001-02.

127. The Licensee would like to submit that investing in contingency reserves only to liquidate it subsequently in order to meet the above-mentioned adversities would involve an unnecessary transaction (brokerage) cost and also the cost incurred due to the difference between the interest cost on borrowing and interest received from investments in specified securities. This unnecessary financial cost would thus be futile and would be detrimental to the consumer. The Licensees therefore submitted that this requirement be waived for FY 2000-01 and FY 2001-02. Claw-back of the same, as suggested by the Commission's Staff would not be in the interest of the utilities as it would create an unnecessary burden in the ensuing financial year.

<u>Power Purchase costs different from that submitted in the Licensee's filings:</u>

- As regards variable cost of APGENCO (thermal) and IPPs, the licensee would like to state that the rate adopted in the Tariff Orders was normally the variable cost for the month of September before the filings. The FSA filings in this case pertained to FY 2001-02 and would not factor in recent changes in power purchase costs like fuel price change etc. Hence, it would be incorrect to adopt the same.
- Hydro availability, as projected by the Staff was one of the methodologies that can be used. As such this was a matter for discussion with APGENCO.
- Availability of Neyveli Lignite Corporation provided by the Licensee was after taking into account auxiliary consumption and calculations for the same were provided. Similarly calculations for NTPC Ramagundam and Talcher Stage 2 were also being provided in the same Annexure.

- The licensee sought to understand the breakup of availability and cost of the different CGS stations.

DISCOM Sales estimates:

128. As regards HT-1 and Domestic sales, APTRANSCO, on behalf of the DISCOMS sought details on the method of computation of revenues by the staff. APTRANSCO, on behalf of DISCOMS, stands by its estimates.

Commercial arrangement with other states for sale of power:

129. The sale to other states were proposed on a short-term continuous basis as and when the surplus arises. This sale was ordinarily done through the Power Trading Corporation or through short-term bilateral contracts. As of now, there were standing agreements for sale through Power Trading Corporation (300 MW) and sales to Karnataka (100 MW) and Tamil Nadu (100 MW).

Capital Base calculation for FY 2003-04:

130. The lower capital base of Rs.115 cr. of the staff as against APTRANSCO estimate of Rs.1432 cr. appeared to be as a consequence of the following:

- Lower capital expenditure than that projected by APTRANSCO for FY 2002-03 and FY 2003-04.
- Higher negative side of the capital base due to higher loan amount.

131. On the first point, the licensee would like to state that its estimates for capital expenditure were based on the investment plans submitted to the Hon'ble Commission for approval.

132. On the second point, if capex additions were lower than originally estimated, then the borrowings should have been correspondingly lower as well, since all capex additions of the Licensees for current year were funded out of debt and not out of equity. Since the borrowings (on the negative side of the capital base) did not seem to be as much lower as the shortfall in capex shown

by the Staff, it appears that borrowings utilised for working capital have been included in the negative side of the capital base. As the Licensees had stated in past submissions, including those on Working Capital, the Licensees were not agreeable to this treatment and requested the Hon'ble Commission to exclude all borrowings on account of working capital borrowings from the negative side of the capital base.

133. The licensee had projected a rise in capital base over the previous year. The contention raised by the staff in its queries was that in the absence of fresh equity infusions or surplus generated, the capital base should not show an increase. The licensee response given earlier is quoted below:

The following table shows the breakup of the change in capital base during FY 2003 and FY 2004.

Table No.24

Rs crores

		FY 02-03	**FY 03-04**
Change in Capital Base	**A**	**206.8**	**114.1**
Arrears of Depreciation	**B**	158.9	102.5
Change in Contingency Reserve Investments	**C**	9.2	10.4
Change in cash and O&M stores (as allowed by Sixth Schedule)	**D**	38.7	1.2
B+C+D = A		206.8	114.1

134. The change in capital base was occurring mainly on account of excess of loan repayment over the depreciation for the year. The provisions of the Sixth Schedule allowed this amount to be claimed through tariff by including it as part of the ARR special appropriation. Had this amount been included in the ARR, this would appear as operating cash flows to the licensee and contribute to Retained Earnings. However, the licensee had sought not to claim this amount in the ARR to minimise the impact on the tariff. The licensee chose to bridge this gap

through resorting to deficit financing. It may be appreciated that choosing this option was far more favourable to the end consumer than claiming the entire arrears of depreciation. The licensee would not like to include this source on the negative side of the capital base, so that it was not denied reasonable return on this amount in future when it chooses to claim reasonable return. While the Sixth Schedule allowed the licensee to claim the entire amount of arrears of depreciation, the licensee sought to claim only the reasonable return on same.

135. Change in contingency reserve investments was being met through tariff revenues and hence would appear in the operating cash flows of the licensee (any deficit during the current year is assumed to be bridged appropriately).

136. The last item was due to change in normative levels of working capital as allowed by Sixth Schedule. This was being met through sources of deficit financing.

137. The licensee reiterated that while it was not claiming reasonable return for the ensuing the year, it stood by the calculation of capital base as filed.

<u>Reasonable Return claw-back for FY 2001-02:</u>

138. It was not clear how the staff had computed the capital base for FY 2001-02 to arrive at a net capital base of Rs 151 crores (Tariff Order Rs.976 crores).

139. In any case, the licensee would like to submit that selective adjustments for prior period items were not justified and the entire regulatory gap must be seen in totality. Both the positive and negative variances must be treated in a similar manner and all uncontrollable factors should be trued up.

<u>Audit of accounts for FY 2000-01 and FY 2001-02:</u>

140. While complying with the provisions of the Company Law, APTRANSCO had to additionally fulfill the requirements of the Comptroller and

Auditors General (CAG) of India. The Accounts for FY 2000-01 in respect of DISCOMS have been forwarded to the CAG for its audit and that of FY 2001-02 were being finalized and being forwarded to the CAG very shortly.

141. In respect of APTRANSCO, the statutory audit for FY 2000-01 has been completed by Statutory Auditors and the final Statutory Audit Report would be received from them as soon as the previous year (i.e. 1999-2000) audit report from CAG was received and adopted in the AGM. The Statutory audit of Accounts for FY 2001-02 was in progress and was expected to be completed by end of March, 2003.

Additional issues and clarifications sought:

142. The licensee sought clarifications on how the following costs had been computed:

1. Interest cost of Rs 251 crores (APTRANSCO filing Rs 373 crores)
2. Interest clawback of Rs 221 crores.
3. Capital base for FY 2001-02, FY 2002-03 and FY 2003-04.

143. Wheeling charges of Rs.88.8 crores was the APTRANSCO share of total wheeling revenues, not the sector total. This might be corrected.

CHAPTER - VII
STATEMENT OF GOVERNMENT OF ANDHRA PRADESH

144. The Govt. of Andhra Pradesh (GoAP) made a presentation before the Commission on 22.2.03. Sri V.S. Sampath, Principal Secretary, Energy Dept., GoAP, Hyderabad, appeared on behalf of the GoAP. At the outset, Principal Secretary (Energy) reiterated Government's commitment to the pursuit of reforms in Power sector as discernible from the prompt payment of subsidy. As the owner of the utilities, the Government also emphasized the improvement of efficiency of the utilities in order to provide efficient and economic power supply to the consumers and noted that the emphasis on efficiencies had yielded revenue improvement with the utilities achieving a demand increase of 16% and collection improvement of 13.38% upto January over the corresponding figures of the previous years without a tariff revision. These improvements were in line with the expectations of the Government to achieve revenue increases without burdening the consumer by way of tariff increase.

145. The current ARR - FPT Filings might be examined after according due importance to efficiency and revenue improvement and loss reduction such that the consumers of the State did not have to face any tariff increase in a year of adverse monsoon conditions. It had also been noted that gap projected by the utilities in the ARR for the sector as a whole for the ensuing year had been estimated at Rs.1501 Crs. As in the past, the Government would wait for the Commission to fix the finalised Annual Revenue Requirement and tariffs for different categories of consumers allowing for cross-subsidy to the deserving categories as enjoined in Sec 26(7) of the Reform Act. Upon fixation of tariff after taking into account the cross-subsidy, the GoAP might be intimated. The GoAP would thereafter issue policy directions under Sec.12(3) of the Reform Act concerning the subsidy to particular class or classes of persons as the government might in its discretion decide. As regards prompt payment of subsidy on a monthly basis, Sri Sampath pointed out that the record of GoAP in

this regard was impeccable. In fact the subsidy installments were released in advance in one go to help the ways and means position of the utilities.

146. Shri Sampath commented that Government had noted that the incentives offered by the Commission in the Tariff Order FY03 had started yielding significant results. The Government therefore, requested the Commission to retain and if possible further improve the incentives for stimulating the consumption by HT consumers. This would significantly help by increasing the quantam of cross subsidy available for the vulnerable sections of consumers, besides improving the financial health of utilities.

147. In response to specific queries raised by the Commission regarding the issue of Bonds against subsidy due to APTRANSCO and adjustment of losses and recovery of excess interest by way of plough back, Shri Sampath submitted the following:

a. Bonds to the extent of Rs.875 Crs. were issued during 2001-02 and Rs.350 Crs. during the current year, and requested the Commission to consider the eligible amount out of the additional deficit for Regulatory Asset which could be captured at an appropriate time when the sector was in a position to take the additional burden.

b. An Expert Committee was examining the amount shown as outstanding subsidy as under the Second Transfer Scheme as also excess interest ploughed back by the DISCOMS. On submission of the Report the Government would take a decision on the appropriate action to be initiated both with regard to the initial subsidy and the interest recovered by way of plough back.

c. Power Finance Corporation (PFC) Bonds issued were actually cash equivalent support to the utility since they were issued to power suppliers of APTRANSCO against the outstandings of APTRANSCO and whether this amounts to subvention or Regulatory Asset would depend upon the orders of the Commission.

CHAPTER – VIII
COMMISSION'S ANALYSIS

LEGAL ISSUES:

Implications of the Order dated:3rd October, 2002 passed by the Hon'ble Supreme Court in the case of West Bengal Electricity Regulatory Commission vs CESC.

148. The Contention raised is that it may not be permissible for the distribution companies to have differential tariff and cross subsidization of consumers in different classes or categories in view of the decision of the Hon'ble Supreme Court in the case of West Bengal Electricity Regulatory Commission Vs CESC Limited reported in 2002 (7) Scale 2177. By the Judgment and Order dated:3rd October, 2002 the Hon'ble Supreme Court has decided the appeals arising out of the order passed by the High Court of Calcutta and remanded the matter to the West Bengal State Regulatory Commission. In the decision dealing with cross subsidy the Hon'ble Supreme Court has referred to sections 29(2) (d), 29(3) and 29(5) of the Electricity Regulatory Commissions Act, 1998 (ERC Act) and stated as under:

"A perusal of sections 29(2)(d), 29(3) and 29(5) of the 1998 Act shows that the consumers should be charged only for the electricity consumed by them on the basis of average cost of supply of energy and the tariff should be determined by the Commission without showing any undue preference to any consumer. The statute also obligates the State Government to bear the subsidy which if it requires to be given to any consumer or any class of consumers, should be only on such conditions that the Commission may fix and such burden should be borne by the Government. However, the High Court in its judgment has directed the Company to maintain its tariff structure in regard to different types of supplies as was prevailing before the Commission fixed the new tariff. It has also directed the increase in the average rate of tariff which it had permitted to be distributed pro rata by the company amongst different consumers, so that the percentage of increase of each rate is same. in effect, therefore, the High Court has directed the continuance of cross subsidy. One of the reasons given by the High Court in this regard is that the Calcutta Tramways which is otherwise running a cheap transportation system might have to increase its fare and the same cannot be permitted since the Calcutta Tramways were not heard in the matter of fixation of tariff and there is, therefore, a likelihood of wide discontentment if the fares are to be increased. We have noticed the object of the 1998 Act is to prevent determination in fixation of tariff by imposing cross subsidy, but at the same time under Section 29(5) of the 1998 Act, if the State Government so chooses to subsidise the supply of energy to any particular class of consumers, the same can be done provided of course the burden of loss suffered by the Company is borne by the State Government and not imposed on any other class of consumers. In this view of the matter, we are of the opinion that while the Commission was justified in its view as to the non applicability of cross subsidy, the High Court was in error in issuing a direction to the Commission, contrary to the object and provisions of the 1998 Act to maintain tariff structure which was prevailing prior to the Commission's report. It is still open to the State Government if it chooses to direct the Commission to fix the tariff of supply of electricity to any class of consumers at a reduced rate provided the State Government itself subsidises the same"

Section 29(2), (3) and (5) of the ERC Act, 1998 read as follows:

29(2) "The State Commission shall determine by regulations the terms and conditions for the fixation of tariff, and in doing so, shall be guided by the following, namely:-

(a). the principles and their applications provided in sections 46, 57 and 57A of the Electricity (Supply) Act, 1948 and the Sixth Schedule thereto:

(b). in the case of the Board or its successor entities, the principles under section 59 of the Electricity (Supply) Act, 1948;

(c). that the tariff progressively reflects the cost of supply of electricity at an adequate and improving level of efficiency;

(d). the factors which would encourage efficiency, economical use of the resources, good performance, optimum investments, and other matters which the State Commission considers appropriate for the purposes of this Act;

(e). the interests of the consumers are safeguarded and at the same time, the consumers pay for the use of electricity in a reasonable manner based on the average cost of supply of energy;

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

(g). National power plans formulated by the Central Government.

29(3) The State Commission, while determining the tariff under this Act, shall not show undue preference to any consumer of electricity, but may differentiate according to the consumer's load factor, power factor, total consumption of energy during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required.

29(5) If the State Government requires the grant of any subsidy to any consumer or class of consumers in the tariff determined by the State Commission under this section, the State Government shall pay the amount to compensate the person affected by the grant of subsidy in the manner the State Commission may direct, as a condition for the license or any other person concerned to implement the subsidy provided for by the State Government."

The effect of the above provisions considered in the light of the Supreme Court decision was as follows:

(a). Object of the ERC Act was to prevent determination of tariff by imposing cross subsidy. In this regard apart from the observations of the Hon'ble Supreme Court Clause (e) of Section 29(2) specifically states that "the consumers pay for the use of the electricity in a reasonable manner based on the average cost of supply of energy".

(b). Clause (e) of section 29(2) states "that the tariff progressively reflects the cost of supply of electricity at an adequate and improving level of efficiency"

(c). If the Commission fixed tariffs in accordance with the above the High court was wrong to direct the Commission to increase the average rate of tariff which it had permitted to be distributed pro rata by the Company amongst different consumers, so that the percentage of increase of each rate is same, namely, the continuance of cross subsidy.

(d) If the State wished to give subsidy to any class of consumers it could do so by giving the amount required as provided in section 29(5)

The decision of the Supreme Court was in the context of the order passed by the High Court and could be viewed as a mandate to all State Commissions to determine tariff only in accordance with the average cost of supply. The provisions of section 29(2) of the ERC Act were guiding factors and were not absolute binding directions to the Commission. Further section 29(2)(c) of the ERC Act provided that the Tariff should progressively reflect the cost of supply of electricity at an adequate and improving level of efficiency. The ERC Act therefore envisaged a transition period before the tariff reflected the cost of supply to the consumers. It therefore meant that there was no legal mandate that with immediate effect all consumers should pay for the cost of supply. The implication was that the High Court should not direct the continuation of cross subsidy and not that the cross subsidy should not be there at all with immediate effect.

The classes of consumers to whom retail supply of electricity was given could be divided into two, namely (i) Subsidising Class, namely the classes who were directed to pay tariffs higher than the cost of supply to enable the subsidization of other classes and (b) Subsidised classes, namely, the beneficiaries who benefited with tariff lower than the cost of supply because of the subsidization provided by subsidizing class. The following were the implications of the provisions of the ERC Act and the Hon'ble Supreme Court Order in regard to cross subsidization of the subsidized class by the subsidizing classes:

a. There should not be any further increase in the Tariffs of the Subsidizing Class of consumers with the object to provide for more cross subsidy to subsidized class of consumers. The level of cross subsidy prevalent as on the date of the coming into force of the ERC Act should not increase further;
b. There should be progressive reduction of the existing level of cross subsidisation. It was however progressive and not immediately. Some weightage had to be given to the word progressive used in Section 29(2){c} of the ERC Act. There was some purpose for which the legislature had used the expression "progressive" If the cross subsidy was to be removed with immediate effect the above expression used in the section would be redundant;
c. For the purpose of cross subsidy what was relevant was the class of consumers and not individual or category of consumers within a class. For example domestic consumers in the slab 0-50 would fall into one class but within the domestic consumers. There could be categorization based on consumption or use;
d. Section 29(3) of the ERC Act specifically provided for differentiation based on Consumer load factor, power factor, total consumption of energy, geographical position, nature or purpose for which the supply is required. Thus the tariff could be different based on the

above factors even between the two classes of consumers and also within the same class between different categories. Such differentiation made based on the factors mentioned in Section 29(3) did not amount to cross subsidization of one class by another;

Any other interpretation of the order passed by the Hon'ble Supreme Court would not be consistent with the provisions of the ERC Act in particular Section 29(2){c} and Section 29(3).

In Andhra Pradesh the applicable law for tariff determination was the Andhra Pradesh Electricity Reforms Act, 1998 (Reform Act) and not Section 29 of the ERC Act. Section 26(7) (a) of the Reform Act provides for an additional factor for differentiation namely "paying capacity of category of consumers and need for cross subsidization". There was therefore a specific recognition of the cross subsidization for needy consumers under the Reform Act.

In the premise the Commission held that there was no mandate that the Commission should set tariff for all classes of consumers equivalent to the average cost of supply as was done by the West Bengal Electricity Regulatory Commission following the decision of the Hon'ble Supreme Court. The Commission could determine tariffs differently for different classes of consumers on factors recognized for such differentiation under Section 26 of the Reform Act. The differential tariffs in the Andhra Pradesh as determined by the Commission in the first tariff order for the year 2000-01 was upheld by the Hon'ble High Court in the judgment dated :16.10.2000 reported in 2000 (6) ALD 217 and thereafter by the Hon'ble Supreme Court in the judgment dated 06.03.2002 reported in 2002 (3) SCC 741.

Reopening of the Power Purchase Agreements concluded before the coming into force of the Reforms Act:

149. It was urged by some of the Objectors that the Commission should reopen the Power Purchase Agreements concluded prior to the coming into force of the Reforms Act and the constitution of the Commission. This matter was agitated in the proceedings for determination of tariffs for the earlier years and has been dealt with in the earlier orders also. Section 21(4) of the Reforms Act, inter alia, dealt with the agreements for purchase of electricity and the provision stated that a licensee might enter into arrangements for the purchase of electricity from a generating company with the consent of the Commission. Accordingly all agreements which were entered into after the coming into force of the Reform Act on 1.2.1999 required the consent of the Commission and not those power purchase agreements entered earlier. It had been brought to the notice of the Commission that a writ petition being CWP NO 21391 of 2002 entitled Suravaram Sudhakar Reddy V. APTRANSCO was pending before the Hon'ble High Court of Andhra Pradesh. Till a decision in the above case is available the Commission would proceed on the view it had taken in the earlier tariff orders that it had no jurisdiction to reopen the Power Purchase Agreements concluded prior to the coming into force of the Reform Act. There were no specific requirements under the Reforms Act, which require any fresh consent to be taken for such concluded Power Purchase Agreements. The Commission would have the authority to reopen the terms of such concluded Power Purchase Agreements if there was any request for modification or changes or renewal from the licensee with the agreement of the generating company.

150. A reference had been made to the decision of the Maharashtra State Electricity Regulatory Commission's judgment in Dabhol case and the decision of the Hon'ble High Court at Mumbai in the appeal against the said Judgment. It had been represented that the Hon'ble High Court at Mumbai has decided that the Regulatory Commission had jurisdiction to reopen the concluded Power Purchase Agreement. The judgment of the Hon'ble High Court had not been

placed on record and it had been stated that the detailed judgment had so far not been made available by the Hon'ble Court. The Commission would consider the review of the above decision taken by the Commission in regard to the reopening of the concluded Power Purchase Agreement after the detailed judgment of the Hon'ble High Court at Mumbai was available.

151. While the Commission held that it had no authority to reopen the Power Purchase Agreements concluded before the Reforms Act came into force, it might be stated that the terms and conditions of such Power Purchase Agreements might provide for negotiations between the parties to review the terms. Further in the case of Power Purchase Agreements which provide for determination of tariff on cost plus basis it was appropriate to expect the generating companies to mitigate the costs. The generating companies having been protected with the payment of fixed cost should be held to have an implied obligation to act in a reasonable manner and take steps to reduce or minimize the cost and expenses in the same manner as would have done if the costs were to be borne by them. It would be inappropriate for the generating companies to say that they had no duty to mitigate the costs and expenses as these were provided as a pass through in the tariff. APTRANSCO should therefore initiate negotiation with the generating companies to implement cost reduction measures. The examination of the Power Purchase Agreements concluded prior to the Reforms Act and comparison with such Agreements which had come up for approval of the Commission indicated number of areas where such cost reduction could be effected. These included matters such as interest outgoings on the debt part of the project cost, swapping of loans, reduction of foreign exchange risk, the possibilities of change of fuel, better operating norms including by investments and incentivisation and better fuel supply and transportation arrangement.

> ***The Commission therefore directs the APTRANSCO to initiate negotiations with the generating companies where Power Purchase Agreements were concluded prior to the coming into force of the***

Reforms Act and constitution of the Commission to explore areas for cost reduction within the existing PPA and furnish a report to the Commission by the 30th June, 2003.

Is hearing required for Fuel Surcharge Adjustment Formulae:

152. The Fuel Surcharge Adjustment formulae had been provided in the Amendment to the Andhra Pradesh Electricity Regulatory Commissions (Conduct of Business) Regulations, 2000. The Fuel Surcharge Adjustments was provided in the Regulations as required under Section 27(9) of the Reforms Act. The Fuel Surcharge was allowed to the licensee as per the above regulations. The Licensees were allowed to automatically modify the tariffs in accordance with the Fuel Surcharge Adjustment formulae. The above provisions had been made because of frequent variations in fuel price which resulted in changes in the price at which the generating companies supplied electricity to the licensees. Such changes in the price are beyond the control of the licensees. The determination of revised tariff after giving adjustments on account of fuel surcharge involved only calculations based on the formulae contained in the Regulations. There was no necessity to hold any hearing for such calculations.

Railways being charged higher tariff is in violation of Article 287 of Constitution of India:

153. The contention of the Railways that there was any violation in the tariff charged was on the misconception of Article 287 of the Constitution. Article 287 dealt with taxes on electricity and not on the tariffs for sale of electricity. The Commission was not the authority to impose any tax on the consumption or sale of electricity. It was for the State Government to deal with such taxes. The Commission determined the tariffs for supply of electricity.

No Public hearing was held while deciding the revised tariff for Ferro Alloy Units:

154. Some of the objectors stated that the Commission was not right in revising the tariffs for Ferro Alloy Units in the State by order dated 26.9.2002 passed in OP Nos. 29 to 33 of 2002 without holding a public hearing. The Commission had passed a detailed order giving reasons for the revision in the tariffs for Ferro Alloy Units. While directing such revision the Commission had not revised the tariffs for other consumers and there had been no revision of Annual Revenue Requirements of the Licensees. In the premise there was no need to have any public hearing as the revision in the tariffs of Ferro Alloy Units did not affect the interest of any other consumer class.

Licensee's employees not allowed to participate in the Tariff Proceedings:

155. Some of the objectors raised the matter that the Licensees had prohibited their employees to participate in the tariff hearing before the Commission and thereby deprived the facts being brought to the notice of the Commission in a transparent manner. The Commission had not prohibited any person including the employees of the licensees to participate in the proceedings before the Commission. If the Licensee in his capacity as employer had taken steps to prohibit the employees from representing before the Commission the employees concerned or others who desired that the employees representation should be allowed, should take up the matter with the Licensee or in appropriate forums. The Commission could not enter not into areas dealing with employer – employee relationship or service conditions or conduct regulations. These were outside the scope of the regulatory powers and functions of the Commission. However if the Commission was satisfied that any information under the power or possession of any person including an employee was relevant for any issue, the Commission could always seek for such information in terms of its powers under Section 10 of the Reforms Act.

Provisions of Electricity Bill, 2001 had not been taken into consideration:

156. The effect of Electricity Bill, 2001 could be taken into account only after it became law and made effective. As at present the Commission was required to decide the tariff proceedings in accordance with the provisions of the Reform Act.

COMMISSION ANALYSIS OF SUBSTANTIVE ISSUES RAISED BY THE PUBLIC AND THE STAFF:

Agricultural Consumption:

157. The importance of agricultural consumption estimation arises from the fact that agricultural consumption is largely unmetered. The Commission has always held the view that realistic estimation of agricultural consumption is an imperative for accurate estimation of losses and for the better assessment of subsidies. A correct assessment of Agricultural Consumption as well as losses would only be possible after complete metering of all agricultural connections is achieved. Inspite of a directive from the Commission, the progress in the matter has been very tardy. With the limited objective of arriving at a better estimate of agricultural consumption till such time that complete metering of agricultural services is achieved, the Commission together with the Licensees had agreed upon a methodology that involves identifying and metering on the LV side sample Distribution Transformers (DTRs) feeding exclusively agricultural load, conduct Census of pumpsets and LT line loss study. The methodology thus agreed upon uses specific consumption derived from sample DTR meter readings net of LT line losses and extrapolated on the total capacity of pump sets, using the connected load data from the Census.

158. Following the directives given by the Commission on Census of Pumpsets, the DISCOMS have completed the agricultural Census for 20 districts/circles (not including the Rescos). The agricultural pump sets Census is yet to be completed for Warangal and Karimnagar districts/circles in APNPDCL supply area.

159. With the metering for sample DTRs and guidelines and formats issued to DISCOMS, the Commission required the DISCOMS to estimate the specific consumption (SC) net of LT line losses, i.e. units consumed (net of LT line losses) per horse power of the total connected load for each Mandal. The Commission further felt that the consumption for the Mandal not covered may be estimated based on SC of the neighbouring Mandal.

160. The data was collected for a full year from November 2001 to October, 2002. The DISCOMS estimated agricultural consumption in each Mandal and incorporated the same in the filings in support of agricultural consumption requirement for FY2003-04. The DISCOMS also filed with the Commission the meter reading information and connected load as per the Census reports in electronic form.

161. The Commission having analysed the data submitted by the DISCOMS noted with concern that the information collected by DISCOMS was not free of errors and contained information gaps as well as some abnormalities. Although it was claimed by DISCOMs that as many as 20300 DTRs were metered, complete data for one full year was available for only 6330 DTRs. The valid data represents only 43 percent of Mandals, and these metered Mandals account for only 53 percent of total pump sets and 55 percent of the total connected load (HP).

162. With the objective of seeking independent expert opinion on the sample and Census data used by the DISCOMS, and the estimates filed by the DISCOMS, the Commission entrusted the task of analysing the data submitted by the DISCOMS to the Indian Statistical Institute (ISI), Hyderabad. The Commission sought ISI to address the following:

a) Whether sample used by the DISCOMS in estimation adequately represents the pump set population;

b) Develop a statistical model and estimation procedure that is suitable for the existing data;
c) Estimate the consumption based on the model and estimation procedure developed for this purpose.

ISI analysed the data and observed several data problems and issues.

163. However, after examining the sample metering in the light of more than one statistical technique, categorically expressed the view "we may consider the sample to be adequately representing the population for the given sample size". ISI was of the view that the meter readings provided by DISCOMS display randomness. ISI carried out estimation of consumption with the DISCOMS data, after correcting for the data aberrations and outliers. ISI also expressed that Ratio Estimation Method could be used and it is possible to obtain less biased estimates using specific consumptions at the Mandal level.

164. ISI, thus, estimated the consumption based on homogeneous data obtained through Box Plot Technique to eliminate the outliers from the corrected data set. After eliminating the outliers, ISI estimated the SC for each Mandal for which the information was available. With the SC and connected load, ISI estimated the consumption for the sample Mandals. For the Mandals where no sample was available, ISI applied the mean specific consumption derived for the entire company. ISI finally assumed minimum and maximum possible consumption for each DISCOM. The estimates for minimum and maximum consumption for the entire state has been worked out by them.

165. The Commission has before it three sets of consumption estimates:

a) Estimates obtained by DISCOMS from the 12-month data submitted to the Commission for the period November 2001 – October 2002. The total for all DISCOMs for the period is 13751 MU;

b) Independent estimates of minimum and maximum possible consumption for the state submitted to the Commission by ISI using the same data used by the DISCOMS viz., 10320 MU and 11919 MU.

c) Actual volumes projected by DISCOMS for FY 03-04. Total estimate for all DISCOMs is 10998 MU.

166. Commission notes that all the three consumption estimates are much higher than the Commission approved 9936 MU for FY02-03, and expresses that the actual Agricultural consumption should in all likelihood be higher than the so far approved volumes in the previous Tariff Orders. The Commission, thus, after detailed study of all the estimates and taking into consideration the pattern of actual consumption over the past years, is of the opinion that actual consumption is likely to be between the Discoms estimate of 13751MU and their filings of 10998MU and ISIs estimate of upper and lower limits viz., 11919 MU and 10320 MU.

167. Keeping the above in view and in consultation with DISCOMS the Commission arrived at the agricultural consumption estimate as 11,350MU for FY2003-04. Accordingly, the consumption estimate for agriculture for various DISCOMS is worked out as given below.

Estimates of Agricultural Consumption (MUs):

Table No.25

DISCOM	DISCOM Filing FY03-04	APERC FY03-04
APEPDCL	1085	1150
APSPDCL	2574	2600
APCPDCL	4605	4800
APNPDCL	2734	2800
TOTAL	10998	11350

168. The Commission considers it appropriate that the meter reading should continue to be taken from the DTRs on which meters are fixed and specifically directs that,

(i). ***The DISCOMS shall collect the information from all the metered DTRs and estimate the consumption for every month and once for an entire year based on consecutive 12 monthly readings for the period 11/02 to 10/03. The DISCOMS should provide proper identification of the DTRs so that one-to-one correspondence can be established between the sample and census databases. Further, the DISCOMS should carryout necessary tests on the data to check the quality and content of the information used in the estimate, such as diversity factor on metered DTRs and hours of supply of electricity.***

(ii). ***The DISCOMS shall file in person the monthly consumption estimate and the data used for estimate with the Commission by the 25th of every month for the preceding month without fail. The DISCOMS shall give due publicity on the consumption estimate made for each Mandal and filed with the Commission briefly mentioning the number of meters read, specific consumption for each district/circle and company duly indicating the reasons for differences with preceding month.***

Availability of Hydro Power:

169. The availability of Hydro power from APGENCO was estimated by the staff at 5800 MU. The staff estimates were based on past availability trend which averaged around 5231 MU in the last three years, and also after taking into consideration the impact of raising the height of Alamatti Dam which reduced the total power availability from Hydel by 1000 MU. APTRANSCO contested these estimates on the basis of projections given by APGENCO claiming that the availability of power from Hydel would be around 6757 MU for FY 03-04. This

estimate takes into account the effect of Alamatti Dam and is net of auxiliary consumption. The Commission is of the opinion that since APGENCO is confident of generating 6757 MU of Hydel Power, the same should be taken into the ARR of APTRANSCO.

Transmission Losses:

170. An independent study by Central Power Research Institute (CPRI) instituted by the Commission in FY 2001-02, estimated Transmission Technical losses at EHT within Andhra Pradesh at 6.65% of Gross energy handled of which the loss pertaining to PGCIL lines within the boundary of Andhra Pradesh is 0.65% of gross energy. PGCIL line losses are considered as deemed sales and gross units are billed to APTRANSCO.

171. The Commission noted the difference between the Transmission losses of 6.65% as per the CPRI study and the Licensee's projection of 8% in (FY 2002-2003) and directed APTRANSCO to conduct a separate study on commercial losses observed in the EHV system and submit the findings within six months of FY 2002-03 Order. The study was towards identifying the sources of these losses on the EHV system. A time bound action plan for reducing the commercial losses in EHV system was also required to be filed immediately with the Commission.

172. Licensee constituted an in house committee to study transmission losses and draw up an action plan in pursuance of the directive issued by the Commission. Licensee has submitted a list of actions identified by the Committee which included fixing 0.2 class meters on all the Generators (including the Non-conventional energy generators), installation of check meters for 132 kV consumers and improvement of the transmission net work to reduce the bottlenecks etc.

173. The Licensee proposed Transmission Losses of 7.25% for ensuing year 2003-04 with an assessment that the 2002-03 final transmission losses will be about 7.75%, thereby proposing 0.5% reduction for the ensuing year. The Commission is of the opinion that with the implementation of the recommendations of the Transmission loss study in house committee, APTRANSCO should be able to reduce the EHV loss to 7.0% by end of FY 2003-04.

The Commission accordingly directs APTRANSCO to achieve 7% transmission losses for FY 2003-04 as against the filed projection of 7.25%. Licensee has to submit reports to the Commission monthly with details of the losses reduction. Transmission losses reduction report should be hosted on the APTRANSCO website every month for transparency and information dissemination.

Distribution losses:

174. The Licensees, in their filings have submitted that the overall loss in Andhra Pradesh is projected to come down in FY 2003-04 to 24.84% (from the 32.3% projected for the year FY 2001-02 and 28.4% projected in FY2002-03), of which the transmission loss would be 7.25% and distribution loss of 18.97% on gross purchases for the ensuing year.

175. Overall losses are the losses between generator end to the consumer end. In this the losses between the interface point of the generator and the interface point of the Distribution Company (Purchases made by DISCOMs) are the losses of the Transmission company. For the ensuing year the transmission losses have been pegged at 7%. The differences in purchases made by Distribution Company and the sales made to various categories of consumers are the distribution losses, for the ensuing year the distribution losses of the Distribution Companies have been retained at 18.96% as filed by the licensees. The following table brings out the distinction between the overall losses, and

losses sustained by APTRANSCO and DISCOMs separately. The overall losses for FY 2003-04 will now be 24.63% against 24.85% projected in the ARR for FY 2003-04.

Table No.26
OVERALL SYSTEM LOSSES

(All figures in M.U.)

Particulars	**Filings**	**APERC**
APTRANSCO purchases for the DISCOMS	43959.03	44392.97
Transmission Losses	3187.03	3107.51
Net Sales to DISCOMS after Transmission Losses	42772.00	41285.46
Percentage of Transmission Losses	**7.25%**	**7.00%**
DISCOMS purchases from APTRANSCO	42772.00	41285.46
Distribution Losses	7734.86	7827.94
Net Sales to Consumers (All categories)	33037.14	33457.52
Percentage of Distribution Losses	**18.97%**	**18.96%**
Computation of Overall System Losses		
APTRANSCO Purchases for the DISCOMS	43959.03	44392.97
Net Sales to Consumers (All categories)	33037.14	33457.52
Overall T & D Losses for the System	10927.89	10935.45
Percentage of Transmission & Distribution Losses	**24.85%**	**24.63%**

176. For the ensuing year DISCOMS have projected losses of 16% (APEPDCL), 19.43% (APSPDCL), 19.19% (APCPDCL) and 20.34% (APNPDCL) respectively. The Commission has used these loss estimates in computing the power purchase requirement. The power purchase requirement of each DISCOM is accordingly worked out taking into account approved sales and losses.

177. In the last Order the Commission had observed that till such time agricultural consumption is metered or at least correctly estimated, the loss figures on the distribution side do tend to be tentative. While progress has been made with regard to estimation of agricultural consumption by way of metering on LV side, yet, errors in data filing and coverage of area require further fine-tuning

of the Agricultural Consumption estimates and hence, estimation of distribution losses on the data filed cannot be undertaken with certainty. In this context the Commission in the last Order had directed the DISCOMS to initiate an independent study to compute the technical losses in the Distribution (11KV + LT) system. The DISCOMS have submitted a methodology for calculation of the Distribution Losses. The same has been accepted by the Commission.

The DISCOMS are directed to complete the study by November 2003. The Agency to undertake the study and the Terms of Reference (TOR) may be finalized in consultation with the Commission so that the study can be started not later than May 15, 2003.

Distribution Transformer (DTR) failures:

178. The Commission is of the opinion that from the point of quality of performance, reduction of losses and improvement of revenues it is necessary that DTR failures are reduced to the minimum. However, as it would not be possible to effect a substantial reduction over night, the Commission has preferred to fix targets for gradual reduction in the DTR failures. Accordingly, targets have been fixed for FY 2001-02 and FY 2002-03. The following table shows the DTR failure figures against the targets for the last two years, as filed by the Distribution Companies.

Table No.27
DTR FAILURES %

DISCOM	2000-01	2001-02		2002-03	
	Actual	Target	Achieved	Target	Achieved
APEPDCL	17.64%	15%	13.87%	13%	8.77% (upto Feb.03)
APSPDCL	21.25%	18%	16.57%	15%	11.39% (upto Dec.02)
APCPDCL	28.77%	18%	23.73%	15%	12.20% (upto Nov.02)
APNPDCL	32.85%	18%	25.90%	15%	16.82% (upto Jan.03)

179. Keeping in view the achievement made so far, ***the Commission directs that all DISCOMS except APEPDCL to reduce DTR failures by 3% over the***

target issued for FY 2002-03. This would mean that the target for APCPDCL, APSPDCL and APNPDCL is 12% for FY 2003-04. APEPDCL is directed to achieve a target of 7% during FY 2003-04.

180. It is observed from the data provided in the Regulatory Information System (RIS) formats that DTR failures tend to be higher in some rural areas of districts for instance, West Godavari, Nellore, Chittoor, Nalgonda, Mahabubnagar, Warangal and Nizambad etc. The Commission is of the view that for fixing better informed targets, the Licensees should provide DTR failures information circle wise for rural and urban areas separately. ***In this connection, the Commission directs the Licensees to prepare databases of Distribution Transformer Failures for rural and urban areas separately for each circle for the purpose of benchmarking the companies' performance in this regard.***

Fuel Supply Adjustment Formula:

181. APTRANSCO has requested the Commission to adopt an automatic pass through formula that incorporates variations occurring due to fuel price changes, power purchase mix changes and fixed cost changes in replacement of the existing fuel surcharge adjustment formula. The new formula proposed is in the nature of a Power Purchase Adjustment.

182. The formula proposed contains a balancing term to allow the licensee to true up any under / over adjustment in previous quarters. This term allows APTRANSCO to charge for any costs that extend beyond the previous quarter.

183. The Commission has always followed a policy of insulating the licensee, from the effects of any variations arising out of uncontrollable factors.

184. The Commission is agreeable to pass through both fuel and non fuel price adjustments in the course of the year. This could alleviate the working capital requirements of the licensee on account of these factors.

185. The Commission agrees with the Staff proposal of modifying the existing methodology for computing the acceptable variations in power purchase costs. Acceptable variations include the variations for the tariff order quantity on account of price (fixed and variable) and mix of generating stations. In this regard, APTRANSCO needs to identify costs related to marginal stations (for quantities purchased above tariff order approved quantities) to ensure these costs are recovered only through overdrawl charges from Distribution companies and not from consumers through FSA. The existing FSA formula as per Regulation 8 will need to be modified to incorporate all concerned effects that can be treated for quarterly pass-through related to Power Purchases in the quarter as approved in the Tariff Order. Suitable changes will be introduced in the existing regulations to give effect to the new methodology which will be applicable from April 01 2003.

186. The amount eligible for recovery through the Fuel Surcharge Adjustment formula is for the price and mix variations in the quantity of energy to be purchased as per the tariff order during quarter ‘i’. This is to be computed for each of the month and aggregated for the quarter ‘i’.

$$\mathbf{F_i = (P_i \times E_i + FC_i + Z + A_i) / Q_i}$$

Where

P_i is the difference in the Weighted Average Variable Cost of power purchase cost in quarter ‘i’ for the power purchase quantity mentioned in the tariff order compared to the Weighted Average Variable Cost adopted in the most recent Tariff order

E_i is the energy purchase as mentioned in the tariff order in Kwhr during the quarter to be submitted for each of the generating stations.

FC_i Difference in the actual total fixed charges of the generating stations from the base values adopted in the most recent tariff order

Q_i is the actual energy sold to all categories (except agriculture) in the quarter

Z is the changes in the cost as allowed by the Commission for a period extending in the past beyond the relevant quarter.

A_i Adjustment is to account for the financial impact of demonstrated incidents of merit order violation on account of controllable factors or any other events the financial impact of which, in the Commission's view, should be given appropriate treatment.

187. While allowing for a pass-through of the mix variation in the course of the year, APERC would monitor the working of the merit order scheduling to ensure that the consumers are not burdened for any imprudence on the scheduling and dispatch by the distribution company, the transmission company and the generaors.

188. The features of the new methodology are:

(a). The licensee will report data for computing the total cost (split for fixed and variable) for each of the generating stations that has supplied power in the respective quarter for which fuel surcharge is being computed. The total amount eligible for recovery will be computed on an aggregate basis.

(b). APTRANSCO must file with the Commission all information (including sales data from the DISCOMS) required for calculation of the Fuel Surcharge Adjustment within 30 days of the end of the respective quarter failing which it will forfeit any future claims on this account. The Commission would like to emphasise that the DISCOMS should use the actual consumption details of the relevant quarter when levying the FSA.

(c). APTRANSCO can include a prior period expense for recovery in the subsequent quarters if it can prove to the satisfaction of the Commission that the details of the expenses claimed were not available for reasons beyond the control of APTRANSCO at the time of filing.

(d). APTRANSCO is to bear all financial charges accruing on account of purchases done in contravention of the merit order principles.

(e). Depending upon the magnitude of the adjustment approved, the Commission will also spell out the period of levy which could be either in the next quarter or at the end of the current year.

(f). The actual variable costs computed for CGS stations should exclude the effect of UI charges.

189. APTRANSCO and the DISCOMS should agree on a mechanism for inclusion in the Bulk Supply Agreement, for transfer of revenue collected from the end consumers on account of this head.

190. Once approved by the APERC, the quarterly fuel surcharge payments are to be made by the distribution companies to APTRANSCO within the concerned quarter itself. Claims for periods stretching beyond this would be entertained only at the APERC's discretion. The Commission notes the inordinate delay, many times in excess of a year, in the implementation of the fuel surcharge adjustment by the distribution licensees. It hopes that APTRANSCO and DISCOMS would show more alacrity in administering the new Fuel Supply Adjustment Formula and also ensure that the time gap between approval and levy on the consumers is minimal.

Differential BST

191. The Commission has already stated in its earlier tariff orders that the electricity industry in the state has a history of cross subsidy and geographical differences in the consumer mix and efficiency. This has resulted in differences in cross subsidy available within the respective DISCOMS.

However Section 26 (8) of the Reform Act mandates the Commission to "endeavour to fix tariffs in such a manner that, as far as possible similarly placed consumers in different areas pay similar tariff". To implement this mandate, the Commission would have to re-balance the surplus and deficit in cross subsidy available with each of the DISCOMS. For this purpose, the Commission has to determine a differential Bulk Supply Tariff to be charged by APTRANSCO to the four DISCOMS.

192. The Commission is of the opinion that a differential BST by itself does not adversely impact the licensees, as it reflects their existing financial and operating position. But it is important that a differential BST does not result in withdrawing efficiency gains from better performing licensee to support the less performing ones.

193. The Commission understands that at present all the gains are getting passed on to the consumers and are not kept with the licensees. And in this process the efficiency gains are indirectly getting passed on to other DISCOMS also through the Differential BST. The Commission recognises this concern of DISCOMS regarding sharing of efficiency with less performing companies and addresses the same through Long Term Tariff Principles (LTTP). The Commission has issued an order on LTTP. In LTTP, this concern has been addressed by adopting the pre-set approved performance targets and forecasts for computation of BST differential annually.

194. This approach brings two benefits. First, it permits licensees to retain benefits of any achievement better than performance targets, thus giving them

the incentive to perform better. Second, it permits all the consumers in the state and not just in the licensees' area share the benefits that arise from performance targets of all licensees moving towards efficient levels.

Working Capital

195. The Commission in its Tariff Order for FY 2002-03 (Para 236) directed the licensees to file by 31.7.2002 a Discussion Paper bringing out inter-alia whether there is need for working capital allowance over and above that permitted under the Sixth Schedule and the actual cash flow statements month-wise for the years FY 2000-01 and 2001-02.

196. From the Discussion Papers filed in Aug / Sept 2002 it was observed that the licensees were generally of the common opinion that the Sixth Schedule does not fully capture the working capital requirements of the licensees particularly in the context of what they refered to as inherited inefficiencies in the form of accumulated dues from consumers, dues for power purchases etc., as reflected in Second Transfer Scheme. Some of the current liabilities and assets were considered to be at high levels and the licensees requested for a transition period during which these could be brought to normal levels. The licensees also expressed concerns about the impact on working capital of adverse changes encountered in operating conditions during the course of the year such as monsoon uncertainties leading to adverse hydel-thermal mix in power purchases resulting in increased power purchase costs and to increased supply to agriculture without getting any additional revenue etc.

197. The DISCOMs requested that the Delayed Payment Surcharge being collected by them on overdue payments be excluded from non-tariff income for purposes of Tariff if the Commission does not allow working capital levels which provide for such delays in collections.

198. The licensees, in their discussion paper, had used several methodologies such as cash flow, current assets minus current liabilities, lead lag projections etc., to demonstrate that there is need for working capital especially under current operating conditions of transition. It was considered that a lead lag approach to the extent it is feasible with the meagre information available would be more appropriate to arrive at the working capital requirements of the licensees. The licensees were asked to resubmit details of their lead lag assumptions and projections of working capital requirements under reasonably efficient operating conditions (i.e., the billing etc., to be as per the current code of practice and not envisaged improvements in the code of practice itself).

199. The common refrain in the submissions received in response was that both receivables and payables were presently at abnormally high levels and that the working capital requirements, for a transition period, until these receivables and payables reached efficient levels are to be sympathetically considered by the Commission. The DISCOMs proposed to reduce payables immediately during this transition phase while letting the receivables position improve over a period of time and pleaded that this would result in a higher working capital requirement for these companies during the transition phase.

200. It is noticed that the calculations furnished by the Licensees for working capital requirements had not taken into account the monthly subsidy being received from the GoAP. It is also noticed that depreciation is included in the lead lag study as an item of cash outgo, which is not considered correct.

201. It is considered that that the cash problems faced by the licensees were not so much an issue of working capital shortfalls as it was a question of operational deficits and hence the means and methods of reducing financial losses was the issue to be addressed instead of working capital which is but only a symptom of the malaise. The impact of the continuing dues from GoAP towards subsidy of the past years as they appear in the Second Transfer

Scheme was another matter of concern. The calculations showed that if these are appropriately taken into account, the working capital requirements of both APTRANSCO and the DISCOMs were adequately met by the Sixth Schedule provisions as presently being applied to them in the Commission's Tariff Orders. While arriving at this conclusion from the study, the consumer security deposits with the DISCOMs were not reckoned and therefore the exclusion of consumer Security Deposits from the negative side of the Capital Base as requested by the DISCOMs did not arise. The exercise further showed that there was no merit in the contention that the receivables as an item was an omission in the Sixth Schedule merely because it did not figure among the items under working capital in the definition of Capital Base in the Sixth Schedule. This is because the study takes into account the lags in receivables and leads for payables in arriving at the working capital levels.

202. In the background of the above, the Commission decides to go by the lead-lag methodology to assess the working capital requirement of the Licensees under reasonably efficient operating conditions. The lead-lag methodology takes into account all relevant revenue and expenditure components and time element associated with the completion of transactions. This time element is the difference (in terms of number of days) between the time when a service is received / delivered and the time when the corresponding payment is made / received. All relevant components of revenue and expenditure such as revenue from tariffs, subsidy receipts, non-tariff income, power purchase costs, network O & M costs, interest and other expenses are captured in the analysis. The lead-lag methodology is considered an improvement over the others for assessing the working capital requirements as it models in terms of number of days the gaps due to timing differences in cash inflows and outflows arising out of the leads for payments and lags in collections featuring in the system as presently designed.

203. The Commission examined several alternatives for choosing the appropriate lead / lag time periods to be assigned to each of the revenue and expenditure elements. The Licensees argued that the leads and lags should be

based on the actual time presently being taken for realizing bills and making payments. The Commission's view in this regard is that while the ground realities as they exist presently need to be taken into account where appropriate, adoption of the actual time presently being taken would tend to perpetuate the inefficiencies in the operations as they are presently carried out leading to overstatement of the working capital levels. While this is the general approach, the revenue lead lag time periods are assigned based on the study of the actual recovery patterns observed (of receivables). Using different bases for monthly and bi-monthly billing, recovery from agricultural consumers and various government departments, a standardization of the period associated with the delay in collection of revenues has been done for all DISCOMs. A similar revenue lag for APTRANSCO has been reckoned based on the payments by the DISCOMS for the power purchases under the Bulk Supply Agreement.

204. While the Commission is aware of the terms and conditions in the Bulk Supply Agreements, Power Purchase Agreements, Code of Practice for issue and payment of bills etc., these have been tempered as above considering the difficulties presently being faced by the DISCOMs in collecting revenues from consumers and consequently in making payments for Power Purchases to APTRANSCO. For example, for APTRANSCO purchases from generators, the expenditure lag is based on the Power Purchase Agreements signed by APTRANSCO with the concerned generators. In respect of payments to APTRANSCO, APEPDCL for example has followed a payment schedule to APTRANSCO which is more favourable compared to other DISCOMs (or even the provision in the Bulk Supply Agreement) and this is taken into account in the lead / lag analysis. Similar considerations have gone into the determination of the leads reckoned for employee costs, R & M costs, A & G costs etc.

205. The working capital requirements resulting from this analysis and calculations reveal that the working capital requirement approximates to one month's level of requirement of the specified operating expenses already specified in the Sixth Schedule. This is also the level adopted by the Commission

in its Tariff Order of 24th March 2002. The study confirms this as reasonable in principle and the Commission therefore decides to adopt this as a general rule for provision of working capital requirements in the calculations of the Capital Base. However, recognizing the working capital difficulties in the transition that the Licensees represented strongly about, the Commission decides to allow the Average Cash and Bank Balance in the computation of the Capital Base at two months' level of eligible items of expenses instead of one month as hitherto. This is intended to provide a trajectory to an efficient level over a period of 3 years. The level would therefore be at 2 months for FY 03-04 and FY 04-05 and at 1½ months for FY 05-06. Thereafter it would revert to the one months' level. There will be no change in the Average Cost of Stores which is already being provided at 2 months' level of the annual repair and maintenance expenses.

206. The Commission also finds from the study that there is no merit in the contention that the receivables are an omission on the positive side of the Capital Base under Working Capital merely because the item does not figure explicitly in the definition of Capital Base in the Sixth Schedule.

207. As the study shows that the exclusion of Consumer Security Deposits as requested by the DISCOMS from the negative side of the Capital Base is not justified. The Commission does not agree to the exclusion of Consumer Security Deposits from the negative side of the Capital Base as such exclusion would also be a departure from the financial principles and their application provided in the Sixth Schedule to the Electricity (Supply) Act, 1948.

208. Regarding the plea of the DISCOMs for exclusion of Delayed Payment Surcharge (DPS) from non-tariff income for purposes of revenue requirement determination, the Commission wish to state that the plea is not supported by relevant data such as the present practice of including the DPS in the consumers' bills, its accounting both at the billing and realisation stage particularly where the collection is partial and the waiver schemes that are frequently canvassed etc. The DISCOMs are advised to forward comprehensive

proposals to the Commission in this regard if they are serious in pursuing the matter. If no proposals are received by 30th June, 2003 the Commission would take it that the DISCOMs do not wish to pursue the matter further. The existing practice in this regard would continue.

Regulatory Asset

209. The licensees in the tariff filings for FY 2003-2004 made a request for treatment of current year's financial loss as a Regulatory Asset. The licensees in the filings stated that despite their best efforts, due to the adverse factors beyond their control they are expected to incur expenditure more than the revenues and subsidy from the Government.

210. They requested the Commission to consider the current year loss as part of regulatory asset which could be claimed during a future year when the pressure on subsidies and tariffs would be significantly lesser than present.

211. GoAP in addition to the subsidy as specified in the tariff order have extended adhoc assistance of Rs 1053 Crores for FY 2001 and Rs 876 Crores for FY 2002 by issue of PFC bonds. With regard to the bonds issued during 2001-02 and 2002-03, Principal Secretary, Energy, GoAP requested the Commission to consider the eligible amount out of the additional deficit for Regulatory Asset, which can be captured at an appropriate time when the sector is in a position to take additional burden on tariff.

212. It was also made clear in the public hearings that after identifying the component of additional deficit, which qualifies for regulatory asset treatment, the Commission could advise the Government on the assistance to be provided to the utilities to enable them to carry on the power supply in an efficient manner.

213. During the public hearing some objectors have proposed that previous losses should not be allowed as regulatory assets.

214. The Commission lays down the following principles that will be adopted with regard to the treatment of regulatory asset. Commission is of the view that the Licensee could make gains or losses beyond the tariff order on account of three factors

(a). Uncontrollable factors

The Commission would reiterate its stand that if the licensee incurs any gain/loss on account of uncontrollable factors, the corresponding amount shall be made pass through and it would be considered in the revenue requirement of the ensuing year as special appropriation.

Definition of Uncontrollable Factors

The uncontrollable factors will include but not be limited to

- Vagaries of nature
- Changes in the Laws of the land and Judicial pronouncements
- Government policies and
- Wide market and economy-wide influences beyond the direct influence of the licensees

(b). Internal Inefficiency

Any losses on account of internal inefficiency shall not be passed on to the consumers and shall be borne by the licensee only. However, GoAP being the owner of the utilities may at its discretion provide support to meet the financial obligations or requirements. The Commission shall not be concerned with the arrangements the owner would make with the utilities on this count.

(c) Government's Initiatives

Any loss incurred by the licensee on account of Government's initiatives or directions viz. extended hours of supply to agriculture, waiver of surcharge etc should be borne neither by the consumers nor by the licensee. GoAP should compensate the amount corresponding to the Government's directions to the licensee with the carrying cost.

However, the Licensees need to file before hand to the Commission the directions issued by GoAP and the financial impact of the same. Based on the licensee's filings and a detailed review, the Commission shall advise the GoAP to reimburse the expenses incurred on account of GoAP's directions.

215. While analysing the losses and advising the GoAP, the Commission will adopt a two-phased approach.

(a). **First Correction**: The Commission shall compute the gains or losses of current year on account of uncontrollable factors and Government initiatives and provide the treatment as specified in para 214.

(b). **Final Correction**: It is evident that the first correction is based only on estimates available at the end of the current year. Hence, a final correction needs to be made after the audited accounts are available.

216. With regard to treatment of financial loss as regulatory asset, the Commission is of the opinion that the treatment shall be entirely dependent on the magnitude of the revenue gap.

217. For computing the revenue gap of the ensuing year, the Commission shall consider the following components

(a). Gap only due to **ensuing year** projections of expenditure and revenue

(b). Financial loss of **current year** on account of uncontrollable factors based on best estimates

(c). Final uncontrollable loss of **previous years** as evidenced by the Audited accounts to the extent not recovered in the tariffs, and not adjusted in the following year

218. After computing the revenue gap as discussed above, the Commission shall consider based on the magnitude, how much could be granted as special appropriated in the ensuing year and how much should be spread over a longer time period as regulatory asset to avoid rate shock.

219. Based on the above principles, the Commission has given treatment for financial losses for FY 2002 and FY 2003, which are discussed in detail in the financial losses section. After analysing the gap the Commission decides that there would be no requirement for treatment of regulatory asset as the eligible financial losses are accounted for in the special appropriation of FY 2003-04 revenue requirement. However final correction for FY 2000-01, FY 2001-02 and FY 2002-03 will be provided once the audited accounts are made available.

<u>Treatment of Financial Losses</u>

220. The licensees in their filings have submitted an overview of their financial performance for the current year FY 2002-03. In that overview they have also analysed the variations vis-à-vis the tariff order.

(a). As per APTRANSCO filings, for the Transmission and Bulk Supply business, the variations are mainly on account of severe adversity in hydro-thermal mix necessitating purchase of high cost replacement from thermal stations and excess drawl on account of higher retail sales by Distribution companies.

(b). As per the DISCOM filings, for the Distribution and Retail Supply Business, the variations are mainly on account of excess drawl for agriculture and HT category, impact of wage revision and working capital costs.

(c). The Licensees in their filings have also made a request to the Commission for treatment of the current year's financial loss as a regulatory asset. The variations from the tariff order for the current year as filed by the licensees are as follows:

Table No.28

Licensees	Variations
APTRANSCO	-163
APDISCOMS	-656
APEPDCL	-41
APSPDCL	-187
APCPDCL	-227
APNPDCL	-201
SECTOR	**-819**

221. The Commission has already stated in its tariff order for FY 2001-02 that it would carry forward that portion of financial losses which is uncontrollable through a special appropriation in the annual revenue requirement of the ensuing year. However, in this tariff order the Commission would like to discuss the correction principles in further detail.

222. Commission has already set out in Para 214 the principles for treating the different losses of the Licensees.

223. The corrections for uncontrollable variations shall be made in two phases – First Correction and Final Correction.

(a). At the end of the current year, the Commission shall make first correction for the following parameters based on the estimates available

(i). Power Purchase for the current year: Price (fixed and variable) and Mix variations are treated as uncontrollable and need to be corrected. However, with the new FSA formula most of the variations on account of price and mix will be adjusted within the year itself. Though the quantity variations are uncontrollable for APTRANSCO, they are treated as controllable for Distribution companies and the relevant cost needs to be passed on to the

Distribution companies and not to the consumers and hence do not require correction to that extent.

(ii). Interest Costs for a tariff year: Though the interest costs are treated as a controllable item a correction to the interest costs already reckoned in the tariff orders in so far as they relate to investments in schemes is considered necessary to take into account shortfalls in investment from that reckoned in the tariff orders. Because of the information lag, the correction for the tariff year's cost is not done in the current year tariff process. The adjustment to the capital base and the corresponding return will be done as soon as the audited/adopted accounts are made available to the Commission.

(iii). Tax changes which are treated as uncontrollable shall be corrected.

(iv). Accounting changes if any shall be recognised and corrected to that extent.

(v). Government's initiatives: Though these costs do not get passed to the consumers, the Commission will review the financial impact of GoAP's directions, if any, especially excess supply to agriculture, concessions to consumers, and advise the GoAP to reimburse the same to the licensees.

(b). At the end of the current year, the Commission shall also make final correction for the variations for any previous year for which the Comptroller and Auditor General (CAG) audited/adopted accounts are filed before the Commission.

(c). Though the Commission has identified the above items as uncontrollable costs and considers them appropriate for correction, the Commission retains the right to correct other parameters e.g. wage revision, court orders etc if there is a merit in the case.

224. Based on the above stated principles, the Commission has finalised the treatment for financial losses which is discussed below:

(a). With regard to financial losses for FY 2000-01, the Commission has already made a first correction in FY 2001-02 by providing Rs 90 crores as special appropriation on account of non-tariff income and power purchase which were beyond the control of the licensee.

Though the licensee has filed revised financial loss in this filing, the Commission has not analysed the loss as it intends to wait for the CAG audited accounts to make a final correction. Once the audited accounts are submitted before the Commission it shall make a final correction by permitting uncontrollable cost into the revenue requirement;

(b). With regard to financial losses for FY 2001-02, the Commission has not made any first correction because the licensee has not made any claim for the financial loss at the time of filing ARR for 2002-03. Besides, the GoAP has informed the Commission in the public hearings that it would fund the entire financial loss of Rs 876 Crores by issue of Andhra Pradesh Power Finance Corporation Bonds.

The licensee in this filing has submitted the variations for FY 2001-02 and asked for a comprehensive true up. GoAP has also requested the Commission in the public hearings to consider the eligible amount of the deficit as regulatory asset.

Therefore, the Commission decided to make the first correction for the above-mentioned parameters in the present tariff order. The first correction for FY 2001-02 shall be based on the FY 2002-03 filings and not on the filings of FY 2003-04, which shows the financial loss of transmission and distribution licensees to be Rs 876 Crores.

- Power Purchase Cost: The Commission allowing Rs 466 Crores on account of variations in power purchase cost (price and mix) as special appropriation for the ensuing year. The Commission also advises GoAP to reimburse the Distribution licensees an amount of Rs 106 Crores with the carrying cost on account of excess supply to agriculture. This is based on the workings given below:

  - Thermal-thermal mix: There is a short fall from the NTPC (SR) to the extent of 2363 MU. This was assumed to be replaced by other CGS stations such as MAPS, Kaiga, NTPC (ER) and Simhadri. The Cost on this account works out to Rs 127 Crores increase. It is worked out by multiplying the excess units purchased with the average variable cost of the replacement stations.

  - Hydro-thermal mix: Hydel shortfall is 2444 MU. Replacement from all other available stations including APGENCO thermal, IPP's and SEB's works out to Rs 473 Crores.

  - Fixed Cost (non-fuel) changes: There is a reduction in the fixed costs primarily on account of IPP's and CGS to the extent of Rs 72 Crores. Fuel costs changes to the extent of Rs 52 Crores will be dealt through the fuel surcharge adjustment.

  - From the above workings it is evident that there is a variation of Rs 579 (Rs.127 + Rs.473 – Rs.72 + Rs.52) crores on account of total power purchase. However, Rs.52 crores of variable cost shall be dealt through FSA and hence Rs 528 needs treatment.

  - However, out of the total power purchase variations, Rs 106 Crores is on account of agriculture. The workings are based on the excess drawl for agriculture costed at average purchase price i.e. Rs.1.65 * 643 MU. This amount needs to be compensated by the GoAP to the distribution licensees based on the excess drawls (sales adjusted for losses). For FY 2001-02 average purchase price is used for computing the financial impact as the quantity is within the tariff order levels.

- The balance of power purchase variation i.e. Rs.422 Crores i.e. Rs 528 crores - Rs106 Crores need to be included in the special appropriation with the carrying cost of 10.5% being the cost due to thermal-thermal mix, hydro-thermal mix and variation in fixed cost. Hence, the amount for correction with the carrying cost works out to Rs 466 Crores.

- Interest Cost for tariff year: Adjustment on account of interest associated with under investment for tariff year i.e. FY 2000-01 is already adjusted in Tariff Order, FY 2002-03.

(c). With regard to financial losses for FY 2002-03, the licensee has requested the Commission to allow the loss of Rs.819 cr. as a regulatory asset. The financial loss projected by the licensees includes all the parameters – uncontrollable and controllable. However, the Commission based on the above principles made an analysis and proposed a treatment for the above-mentioned parameters only.

- Power Purchase Cost: The Commission has allowed Rs. - 221 crores on account of variations in power purchase cost (price and mix) as special appropriation for the ensuing year. The Commission also advises GoAP to reimburse the Distribution licensees an amount of Rs 367 Crores with the carrying cost on account of excess supply to agriculture. This is based on the workings given below:

  - Hydro-thermal mix: Hydel shortfall by 3979MU. Replacement has been made from all other available stations including APGENCO thermal, Simhadri, IPP's and balance from BSES which works out to Rs 249 Crores. With the carrying cost @ 10.5% for 6 months it works out to Rs 262 Crores

- Excess Supply to Agriculture: There is an excess drawl of 1819 MU on account of excess demand from agriculture. To cater to the excess demand from Distribution licensees, APTRANSCO had to purchase from sources not mentioned in the tariff order. So stations outside the tariff order viz. NTPC (ER) 1020 MU, LVS – 31 MU, Srivatsasa – 84 MU and BSES – 684 MU are used to compute the financial impact of this activity. This works out to Rs 367 Crores.

- Fixed Cost (non-fuel) changes: There is a total reduction in the fixed costs to the tune of Rs 486 Crores primarily on account of APGENCO, which amounts to Rs 412 Crores and the balance from CGS stations. Fuel costs changes to the extent of Rs -65 Crores will be dealt through the fuel surcharge adjustment.

- Interest Cost on the investments: With regard to the under investments made by the licensees during the year FY 2001-02, the Commission adjusts Rs 144 crores by a negative adjustment in the special appropriation of the ensuing year (FY 2003-04).

- Wage Revision: To account for the wage revision, which was not reckoned in the tariff order for FY 2002-03, an amount of Rs 115 Crores is allowed as special appropriation for the ensuing year (FY2003-04). The treatment also includes the carrying cost.

- Court Order: As the court has stayed the Commission orders on wheeling charges and Grid support charges, the Commission allows the carrying cost as special appropriation for the ensuing year. The amount works out to Rs.3 crores for grid support charges and Rs.7 crores for wheeling charges @ 10.5% for 6 months. The segregation to DISCOMS depends on the revenue provided by the Commission to the licensees in the tariff order. However, this amount shall be adjusted after the case is upheld in the court and the licensee gets back the amount from the customers, which is being deposited by way of interest bearing bank guarantees.

- Securitisation benefits: APTRANSCO has informed the Commission through a letter dated:07.03.2003 stating the benefits arising from Securitisation scheme. The benefits amount to Rs 153 Crores and it is thus given as a negative adjustment in the special appropriation.

225. The summary of the financial losses for FY 2001-02 and FY 2002-03 are depicted in the table below:

Table No.29

Amount in Crores	Account Head
466	Power Purchase FY 02
-221	Power Purchase FY 03
-144	Interest Claw back FY 02
115	Wage revision for FY 03
10	Court Orders Carrying Cost FY 03
-153	Securitisation Scheme
73	**TOTAL ADJUSTMENT**

226. Thus, the net adjustment of the previous losses in the Tariff Order for FY 2003-04 as special appropriation works out to Rs.73 cr. The Commission advises the GoAP to reimburse/adjust Rs.106 cr. for FY 2001-02 and Rs.367 cr. for FY 2002-03 being losses on account of higher purchases for Agricultural Consumption.

227. It may be appropriate here to refer to the Statement of GoAP (Chapter VII) before the Commission stating how the bonds for various amounts were given to APTRANSCO from time to time as financial support. While GoAP can always make on account payments (pending final adjustment) through mechanism such as bonds, when adjustments are carried out eventually it will be

desirable if GoAP indicates separately for each year the amounts given to APTRANSCO by way of:

(i). Subsidy under Sec.12 of APER Act, 1998.

(ii). Reimbursement of actual costs in respect of supplies made/waivers effected at the behest of GoAP.

(iii). Reimbursement of other losses by way of subventions

(iv). Refundable loans/advances with or without interest

228. The Commission is given to understand that an expert committee is finalising the figures. After completion of the reconciliation the Commission would like to have a statement from GoAP categorising the disbursements for each financial year (from FY 1999-2000 to FY 2002-03) on the basis indicated above.

229. Considering the difficulties faced by the licensees in meeting the working capital needs (see para 198 *et seq.* above) the Commission recommends payment by GoAP of the outstanding subsidy of Rs.673.91 crores as per the Second Transfer Scheme. GoAP may also look into the claims regarding plough back of excess interest by the DISCOMS and set right the matter. The Commission would also like the GoAP to make arrangements for payment of the monthly subsidy to the DISCOMS in advance. These measures would go a long way to mitigate the cash flow problems of the licensees.

Collections - Arrears:

230. Several objectors have expressed their concern about the growing arrears from sale of electricity to consumers. The prevailing practice in the presentation of data by DISCOMS for collections is that the collections include both the collections against the current demand as well as the arrears. These collections are presented for the purpose of working out the percentage collections during the year, as collections against the current demand. This gives an erroneous

impression that the collections are against the current demand whereas they are against both current and arrear demand.

231. It is the Commission's view that until a properly validated Sales Database is constructed by the DISCOMS, it is not possible to separate the collection amount against current demand and arrears. This renders monitoring of collections against arrears impossible. The Commission therefore directs that, ***the DISCOMS shall separately indicate on each bill (pertaining to each consumer), the opening balance as on the 1st of April 2003, the arrears which accrued from 1st of April till the date of the bill and current consumption charges pertaining to the bill. The money paid by the consumer shall be adjusted against arrears as on the 1st April first and secondly against the arrears which accrued from 1st of April till the date of the bill and lastly against the current consumption charges of the corresponding bills which shall be followed. It may be necessary to change the format of the bill for this purpose. The Commission further directs that DISCOMS shall file with the Commission a quarterly report giving the details separately for arrear collections against outstanding arrears as of 01.04.2003 and the current collections against the current demand for 2003-04.***

Capital Works in Progress (CWIP):

232. The experience of the past few years shows that the capital expenditure actually incurred in a year is far less than that reckoned in the capital base calculations in the tariff order for that year, both in APTRANSCO and DISCOMS. This necessitates recalculation of capital base and reasonable return and adjustments for the consequent shortfall in interest expenditure as well. These have given rise to contentious issues taking the precious time of all concerned in resolving them.

233. Commission is of the view that it is time to reconsider the issue of projected Capital Works in Progress (CWIP) being reckoned in the capital base, its pros and cons etc. As mentioned above, the capitalization practices obtaining in the present system appear to need re-examination to ensure that the accounting policy conforms to the principle of the asset being "used and useful" before it is reckoned in the capital base for the purpose of earning a return. Another alternative is doing away with the whole concept of CWIP being reckoned in advance. In other words, the investment could enter the capital base only after the asset is completed, commissioned and placed in service. In order that these and other relevant issues are considered and deliberated in time, ***the licensees (APTRANSCO and the four DISCOMS separately) are directed to file a Discussion Paper in this regard latest by 31-08-2003 to serve as the basis for evolving an appropriate policy for adoption from tariff order 2004-05.***

<u>Constitution of Commission Advisory Committee (CAC)</u>

234. During the public hearing it has been represented that the Commission Advisory Committee (CAC) has not been constituted and that there should be a member representing agriculture.

235. In terms of Section 32(1) of A. P. Electricity Reform Act, 1998 and Regulation No.1, dt: 17-06-1999 made by the Commission, the Commission has to constitute the Commission Advisory Committee (CAC) with representatives of following interest groups in consultation with the Government.

a) Representatives of Holders of supply licence in the State.
b) Representatives of Holders of Transmission licence in the State
c) Representatives of Generating Companies operating in the State
d) Representatives of Commerce in the State
e) Representatives of Industry in the State
f) Representatives of Transport in the State
g) Representatives of Agriculture in the State
h) Representatives of Labour employed in the Electricity supply industry in the State
i) Representatives of consumers of Electricity in the State

236. Accordingly, the first CAC was constituted on 24-11-1999 by the Commission with 17 members including the Chairman and Members of the A.P.Electricity Regulatory Commission (APERC) ensuring that there was proper representation for all the stakeholders of the electricity sector in the CAC.

237. The CAC was reconstituted during June 2001 and again on the 15th March 2003 to fill up the vacancies that arose due to;

(i) retirement of certain members on completion of allotted term

(ii) due to transfer of persons who were in the CAC from the represented organisation and

(iii) due to cessation of membership in case of members who absented themselves from the programmed meeting without prior intimation.

238. At present there are 16 members in the CAC, which includes representatives of all sectors including Agriculture. One existing vacancy is proposed to be filled up after receipt of views of the Government as required under section 32(1) of the Act.

Return on Equity and Incentives to APGENCO

239. Some objectors have requested the Commission to allow return on equity and Incentives to APGENCO. Commission is of the view that APGENCO should also be given return on equity and incentives as are being allowed to the IPPs. In this regard Commission has already approved the PPA of APGENCO and APTRANSCO for the year 2002 – 03 on the lines of provision of return on equity, depreciation etc as against the earlier PPAs which were based on the redemption route.

Srisailam Left Bank Power House

240. Some objectors have stated that the Srisailam Left Bank Power House should be excluded from the computations of the fixed costs of APGENCO, while some other objectors wanted it to be included. The Commission considered all the requests and decided to exclude the costs of Srisailam Left Bank Power

House from the computations of the fixed costs of APGENCO for the present as the Srisailam Left Bank Power House as of now is not contributing to the peak demand(capacity) requirement.

Reasonable Return to Licensees:

241. Some objectors have put forward the view that Reasonable Return should be given to DISCOMS and APTRANSCO. But, APTRANSCO and DISCOMS have not claimed in the filings the Reasonable Return which they are eligible as per the Sixth Schedule of the Electricity (Supply) Act, 1948. APTRANSCO and DISCOMS have further submitted that since the licensees are presently under public ownership and the State Government meets the subsidy and financial needs of the sector emanating out of the financial gap, it would be appropriate to exclude reasonable return from the ARR computations for the present. The Commission however considers that, from the point of view of enabling these entities to operate commercially, it would be in the interest of both the Licensees and the consumers to allow reasonable return they are eligible for. The Commission therefore decided to allow the reasonable return calculated as per the Sixth Schedule of the Electricity (Supply) Act 1948, to all the licensees.

Sales Database:

242. In the last Tariff Order the Commission directed the Licensees to build their Sales Data Base with available data from April, 2002 in all the required fields as prescribed by the Commission. The DISCOMS since then are attempting to build their sales database at least for one circle. The DISCOMS could not file the sales database in full shape after carrying out necessary checks on formats and contents.

243. The absence of complete sales database among other things constrains the Commission in examining projections made by the licencees with regard to estimation of minimum charges from consumers and to some extent customer

charges. Nevertheless, the available data does throw insights into critical issues such as Metered Vs Assessed Sales; number of consumers in the domestic category 0-50 slab; number of bills raised and collections. These are examined below:

Sales to Domestic Categories: Slab Proportions

244. The DISCOMS filed the slab wise sales to domestic consumers. The proportions in the different slabs have changed from FY 2002-03 to FY 2003-04. As per data filed, the proportion of projected sales in the 0-50 slab in the aggregate has increased from 55.80 percent to 58.12 percent although there are differences between DISCOMS.

245. The Commission's concern here is with regard to the existence of multiple connections. In the last Order a directive was issued in this regard.

Minimum and Customer Charges:

246. In the last Tariff Order (FY03) the Commission noted that the revenue projections made by the DISCOMS had an inherent disadvantage for computation of minimum charges since the Licensees had taken current year average realization for estimating revenue requirement rather than arriving at the same by slab-wise data with adjustments for minimum charge. A directive was issued to the effect that the DISCOMS shall estimate revenue from minimum charges and sale of electricity separately. For FY03-04 the DISCOMS have estimated the minimum charges and incorporated the same in the filing. But the methodology adopted was to again use the average realization method to derive the revenue from minimum charges. The data used for this is not reliable since the revenue from consumers who paid minimum charges includes the customer and other charges and thus results in higher revenue realization from the tariffs. APCPDCL and APNPDCL revised the revenue from minimum charges after the filings duly reckoning the above anomaly.

247. The DISCOMS estimated the customer charges based on the historical data for FY04. Estimation of customer charges is sensitive to a) number of consumers and b) number of consumers in 0-50 units slab in LT Category I: Domestic. Without properly verified sales data, one to one correspondence between the customer charges and number of consumers as shown cannot be achieved and can result in over projection of the charges. For example, consumers who are not issued bills perhaps on account of disconnection or are in the process of disconnection figure in the calculation of customer charges. To prevent such overestimation, it requires both bill verification and customer verification.

248. APEPDCL revised their customer charges post-filing after making adjustments. APCPDCL, based on actuals for the first nine months of FY02-03 of their sales data base filed, revised revenue from customer charges. APNPDCL and APSPDCL are directed to file customer charges after both bill verification and customer verification. The Commission directs that, ***the DISCOMS should make a monthly operational/MIS Report based on sales database prescribed by the Commission and file such report in person by the 25th of every month for the preceding month.***

Metered Sales vs Assessed sales:

249. The sale of electricity to the metered categories of consumers consist of two parts; a) metered and billed units, and b) assessed units. The later part refers to units billed to the consumer in case the meter reading is not available to the DISCOMS on account of meter defects, door locks, etc. The efficiency of the DISCOM could be measured only in terms of metered units and not the total billed units. So a distinction between metered and billed units, and assessed units included in the total billed units is necessary.

250. The staff analyzed the sales database filed by the DISCOMS for LT Category I: Domestic consumers for all four DISCOMS for varying periods. The meter readings have been verified for consistency, i.e. whether the metered units and billed units are same for each consumer. If these two are not similar, the staff reckoned that the consumer's electricity consumption is assessed by the DISCOM and billed accordingly.

251. The Commission notes with disquiet that out of the bills issued , bills and units billed on assessment basis constituted far more than the 2-3 percent which the DISCOMS normally should reckon in their estimates. In some circles/districts, the proportion of assessed bills and units is more than 50 percent. It is generally in the range of 14 to 25%.

252. The Commission intends to verify the metered and assessed bills and units with the Sales Database which the DISCOMS are supposed to construct and maintain for 10 years as per earlier directives.

The Commission notes with concern the high proportion of assessed sales to metered sales which are in the range of 14% to 25%. The Commission therefore directs the DISCOMS to reduce the same and stipulates a maximum of 2 to 3% for FY 2003-04 as a percentage of assessed sales to metered sales.

Meter Readings and Billing:

253. The DISCOMS appear to have made minimum efforts in checking up the metered and billed energy to consumers. The data reveals anomalies in meter readings reported and billed to the consumers.

254. The data has been verified for meter readings and the consumption per month is computed with the underlying billing months. In all four slabs, 0-50, 51-100, 101-200 and 201-300, the consumption per month is concentrated in few consumption levels such as 5, 10, 15, 20 units per month. In reality, it is

impossible for so many consumers to record unique kWh consumption per month. Further, there may be incidence of multiple meters. The conclusion is that there are many exceptionals in meter readings and billing.

255. The Commission once again directs that multiple connections in single households and commercial establishments will be verified 100% and converted to single connection during 2003-04.

Simplification of the procedure of filing of objections/suggestions:

256. During the public hearing it was represented that Commission may permit filing a single copy of affidavit of objections instead of the present practice of filing seven copies.

257. As per clause 14 of Business Rules of the Commission, the respondent who intends to support/oppose the petition filed before the Commission shall file his reply in such number of copies as may be fixed by the Commission and shall serve a copy of his reply on the petitioner.

258. In respect of tariff proposals filed by licensees the Commission has prescribed that the objectors shall file 5 copies of their reply with the Commission and also serve a copy of their reply on the licensee. Thus the total number of copies to be filed comes to six and not seven as represented during the public hearing.

259. The Commission after careful consideration of the objection, agree to filing of one copy before the Commission and serving a copy on the licensee instead of filing six copies.

Out-of-Turn Scheme – Agricultural Connections:

260. Following the representations made by various groups of consumers and keeping in view the response to the scheme, the Commission has decided to

reduce the tariff for this out-of-turn (Tatkal) scheme from Rs. 1.25 ps / kWh to Re. 1.00 / kWh.

Supply from Non Conventional Energy Sources:

261. Government of India during '90's decided to give thrust to the generation of electricity from various renewable sources in view of the fast depleting sources of fossil fuels, and renewables being environmental friendly, non pollutant and green power. A comprehensive strategy and action plan has been chalked out with an objective of creation of 2000 MW of power through various renewable sources like wind, small hydro, solar, biomass energy sources etc. This strategy included budgetary support, facilitating institutional financing from IREDA and other financial institutions for the projects, tax concessions and fiscal incentives.

262. Ministry of Non-Conventional Energy, Government of India has framed policy guidelines and certain incentives to promote and encourage power generation from renewable energy sources and fixed a purchase price of Rs.2.25 per unit w.e.f. 1994-95 with escalation of 5% every year.

263. Commission has reviewed the various incentives extended to Non Conventional Energy Developers by GoAP in its order dated 20-06-2001 in OP No.1075 / 2000 and fixed the purchase price as per MNES guidelines i.e. with 1994-95 as the base year as against 1997-98 adopted by GoAP. It has also proposed to review the policy in respect of Non Conventional Energy sources in relation to purchase of power and fiscal incentives from 01.04.2004.

264. Following the objections raised during the public hearing, issues regarding utilisation of conventional fuels like coal and indiscriminate cutting of trees have been referred to Non-Conventional Energy Development Corporation of Andhra Pradesh (NEDCAP) to ensure prevention of utilisation of conventional fuel in excess of the permitted limits and indiscriminate cutting of trees as reported by the public. NEDCAP has also been requested to report the mechanism put in place to prevent the above practices and intimate the names of the project

developers indulging in these irregularities for appropriate action by the Commission.

265. During the public hearing a number of objections have been raised by the general public stating that the consumers should not be made to pay for the high cost of energy from non-conventional sources as the cost is prohibitive. The APTRANSCO has also expressed the view that the cost of purchase of energy from non-conventional sources is on the high side. The Commission has in its Order dt:20.06.2001 stated that a review of the incentives to take effect from 1st April, 2004 would be undertaken by the Commission after discussion with all the concerned parties. In this connection, ***the Licensee is directed to propose new incentives including cost for the various categories of non-conventional energy viz., mini-hydel, wind, co-generation and bio-mass etc., taking into account the cost of the plant and the fuel used and a reasonable return by 1st August, 2003.*** Similar proposal will also be called from NEDCAP. The Commission would be finalizing the new incentives including the tariff for energy from the non-conventional sources after holding a public hearing.

Uniform over-drawal charges:

266. The overdrawl tariff applies on the quantities that the DISCOMS purchase over their allotted amount in the Tariff Order. In the past, this Tariff has been set at the average BST.

267. The units that the DISCOMS purchase as per the Tariff Order at the Differential BST, cover the fixed cost of both generating stations and APTRANSCO. Hence for the additional units that are purchased by APTRANSCO, a cost equal to only the variable cost of the marginal station is incurred.

268. The Commission in specifying the mechanism for Overdrawl Tariff has taken note of the following points:

(a). If the DISCOMS purchase quantities in excess of what has been projected for Tariff Order purposes, these excess quantities will mainly be purchased from higher cost marginal stations. These costs should not be passed on directly to the customer through the FSA. Instead, they should be passed through to the DISCOMS through the BSA.

(b). The current practice of APTRANSCO charging the Average BST at Rs.2.086 per kWh, while it pays the variable cost for units overdrawn by the DISCOMS, has resulted in surplus revenues for APTRANSCO during FY 02-03 which need to be adjusted between APTRANSCO and DISCOMS as shown in the table below. APTRANSCO might also suffer losses if the marginal cost of these stations is higher than the Average BST. Being a bulk supplier, APTRANSCO should be protected from the variation in sales by DISCOMS.

Table No.31
SURPLUS REVENUE TO BE ADJUSTED BY APTRANSCO

(Rs. in Crores)

APEPDCL	APSPDCL	APCPDCL	APNPDCL	TOTAL
44.20	41.60	94.10	10.10	190.00

The Commission directs the APTRANSCO to adjust the above mentioned amounts to the respective DISCOMS towards the surplus revenue received from the DISCOMS in FY 2002-03.

(c). As far as possible, APTRANSCO as System Operator should be reimbursed by the DISCOMS for Power Purchase expenses as and when they are incurred. Therefore a quarterly adjustment for price and quantity variances is proposed.

269. The mechanism for Overdrawl Tariff and Fuel Surcharge Adjustment are interlinked because overdrawl from marginal stations might be passed through in

the FSA. To safeguard against this, there should be a clear demarcation between the costs of stations as per Tariff Order power purchase quantities and cost of marginal stations for overdrawl. These issues should be handled as follows:

(a). Fuel Surcharge Adjustment: This will handle the variations in price and mix for the Tariff Order quantities of power purchase.

(b). Overdrawl Tariff: This will handle the quantity variations of overdrawl and the price variations of the cost (FSA) of overdrawl from the marginal stations.

(c). In order to implement the above, AP Transco may submit month-wise cost of power for Tariff Order quantities and month-wise cost of marginal power purchase for deviation from Tariff Order quantities. This is to be submitted quarterly.

270. Based on the month-wise availability of Generating Stations and month-wise sales by DISCOMS as projected in the Tariff Order, the power purchase costs have been arrived at based on a month-wise merit order. If DISCOMS were to overdraw in any particular month then the variable cost of the marginal station should be cost that is paid by the DISCOM. The Commission has arrived at a cost for marginal stations for FY 03-04 as Rs. 1.40 per kWh, including transmission losses. This is the average pool marginal cost, i.e. the additional power purchase cost per unit of the surplus energy available after effecting the firm contracted interstate sales as per the Tariff Order.

271. If the DISCOMS are drawing power from the interstate sales quota covered by a firm contract then the overdrawl tariff will be at Rs.2.40 kWh which is the selling rate for interstate sales. This will be applied only if there is a demand for power from other states. If not, only overdrawl tariff i.e. Rs.1.40/kWh will be applied.

272. The Overdrawl Tariff of Rs. 1.40 per kWh will be the charge paid by a DISCOM if it exceeds its monthly power purchase as per the Tariff Order. For any month, the variable cost of the marginal stations will differ based on monthly dispatch. AP Transco is to determine the adjustments required, which will then be handled in a Quarterly Review, along with the FSA. The Commission expects the mechanism to work as follows:

(a). The quantity of overdrawl for each Discom over the monthly projection determined in the Tariff Order is to be priced at the cost of the marginal station. For this AP Transco would need to demarcate the power purchase cost for the Tariff Order quantity from the power purchase cost for overdrawl, by identifying the marginal stations.

(b). The units purchased by each Discom above the Tariff Order quantity are to be charged at Rs. 1.40 per kWh on a monthly basis. Any adjustments for the actual marginal price will be done quarterly.

(c). There could be year end variations because of underdrawl by DISCOMS. This is unavoidable in a Single Part BST mechanism. These variations will be assessed by the Commission at the year end and suitably treated.

APTRANSCO is charging a single part BST to the distribution companies, which includes both fixed and variable charges. To insulate the impact of energy drawls on APTRANSCO's finances it is necessary to demarcate fixed charges and energy charges in the bulk supply tariffs. ***Hence, the Commission directs APTRANSCO to file a two-part BST for the FY 2004-05.***

Merit Order:

273. There are two aspects of least cost power purchase. Firstly that of setting up systems and procedures to conduct an economic load dispatch and secondly instituting a process for review of adherence to the merit order procedures and dispatch. In 2002-2003, due to Hydel failure expected surplus was not available in the grid. Comprehensive merit order implementation opportunity was limited in 2002-2003. In the year 2003-2004 as per the projection of Licensee, surplus energy is expected to be available during certain periods of the year and hence the increased focus on least cost power purchase. The adherence to merit order principles in the actual dispatch of generating stations is being emphasized due to the following:

(a). Implementation of ABT: which places high financial cost on any deviations between the schedules and drawal of the constituents. APTRANSCO needs to manage the generation from in-state sources and its drawal from Central Generating Stations in order to minimse the overall cost of power purchased.

(b). New Fuel purchase adjustment mechanism, makes the price and mix variations of generators (upto the level approved by the Commission) a pass-through to the customers. Such mechanisms have to accompanied with a system of checks and balances that safeguard the interest of the consumers from any inefficiencies incurred by APTRANSCO in the purchase of power on account of controllable factors.

Hence, the Commission directs the licensee to institute a process where the Commission's staff can verify APTRANSCO's adherence to the merit order principles.

274. The draft merit order procedure has been developed by APTRANSCO when the Availability Based Tariff was not in operation. From 1st January 2003 Availability Based Tariff has been introduced in the Southern Region. Licensee

has been advised by the Commission to incorporate ABT regime changes into the merit order dispatch and resubmit the merit order procedure, with the required measures for ensuring that Generating Companies / Stations comply with the ABT regime. In the context of these developments a clear definition of 'must-run' becomes significant. In the merit order operation "must run" stations like Nuclear power stations and run off river generation and supply from non-conventional sources are to be given first preference in dispatch. Other stations on the basis of the lowest variable costs are dispatched progressively to meet the real time demand.

275. In view of the above, ***the Commission directs Licensee to resubmit Comprehensive merit order procedure considering the re-defined "must run" stations and individual units to be dispatched under ABT regime before 30th April 2003. Merit Order dispatch has to be complied from 1st May 2003. The Merit Order Compliance report must be submitted to the Commission every month and to be put on the Website.***

276. A major aspect of monitoring merit order is with regard to checks on contractual arrangements. ***The Commission directs the Licensee to examine the order of the court and contractual conditions before considering any generating Station / Company as a must run station. Licensee has to revert to the Commission with details before 15th May, 2003 and any changes thereafter.***

277. The Commission recognises that the actual dispatch of stations is contingent upon the state of the network at that instant. Due to reasons like transmission constraints, contractual obligations and physical limitations of the generating stations there is a possibility that some lower cost generating stations do not get dispatched. Rather than micro manage the system operation by laying down restrictive rules, the Commission feels that the onus of disproving any violations of merit order principles rests on APTRANSCO.

278. The Commission intends to develop a procedure for regular monitoring of power purchases inter-alia adherence to merit order principles. Though the specific review procedure will be developed in consultation with the representatives of APTRANSCO the broad areas that it will address are:

(a). Process audits to check that APTRANSCO has implemented systems to conduct a merit order dispatch and confirm if the procedures are being followed. This may be done relatively infrequently say maybe twice a year or when some major changes have been done in the dispatch rules.

(b). Sample audit to check for specific instances of dispatch. This will be done frequently on a random basis and check on whether lesser cost stations have actually been dispatched in preference to others.

279. The procedures for monitoring should be instituted immediately by the licensee and the draft procedures with detailed formats and processes of checking be submitted to the Commission for approval within 30 days.

Internal Efficiency for FY03

280. In the Tariff Order FY2002-03 Rs.301 crs of Efficiency gains were stipulated by the Commission. The break up is given in the table below. It can be seen that CPDCL and EPDCL did make some efficiency gains, but the picture portrayed perhaps is not able to capture the full story. As a result, the measurement and realization of efficiency gains remains a contentious issue.

281. In their filings, the licensees have indicated that efficiency improvements have been made through measures that have resulted in improved realisations, reduced distribution loss levels and increased sales to metered categories. The implementation of metering plans, monitoring of agricultural supply, vigilance activities, energy audits, spot billing etc. have aided in achieving these results.

282. Compared to the FY 03 Order provisions for achieving 300 Crs. of efficiency gains, the licensee's achievements on this parameter only on account of changes in sales to metered categories are indicated below. The Commission is appreciative of the improvements shown by all distribution companies especially APCPDCL and APEPDCL in achieving the following.

Table No.31

	APEPDCL	APSPDCL	APCPDCL	APNPDCL	TOTAL
Efficiency Gains Target	30	55	160	55	300
Efficiency Gains (Metered Categories)	66	-2	316	20	400

However, if sales and purchases to the agricultural category are also to be considered, the efficiency gains would be the following:

Table No.32

	APEPDCL	APSPDCL	APCPDCL	APNPDCL	TOTAL
Efficiency Gains (All Categories)	49	-47	116	-38	81

283. Efficiency Gains can be achieved by the licensee only on account of those factors that are within its control. Changes on account of power purchases and sales to subsidising category which enable the DISCOMS, as noted in the first table, tend to get reduced on account of power purchases for the subsidised categories, mainly agriculture. Drought has impacted on the expenditure side of the DISCOMS. The deficits could not be completely recovered through increased industrial sales to both HT and LT industry.

Efficiency Gains for 2003-2004:

284. The Commission has been including a component of efficiency gains in the computation of the full cost tariffs since the first tariff order. This component of efficiency gain is over and above the target loss levels that the licensee expects to achieve in the ensuing year. The table below mentions the targets for efficiency gain and system loss as fixed by the Commission for each of the years. The Commission is aware of the marked differences in the network topology, operating environment and the level of current operating efficiencies of the DISCOMS and how this makes the computation of efficiency gains in the distribution network more complicated from that in the transmission network. Nonetheless the Commission is of the firm view that even at the existing levels of operations there do exist opportunities for improvement in the operations and services of the DISCOMS. Accordingly the Commission has fixed a target of Rs.295 cr. for achievement of Efficiency Gains by DISCOMS during 2003-04.

Table No.33

	FY 01	FY 02	FY 03	FY 04
System loss in %	35.4 %	33.9 %	28.4 %	24.8 %
Efficiency gains in Rs Crores	500	500	300	295

Efficiency Gains by APTRANSCO:

285. The Commission notes that estimation of the losses in Transmission network will improve with the installation of more accurate metering equipment at the interface points between APTRANSCO, Generating stations and the Distribution companies. The intention of including a specific target is to focus on the action of the licensee in this area.

286. In the past the efficiency gains have been applicable to the Distribution companies only. The Commission intends to do away with the past practise by setting for APTRANSCO a transmission loss target of 7 % for the ensuing year against their filing of 7.25 %.

Efficiency Gains by DISCOMS:

287. The impact of any of the initiatives undertaken by the DISCOMS in achieving efficiency gains will result in a reduction of costs and or an improvement in revenues. These initiatives would be directed to address different areas of the operating environment. The Commission can suggest the broad areas from where the gains are most likely to be achieved, however it is left to the DISCOMS to formulate their own strategy for achieving the target.

288. In the absence of a credible system loss figure (due to large unmetered sales to agriculture) the Commission so far has been adopting a lumpsum amount to reflect efficiency gains. This method of application of efficiency gains in the initial years has helped by allowing the DISCOMS to extract efficiencies from any part of the system i.e power purchase, network cost, tariff revenues etc. However moving forward, the Commission recognises that the method of application efficiency gains is a powerful tool in directing the actions of the Licensees on specific areas and hence the Commission would like to draw the attention of the DISCOMS to the aspect of reducing the Distribution energy losses.

289. Reduction in system losses can be achieved through a combination of technical and commercial loss reduction. Mentioned below is the basis used by the Commission for allocating the total efficiency gains of Rs 295 Crores among the four DISCOMS. The split of the total loss between Technical and Commercial for the ensuing year is based on the assumptions used in the cost to service model furnished by the DISCOMS.

Technical Loss Reduction:

290. A 2% reduction in technical losses has been set as the target for all DISCOMS. The efficiency gains to be achieved from this reduction in technical losses have been computed as the reduction in power purchase costs for the lower level of losses. The financial impact of this is Rs. 125 Crores.

291. The variable cost of the marginal stations has been used for computing the avoided cost on account of reduced quantum of power purchase.

Table No.34

DISCOMS	Filed	Target	Efficiency Gain (Rs. Crore)
APEPDCL	12.94%	10.94%	19
APSPDCL	13.13%	11.13%	30
APCPDCL	14.19%	12.19%	52
APNPDCL	14.34%	12.34%	25

Commercial Loss Reduction:

292. A reduction in the commercial loss results in an increase of revenue to the DISCOMS. The increase in revenues has been computed at the average realization for each DISCOM. The financial impact of this is a gain of Rs. 170 Crores.

Table No.35

DISCOMS	Filed	Target	Efficiency Gain (Rs. Crore)
APEPDCL	3.06%	3.00%	1
APSPDCL	6.30%	4.00%	52
APCPDCL	5.00%	3.00%	87
APNPDCL	6.00%	4.00%	29

The DISCOM-wise breakup of the total efficiency gain of Rs. 295 Crores is mentioned in the table below.

Table No.36

DISCOMS	Efficiency Gains (Rs. Crore)
APEPDCL	20
APSPDCL	82
APCPDCL	139
APNPDCL	54
Total Efficiency Gains	**295**

293. The DISCOMS are directed to achieve the above efficiency gains of Rs.295 crs. APTRANSCO is directed to reduce its transmission loss to 7%.

Supply of uninterrupted quality power to Industries:

294. While hearing the cases of industrial consumers for grant of permission to establish captive generation it is observed by the Commission that the industrial consumers invariably cite frequent interruptions of power as the major reason that propels them to do so despite the prohibitive cost of fuel and other such burden that goes with captive generation. It is imperative for the distribution companies that uninterrupted and quality power is ensured to industries. By doing so, the DISCOMS would not only be fulfilling their obligations under the licence, but would also be getting valuable revenue. While the interruptions should be minimized to the extent possible by providing exclusive industrial feeders, quality of power should be ensured by maintaining optimum levels of frequency and voltage. Power supply to industry should therefore be continuous and reliable. Moreover, in a situation where the state is moving towards surplus power, it is all the more important that large consumers such as industries should draw power from the utility rather than from captive facilities in order to make most of the situation. Infact, the flight of consumers from the grid in a surplus situation can prove disastrous to the finances of the utilities.

295. The Commission examined the issue in this back-drop and observed that interruptions are mainly triggered by grid management or by breakdowns incumbent on the feeders supplying power to the industries. Whenever there is a shortage of power generation or for reasons of having to maintain grid frequency at prescribed levels due to the adoption of the Availability Based Tariff (ABT) regime, grid management necessitates load relief from the system. It is imperative that such load relief should exclude industrial feeders. In cases of interruptions caused by breakdowns, it is essential that these are attended to promptly and in the shortest possible time frame.

The Commission directs the APTRANSCO & DISCOMS that load relief shall not be taken for the purposes of grid management from feeders which have more than 50% of incumbent load due to industries.

Further, the Commission directs the APTRANSCO to designate appropriate Officers for 200 kV or 132 kV feeders (having more than 50% industrial load) either for individual feeders or for groups of such feeders, and the DISCOMS to designate appropriate officer for each industrial estate, who shall be made responsible for keeping the break down rectification time within reasonable limits. The details of such designated officers shall be submitted to the Commission.

The Commission also directs that all the input points to such feeders which have more than 50% incumbent load due to industries shall henceforth be metered by electronic trivector meters with RS 232 communication port. The Commission directs that APTRANSCO/DISCOMS, as the case may be, shall take data log sheets for supply conditions pertaining to the previous 30 days once in a month through RS 232 communication port either through a meter reading instrument or remotely through a modem for each industrial feeder. The APTRANSCO and DISCOMS are hereby directed that they shall submit such log sheets along with an abstract summary statement pertaining to their company regarding interruptions to industrial feeders once in a month to the Commission. The Commission intends to observe the time being taken to restore power and the quality of power supplied to industries to ensure supply of uninterrupted quality power.

Data Constraints:

296. In this year's filing (FY 2003-04), the fourth filing of APTRANSCO and third filing of DISCOMS, the Licencees have again expressed concern on data availability. Data constraints seem to have persuaded the Licensees to seek

waivers in filing all the required formats. The waivers as in the past, relate mainly to audited accounts & financial statements and data on voltage wise break up of fixed assets. Licensees have however, not demonstrated to the satisfaction of the Commission that any progress has been made in removing the data constraints despite assurances that efforts would be made to rectify the gaps. In their plea for waiver of filing complete information, the Licensees have stated that they are in the process of establishing a comprehensive electronic information and data storage, management and retrieval system. As the improvements are an on going process, the Licensees have submitted that it will be some time before complete information can be filed. Considering these transitional problems the Commission agrees to certain conditional waivers as detailed at Annexure-C. The Commission however is of the opinion that data constraints should not continue on perennial basis and the Licensees have to gear up to meet the guidelines, which are framed after due consultation with them. These waivers are allowed for this year only and hence forth such waivers will not be granted. ***Commission directs the Licensees to comply with all the conditions listed in Annexure- C in the specified time frame***.

Status of Compliance of Commission's Directives:

297. **APTRANSCO:**

Table No.37

Directive: APTRANSCO	Compliance with Directive
Working Capital: Discussion Paper to be submitted	Complied and submitted a paper on working capital based on lead lag analysis.
Obtain approvals for Schemes and Details of CWIP as on 01-04-2000	**Complied.**
Employee Funds: a. **Credit to Non-drawal Bank Accounts** b. **Financial action plan for the arrears of FY 2000-01** c. **Operationalising the Trusts**	 **Complied** **Action Completed** **In Progress**
Contingencies Reserve: **To make required appropriations in the Accounts for FY 2001-02:APTRANSCO:**	**Not complied . The non-compliance of the directive of providing contingency reserve for the period 2000-01 APTRANSCO has stated is purely because of lack of**

	surplus funds. A hearing was requested with the Commission on 16.1.03. The Commission order dtd. 13/02/03 directed that the reversal adjustment be carried out in FY04.
Merit Order Procedure: APTRANSCO shall develop a comprehensive procedure for merit order dispatch in consultation with all stakeholders and file the same with the Commission for approval by July 31, 2002. APTRANSCO shall also operationalise the co-ordination committee and conduct regular monthly meetings of the Committee as envisaged in the Grid Code approved by the Commission.	**Complied. APTRANSCO submitted a merit order procedure which the Commission has requested for revision to incorporate changes that will arise due to implementation of ABT**
Commercial Loss in EHV System: APTRANSCO shall file a time bound action plan for reducing the commercial losses in EHV system immediately with the Commission. APTRANSCO shall also conduct a separate study to identify the sources of commercial losses in EHV system and submit the filings to the Commission within six months from the date of this order.	**Complied**

298. APTRANSCO has complied with the directives of the Commission except in the case of Contingency Reserve for which the Commission has given an Order and accordingly reverse adjustments are done in the filing for FY2003-04. With regard to working capital requirements and their pleas for a separate treatment during the period of transition the issue has been examined in the section on Working Capital.

299. **DISCOMS:**

Table No.38

Sl. No	Directive	APCPDCL	APNPDCL	APSPDCL	APEPDCL
1.	**LV Side Meter Readings: Agricultural Consumption Estimate**	**Complied** Furnished the consumption details for one year	**Partially Complied** Furnished the consumption details for one year based on census and	**Complied** Furnished the consumption details for one year	**Complied** Furnished the consumption details for one year

Sl. No	Directive	APCPDCL	APNPDCL	APSPDCL	APEPDCL
			ERO data		
2.	**Disconnected all Unauthorised Agricultural Services**	Partially Complied. No. of unauthorized connections – 1.05 lakhs Regularized – 37629 Balance not dis-connected because of drought conditions. Promised to remove these by 3/2003	Partially Complied Number of unauthorized connections 1.01 lakhs of which 36,067 were regularized leaving a balance of 64,956 numbers which are being disconnected	Partially Complied No. of unauthorized connections – 50149 during Sadasssus. 30417 services were regularized and of the balance 16132 schemes cases were booked against 1319 services, 4000 connections were released under tatkal scheme and 11000 were removed	Partially Complied. No. of unauthorized connections – 1058 during Sadassus all were regularized
3.	**Wide publicity to be given to Metered Tariff for Agricultural Consumption**	**Complied.** Wide Publicity given	**Complied.** Wide Publicity given	**Complied.** Metered new connections – Out of 4,75,772 connections, 9114 requested for meters and for the balance 4,66,658 meters are yet to be fixed. Wide publicity has been given to DSM measures.	**Complied.** Wide Publicity given
4.	**Issue of notice and Removal of Phase Converters**	**Compliance is an on going process.** Inspections are being conducted and 6250 phase converters were so far removed. Micro controllers have been fixed in all substations which are	**Compliance is an on going process.** They have booked 66 cases where phase converters are being utilized of which 17 were arrested, 30 cases	**Compliance is an on going process.** Public Notice has been given that using phase converters is illegal as well as harmful. They have so far booked 284	**Compliance is an on going process.** Public Notice has been given that using phase converters is illegal as well as harmful. Micro controllers with

Sl. No	Directive	APCPDCL	APNPDCL	APSPDCL	APEPDCL
		feeding agricultural loads.	compounded and 7 cases are under investigation. Micro controllers installed in all substations.	cases U/S 39 and 49 of IE Act, 1910 for illegal usage of phase converters. Micro controllers of 700 No.s are to be fixed.	time use are being fixed in substations to ensure automatic tripping of feeders in substations whenever phase converters are used. Single phase transformers are being installed in villages to ensure only lighting supply.
5.	**File action plan for Metering of Agricultural Services**	**Partial compliance.** Metering plan submitted by the licensee was very sketchy and was asked to submit a more detailed plan.	**Partial compliance.** The cost of providing meters to the 6.21 lakh agricultural consumers in the Company is reported to be Rs.137 Crores.	**Partial compliance.** The metering plan submitted by the licensee was very sketchy and was asked to submit a more detailed plan.	**Partial compliance.** Metering plan submitted by the licensee was very sketchy and was asked to submit a more detailed plan.
6.	**Agricultural Census Reports**	**Complied.**	**Complied.**	**Complied.**	**Complied.**
7.	**Audit of Receivables**	**Not complied.** The audit of receivables of Kurnool District is to be submitted first for approval of Commission**.**	**Not complied.** Audit of receivables for 4 Districts Warangal, Khammam, Nizamabad and Karimnagar to be submitted	**Not complied.**	**Not complied** as the directive was misunderstood by the Company. An independent agency to value the quality of arrears has yet to be identified and the work contracted.

Sl. No	Directive	APCPDCL	APNPDCL	APSPDCL	APEPDCL
8.	**Build the Sales Database for one circle immediately and the entire DISCOM later**	**Partially Complied** The database for all circles for 1 month has been submitted to the Commission. On approval of the methodology, the database for other months will be developed.	**Not complied.** Filed for Karimnagar and the database is returned on account of mistakes.	**Partial compliance.** The Company has agreed to provide the sales database for one circle and if approved to extend to other circles.	**Partial compliance.** The company has filed the sales database for Vijayanagaram with several mistakes. The company was required to verify.
9.	**Prepare Discussion Paper on Working Capital**	**Complied** and submitted a paper on working capital based on lead lag analysis.	**Complied** and submitted a paper on working capital based on lead lag analysis.	**Complied** and submitted a paper on working capital based on lead lag analysis.	**Complied** and submitted a paper on working capital based on lead lag analysis.
10.	**Efficiency Gains of Rs. 300 Crores to be achieved by all the four DISCOMs**	Achieved Rs.300 cr. against the prescribed Rs.160 cr.	Partially achieved: Rs.22 cr. against Rs.55 cr.	Partially achieved: Rs.5cr. against Rs.55 cr.	Achieved Rs.76 cr. against the prescribed Rs.30 cr.
11.	**Installation of High Quality Meters and Decentralization of Billing, Collection, etc.** Further, meter reading, billing, collection and related activities may be considered to be decentralized to improve billing and consumer service.	**Partial compliance.** The Company requested to the Commission to allow time upto December 2003 for providing high quality meters in all mandal head-quarters and towns as they are yet to provide meters for 16 lakh services.	**Partial compliance.** Out of 7,07,575 single phase services and 19069 three-phase services to be replaced they have so far provided high quality meters in 1,71,380 single phase services and 10,430 three-phase services respectively till Sept 02. To complete the work they need 4,50,593 single phase meters and 4,169	**Partial compliance.** A total number of 6,35,777 No.s of domestic and non-domestic services identified for providing high quality meters the progress till end of October 2002 is 4,61,723 No.s in all towns and mandal headquarters.	**Complied.** Out of 5,20,814 services identified for installation of high quality of meters all most all have been metered. (4,62,264 services).

Sl. No	Directive	APCPDCL	APNPDCL	APSPDCL	APEPDCL
			three-phase meters.		
12.	**Introduce a scheme for Unauthorised Loads Voluntary Disclosure**	**Complied.** The Company collected Rs. 100.207 lakhs from domestic consumers and Rs. 17.013 lakhs from non-domestic consumers as development charges.	**Complied.** The Company informed that 1064 No.s consumers made voluntary disclosure and paid an amount of Rs. 8.75 lakhs.	**Complied.** 5,42,834 No.s of domestic and non-domestic consumers availed the opportunity given under voluntary disclosure scheme and the Company collected Rs. 33.18 Crores towards development charges	**Complied.** Rs. 5,15,69,850 was collected towards 50% of development charges for a total number of 71,859 services.
13	**Reduction in Distribution Transformers Failures to stated levels.** EPDCL- 13% CPDCL-15% NPDCL-15% SPDCL-15%	**Target Met**	**Target not met.** It was noticed during the first six months itself the failure rate was 11.19%.	**Target met.**	**Target met.**
14	**All Multiple Connections to be disconnected**	**Partial compliance**	**Partial compliance**	**Partial compliance**	**Partial compliance**
15	**Obtain approval for Schemes and Details of CWIP as on 01-04-2000**	Not Complied	**Not Complied**	**Not Complied**	**Not Complied**
16.	**Employee Funds – Credit to Non-drawal Bank Accounts** till such time the Trusts formed become fully operational	**Complied.** Funds credited to non-drawal accounts. While Trusts have been created , they have not been operationalised	**Complied.** Funds credited to non-drawal accounts. While Trusts have been created , they have not been operationalised	**Complied.** Funds credited to non-drawal accounts. While Trusts have been created , they have not been operationalised	**Complied.** Funds credited to non-drawal accounts. While Trusts have been created , they have not been operationalised
17.	**Contingencies Reserve – To make required appropriations in the Accounts for FY 2001-**	**Not complied.** The non-compliance of the directive of providing contingency	**Not complied.** The non-compliance of the directive of providing contingency	**Not complied.** The non-compliance of the directive of providing contingency	**Not complied.** The non-compliance of the directive of providing contingency

Sl. No	Directive	APCPDCL	APNPDCL	APSPDCL	APEPDCL
	02:DISCOMs	reserve for the period 2001-02. CPDCL, stated lack of surplus. A hearing was granted suo-moto. The Commission order dated. 13/02/03 directed that reversal adjustment be carried out in FY04.	reserve for the period 2001-02. NPDCL, stated lack of surplus. A hearing was granted suo-moto. The Commission order dated. 13/02/03 directed that reversal adjustment be carried out in FY04.	reserve for the period 2001-02. SPDCL, stated lack of surplus. A hearing was granted suo-moto. The Commission order dated. 13/02/03 directed that reversal adjustment be carried out in FY04.	reserve for the period 2001-02. EPDCL, stated lack of surplus. A hearing was granted suo-moto. The Commission order dated. 13/02/03 directed that reversal adjustment be carried out in FY04.
18.	**Revenue Estimation Methodology:** shall use the sales database to derive the revenue from sales of electricity and revenue because of minimum charges.	Filed in the current filing but without proper databases	Filed in the current filing but without proper databases	Filed in the current filing but without proper databases	Filed in the current filing but without proper databases
19.	**Local Bodies and Public Lighting:** To build sales database	**Not complied**. Yet to meter 406 Nos. of street lights and 2325 of PWS schemes.	**Not complied**. The Company informed that they have provided meters for 6450 services out of 13587.	**Not complied.** Meters have however been fixed and the data as per the directive will be submitted in the next filing.	**Not complied.** Meters have however been fixed.

300. The compliance of the Directives in the case of DISCOMS is a mixed picture of compliance and partial compliance. For the sake of convenience the directives can be grouped into three categories. The first category relates entirely to building up data bases on agricultural consumption and sales. In this category metering of LV side for estimating agricultural consumption and the Census report are almost complete and hence the directives have been complied with. With regard to sales data base the compliance has been partial for all DISCOMS. In the case of APCPDCL, the DISCOM has complied to the extent that data has been provided for all circles for one month. APSPDCL has filed data for one

circle for month and APEPDCL filed data for one circle for nine months. APNPDCL filed the data for Karminagar but the data has been returned for verification and correction. The specific directive on building the sales database for local bodies has not been complied and thereafter estimating the revenue has not been complied Building sales databases is a time consuming process. First, the awareness for databases has to be created. This is followed by developing the required methodology and formats for collection of data and finally of collecting data, collating the information and using it for further analysis. The DISCOMS in that sense have progressed to the last stage with regard to both agricultural consumption and sales data. At present it is the question of fine tuning the collection and collating process and more importantly to use these data bases for revenue estimation. Viewed from this perspective the directives have had their intended impact and the DISCOMS should be able to develop sound databases once the teething problems are sorted out. The second set of directives related to operational conditions and their improvement. There are two parts to this. One is the physical side such as removal of phase converters; removal of multiple connections; and fixing of high quality meters for decentralized billing. The results are mixed as the progress differs between DISCOMS, but none of the DISCOMS have fully complied. Compliance for these directives is an ongoing process and the Commission directs that these directives hold good for another year. The last set of directives related to compliance on the financial operations. In this area there has been compliance with regard to Employee funds and filing a paper on Working capital but with regard to investment schemes directives are yet to be fully complied. The directive with regard to Audit of Receivables is yet to be complied.

Performance of the Licensees over the last three years:

301. The Commission has analysed the DISCOMS' overall performance based on certain key parameters that indicate the level of improvements that have been made over the last three-year period.

302. The comparison is done under the heads of expenditure incurred, revenues, composition of sales, subsidy from the government, investments made and quality parameters.

Expenditure Incurred:

Table No.39

(All Figures in Rs. Crores)	**FY 00**	**FY 01**	**FY 02**	**FY 03**	**FY 04**
Expenditure approved by Commission	NA	8365	8284	8243	9780
Actual Expenditure Incurred	7946	8951	9061	9031	NA
% increase over approved	NA	7.0%	9.4%	9.6%	NA

FY 03 and FY 04 data are based on projections.

303. The increase observed in the ARR for FY 04 is primarily on account of the increase in the approved sales volumes and the corresponding power purchase costs for the same.

Revenues:

Table No.40

(All Figures in Rs. Crores)	**FY 01**	**FY 02**	**FY 03**	**FY 04**
Revenue (Approved)	6239	6222	6434	7972
Revenue (billed)	5592	6199	7239	NA
Collections	5592	5968	7094	NA
% increase over approved	-10.4%	-0.4%	12.5%	NA
% collections over billing	100.0%	96.4%	98.0%	NA

FY 03 and FY 04 data are based on projections

304. A 19% increase in FY 03 (in absolute terms) over previous year's collections is indicated based on the licensees' filings. This is without any tariff increase. This is indeed a commendable performance.

Energy Parameters:

Table No.41

(All figures in MU)	**FY 01**	**FY 02**	**FY 03**	**FY 04**
APTRANSCO Purchase for DISCOMS	41799	40678	43188	44392
Total Sales by Discoms	26976	28556	31277	33457

T&D Loss Levels	35.5%	29.8%	27.6%	24.6%

FY 03 and FY 04 data are based on projections

Table No.42

(All Figures in MU)	**FY 01**	**FY 02**	**FY 03**	**FY 04**
Metered Sales	15905	17353	20040	22107
Sales to Agriculture + Losses	25894	23325	23148	22285
Metered sales / Total Purchases	38.1%	42.7%	46.4%	49.8%
(Sales to agriculture+ Losses) / Total Purchases	61.9%	57.3%	53.6%	50.2%

FY 03 and FY 04 data are based on projections

305. Gradual reduction in the percentage of sales to agriculture and losses to total purchases indicates, in fact an authentic reduction in losses by 11.7% over the last three years. There is an increase of 11.7% in the metered sales which indicates better metering and billing. The APERC commends the licensees' performance on this account. However, substantial improvements need to be made in the metering of agricultural consumption as in the reduction in losses.

Cost Coverage:

Table No.43

	FY 01	**FY 02**	**FY 03**	**FY 04**
Revenue Realized / unit sold	2.07	2.17	2.31	2.38
Cost Incurred / unit sold	3.32	3.17	2.89	2.92
Cost Coverage	62.5%	68.4%	80.2%	81.4%

FY 03 and FY 04 data are based on projections

306. There has been a steady improvement in the revenue realised per unit and a steady reduction in the cost incurred per unit. This is a good sign. Cost coverage is based on the extent that revenue from tariffs meets the costs incurred by the licensees. The improvement in this element reduces the reliance on external subsidy to meet the costs of the licensee.

Financial Position & Subsidy:

Table No.44

(All Figures in Rs. Crores)	**FY 01**	**FY 02**	**FY 03**	**FY 04**
GoAP Subsidy to Sector (Approved)	1626	1561	1509	1513
Financial Profit of licensees	-1073	-876	-819	NA
Financial Profit of licensees reworked by Commission	-1024		-254	
Special Appropriation allowed at beginning of year		90	-163	73
Excess cost of Agriculture to be met by govt.	934	-	-	473*

Addl. Govt. Support provided	1133	896	350	NA

FY 03 and FY 04 data are based on projections
*** represents Rs.106 cr. for FY 02 and Rs.367 cr. for FY 03 adjusted in Tariff Order FY03-04**

307. The GoAP subsidy (Approved) consists of the difference between the full cost tariffs determined by the APERC and the retail tariffs. This goes essentially towards providing subsidy to agriculture and the domestic category. This amount has been completely provided by the government.

308. For FY 03, licensees have submitted a loss of Rs. 819 Crs. Subsequent communication has restated this loss to be reduced by Rs. 412 Crs. due to reduction in Fixed Costs of APGENCO, and 153 Crs. being the benefit due to proceeds from the securitisation scheme.

309. As seen from the above table, the special appropriation of Rs. 90 Crores in the FY 02 Tariff Order was on account of power purchase mix changes and loss in non tariff income during FY 2000-01. Interest claw back for FY 01 was responsible for the Rs.163 Crs. negative special appropriation in the FY 03 Tariff Order. The special appropriation of Rs.73 Crs. made in the FY 04 Order includes the effect of power purchase mix changes in FY 02 (Rs.422 cr), FY 03 (Rs.249 cr.), interest claw back of Rs.144 cr. for FY 02 and employee expenses of Rs.115 cr. for FY03 and the carrying cost of Rs.57 cr. for the above and Rs.10 cr. on account of delayed receipt of grid support and wheeling charges.

310. The excess cost of agriculture to be borne by the government includes Rs. 106 Crs. for FY 02 and Rs. 367 Crs. for FY 03.

311. Additional support has been extended by the GoAP towards the situation arising from the financial loss incurred by the licensees though the nature of support (grant or loan) is not yet clear. This is found to be more than the amount recommended by the Commission. GoAP may make necessary adjustments after the CAG audited accounts are available.

Cross Subsidy:

Table No.45

(All Figures in Rs. Crores)	**FY 02**	**FY 03**	**FY 04**
Cross Subsidy amount (Rs. Crs.)	1939	1970	2110
Cross Subsidy / subsidizing unit (Rs. / unit)	2.09	2.07	1.80

The above data is based on the Tariff Order for these years.

312. The decline in cross subsidy per subsidising unit is in line with the reform objective of gradual reduction of the contribution by subsidising customers towards meeting the cost to serve for the subsidized categories.

Investment Parameters:

Table No.46

	FY 00	**FY 01**	**FY 02**	**FY 03**
No. of Distribution Transformers	186847	201801	216453	235093
Length of T&D network laid *(132 kV and above)* (km.)	1088	2366	1766	1401
Length of T&D network laid *(33 kV and below)* (km.)	13121	12577	10038	28695
No. of substations commissioned *(132 kV and above)*	11	20	12	10
No. of substations commissioned *(33 kV)*	170	98	79	136

FY 03 data is based on projections till 28th February, 2003.

313. The above investments in the infrastructure have helped bring down the technical losses.

Service Parameters:

Table No.47

	FY 00	**FY 01**	**FY 02**	**FY 03**
New Meters released *(Agricultural services)*	0	0	0	39128
New Meters released *(Non Agricultural services)*	544760	1784508	506612	476103
No. of meters replaced	556530	2218630	511846	463283
Services Regularised (Agriculture)	NA	NA	74433	183230
Services Regularised (Non - Agriculture)	NA	1600058	212114	NA

FY 03 data is based on projections till 28th February, 2003.

314. New meters, connections, replacement of meters and regularisation of services have largely contributed for increasing revenues. The number of agricultural meters released under the Tatkal scheme till January 2003 is 29448.

Technical Quality Parameters:

315. Technical parameters indicate the following improvements over the last four years.

Table No.48

	FY 00	FY 01	FY 02	FY 03
DTR Failure Rate	28.05%	29.07%	24.33%	18.72%
Average Frequency (Hz)	48.7	48.67	48.52	48.88
Voltage Profile (132 KV) – Max.	129	136	134	139
Voltage Profile (132 kV) – Min.	92	102	98	115

FY 03 data is till 28.02.03

316. After the introduction of the ABT, the frequency of supply has improved to an average of 49.91Hz for the period beginning Jan – 1 – 2003. Minimum voltage has also risen from 92 kV to 115 kV in respect of 132 kV feeders.

The above shows that –

(a). There is reduction in the failure rate of DTRs from FY00 till Feb. FY03 even after a continuing increase in the number of DTRs over these years.

(b). Voltage profile at 132KV has also improved over the years, which by default means that the voltage of supply downstream (33 and 11KV) would also have automatically improved.

33KV breakdowns and interruptions: (as reported by Licensees)

Table No.49

DISCOM	FY00		FY01		FY02		FY03 –1st half	
	Nos.	Average Duration (hrs.)	Nos.	Average Duration (hrs.)	Nos.	Average Duration (hrs.)	Nos.	Average Duration (hrs.)
APEPDCL	15021	1.35	15760	0.95	12199	0.76	7276	1.22
APSPDCL	28722	1.07	26365	1.04	15788	1.12	Not given	Not given
APCPDCL	816	5.10	60396	1.11	25964	1.02	Not given	Not given
APNPDCL	32881	1.07	24038	1.33	19155	2.09	Not given	Not given
(The duration given above is Avg. duration i.e. Total duration/No. of failures)								

11KV Breakdowns and Interruptions: (as reported by Licensees)

Table No.50

Discom	FY00		FY01		FY02		FY03 –1st half	
	Nos.	Duration (hrs.)	Nos.	Duration (hrs.)	Nos.	Duration (hrs.)	Nos.	Duration (hrs.)
APEPDCL	88297	2.46	101086	1.79	101741	1.48	39980	0.88
APSPDCL	291985	2.24	255012	1.64	244262	1.51	Not given	Not given
APCPDCL	6458	3.06	382281	2.53	261099	0.83	Not given	Not given
APNPDCL	308174	1.85	232748	1.80	208458	2.49	Not given	Not given
(The duration given above is Avg. duration i.e. Total duration/No. of failures)								

317. From the above, it is clear that all DISCOMS except APNPDCL show improvement in the average time taken for rectification of fault i.e. average duration, which is a direct reflection of the efficiency of the Licensee personnel in providing reliable supply to the consumers. Barring a few outliers, there is also a constant reduction in the number of 33 and 11KV interruptions and breakdowns, which shows a decrease in the frequency of such faults and thus more reliable supply.

318. As far as customer service is concerned, the Commission recognizes the fact that the Licensees have taken certain initiatives towards improving customer service, for instance, setting up of Customer Service Centers for handling

commercial complaints like complaints related to billing, new connection etc., helplines (such as Telephone no. 1912) for lodging technical and commercial complaints, developing customer databases etc. Such facilities have helped the Licensees to resolve customer grievances in a better and more effective manner. However, a lot of effort is still required in this direction viz. regular recording and reporting of supply interruptions on 11KV and 33KV feeders and voltage deviations from the limits permissible in the Distribution Code, immediate and effective rectification of non-working/defective meters, increasing the extent of coverage of conveniences for receiving customer complaints, billing and collection processes etc. In addition to the information already submitted by the Licensees via the RIS formats of the Commission, the Commission wishes to emphasise that the Licensees establish systems and procedures for collecting and reporting periodic information on the aforesaid parameters.

Directives of the Commission:

319. The Commission on review of the progress of the Directives in the last Tariff Order FY 2002-03, observed that six out of the nineteen directives given were not complied. The Commission directs that the Licensees shall comply with these directives during the period 2003-04 without fail. These are given at the **Annexure 'A'**. The Commission further directs that the various directives of the Commission appearing at different places in this tariff shall be complied by the licensees during the period FY 2003-04. These directives are at **Annexure 'B'.**

CHAPTER - IX : ERC / ARR 2003-04
TRANSMISSION AND BULK SUPPLY

320. APTRANSCO, the Licensee for Transmission and Bulk Supply of Electricity in Andhra Pradesh filed the ARR / ERC and Filing of Proposals for Tariff (FPT) for FY 2003-04 under Section 26 (5) of the Reform Act on 31-12-2002. The Commission has examined the Licensee's proposals and indicates herein areas where the calculations of the Licensee are found to be incorrect or unacceptable with reasons therefor and with the Commission's alternative calculations.

321. Based on the finalized Second Transfer Scheme notified by the GoAP in Gazette Notification GO. MS No. 109 Energy (Power III) dated 29-9-2001 giving the opening Balance Sheet of APTRANSCO (and also the four DISCOMS) as on 1- 4 -2000, the provisional Annual Accounts for FY 2000-01 were compiled by the Licensee (adopting opening balances as per the Balance Sheet in the Second Transfer Scheme) and made available to the Commission in February 2002. Though the audit of these accounts was not by then complete, the figures as per these accounts were adopted wherever relevant for purposes of the tariff for FY 02. The Audited Accounts complete in all respects for FY 2000-01 and adopted by the Shareholders of the company in a General Meeting has not yet been filed with the Commission as required under the terms of the Licence. For FY 2001-02, provisional Annual Accounts as compiled by the Licensee have been made available to the Commission. The figures as per these provisional accounts have been adopted wherever relevant for purposes of this order. It may also be mentioned here that the provisional accounts for FY 2001-02 exhibit the corresponding numbers for FY 2000-01 as figures for "previous year". Some of these numbers are at variance with the accounts for FY 2000-01 made available earlier and adopted for the Commission's Tariff Order of 24-3-2002 as mentioned in the earlier part of this paragraph.

322. Before getting into the analysis of the accounts it is necessary to make a general comment on the state of audit of annual accounts. Audited Annual Accounts have not yet been filed with the Commission for any of the following periods.

(i) FY 1998-1999 (for two months i.e., 2/99 to 3/99 after First Transfer Scheme)

(ii) FY 1999-2000 (first full year without GENCO but with APTRANSCO and DISCOMs combined)

(iii) FY 2000-2001 (first year with Accounts for APTRANSCO and DISCOMs separated after Second Transfer Scheme)

Needless to say, the question of Audited Accounts for FY 2001-02 being filed with the Commission does not arise with the position being as above in respect of earlier periods. The Commission wish to emphasise the urgent need to bring the audit of the Company's annual accounts up-to-date. According to the Companies Act, 1956 (Section 210), the audited accounts of a company for a financial year are to be presented to the shareholders for their consideration and adoption before the completion of 6 months from the end of the Financial year to which the accounts relate. The Commission urges ATRANSCO to spare no efforts and meet the requirements of the Companies Act, 1956 in respect of the Annual Accounts for FY 2002-03.

CAPITAL OUTLAY ON SCHEMES - FY 2001-02, FY 2002-03 & FY 2003-04:

323. The Licensee in the filings has made the following projections of capital expenditure for FY 2003-04.

Table No.51
PROPOSED CAPITAL OUTLAY FOR FY 2003 – 04 AS PER FILING

(Rs. Crores)

	Base Capital Expenditure	Expenditure capitalized	IDC	Total
APTRANSCO	561.50	42.39	40.48	644.37

324. Before dealing with the projections for capital expenditure in FY 2003-04, it is necessary to advert to the shortfall in capital outlay in FY 2001-02 referred to by the staff in their presentation.

325. The Commission notes that there is a shortfall of RS. 235.32 crores in the Capital outlay from the Tariff Order (for FY 02) provision of Rs. 752.48 crores for APTRANSCO as detailed in the Table below.

Table No.52

CAPITAL OUTLAY – FY 2001- 02 PERFORMANCE (FIGURES INCLUDE IDC AND EXPENSE CAPITALISATION)

(Rs. Crores)

	Filing	Tariff Order	Actuals	Shortfall
APTRANSCO	763.66	752.48	517.16	235.32

326. This shortfall has resulted in significant variation in the Capital Base calculations for FY 2001-02 as detailed in the Table below.

Table No.53

Capital Base for FY 2001-02
Comparison of Actual Costs with Tariff Order
(on the basis of Provisional Accounts for FY 2001-02)

(Rs. Crores)

	Filing	Tariff Order	Actual	Variance
Original Cost of Fixed Assets	3,622	2,634	3,066	432
Capital Works-in-Progress (CWIP)	706	1,315	482	(833)
Stores	5	5	4	(1)
Cash	20	6	7	1
Total (A)	**4,353**	**3,960**	**3,559**	**(401)**
Accumulated depreciation	849	788	844	56
Borrowings	2,617	2,196	1,586	(610)
Other no cost funds			986	986
Total (B)	**3,466**	**2,984**	**3,416**	**432**
Capital Base (A-B)	**887**	**976**	**143**	**(833)**

327. The adjustment (required due to this variance in the Capital Base calculated on the basis of the Provisional Accounts for (FY 2001-02) in Reasonable Return allowed in the calculation of the Aggregate Revenue Requirement for the Tariffs of FY 2001-02 is deferred till the audited / adopted

Annual Accounts of APTRANSCO for that year are made available to the Commission.

328. The shortfall in investment outlay for FY 2001-02 has also resulted in a shortfall in interest expenditure of Rs. 61.51 crores from the amount provided in the calculation of the Revenue Requirement in the Tariff Order for FY 2001-02 as detailed in the Table below.

Table No.54
CALCULATION FOR INTEREST ADJUSTMENT FOR FY 2001-02
(on the basis of Provisional Accounts for FY 2001-02)

1	Capital Expenditure as per Tariff Order	752.48
2	Actual Capital Expenditure	517.16
3	Project Loans drawn during the year	576.18
4	Limiting the loan drawals to the extent of Capital Expenditure	517.16
5	Gross Interest allowed in the Tariff Order	303.07
6	Total Interest as per Annual Accounts (ProvL)	290.12
7	Actual Interest incurred during the year for Project Loans	209.61
8	**(a) Interest limiting to the capital expenditure**	**188.14**
	(b) Other Finance Charges as detailed below	**18.82**
	(i) Govt. Guarantee Commission 3.25	
	(ii) Lease Rentals 3.09	
	(iii) LC Charges 11.27	
	(iv) Other Charges 1.21	
9	Total (8a+8b)	206.96
10	Interest Difference (5 minus 9)	96.11
11	IDC allowed in the Tariff Order	105.09
12	IDC as per Actuals (Provl Accts)	70.49
13	Difference in IDC (11 minus 12)	34.60
14	Interest Expense adjusted (10 minus 13)	61.51

329. The Commission considers that the interest amount of Rs.61.51 crores calculated as above out of the amount reckoned for calculations of Revenue Requirement in the Tariff Order for FY 2001-02 needs to be adjusted as negative special appropriation in the calculation of the Revenue Requirement for FY 2003-04 and is accordingly done.

<u>CAPITAL OUTLAY – Progress during FY 2002- 03 :</u>

330. In the ARR for FY 03-04 APTRANSCO has projected for FY 2002-03 a revised capital outlay (Base expenditure) of Rs. 413.01 Crores which works out to Rs. 480.02 Crores (with IDC and expenditure capitalization) as against Rs.819 crores reckoned in the Tariff Order for FY 2002-03. The Commission considers this projection too to be on the higher side keeping in view the progress of expenditure during the First half of the year upto Sept, 2002 and the track record of the past and allows an amount of Rs. 276.73 Crores towards base expenditure on the schemes given in the Table below:

Table No.55
Estimated Capital Outlay for FY 2002-03

(Rs. Crores)

S.No.	Name of Scheme	APTRANSCO	APERC
1	Srisailam Transmission Scheme	4.84	4.84
2	Simhadri Vizag Transmission Scheme	155.00	130.00
3	BPL - Ramagundam Transmission Scheme	1.00	0.50
4	PFC Schemes	106.84	57.00
5	APL-1	5.39	5.00
6	APL-1 (Suppl.)	75.74	35.00
7	Erection of 400 KV Sub-station in Mahaboobnagar.	1.25	1.00
8	Erection of 400 KV Sub-station in Nellore and Chittoor	0.75	0.75
9	REC Schemes	26.59	18.54
10	DFID (New)	14.10	14.10
11	Normal Plan	19.26	10.00
	TOTAL	**413.01**	**276.73**

331. The amount to be taken to CWIP in respect of the above schemes works out to Rs. 333.20 crores. as detailed in the Table below.

Table No.56
Amounts Taken to CWIP for FY 2002-03
(Projected CWIP as on 31.3.2003)

(Rs. Crores)

Particulars	APTRANSCO	APERC
Base capital expenditure	413.01	276.73
Expenses capitalized	35.08	35.08
Interest (IDC) capitalized	31.93	21.39
Total	**480.02**	**333.20**

The projected CWIP as on 31-3-2003 would serve as the Opening Balance for FY 2003-04.

CAPITAL OUTLAY – Projections for FY 2003-04:

332. As already mentioned above, the ARR projects a Base Capital Expenditure of Rs. 561.50 crores for FY2003-04 which together with the expenditure capitalization (Rs. 42.39 crores) and Interest During Construction (IDC) of Rs. 40.48 crores works out to Rs. 644.37 crores. Before dealing with the proposals in the filings, it is necessary to mention that the progress during the past year in the matter of obtaining prior approvals for schemes as required under para 10 of the Licence has not picked up any significant momentum. It may be recalled here that the Commission in its Tariff Order for FY 2002-03 stated in unambiguous terms that from FY 2003-04 onwards it would allow for inclusion in the CWIP only those schemes which have the prior approval of the Commission as required under Para 10 of the Licence or those which do not require such approval (being schemes individually costing less than Rs.5 Crores). Based on this norm and moderating the estimates of outlay projected by the Licensee for FY 2003-04 (scheme wise), the Commission allow for inclusion in the CWIP (for Capital Base calculations for FY 2003-04) an estimated amount of Rs. 314.80 Crores as Base Capital expenditure in respect of the following schemes as against Rs. 561.60 crores projected by the Licensee.

Table No.57
Estimated base capital expenditure for FY 2003-04

(Rs. Crores)

S.No.	Name of Scheme	APTRANSCO	APERC
1	Srisailam Transmission Scheme	2.00	2.00
2	Simhadri Vizag Transmission Scheme	141.00	105.00
3	BPL - Ramagundam Transmission Scheme	22.00	5.00
4	PFC Schemes	35.40	34.00
5	APL-1	0.40	0.00
6	APL-1 (Supply)	27.70	30.00
7	Erection of 400 KV Sub-station in Mahaboobnagar.	23.00	20.00
8	Erection of 400 KV Sub-station in Nellore and Chittoor	48.00	40.00
9	REC Schemes	120.00	50.00
10	DFID (New)	3.80	3.80
11	Normal Plan	46.30	15.00
12	Boundary Metering Scheme	0.00	10.00
		469.60	**314.80**

(Note : It may be mentioned here that the Boundary Metering Scheme figuring at S.No. 12 above has not been received in the Commission for approval under Para 10 of the Licence and has also not been included by the Licensee in its projections of Outlay for FY 2003-04. In later discussions with the Licensee it emerged that it was an accidental omission and was therefore agreed by the Commission to be included. ***The Licensee is directed to obtain the Commission's approval for the Scheme under Para 10 of the Licence latest by 30th June, 2003.***

333. The following schemes projected by the Licensee have not been considered for inclusion in CWIP for FY 2003-04 as they do not have the approval of the Commission under Para 10 of the Licence.

Table No.58
Schemes not included in CWIP for FY 2003-04

(Rs. Crores)

S.No.	Scheme	Amount
1	Short Gestation Transmission Project - 1	11.00
2	APL-2	80.00
3	Short Gestation Transmission Project - 2	1.00
		92.00

CAPITAL BASE – POSITIVE ELEMENTS:

Original Cost of Fixed Assets (OCFA):

334. The Licensee has proposed an amount of Rs.4144.60 crores as the Original Cost of Fixed Assets (excluding customer contributions) to be reckoned in the Capital Base calculations for FY 03-04. Details as to how this figure has been arrived at is not available in the filing. Attempts to check as to how this number might have been arrived at starting with the Gross Fixed Assets as at the end of FY 02 as per the provisional accounts made available to the Commission revealed that the Gross Fixed Assets reckoned in the filing (Para 8.1) is Rs.3129 crores whereas the number in the Provisional Accounts for FY 2001-02 is Rs.3096.95 crores. Further, there are inconsistencies in the same filing in the numbers projected for additions to the Gross Fixed Assets by transfers from Capital works-in-Progress (representing works scheduled to be completed and placed in service) during FY 2002-03 and FY 2003-04. Form 1.1d of the Filing projects a figure of Rs.771.70 crores for FY 2002-03 whereas the same appears in Form 1.1e as Rs.564.57 crores. Similarly, the expenditure (i.e., the outlay on completed Capital works) to be capitalized in FY 2003-04 has been shown in Form 1.1d as Rs.242.2 crores whereas the same appears in Form 1.1e as Rs.455.17 crores. It may also be mentioned in general regarding transfers from

CWIP to Original Cost of Fixed Assets which is meant to represent those assets which are completed (or commissioned where appropriate) and commenced utilization (which are referred to as capitalized works in commercial parlance) there appears to be discord in practices between the Works Wing of APTRANSCO and its Accounts Wing and this gives scope for apprehension on two counts. Works which are in fact not completed are capitalized in the Accounts while the projections made for purposes of ARR by the Works Wing exhibit capitalization proposals of even those works which in the Accounts already stand capitalized. Secondly the ARR projections for capitalization are not based on a review of the scheme-wise status of progress vis-à-vis the earlier planned execution schedule and a genuine appraisal of the completion programme of works / schemes. Pending a detailed examination of the practice obtaining in this regard, an amount of Rs.355 crores has been reckoned for transfer to OCFA from CWIP for FY 2002-03 representing the amount projected by APTRANSCO for capitalization of the Srisailam Power Transmission System Project as against the total of Rs.564.57 crores shown in the ARR (Form 1.1e). Similarly for FY 2003-04, an estimated amount of Rs.300 crores has been capitalized (as against Rs.455.17 crores proposed in the filing) representing sections of the Simhadri – Vizag Transmission Scheme likely to be completed and utilisation commenced during FY 2003-04.

335. The estimated amount to be reckoned under Original Cost of Fixed Assets in the Capital Base as on 31.03.2004 is therefore calculated as in the Table below.

Table No.59
ESTIMATED STATEMENT OF FIXED ASSETS AS ON 31.3.2004

(Rs. Crores)

NAME OF THE ITEM	**APTRANSCO**	**APERC**
Gross Fixed Assets as on 31.03.02	3129.00	3096.95
<u>LESS:</u>Consumer contributions and grants for Capital Assets	30.62	30.62
Original Cost of Fixed Assets (OCFA) as on 31.03.02	3098.38	3066.33
<u>ADD:</u> Works likely to be completed during 2002-03	564.57	355.00

OCFA as on 31.03.03	3662.95	3421.33
ADD: Works likely to be completed during 2003-04	455.17	300.00
OCFA as on 31.03.2004	4118.12	3721.33

Accordingly OCFA taken to Capital Base is Rs.3721.33 crores

CAPITAL WORKS – IN – PROGRESS (CWIP):

336. There are differences between the Provisional Accounts for 01-02 and the numbers in the filings in respect of Capital Works-in-Progress as on 31.03.02. While the Accounts show a figure of Rs.481.90 crores, the filing shows a figure of Rs.555.9 crores. The figure as per the Provisional Accounts has been adopted to arrive at the projected CWIP as on 31.03.04. Also, in respect of expenses (to be) capitalized for FY 2003-04, there is discrepancy in the filing. The item-wise expense capitalization proposed in the filing works out to Rs.42.98 crores as detailed in the Table below whereas the amount reckoned in the CWIP statement (in Form 1.1e) is Rs.42.39 crores.

TABLE No.60
EXPENSES CAPITALISATION DETAILS IN THE FILING FOR FY 2003-04

(Rs. crores)

	Amount	Reference to Filing
Expense Capitalized from		
i. Repairs and Maintenance	11.20	Para 8.3.11
ii. Employee Costs	27.80	Para 8.3.12
iii. Administration and General Expenses	3.98	Para 8.3.13
Total:	**42.98**	

The figure of Rs.42.98 crores has been adopted by the Commission.

337. As already stated above, the Commission has decided to reckon an outlay of Rs.276.73 crores for FY 02-03 and Rs.314.80 crores for FY 03-04 as Base Capital Expenditure (Para 330 & 332 ante). These together with the Expenses Capitalized and the IDC works out to Rs 333.20 crores and Rs. 380.48 crores

respectively. Consequently, the amount reckoned for CWIP for FY 02-03 works out to 460.10 crores and to Rs.540.58 crores for Capital Base calculations for FY 2003-04 as detailed in the Table below:

Table No.61

STATEMENT OF ESTIMATED WORKS IN PROGRESS FOR FY 2003-04

(Rs. crores)

	APTRANSCO	**APERC**
Opening Balance of CWIP 01.04.2002	555.93	481.90
Outlay during the year (FY 2002-03)	413.01	276.73
Expenses during the year Capitalized	35.08	35.08
Interest during construction charged to Capital (IDC)	31.93	21.39
Total Additions: Capital Expenditure	480.02	333.20
Total (OB + Additions)	1035.95	815.10
LESS: Works anticipated to be completed in FY 2002-03	564.57	355.00
Closing Balance of CWIP as on 31.03.03 and Opening balance as on 01.04.2003	471.38	460.10
Additional Investments during the year (FY 2003-04)	561.50	314.80
Expenses during the year Capitalized	42.39	42.98
Interest during construction charged to Capital (IDC)	40.48	22.70
Total Additions: Capital Expenditure	644.37	380.48
Total (OB + Additions)	1115.75	840.58
LESS: Works anticipated to be completed in FY 2003-04	455.17	300.00
Closing Balance of CWIP as on 31.03.04	660.58	540.58

INVESTMENTS:

338. The Licensee has proposed that an amount of Rs.19.6 crores be reckoned as “Investments” in the Positive Elements of the Capital Base. Though not explicitly so stated, the amount appears to represent Investments of amounts claimed towards Contingencies Reserve which is reflected in the present filings (vide Para 8.3.20) at Rs.9.2 crores for FY 2002-03 and at Rs.10.4 crores for FY 2003-04 aggregating to Rs.19.6 crores as on 31.03.04. (Incidentally, it may be

pointed out that the Special Appropriation towards Contribution to Contingencies Reserve provided in the computation of the Revenue Requirement for FY 2002-03 in the Tariff Order is Rs.10.08 crores and not Rs.9.2 crores). However, considering the fact that no provision in the Accounts towards Contingencies Reserve has been made by the Licensee for FY 2000-01 and FY 2001-02 and correspondingly no investments also have been made in respect of these two years despite the Commission providing for the Special Appropriation of the required amounts in the Revenue Requirement calculations of both years, the Commission in its order on RP No.3/2003 in OP No.29/2002 has directed that reversal adjustments be carried out in respect of the amounts provided in the Tariff Orders for FY 2000-01 and FY 2001-02 and accordingly the adjustments have been carried out as detailed in the relevant paragraphs infra. The point here is that the track record in the matter of making provision in the accounts of the relevant years towards Contingencies Reserve and also making corresponding investments as required under the Sixth Schedule is not such as to enable an investment to be reckoned (in anticipation of the investment) in the Capital Base with the firm conviction that the required provisions and investments would in fact be made as required by Law. Moreover, the investment in respect of the Contingencies Reserve for FY 2003-04 is to be made as per the Sixth Schedule latest by the end of September 2004 and this therefore cannot be reckoned as investment in the Capital Base of FY 2003-04. No amount has therefore been reckoned under “Investments” in the Capital Base calculations for FY 2003-04 as against Rs.19.6 crores claimed by the Licensee in the Filing.

WORKING CAPITAL REQUIREMENTS:

339. The Licensee’s plea for Working Capital and the interest on borrowings therefor have been considered in detail by the Commission in the context of the Discussion Paper submitted by the Licensees in response to Para 236 of the Commission’s Tariff Order of 24th March, 2002. A detailed analysis of the position in this regard taking into account the existing billing and collection lags

revealed that the working capital calculated so calculated corresponds to roughly one month's average cash and bank balance. However, considering the working capital difficulties in the transition that the Licensee represented strongly about, the Commission decides to allow the Average Cash & Bank balance in the computation of the Capital Base at two months' level of eligible items of expenses instead of one month as hitherto. This is intended to provide a trajectory to an efficient level over a period of 3 years. The level would therefore be 2 months for FY 2003-04 and FY 2004-05 and 1½ months for FY 2005-06. Thereafter it would revert to the one months' level. There will be no change in the level of Average Cost of Stores which is already being provided at 2 months' level of the annual repair and maintenance expenses.

AVERAGE COST OF STORES:

340. APTRANSCO has proposed an amount of Rs.6.60 crores towards Average Cost of Stores for inclusion in the Capital Base Calculations. It may be mentioned here that in the Tariff Order for FY 2002-03 a level of 2 month's requirement of Repair and Maintenance expenses was considered reasonable and the Commission has decided to continue the same level as detailed in the Paragraph above. An amount of Rs.4.72 crores calculated at two months requirement of the Repairs and Maintenance expenses (Rs.28.30 crores) which is also as claimed by the Licensee is therefore provided.

AVERAGE CASH AND BANK BALANCE:

341. The Licensee has proposed Rs.9.50 crores towards Cash and Bank Balance and has stated that this has been calculated to equal one month's requirement of specified operating expenses viz the aggregate of Wages and Salaries, Repairs and Maintenance, Administrative and General Expenses, Rent, Rates and Taxes, and Contribution to Employee funds for the year. As stated above (Para 205) the provision under this head is to be calculated at two months'

level of eligible items of expenses for FY 2003-04 instead of one month as hitherto. Calculated on this basis and detailed in the Table below the Average Cash and Bank Balance works out to Rs.18.90 crores which is provided for in the calculation of the Capital Base.

Table No.62

(Rs. Crores)

Wages and Salaries	63.50
Admin. And General Expenses	9.30
Repairs and Maintenance	28.30
Rent, Rates and Taxes	0.50
Contribution to Employee funds	11.82
Total expenses	**113.42**
Average Cash and Bank Balances (113.42 ÷6)	**18.90**

CAPITAL BASE-NEGATIVE ELEMENTS:

Accumulated Depreciation

342. The accumulated depreciation as projected by the Licensee in the filings is Rs.1273.10 crores against which Rs.1259.93 crores is admitted. The difference is due to the capitalization of works in FY 2001-02 being taken at slightly less than the projections in the filings as already mentioned above in para 334.

LOANS FROM GOVERNMENT AND APPROVED INSTITUTIONS:

343. The Licensee has shown in the present filing loans as shown in the table below in the negative elements of the Capital Base for the previous year (FY 2001-02), the current year (FY 2002-03) and the ensuing year (FY 2003-04). The Table also shows the net accretion to the Loan Portfolio (as shown by the Licensee in the Capital Base) in FY 2002-03 and FY 2003-04.

Table No.63

(Rs. crores)

Particulars	For FY 2001-02	For FY 2002-03	For FY 2003-04
Government Loans	485.4	688.4	867.7
Approved Loans	1215.6	1070.3	1117.8
Other Marketing borrowings for CAPEX		67.0	149.9
Total	**1701.0**	**1825.7**	**2135.4**
Net accretion to the Loan Portfolio		124.7	309.7

344. The filing also shows the position as follows in respect of Original Cost of Fixed Assets (OCFA), Capital Works-in-Progress (CWIP), and Accumulated Depreciation in the Capital Base calculation in respect of the same 3 years.

Table No.64

(Rs. crores)

	For FY 2001-02	For FY 2002-03	For FY 2003-04
OCFA	3124.9	3689.5	4144.6
CWIP	555.9	471.4	660.6
Total:	**3680.8**	**4160.9**	**4805.2**
Accretion: Capital Expenditure		480.1	644.3
Accumulated Depreciation	844.5	1040.9	1273.1
Accretion: Depreciation for the year		196.4	232.2

345. The above analysis reveals that the capital expenditure of Rs.480.1 crores (as per the filing) estimated for FY 2002-03 is more than the aggregate (which is Rs.321.1 crores) of the funds available by way of depreciation (Rs.196.4 crores) and accretion to the loan portfolio (Rs.124.7 crores) as reflected in the Licensee's

projection of Capital Base. This is so in respect of FY 2003-04 also and the position for the two years is summarized in the Table below.

Table No.65

		(Rs. crores)
Particulars	**FY 2002-03**	**FY 2003-04**
Accretion to OCFA and CWIP	480.1	644.3
Accretion to Depreciation	196.4	232.2
Accretion to Loans (shown in Capital Base)	124.7	309.7
Total:	**321.1**	**541.9**
DIFFERENCE	159.0	102.4

346. The difference probably represents loans taken to repay earlier loans reckoned in the Capital Base of previous years, the repayments being in excess of the funds available through depreciation but these loans are not taken by the Licensee in the negative side of the Capital Base ostensibly for the reason that these are “short term loans”. The difference, in other words, is the excess of loan repayments over depreciation which the Licensee has mentioned in the filing (Para 8.3.20 of the ARR) as Rs.163.5 crores for FY 2002-03 and Rs.105.9 crores for FY 2003-04 which correspond to the figures of Rs.159.0 crores and Rs.102.4 crores shown in the Table above. It is seen from the filing that the loan repayments estimated for FY 2002-03 are Rs.355.3 crores (Annexure 1 to filings P187 vol II) while the depreciation funds available as per the estimates in the filing are Rs.196.4 crores leaving a gap of Rs.158.9 crores. Similarly for FY 2003-04 the repayments projected are Rs.334.71 crores (Annexure 1 to filings P187 vol II) while the depreciation funds available are Rs.232.22 crores leaving a gap of Rs.102.49 crores. This gap is financed obviously by new loans which are not taken by the Licensee in the Capital Base Calculations. This leads to the artificial boosting up of the Capital Base from year to year as detailed below.

The filing shows the Capital Base as follows for the 3 years (Form 1.1 of the ARR P151 Vol II):

Table No.66

CAPITAL BASE

(Rs. Crores)

Year	Amount
For FY 2001-02	1111.5
For FY 2002-03	1318.3
For FY 2003-04	1432.4

347. The Capital Base for FY 2002-03 (as per the filing) shows an increase of Rs.206.8 crores over that of FY 2001-02 and the Capital Base for FY 2003-04 shows an increase of Rs.114.1 crores over that of FY 2002-03. This increase is not tenable as it is purely due to the incorrect treatment of loans and their repayment for purposes of Capital Base Calculations. This is also evident from the fact that this increase is being claimed without any accretion to Net Worth either by way infusion of fresh equity or by way of plough back of internal surpluses. (The latter does not arise as there are no internal surpluses in any year for APTRANSCO after the Sector was unbundled under the First and Second Transfer Schemes).

348. The Capital Base of Rs.1111.5 crores for FY 2001-02 shown in the present filing is itself overstated. This, as already explained above, is due (again) to the way the loans and other sources of finance are reckoned for being shown on the negative side of the Capital Base. For an analysis of this, it is necessary to take a look at the Balance Sheet as on 31.03.02 forming part of the Annual Accounts (unaudited) for FY 2001-02 made available by the Licensee at the request of the Commission in February, 2003. The Balance Sheet is reproduced below for reference.

Table No.67

PROVISIONAL ANNUAL ACCOUNTS OF APTRANSCO FOR FY 2001-02
BALANCE SHEET AS ON 31.3.2002

(Rs. in Crores)

Sl.No.	Particulars	This year 2001-02	Previous year 2000-01
	NET ASSETS:		

Sl.No.	Particulars	This year 2001-02	Previous year 2000-01
1	Net Fixed Assets		
	Gross Block	3096.95	2491.88
	LESS: Accumulated Depreciation	844.48	692.02
	Net Fixed Assets	2252.47	1799.86
2	Capital Works in Progress (CWIP)	481.90	569.80
3	Investments	1336.61	1330.26
	Net Current Assets		
	Total Current Assets	1679.56	639.64
	LESS: Total Current Liabilities	3635.70	2182.27
4	**Net Current Assets**	(1956.14)	(1542.63)
5	Subsidy Receivable from Government	832.40	861.99
6	Deficit for the year 2001-02	370.50	
	NET ASSETS:	3317.74	3019.28
	FINANCED BY:		
7	Borrowings for working capital	213.71	108.68
8	Payments due on Capital Liabilities	(421.45)	(353.99)
9	Capital Liabilities	1470.71	1452.82
10	Funds from State Government - Loans	536.67	332.41
11	Equity	1448.75	1434.34
12	Grant-in-Aid		14.41
13	Contributions, Grants and Subsidies towards cost of Capital Assets	30.62	0.62
14	Reserve and Reserve Funds	25.32	16.58
15	Surplus	13.41	13.41
	TOTAL FUNDS	3317.74	3019.28

349. The Balance Sheet above as on 31.03.02 shows that the total net assets of Rs.3317.74 crores are “financed by” funds as detailed in the above Balance Sheet which also aggregate to Rs.3317.74 crores. This is to be analyzed to see how the Net Fixed Assets of the business of APTRANSCO (Rs.2252.47 crores) and CWIP (Rs.481.90 crores) are financed by various sources of finance such as

Share Capital, loans, contributions and grants and others (if any). This is done in the following four steps:

i) The Net Fixed Assets in the Balance Sheet is Rs.2252.47 crores and under the heading "Financed by" there is an item "Contributions, grants and subsidies towards cost of Capital Assets" against which an amount of Rs.30.62 crores is shown. The Net Fixed Assets to be financed by other sources such as share capital, loans and other sources (if any) is therefore Rs.2221.85 crores (2252.47 minus 30.62).

ii) Under Assets, Investments are shown as Rs.1336.61 crores and it is seen that out of this an amount of Rs.1330.26 crores represents investment of APTRANSCO in the Equity Share Capital of M/s. GVK Industries and the 4 DISCOMs as per the Second Transfer Scheme. The Equity Capital of APTRANSCO (Rs.1448.75 crores) available to finance the fixed assets of the business of APTRANSCO is therefore Rs.118.49 crores (Rs.1448.75 crores minus Rs.1330.26 crores).

iii) The Balance Sheet shows a deficit of Rs.370.51 crores and the borrowings for working capital (Rs.213.71 crores) normally arise in business due to such deficits. The deficit that remains to be financed from other sources would be Rs.131.47 crores after setting off the Reserves also of Rs.25.32 crores (Rs.370.51 crores minus 213.71 crores minus Rs.25.32 crores)

iv) The position that emerges at this stage regarding the net assets and the financing sources (both as per the Provisional Balance Sheet) is as follows:

Table No.68
Statement of Assets (balance) and Sources of Finance available to Finance the Assets

(Rs. crores)

Remaining Assets	Remaining Sources

Net Fixed Assets	2221.85	Share Capital (Balance)	118.49
CWIP	481.90	Capital Liabilities	1470.71
Investments (balance)	6.35	Payments due on Capital Liabilities	(-)421.45
Subsidy Receivable from Government	832.40	Government Loans	536.67
Deficit (balance)	131.47	Surplus	13.41
	3673.97		**1717.83**

350. The difference between the two figures which is Rs.1956.14 crores is nothing but the Net Current Assets appearing in the Balance Sheet on the Asset side in brackets indicating that it is a negative amount. This is the difference between total current assets of Rs.1679.56 crores and total current liabilities of Rs.3635.70 crores. The excess of current assets over current liabilities is referred to as working capital. But in the Balance Sheet above of APTRANSCO, the working capital is negative as the current liabilities are more than the current assets. In other words, in this Balance Sheet, this difference operates as a source of finance itself instead of the working capital needing to be financed (as is usually the case) from a source. It is found from the filing that out of the current liabilities the payables due towards energy purchased by APTRANSCO were of the order of Rs.2196 crores by the end of March 2002 (Para 8.1 ARR vol II) which is indicative of the use of available funds more towards loan repayments and payments for capital works than for discharging dues outstanding for power purchased in FY 2001-02 with the result that a substantial portion of the fixed assets and capital works-in-progress on the asset side are counterbalanced (i.e. financed) by these and other current liabilities and not merely by the so called long term loans.

351. In such a situation, it is obvious that reckoning only long term loan (balances) on the negative side of the Capital Base when the assets (particularly OCFA and CWIP) reckoned on the positive side of the Capital Base have in fact been financed by sources other than long term loans too leads to overstating the Capital Base. This is because it amounts to treating all funds other than the (so called) long term loans which have gone to finance the assets as (by default)

owner’s equity (or net worth) when in fact the funds are not the own funds of the company; they could be, as in this case, part of current liabilities representing payables due for energy purchased or other payables. These also need to be included (wherever and whenever they are so used) in the negative side of the Capital Base for a proper calculation of the Capital Base.

352. Considering the amount of Rs.1956.14 crores as a source of finance and setting off there against an amount of Rs.970.22 crores which is the aggregate of the Investments (balance of Rs.6.35 crores), the subsidy receivable from Government (Rs.832.40 crores) and the deficit (balance of Rs.131.47 crores as mentioned in the Table above) as having been financed by the excess of current liabilities over current assets, the position that emerges is that an amount of Rs.985.92 crores (1956.14 minus 970.22) has gone to finance the capital assets of APTRANSCO and this amount of Rs.985.92 is definitely not own funds of the company. It has therefore to be included among the negative elements for a proper calculation of the Capital Base.

353. In summary, the Net Fixed Assets (Rs.2252.47 crores) and CWIP (Rs.481.90 crores) as on 31.03.02 aggregating to Rs.2734.37 crores are financed as detailed in the following Table.

Table No.69

FINANCING OF OCFA AND CWIP AS ON 31.03.02

(Rs. Crores)

CAPITAL ASSETS	AMOUNT	
Net Fixed Assets		2252.47
CWIP		481.90
Total		2734.37
FINANCED BY	AMOUNT	
A. Loans		
Govt. Loans	536.47	
Other Loans	1470.71	
Payments due on Capital Liabilities	(-) 421.45	1585.93
B. Current Liabilities		985.92
C. Contributions, grants etc.		30.62

D. OWN FUNDS		
Share Capital	118.49	
Surplus	13.41	131.90
Total		2734.37

354. Funds other than the Company's own funds which have gone to fund OCFA (excluding contributions and grants) and CWIP are Rs.1585.93 crores as loans and Rs.985.92 crores from current liabilities and the aggregate of the two is Rs.2571.85 crores.

355. These are rolled forward to provide for the capital expenditure approved by the Commission (including expenditure capitalization and IDC) for FY 2002-03 and FY 2003-04 which are Rs. 333.20 crores and Rs.380.47 crores totalling to Rs.713.67 crores. The depreciation funds available for the two years are Rs.196.45 crores and Rs.218.99 crores respectively totaling Rs.415.44 crores. As the Filing mentions that no infusion of fresh equity is envisaged during FY 2002-03 or FY 2003-04, the entire balance requirement of Rs.298.23 crores together with the working capital provision (by way of cost of stores and average of cash and bank balances) of Rs.23.62 crores aggregating to Rs.321.85 is taken as being met from loans. This is added to the figure of Rs.2571.85 crores (identified above as representing all funds other the Company's own funds which have gone into the Funding of the OCFA and CWIP as on 31.03.02) to arrive at the figure of Rs.2893.70 crores shown under Loans among the negative elements of the Capital Base. It would be appreciated that in doing so the Commission has treated the amount of Rs.985.72 crores from the current liabilities which has gone into the funding of OCFA and CWIP as on 31.03.02 as a temporary aberration and provided for its replacement by loans in the space of the two years (i.e., by 31.03.04) and utilize the resulting liquidity to discharge its payment obligations towards payables due for power purchased. The Commission expresses its anxiety about the apparent laxity in managing the affairs of the company which give rise to such distortions. The Licensee is advised to institute proper control mechanisms to ensure proper utilization of

funds for the purpose for which they are meant and avoid as far as possible the mix-up of long-term and short-term funds.

NET CAPITAL BASE:

356. With the above changes in the positive and negative elements of the Capital Base, the Net Capital Base works out to Rs.131.90 crores as detailed in the Table below as against Rs.1432.40 crores projected by the Licensee.

Table No.70

Capital Base Calculations For FY 2003-04

(Rs. Crores)

NAME OF THE ITEM	APTRANSCO	APERC
Positive Elements of Capital Base		
Original Cost of Fixed Assets	4144.60	3721.33
Capital Works in Progress	660.60	540.58
Investments	19.60	0.00
Working Capital		
a) Average Cost of Stores	6.60	4.72
b) Average Cash and Bank Balance	9.50	18.90
Total of Positive Elements of Capital Base	**4840.90**	**4285.53**
Negative Elements of Capital Base		
Accumulated Depreciation	1273.10	1259.93
Government Loans	867.70	
Approved Loans	1117.80	2893.70
Other Market Borrowings for CAPEX	149.90	
Total of Negative Elements of Capital Base	**3408.50**	**4153.63**
Net Capital Base	**1432.40**	**131.90**

EXPENDITURE:

Purchase of Energy

357. The sales requirement of the DISCOMS was analyzed category wise and month wise for each DISCOM. The projected losses of the DISCOMS and APTRANSCO were added to arrive at the overall energy requirement for APTRANSCO. In the ensuing year Availability Based Tariff will be fully in force and will have to be taken into account to refine the sales forecast from the

present projections. For the purpose of ABT DISCOMs should be submitting their requirement to TRANSCO periodically. In turn DISCOMs will need to know in advance the demand requirements of consumers of 10 MVA and above for better implementation of ABT. **The Commission directs the Licensees estimates, may be based on the advance information obtained in respect of demand requirement of consumers with more than 10 MVA contracted demand from all sources.**

Sales Forecast:

358. Sales forecast filed by DISCOMS and approved by the Commission are given below:

Table No.71

DISCOMS	East	South	Central	North	Total
1. Total Sales filed in MU	5351	7909	13524	6254	33037
2. Total Sales approved in MU	5506	7884	13772	6295	33457

Against the filed requirement of 33037 MU the Commission has approved sales of 33457 MU on the basis of past trends and realistic growth rates attainable. Detailed discussion on the sales forecast is in chapter XV. These projections, it is clarified by APTRANSCO, are without taking into account the provision of 24 hour supply assumption to rural areas.

359. In the ensuing year DISCOMS have projected losses of 16% (East), 19.43% (South), 19.19% (Central) and 20.34% (North) respectively. These loss estimates have been used by the Commission for computing the power purchase requirement. The power purchase requirement of each DISCOM is worked out taking into account approved sales and losses as shown in the table below.

Table No.72
Power Purchase requirement of DISCOMS in FY 2003-2004 (in MU)

DISCOM	Sales		Losses		Purchases	
	Filed	**Approved**	**Filed percentage**	**Approved percentage**	**Filed**	**Approved**
East	5351	5506	16%	16%	6370	6555
South	7909	7884	19.43%	19.43%	9816	9785
Central	13524	13772	19.19%	19.19%	16735	17043
North	6254	6295	20.34%	20.34%	7851	7903
Total	33037	33457	18.97%	18.97%	40772	41285

360. All the Distribution Companies have provided details of sales forecast month wise and category wise as part of the filing. For scheduling and drawal of energy month wise, the DISCOMs submitted available sources month wise against the demand projected. Availability statement was filed by Licensee in the original filing, while month wise sales forecast was submitted as additional information. Category wise quarterly consumption estimate approved by the Commission for all DISCOMs is shown in the Table below for FY 2003-2004. Details for each DISCOM are set out in the annexures to this Chapter.

Table No.73

Category wise Quarterly sales Projection in all DISCOMS in FY 2003-2004

(in MU)

CATEGORY	Qtr 1	Qtr 2	Qtr 3	Qtr4	TOTAL

HT					
HT-INDUSTRIAL	1398	1223	1269	1407	5297
HT NON-INDUSTRIAL	265	270	266	251	1052
IRRIGATION AND AGRI	30	30	53.5	62.5	176
RAILWAY TRACTION	278	279	286	312	1155
COLONY LIGHTING	45	46.5	46	44.50	182
RESCO's	262	285	283	291	1121
TEMPORARY	2.22	2.51	3.23	4.04	12.00
HT TOTAL	2280.22	2136.01	2206.73	2372.04	8995
LT					
DOMESTIC	1993	2108	2131	1974	8206
NON-DOMESTIC	440	454	468	452	1814
INDUSTRIAL	579	501	525	636	2241
COTTAGE INDUSTRIES	8.25	8.25	8	8.5	33
AGRI	2474	2897	2827	3152	11350
LOCAL BODIES	162	171	181	183	697
GEN PURPOSE	25	24	25	27	101
TEMPORARY	5.03	4.15	5.11	5.71	20
LT TOTAL	5686.28	6167.4	6170.11	6438.21	24462
TOTAL SALES	7967	8303	8376	8811	33457
DISCOM LOSSES(MU)	1864	1943	1960	2061	7828
DISCOM INPUT(MU)	9831	10246	10336	10872	41285
DISCOM LOSS(%)	18.97%	18.97%	18.87%	18.97%	18.97%

The sales projection on a quarterly basis for each DISCOM with a breakup of agricultural consumption is as follows.

Table No.74

Sales in DISCOMS in FY 2003-2004 in MU

	CPDCL		EPDCL		NPDCL		SPDCL		All Discoms	
	Agriculture	Total	Agriculture	Total	Agriculture	Total	Agriculture	Total	Agriculture	Total
Qtr1	1045	3438	278	1287	483	1354	667	1889	2474	7967
Qtr2	1263	3361	302	1425	685	1551	647	1956	2897	8294
Qtr3	1154	3334	259	1391	812	1695	602	1957	2827	8377
Qtr4	1338	3639	311	1403	820	1695	684	2082	3152	8820
Total	4800	13772	1150	5506	2800	6295	2600	7884	11350	33458

The nine Rural Electric Cooperative Societies are supplying power to the consumers in their franchisee areas. Category wise consumption forecast made by the RESCOs is provided in following table.

Table No.75

Rural Electric Co-operative Societies Category wise Sales forecast for Fy 2003-2004							
Sl. No.	Name of the RESCO	Cat - I	Cat – V	LT Other	LT	Power	Distribution
		Domestic MU	Irri & Agrl MU	Categories MU	Sales MU	Purchases MU	Losses %
1	Anakapalli	27.91	23.34	10.80	62.05	75	17.27
	% of Total	44.98	37.61	17.41	100.00		
2	Chipurupalli	8.17	10.1	3.61	21.88	27	18.96
	% of Total	37.34	46.16	16.50	100.00		
3	Kadiri-East	7.27	43.37	1.37	52.01	65	19.99
	% of Sales	13.98	83.40	2.62	100.00		
4	Kadiri-West	7.87	37.46	1.07	46.40	58	20.00
	% of Sales	16.96	80.74	2.31	100.00		
5	Sanjay	13.73	121.34	5.21	140.28	167	16.00
	% of Sales	9.78	86.50	3.72	100.00		
6	Siricilla	39.81	266.04	26.13	331.98	400	17.00
	% of Sales	11.99	80.14	7.87	100.00		
7	Atmakur	10.46	30.62	7.32	48.40	59	18.00
	% of Sales	19.23	67.32	13.46	100.00		
8	Kuppam	10.66	113.18	12.26	136.10	165	17.52

	% of Sales	7.83	83.16	9.01	100.00		
9	Rayachoty	21.20	58.75	5.66	85.61	105	18.47
	% of Sales	24.76	68.63	6.61	100.00		
	Total	147.08	704.20	73.43	924.71	1121	17.50
	% of all Sales	15.91	76.15	7.94	100		

361. The Commission approves a total power purchase of 41285 MU for retail supply by the DISCOMS (including RESCOs) to specific end consumers during FY 2003-04.

362. DISCOMS have entered into a Bulk Supply Agreement (BSA) with APTRANSCO for the supply of energy. Under the present single buyer system APTRANSCO the Transmission and Bulk supply licensee alone is authorized to supply the entire requirement of the DISCOMS. APTRANSCO has projected Transmission Losses of 7.25% for the ensuing year. The Commission fixed the loss level for APTRANSCO as 7% in para 175. On this basis the Commission approves a total power purchase of 44393 MU for bulk supply by APTRANSCO to DISCOMS during FY 2003-04.

363. Total Losses in the transmission and distribution sectors are 10,935 MU, consisting of 3,108 MU (7%) for transmission and 7,827 MU (17.63% of gross purchase or 18.96% of Discom input) for distribution, in the gross purchases of 44,393 MU. The overall system loss works out to 24.63%.

Availability of Power:

364. As per the filings APTRANSCO has projected an availability of 49747 MU. The Commission has determined the same at 49353 MU as shown in the table below:

Table No.76

Availability of energy from different sources for FY 2003-04

Source of power	APTRANSCO MU	APERC MU	Remarks
APGENCO Hydel Thermal Total	 6757 19612 26369	 6757 19612 26369	The projected hydro availability of Srisailam LBPH and RBPH has been considered available from the Right Bank power house in conventional mode operation.
CGS (Southern Region)	6700	6345	NTPC (SR) & NLC are computed net of auxiliary losses. 200 MU is considered as available from NPC Kaiga
NTPC (ER)	-	1133	Availability from APTRANSCO's share of capacity of ER stations.
Simhadri	6031	5662	Generation from Simhadri has been reduced considering a six month stabilization period for Unit II.
Other SEBs	60	60	
NTPC Talcher 2	1080	628	25% PLF for 1 year taken for 500 MW as infirm power 50% PLF for 6 months taken for 500 MW as firm power
APGPCL	383	405	Based on current year approved levels
IPPs	7148	7148	Projected levels accepted
Others	1976	1602	NEDCAP is considered at 1216 MU and is as filed. VSP & NBFA total availability of 360 MU not considered as PPAs have expired RCL availability has been reduced by 14 MU.
Total	**49,747**	**49,353**	

Details of the power available from each of the sources are presented in the following paragraphs:

A. APGENCO:

365. The projected energy available from APGENCO stations is after deducting auxiliary power consumption. Failure of Hydel has been one of the major factors for power purchase variations. Data of the recent past shows a marked difference from the historical trends rendering the accurate estimation of Hydel availability a difficult task. The comparative position is set out in the table below.

Table No.77
Hydro Availability in the recent years

	Filing MU	Tariff Order MU	Actual MU	Variation between Tariff Order & Actual
FY2000-01	8540.65	8537.91	7048	-17.5%
FY2001-02	8994	8694	5647	-35%
FY2002-03	7494	6999	3020	-57%

Further, AP TRANSCO/APGENCO has submitted that the raising of the height of the Almatti Dam, would cause a shortfall of 1,000 MU in the generation from Srisailam and Nargarjuna Sagar reservoirs. APGENCO has confirmed that the projected level of generation of 6757 MU for 2003-2004 has taken into account the Almatti effect.

366. As per G.O. 69 dated 15.6.1996 of GoAP, submitted by the Licensee the first charge on water from Srisailam, Nagarjuna Sagar and other water bodies is towards irrigation. In these circumstances utilisation of Srisailam water for Power generation is restricted to the right bank, and the left bank can draw water when there is surplus and overflow. SLBH is envisaged as peak load station on a pumped storage basis. Both APTRANSCO and APGENCO have confirmed that SLBH cannot be run as a pumped storage station for another six years. In the light of the above, normal generation from the Left bank power house cannot be considered for inclusion in power availability. Licensee projected 1638 MU generation from Right Bank and 900 MU generation from left bank power house, after taking into account raising of the height of the Almatti dam. The

Commission, in the light of the above GO and changes in the hydrology, is of the opinion that generation of 900 MU from SSLBPH is not too certain. Hence in this Tariff order, entire power generation from Srisailam is considered from the right bank power house only. Total generation at Srisailam is projected to be 2538 MU taking into consideration that 900 MU generation estimated from SLBPH during the surplussing period would be generated from the Right Bank.

367. However in the event of surplussing of the Srisailam reservoir, extra energy from Left Bank Power House over and above the generation from right bank at its full capacity shall be paid at agreed price as consented by the Commission considering the energy as a run off the river energy.

The station wise break-up of hydro availability is as shown below:

Table No.78
APGENCO Availability – Hydel Power Stations

Name of Unit	Capacity MW	PLF %	APTRANSCO MU	APERC MU
Machkund (AP share)	79.8	54%	469	469
Tungabadra Dam (AP share)	57.6	26%	141	141
Upper Sileru	240	17%	364	364
Donkarayi	25	34%	74	74
Lower Sileru	460	23%	932	932
Srisailam RB	770	29%	1,638	2,538
N'Sagar	815.6	19%	1,849	1,849
NS RCPH	90	13%	178	178
NS LCPH	60	9%	80	80
PABR	20	6%	10	10
Pochampad	27	37%	86	86
Nizamsagar	10	17%	15	15
Singur	15	7%	10	10
Srisailam LB	450	8%	900	0

Mini Hydel	8	14%	10	10
TOTAL	**3128**	**21%**	**6757**	**6757**

The Thermal generations from generating stations of APGENCO is estimated as under:

Table No.79
APGENCO Thermal Stations Availability

Name of Unit	Capacity MW	PLF percentage Net	APTRANSCO MU	APERC MU
VijayawadaTS-I (VTS-I)	420	71%	2,613	2,613
VijayawadaTS-II (VTS-II)	420	83%	3,069	3,069
VijayawadaTS-III (VTS-III)	420	82%	3,024	3,024
RayalaseemsTPS(RTPS)	420	78%	2,884	2,884
KothagudemTS-D(KTS-A)	240	73%	1,536	1,536
KothagudemTS-D(KTS-B)	230	80%	1,607	1,607
KothagudemTS-D(KTS-C)*	220	47%	908	908
KothagudemTS-D(KTS-D)	500	79%	3,448	3,448
Ramagundam-B** (RTS-B)	62.5	67%	365	365
NelloreTS (NTS)**	30	60%	159	159
Total	**2962.5**		**19612**	**19612**

* KTPS- C two units are planned for major shut down one after the other to take up Renovation & Modernization to increase the normative generation from 85MW to 115 MW.
** Ramagundam-B and Nellore being the oldest stations with higher variable cost their normal generation of about 55 MW and 25 MW.

B. Central Generating Stations: Power generated by Central Generating Stations (CGS) is available to Andhra Pradesh from three sources.

368. The First source is the Southern Regional Pool consisting of NTPC Ramagundam, Neyveli Lignite Corporation Stage I & II of Thermal Station II,

Madras Atomic Power Station, Kaiga Atomic Power station and Talcher Stage-2 exclusively built for Southern Region. The prevailing arrangement is to allocate shares to each state; thereafter the unallocated energy is further distributed among the needy states as per their share and with special allocations, if any. Andhra Pradesh has commercial arrangements with all the power generating stations and the details are shown in the following Table. At present allocation for AP from Kaiga Power Station is Zero. Talcher stage-2 first unit is synchronized in January 2003. Another unit is expected to be commissioned in FY 2003-2004.

Table No.80
AP share in Central Generating Station (Filing)

Station	Capacity (MW)	AP share allocated %	AP share MW	AP share Unallocated MW	Total AP Share including unallocated MW	AP Share in cluding unallocated (% of Capacity)
NTPC Ramagundam	2100	27.6	580	102.6	682.6	32.5%
NLC TPS-2	1470	18.8	277	19.5	296.5	20.1%
MAPS	340	8.2	28	2.7	30.7	9.0%
Kaiga	440	0	0	0	0	0
Sub Total	4350		885	124.8	1009.8	23.2%
Talcher Stage-2	500* 2000 **	25%	125		125	25%
Simhadri	1000	100	1000	-	1000	

(*)First 500 MW unit is synchronized and another unit of 500 MWis expected to be commissioned in FY 2003-2004
(**)Ultimate installed capacity 2000 MW.

369. Till the commercial date of operation (COD) energy is likely to be available as infirm power from Talcher-stage2 for the beneficiaries. The licensee has projected an availability of 1080 MU from the 2 units of Talcher stage 2. Unit 1 of Stage 2 (500 MW) is estimated to provide infirm power for the first six months of the ensuing year at a PLF of 25%. For the remaining six months during the stabilization period,Unit1 is expected to produce firm power at a PLF of 50%. Unit 2 (500 MW) of Stage 2 is expected to produce infirm power for the second half of

the year at a PLF of 25%. Hence the availability of power from Talcher 2 is calculated as 628 MU as against an availability of 1080 MU shown in the filings.

370. The second source of energy is from NTPC (Eastern Region). In the filings, APTRANSCO has submitted that as per existing Power Purchase Agreements its share in the Eastern Region is 179 MW. Licensee subsequently submitted that in view of ABT coming into force in the Eastern Region from 1st April 2003, AP TRANSCO would have to bear the fixed costs associated with its share of 179 MW. Accordingly APTRANSCO revised the availability of power from NTPC(ER). The total availability from NTPC(ER) based on APTRANSCO's share of 179 MW is 1133 MU and the same is accepted.

371. The third source is Simhadri Power Station which is exclusively meant for Andhra Pradesh. As per the filing, the availability for Simhadri has been projected at 6031 MU. As Unit II (500 MW) is expected to have a stabilization period for 6 months from the commercial date of operation (1.3.2003), a lower PLF for these months has been considered. The availability from Simhadri hence works out to 5662 MU and accepted by the Commission accordingly.

372. To summarize Central Generating Stations are expected to contribute 13769 MU i.e. nearly 30% of the energy requirement in the ensuing year.

Table No.81
Power Available from Central Generators

(in MU)

	Name of station	APTRANSCO	APERC
Southern Region	NTPC - Ramagundam	4952	4461
	NLC STG I	580	551
	NLC STG II	1057	1022
	NPC - MAPS	112	112
	NPC - KAPP	-	200
Sub-Total		**6700**	**6345**

NTPC Talcher 2		**1080**	**628**
NTPC (ER)	Farakka	-*	393
	Kahalgaon	-*	208
	Talcher 1	-*	533
Sub-Total		**-***	**1133**
NTPC Simhadri		**6031**	**5662**
Grand Total		**13812**	**13769**

(*) Licensee revised availability from Eastern Region to 1200 MU

C. Other SEBs:

373. APTRANSCO has not projected any availability from GRIDCO as the agreement has expired. APTRANSCO has projected 60 MU availability from MSEB (WREB) which has been accepted.

Table No.82
Availability form other SEBs in MU

SOURCE	APTRANSCO	APERC
MSEB (WREB)	60	60
TOTAL	**60**	**60**

D. APGPCL:

374. Availability of 383 MU from APGPCL has been projected by the licensee. This has been revised to 405 MU based on the present trends and confirmed by the licensee during discussions.

Independent Power Producers (IPPs):

375. The power availability from independent purchases is estimated as under.

Table No.83

Power availability from IPP (in MW & MU)

SOURCE	Filed Capacity MW	Accepted Capacity MW	APTRANSCO FILING MU	APERC MU
GVK	216	216	1,541	1,541
Spectrum	208	208	1,527	1,527
Kondapalli	355	355	2,483	2,483
BSES Andhra	220	Submitted for consent	1,597	1,597 *
TOTAL			**7,148**	**7,148**

(*) subject to the consent of the APERC for the PPA.

376. The Licensee has projected availability from Spectrum, GVK, Lanco Kondapalli and BSES Andhra gas power stations. The PPA of BSES Andhra power project is before the Commission for consent and has been taken as an available source of power without prejudice to the final order of the Commission. These power stations are to be dispatched on merit order. Merit order variable costs have to be revised on the basis of the fuel costs revision from time to time. Tariff order calculations are on the basis of least cost using merit order principles. Actual merit order dispatches have to be done day to day.

F. Other Sources:

377. The licensee has filed availability of surplus energy from the captive stations of Visakha Steel plant & Nava Bharat Ferro Alloys. Since these PPAs have expired the Commission has not considered the availability from these stations. M/s. LVS and Srivathsa have been considered as available as per the licensee's filings. The Supreme Court order has passed an interim order in the case of LVS that till the issue on variable cost is resolved, LVS power is to be taken according to APTRANSCO. The availability from LVS has been considered as per the licensee's filing subject to the remarks made by the Commission in Table No.84. Srivatsasa as a source has been considered as the PPA of this station is submitted for Commission's consent. Provisionally this unit has been considered as available. The inclusions of these power stations is only for

estimation of the power purchase cost and should not be taken as deemed consent to the PPA. The availability for RCL has been reduced from 44 MU as filed by the licensee to 30 MU based on further discussions with licensee.

Table No.84
Power availability from Other Sources (in MU)

SOURCE	FILING	APERC	Remarks
VSP	240	-	Agreement expired
NBFA	120	-	Agreement expired and developer requested discontinue parallel operation, in public hearing
RCL	44	30	To be picked on merit order with appropriate scheduling only. Licensee should take legal opinion to run the power station on merit order in view of supreme court order.
Non-Conventional	1216	1216	Submitted by APTransco & NEDCAP. Promoted category.
LVS	246	246	To be picked on merit order with appropriate scheduling only. Licensee should take legal opinion to run the power station on merit order in view of the Supreme Court order.
Srivathsa	110	110	To be picked up on merit order with appropriate scheduling only. Not a must run station.
TOTAL	**1976**	**1602**	**1,976**

NON CONVENTIONAL SOURCES:

378. Licensee has projected 1216 MU power purchases from Non Conventional Sources. This was confirmed by M/s Non Conventional Energy Development Corporation of Andhra Pradesh (NEDCAP), Nodal agency for Non conventional sources. Power purchase requirement can be limited to this level as the capacity of all the expected projects in the year are considered as part of this projection. Licensee assumed lower PLF during the stabilization period for

new units. The Commission accepts these numbers only for estimating the power purchase cost requirement to derive the bulk supply tariff. All the required permissions and consents have to be obtained for the new stations separately as per regulations.

379. The details of energy expected to be available from different sources is shown in following Table.

Table No.85

Details of Non-Conventional Sources

	Wind	Mini Hydel	Bagasse	Bio-mass Co-gen	Bio Mass	Industrial waste	Municipal waste	Total
Capacity MW as on 31.3.2004	28.24	42.27	122	14.9	172	11.5	12.6	404.5
Energy MU	29 MU	94 MU	294 MU	82 MU	682 MU	28 MU	7 MU	1217

- About 170 MW is getting added up during the year.

Interstate Sales:

380. The power purchase of 46,853 MU as filed by APTRANSCO includes purchases for proposed interstate sales to the extent of 2684 MU. This is projected by APTRANSCO, after considering that about 50% of surplus would be available for inter state sale. For FY 2002-03 interstate sales of 2435 MU were considered by the Commission based on the projections made by APTRANSCO. The actual interstate sales for FY 2002-03 are now estimated at only 206 MU. In terms of cash as against the projection of Rs 133.61 Crs, APTRANSCO will be able to get only Rs 13 Crores.

381. Sale of power outside the state is dependent upon a number of factors which include availability especially due to the variation in hydel generation, the time of availability and DISCOM drawals. Inter State Sales also depend on the demand for the surplus power at the time when AP is surplus. By and large when there is surplus availability in Andhra Pradesh similar circumstances prevail

in the Southern region. There are no concrete arrangements with Power Trading Corporation for interstate sales as the existing arrangements are valid only up to May 2003.

Considering the total availability of power at 49,352.90 MU and after taking into account DISCOMS sales , the systems losses and a spinning margin of five per cent on the total availability, the estimated surplus available for interstate sales would be 1015MU. Furthermore this surplus is largely available in the months of August, September and October as shown in the following Table.

Table No.86
Available energy for Interstate Sales in MU

Interstate Sales	**APTRANSCO**	**APERC**
April-03	93	0
May-03	170	0
June-03	174	0
July-03	61	0
August-03	290	204
September-03	243	200
October-03	380	204
November-03	192	88
December-03	178	56
January-04	424	88
February-04	246	88
March-04	234	88
Total for 2003-04	**2685**	**1015**

382. The Power Purchase Cost at Table No.90 computed includes the power purchase for Interstate Sales. On the revenue side, revenue from Interstate Sales is shown. This is computed at revenue of Rs. 2.40 per unit as projected by APTRANSCO after PTC charges and discount for immediate payment.

383. Regarding extension of the contract with PTC, APTRANSCO has assured the Commission that detailed discussions were held with PTC on the present sale contract with PTC. The Commission was informed by APTRANSCO that

PTC have agreed in-principle to take 300MW of power for the year FY03-04 at a sale price of Rs.2.40/unit and accordingly the agreement will be renewed for one more year after it lapses in May 2003.

Power Purchase for Wheeling :

384. APTRANSCO as per the Court interim order had to conform to previous Agreements on wheeling. While APTRANSCO incurs on wheeling a system loss of (24.63%), it is currently being compensated only for 11.2% (weighted average) based on existing contracts. (The difference between this amount and the amount determined by the Commission in this Order viz.24.63% energy in kind plus 58 paise per unit representing net work costs may be taken into account for the purpose of taking the guarantee as per the Court's interim Orders).

Wheeling losses results in an increase of power purchase cost by approximately Rs. 36 crores for purchasing extra 322 MU of energy.

Energy Balance:

385. Energy Balance for the ensuing year is shown in the Table below. Requirement of Energy is required to be provided for Discom consumers, wheeling losses compensation, Interstate sales and Transmission Losses.

Table No.87
Energy Balance

	APTRANSCO FILING	APERC APPROVED
DISCOM SALES	33037.14 MU	33457.5 MU
DISCOM LOSSES	18.97%	18.96%
POWER PURCHASES FOR DISCOM	40771.49 MU	41285.44 MU
TRANSMISSION LOSSES	7.25%	7.00%
Power purchases for DISCOMs	43958 MU	44392.94 MU

INTER STATE SALES	2684 MU	1014.76 MU
System Losses	24.84%	24.63%
Power Purchases for DISCOMs & Inter State Sale	46852.28 MU	45484.08 MU
Additional purchases for wheeling losses	Not provided	322.27 MU
Total Power Purchases	46852.28 MU	45806.35 MU

The monthly break up of above Power Purchase requirement by APTRANSCO as a whole of 45806.35 MU is shown at Table No.97.

<u>Power Purchase Cost:</u>

386. Given the energy requirement as above, power purchase cost has been determined on by following economic merit order dispatch principles. Load Dispatch is carried out on the basis of the station-wise costs.

387. The total cost of power purchase is estimated after taking into consideration the following changes:

A. Fixed Costs

Table No.88

Power Purchase Fixed costs in FY 2003-2004

In Rs Crores	Filing APTRANSCO	Revision APTRANSCO	APERC	Remarks
AP Genco Thermal	2,010		1,738	APGENCO fixed costs determined on the basis of norms and depreciation. Fixed costs for Srisailam Left Bank are not allowed.
AP Genco Hydel				
CGS (SR) Generation Transmission Sub total	 364.4 135.6 501		 363.46 146.54 510	Rs10 Crores transmission charges added for Nunna Sriperammbudur line
NTPC Simhadri	541	480	480	Based on CERC interim order considering 90% of fixed costs taking into account stabilization period for Unit 2.

NTPC (ER) Generation Transmission Sub Total	- -	99.25 16.87 118	99.25 16.86 118	Based on allocation of NTPC (ER) capacity charges and transmission charges with the introduction of ABT regime from April. The Licensee have accepted this.
NTPC Talcher 2 Generation Transmission Sub total	 82 82	 32.88 75.8 108.68	 64 75.8 140	64 Crores taken as Fixed cost for firm power from Talcher for 6 months. Transmission costs revised to 75 Crores instead of 82 Crores.
Other SEBs Generation Transmission assets	21		21	SEB assets are used for evacuation of the power from central generators and delivering to beneficiaries. Accepted at original level.
IPPs	879		883	Incentives for Lanco Kondapalli revised as the dispatch is above the threshold PLF for incentives.
APGPCL	24		24	-
Others	51		51	-
Total Fixed Costs (Generation Transmission)	4,113 *(3,864 239)*	4,185 (3,935 250)	*3,965* *(3,705 260)*	As explained above

<u>Transmission</u>

388. Transmission Charges (PGCIL) and other Unified Load Dispatch Center (ULDC) charges for CGS have been considered as fixed charges, as under the ABT regime these costs are shared between the SR recipients on the basis of allocation and not actual drawl. Licensee filed the details of the Transmission costs as Rs 135.6 crores for Southern Region, Rs 16.87 Crores for Eastern Region and Rs 75.8 Crores for Talcher-Kolar HVDC line. Licensee submitted that for the Southern region AP charges are estimated as 23.2% of the Southern regional Transmission charges, 5.22% of Eastern region charges and 25% of the Talcher- Kolar line charges as per share. Licensee has not considered the charges of Nunna- Sriperambudur line, about Rs 10 Crores per annum. Commission adopted the Transmission charges with the above change as part of fixed cost.

B. Variable Costs

389. One of the Licensees (APCPDCL) has requested that variable cost should take into account the normal escalation. APTRANSCO however, has not made any adjustments on this count. The Commission has separately revised the variable costs for Andhra Pradesh Genco Thermal stations, CGS and IPPs on the basis of prevailing fuel prices as submitted by the licensee in the FSA filings. All the stations including APGenco thermal stations have been listed on the basis of least variable costs. Total variable costs for the ensuing year are estimated at Rs. 0.90/Kwh against proposal of 0.91/Kwh due to above adjustments.

390. Summary of the power purchases from different sources as filed by the Licensee and adopted by the Commission for estimating the power purchase cost are provided in the following Tables.

Table No.89
Summary of Power Purchase Costs as Filed by APTRANSCO

Stations	Power Purchase MU	Fixed Costs Rs Crs	Variable Costs Rs Crs	Total Cost Rs Crs	Rs/Kwhr
APGENCO Thermal	19,612	2,010	2,191	4,201	1.59
APGENCO Hydel	6,757				
CGS(SR)	5,968	501	528	1,029	1.72
NTPC Simhadri	6,031	541	519	1,061	1.76
NTPC (ER)	-	2	-	2	-
Talcher 2	360	82	14	96	2.68
Other SEBs	-	21	-	21	-
IPPs	6,523	879	566	1,445	2.22
APGPCL	383	24	33	57	1.50
Others	1,219	51	423	474	3.89
Total	**46,853**	**4,113**	**4,276**	**8,388**	**1.79**

Table No.90
Summary of Power Purchase Costs as approved by APERC

Stations	Power Purchase MU	Fixed Costs Rs. Crs	Variable Costs Rs. Crs	Total Cost Rs. Crs	Rs/Kwh
APGENCO Thermal	16,826	1,738	1,814	3,552	1.51
APGENCO Hydel	6,757				
CGS (SR)	5,921	510	559	1,070	1.81
NTPC Simhadri	5,662	480	493	973	1.72
NTPC (ER)	1,133	118	85	203	1.79

Talcher 2	628	140	25	165	2.63
Other SEBs	-	21	-	21	-
IPPs	7,148	883	683	1,565	2.19
APGPCL	405	24	35	59	1.47
Others	1,326	51	435	486	3.66
Total	45,806	3,966	4,129	8,094	1.77

Summary of costs of power purchase is provided in Table Below.

Table No.91
Power Purchase costs in FY 2003-2004

	Fixed cost filed & revised Rs. Cr.	Fixed cost approved Rs. Cr.	Variable cost filed Rs/Kwh	Variable cost Rs/Kwh	Filed Power purchase cost Rs/Kwh	Approved power purchase cost Rs/kWh
Generation	3935	3705	0.91	0.90	1.79 (including 0.055 for Transmission)	1.77 (including 0.057 for Transmission)
Transmission	250	260				

Availability Based Tariff:

391. Availability based tariff is being implemented in the Southern Region from 1st January 2003. In the last tariff order Commission has advised the Licensees to develop anticipation of loads and scheduling to meet ABT requirements. Generators are having different methods of providing generation availability as per the agreement. The day-ahead merit order dispatch forms the basis for scheduling state generators and IPPs. APTRANSCO must ensure that stated availability is being met by these stations and that any backing down scheduled is communicated to the state generators and is being followed. Day ahead scheduling will be impractical if all the information is not available.

Table No.92

Category wise Quarterly sales Projection in EPDCL in FY 2003-2004

(in MU)

CATEGORY	Qtr1	Qtr2	Qtr3	Qtr4	TOTAL
HT					
HT-INDUSTRIAL	218.95	238.80	248.08	244.51	950.35
HT NON-INDUSTRIAL	93.48	99.68	94.314	84.53	372
IRRIGATION AND AGRI	1.32	7.71	8.8134	8.20	26.05

RAILWAY TRACTION	89.11	96.31	98.357	103.63	387.4
COLONY LIGHTING	6.41	6.33	6.0859	5.19	24.02
RESCO's	27.23	26.87	25.862	22.04	102
TEMPORARY	0	0	0.5545	0.45	1
HT TOTAL	**436.49**	**475.70**	**482.61**	**468.56**	**1862.8**
LT	0	0	0	0	
DOMESTIC	384.92	442.34	441.94	377.55	1646.8
NON-DOMESTIC	68.19	79.55	94.717	88.55	331
INDUSTRIAL	89.27	96.43	75.19	109.01	369.9
COTTAGE INDUSTRIES	0.45	0.40	0.3777	0.40	1.62
AGRI	278.45	301.86	259.23	310.47	1150
LOCAL BODIES	29.93	30.86	31.56	33.93	126.28
GEN PURPOSE	4.37	4.14	4.67	4.69	17.87
TEMPORARY	0	0	0	0	
LT TOTAL	**855.57**	**955.58**	**909.26**	**924.59**	**3643.4**
TOTAL SALES	**1292.06**	**1431.28**	**1391.5**	**1393.15**	**5506.3**
DISCOM LOSSES(MU)	246.11	272.62	265.05	265.36	1048.8
DISCOM INPUT(MU)	1538.17	1703.9	1654.42	1658.52	6555.06
LOSSES IN %	16%	16%	16%	16%	16%

Table No.93

Category wise Quarterly sales Projection in SPDCL in FY 2003-2004

(in MU)

CATEGORY	Qtr1	Qtr2	Qtr3	Qtr4	TOTAL
HT					
HT-INDUSTRIAL	178.81	195.6	195.43	228.16	798
HT NON-INDUSTRIAL	34.86	35.42	37.43	44.29	152
IRRIGATION AND AGRI	1.57	1.38	5.81	7.25	16.01
RAILWAY TRACTION	93.37	95.11	93.38	107.14	389
COLONY LIGHTING	14.69	15.53	15.41	14.37	60
RESCO's	79.18	81.14	78.96	89.72	329
TEMPORARY	0	0	0.18	0.82	1
SUB TOTAL	**402.48**	**424.186**	**426.60**	**491.75**	**1745.01**
LT	0	0			
DOMESTIC	497.52	552.92	575.2	524.34	2149.98
NON-DOMESTIC	106.12	117.15	113.3	120.44	457
INDUSTRIAL	164.88	165.24	186.53	203.39	720.04
COTTAGE INDUSTRIES	3.77	3.76	3.91	4.15	15.59
AGRI	666.99	646.84	602.56	683.62	2600
LOCAL BODIES	39.46	39.12	41.52	44.91	165.01

GEN PURPOSE	8.02	6.5	6.67	8.81	30
TEMPORARY	0.09	0.08	0.44	0.39	1
SUB TOTAL	**1486.85**	**1531.6**	**1530.12**	**1590.04**	**6138.62**
TOTAL SALES	**1889.33**	**1955.79**	**1956.7**	**2081.79**	**7883.63**
DISCOM LOSSES(MU)	455.62	471.65	471.88	502.151	1901.19
DISCOM INPUT(MU)	2344.9 5	2427.44	2428.6	2584.41	9784.82
LOSSES IN %	19.43%	19.43%	19.43%	19.43%	19.43%

Table No.94

Category wise Quarterly sales Projection in CPDCL in FY 2003-2004

(in MU)

CATEGORY	Qtr1	Qtr 2	Qtr3	Qtr4	TOTAL
HT					
HT-INDUSTRIAL	781.71	585.88	612.64	735.35	2715.10
HT NON-INDUSTRIAL	124.07	123.56	121.35	110.13	479.10
IRRIGATION AND AGRI	26.48	18.96	38.06	43.13	126.63
RAILWAY TRACTION	21.69	15.29	20.77	24.92	82.68
COLONY LIGHTING	11.97	13.49	13.26	13.62	52.35
RESCO's	71.17	71.17	77.44	70.22	290.00
TEMPORARY	0.97	1.26	1.25	1.52	5.00
HT TOTAL	**037.57**	**829.62**	**84.77**	**98.90**	
LT					
DOMESTIC	799.44	794.45	792.45	766.47	3152.80
NON-DOMESTIC	213.53	206.14	208.32	196.02	824.00
INDUSTRIAL	261.02	188.21	203.78	250.11	903.11
COTTAGE INDUSTRIES	2.93	2.88	2.86	3.22	11.90
AGRI	1044.88	1263.35	1153.61	1338.16	4800.00
LOCAL BODIES	59.02	66.02	73.02	71.02	269.09
GEN PURPOSE	10.58	10.65	10.50	9.74	41.46
TEMPORARY	4.93	4.07	4.67	5.32	19.00
LT TOTAL	**2396.33**	**2535.76**	**2499.51**	**2640.06**	**10021.36**
TOTAL SALES	**3433.90**	**3365.36**	**3333.97**	**3638.96**	**13772.22**
DISCOM LOSSES(MU)	815.45	799.18	791.72	864.15	3270.50
DISCOM INPUT(MU)	4249.35	4164.56	4125.78	4503.11	17042.72
DISCOM LOSSES %	19.19%	19.19%	19.19%	19.19%	19.19%

Table No.95

Category wise Quarterly sales Projection in NPDCL in FY 2003-2004
(in MU)

CATEGORY	Qtr 1	Qtr 2	Qtr 3	Qtr4	TOTAL
HT					
HT-INDUSTRIAL	219.03	203.05	212.21	199.71	834
HT NON-INDUSTRIAL	12.59	11.79	12.41	12.20	49
IRRIGATION AND AGRI	0.76	1.88	0.66	3..70	7
RAILWAY TRACTION	74.24	72.04	73.78	76.28	296.33
COLONY LIGHTING	12.11	11.18	11.39	11.31	46
RESCO's	84.46	105.74	100.9	108.89	400
TEMPORARY	1.25	1.25	1.25	1.25	5
HT TOTAL	**404.44**	**406.94**	**412..61**	**413.34**	**1637.3**
LT					
DOMESTIC	310.6	318.2	321.6	305.9	1256.3
NON-DOMESTIC	52.42	50.97	51.89	46.71	201.98
INDUSTRIAL	63.57	50.88	59.28	73.77	247.5
COTTAGE INDUSTRIES	1	1.1	0.81	0.73	3.64
AGRI	483.24	685.2	812.09	819.47	2800
LOCAL BODIES	33.12	35.1	35.27	32.9	136.39
GEN PURPOSE	2.50	2.80	2.95	3.75	12
TEMPORARY					
LT TOTAL	**946.45**	**1144.25**	**1283.89**	**1283.22**	**4658.1**
TOTAL SALES	**1350.89**	**1551.18**	**1696.5**	**1696.57**	**6295.37**
DISCOM LOSSES(MU)	344.93	396.07	433.18	433.19	1607.37
DISCOM INPUT(MU)	1695.89	1947.75	2129.67	2129.76	7902.58
DISCOM LOSS(%)	20.34%	20.34%	20.34%	20.34%	20.34%

Monthly power purchase requirement:

392. The month-wise DISCOM purchase requirement, Interstate Sales and month-wise availability as determined by the Commission forms the basis on which a month-wise power procurement selection has to be worked out on economic purchase rationale taking in to account technical requirements. The month-wise breakup of the power purchased by Discoms and APTRANSCO as approved by the Commission is as follows:

Table No.96
Monthly Total Purchase Power Requirement

(in MU)

	Discom Power Purchase	Transco Power Purchase	Power Purchase for Wheeling Losses	Total Dispatch (With Interstate Sales)
April-03	3468	3729	27	3756
May-03	3302	3551	27	3578
June-03	3121	3356	27	3383
July-03	3325	3575	27	3602
August-03	3397	3653	27	3899
September-03	3541	3807	27	4048
October-03	3429	3687	27	3934
November-03	3402	3659	27	3780
December-03	3427	3685	27	3773
January-04	3455	3715	27	3837
February-04	3595	3866	27	3987
March-04	3821	4109	27	4230
Total	**41285**	**44393**	**322**	**45806**

Wages and Salaries:

393. The Licensee has projected an amount of Rs. 68.40 crores towards Wages and Salaries (net of capitalisation) for inclusion in the ARR of FY 02-03 and Rs.7.00 crores (net of capitalisation) towards Employee Funds for pension and gratuity aggregating to Rs. 75.40 crores and furnished the following details in the filings at Para 8.3.12 thereof.

Table No. 97

(Rs. Crores)

Wages, Salaries and Allowances		116.07
Contribution to Employee Funds		11.82
Total		127.89
Less: Corporate Allocation to DISCOMS Expenses Capitalisation	24.77 27.80	52.57
Net Employee Cost		**75.32**

394. The projections towards wages, salaries and allowances as well as contributions to Employee Funds is considered reasonable and allowed. Regarding capitalisation, the Licensee has proposed a total capitalisation of Rs. 27.80 crores including capitalisation out of provision towards employees' pension and gratuity funds. The Corporate Allocation to DISCOMs also includes an element towards pension and gratuity funds. In order that the provision towards employee's pension and gratuity funds is reflected at gross (and not net of any amount), the amounts of Rs.24.77 crores and Rs. 27.80 crores proposed by the Licensee towards corporate allocation and capitalization is taken as out of salaries and wages. Thus an amount of Rs. 63.50 crores calculated as in the Table below is taken towards salaries and wages to the statement of expenditure for calculating the Aggregate Revenue Requirement.

Table No. 98

(Rs. Crores)

Wages, Salaries & Allowances		116.07
Less: Corporate Allocation to DISCOMS	24.77	
Expense Capitalisation	27.80	52.57
Net of Capitalisation-Salaries & Wages		**63.50**

The provision towards Employee Funds is shown separately infra.

ADMINISTRATION AND GENERAL EXPENSES:

395. The filing has under Administration and General Expenses clubbed four items together namely Rent, Rates and Taxes, Legal Charges, Audit Fees, and other Administration and General Expenses. According to the guidelines, the filings are to give details for these four as distinct line items.

The position reflected in the filings is as follows:

Table No.99

Administration and General Expenses as in the ARR filing for FY 2003-04

(Rs. crores)

Particulars	2003	2004
Rent, Rates and Taxes Legal Charges Audit Fees Other Administration and General Expenses	1.09 0.70 1.31 17.75	1.10 0.72 1.30 19.47
Total Administration & General Expenses - Gross	20.85	22.59
LESS: Corporate Allocation	8.42	7.83
LESS: Expenses Capitalised	3.05	3.98
Total Administration & General Expenses – Net	9.38	10.78

396. The break-up for corporate office allocation (Rs.7.83 crores) and capitalization of expenses (Rs.3.98 crores) is not available in the filings separately for each of the four heads. These are therefore considered at the net level as reflected in Form 1.3 of the ARR. The Licensee is advised to avoid such clubbing of the items in future filings.

397. The Licensee has claimed (in Form 1.3 of the filing) towards Administration and General Expenses an amount of Rs.9.30 crores (net of Corporate Allocation and capitalization representing charge to capital works). This is considered reasonable and provided for in the computation of the Aggregate Revenue Requirement.

Repairs and Maintenance:

398. APTRANSCO has projected an amount of Rs.39.50 crores (gross) and an amount of Rs.28.30 crores (net of capitalization of Rs.11.20 crores) towards Repairs and Maintenance for FY 2003-04 for inclusion in the computation of the Revenue Requirement. This is considered reasonable.

Rent, Rates and Taxes:

399. APTRANSCO has projected (in Form 1.3) an amount of Rs.0.50 crores for inclusion in the computation of the Revenue Requirement for FY 2003-04 towards Rent, Rates and Taxes. This is accepted and accordingly provided.

Interest on Loans and other Finance Charges:

400. APTRANSCO has proposed (in Form 1.3 of the filing) the inclusion of an amount of Rs.372.70 crores (net of capitalization of IDC) towards interest on various loans and other finance charges for the calculation of the Revenue Requirement for FY 2003-04 as detailed in the Table below

Table No.100
Interest and other Finance Charges claimed in the ARR filed for FY 2003-04

(Rs. Crores)

Interest on Government Loans and Institutional Loans:	242.5
Interest on other Market Borrowings (CAPEX)	10.8
Interest on other Market Borrowings (Revenue Deficit)	7.6
Interest on Cash Credit Line	42.0
Interest on Short Term Borrowings	82.1
TOTAL INTEREST	**385.0**
Other Finance charges (including Lease Rentals)	28.2
Total	413.2
LESS: Interest Capitalized (IDC)	40.5
Net taken to Revenue Requirement Computation	**372.7**

401. The Commission has provided interest on all loans taken into account on the negative side in the computation of the Capital Base. An amount of Rs.2893.70 crores has been reckoned as loans on the negative side in the computation of the Capital Base (at Para 356 supra) as against Rs.2135.40 crores shown in the ARR filing in form 1.1. The basis for the figure of Rs.2893.70 crores is discussed in Para 355 above and interest is calculated on this loan amount of Rs.2893.70 crores and included in the calculations of Revenue Requirement. The total loan amount as on 31.03.02 as per the Balance Sheet is Rs.1585.93 crores (Para 354 above). The capital expenditure on schemes estimated for FY 2002-03 taking into account the progressive expenditure in the first half of the year is Rs.333.20 crores (inclusive of expenditure capitalization and IDC). The depreciation funds for FY 2002-03 being Rs.196.45 crores, the net additions to loans required would be Rs.136.75 crores. The loan portfolio at the end of FY 2002-03 would therefore be Rs.1722.68 crores (Rs.1585.93 crores plus Rs.136.75 crores). Interest for one full year is provided at 14% (which is the average interest for the portfolio projected to end of FY 2002-03) on this amount of Rs.1722.68 crores. The interest works out to Rs.241.18 crores. The net drawals during FY 2003-04 would be the balance of Rs.1171.02 crores (i.e., Rs.2893.70 crores minus Rs.1722.68 crores) on which interest has been provided at 13% (the average interest rate projected in the filing for additions) for 6 months, keeping in view the fact that the expenditure on capital works would be incurred throughout the spread of the year (and not entirely at the beginning of the year itself). This amount works out to Rs.76.11 crores. The total interest (gross) works out to Rs.317.29 crores as in the Table below.

Table No.101
Calculation of interest for FY 2003-04

(Amounts in Rs. Crores)

Amount of Loan	Period	Rate of Interest	Amount of Interest
1722.68	1 year	14%	241.18
1171.02	6 months	13%	76.11

Total	2893.70			317.29

402. The amount of Rs.28.20 crores claimed in the ARR towards “other Finance Charges” is considered reasonable and allowed in full.

403. Regarding capitalization of interest during construction (IDC), the licensee has proposed, as already mentioned above, an amount of Rs.40.50 crores towards IDC. As detailed in Paras 10 and 12 above, the Capital Works Programme of the Licensee is likely to be less that projected in the ARR, both in FY 2002-03 (by Rs.136.28 crores) and in FY 2003-04 (by Rs.146.82 crores). In view of this, the IDC to be charged to capital is estimated at Rs.22.70 crores.

404. The net amount reckoned towards Interest and other Finance charges in the calculation of the Revenue Requirement for FY 2003-04 therefore works out to Rs.322.79 crores as detailed in the Table below

Table No.102

Net Interest and other Finance Charges for FY 2003-04
(Taken for ARR computation)

(Rs. Crores)

Particulars	APTRANSCO	APERC
Interest on Loans	385.00	317.29
Other Finance Charges	28.20	28.20
Total	**413.20**	**345.49**
LESS: IDC Capitalized	40.50	22.70
Amount taken for ARR	**372.70**	**322.79**

Legal Charges:

405. The Licensee has claimed (in Form 1.3) an amount of Rs. 0.30 crores (net of corporate allocation and capitalisation) towards Legal Charges. This is accepted as reasonable.

Audit and Other Fees:

406. The Licensee has claimed an amount of Rs. 0.60 crores (net of corporate allocation and capitalisation) towards Audit and other fees. This is accepted as reasonable.

Depreciation:

407. The Licensee has projected an amount of Rs. 232.20 crores and the amount admitted is Rs. 218.99 crores. The difference is on account of the difference in the level of capitalization for FY 2002-03 as explained above under Original Cost of Fixed Assets.

Contribution to Employee Funds:

408. The provision towards Employee Funds is made at 13% of Basic Pay plus DA based on the actuarial study relied upon for the Tariff Order of FY 2001-02. The Licensee has projected on this basis a gross amount of Rs.11.82 crores (vide para 8.3.12 of the ARR) and Rs.7.00 crores (net of corporate allocation and expense capitalization) towards Contribution to Employee Funds. An amount of Rs.11.82 crores has been included on this account in the computation of the Revenue Requirement for FY 2003-04 for reasons elaborated in the Para 391 on Salaries and Wages supra.

409. Regarding the formation of Trusts for Employees' pension and gratuity liabilities, APTRANSCO confirmed in a Review Meeting taken by the Commission in August 2002 that the formation of the Trusts for APTRANSCO and the 4 DISCOMs has been completed. In regard to making the Trusts fully operational APTRANSCO stated in another meeting in January, 2003 that the Trusts formed (for APTRANSCO and the 4 DISCOMs) will be "functionalised"

from April 2003 as, it was stated that, many issues had to be sorted out, the major one being the employees shifting from one company to another. This is because, based on the "options" exercised by the employees consequent to unbundling of the erstwhile APSEB, the employees have been allotted to the 6 entities (APGENCO, APTRANSCO and the 4 DISCOMs) requiring accounting adjustments to be made for transfer of proportionate liability to the Trust of the entity to which the employee has been now assigned. The Commission hopes that the Trusts would be functionalised by April 2003 in accordance with the assurance referred to above. ***APTRANSCO is directed to furnish a comprehensive report in this regard latest by 30th May, 2003.***

The Licensee is directed to ensure that an amount of Rs. 0.985 crores per month be remitted from month to month to the Trust. The official receipt from the Trust duly acknowledging receipt of the money may be obtained and retained by the Company for record. The fact of having done so may be confirmed to the Commission every month.

SPECIAL APPROPRIATIONS:

PREVIOUS LOSSES:

410. The Commission has considered the request of the Licensee to consider the financial losses of FY 2001-02 and of FY 2002-03 (as estimated in the relevant ARR filing) for inclusion in the Aggregate Revenue Requirement calculations for FY 2003-04. The Commission has made a detailed analysis of the factors and considerations which should be taken into account for pass through of past losses to current tariffs by way of special appropriation and the Commission's considered views in this regard are discussed in detail in Para 220 to 229 supra. Applying these yardsticks, the Commission decides to allow as special appropriation a net amount of Rs.91.98 crores (rounded to Rs.92 crs.) towards past losses for FY 2001-02 and for FY 2002-03. This is the net of

Rs.466.00 crs. and Rs.374 crs. The Rs.466 crs. refers to power purchase cost variance in FY 2001-02 due to adverse hydel-thermal mix with carrying (interest) cost. This is referred to in detail in Para 224(b). The amount of Rs.374 crs. comprises Rs.153 crs. towards securitization benefit and Rs.221 crs. towards net reduction in power purchase cost in FY 2002-03 [referred to in para 224 (c) above]. By netting this benefit is passed on to the consumers.

Contribution to Contingencies Reserve:

411. APTRANSCO has proposed an amount of Rs.10.40 crores as Special Appropriation towards Contribution to Contingencies Reserve to be provided in the computation of the Revenue Requirement. The amount is calculated at 0.25% of the Original Cost of Fixed Assets (OCFA) projected in the filing. As the amount of OCFA has undergone a change due to the reasons mentioned in the para on OCFA above, the amount provided towards Contingencies Reserve is Rs.9.30 crores. This is calculated at 0.25% (the same as taken by the Licensee) on the amount of OCFA allowed by the Commission as detailed in Para 334 above.

412. ***The Commission reiterates that Paragraph 4 of the Sixth Schedule to the Electricity (Supply) Act, 1948 requires this contribution to be invested in securities authorized under the Indian Trusts Act, 1882 within a period of six months from the close of the year of account in which the appropriation is made. The Licensee is directed to comply with this requirement.*** The attention of the Licensee is also drawn to Paragraph V of the Sixth Schedule that any drawal from the Contingencies Reserves can be made only with the prior approval of the Commission.

Pay Revision Arrears for FY 2002-03:

413. It would be recalled that the Commission in its Tariff Order for FY 2002-03 had stated at Para 334 thereof that while the claim of the Licensee for inclusion an amount of Rs.3.40 crores (towards provision for likely Pay Revision) in the Revenue Requirement calculations for FY 2002-03 was being disallowed in view of the difficulties in quantifying the amount at that stage, appropriate amounts would be taken into account in the Revenue Requirement calculations in the ARR of the year after the pay revision process is completed and implemented. The Pay revision for APTRANSCO employees has been concluded by about the middle of FY 2002-03 retrospectively effective from 1.4.2002 but the ARR filing for FY 2003-04 does not have proposals seeking the inclusion of this amount in the calculation of the Revenue Requirement for FY 2003-04 but has proposed treating this as a regulatory asset. The Commission has however, included on this account an amount of Rs.27.07 crores (inclusive of an amount of Rs.1.07 crores towards carrying cost) as Special Appropriation in the calculation of the Revenue Requirement for FY 2003-04. The Commission would at the same time urge the management of APTRANSCO to match the additional manpower costs by productivity increases by more effective deployment of existing manpower so as to reach standards in service levels laid down in the Commission's Regulation No.6 gazetted on September 4, 2000 latest by the end of March 03 as committed by the CMD, APTRANSCO in the meeting with the Commission on 29th May, 2001. ***The Commission directs the Licensee to file a comprehensive report on the status in this regard latest by 30th June, 2003.***

INTEREST ADJUSTMENT DUE TO SHORTFALL IN CAPITAL OUTLAY DURING FY 2001-02.

414. As stated in Para 329 above, an amount of Rs.61.51 crores has been taken as negative special appropriation in the calculation of the Revenue Requirement for FY 03-04.

REVERSAL ADJUSTMENT FOR THE CONTINGENCIES RESERVE PROVIDED IN FY 2000-01 AND 2001-02.

415. The Commission in Para 354 of its Tariff Order for FY 2002-03 directed the Licensee to make provisions in the Company's Accounts towards Contingencies Reserve for the two years FY 2000-01 and FY 2001-02 and also make the necessary investments as required under the Sixth Schedule. In December 2002 the Licensee desired a review of this Directive. The Commission treated this as a Review Petition and taken on record in R.P. No.3/2003 in O.P. No.29/2002. After necessary hearings, the Commission passed an order on the Review Petition directing that reversal adjustment be carried out in respect of the amounts provided towards Contingencies Reserve in the Tariff Orders for FY 2000-01 and FY 2001-02 for reasons recorded in detail in that order. The reversal adjustment has accordingly been carried out by taking an amount of Rs.12.38 crores as negative special appropriation in the calculation of Revenue Requirement for FY 2003-04.

TOTAL EXPENDITURE:

416. In view of the above changes, the total expenditure works out to Rs.8805.07 crores as against Rs. 9115.90 crores projected by the Licensee as summarised in the following table.

Table No. 103

Statement of Expenditure Items and Special Appropriation

(Rs. Crores)

EXPENDITURE ITEMS	APTRANSCO	APERC
Purchase of Energy	8386.20	8094.51
Wages and Salaries	68.40	63.50
Administration and General expenses	9.30	9.30
Repairs and Maintenance	28.30	28.30
Rent, Rates and Taxes	0.50	0.50
Approved Loan Interest	372.70	322.79
Legal Charges	0.30	0.30
Audit & other Fees	0.60	0.60

Depreciation	232.20	218.99
Contribution to Employee Funds	7.00	11.82
Special Appropriations		
Previous Losses (net)	0.00	91.98
Contribution to Contingencies Reserve	10.40	9.30
Arrears for FY 2002-03 of Pay Revision for Employees with Carrying Cost	0.00	27.07
Interest adjustment for shortfall in Capital Expenditure in FY 2001-02	0.00	(61.51)
Reversal adjustment for Contingencies Reserve provided in FY 2000-01 and FY 2001-02 as per Commission's order on RPNo.3/2003 in OP No.29/2002	0.00	(12.38)
TOTAL EXPENDITURE	**9115.90**	**8805.07**

NOTE: Figures in brackets are negative

REASONABLE RETURN:

417. APTRANSCO has not claimed in the filings the Reasonable Return it is eligible for as per the Sixth Schedule to the Electricity (Supply) Act, 1948. It may be recalled here that there was no claim for Reasonable Return in the filing for FY 2002-03 also but as stated in the Tariff Order for that year, the Commission allowed the Reasonable Return as, in the opinion of the Commission, it was not in the interest of either the consumer or the Licensee to forego the Reasonable Return. The Commission wish to emphasise that one of the prime objectives of Reforms undertaken by the State in the Electricity Sector is to bring in a Commercial Orientation in the methods of operation as well as in the general approach to management decisions by the unbundled entities. The Commission considers it necessary to provide for the Reasonable Return in the calculation of the Revenue Requirement to reinforce this commercial orientation and hopes that this would act as a motivating factor and a morale booster at all levels leading to more operational efficiency all round. The Commission accordingly allows an amount of Rs.35.57 crores as Reasonable Return to APTRANSCO as per Sixth Schedule and includes it in the calculation of the Revenue Requirement for FY 2003-04.

418. Incidentally the Licensee has included the amount of Rs.0.84 crores against Reasonable Return in Form 1.6 while projecting an Aggregate Revenue Requirement of Rs.8220 crores for FY 03-04. It is also stated in Para 8.2 of the filing that the Licensee does not propose to claim any Return on the Capital Base for the current and ensuing years. It is seen from Para 8.3.4 of the filing that the Rs.0.8 crores represents interest of investments in the non-licensed business of APTRANSCO (i.e., its investment in GVK Industries). It is also seen that this interest on investment has also been reckoned in Non-Tariff Income in Para 8.3.3 of the filing. While it is inappropriate to return earned on investment in non-licensed business of APTRANSCO as Reasonable Return, the same amount being reckoned in two places in the ARR filing makes it baffling. This has however, been ignored by the Commission in calculating the Reasonable Return as above.

<u>Non-Tariff Income:</u>

419. The Licensee has projected an amount of Rs.379 crores (rounded off from Rs.378.80 crores) as Non-Tariff income (Form 1.4). The Commission has reckoned an amount of Rs.54.40 crores and the reasons for the variation are given below.

420. In the amount of Rs.378.80 crores projected, the main items are:

	(Rs. Crores)
Inter-State Sale of Power	153.10
Grid Support Charges	52.50
Income from Wheeling	88.80
Total:	294.40

421. The Commission have reckoned the above items under “other Revenue” and not as Non-Tariff Income. The balance (Rs.84.40 crores) includes an amount of Rs.75.30 crores towards Rebate on Power Purchases. This has been reduced by Rs.30 crores towards the interest on funds borrowed to make the

payments in time so as to earn the rebates. The amount of Non-Tariff income reckoned for calculating the Revenue Requirement is therefore Rs.54.40 crores.

Other Income:

422. The Licensee's projections of Income from Grid Support Charges, Wheeling Charges and Inter-State Sales (considered by the Commission under "other income") and the Commission's estimate of the amounts thereagainst are as in the Table below.

Table No.104
Details of Other Income

(Rs. Crores)

Particulars	APTRANSCO	APERC
Grid Support Charges	52.50	0.00
Wheeling Charges	88.80	0.00
Inter-State Sale of Energy	671.20	243.54
Total	812.50	243.54

Grid Support Charges and Wheeling Charges:

423. No income has been estimated by the Commission as accruing from Grid Support Charges and Wheeling Charges in FY 2003-04 as the Commission's orders on both have been appealed against in higher Courts and the orders of the Commission are stayed. The decisions in the respective appeals are pending.

Inter-State Sale of Energy (Sale of Surplus Power):

424. At the outset, it is necessary to recount the experience on this front in FY 2002-03. In the ARR / FPT filing for FY 2002-03 APTRANSCO had submitted a projection of Rs.350 crores from sale of surplus power to power deficient neighbouring States. The Commission took a conservative estimate of Rs. 133.61 crores in its Tariff Order 2002-03. The licensee in its ARR / FPT filing for FY 2003-04 has stated that it was unable to achieve even the reduced target of Rs.133.61 crores due to higher demand from DISCOMs and non-availability of

estimated quantum of Hydro power on account of bad monsoon. The unrealized revenue from that reckoned in the Tariff Order is reportedly about Rs.121 crores.

425. In the ARR / FPT filing for FY 2003-04 APTRANSCO has submitted a revenue projection of Rs.671 crores from a projected sale of surplus power to the tune of 2684 MU.

426. Sale of power outside the state is dependent upon a number of factors which apart from availability and the time of availability depends on the demand for the surplus power at the time that AP has surplus. By and large when there is surplus availability in Andhra Pradesh similar circumstances prevail in the rest of the Southern Region also. The Staff had raised this point during their presentation and also pointed to the lack of firmed up arrangements with Power Trading Corporation (PTC) for sale of energy. The existing arrangements with PTC are said to be valid only up to May 2003.

427. The Commission has given careful consideration to the matter keeping in view the experience on this front in FY 2002-03.

428. At the outset the Commission considered the amount of surplus power that may be available in the system in FY 2003-04. With the total availability of power at 49,352.90 MU and after taking into account sales to DISCOMs and losses in the system and providing for a Spinning Reserve of 5 percent on the total availability, the estimated surplus available for Inter-State Sales comes to 1015 MU. Furthermore this surplus is largely available in the months of August, September and October with lower availability in the remaining months of the year.

429. For assessing the prospects for selling this surplus power, the Commission has relied on APTRANSCO's assurance that detailed discussions have been held by APTRANSCO with Power Trading Corporation (PTC) regarding extension of the present contract with them and that PTC have agreed

in principle to take 300 MW of power for the year FY 03-04 at a sale price of Rs.2.40 per unit and that accordingly the agreement would be renewed for one more year after it lapses in May 2003.

430. On this basis, the Commission has taken that for Inter-State Sales from the surplus power available would be about 1015 MU and it is expected to be sold at Rs.2.40 per unit. The revenue from Inter-State Sales on this basis is estimated to be Rs.243.54 crores which has been adopted by the Commission as against APTRANSCO's projections of Rs.671.20 crores. The Commission is of the view that interstate sales have a large element of uncertainty and it would therefore be preferable to be conservative in estimating the surplus arising from inter-state sales for tariff purposes.

AGGREGATE REVENUE REQUIREMENT:

431. The Aggregate Revenue Requirement therefore works out to Rs.8542.70 crores as against Rs.8219.64 crores projected by the Licensee as detailed in the Table below.

Table No.105

(Rs. Crores)

Total Expenditure		8805.07
Reasonable Return		35.57
MINUS: Non-Tariff income Other income	54.40 243.54	297.94
TOTAL NET AGGREGATE REVENUE REQUIREMENT		8542.70

CHAPTER – X

ERC / ARR 2002-03: DISTRIBUTION AND RETAIL SUPPLY

Andhra Pradesh Eastern Power Distribution Company Limited (APEPDCL)

432. APEPDCL, the Licensee Company for Distribution and Retail Supply of Electricity in the territory assigned to it in Andhra Pradesh as per the Licence granted by the Commission, filed the ARR / ERC under Section 26 (5) of the Reform Act for FY 2002-03 on 31-12-2002. The Commission has examined the Licensee's proposals and indicates herein areas where the calculations of the Licensee are found to be incorrect or unacceptable with reasons therefore and the Commission's alternative calculations.

433. Based on the finalized Second Transfer Scheme notified by the GoAP in Gazette Notification GO. MS No. 109 Energy (Power III) dated 29-9-2001 giving the opening Balance Sheet of APEPDCL (and also of APTRANSCO and the remaining three DISCOMS) as on 1- 4 -2000, the provisional Annual Accounts for FY 2000-01 as compiled and finalized by the Licensee were made available to the Commission in February 2002. Though the audit of these accounts was not then complete, the figures as per these accounts were adopted wherever relevant for purposes of the Tariff Order for FY 02. The Audited Accounts complete in all respects for FY 2000-01 as adopted by the Shareholders of the company in a General Meeting has not yet been filed with the Commission as required under the terms of the Licence. For FY 2001-02, provisional Annual Accounts as complied by the Licensee have been made available to the Commission. The figures as per these provisional accounts have been adopted wherever relevant for purposes of this order.

434. Audited Accounts for FY 2000-01 which should have been available (as per the Companies Act, 1956) by 30.9.2001 and for FY 2001-02 by 30.9.2002 have not yet been filed with the Commission as required under the

terms of the Licence. APEPDCL is advised to spare no efforts to ensure that the audit of annual accounts is brought up-to-date so that the audited accounts for FY 2000-01 and FY 2001-02 are available latest by 30th June 2003 and for FY 2002-03 by 30th Sept. 2003.

CAPITAL OUTLAY ON SCHEMES - FY 2001-02, FY 2002-03 & FY 2003-04:

435. The Licensee in the filings has made the following projections of capital expenditure for FY 2003-04.

Table No.106
Proposed Capital outlay for FY 2003 – 04 as per filing

(Rs. Crores)

	Base Capital Expenditure	Expenditure capitalized	IDC	Total
APEPDCL	297.49	29.75	24.45	351.69

436. Before dealing with the projections for capital expenditure in FY 2003-04, it is necessary to advert to the shortfall in the incurrence of capital expenditure in FY 2001-02 referred to by the staff in their presentation in the Public Hearing.

437. The Commission has noted that there is a shortfall of Rs.77.88 crores in the Capital outlay from the Tariff Order (for FY 02) provision of Rs.197.04 crores for APEPDCL as detailed in the Table below.

Table No.107

CAPITAL OUTLAY – FY 2001- 02 Performance
(FIGURES INCLUDE IDC AND EXPENSE CAPITALISATION)
(Rs. Crores)

	Filing	Tariff Order	Actuals	Shortfall
APEPDCL	243.06	197.04	119.16	77.88

438. This shortfall has resulted in significant variation in the Capital Base calculations for FY 2001-02 as detailed in the Table below.

Table No.108

Capital Base for FY 2001-02
Comparison of Actual Costs with Tariff Order on the basis of the Provisional Accounts for FY 2001-02

(Rs. Crores)

	Filing	Tariff Order	Actual	Variance
Original Cost of Fixed Assets	684	624	565	59
Capital Works-in-Progress (CWIP)	234	263	122	141
Stores	21	2	2	-
Cash	26	8	10	(2)
Total (A)	**964**	**897**	**699**	**198**
Accumulated depreciation	348	347	344	3
Borrowings	374	284	234	50
Other no cost funds	235	235	253	(18)
Total (B)	**958**	**866**	**831**	**35**
Capital Base (A-B)	**6**	**31**	**(132)**	**163**

439. The adjustment (required due to this variance in the Capital Base) for the Reasonable Return allowed in the calculation of the Aggregate Revenue Requirement for the Tariffs of FY 2001-02 is deferred till the audited / adopted Annual Accounts of the DISCOM for that year are available to the Commission.

440. The shortfall in investment outlay for FY 2001-02 has also resulted in a shortfall in interest expenditure of Rs.18.40 crores from the amount provided in the calculation of the Revenue Requirement in the Tariff Order for FY 2001-02 as detailed in the Table below.

Table No.109

Calculation of Interest Adjustment due to Shortfall in Capital Expenditure in FY 2001-02

(Rs. Crores)

Particulars	Amount	
A. INTEREST AS PER TARIFF ORDER FOR FY 2001-02		47.63
Gross Interest and Finance Charges		16.39
LESS: IDC Charged to Capital works		31.24
B. ACTUALS AS PER PROVISIONAL ACCOUNTS FOR FY 2001-02		
Gross Interest and Finance Charges	42.13	
LESS: Interest on Consumer Security Deposits	(-) 6.69	
Discount to Consumers for timely payment of bills	(-) 0.45	
Other interest (sub-accounts)	(-) 0.44	
Sub-Total	34.55	2.59
LESS: IDC Charged to Capital Works	31.96	
DIFFERENCE		28.65

441. The Commission considers that the interest amount of Rs.28.65 crores calculated as above out of the amount reckoned for calculations of Revenue Requirement in the Tariff Order for FY 2001-02 needs to be adjusted as negative special appropriation in the calculation of the Revenue Requirement for FY 2003-04 and is accordingly done.

<u>CAPITAL OUTLAY – Progress during FY 2002- 03:</u>

442. In the ARR for FY 2003-04 the DISCOM has projected for FY 2002-03 a revised capital outlay (Base expenditure) of Rs.194.25 crores which works out to

Rs.230.54 crores (with IDC and expenditure capitalization) as against Rs.236.83 crores reckoned in the Tariff Order for FY 2002-03. The Commission considers this projection to be on the higher side keeping in view the progress of expenditure during the first half of the year upto Sept, 2002 and the track record of the past and allows an amount of Rs.106.17 crores towards base expenditure on the schemes given in the Table below:

Table No.110

ESTIMATED CAPITAL OUTLAY FOR FY 2002-03

(Rs. Crores)

S.No.	Name of Scheme	APEPDCL	APERC
	A. Schemes approved by the Commission or schemes which do not require approval		
1	APL – 1 Suppl.	20.00	10.00
2	T&D Improvements	2.42	2.42
3	Normal works	30.00	30.00
4	Rural electrification	14.08	10.00
5	Segregation of Agricultural Feeders	12.00	12.00
6	Pump-set energisation	18.00	10.00
7	SI Meters	8.00	8.00
8	SI VCBs	3.00	3.00
9	REC / SI	18.00	18.00
10	11 KV Feeder Metering	2.75	2.75
	Total (A)	**128.25**	**106.17**
	B. Other Schemes		
11	DTR LV side metering	30.00	0.00
	Total (B)	**30.00**	**0.00**
	C. Schemes not approved		
12	APL-2	8.00	0.00
13	APDP	15.00	0.00
14	SI Transformers	8.00	0.00
15	SI Conductors	5.00	0.00

	TOTAL (C)	**36.00**	**0.00**
	GRAND TOTAL (A+B+C)	**194.25**	**106.17**

443. The amount to be taken to CWIP in respect of the above schemes works out to Rs. 126.01 crores as detailed in the Table below

Table No.111

Amounts Taken to CWIP for FY 2002-03

(Rs. Crores)

Particulars	APEPDCL	APERC
Base capital expenditure	194.25	106.17
Expenses capitalized	19.43	10.62
Interest (IDC) capitalized	16.86	9.22
Total	**230.54**	**126.01**

444. The projected CWIP as on 31.03.2003 would serve as the Opening Balance for FY 2003-04.

CAPITAL OUTLAY – Projections for FY 2003-04:

445. As already mentioned above, the filings project a Base Capital Expenditure of Rs.297.49 crores for FY2003-04 which together with the expenditure capitalization of Rs.29.75 crores and Interest during Construction (IDC) of Rs.24.45 crores works out to Rs.351.69 crores. Before dealing with the proposals in the filings, it is necessary to mention that the progress during the past year in the matter of obtaining approvals for schemes as required under Para 9 of the Licence has not picked up any significant momentum. It may be recalled here that the Commission in its Tariff Order for FY 2002-03 stated in unambiguous terms that from FY 2003-04 & onwards it would allow for inclusion in the CWIP only those schemes which have the prior approval of the Commission as required under Para 9 of the Licence or those which do not require such approval (being schemes individually costing less than Rs. 5 Crores). Based on this norm and moderating the estimates of outlay projected

by the Licensee for FY 2003-04 (scheme wise), the Commission allows for inclusion in the CWIP (for Capital Base calculations for FY 2003-04) an estimated amount of Rs.110.98 crores as Base Capital expenditure in respect of the following schemes as against Rs.292.49 crores projected by the Licensee. Together with expenses capitalized and IDC, the capital outlay for 2003-04 works out to Rs.131.20 cr.

Table No.112

Scheme-wise details for Base Capital Expenditure for FY 2003-04

(Rs. Crores)

S.No.	Name of Scheme	APEPDCL	APERC
	A. Schemes approved by the Commission or schemes which do not require approval		
1	APL – 1 Suppl.	20.00	20.00
2	T&D Improvements	4.50	4.50
3	Normal works	30.00	30.00
4	Rural electrification	10.00	10.00
5	Pump-set energisation	9.00	9.00
6	SI VCBs	6.51	6.51
7	REC / SI	10.00	10.00
8	Providing micro-controller based tripping mechanism for 11 KV feeders	0.97	0.97
	Total (A)	**90.98**	**90.98**
	B. Other Schemes		
9	DTR LV side metering	1.51	10.00
10	Providing metering to unmetered agricultural services	10.00	10.00
	Total (B)	**11.51**	**20.00**
	C. Schemes not approved		
11	APDRP including town business plans for Eluru	100.00	0.00
12	Town business plans under APDRP for 20 towns	50.00	0.00
13	Providing high accuracy meters to existing services	10.00	0.00
14	Providing DTRs for release of O/L of existing DTRs	10.00	0.00
15	SI Conductors	5.00	0.00
16	Conversion of existing LV network to HVDS for rural feeders	20.00	0.00
	TOTAL (C)	**195.00**	**0.00**
	GRAND TOTAL (A+B+C)	**297.49**	**110.98**

CAPITAL BASE – POSITIVE ELEMENTS:

Original Cost of Fixed Assets (OCFA):

446. The Licensee has proposed an amount of Rs.861.75 crores as the Original Cost of Fixed Assets (excluding consumer contributions) to be reckoned

in the Capital Base calculations for FY 03-04. It may be mentioned in general regarding transfers from CWIP to Original Cost of Fixed Assets that it is meant to represent those assets which are completed (or commissioned where appropriate) and utlisation commenced (which are referred to as capitalized works in commercial parlance). But in the DISCOMs the practice appears to be to transfer to Gross Fixed Assets the balance in the CWIP at the beginning of the year and this gives room for the apprehension that works which are in fact not completed are capitalized in the Accounts while the projections made for purposes of ARR by the Works Wing exhibit capitalization proposals of even those works which in the Accounts already stand capitalized. Secondly the ARR projections for capitalization are not based on a review of the scheme-wise status of progress vis-à-vis the earlier planned execution schedule and a genuine appraisal of the completion programme of works / schemes. Pending a detailed examination of the practice obtaining in this regard and its implications, an amount of Rs.80.00 crores has been reckoned for transfer to OCFA from CWIP for FY 2002-03 on an ad-hoc basis. Similarly for FY 2003-04, an estimated amount of Rs.125.00 crores has been taken as transfers to OCFA from CWIP.

447. The estimated amount to be reckoned under Original Cost of Fixed Assets in the Capital Base as on 31.3.2004 is therefore calculated as in the Table below.

Table No.113

STATEMENT OF ESTIMATED FIXED ASSETS AS ON 31.3.2004

(Rs. Crores)

NAME OF THE ITEM	APEPDCL	APERC
Gross Fixed Assets as on 31.03.02 LESS: Consumer contributions for Capital Assets	693.30 129.04	693.30 129.04
Original Cost of Fixed Assets (OCFA) as on 31.03.02	564.26	564.26
ADD: Works likely to be completed during 2002-03	128.23	80.00
Gross OCFA as on 31.03.03	692.49	644.26
LESS: Consumer Contributions	30.00	20.00
OCFA as on 31.03.2003	662.49	624.26
ADD: Works likely to be completed in FY 2003-04	229.26	125.00
Gross OCFA as on 31.03.2004	891.75	749.26
LESS: Consumer Contributions	30.00	20.00

OCFA as on 31.03.2004	861.75	729.26

Accordingly, OCFA taken to Capital Base is Rs.729.26 crores

CAPITAL WORKS – IN – PROGRESS (CWIP):

448. As already stated above, the Commission has decided to reckon an outlay of Rs.106.17 crores for FY 02-03 and Rs.110.98 crores for FY 03-04 as Base Capital Expenditure (Paras 442 and 445 ante). These together with the Expenses Capitalized and the IDC work out respectively to Rs.126.01 crores and Rs.131.20 crores. Consequently, the amount reckoned for CWIP for FY 02-03 works out to Rs.168.11 crores and for Capital Base calculations for FY 2003-04 to Rs.174.31 crores as detailed in the Table below:

Table No.114

STATEMENT OF ESTIMATED WORKS IN PROGRESS FOR FY 2003-04

(Rs. crores)

	APEPDCL	APERC
Opening Balance of CWIP 01.04.2002	122.10	122.10
Outlay during the year (FY 2002-03)	194.25	106.17
Expenses during the year Capitalized	19.43	10.62
Interest during construction charged to Capital (IDC)	16.86	9.22
Total Additions: Capital Expenditure	230.54	126.01
Total (OB + Additions)	352.64	248.11
LESS: Works anticipated to be completed in FY 2002-03	128.23	80.00
Closing Balance of CWIP as on 31.03.03 and Opening balance as on 01.04.2003	224.41	168.11
Additional Investments during the year (FY 2003-04)	297.49	110.98
Expenses during the year Capitalized	29.75	11.10
Interest during construction charged to Capital (IDC)	24.45	9.12
Total Additions: Capital Expenditure	351.69	131.20
Total (OB + Additions)	576.10	299.31
LESS: Works anticipated to be completed in FY 2003-04	229.26	125.00
Closing Balance of CWIP as on 31.03.04	346.84	174.31

WORKING CAPITAL REQUIREMENTS:

449. The Licensee's plea for Working Capital and the interest on borrowings therefor have been considered in detail by the Commission in the context of the Discussion Paper submitted by the Licensees in response to Para 236 of the

Commission's Tariff Order of 24th March, 2002. A detailed analysis of the position in this regard taking into account the existing billing and collection lags revealed that it is about the same as the working capital calculated as per the parameters adopted by the Commission in its Tariff Order of 24th March, 2002. However, considering the working capital difficulties in the transition that the Licensees represented strongly about, the Commission decides to allow the Average Cash & Bank balance in the computation of the Capital Base at two months' level of eligible items of expenses instead of one month as hitherto. This is intended to provide a trajectory to an efficient level over a period of 3 years. The level would therefore be at 2 month's level for FY 2003-04 and FY 2004-05 and at 1½ months' level for FY 2005-06. Thereafter it would revert to the one months' level. There will be no change in the level of Average Cost of Stores which is already being provided at 2 months' level of the annual repair and maintenance expenses.

AVERAGE COST OF STORES:

450. The DISCOM has proposed an amount of Rs.26.27 crores towards Average Cost of Stores for inclusion in the Capital Base Calculations calculated at 2.5% of the closing balance of Gross Fixed Assets even though (as stated in the filing itself) the stores as on 31.3.2002 worked out to only 1.8% of the closing balance of gross fixed assets. No justification has been furnished in the filing for this method of estimation nor for the percentage of 2.5%. An inventory level of Rs.26.27 crores to support the Repair & Maintenance activity of Rs.13.41 crores projected in the filing is very high as the inventory works out to around 2 year's consumption. It may be mentioned here that in the Tariff Order for FY 2002-03 a level of 2 month's requirement of Repair and Maintenance expenses was considered reasonable and the Commission has decided to continue the same level as detailed in Paragraph 449 above. An amount of Rs.2.24 crores calculated at two months requirement of the Repairs and Maintenance expenses (Rs.13.41 crores) is therefore provided.

AVERAGE CASH AND BANK BALANCE:

451. The Licensee has proposed Rs.10.82 crores towards Cash and Bank Balance and has stated (Para 8.5.8) that this has been calculated at one month's requirement of specified operating expenses viz the aggregate of Wages and Salaries, Repairs and Maintenance, Administrative and General Expenses, Rent, Rates and Taxes, and Contribution to Employee funds for the year. As stated above (Para 205) the provision under this head is to be calculated at two months' level of eligible items of expenses for FY 2003-04 instead of one month as hitherto. Calculated on this basis, the average Cash and Bank Balance works out to Rs.24.75 crores as detailed in the Table below and provided for in the calculation of the Capital Base.

Table No.115

(Rs. Crores)

Wages and Salaries	110.16
Admin. And General Expenses	11.97
Repairs and Maintenance	13.41
Rent, Rates and Taxes	0.59
Contribution to Employee funds	12.37
Total expenses	**148.50**
Average Cash and Bank Balances (148.50 ÷6)	**24.75**

CAPITAL BASE-NEGATIVE ELEMENTS:

Accumulated Depreciation

452. The accumulated depreciation as projected by the Licensee in the filings is Rs.455.64 crores against which Rs.452.10 crores is admitted. The difference is due to the capitalization of works anticipated to be completed in FY 2002-03 being taken at less than the projections in the filings as already mentioned above. (see Para 446 supra).

LOANS FROM GOVERNMENT AND APPROVED INSTITUTIONS

453. The APEPDCL has projected an amount of Rs.125.39 crores towards Government Loans and Rs.403.08 crores as loans from approved institutions and Rs.23.96 crores towards "Other Market Borrowings for Capital Expenditure" aggregating to Rs.552.43 crores.

454. It is seen that APEPDCL during the two years, FY 2000-01 and FY 2001-02 (since the Second Transfer Scheme effective from 1.4.2000), has drawn loans far in excess of the capital expenditure incurred during the year, without taking into account receipts of Consumer Contributions during the year. It is also noticed that the loan repayments have been far less than the funds accruing through Depreciation and this has also not been taken as funds available towards capital outlay. The position is as given in the Table below.

Table No.116

Statement showing Capital Expenditure, Loans, Depreciation and Consumer Contributions

(Rs. Crores)

S.No.		AS ON 1.4.2000	AS ON 31.3.2001	AS ON 31.3.2002
1.	Gross Fixed Assets	497.38	580.87	693.30
2.	Capital Works-in-Progress	85.41	115.37	122.10
3.	Total	582.79	696.24	815.40
4.	Accretion: Capital Expenditure		113.55	119.16
5.	Consumer Contributions	46.64	98.03	129.04
6.	Accretions: Net Contributions Received During the year		51.39	31.01
7.	Balance to be funded by loan drawals (4 minus 6)		62.16	88.15
8.	Loans drawn		107.72	115.94
9.	Excess Drawals (8 minus 7)		45.56	27.79
10.	Accumulated Depreciation	263.05	299.16	343.53
11.	Accretion: Depreciation for the year		36.11	44.37
12.	Loan Repayments		6.33	17.19
13.	Balance Depreciation Funds available (10-11)		29.78	27.18
14.	Total funds over drawn on capital account (9+13)		75.34	54.97

	(9+13)			

455. Though funds drawn (accrued) but unspent on capital account is thus around Rs.130 crores as on 1.4.02, the filings in fact project drawal of further loans of Rs.154.33 crores during FY 2002-03 and Rs.211.95 crores during FY 2003-04.

456. The Commission expresses its concern for the way the financial affairs of the DISCOM have been conducted during the two years FY 01 and FY 02 and advises the DISCOM not to draw any further loans from 1.4.2003 till the excess funds available on capital account are absorbed by way expenditure on capital works. ***The Commission directs the DISCOM to redouble its efforts to obtain Commission's approval for the schemes (costing more than Rs.5 crores) and submit a capital expenditure programme (for the consideration of the Commission) to absorb the excess funds available on capital account at least by 31.3.2005. This capital expenditure programme should reach the Commission latest by 31.7.2003.***

457. For the Capital Base calculation for FY 2003-04, the Commission has reckoned a loan of Rs.369.14 crores. This has been calculated starting with the loans as on 31.3.2002 in the Balance Sheet in the Provisional Accounts for FY 2001-02 made available to the Commission at Rs.233.51 crores. For FY 2002-03 and FY 2003-04 the capital outlay reckoned by the Commission for purposes of Tariff (as detailed in the Paragraphs 442 and 445) is Rs.126.01 crores and Rs.131.20 crores respectively (aggregating to Rs.257.21 crores) against which consumer contributions have been estimated at Rs.20.00 crores for each of the two years. The balance of capital expenditure is Rs.217.21 crores. Funds accruing through Depreciation are Rs.51.24 crores and Rs.57.33 crores aggregating to Rs.108.57 crores and therefore the required net additions to loans would be Rs.108.64 crores (Rs.217.21 crores minus Rs.108.57 crores). Taking also into account the provision towards working capital of Rs.26.99 crores

comprising average cost of stores (Rs.2.24 crores) and the Average Cash and Bank Balance (Rs.24.75 crores) as discussed in Paras 450 and 451 above, the total amount taken to the Capital Base under loans works out to Rs.369.14 crores.

Consumer Security Deposits

458. The Licensee has not shown any amount towards Consumer Security Deposits in the calculation of the Capital Base. The Commission for reasons detailed in Para 207 above do not agree that Consumer Security Deposits are to be excluded from the negative side of the Capital Base. An amount of Rs.280.40 crores is therefore taken on this account to the negative side of the Capital Base.

NET CAPITAL BASE

459. With the above changes in the positive and negative elements of the Capital Base, the Net Capital Base works out to Rs.(-)171.08 crores as detailed in the Table below as against Rs.209.75 crores projected by the Licensee.

Table No. 117

Capital Base Calculations For FY 2003-04

(Rs. Crores)

NAME OF THE ITEM	APEPDCL	APERC
Positive Elements of Capital Base		
Original Cost of Fixed Assets	861.75	729.26
Capital Work in Progress	346.84	174.31
Working Capital		
a) Average Cost of Stores	26.27	2.24
b) Average Cash and Bank Balance	10.82	24.75
Total of Positive Elements of Capital Base	**1245.68**	**930.56**
Negative Elements of Capital Base		
Accumulated Depreciation	455.64	452.10
Government Loans	125.39	
Approved Loans	403.08	369.14
Other Market Borrowings for CAPEX	23.96	
Consumer Security Deposit	0.00	280.40
Total of Negative Elements of Capital Base	**1008.07**	**1101.64**
Net Capital Base	**237.61**	**(171.08)**

EXPENDITURE

Purchase of Energy

460. APEPDCL has projected a requirement of 6370 MU of energy against which the Commission has allowed 6555.05 MU. The corresponding cost has been arrived at as Rs.1356.36 crores as against Rs.1328.78 crores shown in the ARR.

WAGES, SALARIES AND OTHER ALLOWANCES

461. The Licensee has projected an amount of Rs.94.05 crores towards Wages, Salaries and related costs and Rs.9.84 crores towards Employee Funds for pension and gratuity (both net of capitalization) aggregating to Rs.103.89 crores for inclusion in the ARR of FY 02-03 and furnished the following details in the filings at Para 8.7.6 thereof.

Table No. 118

(Rs. Crores)

Wages, Salaries and Allowances	118.19
Contribution to Employee Funds	12.37
Total	130.56
LESS: Capitalization	26.67
Net Employee Costs	**103.89**

462. The projections towards wages, salaries and allowances (Rs.118.19 crores) as well as contributions to Employee Funds (Rs.12.37 crores) is considered reasonable and allowed. Regarding capitalization, the Licensee has proposed a total capitalization of Rs.26.67 crores including capitalization out of provision towards employee's pension and gratuity funds. As estimates of capital outlay for FY 2003-04 are lower than the projections in the filing for reasons stated in Para 445 above, the charge to capital works towards salaries etc. (i.e.

capitalization) also comes down and is taken at Rs.8.03 crores. In order that the provision towards employees' pension and gratuity funds is reflected at gross (and not net of any amount), the capitalization out of employees' pension and gratuity funds has been taken into account under Salaries & Wages itself. Taking these factors into account, the amount taken for Revenue Requirement Calculations towards Salaries & Wages is Rs.110.16 crores as shown in the Table below:

Table No. 119

Revenue Requirement – Net Salaries & Wages

(Rs. Crores)

Wages, Salaries & Allowances	118.19
Less: Capitalisation	8.03
Net of Capitalisation-Salaries & Wages	**110.16**

The provision towards Employee Funds is shown separately infra.

ADMINISTRATION AND GENERAL EXPENSES

463. The Licensee has claimed (in Form 1.3 of the filing) towards Administration and General Expenses an amount of Rs.11.97 crores (net of capitalization). The gross amount is Rs.15.04 crores and capitalization is Rs.3.07 crores. This is considered reasonable and provided for in the computation of the Aggregate Revenue Requirement.

REPAIRS AND MAINTENANCE

464. APEPDCL has projected an amount of Rs.13.41 crores towards Repairs and Maintenance for FY 2003-04 for inclusion in the computation of the Revenue Requirement. This is considered reasonable.

RENT, RATES AND TAXES

465. APEPDCL has projected (in Form 1.3) an amount of Rs.0.59 crores for inclusion in the computation of the Revenue Requirement for FY 2003-04 towards Rent, Rates and Taxes. This is accepted and accordingly provided.

INTEREST ON LOANS

466. As already stated in Para 457 above, the capital expenditure (net of consumer contributions) for FY 2002-03 is Rs.106.01 crores while the depreciation funds are Rs.51.24 crores. The loan portfolio as on 31.3.2002 as already stated was Rs.233.51 crores and the loan balance as on 31.3.2003 works out to Rs.288.28 crores. It is seen that the average interest rate on the portfolio of loans in FY 2001-02 was Rs.12.97% and the same was 11.62% for FY 2003-04 (as projected in the filing). A rate of interest of 12% has therefore been adopted. Interest at 12% on Rs.288.28 crores for the full year works out to Rs.34.59 crores. As the loan balance as on 31.3.2004 is as already stated above Rs.369.14 crores, the net accretion during FY 2003-04 would be Rs.80.86 crores calculated at 12% for 6 months, the interest on the accretion works out to Rs.4.85 crores. The gross interest is therefore Rs.39.41 crores. The Other Finance Charges (including Lease Rentals) claimed for FY 2003-04 are Rs.12.65 crores and are allowed in full. As already mentioned above in the Paragraphs relating to capital outlay, the change in the capital expenditure programme has entailed reduction in the IDC chargeable to capital also. The capitalization on account of IDC is Rs.9.12 crores. The amount taken for calculation of Revenue Requirement works out to Rs.42.97 crores as detailed in the Table below.

Table No.120

Interest (net) and Other Finance Charges

(Rs. Crores)

Particulars	Amount
Interest	39.44
Lease Rentals	3.08
Other Finance Charge	9.57
Total	52.09
LESS: IDC Capitalization	9.12
NET INTEREST	42.97

INTEREST ON CONSUMER SECURITY DEPOSITS

467. An amount of Rs.8.41 crores has been provided calculated at 3% of the Security Deposits taken in the Capital Base.

LEGAL CHARGES

468. The Licensee has claimed (in Form 1.3) an amount of Rs.4.97 crores towards Legal Charges. This is accepted as reasonable.

AUDIT AND OTHER FEES

469. The Licensee has claimed an amount of Rs.0.02 crores towards Audit and other fees. This is accepted as reasonable.

DEPRECIATION

470. The Licensee has projected an amount of Rs.60.87 crores and the amount admitted is Rs.57.33 crores. The difference is on account of the difference in the level of capitalization for FY 2002-03 as explained above under Original Cost of Fixed Assets.

OTHER EXPENSES

471. The Corporate allocation made by APTRANSCO to the DISCOMs is taken as “Other Expenses”. Based on the amount allocated by APTRANSCO, the amount allowed is Rs.6.51 crores as against Rs.5.86 crores claimed in the ARR filing (Form 1.3).

CONTRIBUTION TO EMPLOYEE FUNDS

472. The provision towards Employee Funds is made at 13% of Basic Pay plus DA based on the actuarial study relied upon for the Tariff Order of FY 2001-02. The Licensee has projected on this basis a gross amount of Rs.12.37 crores (vide Para 8.7.6 of the ARR) and Rs.9.84 crores (net of capitalization) towards contribution to Employee Funds. An amount of Rs.12.37 crores has been included on this account in the computation of the Revenue Requirement for FY 2003-04 for reasons elaborated in the Para on Salaries and Wages supra.

473. APEPDCL confirmed in the Review Meeting taken by the Commission on 24.10.2002 that the Trusts formed had become operational.

The Licensee is directed to ensure that an amount of Rs.1.031 crores per month is remitted from month to month to the Trust. The official receipt from the Trust duly acknowledging receipt of the remittance may be obtained and retained by the Company for record and a copy of the receipt may be forwarded to the Commission for information.

SPECIAL APPROPRIATIONS

CONTRIBUTION TO CONTINGENCIES RESERVE

474. APEPDCL has proposed an amount of Rs.2.63 crores as Special Appropriation towards Contribution to Contingencies Reserve to be provided in the computation of the Revenue Requirement. The amount is calculated at 0.25% of the Original Cost of Fixed Assets (OCFA) projected in the filing. As the amount of OCFA has undergone a change due to the reasons mentioned in the Para on OCFA above, the amount provided towards Contingencies Reserve is Rs.1.82 crores. This is calculated at 0.25% (the same as taken by the Licensee) on the amount of OCFA allowed by the Commission as detailed in Para 446 above.

475. ***The Commission reiterates that Paragraph 4 of the Sixth Schedule to the Electricity (Supply) Act, 1948 requires this contribution to be invested in securities authorized under the Indian Trusts Act, 1882 within a period of six months from the close of the year of account in which the appropriation is made. The Licensee is directed to comply with this requirement.*** The attention of the Licensee is also drawn to Paragraph V of the Sixth Schedule that any drawal from the Contingencies Reserves can be made only with the prior approval of the Commission.

Carrying Cost for Wheeling Compensation

476. It would be recalled that the Commission's Order on Wheeling Compensation has been appealed against in the High Court of Andhra Pradesh and the Commission's Order has been stayed by the Honourable Court. In view of this, the DISCOMs have not been able to earn the Revenues on this account in accordance with the estimates reckoned in the Tariff Order for FY 2002-03. The carrying cost in respect of this revenue due for Wheeling services at Rs.2.30 crores has been provided as Special Appropriation in view of the fact that the loss of Revenue was beyond the control of the Licensee.

PAY REVISION ARREARS FOR FY 2002-03

477. It would be recalled that the Commission in its Tariff Order for FY 2002-03 had stated that while the claim of the Licensee for inclusion of an amount towards likely Pay Revision in the Revenue Requirement calculations for FY 2002-03 was being disallowed in view of the difficulties in quantifying the amount at that stage, appropriate amounts would be taken into account in the Revenue Requirement calculations in the ARR of the year after the pay revision process is completed and implemented. The Pay revision for APEPDCL employees has been concluded half way through FY 2002-03 retrospectively effective from 1.4.2002. But the ARR filing for FY 2003-04 does not have any proposals seeking the inclusion of this amount in the calculation of the Revenue Requirement for FY 2003-04 but has proposed treating this as a Regulatory Asset. The Commission has however, included on this account an amount of Rs.19.78 crores (inclusive of an amount of Rs.0.78 crores towards carrying cost) as Special Appropriation in the calculation of the Revenue Requirement for FY 2003-04. The Commission would at the same time like the management of APEPDCL to match the additional manpower costs by productivity increases, by inter-alia more effective deployment of existing manpower so as to achieve standards in service levels as laid down in the Commission's Regulation No.6 gazetted on 4th September 2000 which the DISCOM is committed to achieve

(vide Minutes of the Review Meeting taken by the Commission on 29th May, 2001). ***The Commission directs the Licensee to send a Comprehensive Report on the Status as on 31.3.2003 in this regard latest by 30.6.2003.***

INTEREST ADJUSTMENT DUE TO SHORTFALL IN CAPITAL OUTLAY DURING FY 2001-02

478. As stated in Para 441 above, an amount of Rs.28.65 crores has been taken as negative special appropriation in the calculation of the Revenue Requirement for FY 03-04.

REVERSAL ADJUSTMENT FOR THE CONTINGENCIES RESERVE PROVIDED IN FY 2000-01 AND 2001-02.

479. The Commission in its Tariff Order for FY 2002-03 directed APTRANSCO and the four DISCOMs to make provisions in the Company's Accounts towards Contingencies Reserve for the two years FY 2000-01 and FY 2001-02 and also make the necessary investments as required under the Sixth Schedule. In December 2002 APTRANSCO desired a review of this directive. The Commission treated this as a Review Petition which was taken on record as R.P. No.3/2003 in O.P. No.29/2002 and the DISCOMs were given notices of hearing treating them as Co-applicants. After necessary hearings, the Commission passed an order on the Review Petition directing that reversal adjustment be carried out in respect of the amounts provided towards Contingencies Reserve in the Tariff Orders for FY 2000-01 and FY 2001-02 for reasons recorded in detail in that order. The reversal adjustment has accordingly been carried out by taking an amount of Rs.3.32 crores as negative special appropriation in the calculation of Revenue Requirement for FY 2003-04.

TOTAL EXPENDITURE

480. In view of the above changes, the total expenditure works out to Rs.1617.01 crores as against Rs.1584.72 crores projected by the Licensee as summarized in the following table.

Table No.121

Statement of Expenditure and Special Appropriations

(Rs. Crores)

EXPENDITURE ITEMS	APEPDCL	APERC
Purchase of Energy	1328.78	1356.36
Wages and Salaries	94.04	110.16
Administration and General Expenses	11.97	11.97
Repairs and Maintenance	13.41	13.41
Rent, Rates and Taxes	0.59	0.59
Approved Loan Interest	43.45	42.97
Interest on Security Deposits	8.30	8.41
Legal Charges	4.97	4.97
Audit & other Fees	0.02	0.02
Depreciation	60.87	57.33
Other Expenses	5.86	6.51
Contribution to Employee Funds	9.84	12.37
Special Appropriations		
Contribution to Contingencies Reserve	2.62	1.82
Arrears for FY 2002-03 of Pay Revision for Employees with Carrying Cost	0.00	19.78
Carrying cost for Wheeling Revenue lost in FY 02-03	0.00	2.30
Interest adjustment for shortfall in Capital Expenditure in FY 2001-02	0.00	(28.65)
Reversal adjustment for Contingencies Reserve provided in FY 2000-01 and FY 2001-02 as per Commission's order on RPNo.3/2003 in OP No.29/2002	0.00	(3.32)
TOTAL EXPENDITURE	**1584.72**	**1617.01**
NOTE: Figures in brackets are negative		

REASONABLE RETURN:

481. APEPDCL has not claimed in the filings the Reasonable Return it is eligible for as per the Sixth Schedule to the Electricity (Supply) Act, 1948. It may be recalled here that there was no claim for Reasonable Return in the filing for FY 2002-03 also but as stated in the Tariff Order for that year, the Commission allowed the Reasonable Return as, in the opinion of the Commission, it was / is not in the interest of either the consumer or the Licensee to forego the

Reasonable Return. The Commission wish to emphasise that one of the prime objectives of Reforms undertaken by the State in the Electricity Sector is to bring in a Commercial Orientation in the methods of operation as well as in the general approach to management decisions by the unbundled entities. The Commission considers it necessary to provide for the Reasonable Return in the calculation of the Revenue Requirement to reinforce this commercial orientation and hopes that this would act as a motivating factor and a morale booster at all levels leading to more operational efficiency all round. The Commission accordingly allows an amount of Rs.1.85 crores as Reasonable Return to APSPDCL and includes it in the calculation of the Revenue Requirement for FY 2003-04.

NON-TARIFF INCOME

482. The Licensee has projected an amount of Rs.77.72 crores as Non-Tariff income (Form 1.4). The Commission has reckoned an amount of Rs.80.88 crores The Licensees' projections include an amount of Rs.50.82 crores towards Customer Charges against which the Commission has reckoned an amount of Rs.57.48 crores. The Licensee's projections also include an amount of Rs.3.51 crores towards revenue from Wheeling. This has been excluded as the Commission's order on Wheeling Tariff has been stayed by the Hon'ble High Court of Andhra Pradesh.

AGGREGATE REVENUE REQUIREMENT

483. The Aggregate Revenue Requirement works out to Rs.1537.98 crores as against Rs.1507.00 crores projected by the Licensee as detailed in the Table below.

Table No.122

(Rs. Crores)

Total Expenditure	1617.01
Reasonable Return	1.85
MINUS: Non-Tariff income	80.88
TOTAL NET AGGREGATE REVENUE REQUIREMENT	1537.98

REVENUE FROM TARIFF AND THE GAP

484. Determination of the Aggregate Revenue Requirement is the first step in the process of tariff formulation. Subsequent chapters of this Tariff Order (chapters XV and XVI) discuss the sales projections by the DISCOMs, the revenue gap, the tariff approved by the Commission taking into account the cross subsidy and the external subsidy, the bulk supply tariff applicable to each DISCOM and other aspects.

CHAPTER – XI
ERC / ARR 2002-03:
DISTRIBUTION AND RETAIL SUPPLY
Andhra Pradesh Central Power Distribution Company Limited (APCPDCL)

485. APCPDCL, the Licensee for Distribution and Retail Supply of Electricity in the territory assigned to it in Andhra Pradesh as per the Licence granted by the Commission, filed the ARR / ERC under Section 26 (5) of the Reform Act for FY 2002-03 on 31-12-2002. The Commission has examined the Licensee's proposals and indicates herein areas where the calculations of the Licensee are found to be incorrect or unacceptable with reasons therefor and the Commission's alternative calculations.

486. Based on the finalized Second Transfer Scheme notified by the GoAP in Gazette Notification GO. MS No. 109 Energy (Power III) dated 29-9-2001 giving the opening Balance Sheet of APCPDCL (and also of APTRANSCO and the remaining three DISCOMS) as on 1- 4 -2000, the provisional Annual Accounts for FY 2000-01 as compiled and finalized by the Licensee were made available to the Commission in February 2002. Though the audit of these accounts was not then complete, the figures as per these accounts were adopted wherever relevant for purposes of the Tariff Order for FY 02. The Audited Accounts complete in all respects for FY 2000-01 as adopted by the Shareholders of the company in a General Meeting has not yet been filed with the Commission as required under the terms of the Licence. For FY 2001-02, provisional Annual Accounts as complied by the Licensee have been made available to the

Commission. The figures as per these provisional accounts have been adopted wherever relevant for purposes of this order.

487. Another important aspect is the audit of annual accounts of the Company. Audited Accounts for FY 2000-01which should have been available (as per the Companies Act, 1956) by 30.9.2001 and for FY 2001-02 by 30.9.2002 have not yet been filed with the Commission as required under the terms of the Licence. APCPDCL is advised to spare no efforts to ensure that the audit of annual accounts is brought up-to-date so that the audited accounts for FY 2000-01 and FY 2001-02 are available latest by 30th June 2003 and for 2002-03 by 30th Sept. 2003.

CAPITAL OUTLAY ON SCHEMES - FY 2001-02, FY 2002-03 & FY 2003-04

488. The Licensee in the filings has made the following projections of capital expenditure for FY 2003-04.

Table No.123
Proposed Capital outlay for FY 2003 – 04 as per filing
(Rs. Crores)

	Base Capital Expenditure	Expenditure capitalized	IDC	Total
APCPDCL	480.00	48.00	29.13	557.13

489. Before dealing with the projections for capital expenditure in FY 2003-04, it is necessary to advert to the shortfall in the capital outlay from the level envisaged in the Tariff Order for FY 2001-02 referred to by the staff in their presentation in the Public Hearing.

490. The Commission has noted that there is a shortfall of Rs.198.70 crores in the Capital outlay from the Tariff Order (for FY 02) provision of Rs.387.39 crores for APCPDCL as detailed in the Table below.

Table No.124

CAPITAL OUTLAY – FY 2001- 02 Performance

(FIGURES INCLUDE IDC AND EXPENSE CAPITALISATION)

(Rs. Crores)

	Filing	Tariff Order	Actuals	Shortfall
APCPDCL	555.17	387.39	188.69	198.70

491. This shortfall has resulted in significant variation in the Capital Base calculations for FY 2001-02 as detailed in the Table below.

Table No. 125

Capital Base for FY 2001-02
Comparison of Actual Costs with Tariff Order on the basis of the Provisional Accounts for FY 2001-02

(Rs. Crores)

	Filing	Tariff Order	Actual	Variance
Original Cost of Fixed Assets	1774	1533	1525	8
Capital Works-in-Progress (CWIP)	535	562	192	370
Stores	49	11	14	(3)
Cash	58	20	19	1
Total (A)	**2416**	**2126**	**1750**	**(376)**
Accumulated depreciation	805	787	781	6
Borrowings	1117	934	399	535
Consumer Security Deposits	354	354	405	(51)
Total (B)	**2276**	**2075**	**1585**	**490**
Capital Base (A-B)	**140**	**51**	**165**	**(114)**

492. The adjustment required due to this variance in the Capital Base for the Reasonable Return allowed in the calculation of the Aggregate Revenue

Requirement for the Tariffs of FY 2001-02 is deferred till the audited / adopted Annual Accounts of the DISCOM for that year are available to the Commission.

493. The shortfall in investment outlay for FY 2001-02 has also resulted in a shortfall in interest expenditure of Rs.35.61 crores from the amount provided in the calculation of the Revenue Requirement in the Tariff Order for FY 2001-02 as detailed in the Table below.

Table No.126
Calculation of Interest Adjustment due to Shortfall in Capital Expenditure in FY 2001-02

(Rs. Crores)

Particulars	Amount	
A. INTEREST AS PER TARIFF ORDER FOR FY 2001-02		
Gross Interest and Finance Charges		121.52
LESS: IDC Charges to Capital works		33.00
		88.52
B. ACTUALS AS PER PROVISIONAL ACCOUNTS FOR FY 2001-02		
Gross Interest and Finance Charges		
LESS: Interest on Consumer Security Deposits	78.94	
Other interest	(-) 11.35	
Sub-Total	(-) 0.78	
LESS: IDC Charged to Capital Works	66.81	
	13.90	
		52.91
DIFFERENCE (Rs.88.52 crores minus Rs.52.91 crores)		35.61

494. The Commission considers that the interest amount of Rs.35.61 crores calculated as above out of the amount reckoned for calculations of Revenue Requirement in the Tariff Order for FY 2001-02 needs to be adjusted as negative special appropriation in the calculation of the Revenue Requirement for FY 2003-04 and is accordingly done.

CAPITAL OUTLAY – Progress during FY 2002- 03

495. In the ARR for FY 2003-04 the DISCOM has projected for FY 2002-03 a revised capital outlay (Base expenditure) of Rs.270.00 crores which works out to Rs.320.43 crores (with IDC and expenditure capitalization) as against Rs.443.92 crores reckoned in the Tariff Order for FY 2002-03. The Commission considers this projection to be on the higher side keeping in view the progress of expenditure during the first half of the year upto Sept, 2002 and the track record of the past and allows only an amount of Rs.115.73 crores towards base expenditure on the schemes given in the Table below:

Table No.127
ESTIMATED CAPITAL OUTLAY FOR FY 2002-03

(Rs. Crores)

S.No.	Name of Scheme	APCPDCL	APERC
	A. Schemes approved by the Commission or schemes which do not require approval		
1	HUDA works	3.76	3.76
2	DFID Tranche-1	5.00	5.00
3	DFID Tranche-2	53.00	40.00
4	SI (Existing)	9.97	9.97
5	Pump-set energisation	10.00	7.00
6	Rural electrification (P: IE)	10.00	3.00
7	Release of services	37.00	25.00
	Total (A)	**128.73**	**93.73**
	B. Other Schemes		
8	APL – 1	26.27	15.00
9	APL – 1 Suppl.		
10	PFC	10.00	7.00
	Total (B)	**36.27**	**22.00**
	C. Schemes not approved		
11	APL-2	1.00	0.00
12	Material schemes	71.00	0.00
13	HVDS Hyderabad	5.00	0.00
14	Towns schemes in 6 operation circles	10.00	0.00
15	HVDS for rural areas	18.00	0.00
	TOTAL (C)	**105.00**	**0.00**
	GRAND TOTAL (A+B+C)	**270.00**	**115.73**

496. The amount to be taken to CWIP in respect of the above schemes works out to Rs.137.34 crores as detailed in the Table below

Table No.128
Amounts Taken to CWIP for FY 2002-03

(Rs. Crores)

Particulars	APCPDCL	APERC
Base capital expenditure	270.00	115.73
Expenses capitalized	27.00	11.57
Interest (IDC) capitalized	23.43	10.04
Total	**320.43**	**137.34**

497. The projected CWIP as on 31.03.2003 would serve as the Opening Balance for FY 2003-04.

CAPITAL OUTLAY – Projections for FY 2003-04

498. As already mentioned above, the filings project a Base Capital Expenditure of Rs.480.00 crores for FY2003-04 which together with the expenditure capitalization of Rs.48.00 crores and Interest during Construction (IDC) of Rs.29.13 crores works out to Rs.557.13 crores. Before dealing with the proposals in the filings, it is necessary to mention that the progress during the past year in the matter of obtaining approvals for schemes as required under Para 9 of the Licence has not picked up any significant momentum. It may be recalled here that the Commission in its Tariff Order for FY 2002-03 stated in unambiguous terms that from FY 2003-04 & onwards it would allow for inclusion in the CWIP only those schemes which have the prior approval of the Commission as required under Para 9 of the Licence or those which do not require such approval (being schemes individually costing less than Rs. 5 Crores). Based on this norm and moderating the estimates of outlay projected by the Licensee for FY 2003-04 (scheme wise), the Commission allows for inclusion in the CWIP (for Capital Base calculations for FY 2003-04) an estimated amount of Rs.175.23 crores as Base Capital expenditure in respect of

the following schemes as against Rs.480.00 crores projected by the Licensee. Together with the expenses capitalized and IDC the capital outlay for FY 2003-04 works out to Rs.203.38 cr.

Table No.129

Scheme-wise details for Base Capital Expenditure for FY 2003-04

(Rs. Crores)

S.No.	Name of Scheme	APCPDCL	APERC
	A. Schemes approved by the Commission or schemes which do not require approval		
1	DFID Tranche-1	2.25	2.25
2	DFID Tranche-2	58.00	58.00
3	SI (Existing)	24.98	24.98
4	Pump-set energisation	17.00	10.00
5	Rural electrification (P: IE)	17.00	10.00
6	Release of services	35.00	25.00
	Total (A)	**154.23**	**130.23**
	B. Other Schemes		
8	APL – 1	50.00	30.00
9	APL – 1 Suppl.		
10	PFC	20.00	15.00
	Total (B)	**70.00**	**45.00**
	C. Schemes not approved		
11	APL-2	1.00	0.00
12	Material schemes	110.00	0.00
13	HVDS Hyderabad	50.00	0.00
14	Towns schemes in 6 operation circles	20.00	0.00
15	HVDS for rural areas	75.00	0.00
	TOTAL (C)	**256.00**	**0.00**
	GRAND TOTAL (A+B+C)	**480.23**	**175.23**

CAPITAL BASE – POSITIVE ELEMENTS:

Original Cost of Fixed Assets (OCFA):

499. The Licensee has proposed an amount of Rs.2142.07 crores as the Original Cost of Fixed Assets (excluding consumer contributions) to be reckoned in the Capital Base calculations for FY 03-04. (However, from the details furnished in Paras 8.4.1 and 8.4.14 in the filing the number works out to Rs.2139.67 crores). It may be mentioned in general regarding transfers from CWIP to Original Cost of Fixed Assets that the transfer is meant to represent those assets which are completed (or commissioned where appropriate) and commenced utlisation (which are referred to as capitalized works in commercial parlance). But the practice in DISCOMs appears to be to transfer to Gross Fixed

Assets the balance in the CWIP at the beginning of the year. This gives room for the apprehension that works which are in fact not completed are capitalized in the Accounts of the DISCOM while the projections made for purposes of ARR by the Works Wing exhibit capitalization proposals of even those works which in the Accounts already stand capitalized. Secondly the ARR projections for capitalization are not based on a review of the scheme-wise status of progress vis-à-vis the earlier planned execution schedule and a genuine appraisal of the completion programme of works / schemes. Pending a detailed examination of the practice obtaining in this regard and its implications, an amount of Rs.100.00 crores has been reckoned for transfer to OCFA from CWIP for FY 2002-03 on an ad-hoc basis. Similarly for FY 2003-04, an estimated amount of Rs.150.00 crores has been taken as transfer to OCFA from CWIP.

500. The estimated amount to be reckoned under Original Cost of Fixed Assets in the Capital Base as on 31.3.2004 is therefore calculated as in the Table below.

Table No.130

STATEMENT OF ESTIMATED FIXED ASSETS AS ON 31.3.2004

		(Rs. Crores)
NAME OF THE ITEM	**APCPDCL**	**APERC**
Gross Fixed Assets as on 31.03.02 LESS: Consumer contributions for Capital Assets	1748.02 218.49	1743.71 218.49
Original Cost of Fixed Assets (OCFA) as on 31.03.02	1529.53	1525.22
ADD: Works likely to be completed during 2002-03	340.98	100.00
Gross OCFA as on 31.03.03	1870.51	1625.22
LESS: Consumer Contributions	77.81	50.00
OCFA as on 31.03.2003	1792.70	1575.22
ADD: Works likely to be completed in FY 2003-04	453.64	150.00
Gross OCFA as on 31.03.2004	2246.34	1725.22
LESS: Consumer Contributions	106.67	75.00
OCFA as on 31.03.2004	2139.67	1650.22

Accordingly, OCFA taken to Capital Base is Rs.1650.22 crores

CAPITAL WORKS – IN – PROGRESS (CWIP):

501. As already stated above, the Commission has decided to reckon an outlay of Rs.115.73 crores for FY 02-03 and Rs.175.23 crores for FY 03-04 as Base

Capital Expenditure. (Paras 495 and 498 ante). These together with the expenses capitalized and the IDC work out respectively to Rs.137.34 crores and Rs.203.38 crores. Consequently, the amount reckoned for CWIP for FY 02-03 works out to Rs.229.77 crores and for Capital Base calculations for FY 2003-04 to Rs.283.15 cr. as detailed in the Table below:

Table No.131
STATEMENT OF ESTIMATED WORKS IN PROGRESS FOR FY 2003-04

(Rs. crores)

	APCPDCL	APERC
Opening Balance of CWIP 01.04.2002	220.93	192.43
Outlay during the year (FY 2002-03)	270.00	115.73
Expenses during the year Capitalized	27.00	11.57
Interest during construction charged to Capital (IDC)	23.43	10.04
Total Additions: Capital Expenditure	320.43	137.34
Total (OB + Additions)	541.36	329.77
LESS: Works anticipated to be completed in FY 2002-03	340.98	100.00
Closing Balance of CWIP as on 31.03.03 and Opening balance as on 01.04.2003	200.38	229.77
Additional Investments during the year (FY 2003-04)	480.00	175.23
Expenses during the year Capitalized	48.00	17.52
Interest during construction charged to Capital (IDC)	29.13	10.63
Total Additions: Capital Expenditure	557.13	203.38
Total (OB + Additions)	757.51	433.15
LESS: Works anticipated to be completed in FY 2003-04	453.64	150.00
Closing Balance of CWIP as on 31.03.04	303.87	283.15

WORKING CAPITAL REQUIREMENTS:

502. The Licensee's plea for Working Capital and the interest on borrowings therefor have been considered in detail by the Commission in the context of the Discussion Paper submitted by the Licensees in response to Para 236 of the Commission's Tariff Order of 24th March, 2002. A detailed analysis of the position in this regard taking into account the existing billing and collection lags revealed that it was about the same as the working capital calculated as per the parameters adopted by the Commission in its Tariff Order of 24th March, 2002. However, considering the working capital difficulties in the transition that the Licensees represented strongly about, the Commission decides to allow the Average Cash & Bank balance in the computation of the Capital Base at two

months' level of eligible items of expenses instead of one month as hitherto. This is intended to provide a trajectory to an efficient level over a period of 3 years. The level would therefore be at 2 month's level for FY 2003-04 and FY 2004-05 and at 1½ months' level for FY 2005-06. Thereafter it would revert to the one months' level. There will be no change in the level of Average Cost of Stores which is already being provided at 2 months' level of the annual repair and maintenance expenses.

AVERAGE COST OF STORES:

503. The DISCOM has proposed an amount of Rs.63.57 crores towards Average Cost of Stores for inclusion in the Capital Base Calculations calculated at 2.5% of the closing balance of Gross Fixed Assets even though (as stated in the filing itself) the stores as on 31.3.2002 worked out to only 1.2% of the closing balance of gross fixed assets. No justification has been furnished in the filing for this method of estimation nor for the percentage of 2.5%. An inventory level of Rs.63.57 crores to support the Repair & Maintenance activity of Rs.79.20 crores projected in the filing is very high as the inventory works out to over 9 months' consumption. It may be mentioned here that in the Tariff Order for FY 2002-03 a level of 2 month's requirement of Repair and Maintenance expenses was considered reasonable and the Commission has decided to continue the same level as detailed in Paragraph 502 above. An amount of Rs.13.20 crores calculated at two months requirement of the Repairs and Maintenance expenses (Rs.13.41 crores) is therefore provided.

AVERAGE CASH AND BANK BALANCE:

504. The Licensee has proposed Rs.25.38 crores towards Cash and Bank Balance and has stated (Para 8.5.8) that this has been calculated at one month's requirement of specified operating expenses viz the aggregate of Wages and Salaries, Repairs and Maintenance, Administrative and General Expenses, Rent, Rates and Taxes, and Contribution to Employee funds for the year. As stated

above (Para 205) the provision under this head is to be calculated at two months' level of eligible items of expenses for FY 2003-04 instead of one month as hitherto. Calculated on this basis, the average Cash and Bank Balance works out to Rs.55.85 crores as detailed in the Table below and is provided for in the calculation of the Capital Base.

Table No.132

(Rs. Crores)

Wages and Salaries	200.18
Admin. And General Expenses	32.75
Repairs and Maintenance	79.20
Rent, Rates and Taxes	1.20
Contribution to Employee funds	21.75
Total expenses	**335.08**
Average Cash and Bank Balances (335.08 ÷6)	**55.85**

CAPITAL BASE-NEGATIVE ELEMENTS:

Accumulated Depreciation

505. The accumulated depreciation as projected by the Licensee in the filings is Rs.1069.49 crores against which Rs.1047.92 crores is admitted. The difference is due to the capitalization of works anticipated to be completed in FY 2002-03 being taken at less than the projections in the filings as already mentioned above. (see Para 499 supra)

LOANS FROM GOVERNMENT AND APPROVED INSTITUTIONS

506. The APCPDCL has projected an amount of Rs.360.19 crores towards Government Loans and Rs.533.52 crores as loans from approved institutions and Rs.104.10 crores towards "Other Market Borrowings for Capital Expenditure" aggregating to Rs.997.81 crores.

507. It is seen that APCPDCL during the two years, FY 2000-01 and FY 2001-02 (since the Second Transfer Scheme effective from 1.4.2000), has drawn loans far in excess of the capital expenditure incurred during the year, without taking into account receipts of Consumer Contributions during the year.

It is also noticed that the loan repayments have been far less than the funds accruing through Depreciation and this has also not been taken as funds available towards capital outlay. The position is as given in the Table below.

Table No.133

Statement showing Capital Expenditure, Loans, Depreciation and Consumer Contributions

(Rs. Crores)

S.No.		AS ON 1.4.2000	AS ON 31.3.2001	AS ON 31.3.2002
1. 2.	Gross Fixed Assets Capital Works-in-Progress	1272.66 285.37	1560.53 186.92	1743.71 192.43
3.	Total	1558.03	1747.45	1936.14
4.	Accretion: Capital Expenditure		189.42	188.69
5.	Consumer Contributions	64.01	140.69	218.49
6.	Accretions: Net Contributions Received During the year		76.68	77.80
7.	Balance to be funded by loan drawals (4 minus 6)		112.74	110.89
8.	Loans drawn		191.25	164.20
9.	Excess Drawals (8 minus 7)		78.51	53.31
10.	Accumulated Depreciation	605.89	687.92	780.81
11.	Accretion: Depreciation for the year		82.03	92.89
12.	Loan Repayments		48.12	37.27
13.	Balance Depreciation Funds available (11-12)		33.91	55.62
14.	Total funds over drawn on capital account (9+13)		112.42	108.93

508. Though funds drawn (accrued) but unspent on capital account is thus more than Rs.221 crores as on 1.4.02, the filings in fact project drawal of further loans of Rs.242.62 crores during FY 2002-03 and Rs.450.47 crores during FY 2003-04 towards capital expenditure without taking into account these amounts remaining unspent on capital account.

509. The Commission expresses its concern for the way the financial affairs of the DISCOM have been conducted during the two years, FY 01 and FY 02 and advises the DISCOM not to draw any further loans from 1.4.2003 till the excess funds available on capital account are absorbed by way expenditure on capital works. ***The Commission directs the DISCOM to redouble its efforts to obtain Commission's approval for the schemes (costing more than Rs.5 crores) and submit a capital expenditure programme (for the consideration of the Commission) to absorb the excess funds available on capital account at least by 31.3.2005. This capital expenditure programme should reach the Commission latest by 31.7.2003.***

510. For the Capital Base calculation for FY 2003-04, the Commission has reckoned a loan of Rs.416.58 crores. This has been calculated starting with the loans as on 31.3.2002 in the Balance Sheet in the Provisional Accounts for FY 2001-02 made available to the Commission at Rs.398.72 crores. For FY 2002-03 and FY 2003-04 the capital outlay reckoned by the Commission for purposes of Tariff (as detailed in the Paragraphs 11 and 13 above) is Rs.137.34 crores and Rs.203.38 crores respectively (aggregating to Rs.340.72 crores) against which consumer contributions have been estimated at Rs.50.00 crores for FY 2002-03 and Rs.75.00 crores for FY 2003-04. The balance of capital expenditure is Rs.215.72 crores. Funds accruing through depreciation are Rs.129.65 crores and Rs.137.26 crores aggregating to Rs.266.91 crores. Taking also into account the provision towards working capital of Rs.69.05 crores comprising average cost of stores (Rs.13.20 crores) and the Average Cash and Bank Balance (Rs.55.85 crores) reckoned in the calculation of the Capital Base as discussed in Paras 509 and 510 above, the total amount taken to the Capital Base under loans works out to Rs.416.58 crores (Rs.215.72 crores plus Rs.69.05 crores minus Rs.266.91 crores).

Consumer Security Deposits

511. The Licensee has not shown any amount towards Consumer Security Deposits in the calculation of the Capital Base. The Commission for reasons detailed in Para 207 above do not agree that Consumer Security Deposits are to be excluded from the negative side of the Capital Base. An amount of Rs.479.68 crores is therefore taken on this account to the negative side of the Capital Base.

NET CAPITAL BASE

512. With the above changes in the positive and negative elements of the Capital Base, the Net Capital Base works out to Rs.58.44 crores as detailed in the Table below as against Rs.467.60 crores projected by the Licensee.

Table No.134
Capital Base Calculations For FY 2003-04

(Rs. Crores)

NAME OF THE ITEM	APCPDCL	APERC
Positive Elements of Capital Base		
Original Cost of Fixed Assets	2142.07	1650.22
Capital Work in Progress	303.88	283.15
Working Capital		
a) Average Cost of Stores	63.57	13.20
b) Average Cash and Bank Balance	25.38	55.85
Total of Positive Elements of Capital Base	**2534.90**	**2002.42**
Negative Elements of Capital Base		
Accumulated Depreciation	1069.49	1047.72
Government Loans	360.19	
Approved Loans	533.52	416.58
Other Market Borrowings for CAPEX	104.10	
Consumer Security Deposit	0.00	479.68
Total of Negative Elements of Capital Base	**2067.30**	**1943.98**
Net Capital Base	**467.60**	**58.44**

EXPENDITURE

Purchase of Energy

513. APCPDCL has projected a requirement of 16735 MU of energy against which the Commission has allowed 17042.73 MU. The corresponding cost has been arrived at as Rs.3526.45 crores as against Rs.3490.92 crores projected in the ARR by the Licensee.

WAGES, SALARIES AND OTHER ALLOWANCES

514. The Licensee has projected an amount of Rs.173.54 crores towards Wages, Salaries and related costs and Rs.17.91 crores towards Employee Funds for pension and gratuity (both net of capitalization) aggregating to Rs.191.45 crores for inclusion in the ARR of FY 02-03 and furnished the following details in the filings at Para 8.6.6 thereof.

Table No. 135

(Rs. Crores)

Wages, Salaries and Allowances	210.69
Contribution to Employee Funds	21.75
Total	232.44
LESS: Capitalization	40.99
Net Employee Costs	**191.45**

515. The projections towards wages, salaries and allowances (Rs.210.69 crores) as well as contributions to Employee Funds (Rs.21.75 crores) is considered reasonable and allowed. Regarding capitalization, the Licensee has proposed a total capitalization of Rs.40.99 crores including capitalization out of provision towards employee's pension and gratuity funds. As estimates of capital outlay for FY 2003-04 are lower than the projections in the filing for reasons stated in Para 498 above, the charge to capital works towards salaries etc. (i.e. capitalization) also comes down and is taken at Rs.10.51 crores. In order that the provision towards employees' pension and gratuity funds is reflected at gross (and not net of any amount), the capitalization out of employees' pension and gratuity funds has been taken into account under Salaries & Wages itself. Taking these factors into account, the amount taken for Revenue Requirement Calculations towards Salaries & Wages is Rs.200.18 crores as shown in the Table below:

Table No.136

Revenue Requirement – Net Salaries & Wages

(Rs. Crores)

Wages, Salaries & Allowances	210.69
Less: Capitalisation	10.51
Net of Capitalisation-Salaries & Wages	**200.18**

The provision towards Employee Funds is shown separately infra.

ADMINISTRATION AND GENERAL EXPENSES

516. The Licensee has claimed (in Form 1.3 of the filing) towards Administration and General Expenses an amount of Rs.32.75 crores (net of capitalization). The gross amount is Rs.39.76 crores and capitalization is Rs.7.01 crores. This is considered reasonable and provided for in the computation of the Aggregate Revenue Requirement.

REPAIRS AND MAINTENANCE

517. APCPDCL has projected an amount of Rs.79.20 crores towards Repairs and Maintenance for FY 2003-04 for inclusion in the computation of the Revenue Requirement. This is considered reasonable.

RENT, RATES AND TAXES

518. APCPDCL has projected (in Form 1.3) an amount of Rs.1.20 crores for inclusion in the computation of the Revenue Requirement for FY 2003-04 towards Rent, Rates and Taxes. This is accepted and accordingly provided.

INTEREST ON LOANS

519. As already stated in Para 510 above, the capital expenditure (net of consumer contributions) for FY 2002-03 is Rs.87.34 crores while the depreciation funds available are Rs.129.65 crores. The loan portfolio as on 31.3.2002 as already stated was Rs.398.72 crores and the loan balance as on 31.3.2003 therefore works out to Rs.356.41 crores (Rs.398.72 crores plus Rs.87.34 crores minus Rs.129.65 crores). It is seen that the average interest rate on the portfolio of loans in FY 2001-02 was Rs.12.97% and the same was 11.62% for FY 2003-

04 (as projected in the filing). A rate of interest of 12% has therefore been adopted. Interest at 12% on Rs.356.41 crores for the full year works out to Rs.42.77 crores. As the loan balance as on 31.3.2004 is as already stated above Rs.416.58 crores, the net accretion during FY 2003-04 would be Rs.60.17 crores. Calculated at 12% for 6 months, the interest on the accretion works out to Rs.3.61 crores. The gross interest is therefore Rs.46.38 crores. The Other Finance Charges (including Lease Rentals) claimed for FY 2003-04 are Rs.80.10 crores and are allowed in full. As already mentioned above in the Paragraphs relating to capital outlay, the change in the capital expenditure programme has entailed reduction in the IDC chargeable to capital also. The capitalization on account of IDC is Rs.10.63 crores as against Rs.29.13 crores proposed by the Licensee. The amount taken for calculation of Revenue Requirement works out to Rs.115.85 crores as detailed in the Table below.

Table No.137
Interest (net) and Other Finance Charges

(Rs. Crores)

Particulars	Amount
Interest	46.38
Lease Rentals	16.73
Other Finance Charge	63.37
Total	126.48
LESS: IDC Capitalization	10.63
NET INTEREST	115.85

INTEREST ON CONSUMER SECURITY DEPOSITS

520. An amount of Rs.14.39 crores has been provided calculated at 3% of the Security Deposits taken in the Capital Base.

LEGAL CHARGES

521. The Licensee has claimed (in Form 1.3) an amount of Rs.8.46 crores towards Legal Charges. This is accepted as reasonable.

AUDIT AND OTHER FEES

522. The Licensee has not claimed any amount towards Audit and other fees. The amount is taken as included under Administrative and General expenses.

DEPRECIATION

523. The Licensee has projected an amount of Rs.155.43 crores and the amount admitted is Rs.137.26 crores. The variance is on account of the difference in the level of capitalization for FY 2002-03 as explained above under Original Cost of Fixed Assets.

OTHER EXPENSES

524. The Corporate allocation made by APTRANSCO to the DISCOMs is taken as "Other Expenses". Based on the amount allocated by APTRANSCO, the amount allowed is Rs.11.83 crores as against Rs.14.84 crores claimed in the ARR filing (Form 1.3).

CONTRIBUTION TO EMPLOYEE FUNDS

525. The provision towards Employee Funds is made at 13% of Basic Pay plus DA based on the actuarial study relied upon for the Tariff Order of FY 2001-02. The Licensee has projected on this basis a gross amount of Rs.21.75 crores (vide Para 8.6.6 of the ARR) and Rs.17.92 crores (net of capitalization) towards contribution to Employee Funds. An amount of Rs.21.75 crores has been included on this account in the computation of the Revenue Requirement for FY 2003-04 for reasons elaborated in the Para 514 on Salaries and Wages supra.

526. APCPDCL confirmed in the Review Meeting taken by the Commission on 14.11.2002 that the Trusts formed had not become fully operational and the Commission wanted the Licensee to operationalise the Trusts immediately. ***The Licensee is directed to fully operationalise the Trusts by completing the required formalities latest by 30.4.2003 and file a Compliance Report with the Commission by 15.5.2003.***

The Licensee is directed to ensure that an amount of Rs.1.813 crores per month is remitted from month to month to the Trust. The official receipt from the Trust duly acknowledging receipt of the remittance may be obtained and retained by the Company for record and the fact may be reported to the Commission every month for information.

SPECIAL APPROPRIATIONS

CONTRIBUTION TO CONTINGENCIES RESERVE

527. APCPDCL has proposed an amount of Rs.6.36 crores as Special Appropriation towards Contribution to Contingencies Reserve to be provided in the computation of the Revenue Requirement. The amount is calculated at 0.25% of the Original Cost of Fixed Assets (OCFA) projected in the filing. As the amount of OCFA has undergone a change due to the reasons mentioned in the Para on OCFA above, the amount provided towards Contingencies Reserve is Rs.4.13 crores. This is calculated at 0.25% (the same as taken by the Licensee) on the amount of OCFA allowed by the Commission as detailed in Para 499 above.

528. ***The Commission reiterates that Paragraph 4 of the Sixth Schedule to the Electricity (Supply) Act, 1948 requires this contribution to be invested in securities authorized under the Indian Trusts Act, 1882 within a period of six months from the close of the year of account in which the appropriation is made. The Licensee is directed to comply with this requirement.*** The attention of the Licensee is also drawn to Paragraph V of the Sixth Schedule that any drawal from the Contingencies Reserves can be made only with the prior approval of the Commission.

CARRYING COST FOR WHEELING COMPENSATION

529. It would be recalled that the Commission's Order on Wheeling Compensation has been appealed against in the High Court of Andhra Pradesh

and the Commission's Order has been stayed by the Honourable Court. In view of this, the DISCOMs have not been able to earn the Revenues on this account in accordance with the estimates reckoned in the Tariff Order for FY 2002-03. The carrying cost in respect this revenue due for Wheeling services, at Rs.3.70 crores has been provided as Special Appropriation in view of the fact that the loss of Revenue was beyond the control of the Licensee.

PAY REVISION ARREARS FOR FY 2002-03

530. It would be recalled that the Commission in its Tariff Order for FY 2002-03 had stated that while the claim of the Licensee for inclusion of an amount towards likely Pay Revision in the Revenue Requirement calculations for FY 2002-03 was being disallowed in view of the difficulties in quantifying the amount at that stage, appropriate amounts would be taken into account in the Revenue Requirement calculations in the ARR of the year after the pay revision process is completed and implemented. The Pay revision for APCPDCL employees has been concluded half way through FY 2002-03 but retrospectively effective from 1.4.2002. The ARR filing for FY 2003-04 does not have any proposals seeking the inclusion of this amount in the calculation of the Revenue Requirement for FY 2003-04 but has proposed treating this as a Regulatory Asset. The Commission has however, included on this account an amount of Rs.26.55 crores (inclusive of an amount of Rs.1.05 crores towards carrying cost) as Special Appropriation in the calculation of the Revenue Requirement for FY 2003-04. The Commission would at the same time urge the management of APCPDCL to match the additional manpower costs by productivity increases, inter-alia by more effective deployment of existing manpower so as to achieve standards in service levels as laid down in the Commission's Regulation No.6 gazetted on 4th September 2000 which the DISCOM is committed to achieve. ***The Commission directs the Licensee to send a Comprehensive Report on the Status as on 31.3.2003 in this regard latest by 30.6.2003.***

INTEREST ADJUSTMENT DUE TO SHORTFALL IN CAPITAL OUTLAY DURING FY 2001-02

531. As stated in Para 492 above, an amount of Rs.35.61 crores has been taken as negative special appropriation in the calculation of the Revenue Requirement for FY 03-04.

REVERSAL ADJUSTMENT FOR THE CONTINGENCIES RESERVE PROVIDED IN FY 2000-01 AND 2001-02.

532. The Commission in its Tariff Order for FY 2002-03 directed APTRANSCO and the four DISCOMs to make provisions in the Company's Accounts towards Contingencies Reserve for the two years FY 2000-01 and FY 2001-02 and also make the necessary investments as required under the Sixth Schedule. In December 2002 APTRANSCO desired a review of this directive. The Commission treated this as a Review Petition which was taken on record as R.P. No.3/2003 in O.P. No.29/2002 and the DISCOMs were given notices of hearing treating them as Co-applicants. After necessary hearings, the Commission passed an order on the Review Petition directing that reversal adjustment be carried out in respect of the amounts provided towards Contingencies Reserve in the Tariff Orders for FY 2000-01 and FY 2001-02 for reasons recorded in detail in that order. The reversal adjustment has accordingly been carried out by taking an amount of Rs.8.15 crores as negative special appropriation in the calculation of Revenue Requirement for FY 2003-04.

TOTAL EXPENDITURE

533. In view of the above changes, the total expenditure works out to Rs.4139.93 crores as against Rs.4162.39 crores projected by the Licensee as summarized in the following table.

Table No.138
Statement of Expenditure and Special Appropriations

(Rs. Crores)

EXPENDITURE ITEMS	APCPDCL	APERC
Purchase of Energy	3490.92	3526.45
Wages and Salaries	173.54	200.18
Administration and General Expenses	32.75	32.75
Repairs and Maintenance	79.20	79.20
Rent, Rates and Taxes	1.20	1.20
Approved Loan Interest	169.63	115.85
Interest on Security Deposits	12.14	14.39
Legal Charges	8.46	8.46
Audit & other Fees	0.00	0.00
Depreciation	155.43	137.26
Other expenses	14.84	11.83
Contribution to Employee Funds	17.92	21.75
Special Appropriations		
Contribution to Contingencies Reserve	6.36	4.13
Arrears for FY 2002-03 of Pay Revision for Employees with Carrying Cost	0.00	26.55
Carrying cost for Wheeling Revenue lost in FY 2002-03	0.00	3.70
Interest adjustment for shortfall in Capital Expenditure in FY 2001-02	0.00	(35.61)
Reversal adjustment for Contingencies Reserve provided in FY 2000-01 and FY 2001-02 as per Commission's order on RPNo.3/2003 in OP No.29/2002	0.00	(8.15)
TOTAL EXPENDITURE	**4162.39**	**4139.94**
NOTE: Figures in brackets are negative		

REASONABLE RETURN:

534. APCPDCL has not claimed in the filings the Reasonable Return it is eligible for as per the Sixth Schedule to the Electricity (Supply) Act, 1948. It may be recalled here that there was no claim for Reasonable Return in the filing for FY 2002-03 also but as stated in the Tariff Order for that year, the Commission allowed the Reasonable Return as, in the opinion of the Commission, it was / is not in the interest of either the consumer or the Licensee to forego the

Reasonable Return. The Commission wish to emphasise that one of the prime objectives of Reforms undertaken by the State in the Electricity Sector is to bring in Commercial Orientation in the methods of operation as well as in the general approach to management decisions by the unbundled entities. The Commission considers it necessary to provide for the Reasonable Return in the calculation of the Revenue Requirement to reinforce this commercial orientation and hopes that this would act as a motivating factor and a morale booster at all levels leading to more operational efficiency all round. The Commission accordingly allows an amount of Rs.11.43 crores as Reasonable Return to APCPDCL and includes it in the calculation of the Revenue Requirement for FY 2003-04.

NON-TARIFF INCOME

535. The Licensee has projected an amount of Rs.200.44 crores as Non-Tariff income (Form 1.4) and the Commission has reckoned an amount of Rs.193.22 crores as detailed in the Table below. The wheeling charges have been excluded as the Commission's order on wheeling tariff has been stayed by the Honourable High Court of Andhra Pradesh.

Table No.139
Non-Tariff Income

(Rs. Crores)

Particulars	APCPDCL	APERC
Customer Charges	75.76	91.32
Revenue from surcharges for late payments	67.15	67.15
Wheeling charges	22.78	-
Other rebates	34.75	34.75
Total	**200.44**	**193.22**

AGGREGATE REVENUE REQUIREMENT

536. The Aggregate Revenue Requirement works out to Rs.3958.15 crores as against Rs.3961.95 crores projected by the Licensee as detailed in the Table below.

Table No.140

(Rs. Crores)

Total Expenditure	4139.94
Reasonable Return	11.43
MINUS: Non-Tariff income	193.22
TOTAL NET AGGREGATE REVENUE REQUIREMENT	3958.15

REVENUE FROM TARIFF AND THE GAP

537. Determination of the Aggregate Revenue Requirement is the first step in the process of tariff formulation. Subsequent chapters of this Tariff Order (chapters XV and XVI) discuss the sales projections by the DISCOMs, the revenue gap, the tariff approved by the Commission taking into account the cross subsidy and the external subsidy, the bulk supply tariff applicable to each DISCOM and other aspects.

CHAPTER – XII

ERC / ARR 2002-03: DISTRIBUTION AND RETAIL SUPPLY

Andhra Pradesh Northern Power Distribution Company Limited (APNPDCL)

538. APNPDCL, the Licensee Company for Distribution and Retail Supply of Electricity in the territory assigned to it in Andhra Pradesh as per the Licence granted by the Commission, filed the ARR / ERC under Section 26 (5) of the Reform Act for FY 2002-03 on 31-12-2002. The Commission has examined the Licensee's proposals and indicates herein areas where the calculations of the Licensee are found to be incorrect or unacceptable with reasons therefor and the Commission's alternative calculations.

539. Based on the finalized Second Transfer Scheme notified by the GoAP in Gazette Notification GO. MS No. 109 Energy (Power III) dated 29-9-2001 giving the opening Balance Sheet of APNPDCL (and also of APTRANSCO and the remaining three DISCOMS) as on 1- 4 -2000, the provisional Annual Accounts for FY 2000-01 as compiled and finalized by the Licensee were made available to the Commission in February 2002. Though the audit of these accounts was not then complete, the figures as per these accounts were adopted wherever relevant for purposes of the Tariff Order for FY 02. The Audited Accounts complete in all respects for FY 2000-01 as adopted by the Shareholders of the company in a General Meeting has not yet been filed with the Commission as required under the terms of the Licence. For FY 2001-02, provisional Annual Accounts as complied by the Licensee have been made available to the Commission. The figures as per these provisional accounts have been adopted wherever relevant for purposes of this order.

540. Another important aspect is the audit of annual accounts of the Company. Audited Accounts for FY 2000-01which should have been available (as per the

Companies Act, 1956) by 30.9.2001 and for FY 2001-02 by 30.9.2002 have not yet been filed with the Commission as required under the terms of the Licence. APNPDCL is advised to spare no efforts to ensure that the audit of annual accounts is brought up-to-date so that the audited accounts for FY 2000-01 and FY 2001-02 are available latest by 30th June 2003 and for 2002-03 by 30th Sept. 2003.

CAPITAL OUTLAY ON SCHEMES - FY 2001-02, FY 2002-03 & FY 2003-04

541. The Licensee in the filings has made the following projections of capital expenditure for FY 2003-04.

Table No.141
Proposed Capital outlay for FY 2003 – 04 as per filing

(Rs. Crores)

	Base Capital Expenditure	Expenditure capitalized	IDC	Total
APNPDCL	221.53	22.15	32.31	275.99

542. Before dealing with the projections for capital expenditure in FY 2003-04, it is necessary to advert to the shortfall in the capital outlay from the level envisaged in the Tariff Order for FY 2001-02 referred to by the staff in their presentation in the Public Hearing.

543. The Commission has noted that there is a shortfall of Rs.108.38 crores in the Capital outlay from the Tariff Order (for FY 02) provision of Rs.208.15 crores for APNPDCL as detailed in the Table below.

Table No.142

CAPITAL OUTLAY – FY 2001- 02 Performance

(FIGURES INCLUDE IDC AND EXPENSE CAPITALISATION)

(Rs. Crores)

	Filing	Tariff Order	Actuals	Shortfall
APNPDCL	349.23	208.15	99.77	108.38

544. This shortfall has resulted in significant variation in the Capital Base calculations for FY 2001-02 as detailed in the Table below.

Table No.143

Capital Base for FY 2001-02
Comparison of Actual Costs with Tariff Order on the basis of the Provisional Accounts for FY 2001-02

(Rs. Crores)

	Filing	Tariff Order	Actual	Variance
Original Cost of Fixed Assets	1010	681	809	(128)
Capital Works-in-Progress (CWIP)	332	322	99	224
Stores	28	5	6	(1)
Cash	31	11	14	(3)
Total (A)	1,401	1,019	928	91
Accumulated depreciation	410	403	418	(15)
Borrowings	830	475	409	66
Consumer Security Deposits	136	136	150	(14)
Total (B)	1,376	1,014	977	37
Capital Base (A-B)	25	5	(49)	54

545. The adjustment (required due to this variance in the Capital Base) for the Reasonable Return allowed in the calculation of the Aggregate Revenue Requirement for the Tariffs of FY 2001-02 is deferred till the audited / adopted Annual Accounts of the DISCOM for that year are available to the Commission.

546. However, the shortfall in investment outlay for FY 2001-02 has not resulted in a shortfall in interest expenditure from the amount provided in the calculation of the Revenue Requirement in the Tariff Order for FY 2001-02 as detailed in the Table below. It would be seen that this is so because the shortfall in gross interest (around Rs.12 crores) is balanced by the difference in capitalization between that allowed in the Tariff order and the actual capitalization.

Table No.144

Calculation of Interest Adjustment due to Shortfall in Capital Expenditure in FY 2001-02

(Rs. Crores)

Particulars	Amount	
A. INTEREST AS PER TARIFF ORDER FOR FY 2001-02		
Gross Interest and Finance Charges		64.93
LESS: IDC Charges to Capital works		20.37
		44.56
B. ACTUALS AS PER PROVISIONAL ACCOUNTS FOR FY 2001-02		
Gross Interest and Finance Charges	57.42	
LESS: interest on Consumer Security Deposits	3.81	
LESS: Discount to HT Consumers	0.26	
LESS: Other Interest	0.38	
	52.97	
LESS: IDC Charged to Capital Works	7.64	45.33
DIFFERENCE		(0.77)

547. The Commission therefore considers that no adjustment need be made towards interest.

CAPITAL OUTLAY – Progress during FY 2002- 03

548. In the ARR for FY 2003-04 the DISCOM has projected for FY 2002-03 a revised capital outlay (Base expenditure) of Rs.155.42 crores which works out to Rs.189.22 crores (with IDC and expenditure capitalization) as against Rs.194.58 crores reckoned in the Tariff Order for FY 2002-03. This was later revised to Rs.125.29 crores. The Commission considers this projection to be on the higher side keeping in view the progress of expenditure during the first half of the year upto Sept, 2002 and the track record of the past and allows only an

amount of Rs.89.12 crores towards base expenditure on the schemes given in the Table below:

Table No.145

ESTIMATED CAPITAL OUTLAY FOR FY 2002-03

(Rs. Crores)

S.No.	Name of Scheme	APNPDCL	APERC
	A. Schemes approved by the Commission or schemes which do not require approval		
1	APL	6.84	6.84
2	APL – 1(Supplemental)	13.00	8.00
3	APEEP (DFID)	9.55	5.00
4	Distribution Plan (Release of Services	20.62	20.62
5	Rural Electrification	6.26	6.26
6	Energisation of Pumpsets	3.12	3.12
	T&D Improvement		
7	a. SI Transformers	12.60	12.60
8	b. SI Conductors	3.50	3.50
9	c. SI Meters-1	16.35	5.00
10	d. SI Meters-2		
11	SI VCBs	2.78	2.78
12	System Improvement	15.00	15.00
13	AIJ (Consultancy)	0.40	0.40
	Total (A)	**110.02**	**89.12**
	B. Schemes not approved		
14	APDRP (warangal District)	9.00	0.00
15	REC:SI (Lines) 24 Hrs Supply	6.27	0.00
	TOTAL (B)	**15.27**	**0.00**
	GRAND TOTAL (A+B)	**125.29**	**89.12**

549. The amount to be taken to CWIP in respect of the above schemes works out to Rs.108.50 crores as detailed in the Table below

Table No.146

Amounts Taken to CWIP for FY 2002-03

(Rs. Crores)

Particulars	APNPDCL	APERC
Base capital expenditure	155.42	89.12
Expenses capitalized	15.54	8.91
Interest (IDC) capitalized	18.26	10.47

Total	189.22	108.50

550. The projected CWIP as on 31.03.2003 would serve as the Opening Balance for FY 2003-04

CAPITAL OUTLAY – Projections for FY 2003-04

551. As already mentioned above, the filings project a Base Capital Expenditure of Rs.221.53 crores for FY2003-04 which together with the expenditure capitalization of (Rs.22.15 crores) and Interest during Construction (IDC) of Rs.32.31 crores works out to Rs.275.99 crores. The base capital expenditure has since been revised to Rs.170.00 crores. Before dealing with the proposals in the filings, it is necessary to mention that the progress during the past year in the matter of obtaining approvals for schemes as required under Para 9 of the Licence has not picked up any significant momentum. It may be recalled here that the Commission in its Tariff Order for FY 2002-03 stated in unambiguous terms that from FY 2003-04 onwards it would allow for inclusion in the CWIP only those schemes which have the prior approval of the Commission as required under Para 9 of the Licence or those which do not require such approval (being schemes individually costing less than Rs. 5 Crores). Based on this norm and moderating the estimates of outlay projected by the Licensee for FY 2003-04 (scheme wise), the Commission allows for inclusion in the CWIP (for Capital Base calculations for FY 2003-04) an estimated amount of Rs.115.06 crores as Base Capital expenditure in respect of the following schemes as against Rs.170.00 crores projected by the Licensee. Together with expenses capitalized and IDC, the capital outlay for FY 2003-04 works out to Rs.143.35 cr.

Table No.147
ESTIMATED CAPITAL OUTLAY FOR FY 2003-04

(Rs. Crores)

S.No.	Name of Scheme	APNPDCL	APERC
	A. Schemes approved by the Commission or schemes which do not require approval		

1	APL – 1(Supplemental)	21.29	15.00
2	APEEP (DFID)	9.50	9.50
3	Distribution Plan	20.62	20.62
4	Rural Electrification	10.00	10.00
5	Energisation of Pumpsets	7.50	5.00
	T&D Improvement		
6	a. SI Transformers	9.23	9.23
7	b. SI Conductors	7.00	7.00
8	c. SI Meters-1	14.15	5.00
9	d. SI Meters-2		
10	SI VCBs	1.95	1.95
11	System Improvement	5.76	5.76
	Total (A)	**107.00**	**89.06**
	B. Schemes submitted to the Commission and likely to be approved shortly		
12	APDRP (warangal District)	30.00	20.00
13	REC:SI (Lines) 24 Hrs Supply	6.00	6.00
	Total (B)	**36.00**	**26.00**
	C. Schemes not approved		
14	APDRP (Town Plans)	12.00	0.00
15	HVDS	15.00	0.00
	TOTAL (C)	**27.00**	**0.00**
	GRAND TOTAL (A+B+C)	**170.00**	**115.06**

CAPITAL BASE – POSITIVE ELEMENTS:

Original Cost of Fixed Assets (OCFA):

552. The Licensee has proposed an amount of Rs.1022.01 crores as the Original Cost of Fixed Assets (excluding consumer contributions) to be reckoned in the Capital Base calculations for FY 03-04. It may be mentioned in general regarding transfers from CWIP to Original Cost of Fixed Assets that it is meant to represent those assets which are completed (or commissioned where appropriate) and commenced utilization (which are referred to as capitalized works in commercial parlance). But in the DISCOMs the practice appears to be to transfer to Gross Fixed Assets the balance in the CWIP at the beginning of the year and this gives room for the apprehension that works, which are in fact not completed, are capitalized in the Accounts. The projections made for purposes of ARR by the Works Wing exhibit capitalization proposals of even those works, which in the Accounts already stand capitalized. Secondly the ARR projections

for capitalization are not based on a review of the scheme-wise status of progress vis-à-vis the earlier planned execution schedule and a genuine appraisal of the completion programme of works / schemes. Pending a detailed examination of the practice obtaining in this regard and its implications, an amount of Rs.75.00 crores has been reckoned for transfer to OCFA from CWIP for FY 2002-03 on an ad-hoc basis. Similarly for FY 2003-04, an estimated amount of Rs.125.00 crores has been taken as transfers to OCFA from CWIP.

553. The estimated amount to be reckoned under Original Cost of Fixed Assets in the Capital Base as on 31.3.2004 is therefore calculated as in the Table below.

Table No.148
STATEMENT OF ESTIMATED FIXED ASSETS AS ON 31.3.2004

(Rs. Crores)

NAME OF THE ITEM	APNPDCL	APERC
Gross Fixed Assets as on 31.03.02 LESS: Consumer contributions for Capital Assets	888.10 79.05	888.10 79.05
Original Cost of Fixed Assets (OCFA) as on 31.03.02	809.05	809.05
ADD: Works likely to be completed during 2002-03	105.98	75.00
Gross OCFA as on 31.03.03	915.03	884.05
LESS: Consumer Contributions	18.72	12.00
OCFA as on 31.03.2003	896.31	872.05
ADD: Works likely to be completed in FY 2003-04	141.70	125.00
Gross OCFA as on 31.03.2004	1038.01	997.05
LESS: Consumer Contributions	16.00	10.00
OCFA as on 31.03.2004	1022.01	987.05

Accordingly, OCFA taken to Capital Base is Rs.987.05 crores

CAPITAL WORKS – IN – PROGRESS (CWIP):

554. As already stated above, the Commission has decided to reckon an outlay of Rs.89.12 crores for FY 02-03 and Rs.115.06 crores for FY 03-04 as Base Capital Expenditure. (Para 548 and 551). These together with the expenses capitalized and the IDC works out respectively to Rs.108.50 crores and Rs.143.55 crores. Consequently, the amount reckoned for CWIP for FY 02-03

works out to Rs.132.77 crores and for Capital Base calculations for FY 2003-04 to Rs.151.12 crores as detailed in the Table below:

Table No.149
STATEMENT OF ESTIMATED WORKS IN PROGRESS FOR FY 2003-04

(Rs. crores)

	APNPDCL	**APERC**
Opening Balance of CWIP 01.04.2002	99.27	99.27
Outlay during the year (FY 2002-03)	155.42	89.12
Expenses during the year Capitalized	15.54	8.91
Interest during construction charged to Capital (IDC)	18.26	10.47
Total Additions: Capital Expenditure	189.22	108.50
Total (OB + Additions)	288.49	207.77
LESS: Works anticipated to be completed in FY 2002-03	105.98	75.00
Closing Balance of CWIP as on 31.03.03 and Opening balance as on 01.04.2003	**182.51**	**132.77**
Additional Investments during the year (FY 2003-04)	221.53	115.06
Expenses during the year Capitalized	22.15	11.51
Interest during construction charged to Capital (IDC)	32.31	16.78
Total Additions: Capital Expenditure	275.99	143.35
Total (OB + Additions)	458.51	276.12
LESS: Works anticipated to be completed in FY 2003-04	141.70	125.00
Closing Balance of CWIP as on 31.03.04	**316.81**	**151.12**

WORKING CAPITAL REQUIREMENTS:

555. The Licensee's plea for Working Capital and the interest on borrowings therefor have been considered in detail by the Commission in the context of the Discussion Paper submitted by the Licensees in response to Para 236 of the Commission's Tariff Order of 24th March, 2002. A detailed analysis of the position in this regard taking into account the existing billing and collection lags revealed that it was about the same as the working capital calculated as per the parameters adopted by the Commission in its Tariff Order of 24th March, 2002. However, considering the working capital difficulties in the transition that the

Licensees represented strongly about, the Commission decides to allow the Average Cash & Bank balance in the computation of the Capital Base at two month's level of eligible items of expenses instead of one month as hitherto. This is intended to provide a trajectory to an efficient level over a period of 3 years. The level would therefore be at 2 months' level for FY 2003-04 and FY 2004-05 and at 1½ months' level for FY 2005-06. Thereafter it would revert to the one months' level. There will be no change in the level of Average Cost of Stores which is already being provided at 2 months' level of the annual repair and maintenance expenses.

AVERAGE COST OF STORES:

556. The DISCOM has proposed an amount of Rs.41.29 crores towards Average Cost of Stores for inclusion in the Capital Base Calculations calculated at 3.6% of the closing balance of Gross Fixed Assets. The justification furnished in the filing is that the inventory as on 31-3-2002 works out to 3.6% of gross fixed assets. An inventory level of Rs.41.29 crores to support the Repair & Maintenance activity of Rs.38.03 crores projected in the filing is very high as the inventory works out to over one year's consumption. It may be mentioned here that in the Tariff Order for FY 2002-03 a level of 2 month's requirement of Repair and Maintenance expenses was considered reasonable and the Commission has decided to continue the same level as detailed in Paragraph 555 above. An amount of Rs.6.34 crores calculated at two months requirement of the Repairs and Maintenance expenses (Rs.38.03 crores) is therefore provided.

AVERAGE CASH AND BANK BALANCE:

557. The Licensee has proposed Rs.14.87 crores towards Cash and Bank Balance and has stated that this has been calculated at one month's requirement of specified operating expenses viz., the aggregate of Wages and Salaries, Repairs and Maintenance, Administrative and General Expenses, Rent, Rates and Taxes, and Contribution to Employee funds for the year. As stated above (Para 205) the provision under this head is to be calculated at two months' level

of eligible items of expenses for FY 2003-04 instead of one month as hitherto. Calculated on this basis the average Cash and Bank Balance works out to Rs.31.51 crores as detailed in the Table below and is provided for in the calculation of the Capital Base.

Table No.150

(Rs. Crores)

Wages and Salaries	118.23
Admin. And General Expenses	18.25
Repairs and Maintenance	38.03
Rent, Rates and Taxes	1.41
Contribution to Employee funds	13.12
Total expenses	**189.04**
Average Cash and Bank Balances (189.04 ÷ 6)	**31.51**

CAPITAL BASE-NEGATIVE ELEMENTS:

Accumulated Depreciation

558. The accumulated depreciation as projected by the Licensee in the filings is Rs.557.49 crores against which Rs.555.14 crores is admitted. The difference is due to the capitalization of works in FY 2002-03 being taken at less than the projections in the filings as already mentioned above. (see Para 552 supra)

LOANS FROM GOVERNMENT AND APPROVED INSTITUTIONS

559. The APNPDCL has projected an amount of Rs.189.48 crores towards Government Loans and Rs.467.77 crores as loans from approved institutions and Rs.88.04 crores towards “Other Market Borrowings for Capital Expenditure” aggregating to Rs.735.29 crores.

560. It is seen that APNPDCL during the two years, FY 2000-01 and FY 2001-02 (since the Second Transfer Scheme effective from 1.4.2000), has drawn loans far in excess of the capital expenditure incurred during the year, without taking into account receipts of Consumer Contributions during the year. It is also noticed that the loan repayments have been far less than the funds accruing

through depreciation and this has also not been taken as funds available towards capital outlay. The position is as given in the Table below.

Table No.151

Statement showing Capital Expenditure, Loans, Depreciation and Consumer Contributions

(Rs. Crores)

S.No.		AS ON 1.4.2000	AS ON 31.3.2001	AS ON 31.3.2002
1.	Gross Fixed Assets	694.37	792.19	888.10
2.	Capital Works-in-Progress	98.05	95.41	99.27
3.	Total	792.42	887.60	987.37
4.	Accretion: Capital Expenditure		95.18	99.77
5.	Consumer Contributions	26.38	51.79	79.05
6.	Accretions: Net Contributions Received During the year		25.41	27.26
7.	Balance to be funded by loan drawals (4 minus 6)		69.77	72.51
8.	Loans drawn		118.59	146.20
9.	Excess Drawals (8 minus 7)		48.82	73.69
10.	Accumulated Depreciation	309.47	358.33	417.61
11.	Accretion: Depreciation for the year		48.86	59.28
12.	Loan Repayments		24.00	44.25
13.	Balance Depreciation Funds available (10-11)		24.86	15.03
14.	Total funds overdrawn on capital account (9+13)		73.68	88.72

561. Though funds drawn (accrued) but unspent on capital account is thus more than Rs.162 crores as on 1-4-02, the filings in fact project drawal of further loans to the tune of Rs.170.50 crores during FY 2002-03 and Rs.260.00 crores during FY 2003-04.

562. The Commission expresses its concern for the way the financial affairs of the DISCOM have been conducted during the two years, FY 01 and FY 02 and advises the DISCOM not to draw any further loans from 1.4.2003 till the excess funds available on capital account are absorbed by way expenditure on capital works. ***The Commission directs the DISCOM to redouble its efforts to obtain Commission's approval for the schemes (costing more than Rs.5 crores) and submit a capital expenditure programme (for the consideration of the Commission) to absorb the excess funds available on capital account at least by 31.3.2005. This capital expenditure programme should reach the Commission latest by 31.7.2003.***

563. For the Capital Base calculation for FY 2003-04, the Commission has reckoned a loan of Rs.539.27 crores. This has been calculated starting with the loans as on 31.3.2002 as in the Balance Sheet in the Provisional Accounts for FY 2001-02 made available to the Commission of Rs.409.10 crores. For FY 2002-03 and FY 2003-04 the capital outlay reckoned by the Commission for purposes of Tariff (as detailed in the Paragraphs 548 & 551 above) is Rs.108.50 crores and 143.35 crores respectively (aggregating to Rs.251.85 crores) against which consumer contributions have been estimated at Rs.12.00 crores for FY 2002-03 and Rs.10.00 crores for FY 2003-04. The balance of capital expenditure is Rs.229.85 crores. Funds accruing through depreciation are Rs.65.91 crores and Rs.71.62 crores aggregating to Rs.137.53 crores. Taking into account the provision towards working capital of Rs.37.85 crores comprising average cost of stores (Rs.6.34 crores) and the Average Cash and Bank Balance (Rs.31.51 crores) as discussed in Paras 556

and 557 above, the total amount taken to the Capital Base under loans works out to Rs.539.27 crores.

Consumer Security Deposits

564. The Licensee has not shown any amount towards Consumer Security Deposits in the calculation of the Capital Base. The Commission for reasons detailed in Para 207 above do not agree that Consumer Security Deposits are to be excluded from the negative side of the Capital Base. An amount of Rs.175.00 crores is therefore taken on this account to the negative side of the Capital Base.

NET CAPITAL BASE

565. With the above changes in the positive and negative elements of the Capital Base, the Net Capital Base works out to Rs.(-)93.39 crores as detailed in the Table below as against Rs.92.20 crores projected by the Licensee.

Table No.152
Capital Base Calculations For FY 2003-04

(Rs. Crores)

<table>
<tr><th>NAME OF THE ITEM</th><th>APNPDCL</th><th>APERC</th></tr>
<tr><td>Positive Elements of Capital Base</td><td></td><td></td></tr>
<tr><td>Original Cost of Fixed Assets</td><td>1022.01</td><td>987.05</td></tr>
<tr><td>Capital Work in Progress</td><td>316.81</td><td>151.12</td></tr>
<tr><td>Working Capital
a) Average Cost of Stores</td><td>41.29</td><td>6.34</td></tr>
<tr><td>b) Average Cash and Bank Balance</td><td>14.87</td><td>31.51</td></tr>
<tr><td>Total of Positive Elements of Capital Base</td><td>1394.98</td><td>1176.02</td></tr>
<tr><td>Negative Elements of Capital Base</td><td colspan="2"></td></tr>
<tr><td>Accumulated Depreciation</td><td>557.49</td><td>555.14</td></tr>
<tr><td>Government Loans</td><td>189.48</td><td rowspan="3">539.27</td></tr>
<tr><td>Approved Loans</td><td>467.77</td></tr>
<tr><td>Other Market Borrowings for CAPEX</td><td>88.04</td></tr>
<tr><td>Consumer Security Deposit</td><td>0.00</td><td>175.00</td></tr>
<tr><td>Total of Negative Elements of Capital Base</td><td>1302.78</td><td>1269.41</td></tr>
<tr><td>Net Capital Base</td><td>92.20</td><td>(93.39)</td></tr>
</table>

EXPENDITURE

Purchase of Energy

566. APNPDCL has projected a requirement of 7851 MU of energy against which the Commission has allowed 7902.86 MU. The corresponding cost has been arrived at as Rs.1635.24 crores as against Rs.1637.66 crores shown in the ARR.

SALARIES, WAGES AND ALLOWANCES

567. The Licensee has projected an amount of Rs.109.39 crores towards Wages and Salaries and Rs.11.32 crores towards Employee Funds for pension and gratuity (both net of capitalization) aggregating to Rs.120.71 crores for inclusion in the ARR of FY 03-04 and furnished the following details in the filings at Para 8.6.6 thereof.

Table No. 153

(Rs. Crores)

Wages, Salaries and Allowances	126.83
Contribution to Employee Funds	13.12
Total	139.95
LESS: Capitalization	19.24
Net Employee Costs	**120.71**

568. The projections towards wages, salaries and allowances (Rs.126.83 crores) as well as contributions to Employee Funds (Rs.13.12 crores) is considered reasonable and allowed. Regarding capitalization, the Licensee has proposed a total capitalization of Rs.19.24 crores including capitalization out of provision towards employee’s pension and gratuity funds. As estimates of capital outlay for FY 2003-04 are lower than the projections in the filing for reasons stated in Para 551 above, the charge to capital works towards salaries etc. (i.e.

capitalization) also comes down and is taken at Rs.8.60 crores. In order that the provision towards employees' pension and gratuity funds is reflected at gross (and not net of any amount), the capitalization out of employees' pension and gratuity funds has been taken into account under Salaries & Wages itself. Taking these factors into account, the amount taken for Revenue Requirement Calculations towards Salaries & Wages is Rs.118.23 crores as shown in the Table below

Table No.154

Revenue Requirement – Net Salaries & Wages

(Rs. Crores)

Wages, Salaries & Allowances	126.83
Less: Capitalization	8.60
Net of Capitalization-Salaries & Wages	**118.23**

The provision towards Employee Funds is shown separately infra.

ADMINISTRATION AND GENERAL EXPENSES

569. The Licensee has claimed (in Form 1.3 of the filing) towards Administration and General Expenses an amount of Rs.18.25 crores (net of capitalization. The gross amount is Rs.21.16 crores and capitalization is Rs.2.91 crores. This is considered reasonable and provided for in the computation of the Aggregate Revenue Requirement.

REPAIRS AND MAINTENANCE

570. APNPDCL has projected an amount of Rs.38.03 crores towards Repairs and Maintenance for FY 2003-04 for inclusion in the computation of the Revenue Requirement. This is considered reasonable.

RENT, RATES AND TAXES

571. APNPDCL has projected (in Form 1.3) an amount of Rs.1.41 crores for inclusion in the computation of the Revenue Requirement for FY 2003-04 towards Rent, Rates and Taxes. This is accepted and accordingly provided.

INTEREST ON LOANS

572. As already stated in Para 563 above, the capital expenditure (net of consumer contributions) for FY 2002-03 is Rs.96.50 crores while the depreciation funds available are Rs.65.91 crores. The loan portfolio as on 31.3.2002 as already stated was Rs.409.10 crores and the loan balance as on 31.3.2003 therefore works out to Rs.439.69 crores (Rs.409.10 crores plus Rs.96.50 crores minus Rs.65.91 crores). It is seen that the average interest rate on the portfolio of loans is around 13.5% and this rate has been adopted for interest calculations. Interest at 13.5% on Rs.439.69 crores for the full year works out to Rs.59.36 crores. As the loan balance as on 31.3.2004 is, as already stated above Rs.539.27 crores, the net accretion during FY 2003-04 would be Rs.99.58 crores. Calculated at 13.5% for 6 months, the interest on the accretion works out to Rs.6.72 crores. The gross interest is therefore Rs.66.08 crores. The Other Finance Charges (including Lease Rentals) claimed for FY 2003-04 are Rs.23.74 crores and are allowed in full. As already mentioned above in the Paragraphs relating to capital outlay, the change in the capital expenditure programme has entailed reduction in the IDC chargeable to capital also. The capitalization on account of IDC is Rs.16.78 crores as against Rs.32.31 crores proposed by the Licensee. The amount taken for calculation of Revenue Requirement works out to Rs.73.04 crores as detailed in the Table below.

Table No.155

Interest (net) and Other Finance Charges

(Rs. Crores)

Particulars	Amount
Interest	66.08
Lease Rentals	12.64
Other Finance Charge	11.10

Total	89.82
LESS: IDC Capitalization	16.78
NET INTEREST	73.04

INTEREST ON CONSUMER SECURITY DEPOSITS

573. An amount of Rs.5.25 crores has been provided calculated at 3% of the Security Deposits reckoned in the calculation of the Capital Base.

LEGAL CHARGES

574. The Licensee has claimed (in Form 1.3) an amount of Rs.0.07 crores towards Legal Charges. This is accepted as reasonable.

AUDIT AND OTHER FEES

575. The Licensee has claimed an amount of Rs.0.02 crores towards Audit and other fees. This is accepted as reasonable.

DEPRECIATION

576. The Licensee has projected an amount of Rs.73.97 crores and the amount admitted is Rs.71.62 crores. The difference is on account of the difference in the level of capitalization for FY 2002-03 as explained above under Original Cost of Fixed Assets.

OTHER EXPENSES

577. The Corporate allocation made by APTRANSCO to the DISCOMs is taken as "Other Expenses". Based on the amount allocated by APTRANSCO, the amount allowed is Rs.6.51 crores against Rs.8.65 crores claimed in the ARR filing (Form 1.3).

CONTRIBUTION TO EMPLOYEE FUNDS

578. The provision towards Employee Funds is made at 13% of Basic Pay plus DA based on the actuarial study relied upon for the Tariff Order of FY 2001-02.

The Licensee has projected on this basis a gross amount of Rs.13.12 crores (vide Para 8.8.6 of the ARR) and Rs.11.32 crores (net of capitalization) towards contribution to Employee Funds. An amount of Rs.13.12 crores has been included on this account in the computation of the Revenue Requirement for FY 2003-04 for reasons elaborated in the Para on Salaries and Wages supra.

579. Regarding the Trusts, APNPDCL stated in the Review Meeting taken by the Commission in November 2002 that the Trusts have been formed but have not become operational due to some difficulties arising out of employees exercising "options" which were being sorted out in consultation with APTRANSCO. ***The Licensee is directed to ensure that the Trusts are operationalised latest by 30.4.2003 and file a Compliance Report with the Commission by 15.5.2003.***

The Licensee is directed to ensure that an amount of Rs.2.187 crores per month is remitted from month to month to the Trust. The official receipt from the Trust duly acknowledging the receipt of the contribution for the month may be obtained and retained by the Company for record and the fact may be reported to the Commission every month for information.

SPECIAL APPROPRIATIONS

CONTRIBUTION TO CONTINGENCIES RESERVE

580. APNPDCL has proposed an amount of Rs.2.84 crores as Special Appropriation towards Contribution to Contingencies Reserve to be provided in the computation of the Revenue Requirement. The amount is calculated at 0.25% of the Original Cost of Fixed Assets (OCFA) projected in the filing. As the amount of OCFA has undergone a change due to the reasons mentioned in the Para on OCFA above, the amount provided towards Contingencies Reserve is Rs.2.47 crores. This is calculated at 0.25% (the same as taken by the Licensee)

on the amount of OCFA allowed by the Commission as detailed in Para 552 above.

581. ***The Commission reiterates that Paragraph 4 of the Sixth Schedule to the Electricity (Supply) Act, 1948 requires this contribution to be invested in securities authorized under the Indian Trusts Act, 1882 within a period of six months from the close of the year of account in which the appropriation is made. The Licensee is directed to comply with this requirement.*** The attention of the Licensee is also drawn to Paragraph V of the Sixth Schedule that any drawal from the Contingencies Reserves can be made only with the prior approval of the Commission.

Carrying Cost for Wheeling Compensation

582. It would be recalled that the Commission's Order on Wheeling Compensation has been appealed against in the High Court of Andhra Pradesh and the Commission's Order has been stayed by the Honourable Court. In view of this, the DISCOMs have not been able to earn the Revenues on this account in accordance with the estimates reckoned in the Tariff Order for FY 2002-03. The carrying cost in respect of this revenue due for Wheeling services at Rs.0.20 crores has been provided as Special Appropriation.

PAY REVISION ARREARS FOR FY 2002-03

583. It would be recalled that the Commission in its Tariff Order for FY 2002-03 had stated that while the claim of the Licensee for inclusion of an amount towards likely Pay Revision in the Revenue Requirement calculations for FY 2002-03 was being disallowed in view of the difficulties in quantifying the amount at that stage, appropriate amounts would be taken into account in the Revenue Requirement calculations in the ARR of the year after the pay revision process is completed and implemented. The Pay revision for APTRANSCO employees has

been concluded half way through FY 2002-03 but retrospectively effective from 1.4.2002. The ARR filing for FY 2003-04 does not have any proposals seeking the inclusion of this amount in the calculation of the Revenue Requirement for FY 2003-04 but has proposed treating this as a Regulatory Asset. The Commission has however, included on this account an amount of Rs.15.62 crores (inclusive of an amount of Rs.0.62 crores towards carrying cost) as Special Appropriation in the calculation of the Revenue Requirement for FY 2003-04. The Commission would at the same time like the management of APNPDCL to match the additional manpower costs by productivity increases by more effective deployment of existing manpower so as to achieve standards in service levels as laid down in the Commission's Regulation No.6 gazetted on 4th September 2000 which the DISCOM is committed to achieve. ***The Commission directs the Licensee to send a Comprehensive Report on the Status as on 31.3.2003 in this regard latest by 30.6.2003.***

REVERSAL ADJUSTMENT FOR THE CONTINGENCIES RESERVE PROVIDED IN FY 2000-01 AND 2001-02.

584. The Commission in its Tariff Order for FY 2002-03 directed APTRANSCO and the four DISCOMs to make provisions in the Company's Accounts towards Contingencies Reserve for the two years FY 2000-01 and FY 2001-02 and also make the necessary investments as required under the Sixth Schedule. In December 2002 APTRANSCO desired a review of this directive. The Commission treated this as a Review Petition which was taken on record as R.P. No.3/2003 in O.P. No.29/2002 and the DISCOMs were given notices of hearing treating them as Co-applicants. After necessary hearings, the Commission passed an order on the Review Petition directing that reversal adjustment be carried out in respect of the amounts provided towards Contingencies Reserve in the Tariff Orders for FY 2000-01 and FY 2001-02 for reasons recorded in detail in that order. The reversal adjustment has accordingly been carried out by taking an amount of Rs.3.64 crores as negative special appropriation in the calculation of Revenue Requirement for FY 2003-04.

TOTAL EXPENDITURE

585. In view of the above changes, the total expenditure works out to Rs.1995.44 crores as against Rs.1988.01 crores projected by the Licensee as summarized in the following table.

Table No.156
Statement of Expenditure and Special Appropriations

(Rs. Crores)

EXPENDITURE ITEMS	APNPDCL	APERC
Purchase of Energy	1637.66	1635.24
Wages and Salaries	109.39	118.23
Administration and General Expenses	18.25	18.25
Repairs and Maintenance	38.03	38.03
Rent, Rates and Taxes	1.41	1.41
Approved Loan Interest	81.35	73.04
Security Deposit Interest	5.05	5.25
Legal Charges	0.07	0.07
Audit & other Fees	0.02	0.02
Depreciation	73.97	71.62
Other Expenses	8.65	6.51
Contribution to Employee Funds	11.32	13.12
Special Appropriations		
Contribution to ContingenciesReserve	2.84	2.47
Arrears for FY 2002-03 of Pay Revision for Employees with Carrying Cost	0.00	15.62
Carrying cost for Wheeling charges	0.00	0.20
Reversal adjustment for Contingencies Reserve provided in FY 2000-01 and FY 2001-02 as per Commission's order on RPNo.3/2003 in OP No.29/2002	0.00	(3.64)
TOTAL EXPENDITURE	**1988.01**	**1995.44**

NOTE: Figures in brackets are negative

REASONABLE RETURN:

586. APNPDCL has not claimed in the filings the Reasonable Return it is eligible for as per the Sixth Schedule to the Electricity (Supply) Act, 1948. It may be recalled here that there was no claim for Reasonable Return in the filing for FY 2002-03 also but as stated in the Tariff Order for that year, the Commission

allowed the Reasonable Return as, in the opinion of the Commission, it was / is not in the interest of either the consumer or the Licensee to forego the Reasonable Return. The Commission wish to emphasise that one of the prime objectives of Reforms undertaken by the State in the Electricity Sector is to bring in Commercial Orientation in the methods of operation as well as in the general approach to management decisions by the unbundled entities. The Commission considers it necessary to provide for the Reasonable Return in the calculation of the Revenue Requirement to reinforce this commercial orientation and hopes that this would act as a motivating factor and a morale booster at all levels leading to more operational efficiency all round. The Commission accordingly allows an amount of Rs.2.70 crores as Reasonable Return to APNPDCL and includes it in the calculation of the Revenue Requirement for FY 2003-04.

NON-TARIFF INCOME

587. The Licensee has projected an amount of Rs.94.43 crores as Non-Tariff Income (Form 1.4). This includes an amount of Rs.57.39 crores towards Customer Charges against which the Commission has reckoned an amount of Rs.58.93 crores. The Non-Tariff Income taken for calculation of the Revenue Requirement is therefore Rs.95.97 crores.

AGGREGATE REVENUE REQUIREMENT

588. The Aggregate Revenue Requirement works out to Rs.1902.17 crores as against Rs.1893.57 crores projected by the Licensee as detailed in the Table below.

Table No.157

(Rs. Crores)

Total Expenditure	1995.44
Reasonable Return	2.70
MINUS: Non-Tariff income	95.97
TOTAL NET AGGREGATE REVENUE	1902.17

REQUIREMENT	

REVENUE FROM TARIFF AND THE GAP

589. Determination of the Aggregate Revenue Requirement is the first step in the process of tariff formulation. Subsequent chapters of this Tariff Order (chapters XV and XVI) discuss the sales projections by the DISCOMs, the revenue gap, the tariff approved by the Commission taking into account the cross subsidy and the external subsidy, the bulk supply tariff applicable to each DISCOM and other aspects.

CHAPTER – XIII

ERC / ARR 2002-03: DISTRIBUTION AND RETAIL SUPPLY

Andhra Pradesh Southern Power Distribution Company Limited (APSPDCL)

590. APSPDCL, the Licensee Company for Distribution and Retail Supply of Electricity in the territory assigned to it in Andhra Pradesh as per the Licence granted by the Commission, filed the ARR / ERC under Section 26 (5) of the Reform Act for FY 2002-03 on 31-12-2002. The Commission has examined the Licensee's proposals and indicates herein areas where the calculations of the Licensee are found to be incorrect or unacceptable with reasons therefor and the Commission's alternative calculations.

591. Based on the finalized Second Transfer Scheme notified by the GoAP in Gazette Notification GO. MS No. 109 Energy (Power III) dated 29-9-2001 giving the opening Balance Sheet of APSPDCL (and also of APTRANSCO and the remaining three DISCOMS) as on 1- 4 -2000, the provisional Annual Accounts for FY 2000-01 as compiled and finalized by the Licensee were made available to the Commission in February 2002. Though the audit of these accounts was not then complete, the figures as per these accounts were adopted wherever relevant for purposes of the Tariff Order for FY 02. The Audited Accounts complete in all respects for FY 2000-01 as adopted by the Shareholders of the company in a General Meeting has not yet been filed with the Commission as required under the terms of the Licence. For FY 2001-02, provisional Annual Accounts as compiled by the Licensee have been made available to the Commission. The figures as per these provisional accounts have been adopted wherever relevant for purposes of this order.

592. Audited Accounts for FY 2000-01 which should have been available (as per the Companies Act, 1956) by 30.9.2001 and for FY 2001-02 by 30.9.2002 have not yet been filed with the Commission as required under the terms of the

Licence. APSPDCL is advised to spare no efforts to ensure that the audit of annual accounts is brought up-to-date so that the audited accounts for FY 2000-01 and FY 2001-02 are available latest by 30th June 2003 and for FY 2002-03 by 30th Sept. 2003.

CAPITAL OUTLAY ON SCHEMES - FY 2001-02, FY 2002-03 & FY 2003-04

593. The Licensee in the filings has made the following projections of capital expenditure for FY 2003-04.

Table No.158
Proposed Capital outlay for FY 2003 – 04 as per filing

(Rs. Crores)

	Base Capital Expenditure	Expenditure capitalized	IDC	Total
APSPDCL	134.50	13.45	7.85	155.80

594. Before dealing with the projections for capital expenditure in FY 2003-04, it is necessary to advert to the shortfall in the capital outlay from the level envisaged in the Tariff Order for FY 2001-02 referred to by the staff in their presentation in the Public Hearing.

595. The Commission has noted that there is a shortfall of RS.58.15 crores in the Capital outlay from the Tariff Order (for FY 02) provision of Rs.172.50 crores for APSPDCL as detailed in the Table below.

Table No.159
CAPITAL OUTLAY – FY 2001- 02 Performance
(FIGURES INCLUDE IDC AND EXPENSE CAPITALISATION)

(Rs. Crores)

	Filing	Tariff Order	Actuals	Shortfall
APSPDCL	321.88	172.50	114.35	58.15

596. This shortfall has resulted in significant variation in the Capital Base calculations for FY 2001-02 as detailed in the Table below.

Table No. 160

Capital Base for FY 2001-02
Comparison of Actual Costs with Tariff Order on the basis of the Provisional Accounts for FY 2001-02

(Rs. Crores)

	Filing	Tariff Order	Actual	Variance
Original Cost of Fixed Assets	1,166	953	1,015	(62)
Capital Works-in-Progress (CWIP)	309	342	136	206
Stores	34	7	7	-
Cash	50	17	17	-
Total (A)	**1,558**	**1,319**	**1,175**	**144**
Accumulated depreciation	516	496	526	(30)
Borrowings	748	566	399	167
Consumer Security Deposits	207	207	237	(30)
Total (B)	**1,471**	**1,269**	**1,162**	**107**
Capital Base (A-B)	**87**	**50**	**13**	**37**

597. The adjustment (required due to this variance in the Capital Base) for the Reasonable Return allowed in the calculation of the Aggregate Revenue Requirement for the Tariffs of FY 2001-02 is deferred till the audited / adopted Annual Accounts of the DISCOM for that year are available to the Commission.

598. The shortfall in investment outlay for FY 2001-02 has also resulted in a shortfall in interest expenditure of Rs.18.40 crores from the amount provided in the calculation of the Revenue Requirement in the Tariff Order for FY 2001-02 as detailed in the Table below.

Table No.161
Calculation of Interest Adjustment due to Shortfall in Capital Expenditure in FY 2001-02

(Rs. Crores)

Particulars	Amount	
A. INTEREST AS PER TARIFF ORDER FOR FY 2001-02		
Gross Interest and Finance Charges		95.14
LESS: IDC Charges to Capital works		14.55
		80.59
B. ACTUALS AS PER PROVISIONAL ACCOUNTS FOR FY 2001-02		
Gross Interest and Finance Charges	77.21	
LESS: interest on Consumer Security Deposits	(-) 6.04	
LESS: Discount to HT Consumers	(-) 1.04	
	70.13	
LESS: IDC Charged to Capital Works	7.94	62.19
DIFFERENCE		18.40

599. The Commission considers that the interest amount of Rs.18.40 crores calculated as above out of the amount reckoned for calculations of Revenue Requirement in the Tariff Order for FY 2001-02 needs to be adjusted as negative special appropriation in the calculation of the Revenue Requirement for FY 2003-04 and is accordingly adjusted.

CAPITAL OUTLAY – Progress during FY 2002- 03

600. In the ARR for FY 2003-04 the DISCOM has projected for FY 2002-03 a revised capital outlay (Base expenditure) of Rs. 170.49 crores which works out to Rs.196.38 crores (with IDC and expenditure capitalization) as against Rs.194.52 crores reckoned in the Tariff Order for FY 2002-03. This was later

revised to Rs.114.19 crores on 7.2.03. The Commission considers this projection to be on the higher side keeping in view the progress of expenditure during the first half of the year upto Sept, 2002 and the track record of the past and allows only an amount of Rs.73.65 crores towards base expenditure on the schemes given in the Table below:

Table No.162
ESTIMATED CAPITAL OUTLAY FOR FY 2002-03

(Rs. Crores)

S.No.	Name of Scheme	APSPDCL	APERC
	A. Schemes approved by the Commission or schemes which do not require approval		
1	APL – 1	5.00	5.00
2	Electrification of colonies	8.00	8.00
3	Energisation of Pumpsets	7.00	7.00
4	APL-1 Suppl.	3.00	3.00
5	System improvement – Erection of 33/11 KV Feeders	25.00	20.00
6	Distribution Schemes	36.39	15.00
7	System Improvement – T & D	4.00	4.00
	Total (A)	**88.39**	**62.00**
	B. Schemes submitted to the Commission and likely to be approved shortly		
8	Providing 24 hours supply to Mandal Headquarters and to all villages and segregation of agricultural feeders	11.65	11.65
	Total (B)	**11.65**	**11.65**
	C. Schemes not approved		
9	Procurement of DTRs	5.00	0.00
10	Procurement of Conductors	1.85	0.00
11	Meters	7.30	0.00
12	APDRP		
13	Providing HV metering to LT services		
	TOTAL (C)	**14.15**	**0.00**
	GRAND TOTAL (A+B+C)	**114.19**	**73.65**

601. The amount to be taken to CWIP in respect of the above schemes works out to Rs.84.83 crores as detailed in the Table below

Table No.163
Amounts Taken to CWIP for FY 2002-03

(Rs. Crores)

Particulars	APSPDCL	APERC
Base capital expenditure	170.49	73.65
Expenses capitalized	17.05	7.36
Interest (IDC) capitalized	8.84	3.82
Total	**196.38**	**84.83**

602. The projected CWIP as on 31.03.2003 would serve as the Opening Balance for FY 2003-04

CAPITAL OUTLAY – Projections for FY 2003-04

603. As already mentioned above, the filings project a Base Capital Expenditure of Rs.134.50 crores for FY2003-04 which together with the expenditure capitalization of Rs.13.45 crores and Interest during Construction (IDC) of Rs.7.85 crores works out to Rs.155.80 crores. The base capital expenditure has been revised to Rs.154.50 crores on 7.2.2003. Before dealing with the proposals in the filings, it is necessary to mention that the progress during the past year in the matter of obtaining approvals for schemes as required under Para 9 of the Licence has not picked up any significant momentum. It may be recalled here that the Commission in its Tariff Order for FY 2002-03 stated in unambiguous terms that from FY 2003-04 onwards it would allow for inclusion in the CWIP only those schemes which have the prior approval of the Commission as required under Para 9 of the Licence or those which do not require such approval (being schemes individually costing less than Rs. 5 Crores). Based on this norm and moderating the estimates of outlay projected by the Licensee for FY 2003-04 (scheme wise), the Commission allows for inclusion in the CWIP (for Capital Base calculations for FY 2003-04) an estimated amount of Rs.56.69 crores as Base Capital expenditure in respect of the following schemes

as against Rs.154.50 crores projected by the Licensee. Together with expenses capitalized and IDC, the capital outlay for FY 2003-04 works out to Rs.66.95 cr.

Table No.164
Scheme-wise details for Base Capital Expenditure for FY 2003-04
(Rs. Crores)

S.No.	Name of Scheme	APSPDCL	APERC
	A. Schemes approved by the Commission or schemes which do not require approval		
1	Electrification of colonies	5.00	5.00
2	Energisation of Pumpsets	2.53	2.53
3	APL-1 (Supply)	10.00	10.00
4	System improvement – Erection of 33/11 KV Feeders	11.19	11.19
5	Distribution Schemes	5.00	5.00
6	System Improvement – T & D	4.97	4.97
	Total (A)	**38.69**	**38.69**
	B. Schemes submitted to the Commission and likely to be approved shortly		
7	Providing 24 hours supply to Mandal Headquarters and to all villages and segregation of agricultural feeders	18.00	18.00
	Total (B)	**18.00**	**18.00**
	C. Schemes not approved		
8	Procurement of DTRs	5.00	
9	Procurement of Conductors	86.81	
10	Meters	6.00	
11	APDRP		
12	Providing HV metering to LT services		
	TOTAL (C)	**97.81**	
	GRAND TOTAL (A+B+C)	**154.50**	**56.69**

CAPITAL BASE – POSITIVE ELEMENTS:

Original Cost of Fixed Assets (OCFA):

604. The Licensee has proposed an amount of Rs.1252.24 crores as the Original Cost of Fixed Assets (excluding consumer contributions) to be reckoned in the Capital Base calculations for FY 03-04. Transfers from CWIP to Original Cost of Fixed Assets are meant to represent those assets which are completed (or commissioned where appropriate) and commenced utlisation (which are referred to as capitalized works in commercial parlance). The practice in the DISCOMs appears to be to transfer to Gross Fixed Assets the balance in the CWIP at the beginning of the year and this gives room for the apprehension that works which are in fact not completed are capitalized in the Accounts. The projections made for purposes of ARR by the Works Wing exhibit capitalization proposals of even those works which in the Accounts already stand capitalized. Secondly the ARR projections for capitalization are not based on a review of the scheme-wise status of progress vis-à-vis the earlier planned execution schedule and a genuine appraisal of the completion programme of works / schemes. Pending a detailed examination of the practice obtaining in this regard and its implications, an amount of Rs.40.00 crores has been reckoned for transfer to OCFA from CWIP for FY 2002-03 on an ad-hoc basis. Similarly for FY 2003-04, an estimated amount of Rs.75.00 crores has been taken as transfers to OCFA from CWIP.

605. The estimated amount to be reckoned under Original Cost of Fixed Assets in the Capital Base as on 31.3.2004 is therefore calculated as in the Table below.

Table No.165
STATEMENT OF ESTIMATED FIXED ASSETS AS ON 31.3.2004

(Rs. Crores)

NAME OF THE ITEM	APSPDCL	APERC
Gross Fixed Assets as on 31.03.02	1171.79	1171.79
LESS: Consumer contributions for Capital Assets	156.55	156.55
Original Cost of Fixed Assets (OCFA) as on 31.03.02	1015.24	1015.24
ADD: Works likely to be completed during 2002-03	200.71	40.00
Gross OCFA as on 31.03.03	1215.95	1055.24
LESS: Consumer Contributions	70.00	40.00

OCFA as on 31.03.2003	1145.95	1015.24
ADD: Works likely to be completed in FY 2003-04	141.29	75.00
Gross OCFA as on 31.03.2004	1287.24	1090.24
LESS: Consumer Contributions	35.00	40.00
OCFA as on 31.03.2004	1252.24	1050.24

Accordingly, OCFA taken to Capital Base is Rs.1050.24 crores

CAPITAL WORKS – IN – PROGRESS (CWIP):

606. As already stated above, the Commission has decided to reckon an outlay of Rs.73.65 crores for FY 02-03 and Rs.56.69 crores for FY 03-04 as Base Capital Expenditure. (Paras 600 & 603 ante). These together with the expenses capitalized and the IDC work out respectively to Rs.84.84 crores and Rs.66.95 crores. Consequently, the amount reckoned for CWIP for FY 02-03 works out to Rs.180.52 crores and for Capital Base calculations for FY 2003-04 to Rs.172.47 cr. as detailed in the Table below:

Table No.166

STATEMENT OF ESTIMATED WORKS IN PROGRESS FOR FY 2003-04

(Rs. crores)

	APSPDCL	**APERC**
Opening Balance of CWIP 01.04.2002	135.68	135.68
Outlay during the year (FY 2002-03)	111.05	73.65
Expenses during the year Capitalized	11.11	7.37
Interest during construction charged to Capital (IDC)	5.13	3.82
Total Additions: Capital Expenditure	127.29	84.84
Total (OB + Additions)	262.97	220.52
LESS: Works anticipated to be completed in FY 2002-03	200.70	40.00
Closing Balance of CWIP as on 31.03.03 and Opening balance as on 01.04.2003	62.27	180.52
Additional Investments during the year (FY 2003-04)	134.50	56.69

Expenses during the year Capitalized	13.45	5.67
Interest during construction charged to Capital (IDC)	7.85	4.59
Total Additions: Capital Expenditure	155.80	66.95
Total (OB + Additions)	218.07	247.47
LESS: Works anticipated to be completed in FY 2003-04	141.29	75.00
Closing Balance of CWIP as on 31.03.04	76.78	172.47

WORKING CAPITAL REQUIREMENTS:

607. The Licensee's plea for Working Capital and the interest on borrowings therefor have been considered in detail by the Commission in the context of the Discussion Paper submitted by the Licensees in response to Para 236 of the Commission's Tariff Order of 24th March, 2002. A detailed analysis of the position in this regard taking into account the existing billing and collection lags revealed that it was about the same as the working capital calculated as per the parameters adopted by the Commission in its Tariff Order of 24th March, 2002 considering the working capital difficulties in the transition that the Licensees represented strongly about, the Commission decides to allow the Average Cash & Bank balance in the computation of the Capital Base at two month's level of eligible items of expenses instead of one month as hitherto. This is intended to provide a trajectory to an efficient level over a period of 3 years. The level would therefore be at 2 months' level for FY 2003-04 and FY 2004-05 and at 1½ months' level for FY 2005-06. Thereafter it would revert to the one months' level. There will be no change in the level of Average Cost of Stores which is already being provided at 2 months' level of the annual repair and maintenance expenses.

AVERAGE COST OF STORES:

608. The DISCOM has proposed an amount of Rs.37.84 crores towards Average Cost of Stores for inclusion in the Capital Base Calculations calculated at 2.5% of the closing balance of Gross Fixed Assets. No justification has been furnished in the filing for this method of estimation nor for the percentage of

2.5%. An inventory level of Rs.37.84 crores to support the Repair & Maintenance activity of Rs.48.76 crores projected in the filing is considered very high as the inventory works out to over 9 months' consumption. This is not considered reasonable. It may be mentioned here that in the Tariff Order for FY 2002-03 a level of 2 month's requirement of Repair and Maintenance expenses was considered reasonable and the Commission has decided to continue the same level as detailed in Paragraph 607 above. An amount of Rs.8.13 crores calculated at two months requirement of the Repairs and Maintenance expenses (Rs.48.76 crores) is therefore provided.

AVERAGE CASH AND BANK BALANCE:

609. The Licensee has proposed Rs.21.62 crores towards Cash and Bank Balance and has stated that this has been calculated at one month's requirement of specified operating expenses viz the aggregate of Wages and Salaries, Repairs and Maintenance, Administrative and General Expenses, rent, Rates and Taxes, and Contribution to Employee funds for the year. As stated above (Para 205) the provision under this head is to be calculated at two months' level of eligible items of expenses for FY 2003-04 instead of one month as hitherto. Calculated on this basis the average Cash and Bank Balance works out to Rs.44.55 crores as detailed in the Table below and is provided for in the calculation of the Capital Base.

Table No.167

(Rs. Crores)

Wages and Salaries	174.00
Admin. And General Expenses	23.93
Repairs and Maintenance	48.76
Rent, Rates and Taxes	1.60
Contribution to Employee funds	18.98
Total expenses	**267.27**
Average Cash and Bank Balances (267.27 ÷6)	**44.55**

CAPITAL BASE-NEGATIVE ELEMENTS:

Accumulated Depreciation

610. The accumulated depreciation as projected by the Licensee in the filings is Rs.715.91 crores against which Rs.703.64 crores is admitted. The difference is due to the capitalization of works in FY 2002-03 being taken at less than the projections in the filings as already mentioned above. (see Para 604 supra)

LOANS FROM GOVERNMENT AND APPROVED INSTITUTIONS

611. The APSPDCL has projected an amount of Rs.50.81 crores towards Government Loans and Rs.291.20 crores as loans from approved institutions and Rs.120.80 crores towards "Other Market Borrowings for Capital Expenditure" aggregating to Rs.462.80 crores.

612. It is seen that APSPDCL during the two years FY 2000-01 and FY 2001-02 (since the Second Transfer Scheme effective from 1.4.2000) has drawn loans far in excess of the capital expenditure incurred during the year, without taking into account receipts of Consumer Contributions during the year. It is also noticed that the loan repayments have been far less than the funds accruing through depreciation and this has also not been taken as funds available towards capital outlay. The position is as given in the Table below.

Table No.168
Statement showing Capital Expenditure, Loans, Depreciation and Consumer Contributions

(Rs. Crores)

S.No.		AS ON 1.4.2000	AS ON 31.3.2001	AS ON 31.3.2002
1.	Gross Fixed Assets	799.58	1046.51	1171.79
2.	Capital Works-in-Progress	273.54	146.61	135.67
3.	Total	1073.12	1193.12	1307.46
4.	Accretion: Capital Expenditure		120.00	114.34
5.	Consumer Contributions	55.74	111.73	156.55

6.	Accretions: Net Contributions Received During the year		55.99	44.82
7.	Balance to be funded by loan drawals (4 minus 6)		64.01	69.52
8.	Actual loans drawn		148.51	135.35
9.	Excess Drawals (8 minus 7)		84.50	65.83
10.	Accumulated Depreciation	382.32	444.00	525.68
11.	Accretion: Depreciation for the year		61.68	81.68
12.	Loan Repayments		22.83	42.73
13.	Balance Depreciation Funds available (10-11)		38.85	38.95
14.	Total funds overdrawn on capital account (9+13)		123.35	104.78

613. The filings in fact project drawal of further loans to the tune of Rs.44.27 crores during FY 2002-03 and Rs.120.80 crores during FY 2003-04.

614. The Commission expresses its concern for the way the financial affairs of the DISCOM have been conducted during the two years, FY 01 and FY 02 and advises the DISCOM not to draw any further loans from 1.4.2003 till the excess funds available on capital account are absorbed by way expenditure on capital works. ***The Commission directs the DISCOM to redouble its efforts to obtain Commission's approval for the schemes (costing more than Rs.5 crores) and submit a capital expenditure programme (for the consideration of the Commission) to absorb the excess funds available on capital account at least by 31.3.2005. This capital expenditure programme should reach the Commission latest by 31.7.2003.***

615. For the Capital Base calculation for FY 2003-04, the Commission has reckoned a loan of Rs.345.12 crores which has been arrived at as follows.

616. The loans as on 31.3.2002 in the Balance Sheet in the Provisional Accounts for FY 2001-02 made available to the Commission are Rs.398.63 crores. For FY 2002-03 and FY 2003-04 the capital outlay reckoned by the Commission for purposes of Tariff (as detailed in the Paragraphs 600 & 603

above) is Rs.84.83 crores and 66.95 crores respectively (aggregating to Rs.151.78 crores) against which consumer contributions have been estimated at Rs.40.00 crores for each of the two years. The balance of capital expenditure is Rs.71.78 crores. Funds accruing through depreciation are Rs.87.46 crores and Rs.90.50 crores aggregating to Rs.177.96 crores and this is higher than the capital expenditure by Rs.106.18 crores. However, taking into account the provision towards working capital of Rs.52.68 crores comprising average cost of stores (Rs.8.13 crores) and the Average Cash and Bank Balance (Rs.44.55 crores) as discussed in Paras 608 and 609 above, the total amount taken to the Capital Base under loans works out to Rs.345.13 crores.

Consumer Security Deposits

617. The Licensee has not shown any amount towards Consumer Security Deposits in the calculation of the Capital Base. The Commission for reasons detailed in Para 207 above do not agree that Consumer Security Deposits are to be excluded from the negative side of the Capital Base. An amount of Rs.268.55 crores is therefore taken on this account to the negative side of the Capital Base.

NET CAPITAL BASE

618. With the above changes in the positive and negative elements of the Capital Base, the Net Capital Base works out to Rs.(-)41.92 crores as detailed in the Table below as against Rs.209.75 crores projected by the Licensee.

Table No.169
Capital Base Calculations For FY 2003-04

(Rs. Crores)

NAME OF THE ITEM	APSPDCL	APERC
Positive Elements of Capital Base		
Original Cost of Fixed Assets	1252.24	1050.24
Capital Work in Progress	76.77	172.47
Working Capital		
a) Average Cost of Stores	37.84	8.13
b) Average Cash and Bank Balance	21.62	44.55

<table>
<tr><td>Total of Positive Elements of Capital Base</td><td>1388.47</td><td>1275.39</td></tr>
<tr><td>Negative Elements of Capital Base</td><td colspan="2"></td></tr>
<tr><td>Accumulated Depreciation</td><td>715.91</td><td>703.64</td></tr>
<tr><td>Government Loans</td><td>50.81</td><td rowspan="3">345.12</td></tr>
<tr><td>Approved Loans</td><td>291.20</td></tr>
<tr><td>Other Market Borrowings for CAPEX</td><td>120.80</td></tr>
<tr><td>Consumer Security Deposit</td><td>0.00</td><td>268.55</td></tr>
<tr><td>Total of Negative Elements of Capital Base</td><td>1178.72</td><td>1317.31</td></tr>
<tr><td>Net Capital Base</td><td>209.75</td><td>(41.92)</td></tr>
</table>

EXPENDITURE

Purchase of Energy

619. APSPDCL has projected a requirement of 9816 MU of energy against which the Commission has allowed 9784.82 MU. The corresponding cost has been arrived at as Rs.2024.65 crores as against Rs.2047.59 crores shown in the ARR.

WAGES AND SALARIES

620. The Licensee has projected an amount of Rs.167.37 crores towards Wages and Salaries and Rs.17.83 crores towards Employee Funds for pension and gratuity (both net of capitalization) aggregating to Rs.185.20 crores for inclusion in the ARR of FY 02-03 and furnished the following details in the filings at Para 8.6.6 thereof.

Table No. 170

(Rs. Crores)

Wages, Salaries and Allowances		178.13
Contribution to Employee Funds		18.98
Total		197.11
LESS: Capitalization		11.91
Net Employee Costs		185.20

621. The projections towards wages, salaries and allowances (Rs.178.13 crores) as well as contributions to Employee Funds (Rs.18.98 crores) is considered reasonable and allowed. Regarding capitalization, the Licensee has proposed a total capitalization of Rs.11.91 crores including capitalization out of provision towards employee's pension and gratuity funds. As estimates of capital

outlay for FY 2003-04 are lower than the projections in the filing for reasons stated in Para 603 above, the charge to capital works towards salaries etc. (i.e. capitalization) also comes down and is taken at Rs.4.13 crores. In order that the provision towards employees' pension and gratuity funds is reflected at gross (and not net of any amount), the capitalization out of employees' pension and gratuity funds has been taken into account under Salaries & Wages itself. Taking these factors into account, the amount taken for Revenue Requirement Calculations towards Salaries & Wages is Rs.174.00 crores as shown in the Table below

Table No.171
Revenue Requirement – Net Salaries & Wages

(Rs. Crores)

Wages, Salaries & Allowances		178.13
Less: Capitalization		4.13
Net of Capitalization-Salaries & Wages		**174.00**

The provision towards Employee Funds is shown separately infra.

ADMINISTRATION AND GENERAL EXPENSES

622. The Licensee has claimed (in Form 1.3 of the filing) towards Administration and General Expenses an amount of Rs.23.93 crores (net of capitalization). The gross amount is Rs.25.47 crores and capitalization is Rs.1.54 crores. This is considered reasonable and provided for in the computation of the Aggregate Revenue Requirement.

REPAIRS AND MAINTENANCE

623. APSPDCL has projected an amount of Rs.48.76 crores towards Repairs and Maintenance for FY 2003-04 for inclusion in the computation of the Revenue Requirement. This is considered reasonable.

RENT, RATES AND TAXES

624. APSPDCL has projected (in Form 1.3) an amount of Rs.1.60 crores for inclusion in the computation of the Revenue Requirement for FY 2003-04 towards Rent, Rates and Taxes. This is accepted and accordingly provided.

INTEREST ON LOANS

625. As already stated in Para 616 above, the capital expenditure (net of consumer contributions) for FY 2002-03 is Rs.44.83 crores while the depreciation funds are Rs.87.46 crores. The loan portfolio as on 31.3.2003 is therefore to be Rs.356.00 crores. Interest at 13.5% (which is the average of the loan portfolio for the DISCOM) for the full year works out to Rs.48.06 cores. As the loan portfolio as on 31.3.2004 is as already stated above Rs.345.13 crores, there would be a negative accretion to the loan during 2003-04 resulting in a negative addition of interest of Rs.0.73 crores. The net interest therefore works out to Rs.47.33 crores. The Other Finance Charges (including Lease Rentals) claimed for FY 2003-04 are Rs.31.18 crores and are allowed in full. As already mentioned above in the Paragraphs relating to capital outlay, the change in the capital expenditure programme has entailed reduction in the IDC chargeable to capital also. The capitalization on account of IDC is Rs.4.59 crores. The amount taken for calculation of Revenue Requirement works out to Rs.73.91 crores as detailed in the Table below.

Table No.172
Interest (net) and Other Finance Charges

(Rs. Crores)

Particulars	Amount
Interest	47.33
Lease Rentals	16.26
Other Finance Charges	14.92
Total	78.51
LESS: IDC Capitalization	4.59
NET INTEREST	73.91

INTEREST ON CONSUMER SECURITY DEPOSITS

626. An amount of Rs.8.06 crores has been provided calculated at 3% of the Security Deposits reckoned in the calculation of the Capital Base.

LEGAL CHARGES

627. The Licensee has claimed (in Form 1.3) an amount of Rs.6.26 crores towards Legal Charges. This is accepted as reasonable.

AUDIT AND OTHER FEES

628. The Licensee has claimed an amount of Rs.0.02 crores towards Audit and other fees. This is accepted as reasonable.

DEPRECIATION

629. The Licensee has projected an amount of Rs.102.77 crores and the amount admitted is Rs.90.50 crores. The difference is on account of the difference in the level of capitalization for FY 2002-03 as explained above under Original Cost of Fixed Assets.

OTHER EXPENSES

630. The Corporate allocation made by APTRANSCO to the DISCOMs is taken as "Other Expenses". Based on the amount allocated by APTRANSCO, the amount allowed is Rs.7.75 crores as against Rs. 10.12 crores claimed in the ARR filing (Form 1.3).

CONTRIBUTION TO EMPLOYEE FUNDS

631. The provision towards Employee Funds is made at 13% of Basic Pay plus DA based on the actuarial study relied upon for the Tariff Order of FY 2001-02. The Licensee has projected on this basis a gross amount of Rs.18.98 crores (vide Para 8.6.6 of the ARR) and Rs.17.83 crores (net of capitalization) towards contribution to Employee Funds. An amount of Rs.18.98 crores has been included on this account in the computation of the Revenue Requirement for FY 2003-04 for reasons elaborated in the Para on Salaries and Wages supra.

632. Regarding the Trusts, APSPDCL stated in the Review Meeting taken by the Commission in November 2002 that the Trusts have been formed but have not become operational and assured the Commission that the Trusts would be made operational “during the coming 3 months”. ***The Licensee is directed to ensure that the Trusts are operationalised latest by 30.4.2003 and file a Compliance Report with the Commission by 15.5.2003.***

The Licensee is directed to ensure that an amount of Rs.1.582 crores per month is remitted from month to month to the Trust. The official receipt from the Trust duly acknowledging the receipt of the contribution for the month may be obtained and retained by the Company for record and the fact may be reported to the Commission every month for information.

SPECIAL APPROPRIATIONS

CONTRIBUTION TO CONTINGENCIES RESERVE

633. APSPDCL has proposed an amount of Rs.3.78 crores as Special Appropriation towards Contribution to Contingencies Reserve to be provided in the computation of the Revenue Requirement. The amount is calculated at 0.25% of the Original Cost of Fixed Assets (OCFA) projected in the filing. As the amount of OCFA has undergone a change due to the reasons mentioned in the Para on OCFA above, the amount provided towards Contingencies Reserve is Rs.2.63 crores. This is calculated at 0.25% (the same as taken by the Licensee) on the amount of OCFA allowed by the Commission as detailed in Para 604 above.

634. ***The Commission reiterates that Paragraph 4 of the Sixth Schedule to the Electricity (Supply) Act, 1948 requires this contribution to be invested in securities authorized under the Indian Trusts Act, 1882 within a period of six months from the close of the year of account in which the appropriation***

is made. The Licensee is directed to comply with this requirement. The attention of the Licensee is also drawn to Paragraph V of the Sixth Schedule that any drawal from the Contingencies Reserves can be made only with the prior approval of the Commission.

Carrying Cost for Wheeling Compensation

635. It would be recalled that the Commission's Order on Wheeling Compensation has been appealed against in the High Court of Andhra Pradesh and the Commission's Order has been stayed by the Honourable Court. In view of this, the DISCOMs have not been able to earn the Revenues on this account in accordance with the estimates reckoned in the Tariff Order for FY 2002-03. Therefore the carrying cost in respect of this revenue due for Wheeling services at Rs.0.90 crores has been provided as Special Appropriation.

PAY REVISION ARREARS FOR FY 2002-03

636. It would be recalled that the Commission in its Tariff Order for FY 2002-03 had stated that while the claim of the Licensee for inclusion of an amount towards likely Pay Revision in the Revenue Requirement calculations for FY 2002-03 was being disallowed in view of the difficulties in quantifying the amount at that stage, appropriate amounts would be taken into account in the Revenue Requirement calculations in the ARR of the year after the pay revision process is completed and implemented. The Pay revision for APTRANSCO employees has been concluded half way through FY 2002-03 but retrospectively effective from 1.4.2002. The ARR filing for FY 2003-04 does not have any proposals seeking the inclusion of this amount in the calculation of the Revenue Requirement for FY 2003-04 but has proposed treating this as a Regulatory Asset. The Commission has however, included on this account an amount of Rs.25.51 crores (inclusive of an amount of Rs.1.05 crores towards carrying cost) as Special Appropriation in the calculation of the Revenue Requirement for FY

2003-04. The Commission would at the same time urge the management of APSPDCL to match the additional manpower costs by productivity increases by more effective deployment of existing manpower so as to achieve standards in service levels as laid down in the Commission's Regulation No.6 gazetted on 4th September 2000 which the DISCOM is committed to achieve. ***The Commission directs the Licensee to send a Comprehensive Report on the Status as on 31.3.2003 in this regard latest by 30.6.2003.***

INTEREST ADJUSTMENT DUE TO SHORTFALL IN CAPITAL OUTLAY DURING FY 2001-02.

637. As stated in Para 599 above, an amount of Rs.18.40 crores has been taken as negative special appropriation in the calculation of the Revenue Requirement for FY 03-04.

REVERSAL ADJUSTMENT FOR THE CONTINGENCIES RESERVE PROVIDED IN FY 2000-01 AND 2001-02.

638. The Commission in its Tariff Order for FY 2002-03 directed APTRANSCO and the four DISCOMs to make provisions in the Company's Accounts towards Contingencies Reserve for the two years FY 2000-01 and FY 2001-02 and also make the necessary investments as required under the Sixth Schedule. In December 2002 APTRANSCO desired a review of this directive. The Commission treated this as a Review Petition which was taken on record as R.P. No.3/2003 in O.P. No.29/2002 and the DISCOMs were given notices of hearing treating them as Co-applicants. After necessary hearings, the Commission passed an order on the Review Petition directing that reversal adjustment be carried out in respect of the amounts provided towards Contingencies Reserve in the Tariff Orders for FY 2000-01 and FY 2001-02 for reasons recorded in detail in that order. The reversal adjustment has accordingly been carried out by taking an amount of Rs.5.06 crores as negative special appropriation in the calculation of Revenue Requirement for FY 2003-04.

TOTAL EXPENDITURE

639. In view of the above changes, the total expenditure works out to Rs.2484.00 crores as against Rs.2519.27 crores projected by the Licensee as summarized in the following table.

Table No.173
Statement of Expenditure and Special Appropriations

(Rs. Crores)

EXPENDITURE ITEMS	APSPDCL	APERC
Purchase of Energy	2047.59	2024.65
Wages and Salaries	167.37	174.00
Administration and General Expenses	23.93	23.93
Repairs and Maintenance	48.76	48.76
Rent, Rates and Taxes	1.60	1.60
Approved Loan Interest	81.27	73.91
Security Deposit Interest	7.97	8.06
Legal Charges	6.26	6.26
Audit & other Fees	0.02	0.02
Depreciation	102.77	90.50
Other Expenses	10.12	7.75
Contribution to Employee Funds	17.83	18.98
Special Appropriations		
Contribution to ContingenciesReserve	3.78	2.63
Arrears for FY 2002-03 of Pay Revision for Employees with Carrying Cost	0.00	25.51
Carrying cost for Wheeling charges	0.00	0.90
Interest adjustment for shortfall in Capital Expenditure in FY 2001-02	0.00	(18.40)
Reversal adjustment for Contingencies Reserve provided in FY 2000-01 and FY 2001-02 as per Commission’s order on RPNo.3/2003 in OP No.29/2002	0.00	(5.06)
TOTAL EXPENDITURE	**2519.27**	**2484.00**

NOTE: Figures in brackets are negative

REASONABLE RETURN:

640. APSPDCL has not claimed in the filings the Reasonable Return it is eligible for as per the Sixth Schedule to the Electricity (Supply) Act, 1948. It may be recalled here that there was no claim for Reasonable Return in the filing for FY 2002-03 also but as stated in the Tariff Order for that year, the Commission allowed the Reasonable Return as, in the opinion of the Commission, it was / is not in the interest of either the consumer or the Licensee to forego the Reasonable Return. The Commission wish to emphasise that one of the prime objectives of Reforms undertaken by the State in the Electricity Sector is to bring in Commercial Orientation in the methods of operation as well as in the general approach to management decisions by the unbundled entities. The Commission considers it necessary to provide for the Reasonable Return in the calculation of the Revenue Requirement to reinforce this commercial orientation and hopes that this would act as a motivating factor and a morale booster at all levels leading to more operational efficiency all round. The Commission accordingly allows an amount of Rs.1.73 crores as Reasonable Return to APSPDCL and includes it in the calculation of the Revenue Requirement for FY 2003-04.

NON-TARIFF INCOME

641. The Licensee has projected an amount of Rs.108.27 crores as Non-Tariff Income (Form 1.4). This includes an amount of Rs.5.00 crores towards Revenue from Wheeling services. The Commission has reckoned an amount of Rs.103.27 crores excluding the amount of Rs.5.00 crores projected as wheeling revenue as the Commission's Order on Wheeling tariff has been stayed by the Hon'ble High Court of Andhra Pradesh.

AGGREGATE REVENUE REQUIREMENT

642. The Aggregate Revenue Requirement works out to Rs.2382.46 crores as against Rs.2411.00 crores projected by the Licensee as detailed in the Table below.

Table No.174

(Rs. Crores)

Total Expenditure	2484.00
Reasonable Return	1.73
MINUS: Non-Tariff income	103.27
TOTAL NET AGGREGATE REVENUE REQUIREMENT	2382.46

REVENUE FROM TARIFF AND THE GAP

643. Determination of the Aggregate Revenue Requirement is the first step in the process of tariff formulation. Subsequent chapters of this Tariff Order (chapters XV and XVI) discuss the sales projections by the DISCOMs, the revenue gap, the tariff approved by the Commission taking into account the cross subsidy and the external subsidy, the bulk supply tariff applicable to each DISCOM and other aspects.

CHAPTER - XIV
CONSOLIDATED POSITION OF THE FOUR DISCOMS

644. The consolidated position of the Net Aggregate Revenue Requirement (ARR) of the four DISCOMS together works out to Rs.9780.76 crores as detailed in the Table below

Table No.175
The Aggregate Revenue Requirement for the 4 DISCOMS for FY 2003-04

(Rs. Crores)

	APEPDCL	**APNPDCL**	APSPDCL	**APCPDCL**	**TOTAL**
Total Expenditure	1617.01	1995.44	2484.00	4139.94	10236.39
Reasonable Return	1.85	2.70	1.73	11.43	17.71
Minus Non-Tariff Income	80.88	95.97	103.27	193.22	473.34
Total Net ARR	1537.98	1902.17	2382.46	3958.15	9780.76

The Aggregate Revenue from current tariffs
for the four DISCOMS is as follows:

Table No.176

(Rs. Crores)

DISCOMS	Filing	APERC
APEPDCL	1501.78	1525.80
APNPDCL	1142.99	1178.74
APSPDCL	1812.31	1814.79
APCPDCL	3529.43	3512.51
Total	7986.51	8031.84

The resultant gap is Rs.1748.92 crores to be covered through tariff, efficiency gains and GoAP subsidy.

CHAPTER XV - SALES PROJECTIONS, REVENUES AND REVENUE GAP

Sales Projections:

645. The DISCOMS filed estimated sales in MU for each category for FY2003-04. The sales forecast for both the Current Year (FY 2002-03) and Ensuing Year (FY2003-04) are based on an analysis of the past 3 years trends in growth for each of the consumer categories. The DISCOMS submitted that in determining the sales forecast, they have incorporated specific category-wise nuances such as increase in metered sales, regularization measures, increase in number of services, applications on hand for new release etc. The revised estimates for the second half of FY03 and the annual forecast for the FY04 are further based on the past 3-year trend after taking into account certain exceptions that may be expected in the projection periods. The forecast for FY04 takes into consideration sales for the first nine months of FY03 and projected sales for the remaining three months.

Sales figures for FY03:

646. The sales variations from the Tariff Order approved estimates for FY2002-03 are as follows:

- An increase in HT sales of 1231 MU (about 18%) over the Tariff Order approved sales, which could be largely attributable to a rise in HT-I industrial sales of 1130 MU (i.e. about 31% higher) following the introduction of revised incentive scheme.

- LT sale for current year is estimated as 8% higher (1754MU) than that approved in the Tariff Order, mainly because of higher sales to LT-II commercial (about 11% higher), Industrial LT (about 5% higher), Agriculture (13% higher) and Public Lighting (about 18% higher).

The overall increase in sales over the Tariff Order is to the tune of 2985 MU (or about 11% higher).

Evaluation of Sales Forecast:

647. All four DISCOMS followed a similar methodology in forecasting sales for FY04. The rationale underlying the sales estimates for major categories as provided in the filings are:

- LT-I (Domestic): The upward trend largely attributed to the DISCOM efforts on regularisation, increase in high accuracy metering, increase in the release of new connections and also shift of consumers from smaller towns to the cities.
- LT-II (Commercial): Increased sales attributed to release of new services as well as higher levels of specific consumption by the commercial establishments, arising from an increase in the level of commercial activity. Further, increase in consumption is also attributed to replacement of existing electromechanical meters with high accuracy meters, and due to greater consumption in the festive season (as mentioned by APEPDCL during the second half of the year).
- LT-III (Industrial): Increase in consumption is attributed to random factors such as authorized running of rice mills despite continuance of overall industrial sluggishness and replacement of the existing electromechanical meters with electronic/high accuracy meters and also due to increase in the normal load growth. Increased sales is also attributed to the release of new industrial services based on pending applications, besides the improvement in industrial climate. APCPDCL also referred to the favourable influence on rural industrial sale of the segregation of agricultural feeders, and also measures taken to ensure reliable and quality power supply to industrial estates.

- HT-I (Industrial Segregated): The DISCOMS, despite the ongoing industrial sluggishness in general, are expecting higher sales to HT customers as compared to the estimates in the Commission's order. Higher sales are largely attributed to the revised incentive scheme approved by the Commission in the tariff order of FY03 and the commercial initiatives taken by the DISCOMS. The DISCOMS claim that a substantial number of major HT customers have migrated back from captive/third party sales to the Companies. They have also gained from the emergence of new industries. APCPDCL also submitted that it has been realising increased sale from new load, additional load and restored load from industries such as steel, cement, textile and others. APEPDCL in FY02 experienced increase in consumption in the first half due to outage of generator of the Vishakapatnam Steel Plant, but the contingency was temporary and normalcy was restored after September 2001. APNPDCL submitted that despite the ongoing industrial sluggishness in general, the deration of CMD effect by Singareni Collieries in many of its mines, and significant reduction in activities of agro based industries like sugar, cotton ginning, rice mills etc., due to drought conditions, it has achieved positive HT consumption.
- Power Intensive Industries: Previously the power intensive Ferro Alloy Units used to draw a major portion of power from NTPC directly. However, subsequent to the Tariff Order of FY2002-03, the Ferro Alloy Units represented to APTRANSCO that the wheeling charges should not be applicable to the Ferro Alloy Units consuming power from NTPC. Further they requested that power be supplied to them at 180 paise per unit. Based on the representations, APTRANSCO submitted proposals to APERC for supplying power to the Ferro Alloy Units at 212 paise per unit. The Ferro Alloy Units agreed to the above tariff proposal made by APTRANSCO. This proposal was approved by APERC and the Ferro Alloy Units have since started consuming power from APTRANSCO.

- HT-II (Industrial Non-Segregated): Expected increase in sale to this category is attributed to the increase in number of services released as well as higher specific consumption.
- Railway Traction: The DISCOMS expect higher consumption in the current service due to additional traffic expected based on the recent announcements of new rail routes.

Forecast for FY2003-04:

648. The sales forecast for FY2003-04 filed by the DISCOMS summarily proposes the following:

- LT sale forecast for ensuing year is 4% higher (836MU), accounted by 8% (623MU) higher LT-I sale, 11% (186MU) higher LT-II sale, 10% (204MU) higher LT-III sale, and 2% (241MU) reduction in sale to Agriculture.

- HT sales forecast for the ensuing year FY2003-04 is 11% (906MU) higher, attributable mainly to 14% (653MU) higher sale in HT-I and 11% (82MU) higher sale in HT-II.

- The overall sales forecast at 33036MU is about 6% (1742MU) higher than the current year and is primarily attributable to higher HT sales.

649. The methodology adopted by the Commission to evaluate the FY2003-04 sales forecast of the DISCOMS, for all categories other than agriculture is as follows:

- Trend analysis for each category of consumers, based on recorded actual sales of the past years. Adjustments are made whenever estimates are observed to deviate from past trends, with due consideration to the evolving economic circumstances and exceptional events.

- Category-wise half yearly sales analysis is carried out to understand the general consumption pattern, and DISCOMS estimates compared against the actual of the same periods for previous years, adjusting wherever the DISCOM estimates are considered unreasonable.

- This estimation procedure only takes into consideration actual sales and the information submitted by the DISCOMS in the ARR Filings. Some adjustments based on economic circumstances are made to capture the influence of these on the sales of the DISCOMS. Subsequent to the analysis of the category-wise sales, the final estimates are arrived at only after detailed discussions between the DISCOMS and the Staff of the Commission, and taking into account the issues raised during the Public Hearings.

- Agricultural consumption estimation undertaken by the Commission is discussed separately in Chapter VIII.

650. The Commission approved sales forecast for the DISCOMS is about 420.59 MU higher due to higher LT-Agricultural and HT – I sales, and adjustments to RESCO consumption. The final sales forecast is tabulated below:

Table No.177
AGGREGATE SALES FORECAST FOR ALL DISCOMS FOR FY2003-04

(in MU)

CONSUMER CATEGORY	FILINGS	APERC	DIFFERENCE
Low Tension	**24109.47**	**24461.49**	**352.02**
Category I: Domestic	8205.84	**8205.84**	**0.00**
Category II: Non-Domestic and Commercial	1813.98	**1813.98**	**0.00**
Category III (a & b): Industrial-Normal & Optional	2240.55	**2240.55**	**0.00**
Category IV: Cottage Industries and Dhobighats	32.75	**32.75**	**0.00**
Category V: Agricultural	10998.00	**11350.00**	**352.00**
Category VI: Local Bodies Street Lighting & PWS schemes	696.77	**696.79**	**0.02**
Category VII: General Purpose	101.33	**101.33**	**0.00**
Category VIII: Temporary Supply	20.25	**20.25**	**0.00**
High Tension	**8927.45**	**8996.02**	**68.57**

Category I: Industry – General	5417.41	**5531.41**	**114.00**
Category II: Industry – Other	818.14	**818.14**	**0.00**
Category IV: Irrigation and Agriculture	175.69	**175.69**	**0.00**
Category V: Railway Traction	1155.41	**1155.41**	**0.00**
Category VI: Townships and Residential Colonies	182.37	**182.37**	**0.00**
Rescos	1166.43	**1121.00**	**-45.43**
Temporary	12.00	**12.00**	**0.00**
TOTAL	**33036.92**	**33457.51**	**420.59**

<u>Revenue Estimation:</u>

651. The Commission had directed the DISCOMS to estimate the revenue from sale of electricity and minimum charges separately, instead of using average realization. The DISCOMS were required to estimate revenue from sale of electricity based on their sales database. Following this directive the licensee has computed revenue from sale of electricity as follows:

a) Energy Charges: The category-wise sales have been estimated by the DISCOMS. These sales have then been apportioned into the slabs and multiplied with the corresponding slab / category tariff to compute the revenue from Energy Charges.
b) Fixed Charges: The category-wise connected loads have been estimated in HP for LT Category III, IV, V, VI and HT Category IV. These connected loads have been multiplied with the fixed charge for each category in Rs. / HP per year. For HT Category I & II, the billed demand in MVA has been reported in the filing and is estimated either as a proportion of total contracted demand or recorded maximum demand whichever is higher. The revenues from fixed charges have then been estimated.

652. As the Commission has revised the estimates of sales forecasts as provided by the DISCOMS, the approved sales have been proportionately split into slab-wise consumption to estimate revenue from Energy Charges.

653. The revenue from Monthly Minimum Charges (MMC) have been estimated by the DISCOMS based on the proportion of energy consumption billed under MMC and average realization from the customers billed under MMC.

Revenue for FY2003-04 at Current Tariff:

654. The total revenue from current tariff (Energy, Demand & Minimum charges) have been estimated by the DISCOMS as Rs. 7,986.50 crores. The Commission has estimated the revenue from current tariffs as Rs. 8,031.84 Crs. This increase in revenue by Rs. 45.34 crores is largely due to:

a) The increase in sales forecast from 33036.92 MU to 33457.51 MU has largely been from LT Category V that has a low average realization.
b) Increase of 114 MU in HT Category I sales.
c) Reduction in Minimum Charges that were estimated at Rs. 163.79 crores in the filings but have been revised to Rs. 154.95 crores after discussions.

Table No.178
REVENUE AT CURRENT TARIFF: ALL DISCOMS

(Rs. Crores)

CONSUMER CATEGORY	FILINGS	APERC
Low Tension		
Category I: Domestic	1974.74	1973.65
Category II: Non-Domestic and Commercial	1067.40	1071.83
Category III (a & b): Industrial-Normal & Optional	926.55	930.88
Category IV: Cottage Industries and Dhobighats	7.20	6.97
Category V: Agricultural	362.98	362.98
Category VI: Local Bodies Street Lighting & PWS schemes	147.56	146.25
Category VII: General Purpose	40.76	40.97
Category VIII: Temporary Supply	12.41	12.57
Sub Total (LT)	4539.60	4546.09
High Tension		
Category I: Industry – General	2341.26	2376.33
Category II: Industry – Other	437.38	435.06
Category IV: Irrigation and Agriculture	29.41	29.36
Category V: Railway Traction	531.30	531.49

CONSUMER CATEGORY	FILINGS	APERC
Category VI: Townships and Residential Colonies	58.66	58.37
Rural Cooperatives	42.60	48.84
Temporary Supply	6.30	6.30
Sub Total (HT)	3446.91	3485.74
TOTAL of LT and HT	7986.50	8031.84

655. While designing the tariffs for the various categories the Commission in the present Order has continued with its efforts to align tariff rates with cost-to-serve, especially where the subsidising categories are concerned. The important changes in the present tariffs are:

i) correcting the imbalance in the rate differentials between the subsidising and subsidised categories of consumers.

ii) Providing the benefit of two-part tariffs and

iii) Simplifying the slab structure.

656. The changes in the Tariffs are in LT – II, HT – I, HT – IV, HT – V and RESCOs after taking into consideration the changes in the Tariff the Revenue from proposed and approved Tariffs is shown in the table below:

Table No.179
REVENUE FROM PROPOSED AND APPROVED TARIFFS

(Rs. Crores)

CONSUMER CATEGORY	FILINGS	APERC
Low Tension		
Category I: Domestic	1974.74	1973.65
Category II: Non-Domestic and Commercial	1067.40	1071.83
Category III (a & b): Industrial-Normal & Optional	926.55	930.88
Category IV: Cottage Industries and Dhobighats	7.20	6.97
Category V: Agricultural	362.98	362.98
Category VI: Local Bodies Street Lighting & PWS schemes	147.56	146.25
Category VII: General Purpose	40.76	40.97
Category VIII: Temporary Supply	12.41	12.57
Sub Total (LT)	**4539.60**	**4546.10**
High Tension		
Category I: Industry – General	2341.26	2321.16
Category II: Industry – Other	437.38	435.06
Category IV: Irrigation and Agriculture	29.41	34.15

CONSUMER CATEGORY	FILINGS	APERC
Category V: Railway Traction	531.30	519.93
Category VI: Townships and Residential Colonies	58.66	58.37
Rural Cooperatives	42.60	51.19
Temporary Supply	6.30	6.30
Sub Total (HT)	3446.91	3426.17
TOTAL of LT and HT	**7986.50**	**7972.26**

Projections of Revenue Gap: All Discoms:

657. As per the filing, the revenue gap (aggregate revenue requirement in excess of tariff revenue) at current tariffs is estimated at Rs. 1787.02 Crs and at proposed tariffs the gap is estimated at Rs. 1787.02 Crs for FY04. With the Commission's alternative calculations, the revenue gap at current tariff is Rs. 1453.91Crs. and at approved tariffs for the ensuing year the gap is Rs. 1513.49 Crs. after taking into account the directed efficiency gains of Rs. 295.00 Crs.

Table No.180
REVENUE GAP FOR FY 2003-04: ALL DISCOMS

(Rs. Crores)

		Current Year Tariff		Ensuing Year Tariff	
		DISCOMS Filings (*)	APERC	DISCOMS Proposed (*)	APERC
1	Reasonable Return	0.00	17.70	0.00	17.70
2	Expenditure	10254.38	10236.39	10254.38	10236.30
3	Non-Tariff Income	449.42	473.34	449.42	473.34
4	Wheeling Charges	31.46	0.00	31.46	0.00
5	Revenue Requirement (1+ 2 - 3 – 4)	9773.52	9780.75	9773.52	9780.75
6	Revenue	7986.50	8031.84	7986.50	7972.26
7	Efficiency Gains	0.00	295.00	0.00	295.00
8	Net Revenue Gap (5 - 6 - 7)	1787.02	1453.91	1787.02	1513.49

(*) - DISCOMs in their filings used the current year BST to arrive at the estimates.

EASTERN POWER DISTRIBUTION COMPANY LIMITED:

658. The Commission approved the MU sales at 5506.25 MU as against the projection of 5350.28 MU by the Licensee for FY2003-04, effecting a higher estimate of 155.97 MU arising primarily from higher Commission estimate for LT-Agriculture by 65 MU and also higher estimate for Rescos.

659. The revenue at current tariffs on the revised sale is computed at Rs. 1,525.80 Crs against the estimate made by the Licensee at Rs. 1,501.78 Crs. The revenue from approved tariffs by the Commission on the revised sales is estimated as Rs. 1,513.88 Crs for FY2003-04, which is higher than the APEPDCL filing of Rs. 1,501.78 Crs.

660. As per the filing, the revenue gap (aggregate revenue requirement in excess of tariff revenue) at current tariff is estimated at Rs. 5.22 Crs and at proposed tariff the gap is estimated at Rs. 5.22 Crs for FY04. With the Commission's alternative calculations, the revenue surplus at current tariff is Rs. 7.82 Crs. and at approved tariffs for the ensuing year there is as surplus of Rs. 4.10 Crs. after taking into account the directed efficiency gains of Rs. 20.00 Crs.

Table No.181
SALES AND REVENUE FOR FY2003-04– APEPDCL

	SALES - MU		Revenue at Current Tariffs		Revenue at Ensuing Year Tariffs	
	EPDCL	APERC	EPDCL	APERC	EPDCL	APERC
LOW TENSION	**3578.43**	**3643.42**	**778.33**	**784.53**	**778.33**	**784.53**
Category I: Domestic	1646.76	1646.76	352.00	352.29	352.00	352.29
Category II: Non-Domestic and Commercial	331.00	331.00	192.60	198.07	192.60	198.07
Category III (a & b): Industrial-Normal & Optional	369.90	369.90	160.83	160.79	160.83	160.79
Category IV: Cottage Industries and Dhobighats	1.62	1.62	0.39	0.32	0.39	0.32
Category V: Agricultural	1085.00	1150.00	42.79	42.79	42.79	42.79
Category VI: Local Bodies Street Lighting & PWS schemes	126.27	126.27	22.45	23.05	22.45	23.05
Category VII: General Purpose	17.87	17.87	7.28	7.23	7.28	7.23
Category VIII: Temporary Supply	0.00	0.00	0.00	0.00	0.00	0.00
HIGH TENSION	**1771.85**	**1862.82**	**723.45**	**741.27**	**723.45**	**729.34**

	SALES - MU		Revenue at Current Tariffs		Revenue at Ensuing Year Tariffs	
	EPDCL	APERC	EPDCL	APERC	EPDCL	APERC
Category I: Industry – General	1112.31	1184.31	453.33	468.71	453.33	459.78
Category II: Industry – Other	138.04	138.04	72.56	72.57	72.56	72.57
Category IV: Irrigation and Agriculture	26.05	26.05	4.63	4.64	4.63	5.42
Category V: Railway Traction	387.40	387.40	178.02	178.20	178.02	174.33
Category VI: Townships and Residential Colonies	24.02	24.02	8.00	7.69	8.00	7.69
Rescos	83.03	102.00	6.39	8.93	6.39	9.03
Temporary	1.00	1.00	0.53	0.53	0.53	0.53
TOTAL	**5350.28**	**5506.25**	**1501.78**	**1525.80**	**1501.78**	**1513.88**

Table No.182
APEPDCL: REVENUE GAP FOR FY 2003-04

(Rs. Crores)

Sl.No.	Items	Current Year Tariff		Ensuing Year Tariff	
		Filing	APERC	Proposed	APERC
1	Reasonable Return	0.00	1.85	0.00	1.85
2	Expenditure	1584.72	1617.01	1584.72	1617.01
3	Non-Tariff Income	74.21	80.88	74.21	80.88
4	Wheeling Charges	3.51	0.00	3.51	0.00
5	Revenue Requirement (1+ 2 - 3 - 4)	1507.00	1537.98	1507.00	1537.98
6	Revenue	1501.78	1525.80	1501.78	1513.88
7	Efficiency Gains	0.00	20.00	0.00	20.00
8	Net Revenue Gap (5 - 6 - 7) or (Surplus)	5.22	(7.82)	5.22	(4.10)

SOUTHERN POWER DISTRIBUTION COMPANY LIMITED:

661. The Commission approved 7883.63MU sales as against the projection of 7908.64 MU by the Licensee for FY2003-04, effecting a reduction of 25.01 MU despite a higher Commission estimate of LT-Agriculture by 26MU. Major reduction in DISCOM is in RESCO sales and the RESCO has been consulted for this purpose.

662. The revenue on the revised sales at current tariffs is computed at Rs. 1814.79 Crs against the estimate made by the Licensee at Rs.1812.31 Crs. The revenue from approved tariffs by the Commission on the revised sales is

estimated as Rs. 1803.88 Crs for FY2003-04, which is lower than the APSPDCL filing of Rs. 1812.31 Crs.

663. As per the filing, the revenue gap (aggregate revenue requirement in excess of tariff revenue) at current tariff is estimated at Rs. 598.69 Crs and at proposed tariff the gap is estimated at Rs. 598.69 Crs. for FY2003-04. With the Commission's alternative calculations, the revenue gap at current tariff is Rs. 485.67 Crs. and at approved tariffs for the ensuing year the gap is Rs. 496.58 Crs after taking into account the directed efficiency gains of Rs. 82.00 Crs.

Table No.183
SALES AND REVENUE FOR FY2003-04– APSPDCL

	SALES – MU		Revenue at Current Tariffs		Revenue at Ensuing Year Tariffs	
	SPDCL	APERC	SPDCL	APERC	SPDCL	APERC
LOW TENSION	**6112.62**	**6138.62**	**1148.65**	**1155.67**	**1148.65**	**1155.67**
Category I: Domestic	2149.98	2149.98	497.08	497.07	497.08	497.07
Category II: Non-Domestic and Commercial	457.00	457.00	259.57	261.57	259.57	261.57
Category III (a & b): Industrial-Normal & Optional	720.04	720.04	237.37	241.69	237.37	241.69
Category IV: Cottage Industries and Dhobighats	15.59	15.59	3.45	3.38	3.45	3.38
Category V: Agricultural	2574.00	2600.00	108.68	108.68	108.68	108.68
Category VI: Local Bodies Street Lighting & PWS schemes	165.01	165.01	29.82	30.60	29.82	30.60
Category VII: General Purpose	30.00	30.00	12.06	12.06	12.06	12.06
Category VIII: Temporary Supply	1.00	1.00	0.62	0.62	0.62	0.62
HIGH TENSION	**1796.02**	**1745.01**	**663.65**	**659.12**	**663.65**	**648.21**
Category I: Industry – General	798.00	798.00	363.01	363.01	363.01	354.23
Category II: Industry – Other	152.00	152.00	80.50	80.50	80.50	80.50
Category IV: Irrigation and Agriculture	16.01	16.01	2.85	2.85	2.85	3.33
Category V: Railway Traction	389.00	389.00	178.94	178.94	178.94	175.05
Category VI: Townships and Residential Colonies	60.00	60.00	19.20	19.20	19.20	19.20
Rescos	380.01	329.00	18.63	14.10	18.63	15.37
Temporary	1.00	1.00	0.53	0.00	0.53	0.00

	SALES – MU		Revenue at Current Tariffs		Revenue at Ensuing Year Tariffs	
	SPDCL	APERC	SPDCL	APERC	SPDCL	APERC
TOTAL	**7908.64**	**7883.63**	**1812.31**	**1814.79**	**1812.31**	**1803.88**

Table No.184
APSPDCL: REVENUE GAP FOR FY 2003-04

(Rs.Crores)

Sl.No.	Items	Current Year Tariff		Ensuing Year Tariff	
		Filing	**APERC**	**Proposed**	**APERC**
1	Reasonable Return	0.00	1.73	0.00	1.73
2	Expenditure	2519.27	2484.00	2519.27	2484.00
3	Non-Tariff Income	103.15	103.27	103.15	103.27
4	Wheeling Charges	5.12	0.00	5.12	0.00
5	Revenue Requirement (1+ 2 – 3 - 4)	2411.00	2382.46	2411.00	2382.46
6	Revenue	1812.31	1814.79	1812.31	1803.88
7	Efficiency Gains	0.00	82.00	0.00	82.00
8	Net Revenue Gap (5 - 6 - 7)	598.69	485.67	598.69	496.58

CENTRAL POWER DISTRIBUTION COMPANY LIMITED:

664. The Commission approved the MU sales at 13772.22 MU as against the filing of 13523.61 MU by the Licensee for FY04, effecting a higher estimate of 248.61MU. Major difference is the projection of DISCOM sales with regard to LT-agriculture, HT-I and RESCO's.

665. The revenue at current tariffs on the revised sales is computed at Rs. 3,512.51 Crs against the estimate made by the Licensee at Rs. 3,529.43 Crs. The revenue from approved tariffs by the Commission on the revised sales is estimated as Rs.3,486.93 Crs for FY04, which is lower than the filing of Rs. 3,529.43 Crs.

666. As per the filing, the revenue gap (aggregate revenue requirement in excess of tariff revenue) at current tariffs is estimated at Rs. 432.96 Crs and at proposed tariffs the gap is estimated at Rs. 432.96 Crs for FY04. With the Commission's alternative calculations, the revenue gap at current tariff is Rs.

306.63 Crs. and at approved tariffs for the ensuing year the gap is Rs. 332.22 Crs. after taking into account the directed efficiency gains of Rs. 139.00 Crs.

Table No.185
SALES AND REVENUE FOR FY2003-04– CPDCL

	SALES – MU		Revenue at Current Tariffs		Revenue at Ensuing Year Tariffs	
	CPDCL	APERC	CPDCL	APERC	CPDCL	APERC
LOW TENSION	**9826.36**	**10021.36**	**2019.03**	**1982.22**	**2019.03**	**1982.22**
Category I: Domestic	3152.80	3152.80	860.23	830.97	860.23	830.97
Category II: Non-Domestic and Commercial	824.00	824.00	500.36	495.13	500.36	495.13
Category III (a & b): Industrial-Normal & Optional	903.11	903.11	419.30	419.35	419.30	419.35
Category IV: Cottage Industries and Dhobighats	11.90	11.90	2.56	2.54	2.56	2.54
Category V: Agricultural	4605.00	4800.00	136.53	136.53	136.53	136.53
Category VI: Local Bodies Street Lighting & PWS schemes	269.09	269.09	71.70	69.16	71.70	69.16
Category VII: General Purpose	41.46	41.46	16.57	16.75	16.57	16.75
Category VIII: Temporary Supply	19.00	19.00	11.79	11.79	11.79	11.79
HIGH TENSION	**3697.25**	**3750.86**	**1510.40**	**1530.29**	**1510.40**	**1504.71**
Category I: Industry – General	2673.10	2715.10	1167.68	1185.75	1167.68	1157.47
Category II: Industry – Other	479.10	479.10	257.59	255.09	257.59	255.07
Category IV: Irrigation and Agriculture	126.63	126.63	20.71	20.65	20.71	24.00
Category V: Railway Traction	82.68	82.68	38.18	38.03	38.18	37.21
Category VI: Townships and Residential Colonies	52.35	52.35	16.64	16.76	16.64	16.76
Rescos	278.39	290.00	7.00	11.41	7.00	11.59
Temporary	5.00	5.00	2.63	2.63	2.63	2.63
TOTAL	13523.61	13772.22	3529.43	3512.51	3529.43	3486.93

Table No.186
APCPDCL: REVENUE GAP FOR FY 2003-04

(Rs. Crores)

Sl.No.	Items	Current Year Tariff		Ensuing Year Tariff	
		Filing	APERC	Proposed	APERC
1	Reasonable Return	0.00	11.43	0.00	11.43
2	Expenditure	4162.39	4139.93	4162.39	4139.93
3	Non-Tariff Income	177.66	193.22	177.66	193.22
4	Wheeling Charges	22.78	0.00	22.78	0.00

Sl.No.	Items	Current Year Tariff		Ensuing Year Tariff	
		Filing	APERC	Proposed	APERC
5	Revenue Requirement (1+ 2 – 3 - 4)	3961.95	3958.14	3961.95	3958.14
6	Revenue	3528.99	3512.51	3528.99	3486.93
7	Efficiency Gains	0.00	139.00	0.00	139.00
8	Net Revenue Gap (5 - 6 - 7)	432.96	306.63	432.96	332.22

NORTHERN POWER DISTRIBUTION COMPANY LIMITED:

667. The Commission approved the MU sales at 6295.39 MU as against the projection of 6254 MU by the Licensee for FY2003-04, effecting a higher estimate of 41.39 MU arising from higher Commission's estimate for LT-agricultural sale by 66MU. Major reduction in DISCOM Sales are in RESCOs. The RESCOs have been consulted for this purpose.

668. The revenue at current tariffs on the revised sales is computed at Rs. 1,178.74 Crs against the estimate made by the Licensee at Rs. 1,142.99 Crs. The revenue from approved tariffs by the Commission on the revised sales is estimated as Rs. 1167.58Crs for FY04, which is higher than the filing of Rs. 1,142.99 Crs.

669. As per the filing, the revenue gap (aggregate revenue requirement in excess of tariff revenue) at current tariffs is estimated at Rs. 750.43 Crs and at proposed tariffs the gap is estimated at Rs. 750.43 Crs for FY04. With the Commission's alternative calculations, the revenue gap at current tariff is Rs. 669.43 Crs. and at approved tariffs for the ensuing year the gap is Rs. 680.59 Crs. after taking into account the directed efficiency gains of Rs. 54.00 Crs.

Table No.187
SALES AND REVENUE FOR FY2003-04– APNPDCL

	SALES - MU	Revenue at Current Tariffs	Revenue at Ensuing Year Tariffs

	NPDCL	APERC	NPDCL	APERC	NPDCL	APERC
LOW TENSION	4592.06	4658.05	593.58	623.68	593.58	623.68
Category I: Domestic	1256.30	1256.30	265.44	293.00	265.44	293.00
Category II: Non-Domestic and Commercial	201.98	201.98	114.87	117.05	114.87	117.05
Category III (a & b): Industrial-Normal & Optional	247.50	247.50	109.05	109.05	109.05	109.05
Category IV: Cottage Industries and Dhobighats	3.64	3.64	0.80	0.74	0.80	0.74
Category V: Agricultural	2734.00	2800.00	74.98	74.98	74.98	74.98
Category VI: Local Bodies Street Lighting & PWS schemes	136.39	136.41	23.60	23.44	23.60	23.44
Category VII: General Purpose	12.00	12.00	4.85	4.93	4.85	4.93
Category VIII: Temporary Supply	0.25	0.25	0.00	0.16	0.00	0.16
HIGH TENSION	**1662.33**	**1637.33**	**549.41**	**555.06**	**549.41**	**543.90**
Category I: Industry – General	834.00	834.00	357.23	358.86	357.23	349.68
Category II: Industry – Other	49.00	49.00	26.73	26.92	26.73	26.92
Category IV: Irrigation and Agriculture	7.00	7.00	1.22	1.23	1.22	1.41
Category V: Railway Traction	296.33	296.33	136.16	136.31	136.16	133.35
Category VI: Townships and Residential Colonies	46.00	46.00	14.82	14.72	14.82	14.72
Rescos	425.00	400.00	10.62	14.40	10.62	15.20
Temporary	5.00	5.00	2.63	2.63	2.63	2.63
TOTAL	6254.39	6295.39	1142.99	1178.74	1142.99	1167.58

Table No.188
APNPDCL: REVENUE GAP FOR FY 2003-04

(Rs. Crores)

Sl.No.	Items	Current Year Tariff		Ensuing Year Tariff	
		Filing	APERC	Proposed	APERC
1	Reasonable Return	0.00	2.70	0.00	2.70
2	Expenditure	1988.00	1995.44	1988.00	1995.44
3	Non-Tariff Income	94.38	95.97	94.38	95.97
4	Wheeling Charges	0.05	0.00	0.05	0.00
5	Revenue Requirement (1+ 2 - 3 - 4)	1893.57	1902.17	1893.57	1902.17
6	Revenue	1143.14	1178.74	1143.14	1167.58
7	Efficiency Gains	0.00	54.00	0.00	54.00
8	Net Revenue Gap (5 - 6 - 7)	750.43	669.43	750.43	680.59

CHAPTER : XVI
TARIFF DESIGN

TARIFF STRUCTURE FOR RETAIL SUPPLY TARIFF:

670. The pricing principles of Cost-to-Serve (CoS) using the approved embedded cost, forms the basis for determination of retail supply tariffs for Distribution & Retail Supply business and also BST & wheeling charges for the Transmission and Bulk Supply business. The Licensees in the CoS Model filed with the ARR have proposed;

i. shift to morning peak; and
ii. the use of class non-coincident peak loads to allocate demand related costs.

671. The Commission examined the filings of the DISCOMS together with all the supporting information and have preferred to retain evening peak in this Order as well as the use of coincident peak demand to allocate demand related costs. The decision to retain evening peak is based on the consideration that the data submitted by the DISCOMS indicate a pronounced evening peak against the Licensee depicted morning peak. Examination of the load curves for individual consumer categories indicate that if agriculture demand is not taken into consideration, since supply to agriculture is largely during off-peak hours, the evening peak continues. The basic issue is that a category's contribution to peak demand defines the allocation of fixed costs amongst the consumer categories such that costs so allocated reflect that category's use of assets. Any shift in demand must be substantiated. Thus, there is not enough evidence in support of the proposal for a change in peak timing for consideration in the CoS.

672. The decision to continue with coincident peak demand as against the proposal to shift to non-coincident peak demand is based on considerations

similar to what was stated in the Tariff Order for FY 2002-03. As mentioned in the previous Orders, the division of distribution business into four business companies is a juridical decision and in terms of market structure, the prevailing power system functions as an integrated transmission and distribution business. Since all investments in the Generation & Transmission are so planned to cater to the system peak, it would be just and rational to consider coincident peak demand for allocation of cost among consumer categories in the different DISCOMs.

673. The emphasis, as always, has been to move tariffs closer to cost-to-serve and more importantly to reduce cross subsidy with reduction in tariffs of the subsidizing category of consumers. The Commission has been sensitive to the burden of cross-subsidy borne by these consumers and considers it appropriate, to reduce their tariff burden. In this Order the Commission has further progressed towards rationalizing tariffs closer to the cost-to-serve in some of the subsidizing categories. Complementing the reduction in rates, simplicity of tariff design through merger of slabs or through changes in rates initiated in the earlier Orders continue in this Order, with the required fine-tuning for ensuring simplicity.

674. Cost of service plays a pivotal role in the process of rate making and determination of tariff for different categories of consumers. Licensees have been using the aggregate level load factors of the DISCOMs to estimate the peak load of the system. The companies have to undertake separate studies on each category to study the shapes of the load curves of individual consumer categories; their consumption patterns, and DSM opportunities to identify the contribution to the peak. All the DISCOMs and APTRANSCO have to monitor and develop the system so that on a continuous analytical base it is possible to capture seasonal peaks and shifts in peaks.

Full cost Tariff and Efficiency Gains:

675. The distribution of joint costs of generation, transmission and distribution are allocated to each category of consumers based on three allocation factors: i) energy; ii) demand and iii) customer charges. Among the three factors contribution to peak demand has a decisive influence on the cost-to-serve of a category. The unit full cost to serve for a category is the total cost weighted by the allocation factors and divided by the net units consumed (net of losses). Efficiency gains directed by the Commission are then deducted from the total revenue requirements and the costs are reallocated to the different consumer categories. This is the fully allocated cost to each consumer category, which is notified to the GoAP while asking for policy directions, if any, in respect of provision of subsidy for any class or classes of consumers under Sec. 12(3) of the Reform Act. The GoAP decides the levels to which the Fully Allocated Cost Tariff in respect of the subsidised categories are to be reduced makes good the resultant gap in the revenue requirement by way of subsidy.

<u>Subsidy/Cross Subsidy:</u>

676. The difference between the fully allocated costs and the revenue from tariffs for subsidized categories is covered by cross-subsidy and subsidy from the GoAP. The quantum of cross subsidy is set by the Commission by fixing constraints on increase of tariff with respect to subsidizing categories. The available cross-subsidy is distributed among the subsidized categories in proportion to the deficit of the respective category to the deficit of the system. The Commission in its tariff design maintains a delicate balance between tariff changes and subsidy. An undue increase in tariffs for the subsidizing category, rather than increasing the desired quantum of cross-subsidy actually can have an adverse effect of driving consumers out of the grid thereby defeating the purpose of increasing tariffs. At the same time, during the transition period, some cross-subsidies are inevitable to avoid rate shock for the groups now being subsidized. As a policy decision the Commission in the First Order set a cap of 15 per cent on increase of tariff in respect of subsidizing categories. In subsequent Orders

the cap has decreased and now stands at zero for some subsidizing categories and negative for some others (HT-1, HT-V). The cap is without taking into account the inflation factor. If inflation is factored into the tariffs, for the subsidizing categories, tariffs have declined in real terms. With tariff rationalization the quantum of cross subsidy in absolute amounts has gone up but retail tariffs of the subsidizing categories have either decreased or remained constant. Tariff rationalization in turn has attracted consumers to the grid. The Commission also believes that the issue of the allocation of the external subsidy is a temporary one, relevant only to the transition period. With decrease in losses and control of expenditure it is possible to a large extent to equate cost-to-serve and tariffs for the subsidized categories also.

677. The table below gives the Fully Allocated Cost Tariff communicated to GoAP.

Table No.189
Schedule of Retail Tariffs –
Fully Allocated Cost – FY 2003-04

											Components of tariff
	MUs	Fixed Charge (Rs/year)	Energy Charge (Ps/Unit)	Fixed Charge (Rs/year)	Energy Charge (Ps/Unit)	Fixed Charge (Rs/year)	Energy Charge (Ps/Unit)	Total Revenue			Fully Allocated Cost in Rs.Lakhs
		DISCOMS CURRENT		DISCOMS PROPOSED			APERC	DISCOMS Current	DISCOMS Proposed	APERC	
								(Rs. lakhs)		(Rs. lakhs)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
LOW TENSION											
Category I: Domestic											
0 – 50	4699		145		145		**245**	773.99	773.99	1243.85	
51 – 100	1669		280		280		**375**	467.32	467.32	625.88	
101 – 200	1041		305		305		**375**	317.52	317.52	390.39	
201 – 300	315		475		475		**540**	149.55	149.55	170.02	
>301	482		550		550		**600**	265.27	265.27	289.39	
Sub Total	**8206**							**1973.65**	**1973.65**	**2719.52**	**3721.21**
Category II: Non-Domestic and Commercial											
0 - 50	395		395		395		395	208.55	208.55	208.55	
>51 – 100	660		395		395		660	115.50	115.50	115.50	
> 101	660		700		700		660	747.77	747.77	747.77	

											Components of tariff
	MUs	Fixed Charge (Rs/year)	Energy Charge (Ps/Unit)	Fixed Charge (Rs/year)	Energy Charge (Ps/Unit)	Fixed Charge (Rs/year)	Energy Charge (Ps/Unit)	Total Revenue			Fully Allocated Cost in Rs.Lakhs
			DISCOMS CURRENT		DISCOMS PROPOSED		APERC	DISCOMS Current	DISCOMS Proposed	APERC	
								(Rs. lakhs)		(Rs. lakhs)	
Category III (a & b): Industrial	2241							**930.88**	**930.88**	**930.88**	**782.28**
Category III(a): Industrial – Normal											
(1). Industrial other than below for all units upto 75 HP		**444**	385	**444**	385	**444**	**385**				
(2). Pisciculture and Prawn Culture			90		90	**444**	**385**				
(3). Sugarcane Crushing			50		50	**444**	**385**				
Category III (b): Industrial											
For 75 HP and Above		1200	385	1200	385	**1200**	385				
Category IV: Cottage Industries and Dhobighats	**33**	120	180	120	180	**120**	**212**	**6.97**	**6.97**	**8.02**	**10.97**
Category V: Agriculture	11350							**362.98**	**362.98**	**993.58**	**1954.30**
DPAP areas		Rs/HP /Yr		Rs/HP /Yr		Rs/HP /Yr					
Up to 3 HP (2.25kw)	7400	225	@	225	@	**900**	@	19.32	19.32	77.30	
> 3 HP up to 5 HP (2.25to 3.75kw)	0	375	@	375	@	**1000**	@	75.93	75.93	202.49	
> 5 HP up to 10 HP (375 to 7.5kw)	0	475	@	475	@	**1080**	@	13.90	13.90	31.61	
> 10 HP (7.5kw)	0	575	@	575	@	**1175**	@	0.65	0.65	1.32	
Sub Total	7400							**109.81**	**109.81**	**312.72**	
Other areas		Rs/HP /Yr		Rs/HP /Yr		Rs/HP /Yr					
Up to 3 HP (2.25kw)	3950	275	@	275	@	**950**	@	82.47	82.47	284.91	
> 3 HP up to 5 HP (2.25to 3.75kw)	0	425	@	425	@	**1050**	@	99.66	99.66	246.21	
> 5 HP up to 10 HP (375 to 7.5kw)	0	525	@	525	@	**1150**	@	45.53	45.53	99.73	
> 10 HP (7.5kw)	0	625	@	625	@	**1225**	@	25.51	25.51	50.00	
Agriculture Metered tariffs @											
0 – 2500 Units per annum	0	0	20	0	20	0	20	0.00	0.00	0.00	
> 2500 Units per annum	0	0	50	0	50	0	50	0.00	0.00	0.00	
Sub Total	**3950**							**253.17**	**253.17**	**680.86**	
Category VI(B): Out-of-Turn Scheme Mandatory Metered Tairff*			**125**		**125**		**100**				
Category VI(C): Horticulture Mandatory Metered Tariff							**120**				
											50% discount on rate for DSM measures
Category VI: Local Bodies Street Lighting & PWS schemes	**697**							**146.25**	**146.25**	**204.71**	**254.60**

	Components of tariff										
	MUs	Fixed Charge (Rs/year)	Energy Charge (Ps/Unit)	Fixed Charge (Rs/year)	Energy Charge (Ps/Unit)	Fixed Charge (Rs/year)	Energy Charge (Ps/Unit)	Total Revenue			Fully Allocated Cost in Rs.Lakhs
		DISCOMS CURRENT		DISCOMS PROPOSED		APERC		DISCOMS Current	DISCOMS Proposed	APERC	
								(Rs. lakhs)		(Rs. lakhs)	
Local Bodies											
Street Lighting											
Minor Panchayats	207		**156**		**156**		**235**	32.23	32.23	48.56	
Major Panchayats	115		**208**		**208**		**285**	23.97	23.97	32.83	
Nagarpalikas and Municipalities Gr.3	22		**274**		**274**		**350**	5.93	5.93	7.58	
Municipalities Gr.1 & 2	24		**326**		**326**		**405**	7.89	7.89	9.80	
Municipalities Selection Spl.Gr.	17		**353**		**353**		**430**	5.98	5.98	7.29	
Corporations	92		**379**		**379**		**480**	34.71	34.71	43.96	
PWS Schemes											
Minor Panchayats	94							3.29	3.29	9.41	
Upto 2500 Units			20		20		100				
Above 2500 Units			50		50		100				
Major Panchayats	55							1.92	1.92	5.48	
Upto 2500 Units			20		20		100				
Above 2500 Units			50		50		100				
Nagarpalikas and Municipalities (Gr.3)											
Upto 1000 Units	3	240	375	240	375	360	500	1.27	1.27	1.70	
Balance Units	8		405		405		525	3.17	3.17	4.11	
Municipalities Gr 1 & 2											
Upto 1000 Units	8	240	375	240	375	360	500	3.46	3.46	4.71	
Balance Units	23		405		405	0	525	9.12	9.12	11.83	
Municipalities Selection Spl. Gr.											
Upto 1000 Units	2	240	375	240	375	360	525	1.14	1.14	1.62	
Balance Units	15		405		405		560	6.04	6.04	8.35	
Corporations											
Upto 1000 Units	0	240	405	240	405	360	525	0.11	0.11	0.15	
Balance Units	13		460		460		560	6.00	6.00	7.30	
Category VII: General Purpose	101		**400**		**400**		**405**	**40.97**	**40.97**	**41.18**	**37.70**
Category VIII: Temporary Supply	**20**		**620**		**620**		**620**	**12.57**	**12.57**	**12.57**	**7.07**
TOTAL LOW TENSION	**24462**							**4546.10**	**4546.10**	**5982.58**	
HIGH TENSION											
Category I: Industry	**5531**					**Rs/kVA /Yr**		**2376.33**	**2376.33**	**2321.16**	**1263.15**

											Components of tariff
	MUs	Fixed Charge (Rs/year)	Energy Charge (Ps/Unit)	Fixed Charge (Rs/year)	Energy Charge (Ps/Unit)	Fixed Charge (Rs/year)	Energy Charge (Ps/Unit)	Total Revenue			Fully Allocated Cost in Rs.Lakhs
		DISCOMS CURRENT		DISCOMS PROPOSED			APERC	DISCOMS Current	DISCOMS Proposed	APERC	
								(Rs. lakhs)		(Rs. lakhs)	
(a). Industry - General		2340	371	2340	371	2340	**360**				
(b). Ferro Alloys			212		212		**212**				
Category II: Others	**818**	**2340**	**450**	**2340**	**450**	**2340**	**450**	**435.06**	**435.06**	**435.06**	
Category IV: Irrigation and Agriculture	**176**					Rs/HP /Yr		**29.36**	**29.36**	**34.24**	**36.61**
A: Govt. Lift Irrigation Schemes	160		178		178		208	28.42	28.42	33.22	
B: Others	16	430	35*	430	35*	430	40	0.94	0.93	1.02	
Category V: Railway Traction	**1155**		**460**		**460**		**450**	**531.49**	**531.49**	**519.93**	**371.41**
Category VI: Townships and Residential Colonies	**182**		320		320		**320**	**58.37**	**58.36**	**58.37**	
Rural Co-operatives	**1121**							**48.84**	**42.60**	**128.35**	**220.88**
Anakapalle	75						161	6.83	0.00	12.08	
Chipurupally	27						149	2.11	0.00	4.02	
Kadiri - East	65						108	2.41	0.00	7.02	
Kadiri - West	58						111	2.32	0.00	6.44	
Sanjay	167						111	6.68	0.00	18.54	
Sircilla	400						107	14.40	0.00	42.80	
Atmakur	58						113	2.44	0.00	6.55	
Kuppam	165						116	7.43	0.00	19.14	
Rayachoty	106						111	4.24	0.00	11.77	
						Rs/HP /Yr					
Temporary	**12**	**50% more than HT**		**50% more than HT**		**3510**	**525**	**6.30**	**6.30**	**6.30**	**1.45**
TOTAL HIGH TENSION	**8996**							**3485.74**	**3479.49**	**3503.41**	
SYSTEM TOTAL	**33458**							**8031.84**	**8025.58**	**9485.99**	**9485.77**
TOTAL EXPENDITURE								**9485.75**	**9485.75**	**9485.75**	**9485.77**

FSA applicable to all categories expect Agriculture

(*) a) Agricultural metered tariff will be fixed for 3 years for consumers fixing meters within three months of the Order.
b) Horticulture - Mandatory Metered Tariff
c) Out-of turn Scheme metered mandatory tariff @ Rs.1.00 per unit and 50% discount on rate for DSM measures

(*) - HT Irrigation and Agricultural Metered Tariff subject to a minimum of Rs. 300/HP/Yr of Contracted Load.
LT III (B) Seasonal as HT - I Seasonal Tariff
LT - II Slab structure changed from 0-100 units and above 100 units to 0-50 units and above 50 units.

Policy Directions of GoAP on Subsidy:

678. The GoAP having seen the Fully Allocated Cost Tariff have issued policy directions under section 12(3) of the Reform Act that the tariff in respect of the subsidized categories may be reduced to levels proposed by the DISCOMS, for which subsidy of Rs. 1513.49 Crs would be made available to the DISCOMS. The table below gives the details of subsidy allocation for FY 2003-04

Table No.190

DETAILS OF SUBSIDY ALLOCATION IN FY 2003-04

Particulars	Amount in Crores
Domestic	729.97
Cottage Industries	1.67
Local Bodies	45.26
LT Agriculture	664.70
RESCOS	70.87
HT Agriculture	1.02
Total	**1513.49**

679. The GoAP subsidy as in the earlier Tariff Orders has been mainly for Domestic, Agriculture and RESCOs. The subsidy to domestic category is

Rs.729.97 crs and cross subsidy is Rs.1017.60 crs as against the total cost to serve of Rs3804.52 crs. For agriculture against the total cost of Rs.2051.31 crs the amount of cross subsidy is Rs.926.61 crs and the government subsidy is Rs.664.70 crs. This level of tariff represents 17.70 per cent of the cost to serve the agricultural category. The other major beneficiary of government subsidy is the RESCO who receive Rs 70.87 crs to cover domestic and agriculture categories in the society area

<u>Administration of Subsidy:</u>

680. Subsidy provided by the GoAP is administered as follows:

a) The subsidy given by the GoAP as per Section 12(3) of Reform Act is for a consumer category.
b) The retail supply tariffs of the subsidised categories are arrived at by uniformly allocating (across the state) the subsidy of GoAP to the respective categories of consumers.
c) Each DISCOM gets the subsidy commensurate to the extent of energy sales to its subsidised categories.
d) The subsidy allocation to each DISCOM as calculated in (c) above must be paid by the GoAP to the respective DISCOMS.

681. The subsidy will be paid in 12 equal monthly installments in advance in full after adjustment of only Commission approved plough back dues. The Commission reiterates that in case the subsidy is not paid regularly on monthly basis, the DISCOMS shall revert to the full cost tariff fixed by the Commission. In case sales projected in the subsidized category are less or in case of other developments any surplus accrual of subsidy to the DISCOM must be refunded to the Government. In case of RESCOs if they purchase more power than allotted, the price will be at the rate of BST of the DISCOM.

Final Retail Tariffs:

682. Sec 26 of the APER Act, 1998 sets out the guiding principles for the Commission to fix the final tariffs to all categories of consumers defined and differentiated according to consumers load factor or power factor, total consumption of energy during any specified period or the time at which supply is required or paying capacity of category of consumers and need for cross-subsidization.

683. While designing the tariffs for the various categories the Commission in the present Order has continued with its efforts to align tariff rates with cost-to-serve, especially where the subsidising categories are concerned. The important changes in the present tariffs are

- iv) correcting the imbalance in the rate differentials between the subsidising and subsidised categories of consumers.
- v) Providing the benefit of two-part tariffs and
- vi) Simplifying the slab structure.

Category -LT-I : Domestic:

684. The Commission has continued with the five slabs as proposed by the DISCOMs. The continuing presence of multiple connections in this category is disconcerting despite the Directive given in the Tariff Order of FY03 to identify multiple connections and disconnect them. The Commission's understanding is that a larger number of slabs tend to encourage multiple connections. The present consumption pattern of households towards utilisation of more electrical and electronic gadgets tends to obfuscate the need for finer distinction in terms of many slabs. In this Order no changes are made in the number of slabs.

685. The tariff rates remain unchanged as the GoAP has decided to provide the required subsidy. The cost to serve for this category is Rs. 4.64 paise per unit.

Table No.191
CAT-LT-I : DOMESTIC

Slab units/month	DISCOMS		APERC
	Current Energy Charge ps/unit	Proposed Energy Charge ps/unit	Energy Charge ps/unit
0-50	145	145	145
51-100	280	280	280
101-200	305	305	305
201-300	475	475	475
Above 300	550	550	550

<u>Category LT-II: Non-Domestic and Commercial:</u>

686. The non-domestic and commercial category LT-II is an amorphous category, which includes all consumers category that are not categorized under domestic, agriculture and industry. It consists of all units that are classified under HT-II. Hence it includes shops, offices, commercial establishments, entertainment center, studios etc. The A.P.Film Recording Association had represnted to the Commission for re-categorisation under LT-II to LT-III on the plea that they were recognized as industry by GoAP. The DISCOMS have clarified that film studios for purpose of use of electricity are not classified, as industry be it HT or LT. The Commission has considered the matter and agrees with the view taken by DISCOMS, as it is only a commercial activity.

687. In the last Order the Commission created two slabs in this category reducing it from three of the previous order. This was done keeping in mind small shop owners especially in the rural areas. The data filed by the DISCOMs show an unduly high proportion of consumers in the 0-100 slab. DISCOMS have not made any headway in detecting multiple connections in this category. Keeping in mind the paying capacity of small businesses and the fact that for a small shop with two lights and a fan the consumption will be about 50 units per month and is more akin to the consumption pattern of small households, the Commission prefers to reduce the first slab to 0-50 units. Among the subsidizing category LT-II had the highest tariff rate and it is being reduced gradually in order to align the

rates with the cost-to-serve. The cost to serve for this category is Rs. 4.42 per unit. The rate for the first slab remains unchanged at Rs. 3.95 per unit while for the second slab its has been fixed at Rs. 6.60 per unit, which is revenue neutral vis-à-vis the DISCOMs proposal.

Table No.192

CAT-LT-II: NON-DOMESTIC AND COMMERCIAL

Slab	DISCOMS		APERC	
	Current Energy Charge ps/unit	Proposed Energy Charge ps/unit	Slab	Energy Charge ps/unit
0 - 50	395	395	0 - 50	395
51 - 100	395	395	>51	660
> 101	700	700		

Category LT III (a) –Industry:

688. This category consists of LT-III (a & b) and is entirely of industrial loads in the LT category. The cost-to-serve of this category is Rs. 2.82 per unit and it is a subsidizing category. The rates remain unchanged and the Commission has accepted the proposals of DISCOMS for this category. The Commission reiterates its previous directive in the Tariff Order for 2002-03 that a) for loads 20HP and above but below 50HP LT demand meter should be fixed; and b) for loads 50HP and above upto 75HP, tri-vector meters be fixed and the metering should be on the HT side.

Category LT III (b) –Industry:

689. LT-III (B) is a separate category created in LT-III Industrial for those industries whose Connected load is more than 75HP and below 150 HP, which

would normally qualify as HT-I category. Since, the actual load on the system differs from the connected load due to diversity factor a separate category was created in the LT – III Industry segment. Metering for this category is on the HT side and must necessarily be tri-vector meters. Since the consumer is given the benefit of declaring a contracted demand which can be lower than the connected load, a two-part tariff is levied which consists of demand charges and energy charges. A two-part tariff is scientific and in line with the Commission's tariff philosophy. In the two-part tariff the consumer pays for the load contracted and provided by the utility while energy charges are on the basis of the number of units consumed. Moreover a two-part tariff is levied on HT-I Industry and the same should be applicable to LT – III (B) as in terms of load and patterns of consumption as they are similar to HT-I industry. Similarly, Minimum Charges with regard to demand charges and energy charges are similar to that prevailing for HT-I.

LT-III (B) – Seasonal Industry:

690. In LT-III (B) there is no special category for seasonal industry although there is a special category HT-I seasonal for which the Commission had fixed an off-season demand and energy charges. Representation from the LT-Fruit Processing Industry for provision of off-season tariffs was made during public hearing on the plea that as they function only during season, full payment of demand charges is a burden difficult to bear since there is no production activity during that period.

691. The Commission examined the matter and on the basis of the proposal put forward by the DISCOMS accepts the proposal to create a sub-group in LT-III (B) for seasonal industry with the same conditions and charges as applicable to HT-I seasonal industry. The demand charges during the off-season will be on the basis of recorded maximum demand or 30% of the contracted demand

whichever is higher and energy charges applicable will be that of HT-II. The definition of "seasonal industry" will be the same as for HT-I category.

Table No.193

CAT-LT-III : INDUSTRIAL

	Current charges		DISCOMS Proposed charges		APERC	
Slab	**Fixed Charges (Rs/HP/ Month)**	**Current Energy Charge ps/ unit**	**Fixed Charges (Rs/HP/ Month)**	**Proposed energy Charge ps/ unit**	**Fixed Charges (Rs/HP/ Month)**	**Energy Charge ps/ unit**
Category III(a): Industrial – Normal						
(1). Industrial other than below for all units upto 75 HP	37	385	37	385	37	385
(2). Pisciculture and Prawn Culture		90		90		90
(3). Sugarcane Crushing		50		50		50
Category **III** (b): Industrial						
For 75 HP and Above	100 per kVA	385	100 per kVA	385	100 per kVA	385
Category **III** (b) Seasonal						
During Season					100 per kVA	385
Off-season same as HT-I : Demand charges on the recorded maximum demand or 30% of the Contracted Demand whichever is higher. Energy Charges **Rs 4.50/unit**						

<u>Category-LT-IV : Cottage Industries:</u>

692. The cost to serve this category is Rs. 3.29 ps/unit. The rates remain unchanged and the Commission has accepted the proposals of DISCOMS for this category as given below.

Table No.194
CAT-LT-IV : COTTAGE INDUSTRIES & DHOBIGHATS

Current charges		DISCOMS Proposed charges		APERC	
Fixed Charges (Rs/HP/ Month)	**Current Energy Charge ps/ unit**	**Fixed Charges (Rs/HP/ Month)**	**Proposed energy Charge ps/ unit**	**Fixed Charges (Rs/HP/ Month)**	**Energy Charge ps/ unit**

10	180	10	180	10	180

Category-LT-V: Agriculture:

693. The Cost-to-serve for this category is Rs. 1.81 ps./ unit. The rates remain unchanged as GoAP has decided to provide subsidy for this category and the Commission has accepted the proposals of DISCOMS for this category.

Table No.195

CAT-LT-V: AGRICULTURE

	Current charges		**DISCOMS Proposed charges**		**APERC**	
Slab	**Fixed Charges (Rs/HP/ Year)**	**Optional Metered tariff ps/ unit**	**Fixed Charges (Rs/HP/ Year)**	**Optional Metered tariff ps/ unit**	**Fixed Charges (Rs/HP/ Year)**	**Optional Metered tariff ps/ unit**
DPAP areas						
Up to 3 HP (2.25kw)	225	@	225		225	
> 3 HP up to 5 HP (2.25to 3.75kw)	375	@	375		375	
> 5 HP up to 10 HP (375 to 7.5kw)	475	@	475		475	
> 10 HP (7.5kw)	575	@	575		575	
Other Areas (OA)						
Up to 3 HP (2.25kw)	275		275		275	
> 3 HP up to 5 HP (2.25to 3.75kw)	425		425		425	
> 5 HP up to 10 HP (375 to 7.5kw)	525		525		525	
> 10 HP (7.5kw)	625		625		625	
@ **Metered Tariff Optional** – The metered tariff for LT – V (A) agriculture category will not be increased for a period of 3 years provided the meters are applied for before 30th June 2003. (50% discount for DSM measures)						
0 – 2500 Units per annum		20		20		20
> 2500 Units per annum		50		50		50
Horticulture – Agricultural metered tariff is mandatory for Horticulture						

Out-of-turn allotment Scheme (50% discount for DSM measures)		125		125		100 *
* For out-of-turn allotment metered tariff is compulsory.						

b). Metered Tariff for Agriculture

694. At present the metered tariff fixed for agriculture is 20 paise per unit up to 2500 units and 50 paise thereafter. In the flat rate a differentiation is made between irrigated and non-irrigated area which is not so in the case of metered tariff.

695. Despite wide publicity to metering and the gains from the metered tariff the response has not be been encouraging. Some Farmer groups have written to the Commission that they are inclined to opt for metered Tariff. The response to out-of-turn scheme corroborates this fact. To encourage metering, the Commission has decided that farmers who get their pumpsets metered within three months i.e., before 30th June 2003, the metered tariff will remain fixed for the next three years. This decision must be appreciated by the farmer community as the burden of any price rise required in the next three years will be borne by other end consumers and by government subsidy.

The Discoms are directed to provide meters on a priority basis to all agricultural consumers who come forward to have meters fixed and charge metered tariff thereafter. The metered tariff applicable will not be increased for three years for those who registered their applications before 30th June, 2003.

c). Horticulture

696. The Commission observes that the present uniform treatment with regard to tariffs for all farmers and treatment of agriculture, as a homogenous group is

inequitable. No distinction is drawn between large farmer, small and marginal farmers and between agriculture as a commercial activity and agriculture loosely defined as a 'way *of life and of livelihood or sustenance*'. Discussions with the licensees and farmers made the Commission feel that there is need for distinguishing between other farmers and horticulturists. As a first step the Commission prefers to distinguish between agriculture and horticulture business within agriculture, in view of the obvious differences.

697. DISCOMs have argued before the Commission that this category of consumers warrants distinction from agriculture consumers for the purpose of energy charges. The Commission agrees with the views of the DISCOMs to distinguish Horticulture by creating a sub category within LT-V Agriculture and Irrigation. Horticulture for the purpose of this order covers Coconut trees, mango trees, orange, grape fruits, sweet lime, lemon, guava, sapota, cashew nut, betel nuts, palm oil gardens, and some inter crops grown in coconut gardens/mango gardens etc. For these gardens/plantations there is generally a base requirement of water throughout the year. Commission may include other crops in this category from time to time based on the inputs received from the different stakeholders in this regard.

d). Out-of-Turn Scheme

698. The Commission introduced the out-of-turn allotment scheme for Agricultural connection in the last Order. Farmers who opted for this Scheme were required to fix meters and that metered tariff was fixed at Rs.1.25 per unit with 50 percent discount on the tariff for DSM measures. In the review meeting with DISCOMs the Licensees informed that the scheme has received good response from the consumers. During the public hearing, representations were made to reduce the metered tariff for this category to encourage more consumes to opt for it. The Licensees however have suggested that the tariff to this Scheme should be lowered with appropriate revision in the development

charges. The Commission accepts the suggestion of DISCOMs and fixes the tariff at Re.1.00 per unit with 50 percent discount on energy charges for DSM measures. Correspondingly the Commission also considers it reasonable to raise the development charges to Rs.2000/- per HP from the prevailing rate of Rs. 1000/- per HP.

Category-LT-VI : Local Bodies:

699. The cost to serve for this category is Rs. 3.77 ps/unit. The rates remain unchanged and the Commission has accepted the proposals of DISCOMS for this category as given below.

Table No.196

CAT-LT-VI : LOCAL BODIES

	Current charges		DISCOMS Proposed charges		APERC	
Slab	**Fixed Charges (Rs/HP/ Year)**	**Energy ps/ unit**	**Fixed Charges (Rs/HP/ Year)**	**Energy ps/ unit**	**Fixed Charges (Rs/HP/ Year)**	**Energy ps/ unit**
Local Bodies Street Lighting & PWS schemes						
Local Bodies						
Street Lighting						
Minor Panchayats		156		156		156
Major Panchayats		208		208		208
Nagarpalikas and Municipalities Gr.3		274		274		274
Municipalities Gr.1 & 2		326		326		326
Municipalities Selection Spl.Gr.		353		353		353
Corporations		379		379		379
PWS Schemes						
Minor Panchayats						
Upto 2500 Units		20		20		20
Above 2500 Units		50		50		50
Major Panchayats						
Upto 2500 Units		20		20		20
Above 2500 Units		50		50		50

	Current charges		DISCOMS Proposed charges		APERC	
Slab	Fixed Charges (Rs/HP/ Year)	Energy ps/ unit	Fixed Charges (Rs/HP/ Year)	Energy ps/ unit	Fixed Charges (Rs/HP/ Year)	Energy ps/ unit
Nagarpalikas and Municipalities (Gr.3)						
Upto 1000 Units	240	375	240	375	240	375
Balance Units		405		405		405
Municipalities Gr 1 & 2						
Upto 1000 Units	240	375	240	375	240	375
Balance Units		405		405		405
Municipalities Selection Spl. Gr.						
Upto 1000 Units	240	375	240	375	240	375
Balance Units		405		405		405
Corporations						
Upto 1000 Units	240	405	240	405	240	405
Balance Units		460		460		460

<u>Category-LT-VII : General Purpose:</u>

700. The LT General Purpose category covers places of workship like churches, temples, mosques, gurudwaras, Government educational institutions and student hostels of Government educational institutions and educational institutions run by charitable institutions (Public Charitable Trust and Societies registered under Societies Registration Act running educational and medical institutions on a no-profit basis) and Recognised Service institutions. Following a representation from the Department of Social Welfare to include social welfare hostels run by Government of Andhra Pradesh, in this category, the Commission accepts the proposals and includes student hostels run by Government agencies in this category.

701. The Cost-to-serve for this category is Rs. 3.85 ps./ unit. The rates remain unchanged and the Commission has accepted the proposals of DISCOMS for this category.

Table No.197

CAT-LT-VII: GENERAL PURPOSE

DISCOMS		APERC
(Current) Energy Charge (Paise/ Unit)	(Proposed) Energy Charge (Paise/Unit)	Energy Charge (Paise/Unit)
400	400	400

<u>Category-LT-VIII: Temporary Supply:</u>

702. The Cost-to-serve for this category is Rs. 3.58 ps./ unit. The rates remain unchanged and the Commission has accepted the proposals of DISCOMS for this category.

Table No.198

CAT-LT-VIII: TEMPORARY SUPPLY (General)

DISCOMS		APERC
(Current) Energy Charge (Paise/ Unit)	(Proposed) Energy Charge (Paise/Unit)	Energy Charge (Paise/Unit)
620	620	620

Table No.199

CAT-LT-VIII: TEMPORARY SUPPLY (Agriculture)

DISCOMS		APERC
(Current) Energy Charge (Paise/ Unit)	(Proposed) Energy Charge (Paise/Unit)	Energy Charge (Paise/Unit)

230	230	230

HIGH TENSION

Category –HT-I: Industry

703. In keeping with its tariff philosophy of aligning tariff of cross subsidizing consumers to Cost-to-serve, the Commission reduces the basic energy charges from Rs. 3.71/unit to Rs. 3.60/unit a decrease of 3 percent and in real terms, 7 percent taking inflation into account. The cost-to-serve for this category is Rs. 2.36 ps/unit. The incentive scheme introduced in Tariff Order for FY 2001-02 and refined in Tariff Order FY 2002-03 continues to be operative as the Commission notes that the Scheme has made a positive impact to boost the sales in this category by attracting the captive/third party consumers to the licensee's fold. This scheme will be effective till 31st March, 2005.

704. This tariff is applicable to all HT-Industrial consumers. The Licensees had proposed inclusion of IT units identified and approved by the Consultative Committee of IT Industry (CCITI) under HT-I/LT-III (a&b). This covers software development units and hardware manufacturing units certified by CCITI. The Commission after taking into consideration the emerging technologies accepts the proposal of DISCOMS to include IT Units under HT-I/LT-III (a&b).

705. There have been representations from different industry groups such as cement industry, steel mills, spinners and induction furnace units to provide for further incentives in the energy charges either by shifting the base or by removing the 30 percent load factor, the two parameters for availing the incentive.

706. The Commission examined in detail each of the modifications suggested and is of the opinion that any modifications to the incentive must be (i) fair to all consumers; and (ii) consistent with the design on the basis of which the

incentives were originally conceived. The incentive was also based on cost reduction due to increased turnover. In terms of these principles, the Commission prefers to continue with the existing incentive schemes.

707. The Tariff for the approved Ferro Alloys Units remains unchanged at Rs. 2.12 ps/unit.

Table No.200
CAT-HT-I: INDUSTRIAL SEGMENT

	Current charges		DISCOMS Proposed charges		APERC	
Slab	**Demand Charges (Rs/KVA/month)**	**Energy Charge ps/ unit**	**Demand Charges (Rs/KVA/month)**	**Energy Charge ps/ unit**	**Demand Charges (Rs/KVA/month)**	**Energy Charge ps/ unit**
(a). Industry – General	195	371	195	371	195	360
(b). Ferro Alloys		212*		212*		212*

* - Based on 85% Load Factor. Energy falling short of 85% Load Factor will be billed as deemed consumption.

Category –HT-II: Others

708. The cost to serve this category is Rs. 2.18 ps/unit. The rates remain unchanged and the Commission has accepted the proposals of DISCOMS for this category as given below.

Table No.201

CAT-HT-II: INDUSTRIAL NON-SEGMENTED

Current charges		DISCOMS Proposed charges		APERC	
Demand Charges (Rs/KVA/ month)	**Energy Charge ps/ unit**	**Demand Charges (Rs/KVA/ month)**	**Energy Charge ps/ unit**	**Demand Charges (Rs/KVA/ month)**	**Energy Charge ps/ unit**
195	450	195	450	195	450

Category –HT-IV: Irrigation and Agriculture:

709. The cost to serve this category is Rs. 2.16 ps/unit. This category has been classified into Government Lift Irrigation Schemes [HT-IV (A)] and other Irrigation Schemes [HT-IV (B)]. The charges for Government Lift Irrigation Schemes will cover the fully allocated cost (after taking into account efficiency gains) in line with the decision taken in the last Order of FY 2001-02 that all Government Schemes will be charged at Cost–to–serve which after efficiency gains is currently Rs. 2.08 ps/unit. FSA will be applicable if it is for purposes other than agriculture. For the other irrigation schemes there is no change in the proposal given by the DISCOM which is Rs.430 / HP/ annum or an optional metered tariff of 35 ps/unit. The Commission accepts the DISCOM proposal as GoAP has agreed to provide the required subsidy. The metered tariff for HT – IV (B) Agricultural category as in the case of LT – V(A) will be fixed for a period of three years provided the meters are fitted before 30th June 2003.

Table No.202
CAT-HT-IV: IRRIGATION AND AGRICULTURE

Category	Current charges		DISCOMS Proposed charges		APERC	
	Demand Charges (Rs/KVA/ month)	Energy Charge ps/ unit	Demand Charges (Rs/KVA/ month)	Energy Charge ps/ unit	Demand Charges (Rs/KVA/ month)	Energy Charge ps/ unit
A: Govt. Lift Irrigation Schemes		178		178		208
B: Others	430	35*	430	35*	430	35*

* The metered tariff is optional and is subject to a minimum of Rs. 300/HP/Year of Contracted Load

Category – HT-V: Railway Traction:

710. The Railways (Southern Railways, South Central Railways, South Eastern Railways) have been continuously representing before the Commission that they are paying a very high tariff and have requested for a lower tariff closer to their

tariff estimate of average cost of supply. The arguments put forward by them are:

- a). Single major consumer of power from the Grid in Andhra Pradesh
- b). Uniform load on the Grid throughout the day participating in off peak period;
- c). Tariff rates are lower in other States;
- d). There would be significant increase in the consumption in the immediate future.

711. The Commission examined the arguments put forward by the railways and the replies given by APTRANSCO. Many SEBs, which represented before the committee for railway traction constituted in 1986 by Government of India have stated that traction constituted unbalanced load with low load factor on the system. However, Commission is inclined to consider that the Tariffs for the Railways as in the case of other subsidizing categories will gradually be brought close to the cost-to-serve. The cost-to-serve for this category is Rs. 3.28 ps/unit. The Commission reduces the energy charges for railway traction from Rs. 4.60 ps / unit to Rs. 4.50 ps/unit which in real terms signifies a decline of over 6 percent. There is no demand charge for HT Railway Traction.

Table No.203
CAT-HT-V: RAILWAY TRACTION

DISCOMs		APERC
Current Energy Charge (Paise/Unit)	Proposed Energy Charge (Paise/Unit)	Energy Charge (Paise/Unit)
460	460	450

Category – HT-VI: Townships / Colonies:

712. The tariff has been retained at the existing level of 320 ps/unit since the DISCOMS have proposed no change keeping in view that this is meant for

domestic and street lighting purposes in a colony. This is a subsidizing category. The cost to serve this category is Rs. 2.29 ps/unit.

Table No.204
CAT-HT-V: TOWNSHIPS/COLONIES

DISCOMS		APERC
Current Energy Charge (Paise/Unit)	**Proposed Energy Charge (Paise/Unit)**	**Energy Charge (Paise/Unit)**
320	320	320

TIME OF DAY (T.O.D.) METERING:

713. In view of the improvement in the quality and availability of power supply in the State due to implementation of Availability Based Tariff (ABT) with effect from 01.01.2003 and substantial investment in High Quality Electronic meters by all DISCOMs, the Commission is considering to adopt Time of Day (T.O.D.) Tariff as an economic measure for optimal utilization of available electrical energy.

The Commission directs that all DISCOMs explore and identify all such consumers who are using higher quantum of energy and select cases where T.O.D. Tariff can be effectively implemented to the advantage of both the utility and the consumers.

A report to this effect may be submitted by every DISCOM separately by 30.09.2003 with details of financial implications and possibility of implementing T.O.D. Tariff in their respective licensed areas w.e.f. 01.04.2004 after confirming metering in place before 01.04.2004 and the consequent modifications required in the billing software.

Rural Electric Cooperative Societies (RESCOs):

714. The RESCOs are a subsidized category as their area of operation covers Domestic and Agricultural consumers. The Commission calculates the Power Purchase Cost separately for each RESCOs after taking into the subsidy paid by the Government. The average fully allocated cost per unit for the nine RESCOs is Rs. 2.05 ps/unit and after taking into account the efficiency gains fixed for each RESCOs the Cost-to-serve comes to Rs.1.97 ps/unit.

Table No.205
Rural Electric Co-operative Societies

DISCOMS		APERC
RESCOs	**Current Energy Charge (Paise/Unit)**	**Energy Charge (Paise/Unit)**
Anakapalle	0.91	0.97
Chipurupally	0.78	0.80
Kadiri - East	0.37	0.37
Kadiri - West	0.40	0.40
Sanjay	0.40	0.40
Sircilla	0.36	0.38
Atmakur	0.42	0.42
Kuppam	0.45	0.45
Rayachoty	0.61	0.61

715. The schedule of tariffs for FY2003-04 is finalised on the above lines. The table below gives the schedule of tariffs for FY2003-04 after adjusting the GoAP subsidy among different categories of consumers.

Table No.206
SCHEDULE OF ELECTRICITY TARIFF - 2003-04

LT Categories				
Category No.	**Purpose**	**Rates for the year 2003-2004**		
		Fixed Charges	**Energy Charge Ps/Unit**	**Total Revenue in Rs Crs.**
I	Domestic			
	0 - 50 Units/Month	--	145	773.99
	51- 100 Units/Month	--	280	467.32

	101 - 200 Units/Month	--	305	317.52
	201 - 300 Units/Month	--	475	149.55
	More than 300 Units/Month	--	550	265.27
	Total			**1973.65**
II	**Non-Domestic / Commercial**			
	0 - 50 Units/Month	--	395	208.55
	More than 50 Units/Month	--	660	863.28
	Total			**1071.83**
III (A)	**Industrial -Normal**			**930.88**
	For all Units/Month			
	(1) upto 75HP	Rs.37/HP/Month of connected Load **Or** Rs.100/ KVA per month of contracted Demand (Optional)	385	
	(2) Pisciculture and Prawn culture	--	90	
	(3) Sugarcane crushing	--	50	
III (B)	**Industrial**			
	Above 75 HP upto 150 HP All Units	Rs.100/ kVA per month of Contracted Demand	385	
	Seasonal loads (during off-season period)	Rs.100/ KVA per month of recorded demand or 30% of contracted demand whichever is higher.	450	
IV	**Cottage Industry and Dhobi Ghats**			**6.97**
	All Units	Rs.10/HP/Month	180	
V (A)	**Agriculture**			**362.98**
	Flat rate Tariff			
	DPAP Areas			
	1)Upto 3 HP	Rs.225/HP/Year		19.32
	2)More than 3 HP upto 5 HP	Rs.375/HP/Year		75.93
	3)More than 5 HP and upto 10 HP	Rs.475/HP/Year		13.90
	4) Above 10 HP	Rs.575/HP/Year		0.65
	Metered Tariff (optional)			
	0-2500 units per annum	--	20	
	More than 2500 units per annum	--	50	
	Other Areas (OA)			
	1)Upto 3 HP	Rs.275/HP/Year		82.47
	2)More than 3 HP upto 5 HP	Rs.425/HP/Year		99.66
	3)More than 5 HP and upto 10 HP	Rs.525/HP/Year		45.53
	4) Above 10 HP	Rs.625/HP/Year		25.51

	Metered Tariff (optional)			
	0-2500 units per annum	--	20	
	More than 2500 units per annum	--	50	
V (B)	**Out of turn allotment – Metered tariff**	--	100	
V (C)	**Horticulture** 0-2500 units per annum	--	20	
	More than 2500 units per annum		50	
(50% discount on rate for DSM measures)				
VI (A)	**Local Bodies/ Street Lighting / PWS**			**146.25**
	Local Bodies			
	Street Lighting			
	Minor Panchayats	--	156	32.23
	Major Panchayats	--	208	23.97
	Nagarpalikas and Municipalities Gr 3	--	274	5.93
	Municipalities Gr 1 & 2	--	326	7.89
	Municipalities Selection Special Grade	--	353	5.98
	Corporations	--	379	34.71
VI (B)	**Local bodies PWS Scheme**			
	Minor Panchayats			
	Upto 2500 units / year		20	3.29
	Above 2500 units		50	
	Major Panchayats			
	Upto 2500 units / year		20	1.92
	Above 2500 units		50	
	Nagarpalikas and Municipalities Gr 3			
	Upto 1000 units / month	Rs.20/HP/Month	375 Ps/unit	1.27
	Balance Units		405Ps/unit	3.17
	Municipalities Gr 1 & 2			
	Upto 1000 Units / month	Rs.20/HP/Month	375 Ps/unit	3.46
	Balance Units		405Ps/unit	9.12
	Municipalities Special and Selection Grade			
	Up to 1000 units / month	Rs.20/HP/Month	375 Ps/unit	1.14
	Balance Units		405 Ps/Unit	6.04
	Corporations			
	Upto 1000 Units / month	Rs.20/HP/Month	405 Ps/Unit	0.11
	Balance Units		460 Ps/Unit	6.00
VII	**General Purpose**	--	400 Ps/Unit	**40.97**
VIII	**Temporary Supply**			**12.57**
	Agriculture Purpose	--	230Ps/Unit	
	Other than Agriculture	--	620Ps/Unit	

HT CATEGORIES Category No.	Purpose	Fixed Charges	Energy Charge Ps/Unit	Total Revenue in Rs. Crs.
I	**Industrial #**			**2321.16**
	(A) Industry – General	195/KVA per month	360	
	(B) Ferro Alloys – applicable to entire off take from DISCOMs and without Load Factor incentives.	Based on 85% Load Factor . Energy falling short of 85% Load Factor will be billed as deemed consumption	212	
II	**Others**	195/KVA per month	450	**435.06**
IV	**Irrigation and Agriculture**			**34.15**
IV(A)	Govt. Lift Irrigation Schemes	--	208	33.22
IV(B)	Others	430/HP/Year	--	0.93
	Optional metered tariff	--	35*	
V	**Railway Traction**	--	450	**519.93**
VI	**Townships/colonies**	--	320	**58.37**
	Rural Cooperatives			**51.19**
	Anakapalle	--	97	6.90
	Chipurupalle	--	80	2.13
	Kadiri-East	--	37	2.47
	Kadiri-West	--	40	2.44
	Sanjay	--	40	6.68
	Siricilla	--	38	15.20
	Atmakur	--	42	2.44
	Kuppam	--	45	7.43
	Rayachoti	--	61	5.51
	Temporary	$	$	**6.30**
TOTAL OF ALL CATEGORIES				**7972.26**

1. FSA is applicable to all categories except agriculture. Fuel Surcharge Adjustment (FSA) is applicable as notified in Amendment to the APERC (conduct of business) Regulations (Regulation No.8) dated September 4, 2000.
2. Agricultural metered tariff is mandatory for Horticulture.

3. The metered tariff for LT- V (A) agriculture category and HT –IV(B) agriculture category will not be increased for a period of 3 years provided the application for meters are registered before 30th June 2003.
4. * HT Irrigation and Agriculture optional metered tariff subject to a minimum of Rs.300/HP/Year of the Contracted Load.
5. # Category HT I: The following incentives are applicable for consumers for use of APTRANSCO supply:

Load factor	**Discount applicable on the energy rates**
More than 30% upto 50%	10%
More than 50% upto 60%	15%
More than 60% upto 70 %	20%
More than 70%	25%

The incentive is applicable only for the consumption in excess of the average monthly consumption for FY 2000-01. The discount rate will be applied on the entire consumption, which is eligible for incentives, on a non-telescopic basis. This scheme will be effective till 31 March 2005

6. $ Temporary supply or temporary increase in supply to existing consumers ordinarily limited to a period not exceeding 6 months at rates 50% in excess of HT Tariffs

7. Minimum Charges

LT categories			
Category No.	**Purpose**		**Rates for the year 2003- 04**
I	Domestic	Single Phase upto 250 W	Rs.25/Month
		above 250W	Rs.50/Month
		Three Phase	Rs.150/Month
II	Non-domestic/ Commercial	Single Phase	Rs.65/Month
		Three Phase	Rs.200/Month
III (A)	Industrial Optional		Recorded demand during the month or 80% of contracted demand whichever is higher and 50 Units/KVA of Billing Demand per month
III (B)	75–150HP		

VI (A)	Street Lighting	Panchayats Municipalities and Corpns.	Rs.2/Point/Month Rs.6/Point/Month
VII	General Purpose	Single Phase Three Phase	Rs.50/Month Rs.150/Service/M
VIII	Temporary Supply	Agl.	Rs.100/HP of contracted load for the first 30 days or part thereof and Rs.50 per HP of contracted load for every Subsequent period of 15 days or part thereof
		Others	Rs.125/KW or part thereof of contracted for first 30 days or part thereof and Rs. 75 per KW or part thereof contracted load for every Subsequent period of 15 days or part thereof
HT Categories			
Min. Billing Demand			Recorded demand during the month or 80% of contracted demand whichever is higher
Min.Energy Charges			
I	Industrial		50 Units/KVA of billing demand per month
I B	Ferro alloy		Guaranteed energy off take at annual 85% load factor on contracted demand or actual demand whichever is high during the year.
II	Non-Industrial		25 Units/KVA of billing demand per month
IV(B)	Agriculture – others optional metered supply		Rs.300/HP/Year of contracted load
V	Railway Traction		32 Units/KVA of Contracted demand
VI	Townships/Colonies		25 Units/KVA of contracted demand

8. VOLTAGE SURCHARGE

(A) H.T. consumers who are now getting supply at voltage different from the declared voltages and who want to continue taking supply at the same voltage will be charged as per the rates indicated below.

Sl.No.	Contracted Demand with Licensee and other sources (in KVA)	Voltage at which Supply should be availed (in KV)	Voltage at which consumer is availing supply (in KV)	Rates % extra over the normal rates	
				Demand Charges	Energy Charges

1.	70 to 1500	11	6.6 or below	12%	10%
2.	1501 to 5000	33	11 or below	12%	10%
3.	Above 5000	132 or 220	66 or below	12%	10%

(B) For HT Consumers availing supply from all sources through independent feeders

1.	70 to 2500 KVA	11	6.6 or below	12%	10%
2	2500 – 10,000 KVA	33	11 or below	12%	10%
3	Above 10000 KVA	132 or 220	66 or below	12%	10%

9. The Customer charges, are as given below. Meter and all other charges as existing shall continue.

CUSTOMER CHARGES:

For all LT Categories inclusive of **Rs. 20/- per month**

* **Agricultural Services**

* Domestic consumers in the first slab Rs.15/- per month

H.T.Categories

(a) 66 KV and below Rs.750/- per month

(b) 132 /220 K.V. Rs.1500/- per month

Urgency charges for Temporary supply at short notice. Rs.100/-

10. Rates for pilferage and malpractice cases as existing.

<u>Wheeling Compensation:</u>

716. Rate for all units wheeled is Re.0.58 paise per unit in cash and compensation in kind for system losses of 24.63%.

717. Wheeling compensation would be recovered on the above basis for the year FY03-04. This compensation will be collected as per the interim orders of the courts in the pending appeals till the cases are disposed by the Courts.

<u>Grid Support Charges:</u>

718. Persons operating Captive Power Plants (CPPs) in parallel with A.P. Grid have to pay 'Grid Support Charges' on the difference between the capacity of CPP in kVA and the contracted Maximum Demand in kVA with Licensee and all other sources of supply, at a rate equal to 50% of the prevailing demand charge for HT consumers. In case of CPPs exporting firm power to APTRANSCO, the capacity, which is dedicated to such export, will also be additionally subtracted from the CPP capacity.

719. Wheeling compensation would be recovered on the above basis for the year FY03-04. This compensation will be collected as per the interim orders of the courts in the pending appeals till the cases are disposed by the Courts.

TARIFF STRUCTURE FOR THE BULK SUPPLY TARIFF:

720. The Commission regulates the Transmission & Bulk Supply Tariffs (payable by the Distribution and Retail Supply licensees to the Transmission and Bulk Supply licensee) and fixes the Bulk Supply Tariff (BST).

721. APTRANSCO in their filing have proposed uniform single part bulk supply tariff of 201.6ps / unit to the DISCOMS. BST on a two-part basis comprising a demand component linked to coincident peak demand and an energy component. must be filed in the next tariff order. Such pricing will help the DISCOMS to improve overall load profile and reduce cost of power purchased. As of now the single part BST is continued in this Order.

722. In the transition period, the historical factors which have shaped the DISCOMS stand in the way of uniform bulk supply tariff and uniform retail tariff. The area of supply vested in one DISCOM as per the Second Transfer Scheme varies significantly from others, among other things, in terms of consumer mix (i.e., the proportion of different consumer categories), losses and cost structure. The differences in consumer mix between DISCOMS result in differences in

cross-subsidy available to the different DISCOMS. Similarly different losses and different cost structures affect the financial viability differently.

723. Further, Section 26(8) of the Reform Act directs the Commission to "endeavour to fix tariffs in such a manner that, as far as possible, similarly placed consumers in different areas pay similar tariff". To implement this mandate, the Commission has to re-balance the surplus and deficit in cross-subsidy available with DISCOMS to ensure that the retail tariff is the same throughout the State. The differential BST ensures that all DISCOMS earn the 16% return according to the financial principles of the Sixth Schedule of Electricity (Supply) Act, 1948. This can be reflected, as stated in the last order, as a financial transfer between DISCOMS operated through a pool or incorporated as a differential in BST charged to DISCOMS. The Commission has preferred to continue with the differential BST.

724. Based on the Commission's approved ARR for APTRANSCO, the bulk supply tariff is Rs.206.9 per unit. The Commission relied upon the Cost to Serve computations and arrived at the Fully Allocated Costs after deducting the efficiency gains proposed by the Commission. After ensuring that the efficiency gains proposed for each DISCOM is contained within it, arrived at the Fully Allocated Cost Tariffs. The gap between the revenues at uniform Full Cost Tariffs and the costs of each DISCOM is bridged by the power purchase price.

725. The differential BST is applicable only for the approved MU. The differential BST so calculated ensures:

(i). that the retail tariffs announced by the Commission are uniform throughout the state as per Section 26 (8) of the Reform Act.

(ii). that each of the DISCOMS earns the prescribed return as permitted under Schedule VI of Electricity (Supply) Act, 1948.

726. The overdrawal charge for DISCOMs over and above approved MU will be for purchases within the system at Rs. 1.40 per unit which is the average pool price. If the purchases are by way of diversion of inter-state sales the charge will be Rs. 2.40 per unit (see paras 270 and 271 supra)

Schedule of Bulk Supply Tariffs:

727. The following table gives the details of subsidy to be provided and the power purchase costs for each of the DISCOMS based on the differential rates of Bulk Supply Tariff.

Table No.207
Table on Schedule of Bulk Supply Tariff

(Rs. Crores)

Particulars	APNPDCL	APEPDCL	APSPDCL	APCPDCL	Discoms
Revenue	1167.58	1513.88	1803.88	3486.93	7972.27
Subsidy	306.57	226.66	401.58	578.68	1513.49
Total of Revenue and Subsidy (A)	1474.15	1740.54	2205.46	4065.61	9485.76
Power Purchase Cost	1261.22	1578.92	1929.65	3772.92	8542.71
Other Cost	360.20	260.65	459.35	613.48	1693.68
Reasonable Return	2.70	1.85	1.73	11.43	17.71
Revenue Requirement	1624.12	1841.42	2390.73	4397.83	10254.10
Non-Tariff Income	95.97	80.88	103.27	193.22	473.34
Net Revenue Requirement	1528.15	1760.54	2287.46	4204.61	9780.76
Efficiency Gains	54.00	20.00	82.00	139.00	395.00
Total Expenditure allowed (B)	1474.15	1740.54	2205.46	4065.61	9485.76
Surplus / (Deficit) [B - A]	0.00	0.00	0.00	0.00	0.00
MUs purchased by each Discom	7902.86	6555.05	9784.82	17042.73	41285.46
Bulk Supply Tariff Ps/kWh	**159.6**	**240.9**	**197.2**	**221.4**	**206.9**

The Bulk Supply Tariffs to the different DISCOMS are as at the last row of the above table.

728. The Commission does not consider the Licensees' revenue calculations as filed to be in accordance with the requirement. The Commission has instead proposed alternative calculations of the expected revenue from charges, which the Licensees shall accept and implement the Tariffs based theron, as contained in this order.

This Order is signed by the Andhra Pradesh Electricity Regulatory Commission on 24th March, 2003.

(K. SREERAMA MURTHY)	**(D.LAKSHMINARAYANA)**	**(G.P.RAO)**
MEMBER	MEMBER	CHAIRMAN

ANNEXURE - A

LIST OF DIRECTIVES CARRIED FORWARD FROM FY 2002-03

Audit of Receivables

1. The Licensees shall have the receivables audit conducted by an independent agency to determine the quality of arrears and suggest changes needed in the billing and accounting systems.

Sales Database

2. The DISCOMS shall build the sales database with the available data starting from April 2003 with all required fields as prescribed by the Commission. Each DISCOM shall build the sales database for three circles immediately and file the same with the Commission by 15.06.2003. The database for the entire DISCOM should be completed by 31.08.2003.

High Quality Meters and Decentralization of Billing, Collection, etc.

3. The DISCOMS shall install high quality meters on connections in all towns and Mandal head quarters by December 2003. A comprehensive metering plan shall be filed with the Commission within one month from the date of this order. Further, meter reading, billing, collection and related activities may be considered to be decentralized to improve billing and consumer service.

Multiple Connections

4. The Commission directs the DISCOMS to conduct a door - to - door checking of all services and to remove all multiple connections by 31 October '2003. Depending upon the progress made by the DISCOMS the Commission will examine the need for further rationalizing the slab structure in the future tariff orders.

Local Bodies and Public Lighting: Sales Volumes

5. The DISCOMS shall immediately start building the sales database for LT Category VI: Local Bodies and Public Lighting duly giving sub codes to the sub categories of consumers within this category. The DISCOMS shall comply with this directive not later than August, 2003.

Annexure B

LIST OF DIRECTIVES FOR FY 2003-04

1. The Commission therefore directs the APTRANSCO to initiate negotiations with the generating companies where Power Purchase Agreements were concluded prior to the coming into force of the Reforms Act and constitution of the Commission to explore areas for cost reduction within the existing PPA and furnish a report to the Commission by the 30th June, 2003.

(Para 151)

2. (i) The DISCOMS shall collect the information from all the metered DTRs and estimate the consumption for every month and once for an entire year based on consecutive 12 monthly readings for the period 11/02 to 10/03. The DISCOMS should provide proper identification of the DTRs so that one-to-one correspondence can be established between the sample and census databases. Further, the DISCOMS should carryout necessary tests on the data to check the quality and content of the information used in the estimate, such as diversity factor on metered DTRs and hours of supply of electricity.

(ii) The DISCOMS shall file in person the monthly consumption estimate and the data used for estimate with the Commission by the 25th of every month for the preceding month without fail. The DISCOMS shall give due publicity on the consumption estimate made for each Mandal and filed with the Commission briefly mentioning the number of meters read, specific consumption for each district/circle and company duly indicating the reasons for differences with preceding month.

(Para 168)

3. The Commission accordingly directs APTRANSCO to achieve 7% transmission losses for FY 2003-04 as against the filed projection of 7.25%. Licensee has to submit reports to the Commission monthly with details of the

losses reduction. Transmission losses reduction report should be hosted on the APTRANSCO website every month for transparency and information dissemination. (Para 173)

4. The DISCOMS are directed to complete the study by November 2003. The Agency to undertake the study and the Terms of Reference (TOR) may be finalized in consultation with the Commission so that the study can be started not later than May 15, 2003. (Para 177)

5. The Commission directs that all DISCOMS except APEPDCL to reduce DTR failures by 3% over the target issued for FY 2002-03. This would mean that the target for APCPDCL, APSPDCL and APNPDCL is 12% for FY 2003-04. APEPDCL is directed to achieve a target of 7% during FY 2003-04.

(Para 179)

6. The Commission directs the Licensees to prepare databases of Distribution Transformer Failures for rural and urban areas separately for each circle for the purpose of benchmarking the companies' performance in this regard.

(Para 180)

7. The DISCOMS shall separately indicate on each bill (pertaining to each consumer), the opening balance as on the 1st of April 2003, the arrears which accrued from 1st of April till the date of the bill and current consumption charges pertaining to the bill. The money paid by the consumer shall be adjusted against arrears as on the 1st April first and secondly against the arrears which accrued from 1st of April till the date of the bill and lastly against the current consumption charges of the corresponding bills which shall be followed. It may be necessary to change the format of the bill for this purpose. The Commission further directs that DISCOMS shall file with the Commission a quarterly report giving the details separately for arrear collections against outstanding arrears as of 01.04.2003 and the current collections against the current demand for 2003-04.

(Para 231)

8. The licensees (APTRANSCO and the four DISCOMS separately) are directed to file a Discussion Paper in this regard latest by 31-08-2003 to serve as the basis for evolving an appropriate policy for adoption from tariff order 2004-05.

(Para 233)

9. The DISCOMS should make a monthly operational/MIS Report based on sales database prescribed by the Commission and file such report in person by the 25th of every month for the preceding month.

(Para 248)

10. The Commission notes with concern the high proportion of assessed sales to metered sales which are in the range of 14% to 25%. The Commission therefore directs the DISCOMS to reduce the same and stipulates a maximum of 2 to 3% for FY 2003-04 as a percentage of assessed sales to metered sales.

(Para 252)

11. The Licensee is directed to propose new incentives including cost for the various categories of non-conventional energy viz., mini-hydel, wind, co-generation and bio-mass etc., taking into account the cost of the plant and the fuel used and a reasonable return by 1st August, 2003.

(Para 265)

12. The Commission directs the APTRANSCO to adjust the above mentioned amounts to the respective DISCOMS towards the surplus revenue received from the DISCOMS in FY 2002-03.

(Para 268)

13. The Commission directs APTRANSCO to file a two-part BST for the FY 2004-05.

(Para 272)

14. The Commission directs the licensee to institute a process where the Commission's staff can verify APTRANSCO's adherence to the merit order principles.

(Para 273)

15. The Commission directs Licensee to resubmit Comprehensive merit order procedure considering the re-defined "must run" stations and individual units to be dispatched under ABT regime before 30th April 2003. Merit Order dispatch has to be complied from 1st May 2003. The Merit Order Compliance report must be submitted to the Commission every month and to be put on the Website.

(Para 275)

16. The Commission directs the Licensee to examine the order of the court and contractual conditions before considering any generating Station / Company as a must run station. Licensee has to revert to the Commission with details before 15th May, 2003 and any changes thereafter.

(Para 276)

17. The Commission directs the APTRANSCO & DISCOMS that load relief shall not be taken for the purposes of grid management from feeders which have more than 50% of incumbent load due to industries.

Further, the Commission directs the APTRANSCO to designate appropriate Officers for 200 kV or 132 kV feeders (having more than 50% industrial load) either for individual feeders or for groups of such feeders, and the DISCOMS to designate appropriate officer for each industrial estate, who shall be made responsible for keeping the break down rectification time within reasonable limits. The details of such designated officers shall be submitted to the Commission.

The Commission also directs that all the input points to such feeders which have more than 50% incumbent load due to industries shall henceforth be metered by electronic trivector meters with RS 232 communication port. The Commission directs that APTRANSCO/DISCOMS, as the case may be, shall take data log sheets for supply conditions pertaining to the previous 30 days once in a month through RS 232 communication port either through a meter reading instrument or remotely through a modem for each industrial feeder. The APTRANSCO and DISCOMS are hereby directed that they shall submit such log sheets along with an abstract summary statement pertaining to their company regarding interruptions to industrial feeders once in a month to the Commission. The Commission intends to observe the time being taken to restore power and the quality of power supplied to industries to ensure supply of uninterrupted quality power.

(Para 295)

18. Commission directs the Licensees to comply with all the conditions listed in annexure- C in the specified time frame.

(Para 296)

19. The DISCOMS are directed to provide meters on a priority basis to all agricultural consumers who come forward to have meters fixed and charge metered tariff thereafter. The metered tariff applicable will not be increased for three years for those who registered their applications before 30th June, 2003.

(Para 695)

20. The Commission directs that all DISCOMS explore and identify all such consumers who are using higher quantum of energy and select cases where T.O.D. Tariff can be effectively implemented to the advantage of both the utility and the consumers.

A report to this effect may be submitted by every DISCOM separately by 30.09.2003 with details of financial implications and possibility of implementing T.O.D. Tariff in their respective licensed areas w.e.f. 01.04.2004 after confirming metering in place before 01.04.2004 and the consequent modifications required in the billing software.

(Para 713)

21. The Commission directs the DISCOM to redouble its efforts to obtain Commission's approval for the schemes (costing more than Rs.5 crores) and submit a capital expenditure programme (for the consideration of the Commission) to absorb the excess funds available on capital account at least by 31.3.2005. This capital expenditure programme should reach the Commission latest by 31.7.2003.

(Paras 456, 509, 562, 614)

22. The Commission reiterates that Paragraph 4 of the Sixth Schedule to the Electricity (Supply) Act, 1948 requires this contribution to be invested in securities authorized under the Indian Trusts Act, 1882 within a period of six months from the close of the year of account in which the appropriation is made. The Licensee is directed to comply with this requirement.

(Paras 412, 475, 528, 581, 634)

APTRANSCO

23. The Licensee is directed to obtain the Commission's approval for the Scheme (Boundary Metering Scheme) latest by 30th June, 2003.

(Para 332)

24. The Commission directs the Licensees estimates, may be based on the advance information obtained in respect of demand requirement of consumers with more than 10 MVA contracted demand from all sources.

(Para 357)

25. That the Trusts would be functionalised by April 2003 in accordance with the assurance referred to above. APTRANSCO is directed to furnish a comprehensive report in this regard latest by 30th May, 2003.

The Licensee is directed to ensure that an amount of Rs. 0.985 crores per month be remitted from month to month to the Trust. The official receipt from the Trust duly acknowledging receipt of the money may be obtained and retained by the Company for record. The fact of having done so may be confirmed to the Commission every month.

(Para 409)

26. Commission directs the Licensee to file a comprehensive report on the status regarding the achievement of the service levels laid down in Commission's Regulation No. 6 Gazetted on September 04, 2000 latest by 30th June, 2003.

(Para 413)

APEPDCL

27. The Licensee is directed to ensure that an amount of Rs.1.031 crores per month is remitted from month to month to the Trust. The official receipt from the Trust duly acknowledging receipt of the remittance may be obtained and retained by the Company for record and a copy of the receipt may be forwarded to the Commission for information.

(Para 473)

28. The Commission directs the Licensee to send a Comprehensive Report on the Status of the achievement of Standards in the Service Levels as laid down as on 31.3.2003 in this regard latest by 30.6.2003.

(Para 477)

APCPDCL

29. The Licensee is directed to fully operationalise the Trusts by completing the required formalities latest by 30.4.2003 and file a Compliance Report with the Commission by 15.5.2003.

The Licensee is directed to ensure that an amount of Rs.1.813 crores per month is remitted from month to month to the Trust. The official receipt from the Trust duly acknowledging receipt of the remittance may be obtained and retained by the Company for record and the fact may be reported to the Commission every month for information.

(Para 526)

30. The Commission directs the Licensee to send a Comprehensive Report on the Status of the achievement of Standards in the Service Levels as laid down as on 31.3.2003 in this regard latest by 30.6.2003.

(Para 530)

APNPDCL

31. The Licensee is directed to fully operationalise the Trusts by completing the required formalities latest by 30.4.2003 and file a Compliance Report with the Commission by 15.5.2003.

The Licensee is directed to ensure that an amount of Rs.2.187 crores per month is remitted from month to month to the Trust. The official receipt from the Trust duly acknowledging receipt of the remittance may be obtained and retained by the Company for record and the fact may be reported to the Commission every month for information.

(Para 579)

32. Commission directs the Licensee to send a Comprehensive Report on the Status of the achievement of Standards in the Service Levels as laid down as on 31.3.2003 in this regard latest by 30.6.2003.

(Para 583)

APSPDCL

33. Licensee is directed to fully operationalise the Trusts by completing the required formalities latest by 30.4.2003 and file a Compliance Report with the Commission by 15.5.2003.

The Licensee is directed to ensure that an amount of Rs.1.582 crores per month is remitted from month to month to the Trust. The official receipt from the Trust duly acknowledging receipt of the remittance may be obtained and retained by the Company for record and the fact may be reported to the Commission every month for information.

(Para 632)

34. Commission directs the Licensee to send a Comprehensive Report on the Status of the achievement of Standards in the Service Levels as laid down as on 31.3.2003 in this regard latest by 30.6.2003.

(Para 636)

Annexure - C

COMMISSION'S ORDERS ON WAIVERS SOUGHT BY APTRANSCO AND DISCOMS

APTRANSCO			
Sl. No.	Section / Form Ref of ERC/ARR filing	Waivers requested by APTRANSCO	Commission's Decision
1	Section 3.4.1	The Licensee sought waiver to file audited accounts for financial year FY 2001 and FY 2002	Licensee is directed to submit Audited Accounts for all years upto FY 2002 with in Two months of the Order and FY 2003 audited accounts by end of September 2003.
2	Section 3.4.1	The Licensee has sought waiver to estimate figures for the financial year on the basis of the actual figures for the first six months of the current financial year and audited figures for the second six months of the previous year. Audited figures for the second half of the previous year are not available.	Waiver approved for this filing only. Licensee have to submit the details before 15th June 2003 on the basis of audited figures of FY 2002 last six months and actual figures of for the first six months of FY 2003.
3	Forms 1.1a, 1.1b	Licensee has sought waiver for providing information regarding Voltage-wise breakup of Fixed Assets and Depreciation as required by the Guidelines due to deficiencies in the accounting and information systems.	Waiver granted for this filing only. Licensee is directed to ensure that the deficiencies in the accounting system are rectified and company opening figures of voltage wise fixed assets break up is submitted before 31st May 2003 , voltage wise fixed assets upto March 2002 before 31st July 2003 and voltage wise fixed assets upto March 2003 before 30th October 2003.

4	Voltage class wise informa tion	Modifying the Forms for DISCOM-wise data instead of voltage class wise data as given in the guidelines	Waiver not granted. Licensee can give additional information on DISCOM area wise with the voltage wise breakup of fixed assets as directed by the Commission.
5	Section 8.2 (g)	Submitting Marginal cost study	Waiver granted for this filing only. Licensee has to file the marginal cost study before 15th August 2003 on the base of finalized expansion plan of Licensee business and power purchase plan.
6	Section 8.2 (h)	Statement of efficiency of price signals by the proposed tariff vis-à-vis marginal cost per unit	Waiver granted for this filing only. Licensee has to submit these details before 15th August 2003 along with marginal cost study.
7	Section 9.1.1	Cross subsidy statement with marginal cost revenue	Waiver granted for this filing only. Licensee has to submit these details before 15th August 2003 along with marginal cost study.
8	Section 9.2	Allocation of external subsidy by voltage classes	Waiver granted for this filing only future filings details must be provided.

All DISCOMs			
Sl. No.	Section / Form Ref of ERC/ARR filing	Waivers requested by APTRANSCO	Commission's Decision
1	Section 8.5	The Licensee sought waiver to file audited accounts for financial year FY 2001 and FY 2002	Licensee is directed to submit Audited Accounts for all years upto FY 2002 with in Two months of the Order and FY 2003 audited accounts by end of September 2003.
2	Section 8.5	The Licensee has sought waiver to estimate figures for the financial year on the basis of the actual figures for the	Waiver approved for this filing only. Licensee have to submit the details before 15th June 2003 on the basis of audited figures of FY 2002 last six months and actual figures of for the first six months of FY 2003.

		first six months of the current financial year and audited figures for the second six months of the previous year. Audited figures for the second half of the previous year are not available.	
3	Forms 1.1a, 1.1b	Licensee has sought waiver for providing information regarding Voltage-wise breakup of Fixed Assets and Depreciation as required by the Guidelines due to deficiencies in the accounting and information systems.	Waiver granted for this filing only. Licensee is directed to ensure that the deficiencies in the accounting system are rectified and company opening figures of voltage wise fixed assets break up is submitted before 31st May 2003, voltage wise fixed assets upto March 2002 before 31st July 2003 and voltage wise fixed assets upto March 2003 before 30th October 2003.
4	Section 8.2 (g) Form 4.5	Submitting Marginal cost study	Waiver granted for this filing only. Licensee has to file the marginal cost study before 15th August 2003 on the base of finalized expansion plan of Licensee business and power purchase plan.
5	Section 8.2 (h) Form 4.5	Statement of efficiency of price signals by the proposed tariff vis-à-vis marginal cost per unit	Waiver granted for this filing only. Licensee has to submit these details before 15th August 2003 along with marginal cost study.
7	Section 9.1.1 Form 4.7	Cross subsidy statement with marginal cost revenue	Waiver granted for this filing only. Licensee has to submit these details before 15th August 2003 along with marginal cost study.
8	Section 9.2 Form 4.4 and 4.8	Allocation of external subsidy by voltage classes	Waiver granted for this filing only. In future filings details must be provided.

Annexure D

SCHEDULE OF RETAIL TARIFF RATES AND TERMS & CONDITIONS IN RESPECT OF THE FOUR DISCOMS FOR FY - 2003-04

PART 'A' - H.T. TARIFFS

These tariffs are applicable for supply of Electricity to H.T. Consumers having loads with a contracted demand of 70 KVA and above and/or having a connected load exceeding 75 H.P/56 KW excepting the LT III(B) industrial optional category.

H.T. Category-I

This tariff is applicable for supply to all H.T. Industrial Consumers. Industrial purpose shall mean manufacturing, processing and/or preserving goods for sale, but shall not include shops, Business Houses, Offices, Public Buildings, Hospitals, Hotels, Hostels, Choultries, Restaurants, Clubs, Theatres, Cinemas, Railway Stations and other similar premises not withstanding any manufacturing, processing or preserving goods for sale. The Water Works of Municipalities and Corporations and any other Government organisations come under this category.

A) INDUSTRY – GENERAL

(i) DEMAND CHARGES

Per KVA of Billing Demand .. **Rs.195** per KVA per month

PLUS

(ii) ENERGY CHARGES

For all units consumed during the month .. **360** Paise per Unit

IMPORTANT

i) The billing demand shall be the maximum demand recorded during the month or **80%** of the contracted demand whichever is higher.

ii) Energy charges will be billed on the basis of actual Energy consumption or **50 units** per KVA of billing demand whichever is higher

FSA will be extra as applicable

B) FERRO ALLOY UNITS

(i) DEMAND CHARGES .. –NIL—

PLUS

(ii) ENERGY CHARGES

For all units consumed during the month .. **212** Paise per Unit

Conditions

1. Guaranteed energy off-take at annual 85% Load Factor on Contracted Maximum Demand or Actual Demand whichever is higher.
2. The consumer shall draw his entire power requirement from DISCOMS only as per Order in IA No. 10/2002 in OP Nos. 29-33 of 2002.
3. Not eligible for HT-I Load Factor incentive.
4. FSA will be extra as applicable

Notes:

1) Incentive

a) The following non-telescopic incentives are applicable for HT-category-I (A) consumers:

Load Factor (LF)	Discount applicable on the energy rates
More than 30% upto 50%	10%
More than 50% upto 60%	15%
More than 60% upto 70%	20%
More than 70%	25%

b) The incentive is applicable for the consumption in excess of the average monthly consumption for the FY 2000-01. The discount rate will be applied on the entire consumption eligible for incentives i.e., such consumption as is in excess of the average monthly consumption for the FY 2000-01 and is above the threshold LF level of 30% on a non-telescopic basis. This scheme will be effective till 31st March 2005.

2) Consumption of energy for lights and fans in factory:

The consumption of energy for lights and fans in the factory premises in excess of **10%** of total consumption shall be billed at **450** paise per unit provided lights and fans consumption in the Unit is separately metered.

3) Case of non-segregation of fans and lights

In case segregation of lights and fans loads has not been done, **15%** of the total energy consumption shall be billed at **450** paise per unit and the balance at H.T. Category-I rates.

4) Colony Consumption

The consumption of energy exclusively for the residential colony/ township in a month, separately metered with meters installed by the consumer and tested and sealed by the Licensee shall be billed at **320** paise per unit.

5) Seasonal Industries

Where a consumer avails supply of energy for manufacture of sugar or ice or salt, decorticating, ginning and pressing, fruit processing, tobacco processing and redrying and for such other industries or processes as may be approved by the Commission from time to time principally during certain seasons or limited periods in the year and his main plant is regularly closed down during certain months of the year, he may be charged for the months during which the plant is shut down (which period shall be referred to as the **off-season** period) as follows under H.T. Category-II rates.

DEMAND CHARGES	
Based on the Recorded Maximum Demand or **30%** of the Contracted Demand whichever is higher	Rs.**195** per KVA/Month.
PLUS	
ENERGY CHARGES	
For all the units of energy consumed	**450** Paise / unit.
FSA will be extra as applicable	

This concession is subject to the following conditions:

i) Consumers, classified as seasonal load consumers, who are desirous of availing the seasonal benefits shall specifically declare their season at the time of entering into agreement that their loads should be classified as seasonal loads.

ii) The period of season shall not be less than 4(four) continuous months. However, consumer can declare longer seasonal period as per actuals.

iii) Existing eligible consumers who have not opted earlier for availing of seasonal tariffs will also be permitted to opt for seasonal tariff on the basis of application to the concerned Superintending Engineer of the Licensee.

iv) The seasonal period once notified cannot be changed , during one Tariff year.

v) The off-season tariff is not available to composite units having seasonal and other categories of loads.

vi) The off-season tariff is also not available for such of those units who have captive generation exclusively for process during season and who avail supply from Licensee for miscellaneous loads and other non-process loads.

vii) Any consumer who after declaring the period of season consumes power for his main plant during the off-season period, shall not be entitled to this concession during that year.

viii) Development charges @ Rs.500/- per KVA, shall be paid by the consumer in advance for availing supply under the above said category with seasonal benefits.

H.T. CATEGORY-II

This tariff is applicable to all H.T. Consumers other than those covered under other H.T. Categories:

A) DEMAND CHARGES
Per KVA of billing Demand .. Rs.**195** /KVA/Month
PLUS
B) ENERGY CHARGES
For all units consumed During the month .. **450** Paise per unit

IMPORTANT

i) The billing demand shall be the maximum demand recorded during the month or **80**% of the contracted demand, whichever is higher

ii) Energy charges will be billed on the basis of actual Energy consumption or **25 units** per KVA of Billing Demand, whichever is higher.

FSA will be extra as applicable

Note

(i) In respect of Government controlled Auditoriums and Theatres run by public charitable institutions for purpose of propagation of art and culture which are not let out with a profit motive and in respect of other Public Charitable Institutions rendering totally free service to the general public the overall unit rate (including customer charges) may be limited to the tariff rates under L.T. Category-VII General purpose in specific cases as decided by the Licensee.

H.T. Category-III (Deleted)

H.T. Category-IV (A)- GOVT. LIFT IRRIGATION SCHEMES

This tariff is applicable to lift irrigation schemes managed by Government.

ENERGY CHARGES:	
For all units consumed during the month	.. **208 paise/unit**
	Subject to the minimum of **Rs.300/HP/Year** of Contracted Load

FSA will be extra as applicable if it is for purposes other than agriculture.

<u>H.T. Category-IV (B)- AGRICULTURAL</u>

This tariff is applicable for consumers availing H.T. Supply for Irrigation and Agricultural purposes and not covered under HT Category IV(A).

Rates:		
Flat Rate Tariff	..	**Rs.430/- per HP** per Annum on the Contracted Load.
Metered Tariff **(Optional)**		**35 Paise/Unit** subject to minimum of **Rs.300/HP/Year** of Contracted Load

NOTE:

1. If the consumer does not maintain the capacitors of requisite capacity as indicated in part (D) the consumer attracts the penal provisions as per the General Terms and conditions of supply notified by the licensees from time to time.

2. The metering is mandatory for both categories A&B and Energy reading will be taken even in cases where the Flat rate tariff is applicable.

3. The Low Power Factor surcharge condition mentioned in General conditions of HT Supply shall be applicable for Govt. lift irrigation schemes and others who opt for metered tariff.

H.T. Category-V - RAILWAY TRACTION

This tariff is applicable to all H.T. Railway Traction Loads.

NO DEMAND CHARGES
ENERGY CHARGES

For all units consumed ..**450** paise per unit

IMPORTANT

Energy charges will be billed on the basis of actual energy Consumption or **32 units** per KVA of Contracted Maximum Demand whichever is higher.

FSA will be extra as applicable

HT CATEGORY -VI - TOWNSHIPS AND RESIDENTIAL COLONIES

This tariff is applicable to H.T. supply exclusively for Townships, Residential Colonies of consumers under HT categories I to V and bulk supplies for domestic purpose such as lighting, fans, heating etc., provided that the connected load for common facilities such as Non Domestic supply in residential area, Street Lighting and Water Supply etc., shall be within the limits specified hereunder:-

Water Supply & Sewerage and Street Lighting put together -- **10%** of total connected load

Non-Domestic/ Commercial and General Purpose put together -- **10%** of total connected load

NO DEMAND CHARGES

ENERGY CHARGES

For all units consumed .. **320** paise per unit

IMPORTANT

Energy charges will be billed on the basis of actual consumption or **25 units** per KVA of Contracted Maximum Demand, whichever is higher.

FSA will be extra as applicable

CONDITIONS

i) The consumer shall lay suitable internal distribution lines at his own cost and maintain the same in accordance with the statutory rules and Licensee's directions if any.

ii) The bulk supply consumers as well as the HT consumers who avail separate HT supply under this category for supply of electricity to individuals, shall obtain permission of the Commission under amendment to APERC (Conduct of Business) Regulations 2000 (Regulation No.8), and subject to conditions mentioned thereunder.

GENERAL CONDITIONS OF H.T. SUPPLY

The foregoing tariffs are subject to the following conditions:-

(1) **A. VOLTAGE OF SUPPLY**

The voltage at which supply has to be availed by:

(i) HT consumers, availing supply on common feeders shall be:

For Total Contracted Demand with the Licensee and all other sources like A.P.G.P.C.L., Mini Hydel, Wind Power, MPPs, Co-Generating Plants etc.

Upto 1500 KVA	11000 Volts
1501 KVA to 5000 KVA	33000 Volts
Above 5000 KVA	132000 Volts or 220000 Volts as may be decided by Licensee

(ii) HT Consumers availing supply through independent feeders from the substations shall be:

For total contracted Demand with the licensees and all other sources like APGPCL, Mini Hydel, Wind Power, MPPs, co-generating plants etc

Upto 2500 KVA	11000 Volts
2501 KVA to 10,000 KVA	33000 Volts
Above 10000 KVA	132000 Volts or 220000 Volts

The relaxations are subject to the fulfillment of following conditions:

(a) The consumer should have an exclusive dedicated feeder from the substation;

(b) The consumer shall pay full cost of the service line as per standards specified by APTRANSCO/DISCOM including take off arrangements at substation;

(c) The consumer shall not use captive generation except as permitted by the APERC.

B. VOLTAGE SURCHARGE

(1) H.T. consumers who are now getting supply at voltage different from the declared voltages and who want to continue taking supply at the same voltage will be charged as per the rates indicated below:

Sl. No	Contracted Demand with DISCOM and other sources	Voltage at Which supply should be availed	Voltage at Which Consumer is availing supply	Rates % Extra Over Normal Rate	
				Demand Charge	Energy Charge
	KVA	KV	KV	KVA	Kwh
1.	70 to 1500	11	6.6 or below	12%	10%
2.	1501 to 5000	33	11 or below	12%	10%
3.	Above 5000	132 or 220	66 or below	12%	10%

Note: The FSA will be extra as applicable

For HT consumer availing supply from through independent feeders.

Sl. No	Contracted Demand with DISCOM and other sources	Voltage at Which supply should be availed	Voltage at Which Consumer is availing supply	Rates % Extra Over Normal Rate	
				Demand Charge	Energy Charge
	KVA	KV	KV	KVA	Kwh
1	70 to 2500 kVA	11	6.6 or below	12%	10%
2	2501 to 10,000 kVA	33	11 or below	12%	10%
3	Above 10,000 kVA	132 or 220	66 or below	12%	10%

Note: The FSA will be extra as applicable

(2) MAXIMUM DEMAND

The maximum demand of supply of electricity to a consumer during a month shall be twice the largest number of Kilo-Volt- Ampere Hours (KVAH) delivered at the point of supply to the consumer during any consecutive 30 minutes in the month. However, for the consumers having contracted demand above 4000 kVA the maximum demand shall be four times the largest number of Kilo-Volt-Ampere-Hours(KVAH) delivered at the point of supply to the consumer during any consecutive 15 minutes in the month.

(**3) BILLING DEMAND**

The billing demand shall be the maximum demand recorded during the month or **80%** of the contracted demand whichever is higher.

(4) MONTHLY MINIMUM CHARGES

Every consumer whether he consumes energy or not shall pay monthly minimum charges calculated on the billing demand plus energy charges specified for each category in this part to cover the cost of a part of the fixed charges of the Licensee.

(5) SUPPLY TO TOWNSHIPS OR RESIDENTIAL COLONIES OF H.T. CONSUMERS

Consumers of High Tension supply except those coming under H.T. Category -VI may, with the permission of the Commission under Amendment to APERC (Conduct of Business) Regulations 2000 (Regulation No. 8), and subject to the conditions mentioned thereunder supply electricity after converting it into Low Tension at their own cost for the township or residential colonies attached to the consumer's establishment for domestic purposes like lighting, fans and heating to their employees or others residing therein and for any non-domestic supply in the residential area and street lighting of such residential colony.

CONDITIONS

i) The consumer shall lay suitable internal distribution lines at his own cost and maintain the same in accordance with the statutory rules and Licensee's directions, if any.

ii) Such HT consumers have to obtain permission from the Commission as required under the amendment to APERC (conduct of Business) Regulations 2000 (Regulation No.8)

(6) SURCHARGE FOR LOW POWER FACTOR

The power factor for the month shall be the ratio of Kilo-Watt hours to the Kilo-Volt-Ampere Hours supplied to the consumer during the month. The power factor shall be calculated upto two decimal places.

The power factor of the consumer's installation shall not be less than 0.90. If the power factor falls below 0.90 during any month, the consumer shall pay a surcharge as detailed below:

S.No	Power Factor Range	Surcharge
1.	Below 0.90 & upto 0.85	1% of C.C.charges bill of that month for every 0.01 fall in Power Factor from 0.90
2.	Below 0.85 & Upto 0.80	1.5% of C.C. charges bill of that month for every 0.01 fall in Power Factor from 0.85
3.	Below 0.80 & Upto 0.75	2% of C.C.charges bill of that month for every 0.01 fall in Power Factor from 0.80
4.	Below 0.75	3% of C.C.charges bill of that month for every 0.01 fall in Power Factor from 0.75

Should the power factor drop below 0.75 and so remain for a period of 2 consecutive months it must be brought upto 0.90 within a period of 6 months by methods approved by the Licensee failing which, without prejudice to the right of the Licensee to collect surcharge and without prejudice to such other rights as having accrued to the Licensee or any other right of the Licensee, the supply to the consumer may be discontinued.

(7) **ADDITIONAL CHARGES FOR MAXIMUM DEMAND IN EXCESS OF THE CONTRACTED DEMAND**

If in any month the recorded maximum demand of the consumer exceeds his contracted demand (with Licensee), that portion of the demand in excess of the contracted demand will be billed at twice the normal charges.

(8) TEMPORARY SUPPLY AT HT

i) For new connections: Temporary supply at High Tension may be made available by the Licensee to a consumer, on his request subject to the conditions set out herein-after as also in Part-C. Temporary supply shall not ordinarily be given for a period exceeding 6(six) months. The electricity supplied to such consumer shall be charged for, at rates 50% in excess of the rates set out in the H.T. Tariffs applicable subject to, however, that the billing demand for temporary supply shall be the contracted demand or the recorded maximum demand registered during the month whichever is higher.

ii) Existing consumers requiring temporary supply or temporary increase in supply : If any consumer availing regular supply of electricity at High Tension requires an additional supply of electricity at the same point for a temporary period, the temporary additional supply shall be treated as a separate service and charged for as in Clause(i) above, subject to the following conditions:

a) The contracted demand of the temporary supply shall be the billing demand for that service. The recorded demand for the regular service shall be arrived at by deducting the billing demand for the temporary supply from the maximum demand recorded in the month.

b) The total energy consumed in a month including that relating to temporary additional supply, shall be apportioned between the regular and temporary supply in proportion to the respective billing demands.

(9) ADDITIONAL CHARGES FOR BELATED PAYMENT OF CHARGES

The consumer shall pay an additional charge at 0.07 paise per rupee per day of delay on the amount of the bill for the period of delay if he does not pay the bill within the prescribed period. The amount of additional charges shall be rounded off to nearest paisa.

(10) CUSTOMER CHARGES

Every consumer of H.T. electricity shall in addition to demand and energy charges billed as per tariff applicable to them, pay customer charges as applicable.

(11) GRID SUPPORT CHARGES#

Persons operating Captive Power Plants (CPPs) in parallel with A.P. Grid have to pay 'Grid Support Charges' on the difference between the capacity of CPP in kVA and the contracted Maximum Demand in kVA with Licensee and all other sources of supply, at a rate equal to 50% of the prevailing demand charge for HT Consumers. In case of CPPs exporting firm power to APTRANSCO, the capacity, which is dedicated to such export, will also be additionally subtracted from the CPP capacity.

(12). WHEELING COMPENSATION#:

An amount of 58 Paise per unit for the energy wheeled in cash and compensation in kind for system losses of 24.63% for using Andhra Pradesh network (APTRANSCO and / or DISCOMS)

(13). The Tariffs are exclusive of Electricity duty payable as per the provisions of AP Electricity Duty Act.

(14). These rates are applicable in the areas of operation of 4 (four) Distribution Companies viz., Andhra Pradesh Eastern Power Distribution Company Limited, Andhra Pradesh Central Power Distribution Company Limited, Andhra Pradesh Northern Power Distribution Company Limited and Andhra Pradesh Southern Power Distribution Company Limited. (The jurisdiction of the DISCOMs extends to the RESCOs areas also for purpose of supply to HT Consumers).

Note:- *The Commission fixed the above wheeling compensation and Grid support charges for the year 2003-04 at the request of the licensee. But the compensation/charges will be collected as per the interim orders of the Courts in the pending appeals till the cases are disposed by the courts.*

PART 'B' : L.T.TARIFFS

System of Supply	Low Tension A.C. 50 Cycles Three Phase Supply at 415 Volts Single Phase supply at 240 Volts

The tariffs are applicable for supply of Electricity to L.T consumers with a connected load of 56 KW/75 HP and below including the LT-III (B) Industrial optional category.

L.T. Category-I-Domestic

Applicability

Applicable for supply of energy for lights and fans and other domestic purposes in domestic premises.

Rates

Consumers shall pay electricity charges as shown below:

0-50 units per month	145 paise per unit
51-100 Units/month	280 paise per unit
101-200 Units/month	305 paise per unit
201-300 Units/month	475 paise per unit
Above 300 Units/month	550 paise per unit
Subject to monthly minimum charges of:	
Single Phase:	
Upto 250 W	**.. Rs.25/ Month**
Above 250 W	**.. Rs.50/ Month**
Three Phase	**.. Rs.150/ Month**
FSA will be extra as applicable	

Notes:

1. Three phase supply for domestic purpose will not normally be given. However three phase supply can be considered if three phase supply of

the Licensee is available at that point. For loads less than 3KW single phase supply only will be given.

2. If electricity supplied in domestic premises is used for non-domestic and commercial purposes the entire supply shall be charged under L.T.Category-II tariff.

3. For common services like Water supply, common lights in corridors and supply for lifts in multistoried buildings, consumers shall pay electricity charges as follows:

   i) At L.T.Category-I, if the plinth area occupied by the domestic consumers is 50% or more of the total plinth area.

   ii) At L.T.Category-II, if the plinth area occupied by the domestic consumers is less than 50% of the total plinth area.

   iii) If the service in a flat is for domestic purpose, it will be charged at L.T.Category -I (Domestic). If the service in a flat is for commercial or office use or any other purpose which does not fall under any L.T.Category, it will be charged at L.T. Non-Domestic Category-II.

4. Single Point LT services released to residential complexes of State Government/ Central Government Departments under specific orders of Licensee with Contracted Load/ Connected Load in excess of 56 KW/75 HP shall continue to be billed under LT-I Domestic tariff slab rate applicable based on the average monthly energy consumption per each authorized dwelling i.e. total energy consumption in the month divided by the number of such dwelling units, in the respective residential complexes.

The above orders are subject to the following conditions, namely:

a). Orders are applicable to Police Quarters and other State/Central Government residential complexes specifically sanctioned by the Licensee.

b). Provided that it is at the request of the designated officer, who shall give an unconditional undertaking that he will pay up the bill for CC charges to the Licensee irrespective of collection from the individual occupants.

c). The consumers shall be billed at the appropriate slab rate in tariff based on the monthly consumption per dwelling unit in the complex.

d). Meter reading shall be taken monthly in all such cases.

e). Customer charges calculated at Rs.20 per month for each dwelling unit shall be billed.

MODE OF BILLING AND PAYMENT

The licensee may introduce monthly billing for all consumers instead of bimonthly (once in two months) presently in vogue.

L.T. CATEGORY-II - NON-DOMESTIC AND COMMERCIAL

Applicability

Applicable for supply of energy for lights and fans for non-domestic and commercial purposes excluding loads falling under L.T. Categories I, III to VII and shall include supply of energy for lighting, fans, heating and power appliances in Commercial and Non-Domestic premises such as shops, business houses, offices, public buildings, hospitals, hostels, hotels, choultries, restaurants, clubs, theaters, cinema halls, railway stations, Timber Depots, Photo Studios and other similar premises.

The Educational Institutions run by individuals, Non-Government Organisations or Private Trusts and their student hostels are also classified under this category. Exclusions for this would be those that qualify to be under Category LT-VII.

Consumers shall pay electricity charges as shown below:

First 50 Units /month	..	**395 Paise** per Unit
Above 50 Units/ month	..	**660 Paise** per Unit
Monthly Minimum Charges	..	**Rs. 65** per month for **Single Phase**
	..	**Rs.200** per month for **Three Phase**
FSA will be extra as applicable		

Notes:

1) For Loads less than 5 KW single phase supply only will be given.
2) For loads 35 KW and above, a demand meter shall also be provided.
3) In respect of the complexes having connected load of more than 56 KW/75 HP released under specific orders of Licensee for Single Point Bulk supply, where such complex is under the control of a specified organisation/ agency taking responsibility to pay monthly current consumption bills regularly and abide by the Terms and Conditions of supply as per agreement, the billing shall be done at the highest slab tariff rate under this category. The energy shall be measured on HT side of the Distribution Transformer feeding the Load. In cases where energy is measured on LT side of the transformer, 3% of the recorded energy during the month shall be added to arrive at the consumption on High Tension side of the transformer.

MODE OF BILLING:

The Licensee may introduce monthly billing for all consumers instead of bi-monthly (once in two months) presently in vogue.

L.T.CATEGORY-III (A) - INDUSTRIAL: NORMAL CATEGORY

The tariffs are applicable for supply of electricity to Low Tension Industrial consumers with a Contracted load of 75 HP/56 KW and below including incidental lighting load not exceeding 5% of the total Contracted Load. Industrial purpose shall mean supply for purpose of manufacturing, processing and/or preserving goods for sale but shall not include shops, business houses, offices, public buildings, hospitals, hotels, hostels, choultries, restaurants, clubs, theaters, cinemas, railway stations and other similar premises, notwithstanding any manufacturing, processing or preserving goods for sale. This tariff will also apply to Water Works & Sewerage Pumping Stations operated by Government Departments or Co-operative Societies and pumpsets of Railways, pumping of water by industries as subsidiary function and sewerage pumping stations operated by local bodies. This tariff is also applicable to Workshops, flour mills, oil mills, saw mills, coffee grinders and wet grinders, Ice candy units with or without sale outlets, Goshalas, grass cutting and fodder cutting units. Further, this tariff is also applicable to:

i) Poultry Farming Units other than those coming under LT Category - IV
ii) Pisciculture and Prawn culture units.
iii). Mushroom production units, Rabbit Farms.
iv). Floriculture in Green Houses.
v). Sugar cane crushing.

Rates:

(i) Industrial – Normal

(a) Fixed Charges -- **Rs. 37 Per HP/Month of connected Load**

Plus

(b) For all units consumed/Month - **385 Paise per unit**

(ii) Industrial – Optional

(a) Demand Charges - **Rs.100/kVA per month**

Plus

(b) Energy Charges **- 385 Paise per unit for units consumed/month**

(iii) Tariff for Pisciculture and Prawn culture units with Contracted Load below 10HP } **- 90 Paise per unit**

(iv) Sugar cane crushing - **50 paise per unit**

Note: Consumers with connected load between 50 and 75 HP can opt for a two part optional tariff. FSA will be extra as applicable

IMPORTANT FOR LT III(A) INDUSTRIAL –OPTIONAL CONSUMERS

i) The billing demand shall be the maximum demand recorded during the month or **80%** of the contracted demand whichever is higher.

ii) Energy charges will be billed on the basis of actual Energy consumption or **50 units** per KVA of billing demand whichever is higher

NOTE :

(i) The Licensee reserves the right to restrict usage of Electricity by the consumers for Industrial purpose during evening peak load hours i.e 17.00 hours to 21.00 hours in any area based on system constraints through notification by the Superintending Engineer of the area from time to time . Violation of this condition by the industrial consumer shall entail disconnection of power supply.

(ii) The Contracted load shall be the connected load required by the consumer and so specified in the agreement as per sanction accorded for the service except for the Industrial - optional two part tariff where it can be different from the connected load. If the consumer opts for a two part tariff the billing demand shall be 80% of the Contracted Demand or Recorded Demand whichever is higher. If the recorded demand exceeds the Contracted Demand such excess demand shall be billed at the demand charge prescribed under HT Category-I.

(iii) If the actual connected load for lighting purpose exceeds the prescribed limit of 5%, the energy recorded prorata to the lighting load shall be billed at the LT Category-II highest slab rate. It is not necessary to have a separate service for lighting load in the premises.

(iv) Sugar cane crushing operations will be allowed under existing agricultural connections with the specific permission of DE (Operation).

(v) (a) A demand meter shall be provided for the Consumers with connected load 20HP to 75 HP.

(b). For loads 50 HP to 75 HP the metering will be provided on HT side of the Distribution Transformer.

(c). The Low Power Factor (LPF) surcharge is applicable as in the case of HT consumers for LT Category III (A) Industrial – Optional category.

L.T. CATEGORY - III(B) - INDUSTRIAL - OPTIONAL CATEGORY

(I) This Optional tariff is applicable to Small Scale Industrial Units which have been licenced by the Industries Department as bonafide Small Scale Industries and given registration No. under SSI registration scheme with connected loads above 75 HP and upto 150 HP and who wish to avail supply at Low Tension subject to the Conditions mentioned here-under. The applicants should indicate their consent for these conditions, in the application for LT supply. The existing LT Category-III consumers who come under SSI category and who were sanctioned LT supply for connected loads above 75 HP and upto 125 HP subject to certain conditions prior to 15.7.1987, and who did not switch over to HT supply, may also come under this category duly complying with these conditions.

Rates:

Energy Charges:

For all units consumed/month - 385 Ps/Unit.

Plus

Demand Charges - Rs.100/kVA/Month

FSA will be extra as applicable.

IMPORTANT

i) The billing demand shall be the maximum demand recorded during the month or **80%** of the contracted demand whichever is higher.

ii) Energy charges will be billed on the basis of actual Energy consumption or **50 units** per KVA of billing demand whichever is higher

Conditions:

i) The maximum Connected Load under this Category shall not exceed 150 HP including incidental lighting load of not more than 5% of the total connected load. The contracted load shall be as specified in the agreement as per sanction accorded for the service.

ii) If the recorded demand exceeds the Contracted Demand mentioned in (i) above, such excess demand shall be billed at the demand charge prescribed under HT Category-I.

iii) The consumer should erect his own Distribution Transformer and structure initially along with necessary switch gear. The transformer will be maintained by the Licensee.

iv) For new/additional loads the consumer has to pay Development charges and Service Line Charges as per Licensee Rules as applicable for HT Industrial consumers.

v) The metering will be on HT side of the Distribution Transformer with a Trivector Meter together with MD indicator. The energy recorded in the meter will be billed at the energy charge mentioned above.

vi) The Low Power Factor (LPF) surcharge is applicable as in the case of HT consumers for LT III (B) Industrial Optional Category.

vii) Customer charges shall be as applicable for HT consumers.

viii) The conditions (i) & (iii) mentioned in the NOTE under LT Category-III(A) shall be applicable for LT III (B) Industrial Optional Category also.

(II) Seasonal Industries

Where a consumer avails supply of energy for manufacture of sugar or ice or salt, decorticating, fruit processing, ginning and pressing, tobacco processing and redrying and for such other industries or processes as may be approved by the Commission from time to time principally during certain seasons or limited periods in the year and his main plant is regularly closed down during certain months of the year, he may be charged for the months during which the plant is shut down (which period shall be referred to as the **off-season** period) as follows.

DEMAND CHARGES	
Based on the Recorded Maximum Demand or **30%** of the Contracted Demand whichever is higher	Rs.**100** per KVA/Month.
PLUS	
ENERGY CHARGES	
For all the units of energy consumed	**450** Paise / unit.
FSA will be extra as applicable	

This concession is subject to the following conditions:

i) Consumers, classified as seasonal load consumers, who are desirous of availing the seasonal benefits shall specifically declare their season at the time of entering into agreement that their loads should be classified as seasonal loads.

ii) The period of season shall not be less than 4(four) continuous months. However, consumer can declare longer seasonal period as per actuals.

iii) Existing eligible consumers who have not opted earlier for availing of seasonal tariffs will also be permitted to opt for seasonal tariff on the basis of application to the concerned Superintending Engineer of the Licensee.

iv) The seasonal period once notified cannot be changed , during one Tariff year.

v) The off-season tariff is not available to composite units having seasonal and other categories of loads.

vi) The off-season tariff is also not available for such of those units who have captive generation exclusively for process during season and who avail supply from Licensee for miscellaneous loads and other non-process loads.

vii) Any consumer who after declaring the period of season consumes power for his main plant during the off-season period, shall not be entitled to this concession during that year.

viii) Development charges @ RS. 500/- per kVA shall be paid by the consumer in advance for availing supply under the above said category with seasonal benefits.

L.T. Category-IV

Cottage Industries and Dhobighats

Applicable for supply of energy to Dhobighats & bonafide small Cottage Industries specifically power looms having connected load not exceeding 5H.P. including incidental lighting in the premises. Poultry farming units upto 1000 birds strength (subject to certification by A.P.S.M & P.D.C. as to the strength in the poultry farm) come under this category. If the bird strength of birds in the poultry farm exceeds 1,000 birds, electricity supply to such poultry farms shall be classified under L.T. Category-III (A) or HT category I as the case may be according to the connected load.

Rates

For all units consumed	.. **180 Paise** per unit
Fixed charges	.. **Rs.10/- per month** per H.P. of Contracted load subject to a minimum of Rs.30/- per month.

FSA will be extra as applicable

Notes

i) It is not necessary to have a separate service for lighting load in the premises.

ii) Poultry farming units upto 1000 units without certification from APSM &PDC shall be classified under LT Category-III (A) Industrial Tariff.

L.T. CATEGORY – V(A) – Agricultural

Applicable for supply of electricity for irrigation and agricultural purposes upto a connected load of 75 HP.

Rates

Consumers shall pay electricity charges as shown below:

S.No.	Capacity of Pumpset	Tariffs (Rs. per HP/Year)	
		In DPAP Areas	In other Areas
i.	Upto(*) 3 HP	Rs.225/-	Rs.275/-
ii.	Above 3 HP and Upto(*) 5 HP	Rs.375/-	Rs.425/-
iii.	Above 5HP and Upto(*)10HP	Rs.475/-	Rs.525/-
iv.	Above 10 HP (*)	Rs.575/-	Rs.625/-

*** Metered Tariff (Optional):**

0 – 2500 Units per annum	**20 Ps/Unit**
above 2500 Units per annum	**50 Ps/Unit**

L.T. CATEGORY – V(B) – Agricultural

Out of turn allotment - metered tariff:

Energy charges at 100 paise per unit.

Note:

1. Agricultural consumers are permitted to use 1 or 3 lamps of 5 watts each near the main switch as pilot lamp/s.
2. Supply to the L.T. Agricultural services will be suitably regulated as notified by Licensee from time to time.
3. Customer charges of Rs.20/- per month per service in terms of Part `C' of the tariff shall be payable by all Agricultural Consumers.
4. A discount of 50% on the monthly energy charges in slab system or metered system will be given as incentive if the agriculture consumer provides the following demand side management measures as applicable for his pumping system viz. submersible and surface pump sets.

   (i) Friction less foot valve
   (ii) HDPE or RPVC piping suction and/or delivery
   (iii) ISI marked monobloc pumpset or submersible pumpset
   (iv) Capacitor of adequate rating for the pumpset

   This discount would be continued for a period up to 31^{st} March 2005.
5. Agricultural metered tariff is mandatory for horticulture.

L.T. CATEGORY-VI

Applicable for supply of energy for lighting on public roads, streets, thoroughfares including parks, markets, cart-stands, taxi stands, bridges and also for PWS scheme in the Local Bodies viz. Panchayats/ Municipalities/ Municipal Corporations. Metering is compulsory irrespective of tariff structure.

Rates:

A. Street Lighting:

Minor Panchayats

For all units consumed .. **156 Paise** per unit

Major Panchayats

For all units consumed .. **208 Paise** per unit

Nagarpalikas & Municipalities Gr.3:

For all units consumed .. **274 Paise** per unit

Municipalities Gr. 1 & 2:

For all units consumed **..** **326 Paise** per unit

Municipalities Selection Spl. Gr.:

For all units consumed **..** **353 Paise** per unit

Corporations

For all units consumed .. **379 Paise** per unit

Minimum charges

Panchayats	Rs.2 per point per month
Municipalities/Corporations	Rs.6 per point per month

B. <u>PWS Schemes</u>:

Minor Panchayats

Up to 2500 units/year – 20 paise per unit

Above 2500 units -- 50 paise per unit

Major Panchayats

Up to 2500 units/year— 20 paise per unit

Above 2500 units --- 50 paise per unit

Nagarpalikas & Municipalities	**Energy charges**	**Fixed charges**

Municipalities Grade 1, 2,3 and Selection Special Grade Municipality:

Upto 1000 Units		**375 Paise/Unit**	**Rs.20/HP/Month of**
Balance Units	..	**405 Paise/Unit**	contracted load subject to a minimum of Rs.100

Municipal Corporations:

Upto 1000 Units	..	**405 Paise/Unit**	**Rs.20/HP/Month of**
Balance Units	..	**460Paise/Unit**	contracted load subject to a minimum of Rs.100

FSA will be extra as applicable

<u>Notes (Street Lighting):</u>

i). The cost of fittings shall be borne or paid for by the consumers. The responsibility for maintenance including renewals and replacements rests with the Local Bodies viz., Panchayats, Municipalities, Municipal Corporations.

ii) Where the cost of fittings is borne by the Licensee, the first supply of filament lamps, fluorescent tubes, mercury vapour lamps including special type lamps along with their fittings will be made by the Licensee at its cost. In such cases consumer will have to pay fixed charges as in column(3) below. However, where the cost of fittings is borne by the consumer but maintenance is done by the Licensee, the consumer will have to pay fixed charges as in Column (4) below:

Sl. No (1)	Fittings for (2)	Fixed charges Per Month where the cost of fittings is borne by Licensee (3)	Fixed charges per month where the cost of fittings is borne by the Local Body but maintenance by Licensee (4)

		(Rs.)	(Rs.)
1.	Ordinary Filament Lamp	2.00	1.00
2.	Fluorescent Lamp 40 W Single Fixture	7.00	4.00
3	Fluorescent Lamp 40 W Double Fixture	8.00	4.00
4.	M.V. Lamps 80 W Fixture	12.00	6.00
5.	M.V. Lamps 125 W Fixture	15.00	8.00
6.	M.V. Lamps 250 W Fixture	45.00	23.00
7.	M.V. Lamps 400 W Fixture	50.00	25.00

iii). The replacement of filament lamps, fluorescent tubes, mercury vapour and other special type of lamps will be made by the Local Body at its cost. However, in Urban areas till such time the Municipalities and Corporations make their own arrangements for such replacements the Licensee may, if the consumer so desires, carry out the replacement provided the Local Body supplies the lamps and tubes. The consumer will in such cases be billed labour charges at the rate of Rs. 2 per replacement.

However, in Rural areas, such replacement of bulbs supplied by the Local Body will be made by the Licensee without collecting labour charges. For this purpose the area coming under Gram Panchayat shall constitute 'Rural Area'.

iv). Additional charges: Every local body shall pay an additional charge equivalent to any tax or fee levied by it under the provisions of any law including the Corporation Act, District Municipalities Act or Gram Panchayat Act on the poles, lines, transformers and other installations through which the local body receives supply.

L.T. Category-VII - General Purpose

Applicable for supply of energy to places of worship like Churches, Temples, Mosques, Gurudwaras, Government Educational Institutions and Student Hostels run by Government agencies, and Educational Institutions run by charitable Institutions (Public charitable trusts and societies registered under the Societies Registration Act running educational and medical institutions on a no profit basis) and Recognised Service Institutions.

Rates	
For all the units consumed	.. **400 Paise per unit**
Minimum charges	Rs.50 per month for single phase supply Rs.150 per month for three phase supply
FSA will be extra as applicable	

Note:

1. Licensee may introduce monthly billing for all consumers instead of bimonthly (once in two months).

2. For loads less than 5 KW, single phase supply only will be given.

<u>L.T. CATEGORY-VIII - L.T. Temporary supply</u>

1. For temporary supply of energy to all categories other than Irrigation and Agriculture:

Rates:		
For all units consumed	..	**620 paise per unit**
Minimum charges	..	Rs.125 per KW or part thereof of contracted load for first 30 days or part thereof and Rs.75 per KW or part thereof of contracted load for every subsequent period of 15 days or part thereof
FSA will be extra as applicable		

2. **Temporary supply for Agriculture Purpose**:

Rates:		
For all units consumed	..	**230 Ps. /Unit**
Minimum Charge		Rs.100 per HP of contracted load for the first 30 days or part thereof and Rs.50 per HP of contracted load for every subsequent period of 15 days or part thereof.

CONDITIONS

(i) Service charges (Estimate cost) and estimated energy charges.

The charges shall be paid by the consumer in accordance with the scale of miscellaneous and general charges in force from time to time.

(ii) a. Service line charges shall be paid by the consumer in advance and in accordance with the scale of miscellaneous and general charges in force from time to time.

b. If the supply is for less than 10 days, estimated CC charges for the period of supply, based on the connected load as per the applicable (LT Category VIII) tariff rates shall be paid in advance.

c. If the supply is for more than 10 days estimated CC charges for 2months shall be paid in advance as per prevalent tariff rates (LT Category VIII).

d. Collection of development charges from the consumers is waived subject to the condition that no additional funds be sought from the Government by licensees in this regard.

e. Any other charges payable in accordance with the scale of miscellaneous & General charges in force from time to time stands unaltered.

(iii) Regular consumers requiring temporary additional supply:

In cases where consumers availing regular supply of energy require additional supply for temporary period, the additional supply shall be given as a temporary service and charged as such.

General conditions of L.T. Tariff

The foregoing L.T. Tariffs are subject to the following conditions.

1. Classification of Premises
   The Licensee shall have the right to classify or re-classify the supply of energy to any premises under an appropriate category of L.T. Tariff.
2. The connected load of the consumer shall not exceed his contracted load except in case of LT category III(A) optional and III(B) and if the connected

load of the consumer is found to be in excess of his contracted load, the provisions of General Terms and Conditions of supply separately notified shall be applied.

3. Additional Charges for belated payment of Bills:

   a) The C.C. bills shall be paid by the consumers within the due date mentioned in the bill, i.e. 14 days from date of the bill.

   b) If payment is made after due date, the consumers are liable to pay belated payment charges on the bill amount at the rate of 0.07 Ps. per rupee per day of delay calculated from due date mentioned in the bill upto the date of payment.

   c) If the c.c. bills amount is not paid within 7 days from the due date the power supply is liable for disconnection.

   d) For re-connection of power supply after disconnection, the consumer has to pay reconnection fees plus belated payment charges calculated as per para (b) above.

4. The Tariffs are exclusive of Electricity duty payable as per the provisions of AP Electricity Duty Act.

5 These rates are applicable in the areas of operation of 4 (four) Distribution Companies viz., Andhra Pradesh Eastern Power Distribution Company Limited (APEPDCL), Andhra Pradesh Central Power Distribution Company Limited (APCPDCL), Andhra Pradesh Northern Power Distribution Company Limited (APNPDCL) and Andhra Pradesh Southern Power Distribution Company Limited (APSPDCL)) and 9 (nine) Rural Electric Co-operatives viz., Anakapally, Chepurupally, Siricilla, Kuppam, Sanjay, Rayachoty, Atmakur, Kadiri (East) and Kadiri (West).

Part - `C'

I. SERVICE CONNECTION CHARGES.

(1) In respect of the cases involving extension of distribution mains, the extension portion of the scheme will be executed by the Licensee adopting the standards prescribed by the Commission from time to time on payment of service line charges.

(2) The service connection portion from the overhead mains terminated outside the premises of the consumer shall be executed by the consumer as per the standards prescribed by the licensee from time to time. However, the meter and cutout shall be provided by the licensee.

(3) Service lines for L.T. Category- V Irrigation and Agricultural purposes shall be laid collecting an amount of Rs.25/- per H.P. of contracted load towards service connection charges.

II. RECONNECTIONS

(a) Low Tension Services.

i). Overhead Services	Rs. 50/-
ii). U.G. Services	Rs.100/-

(b) High Tension Services

i) 11 KV.	Rs.300/-
ii) 33 KV	Rs.500/-
iii) 132/220 KV	Rs.1000/-

III. TESTING

(a) Installations: **L.T.** **H.T.**

i)	The first test and inspection of a new installation or of an extension to an existing installation.	Nil	Nil
ii)	Charges payable by the consumer in advance for each subsequent test and/or inspection if found necessary owing to any fault in the installation or to non-compliance of the conditions of supply.	Rs.20/-	Rs.200/-

(b) Meters	**L.T.**	**H.T.**
i) A.C. Single Phase Energy meter	Rs. 10/-	--
ii) A.C. Three Phase Energy meter	Rs .30/-	--
iii) Demand or special type meter	Rs.150/-	Rs.500/-

(c) Transformer Oils:

i) First sample of oil	Rs.150/- per sample
ii) Additional sample of oil of the same equipment received at the same time	Rs.100/- per sample

IV. SERVICE CALLS

(a) Charges for attendance of Fuseman for Low Tension Consumers

i) Replacing of Licensee's cut out fuses	Nil
ii) Replacing of consumer's fuses	Rs.3/-

(b) Charges for attendance of Fuseman/Wireman at the consumer's premises during any function or temporary illumination	Rs.100/- for each day or part thereof.

provided a Fuseman/Wireman can be spared for such work

(c) Charges for Infructuous visit of Licensee employees to the consumer's premises .	Rs.25/- for each visit when there is no defect in Licensee’s equipment.

V MISCELLANEOUS CHARGES

(a) Application Registration Fees	
i) For LT Agricultural & Domestic	Rs. 25/-
ii) For all other LT Categories	Rs. 50/-
iii) For all HT Categories	Rs.100/-
(b) Revision of estimates	Rs. 10/-
(c) Fee for rerating of consumer's installation at the request of the consumer. This does not include the additional charges payable by the consumer for increasing his connected load in excess of the contracted load, as provided in General Terms and conditions of supply.	Rs. 20/-
(d) Resealing of:	
i) L.T. Meter Cut outs in the consumer's premises	Rs. 5/-
ii) M.D. Indicator meters and other apparatus in the consumer's premises (The aforesaid charges do not include the additional charges payable by the consumer for breaking the seals)	Rs.100/-

	L.T.	**H.T**

(e) For changing meter only at the request of the consumer (where it is not necessitated by increase in demand permanently)	Rs.25/-	Rs.100/-

(f) For changing or moving a meter board : Actual cost of material and labour plus 25% supervision charges on cost of materials and labour.

(g) Customer charges:

For all LT Categories inclusive of Agricultural services	Rs.20/- per month*
* Domestic Consumer in the first slab	Rs. 15/- per month
H.T. Categories:	
a) 66 KV and below	Rs.750/- per month
b) 132/220 K.V..	Rs.1500/- per month
Urgency charges for temporary supply at short notice	Rs. 100/-

(h) Special rates chargeable for pilferage and malpractice cases

HT & LT All Categories: 3 times the Tariff applicable for the purpose for which power is used.

Supervision/Inspection & checking charges

i) For LT Agricultural and Domestic	Rs. 50.00
ii) For all other LT categories	Rs.150.00
iii) For HT Services	Rs.300.00

VI TEMPORARY SUPPLY

(1) Requests for temporary supply of energy cannot normally be considered unless there is a clear notice of at least one week in the case of domestic and three months in case of other types of supply. If supply is required at a short notice, in addition to the charges mentioned below, an urgency charge, as may be specified by the Licensee be levied.

(2) Estimated cost of the works for making necessary arrangements for supplying energy including the cost of distribution lines, switchgear, metering equipment, etc., as may be worked out on the basis of standards and norms prescribed by the Licensee , from time to time plus cost of dismantling the lines and other works when the supply is no more required less the cost of retrievable material.

(3) (a) Estimated cost of the works payable by the consumer as mentioned in para (2) above shall be paid by him in advance. On completion of the works, a bill for the actual amount payable by the consumer shall be prepared and the difference would be collected from or refunded to the consumer, as the case may be.

(b) In the case of temporary supply of electricity, bill of actual expenditure shall be prepared after the lines and other works are dismantled and retrievable material is returned to Stores.

(c) In addition to the aforesaid charges payable by the H.T. Consumers availing temporary supply, they shall pay hire charges at 2% on cost of retrievable material per month or part thereof, for the duration of temporary supply.

(4) (a) The consumer requiring supply on temporary basis at HT shall be required to deposit in advance in addition to service connection charges, estimated energy charges for 2 months consumption at 1.5 times the rate for HT Category (at the rate stipulated in Tariff Order) and worked out on the basis for use of electricity by the consumer for 6 hours per day and meter rent for the period for which temporary supply is required. Bill for electricity consumed in any month shall be prepared at the tariff applicable. The consumers have to pay monthly CC charges regularly during the period of availing temporary supply and the estimated energy consumption deposit shall be adjusted with the last month consumption and the balance if any shall be refunded

(b) In the case of consumers requiring temporary supply for the purposes of Cinema, the estimated energy charges for a minimum period of 3 months shall have to be deposited by the consumer subject to the condition that the consumer shall pay every month energy and other miscellaneous charges for the preceding month and the amount deposited by him in advance shall be adjusted with the last month consumption and the balance amount shall be refunded.

In the event of estimated energy charges deposited by the consumer having been found insufficient, the consumer shall deposit such additional amount, as may be demanded by the Licensee failing which the Licensee may discontinue the supply of electricity.

(c) Collection of development charges from the consumers requiring temporary supply in HT is waived subject to the condition that no additional funds be sought from the Government by licensees in this regard.

VII MISCELLANEOUS WORKS

The charges for any work which the Licensee may be required to undertake for the consumer and which is not included in the foregoing schedule, shall be the actual cost of labour and material plus 25% on cost of labour and material to cover overhead charges. The aforesaid charges shall be paid by the consumer in advance.

PART `D'

POWER FACTOR APPARATUS

1. FOR H.T. AGRICULTURAL CONSUMERS

Every H.T. Agricultural Consumer using induction motors shall install L.T. Shunt capacitors of specified rating as given below:

S.No.	Rating of Individual Motor (in HP)	KVAR rating of L.T.Capacitors for various R.P.M. of motors			
		750 RPM	1000 RPM	1500 RPM	3000 RPM
1	Up to 50	15	15	12	10
2	60	20	20	16	14
3	75	24	23	19	16
4	100	30	30	24	20
5	125	39	38	31	26
6	150	45	45	36	30
7	200	60	60	48	40

2. FOR L.T. CONSUMERS

Every L.T. Consumer using induction motors and welding transformers shall install L.T. Shunt Capacitors of specified rating as given below:

(a) Motors

Sl. No.	Rating of individual Motor (in HP)	KVAR rating of LT capacitors for various R.P.M of motors			
		750 RPM	1000 RPM	1500 RPM	3000 RPM
1.	Upto 3	1	1	1	1
2.	5	2	2	2	2
3.	7.5	3	3	3	3
4.	10	4	4	4	4
5.	15	6	5	5	4

6.	20	8	7	6	5
7.	25	9	8	7	6
8.	30	10	9	8	7
9.	40	13	11	10	9
10.	50	15	15	12	10

(b) Welding transformers

Sl.No	Rating of Welding Transformer In KVA	Rating of Capacitor in KVAR
1	1	1
2	2	2
3	3	3
4	4	3
5	5	4
6	6	5
7	7	6
8	8	6
9	9	7
10	10	8
11	11	9
12	12	9
13	13	10
14	14	11
15	15	12
16	16	12
17	17	13
18	18	14
19	19	15
20	20	15

21	21	16
Sl.No	Rating of Welding Transformer In KVA	Rating of Capacitor in KVAR
22	22	17
23	23	18
24	24	19
25	25	19
26	26	20
27	27	21
28	28	22
29	29	22
30	30	23
31	31	24
32	32	25
33	33	25
34	34	26
35	35	27

NOTE

1. If any consumer fails to install the capacitors at all or fails to install the capacitors of required rating or the capacitors already installed are found during inspection to be damaged or become defective or ceased to function, such consumer shall attract penal provisions as per General Terms and conditions of supply notified by the licensee from time to time.
2. Low Power factor surcharge is to be levied for the consumers falling under LT III (A) Industrial (Optional) and LT III (B) Industrial Optional categories as applicable to HT consumers.

3. In case the rated capacity of the induction motor or welding transformer falls in between the steps of the stipulated ratings, the capacitors suitable for the next higher step shall be installed by the consumer.

4. The failure on the part of the consumer to comply with the above requirement, shall be treated as violation of terms and conditions of the supply and the Licensee can terminate the contract and collect the sum equivalent to the minimum charges for the balance initial period of agreement.