Andhra Pradesh Electricity Regulatory Commission
Hyderabad

O.P. NO. 29/2002
O.P. NO. 30/2002
O.P. NO. 31/2002
O.P. NO. 32/2002
O.P. NO. 33/2002

24th March, 2002

Present: Shri. G.P. Rao, Chairman
Shri. D.Lakshminarayana, Member
Shri. A.V.Subba Rao, 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 and representatives of various consumer organisations on 27th February, 2002 at Tirupathi, on the 8th March,2002 at Visakhapatnam, on the 1st, 2nd 5th and 11th March, 2002 at Hyderabad, the Staff of the Commission representing the consumers and the Principal Secretary, Energy Department, Government of Andhra Pradesh on the 11th March, 2002 at Hyderabad and the Chairman & Managing Director, APTRANSCO, Joint Managing Director, APTRANSCO, the Directors of APTRANSCO and the Managing Directors of the DISCOMS on the 11th March, 2002 on the submissions by the Staff of the Commission, having consulted the members of the Commission Advisory Committee on the 13th March, 2002 and having considered the documents available on record, passed the following order:-

CHAPTER – I : INTRODUCTION

The Commission by their orders dated 31-1-2000 granted Transmission Corporation of Andhra Pradesh Limited (APTRANSCO) the 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) were granted by orders dated 29-12-2000 a Distribution and Retail Supply Licence each with effect from 01.04.2001 to carry out Distribution and Retail Supply business in 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 has filed its Aggregate Revenue Requirement (ARR) for Transmission and Bulk Supply on 31-12-2001. The four DISCOMS also filed ARR for Distribution and Retail Supply on 31-12-2001. Both APTRANSCO and the DISCOMS have filed tariff proposals for FY 2002-03 on 23-01-2002. The Commission has to determine the tariff for FY 2002-03 based on the filings of APTRANSCO and DISCOMS and objections/suggestions received/heard from general public.

CHAPTER – II : REVIEW OF TARIFF FILINGS FY 2001-02

4. The Commission approved Tariffs for FY 2001-02 on 24-03-2001. This is the second tariff order of the Commission. While the first tariff order attempted the initial steps of reforms in the electricity sector, the Second Order focused on rationalisation and consolidation. Towards this end the Commission initiated a number of steps.

5. The four Distribution and Retail Supply Companies started functioning as separate companies with effect from 1-4-2001. The unbundling of the distribution and retail services from the transmission and bulk supply business required fixation of the Bulk Supply Tariffs (BST) to be charged by APTRANSCO to the DISCOMS. Given the huge variation in the sales mix, the cost structure among the DISCOMS and the need to have a uniform retail tariff across the State, the Commission opted for differential BST as a method of re-balancing the financials of the DISCOMS. The BST represented the first step towards recognizing the commercial arrangement between APTRANSCO and the DISCOMS.

6. The Commission while finalizing the Second Tariff Order placed considerable emphasis on greater public participation. Arrangements were made to invite the general public as well as the media to the public hearings. Notices regarding the public hearing process were issued well in advance and it was ensured that the Licensee's responses to the objectors were made available to the objectors as soon as possible, and in any case, before the public hearing.

7. The combined Aggregate Revenue Requirement approved by the Commission for APTRANSCO and DISCOMS was Rs. 8284 Crs for FY 2001-02 while the expected revenue from current tariffs was Rs. 6252 Crs. The gap of Rs. 2062 Crs was filled by efficiency gains of Rs. 501 Crs and Govt. of Andhra Pradesh (GoAP) subsidy of Rs. 1561 Crs. No increase in tariff was effected. The Commission had admitted an amount of Rs. 90 Crs as special appropriation

from out of Rs. 1073 Crs of financial loss stated to have been incurred by APTRANSCO. The main highlights of the Tariff Order for FY 2001-02 are as follows.

8. Two major studies were initiated One such study to assess the technical losses on EHT was awarded to the Central Power Research Institute (CPRI), a public sector organization in response to the public concern among the stakeholders regarding the high transmission losses claimed by APTRANSCO. Reduction of losses continues to be a major concern of the Commission and without independent estimates the regulatory process remains constrained. Analogous to the issue of determination of losses is the question of estimation of agricultural consumption. In the Tariff Order for FY 2000-01 the Commission had directed the Licensee to carry out census of pump sets within six months of the Order. While the census provided data on the number of pumpsets and their capacity, the usage was to be ascertained from meter readings on LV side of transformers feeding predominantly agricultural pumpsets. The Commission issued formats for meter readings to ensure availability of data on a uniform and consistent basis.

9. The tariff design was further rationalised to achieve the objectives set forth in the Reform Act of 1998. Attention was on i) rationalisation of categories; ii) rationalisation of tariffs and iii) incentives for incremental consumption by HT consumers. Accordingly the following changes have been introduced.

(i) <u>LT Category-III (a):</u>

Sugarcane Crushing was brought under LT Cat.III (a). The consumption would be metered and charged at 50 ps/unit.

For Aquaculture loads below 10 HP contracted load under Category LT-III(a), metered tariff of 125 ps/unit was fixed. Existing flat rate was withdrawn.

The new metering arrangements for Category LT-III (a) prescribed LT demand meters for contracted load between 20-50 HP and metering on HT side of the transformers for loads between 50-75 HP.

(ii) <u>LT Category-III (b):</u>

For Category LT-III (b) which was optional to consumers with connected load from 75 HP to 150 HP, the meters would be fixed on the HT side of the transformer.

(iii) <u>Agriculture:</u>

While retaining the tariff for agriculture on a flat rate basis, the Commission had introduced an 'optional' metered tariff with 20 ps./unit for the first 2500 units of consumption per year and 50 ps/unit for consumption above 2500 units. This was intended to help farmers who avail themselves of power supply for about 1200 hrs. in a year with cheaper metered bill relative to the flat rate on the basis of capacity of pumpsets.

(iv) <u>Industrial Categories:</u>

For consumption in industry for Category HT-I an incentive system was introduced for increased consumption relative to the previous twelve months. The excess over the consumption for the corresponding month/monthly average consumption of the previous year was allowed a rebate of 10%, 15%, 20% and 25% in load factor ranges of 40-50%, 51-60%, 61-70% and above 70% respectively.

10. At the current tariffs, against the total cost to serve of Rs. 2848 Crs for the domestic category, the cross subsidy was Rs. 726 Crs and the Government subsidy was Rs. 578 Crs . The new domestic tariff fetched 54% of the cost to

serve the domestic category. For agriculture, against the total cost to serve of Rs. 2227 Crs the amount of cross subsidy was Rs. 1072 Crs and the Govt. subsidy was Rs. 853 Crs. This level of tariff represented 14% of the cost to serve the agriculture category. The other major subsidy by the Government of Andhra Pradesh was to the Rural Electric Co-operative Societies which was Rs. 102 Crs.

11. The process of issue of specific Directives' initiated during the first Order was continued in the Second Order. The directives covered different areas such as Metering of new services, Regularisation of unauthorised agricultural connections, Regulation of supply for agricultural services, Identification of multiple connections, Energy Audit, Completion of census of agricultural pumpsets, Collection of arrears, Preparation of databases, Failure of distribution transformers, bulk supply agreements and throwing open concluded Power Purchase Agreements (PPAs) for public scrutiny. 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 2002-03

12. 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 Expected Revenue from existing Charges (ERC)/Aggregate Revenue Requirement (ARR) for carrying out their Transmission & Bulk Supply Businesses and the Distribution and Retail Supply businesses respectively for FY 2002-03 U/S 26(5) of Reform Act on 31-12-2001.

13. The Commission after a careful examination of the ERC/ARR filings informed APTRANSCO and the four DISCOMS on 3-1-2002 that the filings made by them are considered incomplete as they did not include proposals to deal with the revenue gap between the "Annual Revenue Requirement" and the "Expected Revenue from Existing Charges" and hence not in accordance with APERC (Conduct of Business) Regulations 2000 (as amended).

14. APTRANSCO for its Transmission and Bulk supply business and each DISCOM for Distribution and Retail supply business filed on 23-01-2002, proposals for bridging the revenue gap as directed by APERC on 03-01-2002 which also included proposals for increase in tariffs. These filings together with the filings made on 31-12-2001 were taken on record as follows:

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 2002-03	29/2002
2	APEPDCL	ARR/ERC and Tariff proposals for Distribution & Retail Supply business for FY 2002-03	30/2002
3	APCPDCL	-do-	31/2002
4	APNPDCL	-do-	32/2002
5	APSPDCL	-do-	33/2002

Notification calling for Objections/Suggestions

15. The APTRANSCO and the DISCOMS were directed on 24-01-2002 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 area 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 2002-03 with APERC and that copies of the filings (together with supporting materials) made by APTRANSCO, the Transmission & Bulk Supply Licensee (O.P.No.29) and DISCOMS, the Distribution & Retail Supply Licensees (O.P.Nos. 30 to 33) were available with Chief Engineer/Plg&RAC, Vidyut Soudha/Hyderabad and also in the office of the Chief Engineer (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 23-02-2002.

16. 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 the Commission shall hold a proceeding on the Revenue calculations and Tariff proposals of the Licensees and may 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 24-01-2002 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 mention thereof in their objection/suggestion.

Objections/Suggestions received – Public Hearing

17. Following the public notice, 585 persons/organizations have sent their objections/suggestions on the proposals of APTRANSCO/DISCOMS for revision of tariff to Secretary, APERC. After perusal of these objections it was noticed that in respect of 461 objections, duplicated copies of same set of objections were sent from 11 different areas, the name and address of applicant only varying. All identical filings of these 461 Nos. suggestions/objections were grouped together and were taken as only 11 Nos. suggestions/objections for taking note of issues raised and also for sending invitations for public hearings. Grouping these 461 Nos. as 11 Nos, objections/suggestions the revised total number of objections/suggestions amounted to 135 Nos. Of these 116 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.

APTRANSCO and CPDCL Area	-	58
EPDCL Area	-	10
NPDCL Area	-	10
SPDCL Area	-	38
		116

Considering the elaborate arrangements required for conducting a Public hearing and the time available to finalise the new tariffs to make them effective from 01-04-2002, the Commission decided to hold Public Hearings at Tirupathi (Head Quarters of SPDCL), Hyderabad City (Head Quarters of APERC/ APTRANSCO/CPDCL) and Visakhapatnam (Head Quarters of EPDCL). The 10 Nos. Objectors who wanted to be heard from NPDCL Area were proposed to be heard at Hyderabad.

18. The venues fixed for the Public Hearing were Sri Srinivasa Auditorium, S.V.University Campus, Tirupathi, Bharatiya Vidya Bhavan Auditorium, Hyderabad and Zilla Parishad Hall, Visakhapatnam. The venue Auditoriums were large enough to allow the press and the general public to witness the proceedings. Notice of Public Hearings from 27-02-2002 to 08-03-2002 was given to APTRANSCO, the four Distribution Companies and the GoAP. All the persons who had expressed their desire to be heard in person and were permitted to do so by the Commission, were also intimated in writing the dates on which they would be heard. General public were also informed of the dates of public hearing through a press release. Media was also invited to attend the public hearings. Due to the sudden demise of the Hon'ble Speaker of Lok Sabha on 3-3-2002 a change was made in the programme of hearings originally scheduled on 4th and 5th March 2002 as follows:

(i). All the petitioners who were originally scheduled to be heard on 04-03-2002 were heard on 05-03-2002. The venue was Bharatiya Vidya Bhavan, Basheerbagh, Hyderabad.

(ii). All the petitioners who were originally scheduled to be heard on 05-03-2002 were heard on 11-03-2002. The venue for the hearing was changed to Convention Hall, Institute of Engineers Building, Khairtabad, Hyderabad as Bharatiya Vidya Bhavan Auditorium was not available for use by APERC on 11-03-2002 due to a prior booking.

19. The Commission held public hearings from 27-02-2002 to 11-03-2002 on the dates given below from 9-00 hrs to 14-00 hrs on each day excepting on 08-03-2002 when the hearing was held from 10-00 hrs to 13-30 hrs.

Table No.2

Sl. No.	Date	Venue	Details of consumer groups/persons who were heard
1	27-02-2002	Sri Srinivasa Auditorium, S.V. University Campus, Tirupathi	Persons/groups representing all categories of consumers from SPDCL Area.
2	01-03-2002	Bharathiya Vidya Bhavan Auditorium, Hyderabad	Persons/groups representing political parties and affiliated organisations
3	02-03-2002	-do-	Persons/groups representing Employee Associations and Industry.
4	05-03-2002	-do-	Persons/groups representing consumer Organisations.
5	08-03-2002	Zilla Parishad Hall, Visakhapatnam	Persons/groups who raised objections /suggestions from EPDCL Area.
6	11-03-2002	Convention Hall, Institution of Engineers, Khairthabad, Hyderabad	(i) Persons/Groups who raised objections/suggestions from NPDCL Area. (ii) Commission staff (iii) Principal Secretary, Energy, GoAP (iv) APTRANSCO on the presentation made by Commission Staff.

20. The Commission directed APTRANSCO/DISCOMS vide its letter dated 18-02-2002 to submit replies to all the public objections as and when they are received. The APTRANSCO/DISCOMS have made available copies of their written responses to the objections of the general public appearing before the Commission on each day of the public hearings. Responses for objections made during the Public Hearing by others were submitted after the public hearing.

21. As directed by the Commission vide its letter dated 26-02-2002,

(i). APTRANSCO and DISCOMS made short opening presentations at the commencement of the public hearings at Tirupathi, Hyderabad and Visakhapatnam.

(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 the general public made their objections/suggestions and APTRANSCO/DISCOMS responded to the issues raised by the objectors, the staff of the Commission made a presentation on the proposals of APTRANSCO/DISCOMS on 11-3-2002 highlighting the key issues/concerns. The APTRANSCO and the four DISCOMS presented their response to the presentation of the Commission Staff.

22. The Principal Secretary, Energy, GoAP also made a presentation before the Commission on 11-03-2002 expressing the views of Govt. on payment of subsidy and other related issues.

23. During the Public Hearings at Tirupathi and Visakhapatnam, 15 persons who had not submitted written objections requested the Commission to permit them to participate in the Public Hearings. These 15 persons were permitted by the Commission to present their views. Considering the Objections/Suggestions made by these 15 persons, the total number of Objections/Suggestions taken into account by the Commission for finalising the Tariff Order came to 600 Nos.

24. Subsequent to the due date of 23-02-2002 and after finalisation of the programme for public hearings, 12 more objections/suggestions were received by the Commission along with 15 supplemental objections/suggestions. Though it was not possible to resume the hearings, all these objections/suggestions were given due consideration while finalising the orders of the Commission in O. P. Nos. 29 to 33 of 2002.

25. The ARR/Tariff proposals of Licensees were discussed in the Commission Advisory Committee (CAC) meeting held on 13-03-2002, and suggestions made by the members of CAC were taken into consideration by the Commission while finalising the Tariff Orders.

CHAPTER – IV A : COMMENTS OF GENERAL PUBLIC ON TARIFF FILING

Legal Issues:

26. The following legal issues have been raised in regard to the application filed by APTRANSCO and the four distribution companies for determination of their Annual Revenue Requirements and Tariff Proposals.

27. The objectors contended that in terms of the provisions of Section 26 of the Andhra Pradesh Electricity Reform Act, 1998 (Reform Act) the APTRANSCO and four distribution companies were required to submit their Tariff Proposals 90 days in advance of the beginning of the financial year 2002-03. APTRANSCO and the four distribution companies have however submitted the tariff proposals only on or about 22nd January 2002 i.e. 22 days late. This has been done, according to the objectors, in view of the election to the municipal corporations and municipalities and at the instance of the party in power in the State.

APTRANSCO has denied the allegations regarding delay in submission of Tariff Proposals made by the objectors and has stated that the Reform Act requires only the filing of Annual Revenue Requirements by 31st December 2001 and not the Tariff Proposals. APTRANSCO had duly filed the Annual Revenue Requirements within the time prescribed. There has been no violation on the part of the APTRANSCO in this regard.

28. A number of objectors stated that the existing Power Purchase Agreements (PPAs) entered into by the erstwhile Andhra Pradesh State Electricity Board (APSEB) with the generating companies for the purchase of electricity, (which are now agreements with APTRANSCO as the successor of APSEB) should be re-examined and the pricing arrangement should be revised to reduce the cost to the consumers.

APTRANSCO has stated that as per the earlier orders passed by the Commission such of the PPAs which are entered into by APTRANSCO or the DISCOMS with the generating companies after 3rd April 1999 i.e. when the Commission came into existence and any extension or renewal of the pre existing PPAs after the above date requires the consent of the Commission in terms of section 21 (4) of the Reform Act. It was submitted that the Commission should not review the PPAs entered into before 3rd April 1999 except when such PPAs come up for any modification, extension or renewal.

29. The objectors stated that the APTRANSCO should enter into Bulk Supply Agreements with the DISCOMS similar to that of a PPA with the generating companies and such Bulk Supply Agreements should be subject to the approval by the Commission after a public notice, public consultation and public hearing. These Bulk Supply Agreements should be made available to the public.

APTRANSCO has stated that it will comply with the decision of the Commission in this regard.

30. The objectors stated that under the provisions of the Reform Act, there is no authority for the Commission to allow the licensees any automatic cost pass-through. The objectors also stated that the plea for automatic indexation of costs and true-up mechanism to enable recovery of the costs during the year amounted to variation/modification of tariff during the financial year and such a course is not permissible in terms of the provisions of section 26 (9) of the Reform Act.

APTRANSCO has stated that it is for the Commission to consider the automatic Cost pass-through in accordance with the provisions of the Reform Act.

31. Some of the objectors stated that the classification of consumer as per the practice adopted by APSEB on the basis of the purpose for which the electricity is required is not permissible under the Reform Act as section 26(7) of the Reform Act does not recognise the same unlike in the provisions under the Electricity (Supply) Act, 1948.

APTRANSCO has stated that matters related to tariff classification are to be dealt with the Commission.

32. The objectors stated that in the schedule of charges there is a provision for penal rate in the case of theft or malpractice. It was submitted that the penalties cannot be imposed through tariff and the commission has no power to impose any such penalty.

APTRANSCO stated that the penalties are charged in accordance with the terms and conditions of Supply of electricity.

33. Some of the objectors stated that the Commission should regulate the trading activities of APTRANSCO, the distribution companies and others when they seek to sell electricity outside the State.

APTRANSCO has stated that it is for the Commission to decide.

34. The objectors stated that the APTRANSCO and the four DISCOMS are not acting as independent licensees. They cannot be allowed to act and conduct the tariff proceedings jointly.

APTRANSCO submitted that the filing has been done independently by the five DISCOMS and the Annual Revenue Requirements are sought to be determined separately. It was further submitted that acting independently does not mean that five DISCOMS cannot present the cases commonly and that they should necessarily act in an adversarial manner.

CHAPTER-IV B: IMPORTANT ISSUES RAISED DURING THE PUBLIC HEARING AND REPLIES BY APTRANSCO

Issue 1. **Agricultural Consumption**

35. Earlier to 1982 all Agriculture services were metered and as per 10 years' meter readings statistics, Agriculture consumption was only 450 units/HP per year in spite of 24 hrs power supply. Hence consumption per pump of average 5 HP comes to 2250 units per year. It is thus only about 50% of APTRANSCO's projections. Hence the actual Agriculture consumption should be 10,500 /2 = 5250 and not 10500 which is very high.

LICENSEES: In Para 147 of the previous tariff order, the Hon'ble Commission observed that the meter readings from the Distribution transformers and the census data could form a reasonable basis for estimating agricultural consumption. Though complete census data is not yet available, a substantial part of the work is completed and the progress is regularly furnished to the APERC. The data from the readings of the meters on the LV side of the transformers feeding predominantly agricultural loads is also being regularly collected and submitted to the Hon'ble Commission.

As such, the DISCOMS have estimated the agricultural consumption in their respective areas of supply on the basis of the meter readings on the LV side of the Distribution transformers feeding primarily the agricultural pump sets. The details of the computations are provided in the respective ARR filings in the section on "Basis of Projections".

In any event a concessional metered tariff on 20 ps/kwh for consumption upto 2500 units/annum is available for the consumers. As per the objectors' computation, a 5 HP motor would consume 2250 units/annum. All objectors who feel that their consumption is lower than 2250 units/annum are welcome to apply for metered tariffs.

Issue 2: <u>Hydel generation is to be supplied to the upland farmers.</u>

36. Hydel generation of 8000 MU is produced by constructing dams with public money. And it is to be supplied to the upland farmers.

LICENSEES: The hydel power supplied to the Grid is meant for the consumers of the entire State and cannot be claimed by a specific consumer group.

Issue 3: <u>Free supply of Electricity.</u>

37. (1) It is not possible to opt for cultivation unless electricity is supplied free of charge.
(2) Because of factors like misuse of powers by officers, transformer failures, low voltage problems etc., farmers are burdened with unnecessary expenditure of an amount of Rs. 5000 per year. The staff is collecting Rs. 3000 for replacement of a failed transformer.
(3) The supply is not continuous even during the night time. Requested free electricity supply and during day time for 12 hrs.

LICENSEES: The DISCOMS cannot extend free supply without being compensated for the financial burden on account of such free supply. The supply of 9 hours per day as per the agreed supply policy is being strictly followed and this is being centrally monitored at the DISCOM headquarters. The DISCOMS cannot extend additional supply without being compensated for the financial burden on account of such free supply.

Issue 4: **9 hrs power supply is not sufficient.**

38. 9 hrs power supply is not sufficient. 12 hrs day time power supply should be given to Agriculture sector. All arrears should be waived.

LICENSEES: The DISCOM cannot extend additional supply or change the duration of power supply without being compensated for the financial burden on account of such free supply. Waiver of arrears is also not a feasible proposition.

Issue 5: **Hiking tariff to Agriculture sector is not correct and is illegal**

39. Having 10000 technical engineers, APTRANSCO could not curtail technical defects, line losses and theft of power and hiking tariff to Agriculture sector is not correct and is illegal.

LICENSEES: The DISCOMS have taken up an aggressive loss reduction drive programme. The results are as follows

Table No. 3

DISCOM	**Losses as percentage of DISCOM input**		
	FY 2001-02 (Approved)	**FY 2001-02 (Present estimate)**	**FY 2002-03 (Projected)**
APEPDCL	17.4	17.4	17.0
APSPDCL	23.1	22.3	21.3
APCPDCL	30.7	30.2	25.0
APNPDCL	24.4	23.2	21.2
Total	26.0	25.1	22.2

A statement of town losses during January 2002 compared to January 2001 demonstrates the loss reduction achieved:

Table No. 4

Towns - Loss Details	Jan 2001	Jan 2002
No. of towns under Energy Audit	114	114
No. of towns with less than 7.5% loss	19	23
No. of towns with loss between 7.5 and 10%	60	88
No. of towns with loss between 10 and 12.5%	27	2
More than 12.5%	8	1

Hence the contention that losses are not being curtailed is not correct.

Intensive inspections are regularly carried out for prevention of theft.

DISCOMS have improved their revenue by collecting arrears and the following facts regarding revenue demand and collection reveal the position:

Table No. 5

(Rs. Crores)

Period	Demand	Collection	Collection
FY 2000-01 (12 months)	5779.99	5597.27	96.84%
FY 2001-02 (Upto Jan 2002-10 months)	5372.43	5455.71	101.55%

Issue 6: **<u>Concessions for Aqua farmers.</u>**

40. The rebates and concessions offered to the Agriculture farmers should be extended to Aqua farmers since instead of farming on land they are farming in fish ponds.

LICENSEES: This is not practicable as aqua culture is highly remunerative compared to agriculture.

Issue 7: **<u>Efficiency of Agriculture pumpsets.</u>**

41. Efficiency of Agriculture pump sets should be increased by the State Govt. to save electricity.

LICENSEES: Replacement of existing high friction foot valves with low friction improvised foot valves etc., is already being implemented by APTRANSCO by seeking funds from various lending agencies. The low agricultural tariff is being offered due to subsidy from State Government and cross subsidy from other categories of consumers. The project to increase the efficiency by the Government has to be looked at from viability point of view.

Issue 8: **<u>Meters to be fixed to Agriculture pumpsets.</u>**

42. Meters should be fixed to Agriculture pumpsets.

LICENSEES: APERC has already given a directive for fixing meters to all Agriculture pumpsets by 31-3-2003 and the DISCOMS have already programmed for fixing the same.

Issue 9: **<u>Information about the survey of agricultural pumpsets.</u>**

43. The Licensees have failed to furnish information about the survey of agricultural pump sets, even though the deadline of October 2001 is over.

LICENSEES: Substantial progress has been made on the census of agricultural consumers. The progress is being reported to the Commission regularly along with the likely date of completion.

Issue 10: <u>Non-acceptance of meters for Agricultural consumption.</u>

44. Agriculturists won't accept the metered tariff as there might be a plan for removal of subsidy to Agriculture sector in the coming 3-4 years.

LICENSEES: The assumption is not true and if Agriculture consumers opt for metered tariff concessional rate is available.

Issue 11: <u>Present Agriculture Tariff is the highest.</u>

45. The Present Agriculture Tariff is the highest amongst the states in India and thus tariff hike for this category is not correct.

LICENSEES: The effective tariff hike proposed for the agricultural consumers is about 7% and is in line with the trend of inflation over the last two years. It also needs to be noted that the agricultural tariff is one of the lowest in the country barring the states that provide free power to the agricultural consumers.

Issue 12: <u>LT III (a) category tariff</u>

46. In LT III (a) category tariff was reduced to those who consume more than 1000 units but was hiked to those who consume less.

LICENSEES: The tariff of this category has been proposed to be merged to a single slab instead of the earlier two slabs. The increase in the tariff for consumption of the first 1000 units will be borne by all the consumers. The effective increase in tariff is 6.3% which is in line with the inflationary trend over the last two years.

Issue 13: <u>Uniform unit rate to all slabs of domestic sector</u>

47. Adopt Uniform unit rate to all slabs of domestic sector

LICENSEES: Section 26 (7)(a) of the APER Act specifies the principles of tariff fixation in the following way:

"Any tariff implemented under this section,-

(a) shall not show undue preference to any consumer of electricity, but may differentiate according to the consumer's load factor or power factor, the consumer's 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- subisidization;"

It is clear from the reading of the above, that tariffs may be set differently for different consumption levels during a period. The proposed tariff design is based on the perceived need for cross-subsidisation at the various consumption levels.

Issue 14: <u>Tariff concession to HT consumers is unwarranted.</u>

48. Tariff concessions to HT consumers is unwarranted.

LICENSEES: The HT industrial tariff category is a key subsidising category and provides critical cross-subsidy support for Domestic, Agricultural consumers and other subsidised categories. In the recent years, the sales in HT industrial has been showing a downward trend and there has been a significant migration to captive consumption and third party sales. To ensure that the overall quantum of cross-subsidy support available from this category does not go down further, it is Critical to reverse the downward trend and migration from the grid. Tariff rebalancing is one of the key avenues available for reversing this and hence Licensees have proposed tariff rationalisation and incentive measures.

Issue 15: **<u>Wheeling charges</u>**

49. Additional revenue can be generated from raising wheeling charges to Rs. 2 per unit.

LICENSEES: The Licensees (APTRANSCO and DISCOMS) have already filed a joint proposal for wheeling tariff of Re 1 per unit. The issue is being considered by the Hon'ble Commission and the Companies are awaiting decision from the Hon'ble Commission.

Issue 16: **<u>Uniform Bulk Supply Tariff for all DISCOMS</u>**

50. Uniform Bulk Supply Tariff for all DISCOMS is desirable.

LICENSEES: APTRANSCO has filed for a Uniform Bulk Supply Tariff for all DISCOMS. However tariff determination is the prerogative of the Commission. The Commission has to balance a number of factors as per the provisions of the Reform Act.

Issue 17: **<u>Tariff to Dhobhighats</u>**

51. The Dhobhighats and PWS schemes should be treated separately. The former is used for personal benefit of the Dhobhi whereas the latter is used for the benefit of public. They collect water charges only to pay their electricity charges with service motto. Further AP State Govt. has banned "public tap water system" because of not meeting the electrical charges from the water tax collection. Hence PWS schemes should be charged at Rs. 200 per month per HP connected load subject to a maximum of 10 HP. If this is not possible, the limit may be reduced to 7.5 HP.

LICENSEES: The suggestions of the objector are noted. However the Licensee has already submitted its tariff proposals and at this time does not propose to revisit these proposals during the current proceedings.

Issue 18: **Private Schools**

52. To consider private schools under LT cat VII.

LICENSEES: It is not possible to consider private schools under cat-VII.

Issue 19: **Government Schools**

53. To consider Govt. Schools as government subsidized category as LT-I.

LICENSEES: APTRANSCO follows the guidelines of APERC.

Issue 20: **Internal Efficiency.**

54. The companies are not achieving the targeted internal efficiency and on account of their inefficiency consumers are burdened through tariff hike. Requested to achieve the internal efficiency by way of arresting thefts and reducing line losses.

LICENSEES: The Licensee would like to bring to the attention of the Commission the following aspects on internal efficiency.

A statement of town losses during January 2002 compared to January 2001 demonstrates the loss reduction achieved:

Table No. 6

Towns-Loss Details	Jan 2001	Jan 2002
No. of towns under Energy Audit	114	114
No. of towns with less than 7.5% loss	19	23
No. of towns with loss between 7.5 and 10%	60	88
No. of towns with loss between 10 and 12.5%	27	2
More than 12.5%	8	1

The DISCOMS are trying their best to arrest theft of energy and reduce line losses. GOAP has enacted the anti-pilferage legislation with effect from 30-06-2000. This provides for stringent penalties. In order to arrest thefts, intensive raids are being conducted by pooling all the resources available in the sector and by taking assistance from the police, wherever necessary. The achievement so far is as follows:

Table No. 7

	FY 200-01	FY 2001-02 (upto 01/02/2002)
Services inspected	26,06,834	9,92,465
Cases booked	18,911	33,736
Cases compounded	11,366	23,820
No. of arrests	1,803	671
Assessed Amount (Rs lakhs)	2,704.50	4,514.07
Assessed amount collected in compounded cases (Rs lakhs)	1,107.61	2,330.02
Compounded amount collected (Rs lakhs)	787.18	1,046.62

The DISCOMS have also taken up an aggressive loss reduction drive as follows:

Table No. 8

DISCOM	Losses as percentage of DISCOM input		
	FY 2001-02 (Approved)	**FY 2001-02 (Present estimate)**	**FY 2002-03 (Projected)**
APEPDCL	17.4	17.4	17.0
APSPDCL	23.1	22.3	21.3
APCPDCL	30.7	30.2	25.0
APNPDCL	24.4	23.2	21.2
Total	26.0	25.1	22.2

The Hon'ble Commission will recognise that as overall losses go down, incremental loss reduction becomes progressively difficult and expensive. In view of this, its proposed reduction levels are appropriate and would request the Commission to accept the same.

Issue 21: **Merit Order Dispatch.**

55. Savings in power purchase costs could be achieved by adopting the principle of merit based on total costs and thus dispatching APGENCO and CGS stations instead of the IPPs - thus saving Rs. 361 Crs and thereby not increasing the tariffs.

LICENSEES: The principle of merit order adopted considers the variable cost of the energy available from different existing sources, as per international practice and also the contractual obligations of APTRANSCO. Considering total cost per unit for merit order from existing stations is incorrect as fixed costs represent sunk costs of the system and represent cost commitments of the system that have to be met irrespective of the energy drawals. The merit order sequence drawn up within this framework minimises costs for the system as a whole and the objections are untenable.

However APGENCO stations will inevitably be dispatched fully subject to system requirements to enable the Licensees maintain system stability and security and also to make additional intra and inter-state sales proposed in the filing of proposed tariffs (FPT).

The statement as prepared by the objector assumes that the replacement of GVK, Spectrum, Kondapalli and Non-Conventional energy by APGENCO sources/ CGS will avoid cost to the tune of Rs. 1491.7 Crs as presented in the ARR for FY 2002-03. However, avoidance of this cost as presented is incorrect as it ignores the contractual obligations of APTRANSCO. As per PPAs signed, APTRANSCO has to pay fixed costs to APGENCO, CGS and IPPs irrespective of the drawal. The key fixed cost commitments, station wise for FY 2002-03 is indicated below:

Table No. 9

(Rs. Crores)

Source	**Fixed Cost**
GVK	195
Spectrum	183
Lanco Kondapalli	337
APGENCO	2150
NTPC Simhadri	328 (for part year)

Hence the contention of the objector that Rs. 361 Crs can be saved if only APGENCO and CGS stations are dispatched and IPPs are not dispatched is incorrect. In reality such a course of action will lead to additional purchase cost commitments.

Issue 22: **<u>Special appropriation of Rs. 90 Crs</u>**

56. Special appropriation of Rs. 90 Crs should not be allowed in the ARR of FY 2002-03 as this was already included in the tariff revision of FY 2001-02.

LICENSEES: As explained in Para 2.3(iii) of the ARR filed by APTRANSCO, APTRANSCO submitted that due to financial adversities and the resultant financial loss anticipated during the current year, APTRANSCO has been unable to recoup the previous year loss (allowed to be carried forward by the Commission) during the current year. APTRANSCO submitted to the Commission that this loss may be allowed for recovery in FY 2002-03 as a special appropriation.

Issue 23: **Return to DISCOMS**

57. APTRANSCO and the DISCOMS have decided to forego their return. In view of the significant cost savings and additional revenue, they should be given the reasonable return.

LICENSEES: The Licensee welcomes the proposal of the objector. However with a view to contain any sharp tariff increase the Licensees have decided to forego returns for the ensuing year.

Issue 24: **Unrealistic load forecast**

58. The load forecast by APTRANSCO continues to be unrealistic as shown by the following reasoning

- APTRANSCO has shown a reduced requirement of capacity addition in its presentation during public hearing of BSES Andhra Power compared to the requirement shown in the APERC order dated 16-08-2001.
- Reserve margin of 14% is unwarranted
- CEA projections cited by APTRANSCO always tend to be on higher side
- Power Purchase by APTRANSCO and DISCOMS continue to be stagnant and any increase in demand has been taken care of by reduction of Distribution losses

- Peak power demand can be met by SSLB pump storage project without adding to capacity
- The additional energy requirement of 1500 MU to maintain frequency as contended by APTRANSCO is the collective responsibility of constituents of Southern Grid.
- The estimates of agricultural consumption continue to be “guesstimates”.

LICENSEES: The load forecast and power procurement plan for 2002-07 was presented to APERC during public hearing of BSES Power project on 16-01-2002. This is under examination by APERC and the purchase of power will be decided on the above plan subject to the approval of APERC.

All the related points have been dealt in the above public hearings and APTRANSCO does not wish to make any fresh submission on these issues.

While these are still estimates the agricultural consumption has now been estimated on a more scientific basis taking into account the LV side meter readings of distribution transformers serving predominantly agricultural loads.

Issue 25: <u>Sale of Surplus Power</u>

59. The proposal of APTRANSCO to sell additional power also looks unrealistic and the scope limited as other States too have non-peak surplus. APTRANSCO also recognises this fact in its filing.

LICENSEES: Negotiations are underway with the power starved neighbouring states and the Power Trading Corporation for sale of surplus power.

Issue 26: <u>Review of PPAs</u>

60. Hearings on PPA of GVK, Spectrum and Kondapalli projects should be held in view of the impending crisis on account of surplus power, the faulty PPAs

signed which burden the consumer with the fixed costs and incentives even if power is not drawn from these generators.

LICENSEES: The Commission has ruled that only PPAs entered into, altered or extended after formation of the APERC are under the purview of the Commission.

Issue 27: Public hearing on the proposed PPA between APGENCO and APTRANSCO

61. Public hearing on the proposed PPA between APGENCO and APTRANSCO should be held.

LICENSEES: The Licensees will abide by the procedure decided by the APERC on this matter.

Issue 28: Incentives & Rebates to APGENCO

62. The incentives and rebates offered to the private parties in the PPAs should be extended to APGENCO. Incentives should be offered only for the generation above 85% PLF.

LICENSEES: APGENCO and APTRANSCO are both owned by the GOAP and formed out of the erstwhile APSEB. With a view to alleviate any sharp increase in tariffs, APTRANSCO and APGENCO have agreed on suitable terms for the PPA. This PPA governs all commercial transactions between the two companies.

Issue 29: **Transmission Losses**

63. The transmission loss for the current year at 8.5% has not been established. The following observations are also made.

- The applicant had earlier stated that the transmission loss for FY 2000-01 is 4.5%. In the FPT for the FY 2001-02, it was contended that the actual transmission loss for the period was 9.6%. It was also indicated that after making certain adjustments the transmission loss would stand at 8.92%;
- The above basis was used to estimate a transmission loss of 8.5% for the FY 2001-02;
- APTRANSCO appears to have presented the Commission with a simulated study, which showed a transmission loss of 8.7%. The study was never made public and APTRANSCO seems to have chosen a combination of parameters so as to justify the claim of 8.5%. The Commission was not satisfied with the findings and an independent study has been ordered;
- APTRANSCO has again come before the Commission on the basis of the same discredited 8.5% without building a suitable case.

It is submitted that the entire application needs to be rejected on this ground alone.

It seems that CPRI has been engaged for the purpose of independent evaluation of the loss. It is long past the time allowed for the CPRI to submit its report. No information is available in the filings in this respect.

LICENSEES: Besides studies entrusted to consultants by the Commission, APTRANSCO has conducted its own studies after fixing 0.2 accuracy class meters at all interface points (72) between APGENCO and APTRANSCO and with 0.5 accuracy meters at all interface points between APTRANSCO and DISCOMS (492 Nos). These studies showed that for the period April 2001-November 2001, the losses ranged from 8.0% to 8.9%, out of which the percentage losses within APTRANSCO's network were around 7.1% and losses of another 1.00% were added on account of losses external to APTRANSCO. The losses vary with reference to the energy handled and particularly the change in hydro-thermal mix.

Issue 30: <u>Drawal from Non-conventional energy sources</u>

64. Drawal from Non-conventional energy sources can be avoided if they are dispatched as per merit order.

LICENSEES: As per the Order of the Commission APTRANSCO has to purchase all the energy generated by the non-conventional energy sources that are willing to sell the energy to APTRANSCO. This energy is purchased at the rate of Rs. 3.32/Unit as per the notification issued by Government of India and accepted by the Commission.

Issue 31: <u>Concession of 25% in tariff to HT industries</u>

65. Concession of 25% in tariff to HT industries not to be permitted.

LICENSEES: The HT – Industrial category is a key subsidizing category and provides critical cross-subsidy support for Domestic, Agricultural and other subsidized consumer categories. The Licensees have observed that in the recent years the sales in HT-Industrial category has been showing a downward trend and there has been a significant migration to captive consumption and third party sales. To ensure that the overall quantum of cross-subsidy support available from this category does not go down further, it is Critical to reverse the downward trend and migration from the grid. Tariff rebalancing is one of the key avenues available to the Licensees for reversing this and hence the Licensees have proposed tariff rationalization and incentive measures. In any event this incentive applies only for attracting additional sales.

The Licensees would also like to point out that while rebalancing the tariffs for HT-Industry, an overall hike in tariffs for these consumers has been suggested in the present tariff proposals.

Issue 32: <u>Regulatory Asset</u>

66. Mechanism like regulatory asset should not be allowed.

LICENSEES: The regulatory asset is a mechanism to protect the financial interests of the utilities for mitigating impact of factors beyond their control. Section 11 of the APERA very clearly states that one of the important functions of the Commission is to keep in view "the interest of the consumer as well as the consideration that the supply and distribution cannot be adequately maintained unless the charges for the electricity supplied are adequately levied and duly collected". The regulatory asset ensures that both the interest of consumers and suppliers are met since such an asset can be amortised over time preventing any possible rate shock.

Issue 33: <u>Supply of Surplus Power to Agriculture</u>

67. The surplus 7149 MU of power for which fixed costs are being paid without purchasing, should be purchased and distributed to Agriculture sector throughout the day.

LICENSEES: This involves additional cost of power purchase and hence not practicable.

Issue 34: <u>Completion of Census study</u>

68. The directives of APERC for Compliance of census study multiple service connections in households, dysfunctional meters, unauthorised connections, etc

have not been completed, though 3 years have passed. If this is done, power can be saved and revenue increased.

LICENSEES: Substantial progress has been made on the census of agricultural consumers. The progress is being reported to the Commission regularly along with the likely date of completion.

Issue 35: <u>Charges for the street lighting and water works of municipalities</u>

69. The charges for the street lighting and water works of municipalities should be related to the bulk supply tariff of APTRANSCO with a 20% extra charge over it towards maintenance charges by distribution companies.

LICENSEES: The Bulk Supply Tariff has no relevance for the retail tariffs of the different categories of consumers including local bodies. The tariffs for retail supply are to be made relevant to the cost to serve the different categories of consumers. The cost to serve for the local bodies works out to 528 Ps./Unit whereas the proposed tariff is much below the cost to serve. Thus there should be no objection for the proposed tariff rates.

Issue 36: <u>Imposition of fine on the Licensee</u>

70. To impose fine on the licensees for not implementing the directives of the Commission in respect of metering of 0.2 class accuracy meters at interface points and incomplete crediting of employee benefits.

LICENSEES: No reply

Issue 37: <u>Power Charge Default</u>

71. Power charge default from agriculture sector.

LICENSEES: Licensees are making all efforts to collect dues from all consumer categories, including agriculture and this is manifested in the improved revenue collection percentages.

Issue 38: <u>Levy of Fuel Surcharge</u>

72. Fuel Surcharge should be levied on all consumers.

LICENSEES: The Licensee will abide by the decision of the Commission on this matter.

Issue 39: <u>Interest expenditure</u>

73. APTRANSCO's interest expenditure of Rs. 449.6 Crs has increased significantly from the previous year.

LICENSEES: This is primarily on account of the large capital outlays in recent years to improve system conditions and also for meeting the working capital requirements.

Issue 40: <u>Voltage Surcharge</u>

74. The liability for voltage surcharge should be on the basis of the recorded max. demand and not on the basis of the contracted max. demand with the Licensee and other sources.

LICENSEES: This matter was examined by the APERC on the petition filed by the objector earlier vide O.P.No. 347 of 2000.

Certain other HT consumers have filed writ petitions in Hon'ble High Court of AP on this subject.

Proposals were submitted by APTRANSCO to revise the limits of contracted demand for availing supply at the stipulated voltages in the cases of the HT consumers who have dedicated feeders from sub-stations.

Issue 41: <u>Autonomy for DISCOMS</u>

75. DISCOMS have no financial & functional independence. They have no man power of their own and hence no control on staff. DISCOMS may be made accountable for the power availed from APTRANSCO. Material procurement policy is being controlled by APTRANSCO.

LICENSEES: DISCOMS have already been provided with adequate organisation and freedom to act independently. However, the financial autonomy suggested by the Objector is under the consideration of the Govt.

Issue 42: <u>Formation of Trust.</u>

76. Rs. 4386.95 Crs are supposed to be credited to the Master Trust which is very vital for retired employees. The modalities for raising such huge funds have not been finalised by APTRANSCO. The Commission may direct the APTRANSCO to raise/arrange the funds. As per tripartite agreement these funds must be raised and credited before options are called for.

- Whether the Trusts for managing the current contributions of employees for pension and gratuity have been formed by the APTRANSCO and DISCOMS.

– What is the amount allocated by the Commission towards current contributions for FY 2001-02 and what is the exact amount deposited so far in the Trusts?
– What is the amount that has been deposited in the Trusts towards FY2000-01, for which the Commission has already made allocations?

LICENSEES: Trusts have already been formed and monthly remittances are being made from April 2001 by APTRANSCO as well as the DISCOMS. Efforts are being made to clear the backlog in consultation with the Government.

Pension, Gratuity and Provident fund trusts have been formed for APTRANSCO and the four DISCOMS.

The following are the amounts allocated by the APERC towards contribution to Employee funds for FY 2001-02.

Table No.10

(Rs. Crores)

APTRANSCO	5.84
APEPDCL	8.85
APSPDCL	15.12
APCPDCL	17.28
APNPDCL	10.40
Total	57.49

Average monthly deposits towards contribution to employee funds is Rs. 4.79 Crs and for the period from April to January, 2002 (10 months) an amount of Rs. 47.91 Crs has been deposited in the Non-drawal Bank account.

Issue 43: **<u>Incentives for new Industries</u>**

77. If new industries are allowed incentive, it will create unhealthy competition between the existing power intensive industries and new power intensive industries.

LICENSEES: The Licensees do not agree with the view of the objector. The state needs much more industrial growth to stabilize the economy and to create employment.

Issue 44: Bulk Supply Agreement

78. The BSA should be subjected to same proceedings as all PPAs have been subjected viz. public notices, public hearing, etc.

LICENSEES: Licensee will comply with the decision of the Commission in this regard.

Issue 45: Sales Tax payment

79. The sales tax payment of Rs. 137.55 Crs for the period 1998-2001 is not allowable as a pass through in the ARR for tariff revision for FY 2002-03.

LICENSEES: The contention that the sales tax expense is not allowable as a pass through has no basis.

Issue 46: Carry forward of losses

80. APTRANSCO is not entitled to ask for any carry forward of losses as special appropriation or otherwise.

LICENSEES: Clause XVII, section 2(b), subsection (xiii)a of the Sixth Schedule of the ES Act, 1948 includes the list of special appropriations allowed to be included as a part of the ARR.

It states that 'special appropriation' will include previous losses (that is to say expenditure over income) which have arisen from the business of electricity supply to the extent permitted.

Issue 47: Interest on working capital

81. The licensee holds substantial security deposits from consumers more than sufficient to meet its working capital needs. Thus the plea to allow pass through of interest on working capital is not justified.

- The cost of financing the revenue gap, self-inflicted by way of extraneous considerations in tariff design and irrational tariffs and gross inefficiency, can not be justly or reasonably passed through to the consumers.

LICENSEES: The licensees have considered security deposits from consumers as a source of working capital and the request is for pass through of further requirements, if any.

As has been explained by the Licensees at various times, the revenue gap is caused primarily on account of hydrological failure, excess consumption by the agricultural category in adverse climatic conditions and fall in Industrial sales. These are matters related to supply and demand risk external to the business and as a regulated entity the Licensees are not in a position to undertake these risks. Since the gap is on account of external conditions (and not for extraneous considerations as alleged by the Objector), it is legitimate that the cost of financing the gap is not borne by the Licensees. The allegations of inefficiency made by the objector in this context are frivolous and do not present the true facts.

Issue 48: HT Industrial Tariff

82. The FPT proposes increase of energy charges from the existing rates to Rs. 4 per unit for consumption up to 200,000 units. This increase is particularly a hostile discrimination against the smaller industries in the HT industrial category.

- The FPT propose a reduction of the energy charges from the existing rate of Rs. 3.95 to Rs. 3.50 for consumption over 200,000 units. This preferential rate gives undue preference to larger industries over smaller ones.

– The proposal to give a rebate to the industrial consumers who agree to repatriate captive consumption is also an undue preference to those categories of persons and a hostile discrimination against the other industrial consumers.

LICENSEES: The Licensee has attempted to rationalize the tariffs for this category to encourage efficient consumption. The overall increase for this category is also minimal. Further the Licensee is within its rights to propose differential tariffs by consumption level as per Section 26(7) of the Reform Act. It appears to the Licensee that the Objector is raising issues without foundation only to oppose the proposals for the sake of doing so.

As mentioned the Licensees believe that the proposed tariffs encourage efficient consumption and hence have proposed rates accordingly. This position has already been explained in the filings.

The proposal of the Licensees is to increase the industrial consumption for improving the financial health of the Companies.

Issue 49: <u>LT Industrial III Tariff</u>

83. In the first tariff order for FY 2000-01, the Commission had directed the licensee to come up with proposals for allowing this category of industrial consumers to contract for a demand different from their connected load so that the fixed charges on this category is levied only on the demand so contracted. The licensees omitted to do so. Now, the licensees have come up with a proposal which virtually penalizes the LT industrial consumers with 50 HP or more desirous of availing this facility. It is submitted that all LT industrial consumers be allowed to contract for demand as they may require and the fixed charges be applied to them only on the demand contracted. The cost of energy for small scale industries comprising this category is too high for them to be

competitive. Further, such small scale industries cannot be considered to have any paying capacity for cross subsidisation of other categories of consumers.

LICENSEES: This is an optional tariff for the LT industrial consumers who do not want to avail the HT supply and continue to be under LT supply category upto 150 HP, without the need for creating additional infrastructure by them.

Issue 50: <u>Installation of the 0.2 accuracy class meters</u>

84. The installation of the 0.2 accuracy class meters is still to be completed.

LICENSEES: Installation of 0.2 accuracy class meters between APTRANSCO, APGENCO and all Independent Power Producers (IPPs) is already completed.

Issue 51: <u>Multiple connections</u>

85. The Commission in its directive had instructed Licensees to sort out the issue of multiple connections within four months of the Order. The same has not been completed so far.

LICENSEES: Intensive inspections are carried out and action taken whenever such connections are detected.

Issue 52: <u>Collection of the receivables</u>

86. Collection of the receivables is the duty of the Managing Directors of DISCOM. The steps taken to recover the receivables have not been intimated except stating category wise receivables due.

LICENSEES: DISCOMS have improved their revenue by collecting arrears and the following facts regarding revenue demand and collection reveal the position:

Table No. 11

(Rs. Crores)

Period	Demand	Collection	Collection
FY 2000-01 (12 months)	5779.99	5597.27	96.84%
FY 2001-02 (upto Jan-2002- 10 months)	5372.43	5455.71	101.55%

Issue 53: **<u>Existing meters at the interface points</u>**

87. Objector seeks clarification from the Licensee as to whether the existing meters are in working condition or not at the interface points?

LICENSEES: Metering exists in all transfer points and the meters are functioning well. 0.2 accuracy class meters already exist between APTRANSCO and generators like APGENCO, Independent Power Producers (IPPs) and CGS stations. The features of the meters between APTRANSCO and DISCOMS are also proposed to be upgraded to 0.2 accuracy class. However the existing meters of 0.5 accuracy class meters are functioning satisfactorily.

Issue 54: **<u>Quality power supply</u>**

88. Disclose the measures taken by the licensees to provide quality power supply in terms of frequency and voltage.

LICENSEES: Relays for monitoring frequency are already available as per the Grid Code and due care is taken to ensure that the relays are used appropriately to maintain system security and stability. Various relays are set at different frequency levels as per system requirements.

Substantial capacity addition is being made in the state to improve the supply position and voltages. The capital investment plan of the Licensees include plans for building new lines and substations to relieve the existing overloaded ones. There is also a large capacitor erection programme. These measures are already elaborated in the ARR and FPT applications of the Licensees.

Issue 55: **<u>Stability and Reliability of Power Supply</u>**

89. The Licensee claimed that there is substantial improvement in the stability and reliability of power supply consequent to the reforms and the huge investments made over the past few years. However, the Objectors contend that their experience shows that there is not much change in the situation.

- During the hearings for tariff proposal for FY 2000-01, the then CMD of APTRANSCO stated that Rs. 890 Crs of investment is needed to bring down the transmission losses by 1%. The strategy paper released by the State Government on energy for FY 2002-03 also mentions the same figure. If the Licensees had followed this strategy, the transmission losses would have come down by more than 8%. But such improvement is not to be seen. What happened to the huge investments?

LICENSEES: The transmission system improvements include schemes for evacuation of power from major generating stations to load centers and not exclusively for reducing transmission losses. While executing the schemes, system reliability, security and redundancy for evacuation are also kept in view.

Some of the developments in the transmission system are

- Marked improvement in system transmission parameters which is now capable of handling daily energy of even upto 155 MU.
- No unscheduled trippings of EHT feeders. Since September 2001 the voltage profile throughout the grid has improved.

- APTRANSCO has handled energy 147.5 MU on 23-2-2002, the highest ever so far without any restrictions and this is expected to go upto 155 MU during March 2002.

Issue 56: **<u>Measurement of losses</u>**

90. The figures about T & D losses given by Licensee give rise to many doubts and questions.

- How are the T & D losses being assessed?
- What is the method being followed?
- What calculations are used?
- Whether load flow studies are conducted?

LICENSEES:

- The transmission losses are now measured based on the electronic meters installed at the boundary points between APTRANSCO and Generating Companies and also between APTRANSCO & the DISCOMS. The transmission losses external to APTRANSCO system like losses for transmitting CGS & Eastern Region power also get added to APTRANSCO losses. There are 52 nos energy receiving points by APTRANSCO and about 435 nos energy delivering points to DISCOMS.
- The Distribution losses are arrived at taking the difference in energy received by DISCOMS and the energy sold through meters plus computed sales to agriculture based on meters fixed on about 29000 distribution transformers feeding exclusively agricultural loads.
- The load flow studies are conducted regularly for different scenarios such as maximum thermal season, maximum hydro season, peak load periods, low load periods etc.

Issue 57: Status of Directives

91.

- Metering of agricultural services
- Meters on LV side of Distribution Transformers (DTRs)
- Metering of Street Lights/PWS
- Un-authorised agricultural connections
- Multiple connections
- Census of agricultural connections
- Energy Audit
- Receivables
- DTR failure

LICENSEES: Efforts like counseling the farmers to go for meters and distributing pamphlets, etc., are continuously made. Attempts to install meters in some areas were resisted and where meters are installed, they were destroyed. Farmers were offered tariff concessions for opting to metered tariff and DSM measures. Response so far has generally been poor.

The metering of LV side of DTRs is adopted to compute the per HP consumption of agriculture.

For PWS Schemes and Street Lights all efforts are made to provide meters and comply with APERC's directive.

All the unauthorised agricultural consumers are being continuously pursued to pay the development charges and come forward to regularize their connections.

The process of census of agricultural connections is getting delayed some times as agricultural consumers are not available at the site to give necessary information. It is also reported that the persons present could not give the required information like survey no., ownership details, pump set capacity, etc, as tenants are cultivating the land and were not able to provide ownership details. However the contractors are being pursued to complete the work in March 2002.

Monthly energy audit reports are sent to APERC in prescribed proforma.

DTR failure month-wise data is being filed with APERC.

Issue 58: **Power Pilferage**

92. Power pilferers should be penalized heavily and penalties should be collected.

LICENSEES: The DISCOMS are trying their best to arrest theft of energy and reduce line losses. GOAP has enacted the anti-pilferage legislation with effect from 30-06-2000. This provides for stringent penalties. In order to arrest thefts, intensive raids are being conducted by pooling all the resources available in the sector and by taking assistance from the police, wherever necessary. The achievement so far is as follows:

Table No. 12

	FY 2000-01	**FY 2001-02 (upto 01/02/2002)**
Services inspected	26,06,834	9,92,465
Cases booked	18,911	33,736
Cases compounded	11,366	23,820
No. of arrests	1,803	671
Assessed Amount (Rs lakhs)	2,704.50	4,514.07
Assessed amount collected in compounded cases (Rs lakhs)	1,107.61	2,330.02
Compounded amount collected (Rs lakhs)	787.18	1,046.62

Issue 59: **<u>Crsiterion for purchasing power</u>**

93. APTRANSCO shall adopt the fixed cost and variable cost together as a criterion for purchasing power from various sources.

APTRANSCO: The procurement of power from various available sources has been planned based on the principle of merit order that considers the variable cost of the energy available from different existing sources, as per international practice and also the contractual obligations of APTRANSCO. Considering total cost per unit for merit order from existing stations is incorrect as fixed costs represents sunk costs of the system and represent costs commitments of the system that have to be met irrespective of the energy drawals. The merit order sequence drawn up based on the adopted framework minimizes costs for the system as a whole.

Issue 60: **<u>Arrears shall be declared to public</u>**

94. Details of arrears shall be declared to public for transparency.

LICENSEES: The Licensees are in the process of preparing category-wise age-wise information about the receivables. DISCOMS have increased focus on collection of arrears, which has resulted in improving their revenue. The following facts regarding revenue demand and collection reveal the position:

Table No. 13

(Rs. Crores)

Period	Demand	Collection	Collection
FY 2000-01 (12 months)	5779.99	5597.27	96.84%
FY 2001-02 (upto Jan-2002-10 months)	5372.43	5455.71	101.55%

About 33 percent of the arrears have been collected during the year and on account of this the collection has exceeded 100%.

CHAPTER - V: STAFF PRESENTATION

Introduction:

95. The Commission staff made a presentation to the Commission on 11-3-2002 during the public hearing. The presentation was made on behalf of the consumers, a practice followed since inception of the Commission. The presentation related to their analysis of the ARR/ERC filings of APTRANSCO and the four DISCOMS and of the further information that had been provided on the clarifications sought.

Key Features

Power Purchase cost.

96. The staff noted that power purchase cost which constitutes the largest cost item of expenditure (more than 80% of total costs) has been rising due to a variety of reasons such as: i)Structural constraints of long term contracts with private power producers ii) New generation being more expensive and iii) Unrealised optimistic projections of APTRANSCO with regard to availability of hydro power resulting in subsequent substitution from costly sources. A substantial increase is noted in the power purchase cost for FY 2001-02 as per the filings of APTRANSCO.

Revenue and Sales projections

97. The staff observed that industrial sales have fallen short considerably of the projections for the last two years while supply to agriculture had exceeded the limits allowed in the tariff order. This had an effect on the revenue realisation inspite of some reductions in losses and power purchases.

Investment projections.

98. Analysis of the filings over the past three years reveals that actual investments have been much lower than that allowed in the tariff orders (45% for Transmission & Distribution in FY 01 and 25% for Distribution Companies in the 1st half FY 2001-02). Furthermore, long term borrowings have not been utilised for capital expenditure to the extent of around Rs. 61 Crs in FY 2000-01.

Analysis of FY 2001-02 Performance

Power Purchase Cost:

99. The staff observed that although the overall requirement of energy has reduced by 25 MU power purchase cost has gone up. The variable cost has increased by Rs. 579 Crs as per the submission of APTRANSCO since the shortfall in hydel energy (2444 MU) has been largely made up by the power from IPPs.

Variation in losses and sales forecast for FY 2001-02

100. The staff made a comparison of energy balance between the Tariff Order and the filings and observed that the overall system loss for the current year has decreased from 32.25% as mentioned in the tariff order to 31.49% reported as actual. Thus, there has been reduction of about 0.75% in the total system loss as per Licensee's filing this year. As submitted in the filings, the licensees have indicated 11% shortfall in the HT-I sales and 7% shortfall in HT-II sales despite the incentives provided in the tariff FY 02 Tariff Order. However, the overall sales are envisaged to increase, with LT sales likely to be higher by 3.4%. The agriculture sales for current year are assessed at 10301 MU against 9815 MU that was allowed in the Tariff Order for FY 2001-02.

Financial Performance for FY 2001-02

101. The staff analysed the performance separately of the transmission and bulk supply business and the distribution and retail supply business. In their filings APTRANSCO has shown a provisional financial loss of Rs. 423 Crs in the FY 2001-02 largely due to an increase in power purchase cost by Rs. 578 Crs which was offset by Rs. 126 Crs of reduction in expenditure and appropriations and revenue buoyancy of Rs 30 Crs (Rs 17 Crs from tariffs and Rs 13 Crs from Non-tariff income).

102. The DISCOMS have shown a tentative financial loss of Rs. 453 Crs despite a reduction of Rs 10 Crs in other expenditure, return and appropriations and revenue buoyancy of Rs 55 Crs (Rs 64 Crs from Non tariff income and reduction of Rs 9 Crs from tariffs). Clearly the impact of change in consumer mix can be noticed in the performance of the DISCOMS.

103. The consolidated financial performance for the two businesses shows a tentative loss of Rs. 876 Crs. The licensees have not asked for any treatment of the estimated loss of Rs 876 Crs. Only a general request for a risk mitigation mechanism has been made. No detailed proposals are submitted for the Commission's consideration. Attention is drawn by the staff to an item shown as revenue subsidy of Rs 402 Crs for FY 2001-02 in the Profit & Loss account of APTRANSCO in the filing. Subsidy is given to consumers for tariff reduction and it is not appropriate to treat subvention (such as the above revenue subsidy) as consumer subsidy.

Compliance with Directives:

104. A listing of directives and compliance thereof shows that many of the directives are either complied or being complied. Total compliance with all directives is not possible as many are part of the continuous process of reforms.

The staff has therefore preferred to assess directives as 'partial compliance' as can be seen in the table below.

Table No. 14
Compliance of the Commission Directives

S.No.	Directive	Staff Analysis
1.1	Agricultural Metering to be completed by March 2003	**Comprehensive** metering plan is not submitted which is a violation of the Commission's directive.
1.2	All new agri connections including unauthorised agri connections, if any regularised, are metered with immediate effect	
1.3	Metering of all consumer categories:	
1.3 a	Sugar cane cultivation with immediate effect	Partial compliance of the directive
1.3 b	Aquaculture within 3 months of the Order	Partial compliance of the directive
1.3 c	Towns and municipal corporations, streetlights and PWS are metered within 6 months, the balance to be metered by 31-12-2001.	Partial compliance of the directive
1.4	Dysfunctional Meters to be set right within three months of the Order.	Partial compliance of the directive
2	Installation of 0.2 accuracy class meters	At interfaces with DISCOMS and IPPs 0.2 accuracy class meters still to be fixed.
3	Unauthorised agri Connections – Regularised or disconnected within 3 months	Partial compliance.
4	Restrict power supply to agriculture to 9 hrs. Any purchase of power for additional supply to agri requires prior approval of Commission.	Partial compliance. The process of monitoring started much later.
5	Identify Multiple service connections and disconnect, retaining single connections only within 4 months of the order.	Directive has not been complied with
6	Conduct census of agriculture pumpsets	Census is being conducted but is not complete. Till date reports for four circles have been submitted to the Commission.
7	Energy Audit	Monthly reports are being filed.
8	Efficiency Gains methodology shall be prescribed by the Commission and the Licenses to file progress reports on efficiency gains on a monthly basis.	Draft methodology presented by the DISCOMS but was not found satisfactory by the staff.
9	Formation of trusts	Trusts have been formed. APTRANSCO is yet to deposit arrears for FY2000-01.

10	Receivables – pursue vigorously and report progress on a monthly basis.	No information has been filed with the Commission.
11	Sales database	Data on a consistent basis filed only by CPDCL upto December but gaps still exist.
12	DTR failures. 15% for EPDCL, 18% for SPDCL, CPDCL and NPDCL. File action plan before 31st May 2001.	Progress is encouraging with regard to EPDCL and SPDCL but the other two DISCOMS may not be able to meet the targets.
13	BSA	Directive complied with
14	PPAs	Directive complied with.
15	Approval for projects exceeding 5 Crs.	Directive not complied with. Approval for FY 2001-02 schemes and FY 2002-03 schemes should have been obtained by end June and end Nov. resp. **Status of approval**: **APTRANSCO**: A few schemes **DISCOMS:** Practically nil.

Efficiency Gains of Rs. 501 Crs

105. The DISCOMS in their filing have shown an efficiency gain of Rs.191 Crs as against the proposed Rs.501 Crs. While appreciating the effort put in by the DISCOMS to curb theft, improve billing etc., it is to be pointed out that the efficiency improvements relate to gains over and above the projected sales and revenue. Efficiency improvements shown are with reference to previous year and not improvement over the projections in the tariff order.

<u>Analysis of FY 2002-03 ARR Filing</u>

Power Purchases and Costs:

106. APTRANSCO made the following assumptions in their estimates of power purchase costs:

- Merit order has assumed pooled cost for CGS (Southern Region)
- NTPC (ER) and NEDCAP are “must run” stations
- Impact of Availability Based Tariff (ABT) not quantified
- Energy from levy of wheeling charges in kind of 100 MU

- Energy availability of Nellore Thermal Station (NTS) of APGENCO is assumed as 'nil'.

107. APTRANSCO have projected a power purchase cost of Rs.7424 Crs for energy purchases of 41,333MU against an availability of 48,486MUs.

108. The staff projected energy balance taking into consideration the following:

- transmission losses as per the draft report of the CPRI.
- Losses incurred in wheeling 2178 MUs assumed at 593 MU to be additionally procured by APTRANSCO
- External losses of 208 MU.

109. Based on the merit order of costs of available projects cleared by the Commission, the Staff estimated Rs. 7133 Crs for purchase of energy of 39,404MU for FY 2002-03 based on lower transmission losses and projected sales.

Availability v/s Purchases

110. Staff estimates of availability are based on the following :

- Hydro projections must be in line with recent hydrology factors – for the last 5 years' average generation has been around 7260 MU
- Must run projects get priority
- BSES and LVS projects are not considered pending consent of the Commission for their PPAs.

Accounts and Audit:

111. Audited accounts for the three accounting periods as below are still due

(i) FY 1998-99 for two months (2/99 to 3/99)
(ii) FY 1999-00 (First full year without APGENCO but with APTRANSCO

and Distribution Companies combined)
(iii) FY 2000-01 (First year with APTRANSCO and Distribution Companies separated)

- FY 2000-01 is the year of the first tariff order of the Commission. Audited accounts are not yet available.

Investments :

112. The staff observed with reference to FY 2000-01 that :

- Actual Expenditure is closer to the tariff order than to the filing
- Variations from tariff order in the Capital Base are not significant
- No adjustment is necessary in the return.
- Shortfall in investment has resulted in lesser borrowings to the extent of Rs.1,202 Crs.
- The interest impact on this account needs adjustment

113. The staff recommended that the interest expenditure not incurred to the extent of Rs.163 Crs, may be reduced from the interest treated as allowable for FY2002-03 in arriving at the revenue requirement for that year.

114. As per the licensee's filings, the combined investment for the T&D business has been submitted as Rs.1,586 Crs. The staff estimates take into account the trend of the past two years namely FY 2000-01 and FY 2001-02 and propose that projected investments for FY 2002-03 be taken at Rs.1085 Crs.

Working Capital

115. The staff pointed out that while monthly cash flow statements have not been furnished by the Licensees, a plea is made in the filing to take off consumer deposits from the negative side of the capital base and to exclude revenue accruing through delayed payment surcharge from non tariff income.

116. Staff made the following observations on the proposal of APTRANSCO.

- The proposal does not touch the core of the issue.

- Substantiation of the requirement of working capital by way of a monthly cash flow statement reckoning the availability of the float provided by generators and the consumer deposits is yet to be filed with the Commission.
- It is only then the aspect of excluding consumer deposits from the negative side of the capital base can be considered.
- Analysis of the second transfer scheme reveals that in three DISCOMS capital assets are partly funded by consumer deposits. Exclusion therefore of the consumer deposits from the capital base calculation would not be proper.
- Levy of Commission approved FSA has not been implemented by the Licensees and thereby the Cash which would have come in, has not come in, affecting the working capital.
- The subsidy due from the Government to the extent of Rs.673.91 Crs as per the second transfer scheme is another factor to be taken into account in this regard.

117. The Capital Base calculations of APTRANSCO and the four DISCOMS taking into account the staff recommended levels of investment as above are given in the table below:

Table No. 15

Capital base FY 2002-03

		Rs. Crores
	Filing	**Staff estimate**
APTRANSCO	1,295	116
APEPDCL	188	(226)
APSPDCL	316	(251)
ACPDCL	618	(21)
APNPDCL	179	12

118. Borrowings reckoned on the negative side in the filings of APTRANSCO are Rs.2,541 Crs whereas interest claimed is on Rs.3,659 Crs. This would amount to claiming interest as well as return on an excess amount of Rs.1,118 Crs. But the staff noted that in this filing reasonable return has not been claimed by Licensees. This has been rectified in the staff projections.

Common Points for all Licensees

119. The staff presentation made the following common comments to all Licensees

- Capitalization practices need to be reviewed to ensure that used and useful assets only come on to the capital base. Work orders need to be monitored and their closure to be the basis for capitalization

- Consumer security deposits cannot be excluded from the negative side of the capital base for reasons already explained. 3% interest is provided as claimed by the licensee.
- A management audit of the Licensees' operating systems and procedures with a view to validate them is recommended.

- Wages and Salaries : The filing of APTRANSCO makes a provision of Rs 3.40 Crs towards pay revision. The filing does not give any details of the revision, the quantum of benefits etc. Staff is therefore unable to evaluate the amount claimed and hence excluded the amount. The staff recommended that the impact of pay revision as and when concluded and implemented be taken into account in the following ERC filings.

- Rents, rates and taxes as per filing includes arrears of sales tax payments of Rs.137.55 Crs. This is not included in the revenue requirement calculations as the demand has been appealed against in the courts.

Sales and Revenue:

120. Based on the trend of last 10 years and taking into consideration external circumstances such as industrial downturn, the staff made projections of expected sales for FY2002-03. A separate analysis was done for agricultural consumption. The load forecast includes the impact of 24 hrs supply to Rural, non agriculture loads. The staff estimates are more muted especially with reference to LT-Industrial, Commercial and HT-Industry. A major difference is seen with regard to LT-agriculture. The licensees' combined consumption of agriculture was projected at 10,594MU.

Agriculture Projection for FY 2002-03

121. The staff made the following observations.

- DISCOMS have indicated progress in metering of DTRs predominantly catering to agricultural load. Out of the 50000 planned meters and about 30000 meters claimed to be installed, information is available for 13900 meters.
- Inconsistency in Licensees' reporting of the connected load for agriculture.
- The reported meter readings are not for a complete year and fail to capture seasonality.

Given the limited data availability in terms of consistency and seasonal coverage, the Staff suggests continuance of 9815 MU of consumption in agriculture till credible information is available.

Calculation of Gap:

122. Based on the projected expenditure and of sales, the staff projected a combined gap of Rs.2122 Crs. at current tariffs as against the combined gap projected by the Licensees of Rs.2883 Crs.. This gap is to be filled with the required tariff increase and/ or subsidy.

Regulatory Treatment: Licensees' Proposal

123. The Licensees had made a request in the context of risk mitigation for :

- Pass through mechanism
- Working capital requirement
- Carry forward of losses

In the context of the request for a mechanism for a risk mitigation/pass through , the lack of firm proposal precluded an analysis. With regard to working capital requirement as stated earlier the staff preferred to examine the requirement in the light of cash flows and available float to Licensees. This data has not been furnished. In the context of manner of recognition of expenditure, the staff is of the opinion that interest on Delayed Payment Surcharge should not be reckoned as income. Similarly , deduction of consumer security deposits from the capital base has been followed as per the Sixth Schedule provisions.

Tariff Proposals and Tariff Design

124. APTRANSCO in its Filing of Proposed Tariff (FPT) has filed the Bulk Supply Tariffs while the DISCOMS have filed the Retail Tariffs. APTRANSCO has proposed an increase in revenue of Rs. 420 Crs through an increase in the bulk supply rate from 196 paise per unit to 207 paise per unit; revenue Rs. 155.2 Crs from wheeling charges and Rs.350 Crs from sale of power to other States. The DISCOMS propose to raise additional revenue of Rs.351 Crs from tariffs, Rs. 59 Crs from wheeling charges and Rs. 51.5 Crs from captive repatriation.

125. Among the proposed sources of revenue, the staff estimates of revenue from wheeling charges will be as per the Commission's order on the subject. Regarding sale of power to other states, the Staff have not taken into account revenue from sale of power to other States until the requisite evidence is produced before the Commission. APTRANSCO needs to provide evidence

regarding any commercial arrangement with buyers of surplus power besides determining the following.

- The quantity of such sale to another State
- The terms of such sale including the price
- The time or season of sale

Cost to Serve

126. The Cost-to-serve model remains the benchmark for allocating costs to different consumer categories and the basic framework for the design of Retail Tariffs. In the current filings, Licensees' cost to serve model assumes a shift of the system peak from evening to morning. They have submitted that the peak occurs between 10-12 AM during the day. Shift in peak denotes change in consumption patterns. No evidence of this is available in the data submitted in the ARR. In fact two peaks are noticed namely, 6AM to 9AM and 6PM to 9PM. The shift in peak is a matter of concern to the staff as this impacts on the cost allocation to different categories.

127. The staff is of the opinion that the cost-to-serve model for FY 2002-03 should continue on evening peak basis till such time that sufficient data is available supporting shift to morning peak.

Comments of FPT Proposal

128. The staff made the following comments on FPT proposal

129. **Bulk Supply Tariff**

- There is need to demarcate between network business and purchase/sale of energy
- Accordingly BST must be broken into transmission charges and energy or power price.

- There is need to relate BST to power purchases cost between peak and off peak periods

Tariff Policies & Structures

Tariff Rationalisation

130. Rationalisation of tariffs involves I) adjusting tariff rates; and ii) rationalisation of the tariff structure. In their filings, the DISCOMS have proposed change in design of HT-I Tariff and Incentive of 25% for new industry and captive repatriation. In Category LT-III, consumers with load of 50HP and above are given an option of either a single part or two-part.

HT-I Tariff Design

131. The proposal to have two slabs and a declining tariff scheme in lieu of the existing 3-block increasing tariff scheme, although it has merit, has not been substantiated with evidence of price elasticities that are normally used in declining block tariff design. At a more pragmatic level, the DISCOMS have not undertaken a cost-benefit analysis to assess the expected sales increase to compensate the loss in revenue, more so with regard to the available cross subsidy . Further, the staff is of the opinion that differentiation on the basis of mere size (volume of consumption) is neither justified on legal nor on equity considerations.

132. With regard to the HT incentives the offer of 25% discount for new industry and captive repatriation in place of the existing scheme of incentives on Incremental sales linked to LF is not substantiated by the data on HT sales. The Licensees' claim that the subsisting Tariff incentive scheme was not sufficient to arrest the decline in HT industrial consumption from the Grid, needs to be borne out by data analysis. Evidence shows that there has been an increase in sales of 300MU in HT sales but to get a proper assessment of the impact of the incentive scheme, a longer time period needs to be observed.

133. The staff expressed the view that instead of rejecting the existing scheme, refinement is preferable. Grant of incentives only to new industry or captive repatriation would be discriminatory under the provisions of the Act.

Domestic Category

134. The proposal by the public and APTRANSCO to retain the existing six slabs in domestic category was not accepted by the staff as they are of the opinion that there is merit in reducing the number of slabs to four as : i) limited scope for abuse and ii)in conformity with prevailing consumption pattern of electricity by households. The staff also drew attention to the Commission's Order (FY 2001-02) wherein it was explicitly stated the retention of six slabs in the Order (FY 2001-02) hinges on disconnection of multiple services in the domestic sector within four months of the Order. As no proof has been filed regarding compliance of this Directive the staff opines reversion back to four slabs is appropriate.

CHAPTER – VI: APTRANSCO'S RESPONSE TO COMMISSION STAFF PRESENTATION

Data Availability:

135. Issues have been raised by the staff on data availability, particularly on agricultural consumption. The staff presentation does not adequately recognise that the data availability has substantially improved in the recent years with the census and DTR metering initiatives. While actual progress has not been completely at anticipated levels, maintaining status-quo on issues like agricultural consumption till data is perfect would be unwise and would amount to penalising Licensees in spite of the recognised efforts on their part to improve data.

Transmission Losses:

136. Staff have raised objections to the level of line losses projected for the APTRANSCO system and have proposed reduction of the loss projections from 8% to 6.4%. APTRANSCO would like to reiterate that the estimates are based on actual meter readings from the extensive metering arrangements that are in place. In view of the high accuracy meters available at all energy exchange points there is no need to depend on computed figures that can vary widely based on the assumptions adopted. Reduction in annual purchases required by APTRANSCO at the estimation level may result in severe constraints in power purchase. It may lead to severe mismatch between estimated and actual drawals at the end of the year and can throw the entire power supply situation in disarray. It is of significance to note here that 80% of the total ARR is towards power purchase requirements and the factors affecting power purchase levels and costs need to be carefully assessed.

Power Purchase Costs:

137. Staff have also indicated that the contractual conditions regarding power purchases result in high cost of power purchase and limited dispatch options. This position ignores the historical and commercial realities that exist in the

sector and does not recognise the policy framework existent in the sector. It also ignores the fact that the new capacity contracted by APTRANSCO will provide power at reasonable and competitive rates and that while improving significantly supply conditions in the state, the effect of the new capacity on cost of purchase is negligible. The BSES Project, currently awaiting the APERC's approval will deliver power at a unit cost of Rs.1.81 which is comparable to the average cost of Rs.1.80 projected for FY 2002-03. The Simhadri unit of NTPC will deliver power costing in a range of Rs.2 per unit.

Hydro availability trends have not been considered:

138. Staff have also suggested reduction in Hydro generation projections by 495 MU from 7494 MU to 6999 MU and have increased the thermal generation from 19010 MU to 19160 MU. The extent of Hydro generation depends on the monsoon vagaries. APGENCO projected the Hydro generation as 7494 MU based on their experience and expecting the third unit of SSLB coming into operation. APGENCO has agreed to the position of the staff but have requested a mid-term review of these projections after watching the performance for the first six months.

Liquidity Crsisis in-spite of tariffs and subsidies:

139. The Licensees have made every effort to collect revenues and have collected more than 100 percent of billings. In spite of these efforts and the government subsidies received, the Licensees have faced severe liquidity crisis due to unanticipated hydro failure and higher requirements of the agricultural sector.

Availability of energy :

140. APTRANSCO would like to submit that the availability of 48,486 MU projected includes the unallocated shares from CGS units. In a power surplus

situation, this share is unlikely to be available to APTRANSCO and the actual availability may only be 46,261 MU.

Higher variable costs of power purchase:

141. To meet the requirements in the Kharif season and on account of drought and hydro failure at this time, APTRANSCO has been compelled to buy all available energy, including from Lanco. Lanco was using Naphtha as feedstock till September. This has been the key reason for variable cost increase.

Loss reduction:

142. The Licensee would like to submit that overall loss reduction achieved is from 33.9% to 31.5%, i.e by 2.4%.

Consolidated financial performance (FY2001-02):

143. The amount of Rs. 402 Crs mentioned in the Profit and Loss Account of APTRANSCO as subsidy from GoAP for FY 2001-02 is a part of the overall assistance of Rs. 876 Crs provided by the GoAP as bonds for interim support to meet the liquidity requirements of APTRANSCO. APTRANSCO requests that the Commission treat this as regulatory asset since this was necessary on account of factors like hydro failure and additional agricultural consumption, which were beyond the control of the Licensees.

Compliance with the Commission's Directives:

144. The Licensees would like to specifically comment on the Directive *2: Non availability of 0.2 accuracy class meters at IPPs*. The position of the staff is incorrect. The IPPs have both main meters and check meters of 0.2 accuracy class since inception.

145. On Directive 10 – collection of receivables, information has been provided to the Commission by the Licensees regularly. The performance of the Licensees is borne out by more than 100 percent (of demand) collections.

Energy balance for FY 2002-03:

146. The transmission losses are now measured through electronic meters installed at the boundary points between APTRANSCO and Generating Companies (0.2 accuracy class) and also between APTRANSCO & DISCOMS (0.5 accuracy class). APTRANSCO transmission system losses are observed to be around 7.1%. Additional losses of around 1% on account of purchase of power outside the state are also borne by APTRANSCO. Thus the transmission system loss borne by APTRANSCO is around 8.1%. Adequate metering information is available to support the aforesaid loss numbers.

147. The estimates of CPRI that have been arrived at by carrying out simulations may not fully represent the system conditions and hence to that extent the estimates may not be accurate. Thus APTRANSCO does not agree with the transmission loss estimates adopted by the Staff and requests the Commission to adopt the loss projections based on actual meter readings.

Merit order selection:

148. It is not exactly clear how CGS stations become "must run" in the ABT regime. NTPC-SR and NLC will come under the ABT regime and it is APTRANSCO's belief that they would need to comply with the merit order. MAPS and Kaiga, which are not covered by ABT order, can also be dispatched as per merit order. It is not clear about what risks need to be mitigated on account of this aspect.

149. APTRANSCO would like to submit that the contractual arrangements in Andhra Pradesh for CGS and IPP are similar to what is there in the rest of the country and the contracts are based on the norms of the Ministry of Power, Govt. of India. APTRANSCO would also like to submit that the cost of power in the state from the IPP stations is one of the lowest in the country. Also in-spite of two new stations being commissioned lately, the average cost for the FY 2002-03 (Rs. 1.80 per/kwh) is almost the same as in the current year (Rs. 1.79 per kwh).

Accounts and Audit:

150. The accounts of APTRANSCO for the period ending 31-3-1999 and FY 1999-00 after completion of audit by the Statutory Auditors along with Audit Report have already been submitted to the APERC staff. The provisional accounts as given to Statutory Auditors for the FY 2000-01 have also been furnished to the APERC staff.

151. Statutory audit of accounts under Section 619 of Companies Act 1956 for the period ending 31-03-1999 by the Comptroller and Auditor Generals' (C & AG) has been completed and C & AG's comments were received on 8-3-2002. The accounts are being placed before the AGM for adoption. The accounts for the FY 1999-00 (audited by Statutory audit) are being furnished to C & AG for taking up audit.

152. The accounts for the FY 2000-01 are under Audit by the Statutory Auditors.

Gross approved interest: Comparison of actuals with tariff order:

153. Comparison of interest expense (as per accounts) for FY 2000-01 with that of the tariff order for FY 2000-01 in isolation and the consequent recommendation for adjustment in the interest calculation for FY 2002-03 (due to shortfall in actual as compared to approved expenses) is incorrect. APTRANSCO has incurred a loss for FY 2000-01 (as per the un-audited financial

accounts). Thus, while there has been a shortfall in actual interest expenses as compared to the Tariff order, there has been adverse variation in other expenditure as well as revenue elements as compared to the tariff order. Therefore, any adjustments on account of deviation between the actual performance and as per tariff order need to factor in all the elements in totality and not some specific elements in isolation. This would also be inconsistent with the principles of the Sixth Schedule.

154. Moreover, the annual accounts have not been audited so far and more clarity will emerge on the reduced interest cost as and when the accounts are audited.

Investment Proposals:

155. Regarding the investment approvals all requisite information has been provided in the prescribed formats for new schemes in accordance with the License and investment guidelines. All queries in this regard have been addressed. Approvals are awaited for these schemes.

156. In the case of SPDCL and CPDCL, the staff estimates for capital expenditure provided for the current year viz. FY 2001-02 need to be revised in view of the expenditure already incurred till date. The Licensees believe that to attain the performance improvements projected, the investment levels would need to be stepped up. Mere mechanical projections based on the previous year trends are not justified and will be detrimental to the spirit of the initiatives taken up by the Licensees.

Working capital:

157. The annual cash flows and financing plans have been furnished as part of the ARR filings. As ARR filing is based on annual requirements, the filing of projected cash flow on a monthly basis will not be feasible unless the guidelines

are amended and the ARR is required to be developed on a monthly basis. However the DISCOMS have already been providing the monthly cash flow statements for the past months to the staff of the Commission.

158. As explained in Part 2.2 of the ARR filings of the DISCOMS, the Licensees agree with the view of the Commission (as expressed in the two previous orders) that Consumer Security Deposit is a source of finance for working capital requirements, to be specific, to finance receivables. Since receivables do not appear in the positive side of the capital base as an asset, the corresponding source of finance, i.e., consumer security deposit should not be included in the negative side.

159. The DISCOMS have taken a consistent approach in the treatment of consumer security deposit and considered it as a source of financing working capital before considering borrowing for working capital.

160. As explained in Part 2.3 of the ARR filings, the Commission observed in the previous orders that Delayed Payment Surcharge (DPS) is in the nature of interest on extended credit to the consumers and therefore should be treated as such. However, the current requirement is to deduct the same from the revenue requirement as a non-tariff income. Therefore, while making a plea for recognition of interest on working capital borrowings (on account of extended credit, among others) and the pass-through of such costs as legitimate expenses, the DISCOMS have submitted that in case it is not allowed, the DPS also should not be deducted from the revenue requirement.

161. In the previous orders of the Hon’ble Commission, security deposits have been included on the negative side of the capital base and have also been treated as a source of working capital, resulting in the same source of funds being considered for two applications. As explained earlier, the licensees agree with the Hon’ble Commission that security deposits provide a float for working capital and thus have accordingly considered it as a source of working capital

and excluded it from the negative side of the capital base. The staff's contention that if removed from capital base and recognised as a source of fund for working capital, 16% interest is to be paid to the consumers, is not correct, since the security deposit is only in lieu of the credit extended to consumers. Even the Supreme Court of India has upheld that there is no obligation on the part of the utility to pay interest on security deposit.

Capital base FY 2002-03:

162. The contention of the Staff that interest as well as return is being claimed on an amount of Rs. 1,118 Crs (Rs. 3659Crs – Rs. 2541 Crs) is incorrect. The borrowings of Rs 2,541 Crs as indicated on the negative side of the capital base are loans used for financing the fixed assets. This is in consonance with the basic framework of the Sixth Schedule where only long term assets and corresponding liabilities for creation of the assets form a part of the capital base calculations. The borrowings of Rs. 3,659 Crs includes working capital loans as well as short term loans contracted by APTRANSCO for meeting its working capital requirements.

163. Inclusion of Rs 1,118 Crs on the negative side of the capital base without admitting the other element of working capital (e.g. power purchase receivables) on the positive side of the capital base will understate the capital base of APTRANSCO.

164. Also, claiming of interest on Rs. 1,118 Crs by APTRANSCO is consistent with the regulatory position taken by the Licensees on allowance of interest on working capital and short term borrowings.

165. The basis of reducing the original cost of fixed assets for the Licensees has not been furnished by the staff. The capital bases of the Licensees have been depleted in the process and in a number of cases has turned negative. This is a serious issue and is detrimental to the interest of the Licensees and the Licensees strongly object to the position adopted by the Staff.

Sales projections for FY 2002-03:

166. The reduction in the metered sales by the staff is not acceptable since these have been developed based on a detailed analysis of past performance. Staff have not provided the grounds on which such reductions have been made in the presentation.

Agricultural projections for FY 2002-03:

167. The DISCOMS do not agree with the Staff's contention of adopting agricultural consumption of 9815 MU due to lack of credible information.

168. Although the complete census data is not yet available, a substantial part of the work is completed and the progress is regularly furnished to the APERC. The data from the readings of the meters on the LV side of the transformers feeding agricultural loads is also being regularly collected and submitted to the Commission. As such, the DISCOMS have estimated the agricultural consumption in their respective area of supply on the basis of the meter readings on the LV side of the Distribution transformers feeding primarily agricultural loads and this shows higher consumption levels.

169. Also adopting 9815 MU as an estimate of agricultural consumption for the third year in succession does not acknowledge the aspect of release of new services in the category, and the regularisation of illegal services undertaken. The difference between consumption estimates of 10593 MU and the 9815 MU proposed by the Staff amounts to about 2% of the overall energy input. In effect this will amount to imposing additional efficiency improvement target of 2% without according appropriate recognition to this fact.

Gap calculation:

170. Based on the observations made in this note on the key issues, the Licensees are not agreeable to the revision of the gap indicated by the staff. To summarise and reiterate the issues, the key differences between the positions of the Licensees and the Staff are on;

- The proposed reduction in transmission losses to 6.4 percent.
- Reduction in metered and agricultural sales.
- Resultant reduction in power purchases.
- Reduction in investment plans, interest and depreciation computations and changes to capital base.
- Reduction of Rs. 163 Crs towards interest costs not incurred for capital expenditure during FY 2000-01.
- Sales tax liabilities of Rs. 137 Crs not recognised by the staff.
- Interest on working capital requirements.

Regulatory treatment:

171. The Licensees are of the understanding that the exact mechanism for recovery of cost variance could form a part of the Long Term Tariff Principles (‘LTTP’) framework, which was under the consideration of the Commission and hence the same was not considered in detail in the filings.

Cost to serve:

172. The computations and clarifications in this matter have already been provided to the Staff. The Commission may kindly decide appropriately on this matter.

Sale of power to other States:

173. Discussions have already been initiated with other states as well as Power Trading Corporation (PTC) on the issue of sale of surplus power. Favourable

responses have already been received from Tamil Nadu and PTC. Details regarding the same have already been submitted to the Commission. Hence the proposals of APTRANSCO may be accepted.

HT-I Tariff Design:

174. The overall migration from the grid by HT Industrial consumers is a proven fact and is apparent from the growth in captive and third party sales at the cost of grid consumption. There is an urgent need to reverse these trends and the proposals of the Licensees are an attempt in this direction. The proposals recognise the economies of scale involved in generation and supply for higher levels of consumption. Not according due credence to these factors would be inappropriate.

HT-I Incentive:

175. The proposed incentive scheme is in addition to the existing scheme and the DISCOMS are not planning to stop the existing incentive scheme. The Licensees believe that the new proposals of the Licensees will augment the existing proposals and will promote efficient consumption of electricity in the state.

176. The Licensees believe that the proposals are not iniquitous since the proposals do not attempt to provide benefits to any individual consumer. This scheme is not new since such a scheme for new industries has been in operation since 1976.

Domestic Category :

177. The reduction in slabs proposed by the Commission is not acceptable to the Licensees. The Licensees do not agree with the contention of the Staff that

the six slab telescopic structure is open to abuse and results in multiple connections and there is no evidence to support this contention. The scope of abuse and theft is limited in a telescopic structure. The Licensees are taking necessary measures to prevent any such occurrence and action has already been initiated. However the Commission will appreciate that this issue is of sensitive nature concerning a large section of consumers. As per guidelines a large dwelling having multiple kitchens is allowed multiple connections. Due care needs to be taken to ensure that there is no undue inconvenience to any consumer.

CHAPTER - VII : STATEMENT OF GOVERNMENT OF ANDHRA PRADESH

178. The Govt. of Andhra Pradesh (GoAP) made a presentation before the Commission reiterating its commitment for pursuit of reforms in Power sector, prompt payment of subsidy and improvement of efficiency of the utilities in order to provide efficient and economic power supply to the consumers.

179. Sri V.S. Sampath, Principal Secretary, Energy Dept., GoAP, Hyderabad, who appeared on behalf of the GoAP, explained that the Government would wait for the Commission to fix the finalised Annual Revenue Requirement. He requested the Commission to extend cross-subsidy for deserving sections of consumers under Section 26(7)(a) of the Reform Act. Upon fixation of tariff after taking into account the cross-subsidy, the GoAP may be intimated. The GoAP would thereafter issue policy directions concerning the subsidy to particular class or classes of persons as the government may in its discretion decide. He also indicated that the Government would remit the committed subsidy amounts in monthly installments, after deducting the plough back dues, as per the present practice. As regards prompt payment of subsidy on a monthly basis, Sri Sampath pointed out that the record of GoAP in this regard was impeccable.

180. He requested that the Commission may allow reasonable revenue as may be required by the utilities, i.e., APTRANSCO and DISCOMS to enable them to maintain efficient and economic power supply. He has also pointed out that in order to facilitate efficient power supply, the GoAP had extended additional adhoc assistance of Rs.1053 Crs during FY 2000-01 by issue of APPFC Bonds, over and above the committed subsidy. Similarly, during the current year, following a severe drought and the consequent adverse thermal-hydel mix leading to a shortfall of 2444 MUs of Hydel energy, the GoAP had further assisted the utilities by issue of PFC Bonds for Rs.876 Crs. Sri Sampath appealed to the Commission that the additional assistance provided by the GoAP during FY 2000-01 and FY 2001-02 may be treated as an assistance qualifying

for regulatory asset / special appropriation so that in years when conditions are favourable, the utility could capture the same in terms of tariff.

181. Sri Sampath stated that the GoAP attached utmost importance for improving the efficiency of the utilities in order to provide reliable and economic power supply to the consumers. The performance of the utilities is reviewed and monitored in the Government at the highest level. As a result of sincere and strenuous efforts by the utility and close monitoring by Government, there has been a significant improvement in the revenues of the utility, to an extent of Rs.1068.25 Crs up to Feb., 2002 over the corresponding period of the previous year. This represented an increase of 21.2% over the previous year's collections for the corresponding period, with tariff for the current year remaining at the same level as for the last year, which is a record.

182. While referring to a proposal of the staff of the Commission to revert to four slabs for domestic consumers, Sri Sampath requested that the Commission may not disturb the Six slabs for domestic consumers which was restored at the request of APTRANSCO and GoAP during the last tariff exercise. Referring to the comments of the staff of the Commission on the proposed incentives for industries such as 25% rebate for new industries and incentives for industrial consumers reverting from captive /wheeled energy consumption to the Grid, he explained that the Grid has 48000 MUs of power available which is 7000 MUs higher than the requirement projected by APTRANSCO. The State would benefit immensely if the surplus energy is made available for promoting industries by extending suitable incentives. He has also pointed out that at present about 4300 MUs are sourced by industries from captive generation and 2200 MUs from wheeled energy (Third Party Sales). When huge amount of Grid power is available as surplus and most of it is available to APTRANSCO at a bulk purchase price of less than Rs.2 per Kwh, the Government would like that the surplus and cheap power available is used for promoting industries in the State. He, therefore, requested that the Commission may evolve a suitable incentive

scheme to facilitate consumption of surplus energy available with the Grid by the industries in the State and also help industries switch from captive/wheeled consumption to Grid power consumption.

CHAPTER – VIII: COMMISSION'S ANALYSIS

Legal Issues:

183. The Commission has considered the legal issues raised by the general public. As for the delayed filing of the Tariff Proposals, Section 26 (5) of the Reform Act does provide that the licensee should file with the Commission the details of its Annual Revenue Requirements calculations three months before the ensuing financial year and within 90 days of the date on which the licensee has furnished all the information required, the Commission is to notify its decision on the licensee's tariff proposals and revenue calculations. Though the opening part of section 26 (5) does not specifically speak about tariff proposals, the reading of the entire section clearly suggests that the filing of the revenue calculations and tariff proposals go together. This is clear when the later part of the provision speaks about the commission notifying its decision on the licensee's tariff and revenue calculations. The Commission is of the view that the licensee should duly file the tariff proposals along with the revenue calculations well within the time prescribed in section 26 (5) of the Reform Act. The Commission hereby directs the licensees to do so in future.

184. While the licensees are required to file the revenue calculations and tariff proposals before three months of the ensuing financial year, there is no mandate that the Commission cannot determine the tariff before the expiry of 90 days from the filing of the application for Annual Revenue Requirements. If the commission so considers appropriate, it can certainly determine the tariff even before the expiry of the period of 90 days. In the circumstances the commission does not find any merit in the contention of the objectors that the tariff cannot be and should not be implemented before the expiry of the 90 days or that the Commission should penalise the licensees for not filing the tariff proposals in time. It is also relevant to mention that the licensees had filed the revenue calculations within the prescribed time and such revenue calculations indicated the shortfall to be covered. The filing of tariff proposals after a delay of 22 days

in the present case has not caused any prejudice to any of the objectors or to the conduct of the proceedings by the Commission. The objections raised by the objectors in regard to the delay in the filing of the Tariff proposals are not accepted for the reasons mentioned above.

185. The next issue to be considered is whether the Commission should revisit the PPAs entered into as concluded contract before the coming into force of the Reform Act. Section 21 (4) of the Reform Act reads as under:

> *(4) A holder of a supply or transmission licence may, unless expressly, prohibited by the terms of its licence, enter into arrangements for the purchase of electricity from,-*
>
> *(a) the holder of a supply licence which permits the holder of such licence to supply energy to other licensees for distribution by them; and*
> *(b) any person or Generating Company with the consent of the Commission.*

186. In terms of the above provision the Commission has the jurisdiction to regulate all PPAs that are entered into by a licensee after the coming into force of the Reform Act. The Commission has also held that if there is any modification or revision to the existing PPAs or any extension or renewal of pre existing PPAs (i.e. PPAs entered into before the coming into force of the Reform Act) the Commission will examine the PPAs and decide on the grant or refusal of the consent in terms of the above provisions in the Reform Act. The Commission has been in the process of examining all PPAs which were not concluded as on the date of coming into force of the Reform Act and also in the event of any modification or revision or extension or renewal of the existing PPA. The issue whether a regulatory commission constituted under the Reform Act can or should examine the PPAs concluded before the constitution of the Commission is a different matter. Such concluded PPAs cannot be covered by the expression “enter into” used in section 21 (4) of the Reform Act. It is therefore not possible for the Commission to reopen such PPAs concluded in all respects before the Reform Act came into force.

187. The next issue to be considered is whether APTRANSCO and the DISCOMS should be directed to enter into Bulk Supply Agreements in regard to the terms and conditions of the Supply of electricity in bulk by APTRANSCO to the distribution companies. The electricity sourced by APTRANSCO is mainly supplied to the four distribution companies. The terms and conditions of such bulk Supply including and in particular the price at which such bulk Supply should be effected are determined by the Commission. As a matter of fact Bulk Supply Agreements between APTRANSCO and DISCOMS have been finalised and filed before the Commission on 18-7-2001. They are under the examination of the Commission.

188. The next issue to be considered is whether under the Reform Act the Commission is not authorised to provide for an automatic costs pass through, and an automatic Indexation of costs and true-up mechanism. The Commission has dealt with a similar suggestion in para 201 of the tariff order for FY 2001-02. There is no change in the situation. The question of truing up of expenditure at the end of the year is generally proposed to be examined while laying down long term tariff principles, for which a consultative paper has been issued by the Commission.

189. The next question that arises is whether the Commission can proceed to classify the consumers based on the purpose for which the electricity is required. In this regard the Hon'ble Supreme Court while dealing with the Tariff Order of the Commission for FY 2000-01, vide order dated 6-3-2002 passed in CA No. 2689/2001 along with CA No. 2714/2001 and CA No. 296/2002 has upheld such classification with reference to section 26(7) of the Reform Act. There is therefore no merit in the objection raised by the Objectors.

190. The penal rates for theft and malpractice referred to in the schedule of charges are only a reproduction of the existing general conditions of supply as notified by APTRANSCO/DISCOMS. However it is not correct to say that the Commission has no power to prescribe penal rates for theft and malpractice.

191. In terms of the provisions of the Reform Act and also under the terms and conditions of the licences issued by the Commission to APTRANSCO and the four DISCOMS, the Commission has the regulatory power to supervise and

control the activities of the licensees including those in regard to sale of electricity by the licensees if it has a bearing on the business of the licensees in the State. The Commission will therefore regulate the trading activities of the licensees insofar they have it has an impact on the conduct of the licensees business in the State. If such trading activities do not have any bearing or impact on the licensees' business in the State there is no need for the Commission to regulate the same. The generating companies in the State are bound to supply APTRANSCO and/or the DISCOMS electricity in accordance with the agreements entered into by them. The generating companies are bound to honour such agreements and if they fail to do so APTRANSCO and/or the DISCOMS shall take appropriate action against the generating companies. The Commission can have no objection to the generating companies engaging in the business of trading or otherwise selling electricity outside the State so long as such generating companies duly fulfill their obligations to the licensees in the State in accordance with the agreements entered into by them with the licensees.

192. As for the objection that the tariff proceedings being conducted jointly for APTRANSCO and the distribution companies is not valid, so long as all the five companies have duly filed their revenue calculations separately and their annual revenue requirements are determined separately, and as at present the four distribution companies are wholly owned subsidiaries of APTRANSCO, there is no conflict of interest of the nature, which would require each of the five companies to present their case in an adversarial manner.

Commission Analysis of Substantive issues raised by the Public and the Staff:

Unrealistic Load Forecast:

193. Commission shares the concern of the public and staff regarding the non-achievement of the sales projection by the Licensees in successive years. A case in point is the HT-I sales. As against the projection of 4894 MUs for FY01, the achievement was 3646 MUs. In the FY02 the projection was brought down to 4244 MUs but the projected achievement is shown still lower at 3772 MUs.

194. Commission considers that the Distribution Companies are the best judge of their own anticipated sales for the ensuing financial year. Commission heard the views of the individual Distribution Companies in this regard, and arrived at the sales projection for all categories except agriculture for the ensuing year. Issues relating to agriculture sales have been discussed separately in this order.

195. As regards the supply sources indicated by APTRANSCO for procurement of power, Commission has made it amply clear in their earlier order that APTRANSCO has to procure their regular power requirement from generating units for which PPAs have been consented by the Commission. Apart from this APTRANSCO can have short-term purchases as per the guidelines laid down by the Commission in this regard.

196. Commission is separately examining the demand projection and supply expansion plan of APTRANSCO as presented before the Commission on 16-01-2002. The issues relating to the rate of growth projection in the planning period, system load factor, system margin, generation expansion plan etc. shall be addressed.

Agricultural Consumption:

197. The Commission recognizes the concern of the staff on problems associated with the consumption estimate based on inconsistent and limited number of meter readings. The DISCOMS have not been able to fully comply with the directive in a manner suitable for scientific estimation. The census of Agricultural Pumpsets ordered by the Commission in the tariff order for FY 2001-02 has not been completed, with the result we do not have a correct idea of the total connected load on account of agriculture. The information regarding consumption based on meter readings on LV side of transformers is also not ready. Consistent and unique records for meter readings from LV side of the distribution transformers in a uniform format are available only for four to five months till December 2002. Any plausible estimation of annual agricultural

consumption would need readings for consecutive twelve months. The Commission directs that the DISCOMS shall complete the one-year study and present the final data for the period 11/2001 to 10/2002 by 15-11-2002. The licensees shall complete the census of agricultural pumpsets in all districts as early as possible.

> ***The licensees shall read all meters installed on the LV side of the Agriculture distribution transformers monthly and report all the readings to the Commission in the electronic format already issued to them. The licensees shall complete the one-year sample study based on DTR meter readings for the period 11/2001 to 10/2002. The DISCOMS shall file comprehensive calculations by each mandal on agricultural consumption estimate at the end of each month till November 2002.***

198. In view of the inadequate data for determining the agricultural consumption the Commission finalised the agricultural consumption for FY 2002-03 on the following basis.

- The DISCOMS were expected to add 50000 new consumers during FY2001-02. So far only about 4000 new consumers have been added to the grid. The remaining 46000 new connections are expected to be released during FY 2002-03 in a phased manner depending upon the readiness of the applicants.
- The new 4000 connections released already will be in operation for the full year FY 2002-03 while the remaining 46000 would be released over the year. So, the equivalent of the average consumption by 23000 pumpsets functioning throughout the year is considered.

- At 1200 operating hours on an average pump set size of 5 HP, the consumption on account of 27000 new consumers for FY 2002-03 is computed to be around 121 MU.

199. For the full year FY 2002-03, the Commission approves the consumption at 9936 MU comprising of 9815 MU as approved for FY 2001-02 and 121 MU additional consumption on account of new agricultural services. The approved volume of 9936 MU has been allocated among four DISCOMS in proportion to Agricultural Demand filed by them.

200. Regarding unauthorised agricultural connections, the Commission have earlier directed (Para 150 of the tariff order for FY 2001-02; directive-3) to regularize all unauthorised agricultural connections or disconnect the same within three months. It is understood that the number of unauthorised agricultural connections have increased from 2.57 lakhs to 3.2 lakhs but only 25662 connections have been regularised so far. It is also reported that the farmers were not coming forward for fulfilling the conditions for regularisation , DISCOMS were resorting to "Conditional regularisation ", which only means that the connection would merely be taken on the rolls of the DISCOM. The anxieties expressed by the Commission in Para 150 of the tariff order for FY 2001-02 have not been taken note of by the DISCOMS. In the circumstances, the Commission reiterates that the services, which have not been regularised so far, shall be disconnected forthwith.

> ***The DISCOMS shall disconnect all unauthorised and not regularised agricultural services within three months and file a compliance report of the same with the Commission.***

201. APTRANSCO/DISCOMS stated that they will install capacitors for LT agricultural pump sets and the cost would be recovered from the consumers in four installments of six months each over a span of two years. The Commission

believes that it will help improve the quality of power supplied to agricultural consumers.

202. The Commission, in the tariff order for FY 2001-02, has provided optional metered tariff for agricultural consumers. The response to metered tariff has been rather poor during the last year. Several objectors during the present hearings have stated that many farmers are not aware of the metered tariff and APTRANSCO/DISCOMS discourage the farmers in opting for the metered tariff. In this context, the Commission directs that the DISCOMS shall give wide publicity to the facility and install meters on application by farmers within 15 days from the date of application.

> ***The DISCOMS shall give wide publicity for metered tariff for Agricultural consumption. The applications for meters by Agricultural Consumers shall be attended to on a priority basis and meters shall be installed within fifteen days from the date of application of the consumer.***

203. Agriculture is a subsidized category of consumers in Andhra Pradesh. The consumers are required to pay a fraction of the total cost of supply. Yet, it is learnt that Consumers in some parts of the state do not pay the tariff. For instance, representatives from two mandals in Chittoor districts openly asserted before the Commission at the public hearing that they have not being paying the tariffs since 1996 and also stated that they would not pay in future too. The Commission takes a serious view of the matter and requires the DISCOM to take exemplary action in the matter immediately.

204. Agricultural consumers in several places of the state are known to be using phase converters to avail 3-phase supply to run the three phase motors when single phasing is done by the DISCOMS. This renders licensee's efforts to regulate the supplies to agriculture to 9 hours meaningless. The Commission

directs that the DISCOMS shall remove the phase converters with immediate effect.

> ***The DISCOMS shall issue a notice to agricultural consumers through newspapers stating that the usage of phase converters is illegal and these phase converters would be removed after 30 days from the date of the publication of the notice. Upon the completion of the notice period, the DISCOMS shall remove all the phase converters. The persons who do not comply should be proceeded against under the recent amendments to Sections 39 and 49 of the Indian Electricity Act, 1910 (Andhra Pradesh Amendment Act No. 35 of 2000).***

205. In the tariff order for FY2001-02, the Commission directed the DISCOMS to meter all agricultural consumers by 31-3-2003. The Commission reiterates its earlier direction that an action plan for metering of agricultural consumers shall be drawn up and filed with the Commission within three months i.e. by 30-6-2002. The Commission directed earlier that all new connections must be released with meters. The Commission reiterates that the DISCOMS shall not release the new services without meters.

> ***The DISCOMS shall file an action plan for metering of agricultural consumers with the Commission by June 30, 2002 as part of the compliance of the earlier directive. The DISCOMS under no circumstances shall release new agricultural services without meters and they should meter all the new agricultural services released in FY2001-02.***

Agricutlural Pumpset Census:

206. Several objectors/persons submitted to the Commission during public hearings and also in writing that the licensees have a) willfully defaulted the Commission's directive in conducting the agricultural pumpset census, and b) suppressed the pump set census reports from the public thereby withholding material evidence.

207. The Commission issued the directive to conduct agricultural census in tariff order for FY2000-01 to ascertain the number of authorized, unauthorised and defective pump sets and corresponding loads. The Commission also issued a format to APTRANSCO to conduct the census. APTRANSCO by March 2001, completed census of four (one from each DISCOM area) out of 23 districts and filed the draft reports with the Commission. Subsequent to tariff order for FY2001-02, the DISCOMS have announced the tenders for conducting the balance census and awarded the contract works to public and private agencies. The reports on agricultural census for the following districts are available with the Commission.

Table No. 16

COMPANY	CIRCLE	DISTRICT
CPDCL	Nalgonda	Nalgonda
NPDCL	Nizamabad	Nizamabad
SPDCL	Tirupati	Chittoor
SPDCL	Guntur	Guntur
SPDCL	Ongole	Prakasham
SPDCL	Vijayawada	Krishna
EPDCL	Eluru	West Godavari

The Commission noted with concern that the DISCOMS did not complete agricultural pump set census even after more than one and half years. The MDs of DISCOMS, during the review meetings, have submitted to the Commission that non-availability of experienced agencies to conduct the census was a major hurdle for completing the survey. Although the MDs of DISCOMS have submitted to the Commission that they would complete the census survey by February 2002, only SPDCL has completed the study by March 2002 and sent an extract of the analysis of the study of the remaining two districts . The Commission directs that all DISCOMS shall submit the final reports with analysis by 31-5-2002. ***The Commission in recognition of the objectors' views directs that DISCOMS shall make available the copies of final census reports to the public on request on payment of reasonable charges.***

<u>Transmission Losses:</u>

208. APTRANSCO estimated Transmission Losses as 3467 MU i.e. 8.5% of expected total purchases of 40,788 MU in the current financial year (FY 2001-02) and projected transmission losses of 8% for the ensuing year (FY 2002-03), an improvement of 0.5% over the current year. APTRANSCO submitted that Transmission loss estimates were based on actual meter readings and external PGCIL losses billed to it.

209. APTRANSCO submitted details of energy drawn at different voltages and at points of interface for the period June to September 2000, October 2000 to March 2001 and April 2001 to September 2001. From the data of energy flow during relevant period losses were estimated by APTRANSCO. A bird's eye view of the energy flow is given below.

Table No. 17

TRANSMISSION LOSSES - ENERGY BALANCE METHOD

(APTRANSCO FILING)

	June 2000-September 2000	**October 2000-March 2001**	**April 2001-September 2001**
Total Energy Delivered into APTRANSCO Grid MU at all Voltages.	14,234,19	22,954.79	21,452.98
Energy received at all EHT substations and HT consumption in 220 kV, 132 kV and 66 kV MU	12,803.40	20,719.28	19,705.12
220 kV, 132 kV, 66 kV system losses MU	1,430.79	2,235.51	1,747.86
220 kV, 132 kV, 66 kV system losses %	10.05%	9.74%	8.15%

210. A major concern of the Commission is the determination of technical losses especially at the EHT level. The Commission has noted the doubts expressed by the public on the high level of EHT losses projected in the filings by APTRANSCO. One of the objectors stated during public hearing that transmission losses cannot be more than 4% which is the figure estimated by CEA. In view of differing estimates, the Commission had directed that 0.2 accuracy class meters be fixed at points of interface where there is a change of ownership. APTRANSCO has stated that 0.2 accuracy class meters have been installed in FY 2001-02 at interface points with all Generating stations as per the Commission directive. But at the DISCOM interface points, only 0.5 accuracy class level meters have been fixed.

211. It may also be recalled that an independent study was commissioned to estimate EHT losses. The Central Power Research Institute (CPRI) was given the task of assessing EHT losses on the basis of computer simulation method using actual data of FY 2000-01. The methodology was finalised in consultation with APTRANSCO. The CPRI have submitted the final report.

212. The CPRI estimated Transmission Losses at EHT within Andhra Pradesh, (including the Transmission Lines of PGCIL within geographic area of Andhra Pradesh) at 6.65% of gross energy handled of which 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. At PGCIL interface points with APTRANSCO, metered readings show only net energy given to APTRANSCO. In the CPRI study, these line losses were included in the simulation study.

213. PGCIL losses billed to APTRANSCO can be split into two parts namely (1) Losses within boundary of Andhra Pradesh and (2) Losses outside boundary of Andhra Pradesh. PGCIL losses as per billing for FY 2000-01 were 1.01% (425 MU on gross purchase of 42289 MU). This can be split into 0.65% within

the State and 0.36 % as outside the state. CPRI estimated the Transmission Losses to be 7.01% after inclusion of PGCIL external and internal losses.

214. The Commission considers 6.65% as reasonable Transmission Losses for the FY 2002-03 year reflecting lower external PGCIL loss due to lower drawal from central generating stations.

215. The Commission notes the difference between the Transmission losses of 6.65% as per the CPRI study and the Licensee's projection of 8% and believes that this difference could be due to commercial losses in the Extra High Voltage (EHV) system. Under these circumstances ***the Commission directs APTRANSCO to conduct a separate study on Commercial losses observed in the EHV system and submit the findings within six months of this order to the Commission by identifying the sources of these losses; A time bound action plan for reducing the commercial losses in EHV system be filed immediately with the Commission.***

Distribution Losses:

216. The Licensees, in their filings have submitted that the overall loss in Andhra Pradesh is projected to come down in FY 2002-03 to 28.4% (from the 32.3% projected for the year FY 2001-02), of which the transmission loss would be 8.0% and distribution loss 20.4% on gross purchases for the ensuing year.

217. The Loss as projected by the Distribution Companies is shown in the table below:

Table No. 18

DISCOMS FILING OF ENERGY TRANSACTION IN FY 2002-03

DISCOM	Sales in MU	Purchases in MU	Loss in MU	Loss%
EPDCL	4648	5601	953	17.01
SPDCL	7255	9212	1957	21.25
CPDCL	11766	15690	3925	35.01
NPDCL	5925	7523	1598	21.25
TOTAL	29594	38027	8433	22.16

218. It is not feasible to fix a total Transmission and Distribution overall loss level till such time agricultural consumption is metered or atleast reasonably estimated. After the overall loss level is determined, special studies are to be made to compute the part of it as Technical losses. Such special studies are already made on EHT part of the Grid system and upto 33 KV including transformation to 11 KV by CPRI at the instance of the Commission. The Commission directs the DISCOMS to initiate an independent study to compute the technical losses in the Distribution (11KV + LT) system. The methodology and the Agency for carrying out the study may be fixed in consultation with the Commission. The results of such study should be available by the end of November 2002.

219. The Commission provisionally agrees to the projected loss figures. Allocation of these losses between the transmission and distribution system is within the overall limit of 28.4%. Perhaps it needs to be explained that while 28.4% is the overall system loss, the loss of 22.16% referred to in Table No.18 refers to loss in distribution system as a percentage of input to DISCOMS. Given that the loss data furnished is an estimate based on best guess, the Commission has preferred to stipulate efficiency gain target of Rs.300 Crs, to be achieved through reduction in losses and prevention of leakages etc.

<u>Collections / Arrears:</u>

220. Several objectors/have expressed concern over growing arrears from consumers, especially the HT consumers. The Commission called for more information on the status of arrears from consumers of electricity. As per the submissions, the opening arrears as on April 1, 2001 are Rs.150.78 Crs and the balance outstanding as on February 28, 2002 is Rs.135.31 Crs.

221. The collections during the first 11 months of the current year as a percentage of total monthly demand are 103 percent of this 88 percent is stated

to relate to the current demand. On examination of the details furnished, the following points are noticed

- Arrears from HT consumers are not captured in the bills presented to the consumer.
- The consumption deposit paid by HT consumer should be shown in bill.

- The projected revenue from delayed payment surcharges is low compared to the large arrears outstanding from consumers.

222 The Commission having examined the objectors' views has concluded that the compliance of the directive on sales database is the only solution to identify the arrears and examine other issues relating to arrears. In the meantime, ***the Commission directs the licensees to have a receivable audit conducted by independent agency to determine the quality of arrears and suggest the changes needed in the Billing and Accounting systems.***

<u>Data Constraints:</u>

Sales And Revenue Estimation

223. Data constraints and information gaps have been the continuing features of sales and revenue estimation in the filings of APTRANSCO and DISCOMS. The licensees informed the Commission that they have achieved a limited progress in furnishing the regulatory information and assured that they would comply with the requirements in future filings. Several objections of the public can be satisfactorily dealt with only extensive data and this is possible only if a properly built database exists. While the Commission is given to understand that the licensees are putting their best efforts to build the required databases, the need for early action in building adequate and reliable database cannot be over emphasised.

224. The DISCOMS estimated the revenue for FY 2002-03 by multiplying the average realization computed with reference to the previous year's data with the forecasted sales volume for FY 2002-03. The DISCOMS have been using this method for the last three years due to lack of data.

225. Several objectors/speakers before the Commission felt that the minimum charges should be removed and only the actual energy be billed to the consumers. With the existing data, it may not be possible to estimate the revenue from minimum charges and its impact. Lack of such information is also a problem in designing tariffs with minimum charges. Further, the present sales database of DISCOMS is fragmented in terms of billing, collection details, arrears etc.

226. To minimize some of these data constraints, the Commission directed the DISCOMS in tariff order for FY2001-02 to build a comprehensive sales database (directive-11). The progress in complying with this directive is not satisfactory so far. To begin with, the Commission directs that the DISCOMS shall build the sales database for one circle in each DISCOM immediately and file the same with Commission by June 15,2002.

> ***The DISCOMS shall build the sales database with the available data starting from April 2002 with all required fields as prescribed by the Commission. Each DISCOM shall build the sales database for one circle immediately and file the same with the Commission by 15-6-2002. The database for the entire DISCOM should be completed by 31-8-2002.***

<u>Carry forward of Losses:</u>

227. Some objectors have put forward the view that APTRANSCO is not entitled to ask for any carry forward of losses as special appropriation or

otherwise. The Commission does not agree with this view as the Sixth Schedule to the Electricity (Supply) Act, 1948 clearly provides for losses to be carried forward and their amortisation. However, whether the losses allowed are to be recovered through tariff depends on the facts and circumstances of each case/year and whether they should be recovered in the tariff of one year or allowed to be carried forward depends among others on the nature and quantum of the loss.

Special Appropriation of Rs. 90 Crs (Previous Losses):

228. APTRANSCO has claimed an amount of Rs. 90 Crs as special appropriation towards previous losses and has stated in justification in the filings that the amount of Rs. 90 Crs allowed by the Commission as special appropriation in its Tariff Order dated 24-3-2001 has not been "recouped" as the year FY 2001-02 is expected by the Licensee to end in a loss. This has been objected to by some objectors who have stated that this should not be allowed in the ARR of FY 2002-03 as this was already included in the Tariff revision of FY2001-02. The Commission is also of the view that the contention of the Licensee cannot be accepted as the Rs. 90 Crs has already been reckoned in the revenue requirement calculations for FY 2001-02 and tariffs were adjusted on that basis. No amount has therefore been taken on this account to the revenue requirement calculations for FY 2002-03.

Regulatory Asset:

229. Some objectors have stated that mechanism like Regulatory Asset should not be allowed. APTRANSCO or the DISCOMS have not claimed in their respective ARR/ERC any amounts to be treated as Regulatory Asset. It should be mentioned in this context that the Principal Secretary, Energy Dept, GoAP who appeared before the Commission on behalf of GoAP in the public hearings stated that the State Government had extended additional ad-hoc assistance of the order of Rs. 1053 Crs during FY 2000-01 by way of issue of APPFC bonds.

Similarly during FY 2001-02, following a severe adverse thermal-hydel mix in the power availability from the state's generating stations (as a result of monsoon failure) the State Government, in order to ensure adequate power supply to agricultural consumers, had extended further assistance to the power utilities by issue of APPFC bonds to the tune of Rs. 876 Crs to meet the additional expenditure on power purchases. The Principal Secretary placed a request before the Commission that the additional assistance provided by the State Government during FY 2000-01 and FY 2001-02 may be considered as qualifying to be treated as a Regulatory Asset so that in the years when conditions are favourable, the utility could capture (and retrieve) the same through special appropriations in the Revenue Requirement determination and the Tariff process that follows such determination.

230. The Commission worked out the overall financial loss for FY 2000-01 as Rs.1024 Crs. While examining the issue of consideration of this loss as a regulatory asset, the Commission proposed to carry-forward that portion of the financial loss which was on account of factors beyond the reasonable control of the licensee, through a special appropriation in the Annual Revenue Requirement for FY 2000-01 and accordingly, allowed an amount of Rs.62 Crs as compensation towards an adverse hydel generation experienced due to the monsoon conditions resulting in substitution by higher cost thermal power. After allowing another Rs.28 Crs on account of the short-fall in delayed payment surcharge component of non-tariff income following the interim orders passed by the A.P. High Court in the course of hearing a batch of Writ petitions on the Tariff order, the Commission recommended that the balance uncovered financial loss of Rs.934 Crs may be borne by GoAP as subvention in terms of the provisions of Sec.27(1) of the Reform Act. So, the question of considering Rs.1053 Crs provided by the GoAP as extended additional ad-hoc assistance for the FY 2000-01 for treatment as a regulatory asset does not arise. As for the assistance of Rs.876 Crs provided by GoAP towards adverse thermal-hydel mix, no claim has been made by APTRANSCO for treatment of any portion of the loss

as a regulatory asset. As a matter of fact, there was no proposal from APTRANSCO regarding treatment of losses. Further, any excess expenditure on account of agriculture will have to be borne by the GoAP as the tariff income from agriculture consumption is based on fixed slab rates, the balance being provided by the GoAP as subsidy after taking the cross-subsidy into account and additional consumption does not yield any additional revenue. Excess supply of power to agriculture over and above the consumption approved by the Commission will not, therefore, be eligible for treatment as a regulatory asset. On the contrary, if as claimed by APTRANSCO, the excess purchases were made at the instance of GoAP, for supplying power over and above the quantities prescribed by the Commission, it is appropriate that GoAP pays for the same. Under these circumstances, it would not be possible to treat Rs.876 Crs extended by the GoAP by issue of APPFC Bonds as a regulatory asset.

Working Capital and Interest on Working Capital:

231. APTRANSCO has again made a plea in the present filings for recognition of borrowings to meet Working Capital requirements and stated that, based on the Commission's position (in the Tariff Order for FY 2000-01) and consistent with its own position in its filings for FY 2001-02, it has excluded receivables, payables and Working Capital borrowings from the Capital Base computations for FY 2002-03 also. Referring to the Commission's Tariff Order of 24th March, 2001 wherein the Commission has stated that while it is sensitive to the Working Capital needs of the Licensee, it found that the need for Working Capital was not established considering the float provided by the generators by way of Credit for power purchases and funds provided by the consumers by way of Consumer deposits, APTRANSCO has stated that surcharges are imposed by the generators for late payments, that such surcharges are in the nature of interest on Working Capital advanced to the buyers (by the generators), and that it is its legitimate expectation that "such financing charges be allowed by the Commission either as Working Capital allowance or as surcharges being admitted as legitimate business expenditure". Further, APTRANSCO has stated

in the filings that while the staff of the Commission have indicated the need for a lead-lag study and cash flow statements for justifying the need for Working Capital, it has not been possible to conduct lead –lag studies and cash flow statements have been prepared only for the first six months of the year. Stating that APTRANSCO is in a transition phase where operations have not stabilised and that increase in power purchase costs have necessitated additional Working Capital, APTRANSCO has urged the Commission, “to consider its request for Working Capital as a legitimate allowable expenditure and inclusion of the same in the approved ARR order”.

232. The DISCOMS in their filings have referred to the same aspects as by APTRANSCO in regard to the exclusion of receivables, payables and Working Capital borrowings from Capital Base calculations and establishing the need for Working Capital considering the float provided by the generators by way of Credit for power purchased and funds provided by the consumers by way of Consumer deposits. They too have stated that it has not been possible to conduct lead -lag studies and have prepared cash flow statements for only the first six months of the year. The DISCOMS have stated that they are in a transition phase where the collection rates have not stabilised and that data constraints also prevent accurate classification of collections from current and past billings by the age of receivables. The DISCOMS have further stated that due to the low opening payable balance at present in respect of power purchase, their Working Capital requirements are likely to be (for the present) lower than steady state payable levels and that therefore the DISCOMS are not proposing separate Working Capital borrowings for themselves for the present. In this context, referring to Delayed Payment Surcharge (DPS), the DISCOMS have stated that it is in the nature of Working Capital interest as the surcharge is essentially for the additional Credit extended by the Licensee to its customers and have requested for the exclusion of DPS in the computation of non-tariff income. Referring to the observations of the Commission in its Tariff Order dated 24th March, 2001 that there is no established need for Working Capital considering the float

provided by the generators by way of Credit for power purchases and the funds provided by the consumers by way of consumer deposits, the DISCOMS have stated in their respective filings that the Commission's view suggests that consumer security deposits represent a source for financing Working Capital needs arising on account of increase in receivables which are not provided for in the Sixth Schedule. Based on these, the DISCOMS have made a plea for deviation from the Sixth Schedule and treat the consumer security deposits as a source of Working Capital finance and not include it as an element on the negative side of the Capital Base.

233. Some objectors stated that substantial security deposits from consumers held by the Licensee (s) should be more than sufficient to meet its Working Capital needs and that therefore the plea "to allow pass through of interest on Working Capital is not justified". Objectors have also voiced their view that the revenue gap is self-inflicted on account of extraneous considerations in Tariff design, irrational tariffs and gross inefficiency and that therefore the cost of financing the revenue gap cannot be justly or reasonably passed through to the Consumers.

234. The staff, dealing with Working Capital in their presentation before the Commission at the public hearings, stated that the Commission's Tariff Order for FY 2001-02 mentioned primarily the requirement of projected monthly cash flow statements to establish the requirement of Working Capital under conditions of reasonable efficiency in the Licensees' operations. Referring to the pleas in the filings for exclusion of Consumer deposits from the negative side of the Capital Base (in deviation of Sixth Schedule) and for exclusion of revenue from Delayed Payment Surcharge from non-tariff income, the staff observed that these do not touch the core of the issue. The staff emphasised that substantiation of need for Working Capital over and above that permissible under the Sixth Schedule is the primary requirement. It is only then that the aspect of excluding consumer deposits from the negative side of the Capital Base can be considered if the

consumer deposits have in point of fact been applied to meet such need. The staff further observed that analysis of the second transfer scheme Balance sheets shows that, in three DISCOMS, capital assets are partly funded by consumer deposits and that therefore the exclusion of consumer deposits from the Capital Base calculation would not be proper. The Licensee's case for Working Capital is also vitiated by factors (lapses) such as non-implementation of the Commission-approved Fuel Surcharge Adjustment (FSA) (since the quarter ending in March 2001) as a result of which cash that would have come in, has not come in affecting the Working Capital. Also, the staff mentioned that the subsidy due from GoAP to the extent of Rs. 673.91 Crs as on 1-4-2000 as per the Second Transfer Scheme and Rs. 803.44 Crs as on 31-3-2001 as per annual accounts (unaudited) of APTRANSCO for FY 2000-01 affects the Working Capital position of the Licensee (s).

235. It appears that the Commission's observations on Working Capital in its Tariff Order of 24th March, 2001 have not been understood either in letter or spirit. The Commission have consistently held that the need and requirement of Working Capital under conditions of reasonable efficiency in the Licensees' operations is to be established as a first step to see whether such requirement is over and above that permitted by the Sixth Schedule and whether deviation from the Sixth Schedule would be necessary at all. Towards this end, the Commission had suggested that the Licensees file projected monthly cash flow statements based on reasonably efficient operational assumptions to justify the requirement. Such cash flow statements have not been filed as part of the filing or even later in response to staff requests. Instead, the filings contain a request for excluding the Consumer Security Deposits from the negative side of the Capital Base and to exclude Delayed Payment Surcharge from the assessment of non-tariff income, clearly indicating a misreading of the Commission's order. This is clear from the filings in which it is stated that "the Commission's view that funds provided by consumers by way of Consumer deposits provide float for Working Capital is applicable to the DISCOM and this view suggests that

consumer security deposit represents a source for financing Working Capital needs arising on account of increase in receivables which are not provided in the Sixth Schedule". The Commission wishes to emphasise that no such view is expressed by the Commission in its tariff order of 24th March, 2001. The order stated that need for Working Capital was not established considering the float provided by the consumers by way of consumer deposits. It would be incorrect to say that this "suggests that consumer security deposit represents a source for financing Working Capital needs arising on account of increase in receivables which are not provided in the Sixth Schedule". Obviously, the first step would be to answer the question whether there is Working Capital requirement and if so the quantification of that requirement. The question of removal of security deposit from the negative side of the Capital Base would arise for consideration once the need and quantum of Working Capital is established and the Consumer Security Deposit is entirely reckoned as a source for financing the requirement. On the contrary if consumer security deposit has actually been used for financing capital assets (as observed by the staff) the question of reckoning the same for financing Working Capital would not arise. Further, it could be that the Working Capital requirement worked out under condition of reasonable efficiency in the Licensee's operations is less than the Consumer Security Deposit. Similarly, the question of interest on Working Capital and the exclusion of DPS from the non-tariff income (as proposed by the Licensees in the filings) would arise only when the basic need for a specified amount of Working Capital is established. The Commission therefore do not find any merit in the plea for exclusion of Consumer Security Deposits from the negative side of the Capital Base (which also constitutes a departure from the Sixth Schedule) and exclusion of DPS from the non-tariff income and is accordingly rejected. In view of this, the claim of APTRANSCO towards interest on Working Capital and interest on financing the deficit is disallowed. The Licensees are advised to address the substantive issue of establishing the need and quantifying the amount of Working Capital in as scientific a manner as possible.

236. In order that the issues concerning Working Capital requirements of the Licensees are considered and deliberated in detail, the Licensees (APTRANSCO and the four DISCOMS separately) are directed to file a Discussion Paper bringing out inter-alia the need for Working Capital allowance over and above that allowed under the Sixth Schedule and the actual cash flow statements month-wise for the two years FY 2000-01 and FY 2001-02. ***The Commission directs that this Discussion Paper on Working Capital be filed latest by 31-7- 2002.***

Reasonable Return:

237. APTRANSCO and the four DISCOMS have not claimed in the filings the Reasonable Return which they are eligible as per the Sixth Schedule to the Electricity (Supply) Act, 1948. Some objectors have put forward the view that though APTRANSCO and the DISCOMS have decided to forego the Reasonable Return, they should be given the Reasonable Return. The Commission feel that, from the point of view of making these entities operate commercially, it would not be in the interest of either the consumers or the Licensees to allow them to forego the reasonable return they are eligible for. The Commission has therefore decided to allow the Reasonable Return calculated as per the provisions of the Sixth Schedule (ibid) and include it in the calculations of the Revenue Requirement for FY 2002-03 of all the Licensees.

Trusts for Employee Funds:

238. Several objectors have raised questions about the formation of Trusts and Crediting of funds provided through tariff to non-drawal bank accounts. APTRANSCO and the four DISCOMS have reported that the formation of Trusts has been completed and that an aggregate amount of Rs. 47.91 Crs has been deposited in the respective non-drawal bank accounts for the ten months (April 2001 to January 2002) complying with the directive of the Commission in this regard.

239. The Commission note that there has been no progress during FY 2001-02 in respect of Crediting funds which accrued through tariff for FY 2000-01 to non-drawal bank accounts. ***The Commission directs that a financial action plan be filed before the Commission by June 30, 2002 so as to complete the remittance of the required amounts to non-drawal bank accounts (or to the Trusts if they are fully operational and functional) in a defined and clearly firm time frame.***

240. One objector raised the question of framing rules and regulations for the trusts and obtaining recognition to the trusts under the income tax and other acts. On verification it is found that this work is still to be completed. It is necessary that priority should be given for this item of work. Licensees are advised to do the needful and report the status by 31-7-2002.

Merit Order Dispatch:

241. Power purchase cost is the single largest component in the cost structure of electricity business anywhere in the World. It is more pronounced in India because of high levels of T&D losses in the system.

242. 42736 MUs are available from various identified generating sources in the financial year FY 2002-03, whereas the total requirement of APTRANSCO is 39529 MUs as per the Commission's assessment. This makes the selection of the generating units to be dispatched or in other words the drawing up of merit order is extremely important.

243. In India, there are no power pools or mercantile generating units. Most of the power purchases are made through PPAs. Because the utility entering into the agreement with the generator is the only buyer for the generator, the contract

mentions certain minimum commitment on the part of the buyer for utilisation of the generating capacity. The contracts consider the interest costs, O&M costs, employee costs, depreciation, return on equity, taxes etc. as fixed in nature and stipulates that at certain plant availability the generator has to be compensated for this fixed cost. This level of plant availability varies from 68.5% to 85% from contract to contract. This would entail that even if the buyer does not require the energy from the particular generating unit at certain times, if the generating unit shows availability, the buyer has to fully compensate for the fixed costs.

244. When the generating unit is actually run it is compensated for the variable costs of running or the fuel-related costs. Apart from these, there are incentives for performance above certain pre-defined levels. Usually, after the threshold PLF for fixed cost recovery, any performance above this is incentivised as per the contracts. Some of the PPAs entered into by APTRANSCO before the creation of the APERC have provisions for incentives on deemed generation as well. This means that even when the generating unit is not asked to operate, the fact that it was available for generation entitles it to certain incentives.

245. There are some technical constraints in deciding the level of dispatch from a generating station. To give an example, there are thermal generating units that can not be run at less than 50% of their rated capacity. Similarly, the nuclear plants are always must-run units because of the nature of technology used. Once the nuclear reactor is in operation, one does not have the option of switching on and switching off of the plant.

246. The reason for such elaborate explanation is that while drawing a merit-order these contractual obligations and technical conditions must be taken into consideration. Commission, views the exercise of drawing up a merit-order as the optimum generation schedule for the ensuing year of Licensees' operation, that would result in minimum overall costs for the consumers keeping in mind the contractual and technical constraints. Accordingly, Commission has considered such optimum dispatch option that would minimise the cost of power purchase.

247. However, it should be clarified here that the merit-order schedule would only be indicative to assess the power purchase cost. The actual dispatch depends upon options available to the Load Despatcher at any particular point of time. This warrants that the grid engineer has adequate systems to evaluate his options both technically and commercially on a continuous basis.

248. ***Commission directs APTRANSCO to develop a comprehensive merit-order procedure in consultation with all the key stakeholders and place before the Commission for its approval by 31-7-2002. It also directs APTRANSCO to operationalise the coordination committee as envisaged in the Grid Code approved by the Commission and have regular monthly meetings of the committee as provided in the Grid code***

<u>Internal Efficiency:</u>

249. Whether the Licensees APTRANSCO and the DISCOMS, have achieved the targeted efficiency gains or not remains a contentious issue. The Licensees on the one hand claim partial achievement in meeting targets while on the other hand, the staff have pointed out that these claims cannot be justified as the estimates are based on increases against the base of the previous year's record rather than against the Tariff Order projections.

250. Meeting targets of efficiency is no doubt a difficult but not an impossible task. To recollect, the Commission in its first Tariff Order for FY2001-02 in lieu of prescribing limits to loss reduction preferred to accept the proposed efficiency gains of Rs.500 Crs. The tradition continued in the next Tariff Order for FY2001-02 by accepting the proposal of Rs.501 Crs efficiency gains made by the Licensees in the filing. In the current filing for FY2002-03 the Licensees have refrained from proposing efficiency gains and instead preferred to set a moderate goal of system losses at 28.4%. The Commission however stipulated a target of Rs.300 Crs to be achieved during the ensuing year as it would not like to be

guided by specific loss levels in the absence of metered Agricultural Consumption or a reasonable estimate of the same.

> ***The Commission directs that combined Efficiency Gains of Rs. 300 crores be achieved by all the four DISCOMS for FY 2002-03. The Distribution of Efficiency Gains between the four DISCOMS is as:***
>
> **APEPDCL : 30 crores**
> **APNPDCL : 55 crores**
> **APSPDCL : 55 crores**
> **APCPDCL : 160 crores**.

251. The Commission appreciates the efforts of the Licensees in reducing losses through concerted effort of vigilance exercises, spot billing and plugging of loopholes in metering, billing and collection of revenue. The very fact that total purchase of power has reduced by 1.5% while collection efficiency averaged around 90% for current demand and around 105% including past arrears is extremely noteworthy. The gains from these efforts were however nullified by changes in consumer mix and changes in power purchase mix. The Commission believes that considerable scope exists for even higher efficiency gains. This can be achieved through aggressive metering and billing of all connections, disconnection of non-regularised unauthorised loads, replacement of burnt meters, removal of multiple connections in a premise, remote reading of high value service connections, updation of actual loads, careful monitoring of power purchases and merit order dispatch.

252. Extension of efficient billing measures may be considered for implementation on a wider scale. For the ensuing year the Commission directs that high quality meters be fixed at all towns and mandal headquarters.

> ***The DISCOMS shall install high quality meters on service connections in all towns and mandal head quarters by***

December 2002. 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 section level to improve billing and consumer service.

UNAUTHORISED ADDITIONAL LOADS - VOLUNTARY DISCLOSURE SCHEME:

253. It is generally observed that Domestic and Non domestic consumers are increasing their connected loads without prior approval of licensees resulting in overloading of lines and distribution transformers and also loss of money to licensees by way of development and service line charges. If the consumers of these categories are made to obtain prior approval and also pay corresponding development and service line charges, the licensees can carryout a planned system improvement which results in reduced losses and also better consumer service through improved quality of supply. Recognising the fact that initiating action on all Domestic/Nondomestic consumers who increase their Connected Load unauthorisedly and imposing penalties is a voluminous task the Commission directs the DISCOMS to bring in a 'voluntary disclosure scheme' for the Domestic / Non Domestic consumers wherein they disclose voluntarily the unauthorised additional load connected by them within a period of 3 months from the date of a public notice and get the unauthorised additional load regularised by paying 50% of normal development and service line charges within 15 days of intimation by licensee. After the 3 months notice period is over the licensee can initiate verification of connected load of balance Domestic / Non-Domestic services and take action to book malpractice cases as per general terms and conditions of supply. The 'Public notice' should be given by each DISCOM before 30.4.2002, and a report on the results of the 'voluntary disclosure scheme' must be reported to Commission by 31.8.2002.

The Commission directs the DISCOMS to introduce a 'Voluntary Disclosure Scheme' operative from 1-05-2002 to 31-07-2002, wherein, the consumers who volunteer to

regularise their unauthorised load or unauthorised additional load would be allowed a discount of 50% on the normal development and service line charges within 15 days of intimation of the scheme by Licensee

Distribution Transformer (DTR) Failures:

254. The DISCOMS have stated that the failure rates of the Distribution Transformers for the last three years have shown a reduction and that the Licensees are taking all steps to minimize the DTR failures. The following data has been submitted.

Table No. 19
Distribution Transformers Failures

DISCOM	Failure in FY 2000-01 percentage	Failure in FY 2001-02 (upto Nov) percentage	Target of Tariff order FY 2001-02 percentage
EPDCL	15	11.69	15%
CPDCL	25	18.02	18%
SPDCL	18	12.92	18%
NPDCL	28	21.19	18%

255. In EPDCL and SPDCL DTR failures are near to the Target level but in NPDCL and CPDCL DTR failure rate has exceeded the level fixed in previous Tariff order.

256. The Commission is of the opinion that better performance can be achieved by way of reduction of failures on DTRs. ***The Commission directs, DISCOMS to reduce DTR failures to 13% in EPDCL, 15% in CPDCL, 15% in NPDCL and 15% in SPDCL in FY 2002-03.***

Bulk Supply Tariff:

257. The Commission regulates the Bulk Supply Tariffs (payable by the Distribution and Retail Supply Licensees to Bulk Supply Licensee) and the Retail Tariffs (charged to retail consumers by the Distribution and Retail Supply Licensees) in terms of section 26 of the Reform Act.

258. In the wake of multiple DISCOMS, maintenance of uniform retail tariff in the State impacts on the fixation of bulk supply tariffs payable to the Transmission Company. The principle of level playing field suggests the need for the Transmission Company, especially since it is a natural monopoly, to charge uniform bulk supply tariffs to all who purchase power. The issue for the Commission is how far one can ensure uniform Bulk Supply Tariffs while retaining uniform retail tariffs.

259. In the transition period, the historical factors which have shaped the DISCOMS stand in the way of simple 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). The differences in consumer mix between DISCOMS result in differences in cross-subsidy available to the different DISCOMS.

260. APTRANSCO in their filing have proposed a single part Uniform Bulk Supply Tariff. Section 26(8) of the Reform Act directs the Commission to *“endeavour to fix tariffs in such manner that, as far as possible similarly placed consumers in different areas pay similar tariff”.* The Commission has initially determined the Bulk Supply Tariff to different DISCOMS based on the Uniform Bulk Supply Tariff. To implement the mandate under Section 26(8) of the Reform Act, the Commission has to re-balance the revenue surplus and deficit in cross-subsidy available with DISCOMS, to ensure that the retail tariff is the same. This

can be reflected either as a financial transfer between DISCOMS operated through a pool or incorporated as a differential in bulk supply tariff charged to DISCOMS. Hence, the Uniform Bulk Supply Tariff determined by the Commission to the DISCOMS ultimately translates into a differential Bulk Supply Tariff after the adjustments of Revenue Surplus or deficit of the DISCOMS are taken into account. The Commission is of the view that progressively the extent of differential in the Bulk Supply Tariff charged to the distribution companies should be reduced, in tune with the reduction of cross subsidy between various classes of consumers and reduction in external subsidy from the Government. Thus, the Bulk Supply Tariffs may eventually move towards a uniform level (or more accurately on an actual DISCOM cost-based level) as the retail tariffs move closer to an actual cost of service.

261. Once the infrastructure/information is ready and better load flow studies are available, the Commission expects to structure the BST on a two-part basis comprising a demand component linked to coincident peak demand and an energy component. Such pricing will help the DISCOMS to improve overall load profile and reduce the cost of power purchased.

262. BST should not be detrimental to efficiency of licensees operation. Thus, if a licensee is efficient in a year this should not be taken away in the following tariff review as such an action will not motivate any improvements. The Commission is aware of this concern and has made suggestions to encourage efficiency improvement and on BST in the Consultative Paper on LTTP. For the FY 2001-02 as the GoAP has taken over all losses, this issue does not arise and the Commission computes BST as was done in FY 02 tariff order.

Free Supply of Power to Agriculture:

263. Several objectors have submitted to the Commission during the hearings and also in writing that power should be supplied free of cost to agriculture giving several reasons such as the importance of agriculture to the State economy, the

enormous increase in agricultural production after the introduction of tube well irrigation, lack of parity of cost of irrigation between surface irrigated and tube well irrigated areas and economic backwardness of the upland areas. The Commission's view is as follows.

264. Electricity is not a freely available commodity. Licensees have to purchase electricity from generators and supply to the consumers. To maintain the supplies, Licensees have to recover the costs from the consumers. At present, the cost to serve agriculture is Rs.2.38 per unit and it is paid for by a) end consumers, b) other consumers as cross-subsidy, and c) GOAP as external subsidy. Supply of electricity free of cost to agriculture implies that the total costs incurred by licensees for such supplies are to be paid for by other classes of consumers through cross subsidy and through external subsidy by GOAP, which means shifting the entire burden of payment for one's consumption to others.

265. Further, electricity supply free of cost to consumer leads to absence of proper price signals to the consumer. As such, there would be no incentive for the consumer either to conserve the energy or make efficient use of the energy. Absence of a price signal to the consumer will have a deleterious effect on pattern of end use of electricity consumption.

266. The Commission, as a general principle, do not see the any rationale for supply of power free of cost to any particular class of consumers.

Domestic Category - Retention Of Six Slabs:

267. DISCOMS in their tariff proposal have pleaded for retention of six slab structure in the tariff for domestic category. The Government of Andhra Pradesh represented by the Principal Secretary, Energy Department during the Public hearing requested the Commission to retain six slabs in the Domestic category. Similar request has been made by various objectors. There has also

been a request to maintain a uniform unit rate to all slabs of domestic consumers. The staff on the other hand made a plea for reverting back to four slabs as it was (a) in line with prevailing consumption pattern , and as (b) the Licensees had not complied with the Commission Directive with regard to removal of multiple connections. The Commission carefully considered the differing views on the number of slabs in the domestic sector .

268. It may be recalled that the Commission has always been of the view that there is need for rationalising tariff design by simplifying the slab structure by reducing the number of slabs. It may be worthwhile to recollect that in the first Tariff Order (May 27,2000) itself the Commission had deliberated upon the number of slabs in the domestic sector and suggested four slabs against the then prevailing seven slab structure. In the order the Commission had clarified that:

"A Scientific approach to categorize would have to be based on the principle of 'paying capacity'. Since such studies are not available for the present filing, the Commission has adopted a practical approach to paying capacity. The first slab represents the lifeline rate as stated by APTRANSCO. The next two rates are representative of consumption patterns of the middle class and the upper middle class households. The last slab is for the rich. By modifying the slab rates and the categories the tariff design attempts to combine efficiency with social Objectives'"

269. The Commission in the light of the public requests re-examined the issue regarding number of slabs and found no reason for changing their opinion. The Commission reiterates that the proposed four slab classification matches with the consumption profile of households in terms of size of dwelling unit; number of power points; household equipment etc. An important point to note is that the lifeline segment serves two purposes. It not only covers consumers in the lowest lower income bracket but also takes care of the minimum requirement of energy for any consumer of electricity.

270. The larger the number of slabs, the greater is the scope for abuse. This observation is borne out by studies with regard to excise duties, import duties and income tax. Multiple slab structure is often open to abuse. Consumers can attempt to shift to lower categories, if feasible, through multiple services. It also provides scope for collusion with the staff by the consumers.

271. The Commission after careful consideration has reduced the number of slabs from six to five by merging the last two slabs of the domestic category in this Tariff Order . This is done keeping in view that there is not much difference in the consumption pattern in upper middle class and the rich. At the same time, ***the Commission directs the Distribution Companies to conduct a door - to - door checking of all services and to remove all multiple connections by 31 October '2002. 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.***

<u>LT Category III:</u>

272. The following points were raised during the public hearing:

(i) Grievance that in LT IIIA category, tariff was reduced to those who consumed more than 1000 units but was raised to those who consumed less.

(ii) Request for keeping the first slab of Cat-II at the same level as Cottage Industry (Cat IV).

273. Tariff rationalization has been central to the design of tariffs by the Commission. Among other concerns, the Commission is of the opinion that tariffs should be simple and uniform as far as possible. The proposed merging of two slabs into one category in LT-IIIA is in line with the Commission's approach towards tariff rationalization and so the proposal has been accepted by the Commission. The contention that the DISCOMS' proposed rate for LT-III, has

been hiked to those who consume less, is not a valid consideration. Unlike the domestic category where different slabs represent differing income-levels of households and their paying capacity, in LT-Industry differences in ‘paying capacity’ between small and large industry are not significant.

274. The request to keep the first slab of Category II in Category IV amounts to suggesting that commercial units be considered in the same category as cottage industry. Cottage Industry namely Category IV is a subsidized category and stands on a different footing.

<u>HT – Incentives:</u>

275. Several objections have been received opposing tariff concession to HT tariff and 25% Concession in tariff to new HT industries. The objectors have also stated that if the new industries are allowed incentive, it will create imbalance between the already existing industries and new industries.

276. The Commission has carefully examined the views of the public on the proposals put forward by the DISCOMS regarding design of HT Tariff as a declining block rate-structure with a 25% discount incentive scheme to new industry and captive power repatriated to the grid.

277. HT Industry Category is a subsidising category paying much more than its cost- to- serve. No doubt cross-subsidy from this category is vital and is required for some more time for the financial health of the sector. Yet, if high tariffs cause flight of industry from the Grid, retaining the tariffs at high levels tends to be self-defeating. However the process of aligning tariff rates with the cost-to-serve of the category is an integral part of the Commission’s tariff policy. As stated earlier in previous orders, there is need to bring down the cross subsidy gradually while seeking to align the tariffs for all consumer categories to cost- to- serve. The process however has to be gradual to avoid a rate shock.

278. At present, grid consumption of HT-I is about 3600 MUs while the consumption outside the Grid is over 4000 MUs. This situation is financially not sustainable for the utility. Attracting consumers back to the grid through appropriate price signals by way of reduced basic tariff rate is essential and justified.

279. The Commission is also sensitive to the need for spurring industrial growth in the state. The incentive scheme introduced in the last Order has been modified with the twin objectives of attracting consumers back to the grid and also to provide the required thrust to spur industrial growth in the State.

280. The objection of some of members of the public on the inherent discrimination in the Tariff proposal of the DISCOMS of the declining block scheme and also in the discount of 25% to new industry and captive repatriation is reasonable. A declining block scheme while it has its merits tends to discriminate between small and large industry and as stated earlier, a single block rate removes this discrimination. For the same reasons, the Commission prefers to continue with the existing incentive scheme but with refinements and modifications to make it more attractive. Sec 26(7a) of the Reform Act (1998) permits differentiation of tariff based on load factor or power factor. The Commission does not differentiate between old and new industry. All consumers of a category are considered alike and cannot be disCrsiminated. Similarly, special preference to captive repatriation is neither acceptable nor permitted.

281. The incentive scheme has been modified to extend the scheme to more industrial consumers. In the existing scheme, the threshold limit for the incentives was 40% load factor. This did not cater to industries that work for a single shift. In the modified scheme, the threshold limit for qualifying under the incentive scheme has been lowered to 30% for the benefit of such operators. The Discount rate is now applicable on non telescopic basis for the entire

qualifying consumption. The scheme shall continue for three years upto 31-3-2005.

282. Apart from modification to the rate structure and incentive scheme in this order, the Commission is inclined to effect further rationalisation of HT-I tariffs. As part of such rationalisation process, all slabs have been merged into one.

Sale of Surplus Power:

283. Objectors have stated that the proposal of APTRANSCO to sell surplus power looks unrealistic and the scope is limited as other States are also likely to have off-peak surplus. APTRANSCO submitted that negotiations are underway with power deficient neighbouring states and the Power Trading Corporation for sale of surplus power. Staff is sceptical of sale of surplus power since no documentary evidence was filed by licensee in support of any commercial arrangement.

284. Sale of power outside the state is dependent upon a number of factors - Firstly, the availability of surplus power in the state, secondly, the time or season during which the surplus power is available and lastly, the price negotiated for sale of power. Discussions with APTRANSCO indicated that negotiations were in progress. Under the circumstances the Commission did an analysis of the above three points to take a decision on the matter.

285. Availability of firm surplus power is dependent on the date on which NTPC Simhadri reaches final commercial operation. As per ARR filing, this will occur during July. Considering all plants in operation and surplus power available after allowing for a reserve margin, the Commission is of the opinion that about 2435 MU surplus power will be available for sale, during the year. Assuming a selling price of Rs.2.40ps (as indicated by APTRANSCO) the net revenue to the licensee would be about Rs.133.61 Crs. The Commission prefers to take a

conservative estimate of Rs.133.61 Crs rather than accept the optimistic projection of Rs.350 Crs made by APTRANSCO.

Status of Compliance of Commission's Directives

286. The Commission has issued fifteen directives as part of the Tariff order for FY 2001-02 for compliance by APTRANSCO and the DISCOMS and laid down the time frame within which the directives need to be complied with. The Commission has been reviewing the compliance of these directives with the Licensees on a monthly basis. The following table presents the status of compliance on the directives.

Table No. 20

Status of Compliance with Directives

<table>
<tr><th>S.No.</th><th>Directive</th><th>APTRANSCO/DISCOM response</th><th>Staff Analysis</th><th>Commissions Analysis</th></tr>
<tr><td rowspan="2">1.1</td><td rowspan="2">Agricultural Metering to be completed by March 2003</td><td>CPDCL: in the process of providing energy meters on LV Side of DTRs feeding exclusively Agricultural loads and also DTRs feeding mixed loads.</td><td rowspan="5">Comprehensive metering plan submitted which is a violation of the Commission's directive.</td><td rowspan="2">Awaiting comprehensive metering plan.</td></tr>
<tr><td>EPDCL/ SPDCL/NPDCL: Meters are being fitted on DTRs supplying to predominantly agricultural consumers. In addition, two pilot projects are being contemplated in the Discoms to promote metering.</td></tr>
<tr><td rowspan="3">1.2</td><td rowspan="3">All new agri connections including unauthorised agri connections, if any regularised, are metered with immediate effect</td><td>CPDCL: Proposes to provide meters along with the programme of providing meters for all agri connections.</td><td rowspan="3">Slow progress with regard to regularization of unauthorized connections</td></tr>
<tr><td>EPDCL: 580 agricultural services which have been released are metered. Metering will be undertaken for all new agri services.</td></tr>
<tr><td>SPDCL/NPDCL: Metering ensured to all new Agricultural connections and also to unauthorised agricultural loads being regularised.</td></tr>
<tr><td>1.3</td><td colspan="4">Metering of all consumer categories other than Agriculture:</td></tr>
<tr><td rowspan="2">1.3 a</td><td rowspan="2">Sugar cane cultivations with immediate effect</td><td>EPDCL/SPDCL: completed</td><td rowspan="2">Partial compliance of the directive</td><td>Compliance in progress</td></tr>
<tr><td>CPDCL/NPDCL: Matter pursued continuously no application registered so far.</td><td></td></tr>
</table>

1.3 b	Aquaculture within 3 months of the Order	**EPDCL**: Completed **NPDCL/CPDCL**: No acquaculture activity **SPDCL**: On-going	Partial compliance of the directive	Compliance in progress
1.3 c	For towns and municipal corporations, streetlights and PWS are metered within 6 months, the balance to be metered by December 31st, 2001.	**EPDCL/SPDCL**: Completed **CPDCL/NPDCL**: On-going	Partial compliance of the directive	Compliance in progress
1.4	Dysfunctional Meters to be set right within three months of the Order.	**CPDCL/NPDCL**: Meters are being replaced continuously – on –going process **EPDCL/SPDCL**: Already completed	Partial compliance of the directive	Compliance in progress
2	Installation of 0.2 accuracy class meters	**APTRANSCO** : At the interface points with APGENCO, DISCOMs, PGCIL meters are being installed and the process is expected to be over shortly. At the interface points with IPPs and interstate interface points, requisite action is being taken.	At interfaces with DISCOMS and IPPs 0.2 accuracy class meters still to be fixed.	Compliance in progress
3	Unauthorised agri Connections – Regularised or disconnected within 3 months	**EPDCL**: 24 connections regularized after approval from Govt. Disconnections will be effected by Dec. 2001. **NPDCL/SPDCL**: Regularization incomplete due to resistences from consumers. Disconnections will be effected. **CPDCL**: 2074 connections regularized temporarily pending receipt of approval from Govt.	Partial compliance.	Compliance in progress
4	Restrict power supply to agriculture to 9 hrs. Any purchase of power for additional supply to agri requires prior approval of Commission.	**EPDCL**: continuously monitored **SPDCL**: Strictly monitored and enforced. Request for additional supply of 700 MU was brought to the notice of the Commission. **CPDCL:** Regulation being carried out with the help of remote reading. Violations dealt with strictly. **NPDCL:** Being strictly enforced through load curves generated from recorded data.	Partial compliance. The process of monitoring started much later.	Complied .
5	Identify Multiple service connection and disconnect made retaining single connections only within 4 months of the order.	All Discoms cite that this is being attended to on a regular basis and have given data giving the number of connections identified and clubbed into single connection.	Directive has not been complied with	Progress is slow

6	Conduct census of agriculture pumpsets	**EPDCL:** Census complete for Eluru circle. For other circles, work expected to be over shortly. **SPDCL:** Census complete for Chittor district. For remaining circles, the work is awarded and expected to be over soon. **CPDCL:** On-going. Request for extension till March 2002. **NPDCL:** Work awarded for 4 circles. Expected completion by Feb'02	Census is being conducted but is not complete. Till date reports for four circles have been submitted to the Commission.	Compliance in progress
7	Energy Audit	**All DISCOMs**: being attended to on a regular basis.	Monthly reports are being filed.	Complied.
8	Efficiency Gains methodology shall be prescribed by the Commission and the Licenses to file progress reports on efficiency gains on a monthly basis.	**EPDCL / SPDCL**: Reports will be submitted on receipt of methodology. **CPDCL/ NPDCL** : have provided their own calculation of efficiency gains.	Methodology presented by the Discoms but is not found satisfactory by the staff.	Compliance in progress
9.	Formation of Trusts	Trusts have been formed	Trusts have been formed but APTransco is yet to deposit arrears for FY2000-01	Formation of trusts need to be formalised
10	Receivables	Receivables –pursued vigorously with reports on a monthly basis	No information has been filed with the Commission	Progress reviewed at meetings but more effort is required
11	Sales Data Base	Reports are being submitted	Data on a consistent basis available only for CPDCL	Compliance is slow
12	Distribution Transformer Failures	DTR failure are being reduced	Progress is encouraging with regard to EPDCL and SPDCL	Compliance is in progress
13	Bulk Supply Agreements	All Discoms have submitted to the Commission	Complied with	Complied with
14	Power Purchase Agreements	**Aptransco has complied with the Directive**	Complied with	Complied with
15	Details of projects where investment exceeds Rs. 5 Crs			Not complied.

287. It may be seen from the table that many of the directives are ongoing in nature and it would not be appropriate to consider them in water tight compartments of ‘complied’ and ‘not complied’. Moreover, the efforts put in by the Licensees to improve the system has been taken note of by the Commission. Hence, the Commission observes that the Licensees are in the process of complying with the Directives.

Directives of the Commission

288. The Commission on review of the progress of the directives given in the last order and as observed that they are in process of compliance issues further directives for FY 2002-03. The directives of the Commission appearing at different places in this tariff order are annexed (Annexure – A). The Licensees are to comply with the directives.

CHAPTER-IX: ERC / ARR 2002-03

TRANSMISSION AND BULK SUPPLY

289. APTRANSCO, the licence holder for Transmission and Bulk Supply of Electricity in Andhra Pradesh filed the ARR / ERC under Section 26 (5) of the Reform Act for FY 2002-03 on 31-12-2001. 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 the Commission's alternative calculations.

290. It may be mentioned here that the finalised Second Transfer Scheme has been 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. Though the audit of accounts for FY 2000-01 is not completed, the Annual Accounts for FY 2000-01 as compiled and finalised by the Licensee (adopting opening balances as per the Balance Sheet in the Second Transfer Scheme) have been made available to the Commission and the figures as per these accounts have been adopted wherever relevant for purposes of this order.

291. The Licensee in the filings mentioned above has made the following projections of capital expenditure for FY 2002-03.

Table No. 21
Proposed Investments for FY 2002 – 03 as per filing

(Rs. Crores)

	Base Expenditure	Expenditure capitalised	IDC	Total
APTRANSCO	779	41	87	907

292. Before dealing with the projections for capital expenditure in FY 2002-03, it is necessary to advert to the considerable shortfall in capital expenditure in

FY 2000-01 referred to by the staff in their presentation, in both the segments, namely the Transmission and Bulk Supply and the Distribution and Retail Supply. It should be mentioned here that for examining the shortfall in investments (vis-à-vis the quantum of investment envisaged in the Tariff Order for FY 2000-01), it would be necessary to take the two segments together. This is because these two segments of the business were differently configured in the filings for FY 2000-01. For example, the filings for FY 2000-01 did not indicate particulars DISCOM – wise (as these had not even come into existence by then). It may be pointed out that by the date of filings for FY 2000-01 even the finalised First Transfer Scheme had not been published in the Gazette.

293. The Commission notes that there is a shortfall of RS. 934 Crs in Base Capital outlay from the Tariff Order provision of Rs. 1714 Crs for both segments of the business. The shortfall works out to 55% as detailed in the Table below.

Table No. 22

INVESTMENT – FY 2000- 01 Performance (Base expenditure)

(Rs. Crores)

	Filing	**Tariff Order**	**Actuals**	**Shortfall**	**Percentage of Shortfall**
T&BS	805	788	352	436	55%
D&RS	985	926	428	498	54%
TOTAL	1,790	1,714	780	934	55%

294. However, this shortfall has not resulted in any significant variation in the Capital Base calculations for FY 2000-01 as the net variance in the Capital Base is only Rs. 31 Crs as detailed in the Table below.

Table No. 23

Capital Base for FY 2000-01
Comparison of Actual Costs with Tariff Order
T&D Combined

(Rs. Crores)

	Filing	Tariff Order	Actual	Variance
Original Cost of Fixed Assets	6,679	6,253	5,821	(432)
Capital Works-in-Progress (CWIP)	2,224	2,229	1,441	(788)
Stock	22	25	26	1
Cash	91	74	68	(6)
Total (A)	**9,016**	**8,581**	**7,356**	**(1,225)**
Accumulated depreciation	2,535	2,490	2,494	4
Borrowings	4,804	3,560	2,358	(1,202)
Consumer Security Deposits	941	941	945	4
Total (B)	**8,280**	**6,991**	**5,797**	**(1,194)**
Capital Base (A-B)	**736**	**1,590**	**1,559**	**(31)**

The Commission is therefore of the view that no adjustments are necessary for the Reasonable Return allowed in the Tariff Order for FY 2000-01.

295. The shortfall in investment outlay for FY 2000-01 has however resulted in a corresponding shortfall in interest expenditure of Rs. 163 Crs from the amount provided in the Tariff Order for FY 2000-01 as detailed in the Table below.

Table No. 24
Interest on Loans for Capital Expenditure
Comparison of Actuals with Tariff Order

(Rs. Crores)

	Filing	Tariff order	Actual	variance
Transmission	319	249	225	(24)
Distribution	312	246	107	(139)
Total	631	495	332	(163)

296. The Commission considers that the interest expenditure of Rs.163 Crs not incurred out of the amount reckoned for calculations of revenue requirement in the Tariff Order for FY 2000-01 needs to be adjusted from the interest determined as allowable for FY 2002-03. As, as already mentioned, the Filings for FY 2000-01 were for the Distribution and Retail Supply Business as a whole (i.e. not DISCOM – wise), the amount of Rs.163 Crs is apportioned in the ratio of the investments for FY 2000-01 reckoned in the Tariff Order for FY 2001-02. The adjustment will be as follows:

Table No. 25

(Rs. Crs)

APTRANSCO	64.41
NPDCL	23.40
EPDCL	11.62
SPDCL	25.74
CPDCL	37.83
Total	163.00

Investments – Progress during FY 2001- 02

297. During FY 2001-02, the actual expenditure on works/ projects for the first six months of the year (upto Sept 2001) has been reported to be Rs. 259 Crs out of the Rs. 614 Crs provided for in the Tariff Order for FY 2001-02 for Capital Base calculations, registering a percentage of 42%. The Commission considers this level of progress satisfactory and projecting an outlay of a further Rs. 300 Crs during the second half of FY 2001-02, reckons an amount of Rs. 559 Crs in all towards Base Capital Expenditure in arriving at the projected CWIP as on 31-3-2002 to serve as the opening balance for FY2002-03.

Investments – Projections for FY 2002-03

298. As already mentioned above, the filings project a Base Capital Expenditure of Rs. 779 Crs for FY2002-03 which together with the expenditure

on capitalisation and interest during construction (IDC) works out to Rs. 907 Crs. Before dealing with the proposals in the filings, it is necessary to mention that there has been practically no progress during the past year in the matter of obtaining prior approvals for schemes as required under para 10 of the Licence. The Commission notes with anxiety that scheme - wise details for the Capital Works – in – Progress as on 1-4-2000 (Rs. 1016.76 Crs) as per the notified Second Transfer Scheme have not been furnished despite repeated attempts by the staff to obtain this information. The Commission had indicated in its Tariff Order of 24-3-2001 that at least by the next Tariff filing (i.e. the present filing) the Licensee may file project-wise details of expenditure incurred and proposed to be incurred instead of grouping the projects with reference to the source from which the projects are financed. This did not happen and the scrutiny of the present proposals is rendered difficult. Normally projects or schemes which are to be included in the annual investment plan envisaged in para 10.5 of the Licence (which forms the basis to arrive at the figures of the Capital Base) should be those which already have the Commission's approval in terms of para 10 of the Licence (or those which do not require such approval). But as there are practically no schemes for which approval has been obtained, the Commission should have in the normal course not considered any investment proposed other than in the schemes on - going as on 1-2-1999, the date of the First Transfer Scheme unbundling the erstwhile APSEB. However, recognising the hardship to the Licensee and the impediment to the progress of schemes already started that such a step would cause, the Commission have decided to make a lump-sum allocation of Rs. 700 Crs for FY 2002-03 as against Rs. 779 Crs proposed by the Licensee and Rs. 600 Crs suggested by the staff. This was done taking into account the strong representations made by the Licensee before the Commission that reduction of investment level to that suggested by the staff would affect priority programmes like ensuring 24-hour electricity supply to rural areas by Aug 2002. The Commission wishes to state in unambiguous terms that the Commission would allow no relaxation in the requirements in this regard for the ARR filings for FY 2003-04 (and onwards) and hereby ***directs the Licensee:***

(i). ***to give highest priority to obtain Commission's approval under para 10 of the Licence for schemes started since 1-2-99 and complete this task without fail latest by 30-6-2002 and report compliance to the Commission.***

(ii) ***to file by 30-6-2002 an investment plan for FY 2002-03 for an amount of Rs. 819 Crs (including expenses Capitalisation and IDC) comprising schemes which have Commission's approval. This naturally presupposes that the licensee would have obtained the necessary approval for the schemes under para 10 of the licence.***

(iii) ***to file scheme-wise details for the Capital Works-in-Progress as on 1-4-2000 as per the finalised Second Transfer Scheme (Rs. 1016.76 Crs) latest by 31-5-2002 and correlate the same with the CWIP as per the Tariff Order for FY 2000-01.***

CAPITAL BASE – POSITIVE SIDE

Original Cost of Fixed Assets (OCFA)

299. The Licensee has proposed an amount of Rs. 4208.49 Crs as the Original Cost of Fixed Assets to be reckoned in the Capital Base. Taking into account the factors mentioned under "Investments" above, the finalised figures for OCFA are as follows:

Table No. 26

Statement Of Fixed Assets

(Rs. Crores)

NAME OF THE ITEM	APTRANSCO	APERC
Original Cost of Fixed Assets (OCFA) as on 1-4-2001	2340.04	2340.04
Add : Works likely to be completed during 2001-02	952.02	875.00
OCFA as on 31-3-2002	3292.06	3215.04
Add: works likely to be completed during 2002-03	916.42	815.00

OCFA as on 31-3-2003	4208.48	4030.04

Accordingly OCFA taken to Capital Base is Rs. 4030.04 Crs.

Capital Works-in-Progress (CWIP)

300. As discussed above under investments, the Commission has decided to reckon as investment for FY 2002-03 an amount of Rs. 700 Crs as against Rs. 779 Crs proposed by the Licensee. Consequently, the amount to be reckoned under CWIP for Capital Base Calculations for FY 2002-03 works out to Rs. 615.07 Crs as shown in the Table below:

Table No. 27

Statement Of Works In Progress For FY 2002-03

(Rs. in Crores)

	APTRANSCO	**APERC**
Opening Balance of CWIP 1-4-2001	817.39	798.43
Additional Investments during the year (FY 2001-02)	651.04	558.95
Expenses during the year Capitalised	32.90	33.08
Interest during construction charged to Capital (IDC)	103.95	95.62
Total Additions : Capital Expenditure	787.89	687.65
Total (OB + Additions)	1605.28	1486.08
Less : Works Capitalised	952.02	875.00
Closing Balance of CWIP as on 31-3-02	653.26	611.08
Additional Investments during the year (FY 2002-03)	779.24	700.00
Expenses during the year Capitalised	40.80	40.80
Interest during construction charged to Capital (IDC)	87.04	78.19
Total Additions : Capital Expenditure	907.08	818.99
Total (OB + Additions)	1560.34	1430.07
Less : Works Capitalised	916.42	815.00
Closing Balance of CWIP as on 31-3-03	643.92	615.07

Working Capital Requirements

301. The Licensee's plea for Working Capital and the interest on borrowings therefor have been considered in detail in para 235 above and the Commission has suggested the course of action required of the Licensee for establishing the need for Working Capital under conditions of reasonable efficiency in the Licensee's operations. The individual Working Capital items allowable as per the Sixth Schedule are dealt with in the paragraphs below:

Average Cost of Stores

302. APTRANSCO has claimed an amount of Rs. 8.19 Crs towards Average Cost of Stores for inclusion in the Capital Base calculations. This is considered excessive compared to the level of repairs and maintenance expenses projected for the year by the Licensee which is itself considered high. This is discussed infra in detail under "Repairs and Maintenance expenses". An amount of Rs. 5.19 Crs calculated at two months requirement of the Repairs and Maintenance expenses (Rs. 31.11 Crs) by the Commission is considered reasonable and is therefore provided.

Average Cash and Bank Balance

303. The Licensee has proposed Rs. 19.76 Crs 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. This was the basis followed in the Tariff Order for FY 2001-02 also. Calculated on this basis, the amount works out to Rs. 7.08 Crs which is provided for in the calculation of the Capital Base.

Table No. 28

(Rs. in Crores)

Wages and Salaries	36.05
Admin. And General Expenses	7.53
Repairs and Maintenance	31.11
Rent, Rates and Taxes	0.55
Contribution to Employee funds	9.78
Total expenses	**85.02**
Average Cash and Bank Balances (85.02 ÷12)	**7.08**

CAPITAL BASE- NEGATIVE ELEMENTS

Accumulated Depreciation

304. The accumulated depreciation as projected by the Licensee in the filings is Rs. 1044.52 Crs against which Rs. 1039.65 Crs is admitted. The difference is due to the capitalisation of assets in FY 2001-02 being taken at slightly less than the projected levels.

Loans from Govt. and Approved Institutions

305. The Licensee has projected an amount of Rs. 2403.70 Crs towards Government loans and loans from approved institutions and an amount of Rs. 136.85 Crs as other market borrowings for capital expenditure (capex) aggregating to Rs. 2540.55 Crs. Scrutiny of the Licensee's Capital Works in Progress Programme reveals that the capital expenditure to the end of March 2002 is likely to be less than that projected in the ARR. Likewise, the capital expenditure projected to end of March 2003 has been estimated to be less than that projected by the Licensee. This has been dealt with in an earlier paragraph in detail. Keeping in pace with this reduction in the capital expenditure, the loan drawals required should be less than projected by the

Licensee. It is noticed that loans projections taken on the negative side of the Capital Base are grossly understated by the Licensee. This has arisen largely due to the incremental financing approach taken in the filings as against the financing pattern in the Second Transfer Scheme and also the shifts during FY 2000-01 in the financing pattern evidenced in the Balance Sheet of APTRANSCO as on 31-3-2001. The equity component in the financing of fixed assets inherent in the Second Transfer Scheme is a factor which cannot be ignored in this regard. A summary of the Balance Sheet as on 1-4-2000 as per Second Transfer Scheme and as on 31-3-2001 as per the finalised accounts (Unaudited) of APTRANSCO is given below for ready reference.

Table No. 29

Balance Sheet of APTRANSCO
as on 1-4-2000 and on 31-3-2001

(Rs. in Crores)

Assets	**As on 1-4-2000 (As per Second Transfer Scheme)**	**As on 31-3-2001 As per finalised Accounts (Unaudited)**
Gross Fixed Assets	1664.70	2340.04
Less: Accumulated Depreciation	587.32	692.02
Net Fixed Assets	1077.38	1648.02
Capital Work-in-Progress	1016.76	798.43
Share Capital in Subsidiaries & others	1330.26	1330.26
Subsidy receivable from GoAP	673.91	803.44
Current Assets	1035.53	701.14
Other Assets (Loss)	0.00	90.00
	5133.84	**5371.29**
Liabilities		
Share Capital	1434.34	1434.34
Reserves including Emp. Funds	36.43	45.03
Govt. Loans	0.00	137.49
Loans from Others	1722.68	1330.03
Bank Borrowings for Working Capital	145.88	108.68
Short Term Loans	0.00	300.90

Current Liabilities	1794.51	2014.82
	5133.84	**5371.29**

306. A net Capital Base of the order of Rs. 1295 Crs as projected by the Licensee in the filings cannot be justified as the filings do not project any fresh infusion of equity during the two years FY 2001-02 and FY 2002-03. Keeping in view the above factors and taking into account the loans likely to be redeemed during the course of FY 2002-03, the loans to be reckoned on the negative side of the Capital Base have been approved at Rs. 3501.38 Crs against the aggregate of Rs. 2540.55 Crs shown in the filings by the Licensee under the three heads namely Govt loans, Loans from approved institutions and other Market borrowings for Capex.

Net Capital Base

307. With the above changes in the positive and negative elements of the Capital Base, the Net Capital Base works out to Rs. 116.35 Crs as against Rs. 1295.28 Crs projected by the Licensee as detailed in the Table below.

Table No. 30

Capital Base Calculations For FY 2002-03

(Rs. Crores)

NAME OF THE ITEM	APTRANSCO	APERC
Positive Elements of Capital Base		
Original Cost of Fixed Assets	4208.49	4030.04
Capital Work in Progress	643.91	615.07
Working Capital		
a) Average Cost of Stores	8.19	5.19
b) Average Cash and Bank Balance	19.76	7.08
Total of Positive Elements of Capital Base	**4880.35**	**4657.38**
Negative Elements of Capital Base		
Accumulated Depreciation	1044.52	1039.65
Government Loans	1108.84	
Approved Loans	1294.86	3501.38
Other Market Borrowings for CAPEX	136.85	

Total of Negative Elements of Capital Base	**3585.07**	**4541.03**
Net Capital Base	**1295.28**	**116.35**

EXPENDITURE

Purchase of Energy

308. Power Purchases in the ensuing year are expected to be Demand driven as sufficient capacity is expected to be in operation during the year. The sales requirement of the DISCOMS was analysed, to which, the projected losses of the DISCOMS and APTRANSCO were added to arrive at the energy requirement for the year.

Sales Forecast:

309. Sales forecast filed by DISCOMS and approved by the Commission are given below:

Table No. 31

DISCOMS	East	South	Central	North	Total
Total Sales filed in MU	4648	7255	11766	5925	29594
Total Sales approved in MU	4538	6876	11210	5685	28309

310. Against the filed requirement of 29594 MU the Commission has approved sales of 28309 MU on the basis of past trends and realistic growth rate attainable. Detailed discussion on the sales forecast is in chapter XV.

Losses:

311. DISCOMS have projected Losses of 17.01% (East), 21.25% (South), 25.01% (Central) and 21.25% (North) respectively. These loss estimates have been provisionally accepted by the Commission. The power purchase requirement of each DISCOM is worked out taking into account approved sales and losses and is as tabulated below.

Table No. 32

(in MU)

DISCOM	Sales		Losses		Purchases	
	Filed	**Approved**	**Filed percentage**	**Approved percentage**	**Filed**	**Approved**
East	4648	4538	17.01	17.01	5601	5468
South	7255	6876	21.25	21.25	9212	8731
Central	11766	11210	25.01	25.01	15690	14949
North	5925	5685	21.25	21.25	7523	7219
Total	29594	28309	22.16	22.16	38026	36367

312. The Commission approves a total power requirement at 36367 MU for the retail supply by the DISCOMS for the FY 2002-03.

313. DISCOMS have entered into a Bulk Supply Agreement (BSA) with APTRANSCO for the supply of energy. Under the present single buyer system APTRANSCO has to supply the requirement of the DISCOMS. APTRANSCO has projected Transmission Losses of 8%. Commission, while analysing Transmission Losses, (para-above) accepted Technical losses of 6.65% (Including external losses) at EHV (upto 132 KV), while holding that the difference between projected level and accepted EHV Technical loss as possible commercial loss in the EHV system. The Transmission loss of 8% is reckoned for arriving at the total power purchase required for bulk supply and retail supply. This works out to 39529 MU.

314. Total Losses in the transmission and distribution are 11226 MU, consisting of 3162 MU for transmission and 8064 MU for distribution, in the gross purchases of 39529 MU. The overall loss is taken at 28.4%.

315. No Units are required for Wheeling service for loss reimbursement, since the Wheeling Order of the Commission (dated 24-3-2002) has specified that the delivered energy after wheeling will be net of total system losses.

Quarterly power purchase requirement:

316. The purchase requirement on a quarterly basis for each DISCOM is as follows.

Table No. 33
Power Requirement of DISCOMS

(in MU)

DISCOM	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
East	1296	1389	1286	1497	5468
South	2170	2227	2165	2169	8731
Central	3482	3694	3652	4121	14949
North	1489	1818	1852	2060	7219
Total	8437	9128	8955	9846	36367

317. A separate break up is given for agricultural consumption, again, for convenience on a quarterly basis, for each DISCOM.

Table No. 34
Agricultural Power Requirement of DISCOM
Approved by the Commission

(in MU)

DISCOM	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
East	246	261	223	339	1069
South	557	544	566	631	2298
Central	904	1022	1012	1097	4035
North	433	662	646	793	2534
Total	2140	2490	2446	2860	9936

Availability of Power:

318. As per the filings APTRANSCO have projected an availability of 48482 MU . The Commission has determined it at 42736 MU as shown in the table below:

Table No. 35
Availability of energy from different sources for FY 2002-03

Source of power	Filing of APTRANSCO MU	APERC approved MU	Remarks
APGENCO Hydel Thermal Total	 7494 19010 26504	 6999 19160 26159	Srisailam Left Bank Power House (SLBPH) reduced by 495 MU on the basis of hydrology data which was accepted by APTRANSCO. NTS included in availability as per submissions of Licensee.
CGS (Southern Region)	7899	6208	Firm allocation only considered available. Additional allocations from unallocated power not considered for availability.
NTPC (ER)	1460	-	Temporarily ER quota surrendered. Hence zero availability.
Simhadri	3162	2879	Generation availability adjusted to correspond to the delayed commercial operation.
Other SEBs	400	400	Available from GRIDCO
APGPCL	405	405	Only firm quota considered.
IPPs	7337	5722	Power Stations with approved PPAs only are considered.
Others	1215	963	
Wheeling in Kind	100	0	A part of wheeling charge is levy in kind as compensation for system losses.
Total	48482	42736	

319. Details of the power available from each of the sources is presented in the following paragraphs:

A. APGENCO:

320. The projected energy available from the APGENCO stations is after deducting the auxiliary power consumption.

Table No. 36
APGENCO – Hydel Power Stations

Name of Unit	MW Capacity	PLF percentage	APTRANSCO MU	APERC MU
Machkund –AP share (MKD-AP)	114	38	377	377
TungaBhadra-AP share(TB-AP)	72	21	131	131
Upper Sileru (USL)	240	21	443	443
Donkarayi (DKY)	25	39	86	86
Lower Sileru (LSL)	460	28	1146	1146
Srisailam- Right Bank(SSLM)	770	33	1889	1889
Nagarjuna Sagar Power House(NSPH)	810	32	2254	2254
NagarjunaSagarRight Canal (NSRCPH)	90	21	169	169
Nagarjuna Sagar Left Canal Power House (NSLCPH)	60	14	73	73
Pochampad (PCHPD)	27	36	86	86
Nizamsagar (NZS)	10	13	11	11
Penna Aho Bilam (PABM)	20	5	8	8
SINGUR	50	7	12	12
MINIHYDEL	9	16	13	13
Srisailam Left Bank Power House (SLBPH)	450	7	795	300
TOTAL	3177	25	7494	6999

Table No. 37
APGENCO Thermal Stations Generation

Name of Unit	Capacity MW	PLF percentage Net	APTRANSCO MU	APERC MU
Ramagundam-B (RTS-B)	62.5	60	326	326
Kothagudem TS-A (KTS-A)	240	71	1500	1500
KothagudemTS-B (KTS-B)	210*	74	1358	1358
KothagudemTS-C(KTS-C)	220	37	707	707
KothagudemTS-D(KTS-D0	500	83	3615	3615
VijayawadaTS-I (VTS-I)	420	71	2582	2582
VijayawadaTS-II (VTS-II)	420	81	2975	2975
VijayawadaTS-III (VTS-III)	420	80	2948	2948
RayalaseemsTPS(RTPS)	420	81.5	3000	3000
NelloreTS (NTS)	30	0	0	150
	2942.5		19010	19160

* Plants of 2 x110 MW are de-rated to 2x 105 MW

321. DISCOMS have to take care to record and account for the consumption of the colonies of APGENCO.

B. Central Generating Stations:

322. Power generated by Central Generating Stations (CGS) is available to Andhra Pradesh from three sources.

323. The First is Southern Regional Pool where NTPC Ramagundam, Neyveli Lignite Corporation stage I & II units, Madras Atomic Power Station and Kaiga Atomic Power station participate. The prevailing arrangement is to allocate shares to each and bill as per the drawal. Unallocated energy is allocated to the needy states as per their requirement. In FY 2002-03 as availability in Andhra

Pradesh improves, the allocations from unallocated power may reduce. In the availability estimate infirm power is not considered.

324. The second source of energy is from NTPC (Eastern Region) available through inter-regional transfer. As per the filing, APTRANSCO's share is 171 MW. APTRANSCO have since agreed to surrender it temporarily on a request from NTPC. Accordingly, availability from Eastern region is not considered.

325. The third source is Simhadri Power Station which is exclusively meant for Andhra Pradesh. Commercial operation of the first unit is expected in July 2002 and of the second unit in January 2003. Licensee confirmed that generation level can be adjusted downward relative to the projected level keeping in view the delayed commercial operation of the plant.

Table No. 38
Power Available from Central Generators

(in MU)

NTPC(SR)	**Name of Unit**	**APTRANSCO**	**APERC**
	RDM	3971	3129
	NLC STG I	1138	899
	NLC STG II	1436	1139
	MAPS	602	469
	KAPP	752	572
Sub-TOTAL		7899	6208
NTPC (ER)		1460	-
NTPC Simhadri		3162	2879
Grand Total		12521	9087

C. Other SEBs:

326. APTRANSCO has been purchasing energy from GRIDCO as per the requirement. Licensee projected availability of 400 MU from GRIDCO. Power can be purchased from this source strictly on merit order basis as and when required.

D. APGPCL:

327. Availability of 405 MU from APGPCL projected by Licensee is accepted.

E. Independent Power Producers (IPPs):

Table No 39

Power availability from IPP

(in MU)

SOURCE	**FILING**	**APPROVED**
GVK	1575	1575
Spectrum	1504	1504
Kondapalli	2643	2643
BSES Andhra	1616	--
TOTAL	**7338**	**5722**

328. Licensee projected energy availability from Spectrum, GVK, Kondapalli and BSES Andhra gas power stations. 'PPAs' for the first three were already in place prior to the establishment of the Commission. The PPA of BSES Andhra power project is before the Commission for consent. As and when a PPA is consented to by the Commission, the power plant is automatically included in the available list, to be dispatched on merit order.

F. Other Sources:

329. Other Sources included availability from Non conventional energy sources and surplus energy from captive stations like Visakha Steel plant & Nava Bharat Ferro Alloys. With regard to LVS, PPA is yet to be negotiated by the Licensee and sent to the Commission for consent and so, no availability could be considered of the station.

Table No. 40

Other Sources of Power

(in MU)

SOURCE	FILING	APPROVED
VSP	200	200
NBFA	100	100
LVS	252	--
Non Conventional	663	663
Total	1215	963

Table No. 41
Details of Non-Conventional Sources

Wind	Mini Hydel	Bagasse	Bio-mass Co-gen	Bio Mass	Industrial waste	Municipal waste
20 MU	30MU	205MU	20MU	375 MU	4MU	9MU

Power Purchase Cost:

330. Given the energy requirement, power purchase cost has been determined on the basis of merit order economic dispatch principles from the approved pool of generators. Power purchase costs so determined are purely benchmark costs for arriving at the power purchase costs and thereby determine the BST. The Commission notes that the merit order so used for determining the benchmark power purchase cost is not necessarily to be taken as the Order for daily dispatches. It also takes into cognizance possible modifications to the merit order from Availability Based Tariff (ABT), dismantling of Administered Price Mechanism (APM) and various contractual conditions governing the power purchases. The merit order and the quantum outsourced are both, therefore, indicative. The dispatches each day are to conform to the relevant merit order of the time.

331. The total cost of power purchase is estimated after taking into consideration the following changes

- Variable cost of the APGENCO power station is taken as per the PPA for each Thermal station.
- Unified Load dispatch system charges were considered as expenses for the ensuing year .
- Fixed charges for the NTPC (SR) have been considered at 68.5% PLF.
- Transmission costs for the Central Generating stations was segregated from the power purchase cost for each power station.
- NTPC (ER) dispatches taken as zero.

Table No. 42
Summary of Power Purchase Costs

(Rs .Crores)

STATION	APTRANSCO				APERC			
	Fixed	**Variable**	**Other**	**Total**	**Fixed**	**Variable**	**Other**	**Total**
APGENCO	2150	2020		4170	2150	2073		4223
CGS								
SR	-	441	24	465	80	614	24	718
ER		266	46	312	-	-	-	-
Simhadri	328	321		649	328	293		621
APGPCL	30	35		65	30	35		65
IPPs	879	650	35	1564	715	522	35	1272
OTHERS	36	220		256	0	228		228
WHEELING INKIND	0	0	0	0	0	0	0	0
Other SEBs	22	0		22	22	11	0	33
Total	3445	3875	105	7425	3325	3776	59	7159

Anticipation & Scheduling of Power:

332. Commission approved the overall sales and agricultural sales for each DISCOM. DISCOMS have to assess the energy requirement continuously and provide details to APTRANSCO for week-ahead scheduling and day-ahead scheduling of the power to facilitate merit order selection of the resources.

Day-ahead forecast of the power requirement by DISCOMS will also aid scheduling for ABT. This can be started even ahead of the actual implementation of ABT as it provides accountability to each entity. A system for continuous interaction has to be developed by the Licensees.

Wages and Salaries

333. The Licensee has projected an amount of Rs. 44.96 Crs towards Wages and Salaries (net of capitalisation) for inclusion in the ARR of FY 2002-03 and Rs. 4.27 Crs (net of capitalisation) towards Employee Funds for pension and gratuity aggregating to Rs. 49.23 Crs and furnished the following details in the filings.

Table No. 43

(Rs. Crores)

Wages, Salaries and Allowances		99.63
Contribution to Employee Funds		9.78
Provision for Pay Revision		3.40
Less: Corporate Allocation to DISCOMS Expenses Capitalisation	30.11 33.47	 63.58
Net Employee Cost		**49.23**

334. The Commission is of the view that the provision towards Pay Revision (Rs. 3.40 Crs) 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.

335. Regarding capitalisation, the Licensee has proposed a total capitalisation of Rs. 33.47 Crs including capitalisation out of provision towards employee's pension and gratuity funds. In order that the provision towards employee's pension and gratuity funds are reflected at gross (and not net of any amount), the

amount of Rs. 33.47 Crs proposed by the Licensee is taken as capitalised out of salaries and wages. Thus an amount of Rs. 36.05 Crs is taken towards salaries and wages to the statement of expenditure for purposes of arriving at the ARR.

Table No. 44

(Rs. Crores)

Wages, Salaries & Allowances		99.63
Less: Corporate Allocation to DISCOMS	30.11	
Expense Capitalisation	33.47	63.58
Net of Capitalisation-Salaries & Wages		**36.05**

The provision towards Employee Funds is shown separately infra.

Administration and General Expenses

336. The filing has shown as Administration and General Expenses 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 in brief as follows:

Table No. 45

(Rs. Crores)

	Gross	**Net**	**Difference**
Rent, Rates & Taxes	138.86	130.78	8.08
Legal Charges	0.71	0.67	0.04
Audit Fee	2.18	2.05	0.13
Administration and General Expenses	16.30	11.57	4.73
TOTAL	158.05	145.07	12.98

337. The difference represents corporate office allocation (Rs. 9.20 Crs) and capitalisation of expenses (Rs. 3.78 Crs) but these are not available in the filings separately for each of the four heads. While the corporate office allocation has been taken under "other expense" in total by the respective DISCOMs, the capitalisation as projected by the Licensee of Rs. 3.78 Crs, has been reckoned at

Rs. 0.76 Crs for Rent, Rates and Taxes and Rs. 3.02 Crs under Administration and General Expenses.

338. The Licensee has claimed towards Administration and General Expenses an amount of Rs. 11.57 Crs (net of capitalisation) in the filings. This is considered excessive considering the likely actuals for FY 2001-02 of Rs. 12.94 Crs (gross) projected by the Licensee in the filings. An amount of Rs.10.54 Crs is therefore provided under the head and after capitalisation of Rs. 3.02 Crs as mentioned above, an amount of Rs. 7.52 Crs has been reckoned in the revenue requirement.

Repairs and Maintenance

339. APTRANSCO have projected the following amounts towards Repairs & Maintenance during the FY 2001-02 and FY 2002-03 as against the actuals for FY 2000-01 as follows:

Table No. 46

Period	Rs.Crs
FY 2000-01	24.66
FY 2001-02	33.90
FY 2002-03	49.14

340. As the projection for FY 2002-03 is almost twice that of the actuals in FY 2000-01, this is considered to be on the higher side. An amount of Rs.34.66 Crs is provided taking an increase of Rs.5 Crs per year from the actuals of FY 2000-01 which works out to a rate of annual increase of 20%. Net of Capitalisation (of Rs.3.55 Crs as proposed in the filing), the amount reckoned for revenue requirement calculations is Rs.31.11 Crs.

Rent, Rates and Taxes

341. The gross amount claimed towards Rent, Rates and Taxes in the filing is Rs. 138.86 Crs and APTRANSCO has stated in the filings that an amount of Rs.137.55 Crs representing the sales tax arrears demand for the period 1998-2001 is included in the amount of Rs.138.86 Crs. As this demand has not been accepted and is being contested in Courts, this amount is not allowed. The balance amount of Rs.1.31 Crs is considered reasonable and fully admitted and taking into account the amount of Rs. 0.76 Crs capitalised on works, as already mentioned above, the balance of Rs.0.55 Crs has been taken to the calculations of revenue requirement. The amount disallowed will be allowed in the year when the liabilities become final and are discharged.

Approved Loan Interest

342. The Licensee has projected an amount of Rs. 448.05 Crs (net of capitalisation) for inclusion in the computation of the revenue requirement. Together with the capitalisation of interest (representing IDC) of Rs. 87.04 Crs proposed by the Licensee, the gross interest claimed by the Licensee amounts to Rs.535.09 Crs. This comprises interest on Loans, on Market Borrowings for capex and to finance revenue deficit, on short term borrowings, Working Capital Borrowings and Other Financial Charges. This includes two amounts of Rs.9.12 Crs towards interest on working capital borrowings and Rs.67.99 Crs claimed as interest to finance the revenue deficit forecast for FY 2001-02. The licensee's claim for these two amounts is not allowed. However, considering the fact that the other finance charges projected at Rs. 25.70 Crs in the filing appears to be an under-estimate in relation to the actuals of Rs.39.01 Crs during FY 2000-01, this has been revised to Rs. 35.41 Crs. Thus the amount allowed on this account is Rs. 467.69 Crs. This includes interest during construction (IDC) attributable to capital works (Rs. 78.19 Crs). The net amount admitted for FY 2002-03 is therefore Rs. 389.50 Crs as detailed in the Table below:

Table No. 47

	(Rs. Crores)
Total Interest	467.69
Less: Interest Capitalised	78.19
Net Interest provided	**389.50**

343. As already mentioned above, an amount of Rs. 64.41 Crs is to be reduced from this amount towards interest adjustment for shortfall from the envisaged Capital outlay on works / schemes during FY 2000-01. With this, the net amount taken to the revenue requirement calculations is Rs. 325.09 Crs.

Legal Charges

344. The Licensee has claimed an amount of Rs. 0.67 Crs (net of capitalisation) against which Rs. 0.71 Crs has been taken to the revenue requirement calculations at gross level as, as already mentioned above, the capitalisation has been reckoned in total in the Administration and General expenses and not against each individual item.

Audit and Other fees

345. The Licensee has claimed an amount of Rs. 2.05 Crs (net capitalisation) towards Audit and other fees against which Rs. 2.18 Crs (gross) is allowed for the same reasons as mentioned under Legal Charges above.

Depreciation

346. The Licensee has projected an amount of Rs. 206.35 Crs and the amount admitted is Rs. 201.48 Crs. The difference is on account of the difference in the level of capitalisation for FY 2001-02 as explained above under Original Cost of Fixed Assets.

Contribution to Employee Funds

347. The provision towards Employee Funds is made at 13% of Basic Pay plus DA based on the acturial study relied upon for the Tariff Order of FY 2001-02. The Licensee has projected an amount of Rs. 4.27 Crs (net of capitalisation) against which the Commission has provided Rs. 9.78 Crs (without any element of capitalisation). This has been explained in detail in the para on Salaries and Wages supra. The amount provided is Rs. 9.78 Crs as against Rs. 4.27 Crs projected in the ARR by the Licensee.

348. ***The Licensee is directed to ensure that till such time the Trusts formed become fully operational, an amount of Rs. 0.815 Crs per month is Credited from month to month to non-drawal bank accounts already opened.*** The Licensee is advised to take up with the Bank (s) appropriately to ensure that the amounts in the non-drawal bank accounts earn the maximum possible interest.

349. In this context, the Commission wishes to refer to the directive in their Tariff Order for FY 2000-01, wherein the Licensee (then APTRANSCO for both Transmission and Distribution businesses) was directed to deposit the accruals through Tariff towards the provision made for Employee Funds in the Annual Revenue Requirement. This directive was not complied with and the Licensee stated stringent financial conditions as the reason for such non-compliance during FY 2000-01. The Commission notes that in spite of the Commission's uneasiness expressed in clear terms in its Tariff Order of 24-3-2001 regarding the non-remittance to non-drawal bank accounts of funds accruing through Tariffs for FY 2000-01 towards provision made for Employees' Funds, there has been no progress during FY 2001-02 to make good this omission. ***The Commission directs that a financial action plan be filed before the Commission by 30-6- 2002 indicating as to when and how the remittance of the required amounts to non-drawal bank accounts would be made.***

Previous Losses

350. The Licensee has claimed an amount of Rs. 90.00 Crs as special appropriation of previous losses and has stated in justification in the filings that the amount of Rs. 90.00 Crs allowed by the Commission as special appropriation in its Tariff Order for FY 2001-02 has not been in fact "recouped" as FY 2001-02 is expected by the Licensee to end in a loss. This contention of the Licensee cannot be accepted as Rs.90.00 Crs has already been reckoned in the revenue requirement calculations for FY 2001-02 and hence should be deemed as recovered through the Tariff process. No amount has therefore been taken on this account to the revenue requirement calculations for FY 2002-03.

Contribution to Contingencies Reserve

351. APTRANSCO has stated in the filing that it is expected to make "Contingencies Reserve investments" under the statutory requirement of the Sixth Schedule, that during FY 2001-02 a number of extraneous factors like adverse hydro-thermal mix and consequent increase in interest costs have already impacted the financial condition of APTRANSCO and that therefore the Contingencies Reserve and its investment could not be provided for. The filing states that however, the Licensee is making a provision for inclusion of Contingencies Reserve under Special Appropriations for FY 2002-03 in the calculation of Revenue Requirement for Tariff purposes.

352. Paragraphs IV and V of the Sixth Schedule to the Electricity (Supply) Act, 1948 relating to Contingencies Reserve are reproduced below for ready reference.

Quote

IV. The licensee shall appropriate to Contingencies Reserve from the revenues of each year of account a sum not less than one-quarter of one per centum and not more than one-half of one per centum of the original cost of fixed assets, provided that if this said reserve exceeds, or would by such appropriation should be caused to exceed, five per centum of the Original Cost of Fixed Assets, no appropriation shall be made which would have the effect of increasing the reserve beyond the said maximum.

(2) The sums appropriated to the Contingencies Reserve shall be invested in securities authorised under the Indian Trusts Act, 1882 (2 of 1882), and such investment shall be made within a period of six months of the close of the year of account in which such appropriation is made.

V. (1) The Contingencies Reserve shall not be drawn upon during the currency of the licence except to meet such charges as the State Government may approve as being —

(a) expenses or loss of profits arising out of the accidents, strikes or circumstances which the management could not have prevented;

(b) expense on replacement or renewal of plant or works other than expenses requisite for normal maintenance or renewal;

(c) compensation payable under any law for the time being in force and for which no other provision is made.

Unquote

353. The Commission notes with disquiet that the amounts provided for Contingencies Reserve as Special Appropriation in the computation of the Revenue Requirement in the Commission's Tariff Order for FY 2000-01 has not been shown as appropriation in the Accounts for that year. It should be particularly noted from the extract given above that the requirement of the Sixth Schedule is to "appropriate to Contingencies reserve from the revenues of each year of account------------" and not from the profits of the year. The Commission therefore does not accept the incurrence of financial losses as a valid reason for not appropriating the monies towards Contingencies Reserve as required by the ES(Act) 1948. It should also be noted that the sums are to be invested in

securities authorised under the Indian Trusts Act, 1882 and such investment is to be made within a period of six months of the close of the year of account. This has also not been complied with. Moreover, the filings for FY 2002-03 reveal that, as in FY 2000-01, there will be no appropriation in the accounts for FY 2001-02 also towards Contingencies Reserve (on the ground that the year is expected to end with a loss) though there has been special appropriation towards Contingencies Reserve in the determination of the Revenue Requirement for FY 2001-02. The Commission does not accept this proposition as it is not in conformity with the law.

354. ***The Commission directs that the appropriation of the required sums towards Contingencies Reserve for FY 2000-01 be made even now if feasible (having regard to the status of the statutory audit of accounts for that year) and complete the investment action required in that behalf latest by 31st July, 2002 and report Compliance to the Commission.*** As the DISCOMS became Licensees only from 1-4-2001, the compliance in respect of DISCOMS too for FY 2000-01 will have to be ensured by APTRANSCO. If for any reason this (i.e. making an appropriation now for FY 2000-01) is considered not feasible, the sums required to be appropriated for FY 2000-01 together with the sums required to be appropriated for FY 2001-02 may be appropriated in the accounts for FY 2001-02 and complete the investment action for the two sums together latest by 30-9-2002. In the case of the latter, the Commission direct that as it concerns non-compliance with the requirements of law, the matter may be placed before the Boards of Directors of APTRANSCO and the DISCOMS at their next meeting for a suitable direction to the company in this matter and file a certified copy of the relevant minutes of the Board meetings latest by 31-5-2002. It may be noted that this direction to complete investment action by 31-7-2002 in respect of the reserve which should have been created for FY 2000-01 is not intended in anyway to regularise such infraction of law as might have taken place but is intended solely as a measure to make good, so far as is possible, the omission.

355. It is seen from the filings that the amount claimed towards Contingencies Reserve for FY 2002-03 is at one-half of one per centum of the Original Cost of Fixed Assets whereas during FY 2000-01 and FY 2001-02, the claim in the filings of the respective years was at one-quarter of One per centum. While it is clear from the extract from the Sixth Schedule given above, that the Sixth Schedule permits an appropriation between 0.25% and 0.5% of Original Cost of Fixed Assets, the record of compliance with the statutory requirement as discussed above does not enable a special appropriation towards Contingencies Reserve at the maximum permissible limit of 0.50% of OCFA. The Commission allow as a special case appropriation at 0.25% of OCFA for FY 2002-03 also. The Licensee is required to take note that in the event of non-compliance with the statutory requirements in this regard, the Commission would be constrained to disallow claims towards Contingencies Reserve in the ARRs of future years.

356. ***The Licensee may specifically note from Paragraph V of the Sixth Schedule (ibid) that any drawal from the Contingencies Reserve can be made only with the prior approval of the Commission.***

Total Expenditure

357. In view of the above changes, the total expenditure works out to Rs.7783.41 Crs as against Rs. 8430.34 Crs projected by the Licensee as summarised in the following table.

Table No. 48

(Rs. Crores)

EXPENDITURE ITEMS	**APTRANSCO**	**APERC**
Purchase of Energy	7425.01	7158.86
Wages and Salaries	44.96	36.05
Administration and General expenses	11.57	7.52
Repairs and Maintenance	45.59	31.11
Rent, Rates and Taxes	130.78	0.55

Approved Loan Interest	448.05	325.09
Legal Charges	0.67	0.71
Auditor's Fee	2.05	2.18
Depreciation	206.35	201.48
Contribution to Employee Funds	4.27	9.78
Special Appropriations		
Previous Losses	90.00	0.00
Contribution to Contingency Reserve	21.04	10.08
TOTAL EXPENDITURE	**8430.34**	**7783.41**

Reasonable Return

358. APTRANSCO has not claimed in the filings the Reasonable Return which it is eligible for as per the Sixth Schedule to the Electricity (Supply) Act, 1948. The Commission however opines that it would not be in the interest of either the consumers or of the Licensee to forego the Reasonable Return and therefore allows an amount of Rs.36.12 Crs as Reasonable Return calculated as per the provisions of the Sixth Schedule and include it in the calculations of the Revenue Requirement for FY 2002-03.

Non-Tariff and Other Income

359. The Licensee's projections and the Commission's approved amounts thereagainst are as indicated below:

Table No. 49

(Rs. Crores)

	APTRANSCO	**APERC**
Grid Support Charges	0.00	52.53
Wheeling Charges	155.20	0.00
Inter State Sale of Power	350.00	133.62
Other Non-Tariff Income	48.48	48.48
Total	553.68	234.63

360. Grid Support Charges have been calculated and taken into account as per the Commission's order on Grid Support Charges. Revenue from wheeling charges is taken under DISCOMS and hence excluded here. The Commission's estimate of revenue from inter state sale of power is for 2435 MU as against 4828 MU projected by APTRANSCO is not a firm figure (but contingent upon NTPC-Simhadri stage –II going on stream by July, 2002 and the demands of agriculture for the Rabi season). At Rs. 2.40 per kwh as projected by the licensee, the revenue would be Rs. 584.46 Crs and net of power purchase cost of Rs. 450.84 Crs, the net income is estimated to be Rs. 133.62 Crs.

Aggregate Revenue Requirement

361. The Aggregate Revenue Requirement works out to Rs. 7584.90 Crs as against Rs.7876.39 Crs projected by the Licensee as detailed in the Table below:

Table No. 50

(Rs. Crores)

Total Expenditure	7783.41
Reasonable Return	36.12
Minus: Non-Tariff and Other Income	234.63
Total Net Aggregate Revenue Requirement	**7584.90**

CHAPTER – X

ERC / ARR 2002-03: DISTRIBUTION AND RETAIL SUPPLY
Andhra Pradesh Eastern Power Distribution Company Ltd (APEPDCL)

362. APEPDCL, the licence holder for Distribution and Retail Supply of Electricity in the territory assigned to it in Andhra Pradesh as per the Licence issued by the Commission, filed the ARR / ERC under Section 26 (5) of the Reform Act for FY 2002-03 on 31-12-2001. 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 the Commission's alternative calculations.

363. It may be mentioned here that the finalised Second Transfer Scheme has been 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. Though the audit of accounts of APEPDCL for FY 2000-01 is not completed, the Annual Accounts for FY 2000-01 as compiled and finalised by the Licensee (adopting the opening balances as per the Balance Sheet in the Second Transfer Scheme) have been made available to the Commission and the figures as per these accounts have been adopted wherever relevant for purposes of this order.

364. The Licensee in the filings mentioned above has made the following projections of capital expenditure for FY 2002-03.

Table No. 51
Proposed Investments for FY 2002 – 03 as per filing

(Rs. Crores)

	Base Expenditure	Expenditure capitalised	IDC	Total
APEPDCL	124.25	12.43	14.81	151.49

365. Before dealing with the projections for capital expenditure in FY 2002-03, it is necessary to advert to the considerable shortfall in capital expenditure in FY 2000-01 referred by the staff in their presentation. The shortfall in the

Distribution and Retail Supply segment is 55%. It is not possible to identify the shortfall in investment for APEPDCL as the filings for FY 2000-01 are not DISCOM-wise (in fact the DISCOMS had not even come into existence by then). The effect of this shortfall and the consequences thereof have been discussed in detail in para 294 above. Consequently an amount of Rs. 11.62 Crs as apportioned to APEPDCL would be adjusted from the interest determined as allowable to APEPDCL for FY 2002-03.

INVESTMENTS – Progress During FY 2001- 02

366. During FY 2001-02, the actual expenditure on works/ projects for the first six months of the year (upto Sept 2001) has been reported to be Rs. 44 Crs out of the Rs. 164 Crs reckoned in the Tariff Order for FY 2001-02 for Capital Base calculations, registering a progress of around 27%. The Commission considers this level of progress tardy and projecting an outlay of a further Rs.51 Crs for the second half of FY 2001-02, reckons an amount of Rs.95 Crs towards Base Capital Expenditure for arriving at the projected CWIP as on 31-3-2002 to serve as the opening balance for FY2002-03.

INVESTMENTS – Projections for FY 2002-03

367. As already mentioned above, the filings project a Base Capital Expenditure of Rs. 124.25 Crs for FY2002-03 which together with the expenditure capitalisation and interest during construction (IDC) works out to Rs. 151.49 Crs. Before dealing with the proposals in the filings, it is necessary to mention that there has been practically no progress during the past year in the matter of obtaining Commission's approvals for schemes as required under para 9 of the Licence. The Commission notes with anxiety that scheme - wise details for the Capital Works – in – Progress as on 1-4-2000 (Rs. 85.41 Crs) as per the notified Second Transfer Scheme have also not been furnished despite repeated attempts by the staff to obtain this information. The Commission has indicated in its Tariff Order of 24-3-2001 that at least by the next Tariff filing (i.e. the present filing), Licensee may file project-wise details of expenditure incurred and proposed to be incurred without grouping the projects with reference to the

source from which the projects are financed. This has not happened and the sCrsutiny of the present proposals is rendered difficult. Normally projects or schemes which are to be included in the annual investment plan envisaged in para 9.6 of the Licence (which forms the basis to arrive at the figures of the Capital Base) should be those which already have the Commission's approval in terms of para 9 of the Licence (or those which do not require such approval). But as there are practically no schemes for which Commission's approval has been obtained, the Commission should have in the normal course not considered any investment proposed other than in the schemes already on - going as on 1-2-1999, the date of the First Transfer Scheme unbundling the erstwhile APSEB. However, recognising the hardship to the Licensee and the impediment to the progress of schemes already started (on the basis of allocation for the last year) that such a step would cause, the Commission have decided to make a lump-sum allocation of Rs. 194.25 Crs for FY 2002-03 as against Rs.125.24 Crs proposed by the Licensee in the filing and Rs. 100 Crs suggested by the staff. The increase from the level of investment proposed in the filing was agreed to by the Commission taking into account the strong representations made by the Licensee before the Commission that the additional investment was needed to cater to priority programmes like ensuring 24-hour electricity supply to rural areas by Aug 2002 which have come up after the filings. The Licensee assured the Commission that there would be no shortfall in the investment in FY 2002-03 in view of the large number of schemes that are being planned and implemented. The Commission wishes to state in unambiguous terms that the Commission would allow no relaxation in the requirements in this regard for the Tariff filings for FY 2003-04 and hereby ***directs the Licensee:***

(i) ***to give highest priority to obtain Commission's approval under para 9 of the Licence for schemes started since 1-2-99 and complete this task without fail latest by 30-6-2002 and report compliance to the Commission.***

(ii) ***to file on that date (i.e. on 30-6-2002) an investment plan for FY 2002-03 for an amount of Rs. 236.83 Crs (including expenses Capitalisation and IDC) comprising schemes which have Commission's approval. This naturally presupposes that the licensee would have obtained the necessary approval for the schemes under para 9 of the licence.***

(iii) ***to file scheme-wise and details for the Capital Works-in-Progress as on 1-4-2000 as per the finalised Second Transfer Scheme (Rs. 85.41 Crs) latest by 31-5-2002 and correlate the same with the CWIP as per the Tariff Order for FY 2000-01, expenditure incurred during FY 2001-02 and the Investment Plan for FY 2002-03.***

CAPITAL BASE – POSITIVE SIDE

Original Cost of Fixed Assets (OCFA)

368. APEPDCL has proposed an amount of Rs. 737.71 Crs as the Original Cost of Fixed Assets to be reckoned in the Capital Base. Taking into account the factors mentioned under "Investments" above, the figures for OCFA work out as follows:

Table No. 52
Statement Of Fixed Assets

(Rs. in Crores)

NAME OF THE ITEM	APEPDCL	APERC
Original Cost of Fixed Assets (OCFA) as on 1-4-2001	580.87	580.87
Add : Works likely to be completed during FY 2001-02	122.44	40.00
OCFA as on 31-3-2002	703.31	620.87
Add: works likely to be completed during FY 2002-03	195.45	75.00
Gross OCFA as on 31-3-2003	898.76	695.87
Less: Consumer Contributions	161.05	141.14
Net OCFA as on 31-3-2001	737.71	554.73

Accordingly OCFA taken to Capital Base is Rs. 554.73 Crs.

Capital Works-in-Progress (CWIP)

369. As discussed above under investments, the Commission has decided to reckon as investment for FY 2002-03 an amount of Rs. 194.25 Crs as against Rs. 124.25 Crs proposed by the Licensee. Consequently, the amount to be reckoned under CWIP for Capital Base Calculations for FY 2002-03 works out to Rs. 351.12 Crs as shown in the Table below:

Table No. 53

Statement of Works - In - Progress for FY 2002-03

(Rs. Crores)

	APEPDCL	**APERC**
Opening Balance of CWIP 1-4-2001	115.31	115.31
Additional Investments during the year (FY 2001-02)	164.23	95.00
Expenses during the year Capitalised	16.42	9.50
Interest during construction charged to Capital (IDC)	18.31	9.48
Total Additions : Capital Expenditure	198.96	113.98
Total (OB + Additions)	314.27	229.29
Less : Works Capitalised	122.44	40.00
Closing Balance of CWIP as on 31-3-02	191.83	189.29
Additional Investments during the year (FY 2002-03)	124.25	194.25
Expenses during the year Capitalised	12.43	19.43
Interest during construction charged to Capital (IDC)	14.81	23.15
Total Additions : Capital Expenditure	151.49	236.83
Total (OB + Additions)	343.32	426.12
Less : Works Capitalised	195.45	75.00
Closing Balance of CWIP as on 31-3-03	147.87	351.12

Working Capital Requirements

370. The Licensee’s plea for Working Capital and the interest on borrowings therefor have been considered in detail in para 235 above and the Commission have set out the course of action for the Licensee for establishing the need for

Working Capital under conditions of reasonable efficiency in the Licensee's operations. The Working Capital items allowable as per the Sixth Schedule are dealt with in the paragraphs below:

Average Cost of Stores

371. APEPDCL has claimed an amount of Rs. 22.47 Crs towards Average Cost of Stores for inclusion in the Capital Base calculations. This is considered excessive compared to the level of repairs and maintenance expenses projected for the year by the Licensee. An amount of Rs. 2.10 Crs calculated at two months requirement of the Repairs and Maintenance expenses (Rs. 12.62 Crs) by the Commission is considered reasonable and is therefore provided.

Average Cash and Bank Balance

372. The APEPDCL has proposed Rs. 10.30 Crs 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. This was the basis followed in the Tariff Order for FY 2001-02 also. Calculated on this basis, the amount works out to Rs. 9.72 Crs which is provided for in the calculation of the Capital Base.

Table No. 54

(Rs. Crores)

Wages and Salaries	75.48
Admin. And General Expenses	18.16
Repairs and Maintenance	12.60
Rent, Rates and Taxes	0.59
Contribution to Employee funds	9.75
Total expenses	**116.58**
Average Cash and Bank Balances (116.58 ÷12)	**9.72**

CAPITAL BASE- NEGATIVE ELEMENTS

Accumulated Depreciation

373. The accumulated depreciation as projected by the Licensee in the filings is Rs. 394.55 Crs against which Rs. 388.20 Crs is admitted. The difference is due to the capitalisation of assets in FY 2001-02 being taken at less than the projected levels.

Loans from Govt. and Approved Institutions:

374. The APEPDCL has projected an amount of Rs. 63.63 Crs towards Government loans and Rs. 272.16 Crs towards loans from approved institutions. As already mentioned above, APEPDCL's Capital Works in Progress / programme for FY 2002-03 has been increased substantially though the capital expenditure to end of March 2002 would be less than that projected in the ARR. This has been dealt with in the paragraph under Investments above. In view of this reduction in the capital expenditure, the loan drawals required have also been adjusted appropriately. In all, an amount of Rs. 397.03 Crs is allowed for Government and Approved Loans put together.

Consumer Security Deposits

375. The Licensee's request for excluding the Consumer Security Deposits from the negative side of the Capital Base has not been approved by the Commission. This is dealt with in detail in the para no 235 on Working Capital. The Consumer Security Deposit as projected by APEPDCL at Rs. 261.70 Crs has been adopted for Capital Base calculations.

Net Capital Base

376. With the above changes in the positive and negative elements of the Capital Base, the Net Capital Base works out to minus Rs. 129.26 Crs. as against Rs. 188.01 Crs projected by the Licensee as detailed in the Table below.

Table No. 55

Capital Base Calculations for FY 2002-03

(Rs. Crores)

NAME OF THE ITEM	APEPDCL	APERC
Positive Elements of Capital Base		
Original Cost of Fixed Assets	737.71	554.73
Capital Work in Progress	147.87	351.12
Working Capital		
a) Average Cost of Stores	22.47	2.10
b) Average Cash and Bank Balance	10.30	9.72
Total of Positive Elements of Capital Base	**918.35**	**917.67**
Negative Elements of Capital Base		
Accumulated Depreciation	394.55	388.20
Government Loans	63.63	397.03
Approved Loans	272.16	
Consumer Security Deposits	0.00	261.70
Total of Negative Elements of Capital Base	**730.34**	**1046.93**
Net Capital Base	**188.01**	**(129.26)**

EXPENDITURE

Purchase of Energy

377. APEPDCL has projected a requirement of 5601 MU of energy against which the Commission has allowed 5468 MU. The corresponding cost has been arrived at as Rs.1140.45 Crs as against Rs. 1160.15 Crs shown in the ARR.

Wages and Salaries

378. The Licensee has projected an amount of Rs. 83.41 Crs towards Wages and Salaries (net of capitalisation) for inclusion in the annual revenue requirement of FY 2002-03 and Rs. 8.85 Crs (net of capitalisation) towards Employee Funds towards pension and gratuity aggregating to Rs. 92.26 Crs.

379. The projections for wages and salaries have been accepted by the staff as filed by the Licensee except for minor variations in the calculations in respect of Dearness Allowance. On representation by the Licensee, an amount of Rs. 1.34 Crs not included in the filing is allowed towards new recruitment. The Licensee has clarified that the figures projected include provision towards Pay Revision. 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 which comes up after the Pay Revision process is completed and implemented.

380. Regarding capitalisation, the Licensee has proposed a total capitalisation of Rs. 10.38 Crs including capitalisation out of employee's pension and gratuity funds. In order that the provision towards employee's pension and gratuity funds are reflected at the gross level (and not net of any amount), the capitalisation out of Employees Funds has been taken into account under salaries and wages itself. Moreover as the capital expenditure programme of the Licensee has been increased from that proposed in the filings, there is an addition to the expenditure capitalisation. Taking these factors into account, an amount of Rs. 17.39 Crs has been capitalised and the amount taken to the revenue requirement for salaries and wages is Rs. 75.48 Crs as in the table below:

Table No. 56

(Rs. Crores)

Wages, Salaries & Allowances	92.87
Less: Capitalisation	17.39
Net of Capitalisation-Salaries & Wages	**75.48**

The provision towards Employee Funds is shown separately infra.

Administration and General Expenses

381. The APEPDCL has projected an amount of Rs. 18.16 Crs (net of capitalisation of Rs. 2.04 Crs) which is accepted as reasonable.

Repairs and Maintenance

382. APEPDCL has projected an amount of Rs. 12.62 Crs which is accepted as reasonable.

Rent, Rates and Taxes

383. APEPDCL has projected an amount of Rs. 0.59 Crs which is accepted as reasonable.

Approved Loan Interest

384. APEPDCL has projected an amount of Rs. 40.21 Crs (net of capitalisation) which is inclusive of interest on existing loans, fresh loans and other financial charges. The changes in the Capital Works-in – Progress programme and the consequent changes in loan requirement, there is correspondingly a change in the interest amount as well as in the Capitalisation of the IDC. The gross amount allowed on this account is Rs. 46.14 Crs. Talking into account the interest Capitalised representing IDC amounting to Rs.23.15 Crs, the net interest works out to Rs. 22.99 Crs as detailed in the Table below:

Table No. 57

(Rs. Crores)

Total Interest allowed	46. 14
Less:Interest Capitalised	23.15
Net Interest provided	**22.99**

385. As already mentioned above, (in Para No. 365), an amount of Rs. 11.62 Crs is to be adjusted towards the shortfall in Capital Expenditure and

consequent shortfall in loan drawals and interest expenditure for FY 2000-01. With this adjustment, the amount taken for revenue requirement is Rs. 11.37 Crs.

Interest on Consumer's Security Deposits

386. APEPDCL has projected an amount of Rs. 7.66 Crs which is accepted.

Legal Charges and Auditors' Fees

387. APEPDCL has claimed an amount of Rs. 0.04 crore towards Legal Charges and Rs. 0.02 crore towards Auditors' Fee which is accepted as reasonable.

Depreciation

388. APEPDCL has projected an amount of Rs. 52.32 Crs and the amount admitted is Rs. 45.97 Crs. The difference is on account of the level of capitalisation for FY 2001-02 as explained above under Original Cost of Fixed Assets.

Other Expenses

389. The claim is Rs. 7.86 Crs which is accepted as reasonable.

Contribution to Employee Funds

390. As already explained, the provision towards Employee Funds is made at 13% of Basic Pay plus DA. The amount provided is Rs. 9.75 Crs (gross and not net of any Capitalisation) as against Rs. 8.55 Crs projected in the ARR Net of Capitalisation.

391. ***The Licensee is directed to ensure that till such time the Trusts formed become fully operational, an amount of Rs. 0.8125 crore per month is credited from month to month to non-drawal bank accounts already opened.*** The Licensee is advised to take up with the Bank (s) appropriately to

ensure that the amounts in the non-drawal bank accounts earn the maximum possible interest.

Contribution to Contingencies Reserve

392. The Licensee has claimed an amount of Rs. 4.49 Crs calculated at 0.50% of the Original Cost of Fixed Assets (OCFA) as contribution to Contingencies Reserve . For FY 2000-01 as well as for FY 2001-02 the contribution claimed and allowed was at 0.25% of OCFA. While the Sixth Schedule no doubt permits an appropriation between 0.25% and 0.50% of OCFA, no justification has been furnished for the claim at the maximum percentage permitted by law. The utilisation of the amounts provided towards the reserve should be the guiding factor in this regard. The Commission therefore allows the provision at 0.25% only for FY 2002-03. Because of the changes in the Original Cost of Fixed Assets as discussed above, the amount to be provided works out to Rs. 1.74 Crs @ 0.25 % of the Original Cost of Fixed Assets as against Rs. 4.49 Crs claimed by APEPDCL.

393. It is stated in the filing that owing to the adverse profitability position in the current year (i.e. FY 2001-02), the Licensee will not be making any appropriation towards the Contingency Reserve for FY 2001-02. The Commission draw the attention of the Licensee to Paragraphs IV and V of the Sixth Schedule to the Electricity Supply Act, 1948. The requirement here is to "appropriate to Contingencies Reserve from the revenues of each year of account…" and not from the profits of the year. The Commission therefore do not accept the Licensee's proposition as mentioned above and ***direct the Licensee that in so far as a special appropriation towards Contingencies Reserve has been made in the Revenue Requirement calculations for FY 2001-02, it is mandatory to provide for Contingencies Reserve in the accounts for FY 2001-02 and comply with the requirement of the Sixth Schedule that the sums appropriated to the Contingencies Reserve shall be invested in securities authorised under the Indian Trusts Act, 1882 and such***

investment shall be made within a period of six months of the close of the year of account in which such appropriation is made. The Licensee may specifically note from Para V of the Sixth Schedule (ibid) that any drawal from the Contingencies Reserve can be made only with the prior approval of the Commission.

Total Expenditure

394. In view of the above changes, the total expenditure works out to Rs.1331.71 Crs as against Rs. 1396.38 Crs projected by the Licensee as summarised in the following table.

Table No. 58

(Rs. Crores)

EXPENDITURE ITEMS	**APEPDCL**	**APERC**
Purchase of Energy	1160.15	1140.45
Wages and Salaries	83.41	75.48
Administration and General expenses	18.16	18.16
Repairs and Maintenance	12.62	12.62
Rent, Rates and Taxes	0.59	0.59
Approved Loan Interest	40.21	11.37
Int on Consumers' Security Deposits	7.66	7.66
Legal Charges	0.04	0.04
Auditor's Fee	0.02	0.02
Depreciation	52.32	45.97
Other Expenses	7.86	7.86
Contribution to Employee Funds	8.85	9.75
Special Appropriations		
Contribution to Contingency Reserve	4.49	1.74
TOTAL EXPENDITURE	**1396.38**	**1331.71**

Reasonable Return

395. APEPDCL has not claimed in the filings the Reasonable Return which it is eligible for as per the Sixth Schedule to the Electricity (Supply) Act, 1948. The Commission however feels that it would not be in the interest of either the consumers or of the Licensee to forego the Reasonable Return and therefore allows an amount of Rs. 1.99 Crs as Reasonable Return calculated as per the provisions of the Sixth Schedule and include it in the calculations of the Revenue Requirement for 2002-03.

Non-Tariff and Other Income

396. The Licensee's projections and the Commission's approved amounts thereagainst are as indicated below:

Table No. 59

(Rs. Crores)

	APEPDCL	**APERC**
Wheeling Charges	0.00	43.35
Non-Tariff Income	35.10	57.92
Total	35.10	101.27

397. Non-Tariff Income includes Customer Charges of Rs.22.82 Crs. Wheeling Charges of Rs.43.35 Crs has been arrived at by taking the quantum of energy estimated to be wheeled (867 MU) at the Commission's approved rate of 50 Paise per unit for FY 2002-03.

Aggregate Revenue Requirement

398. The Aggregate Revenue Requirement works out to Rs.1232.43 Crs as against Rs.1361.28 Crs projected by the Licensee as detailed in the Table below:

Table No. 60

(Rs. Crores)

Total Expenditure	1331.71
Reasonable Return	1.99
Minus: Non-Tariff and Other Income	101.27
Total Net Aggregate Revenue Requirement	**1232.43**

Revenue from the Tariff and the Gap

399. Determination of the Aggregate Revenue Requirement is the first step in the process of tariff formulation. Subsequent chapters of this Tariff Order (Chapters XIV and XV) discuss the sales projections by the APEPDCL, its revenue gap, the tariff approved by the Commission taking into account the cross subsidy and the external subsidy, the adjusted bulk supply tariff and the consequent adjustments.

CHAPTER – XI

ERC / ARR 2002-03 : DISTRIBUTION AND RETAIL SUPPLY
Andhra Pradesh Northern Power Distribution Company Ltd (APNPDCL)

400. APNPDCL, the licence holder for Distribution and Retail Supply of Electricity in the territory assigned to it in Andhra Pradesh as per the Licence issued by the Commission, filed the ARR / ERC under Section 26 (5) of the Reform Act for FY 2002-03 on 31-12-2001. 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 the Commission's alternative calculations.

401. It may be mentioned here that the finalised Second Transfer Scheme has been 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. Though the audit of accounts of APNPDCL for FY 2000-01 is not completed, the Annual Accounts for FY 2000-01 as compiled and finalised by the Licensee (adopting the opening balances as per the Balance Sheet in the Second Transfer Scheme) have been made available to the Commission and the figures as per these accounts have been adopted wherever relevant for purposes of this order.

402. The Licensee in the filings mentioned above has made the following projections of capital expenditure for FY 2002-03.

Table No. 61
Proposed Investments for FY 2002 – 03 as per filing

(Rs. Crores)

	Base Expenditure	Expenditure capitalised	IDC	Total
APNPDCL	155.42	15.54	23.62	194.58

403. Before dealing with the projections for capital expenditure in FY 2002-03, it is necessary to advert to the considerable shortfall in capital expenditure in FY 2000-01 referred by the staff in their presentation. The shortfall in the Distribution and Retail Supply segment is 55%. It is not possible to identify the shortfall in investment for APNPDCL as the filings for FY 2000-01 are not DISCOM-wise (in fact the DISCOMS had not even come into existence by then). The effect of this shortfall has been discussed in detail in para 294 above. Consequently an amount of Rs. 23.40 Crs as apportioned to APNPDCL would be adjusted from the interest determined as allowable to APNPDCL for FY 2002-03.

INVESTMENTS – Progress During FY 2001- 02

404. During FY 2001-02, the actual expenditure on works/ projects for the first six months of the year (upto Sept 2001) has been reported to be Rs. 57 Crs out of the Rs. 171 Crs reckoned in the Tariff Order for FY 2001-02 for Capital Base calculations, registering a progress of 33%. The Commission considers this level of progress unsatisfactory and projecting an outlay of a further Rs. 68 Crs for the second half of FY 2001-02, reckons an amount of Rs. 125 Crs towards Base Capital Expenditure for arriving at the projected CWIP as on 31-3-2002 to serve as the opening balance for FY 2002-03.

INVESTMENTS – PROJECTIONS FOR FY 2002-03

405. As already mentioned above, the filings project a Base Capital Expenditure of Rs. 155.42 Crs for FY2002-03 which together with the expenditure capitalisation and interest during construction (IDC) works out to Rs. 194.58 Crs. Before dealing with the proposals in the filings, it is necessary to mention that there has been practically no progress during the past year in the matter of obtaining approvals for schemes as required under para 9 of the Licence. The Commission notes with anxiety that scheme - wise details for the Capital Works – in – Progress as on 1-4-2000 (Rs. 98.05 Crs) as per the notified Second Transfer Scheme have not been furnished despite repeated attempts by

the staff to obtain this information. The Commission has indicated in its Tariff Order of 24-3-2001, that at least by the next Tariff filing (i.e. the present filing) the Licensee may file project-wise details of expenditure incurred and proposed to be incurred without grouping the projects with reference to the source from which the projects are financed. This has not happened and the sCrsutiny of the present proposals is rendered difficult. Normally projects or schemes which are to be included in the annual investment plan envisaged in para 9.6 of the Licence (which forms the basis to arrive at the figures of the Capital Base) should be those which already have the Commission's approval in terms of para 9 of the Licence (or those which do not require such approval). But as there are practically no schemes for which Commission's approval has been obtained, the Commission should have in the normal course not considered any investment proposed other than in the schemes on - going as on 1-2-1999, the date of the First Transfer Scheme unbundling the erstwhile APSEB. However, recognising the hardship to the Licensee and the impediment to the progress of schemes already started (on the basis of allocation for the last year) that such a step would cause, the Commission have decided to retain the amount as projected in the filing at Rs.155.42 Crs for 2002-03 as against Rs.135.00 Crs suggested by the staff. This was done taking into account the strong representations made by the Licensee before the Commission that reduction of investment to the level suggested by the staff would affect priority programmes like ensuring 24 -hour electricity supply to rural areas by Aug 2002. The Commission wishes to state in unambiguous terms that the Commission would allow no relaxation in the requirements in this regard for the Tariff filings for FY 2003-04 and hereby ***directs the Licensee:***

(i) to give highest priority to obtain Commission's approval under para 9 of the Licence for schemes started since 1-2-99 and complete this task without fail latest by 30-6-2002 and report compliance to the Commission.

(ii) ***to file on that date (i.e. on 30-6-2002) an investment plan for FY 2002-03 for an amount of Rs. 194.58 Crs (including expenses capitalisation and IDC) comprising schemes which have Commission's approval. This naturally presupposes that the licensee would have obtained the necessary approval for the schemes under para 9 of the licence.***

(iii) ***to file scheme-wise details for the Capital Works-in-Progress as on 1-4-2000 as per the finalised Second Transfer Scheme (Rs. 98.05 Crs) latest by 31-5-2002 and correlate the same with the CWIP as per the Tariff Order for FY 2000-01, expenditure incurred during FY 2001-02 and the Investment Plan for FY 2002-03.***

CAPITAL BASE – POSITIVE SIDE

Original Cost of Fixed Assets (OCFA)

406. APNPDCL has proposed an amount of Rs. 1002.82 Crs as the Original Cost of Fixed Assets to be reckoned in the Capital Base. Taking into account the factors mentioned under "Investments" above, the figures for OCFA work out as follows:

Table No. 62
Statement Of Fixed Assets

(Rs. Crores)

NAME OF THE ITEM	APNPDCL	APERC
Original Cost of Fixed Assets (OCFA) as on 1-4-2001	792.17	792.17
Add : Works likely to be completed during FY 2001-02	101.43	50.00
OCFA as on 31-3-2002	893.60	842.17
Add: works likely to be completed during FY 2002-03	206.67	100.00
Gross OCFA as on 31-3-2003	1100.27	942.17
Less: Consumer Contributions	97.45	82.99
Net OCFA as on 31-3-2001	1002.82	859.18

Accordingly OCFA taken to Capital Base is Rs. 859.18 Crs.

Capital Works-in-Progress (CWIP)

407. As discussed above in detail under investments, the Commission has decided to reckon as investment for FY 2002-03 an amount of Rs. 155.42 Crs as proposed by the Licensee. Consequently, the amount to be reckoned under CWIP for Capital Base Calculations for FY 2002-03 works out to Rs. 292.12 Crs as shown in the Table below due to the changes in the works completion and Capitalisation.

Table No. 63

Statement of Works - In - Progress for FY 2002-03

(Rs. Crores)

	APNPDCL	**APERC**
Opening Balance of CWIP 1-4-2001	95.12	95.12
Additional Investments during the year (FY 2001-02)	170.71	125.00
Expenses during the year Capitalised	17.07	12.50
Interest during construction charged to Capital (IDC)	18.77	14.92
Total Additions : Capital Expenditure	206.55	152.42
Total (OB + Additions)	301.67	247.54
Less : Works Capitalised	101.43	50.00
Closing Balance of CWIP as on 31-3-02	**200.24**	**197.54**
Additional Investments during the year (FY 2002-03)	155.42	155.42
Expenses during the year Capitalised	15.54	15.54
Interest during construction charged to Capital (IDC)	23.62	23.62
Total Additions : Capital Expenditure	194.58	194.58
Total (OB + Additions)	394.82	392.12

Less : Works Capitalised	206.67	100.00
Closing Balance of CWIP as on 31-3-03	**188.15**	**292.12**

Working Capital Requirements

408. The Licensee's plea for Working Capital and the interest on borrowings therefor have been considered in detail in para 235 above and the Commission have given the course of action required of the Licensee for establishing the need for Working Capital under conditions of reasonable efficiency in the Licensee's operations. The Working Capital items allowable as per the Sixth Schedule are dealt with in the paragraphs below:

Average Cost of Stores

409. APNPDCL has claimed an amount of Rs. 27.51 Crs towards Average Cost of Stores for inclusion in the Capital Base Calculations. This is considered excessive compared to the level of repairs and maintenance expenses projected for the year by the Licensee. An amount of Rs. 4.94 Crs calculated at two months requirement of the Repairs and Maintenance expenses (Rs. 29.63 Crs) is considered reasonable and is therefore provided.

Average Cash and Bank Balance

410. The APNPDCL has proposed Rs. 13.25 Crs 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. This was the basis followed in the Tariff Order for FY 2001-02 also. Calculated on this basis, the amount works out to Rs. 12.75 Crs which is provided for in the calculation of the Capital Base. This is detailed in the Table below:

Table No. 64

(Rs. Crores)

Wages and Salaries	92.36
Admin. And General Expenses	18.61
Repairs and Maintenance	29.63
Rent, Rates and Taxes	1.51
Contribution to Employee funds	10.92
Total expenses	**153.03**
Average Cash and Bank Balances (153.03 ÷12)	**12.75**

CAPITAL BASE- NEGATIVE ELEMENTS

Accumulated Depreciation

411. The accumulated depreciation as projected by the Licensee in the filings is Rs. 481.86 Crs against which Rs. 477.86 Crs is admitted. The difference is due to the capitalisation of assets in FY 2001-02 being taken at less than the projected levels.

Loans from Govt. and Approved Institutions

412. The APNPDCL has projected an amount of Rs. 139.59 Crs towards Government loans and Rs. 392.19 Crs towards loans from approved institutions plus an amount of Rs. 39.16 Crs as Other Market Borrowings for Capital Expenditure (Capex). SCrsutiny of the APNPDCL's Capital Works in Progress / programme showed that the capital expenditure to end of March 2002 would be less than that projected in the ARR. This has been dealt with in the paragraph under Investments above. In view of this reduction in the capital expenditure, the loan drawals required have also been reduced appropriately. Besides, there are on going schemes carried forward from earlier years in respect of which capital expenditure is incurred in FY 2002-03. In all, an amount of Rs. 530.81 Crs is allowed against Rs. 570.94 Crs projected in the filing.

Consumer Security Deposits

413. The Licensee's request for excluding the Consumer Security Deposits from the negative side of the Capital Base has not been approved by the Commission. This is dealt with in detail in the para no 235 on Working Capital. The Consumer Security Deposit as projected by APNPDCL at Rs. 146.65 Crs has been adopted for Capital Base calculations.

Net Capital Base

414. With the above changes in the positive and negative elements of the Capital Base, the Net Capital Base works out to Rs. 13.67 Crs as detailed in the Table below as against Rs. 178.94 Crs projected by the Licensee.

Table No. 65

Capital Base Calculations for FY 2002-03

(Rs. Crores)

NAME OF THE ITEM	APNPDCL	APERC
Positive Elements of Capital Base		
Original Cost of Fixed Assets	1002.82	859.18
Capital Work in Progress	188.16	292.12
Working Capital		
a) Average Cost of Stores	27.51	4.94
b) Average Cash and Bank Balance	13.25	12.75
Total of Positive Elements of Capital Base	**1231.74**	**1168.99**
Negative Elements of Capital Base		
Accumulated Depreciation	481.86	477.86
Government Loans	139.59	530.81
Approved Loans	392.19	
Other Market Borrowings for Capex	39.16	
Consumer Security Deposits	0.00	146.65
Total of Negative Elements of Capital Base	1052.80	1155.32

Net Capital Base	**178.94**	**13.67**

EXPENDITURE

Purchase of Energy

415. APNPDCL has projected a requirement of 7523 MU of energy against which the Commission has allowed 7219 MU. The corresponding cost has been arrived at as Rs.1505.65 Crs as against Rs. 1558.25 Crs shown in the ARR.

Wages and Salaries

416. The Licensee has projected an amount of Rs. 99.17 Crs towards Wages and Salaries (net of capitalisation) for inclusion in the Annual revenue requirement of FY 2002-03 and Rs. 10.12 Crs (net of capitalisation) towards Employee Funds for pension and gratuity aggregating to Rs. 109.29 Crs.

417. The projections for wages and salaries have been accepted by the staff as filed by the Licensee except for minor variations in the calculations in respect of Dearness Allowance. On representation by the Licensee, an amount of Rs. 1.83 Crs not included in the filing is allowed towards new reCrsuitment. The Licensee has clarified that the figures projected include provision towards Pay Revision. 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 which comes up after the Pay Revision process is completed and implemented.

418. Regarding capitalisation, the Licensee has proposed a total capitalisation of Rs. 13.28 Crs including capitalisation out of employee's pension and gratuity funds. In order that the provision towards employee's pension and gratuity funds are reflected at the gross level (and not net of any amount), the capitalisation out of Employees Funds has been taken into account under salaries and wages

itself. Thus an amount of Rs. 13.28 Crs has been capitalised and the amount taken to the revenue requirement for salaries and wages is Rs. 92.36 Crs as in the table below:

Table No. 66

(Rs. Crores)

Wages, Salaries & Allowances	105.64
Less: Capitalisation	13.28
Net of Capitalisation-Salaries & Wages	92.36

The provision towards Employee Funds is shown separately infra.

Administration and General Expenses

419. The APNPDCL has projected an amount of Rs. 18.61 Crs (net of capitalisation of Rs. 2.26 Crs) which is accepted as reasonable.

Repairs and Maintenance

420. APNPDCL has projected an amount of Rs. 29.63 Crs which is accepted as reasonable.

Rent, Rates and Taxes

421. APNPDCL has projected an amount of Rs. 1.51 Crs which is accepted as reasonable.

Approved Loan Interest

422. APNPDCL has projected an amount of Rs. 60.32 Crs (net of capitalisation) which is inclusive of interest on existing loans, fresh loans and other financial charges. Because of the changes in the Capital Works-in-Progress programme and the consequent changes in loan requirement, there is correspondingly a change in the interest amount as well as in the Capitalisation

of the IDC. The gross amount allowed on this account is Rs. 64.62 Crs. Talking into account the interest Capitalised representing IDC amounting to Rs. 23.62 Crs, the net works out to Rs. 41.00 Crs as detailed in the Table below:

Table No. 67

(Rs. Crores)

Total Interest allowed	64.62
Less: Interest Capitalised	23.62
Net Interest provided	**41.00**

423. As already mentioned above (in para no 412), an amount of Rs. 23.40 Crs is to be adjusted towards the shortfall in Capital Expenditure and consequent shortfall in loan drawals and interest expenditure for FY 2000-01. With this adjustment, the amount taken for revenue requirement is Rs. 17.60 Crs.

Interest on Consumer's Security Deposits

424. APNPDCL has projected an amount of Rs. 4.29 Crs which is accepted.

Legal Charges and Auditors' Fees

425. APNPDCL has claimed an amount of Rs. 0.11 Crsore towards Legal Charges and Rs. 0.01 crore towards Auditors' Fee which is accepted as reasonable.

Depreciation

426. APNPDCL has projected an amount of Rs. 65.58 Crs and the amount admitted is Rs. 61.58 Crs. The difference is on account of the level of capitalisation for FY 2001-02 as explained above under Original Cost of Fixed Assets.

Other Expenses

427. The claim is Rs. 7.86 Crs which is accepted as reasonable.

Contribution to Employee Funds

428. As already explained, the provision towards Employee Funds is made at 13% of Basic Pay plus DA. The amount provided is Rs. 10.92 Crs (gross and not net of any Capitalisation) as against Rs. 10.12 Crs projected in the ARR net of capitalisation.

429. ***The Licensee is directed to ensure that till such time the Trusts formed become fully operational, an amount of Rs. 0.91 crore per month is Credited from month to month to non-drawal bank accounts already opened.*** The Licensee is advised to take up with the Bank (s) appropriately to ensure that the amounts in the non-drawal bank accounts earn the maximum possible interest.

Contribution to Contingencies Reserve

430. The Licensee has claimed an amount of Rs. 5.50 Crs calculated at 0.50% of the Original Cost of Fixed Assets (OCFA) as contribution to Contingencies Reserve. For FY 2000-01 as well as for FY 2001-02 the contribution claimed and allowed was at 0.25% of OCFA. While the Sixth Schedule no doubt permits an appropriation between 0.25% and 0.50% of OCFA, no justification has been furnished for the claim at the maximum percentage permitted by law. The utilisation of the amounts provided towards the reserve should be the guiding factor in this regard. The Commission therefore allows the provision at 0.25% only for FY 2002-03. Because of the changes in the Original Cost of Fixed Assets as discussed above, the amount to be provided works out to Rs. 2.36 Crs @ 0.25% of the Original Cost of Fixed Assets as against Rs. 5.50 Crs claimed by APNPDCL.

431. It is stated in the filing that owing to the adverse profitability position in the current year (i.e. FY 2001-02), the Licensee will not be making any appropriation

towards the Contingency Reserve for FY 2001-02. The Commission draw the attention of the Licensee to Paragraphs IV and V of the Sixth Schedule to the Electricity Supply Act, 1948. The requirement here is to "appropriate to Contingencies Reserve from the revenues of each year of account….." and not from the profits of the year. The Commission therefore do not accept the Licensee's proposition as mentioned above and ***direct the Licensee that in so far as a special appropriation towards Contingencies Reserve has been made in the Revenue Requirement calculations for FY 2001-02, it is mandatory to provide for Contingencies Reserve in the accounts for FY 2001-02 and comply with the requirement of the Sixth Schedule that the sums appropriated to the Contingencies Reserve shall be invested in securities authorised under the Indian Trusts Act, 1882 and such investment shall be made with in a period of six months of the close of the year of account in which such appropriation is made.*** The Licensee may specifically note from Para V of the Sixth Schedule (ibid) that any drawal from the Contingencies Reserve can be made only with the prior approval of the Commission.

Total Expenditure

432. In view of the above changes, the total expenditure works out to Rs.1752.49 Crs as against Rs. 1860.96 Crs projected by the Licensee as summarised in the following table.

Table No. 68

(Rs. Crores)

EXPENDITURE ITEMS	**APNPDCL**	**APERC**
Purchase of Energy	1558.25	1505.65
Wages and Salaries	99.17	92.36
Administration and General expenses	18.61	18.61
Repairs and Maintenance	29.63	29.63

Rent, Rates and Taxes	1.51	1.51
Approved Loan Interest	60.32	17.60
Int on Consumers' Security Deposits	4.29	4.29
Legal Charges	0.11	0.11
Auditor's Fee	0.01	0.01
Depreciation	65.58	61.58
Other Expenses	7.86	7.86
Contribution to Employee Funds	10.12	10.92
Special Appropriations		
Contribution to Contingency Reserve	5.50	2.36
TOTAL EXPENDITURE	**1860.96**	**1752.49**

Reasonable Return

433 APNPDCL has not claimed in the filings the Reasonable Return which it is eligible for as per the Sixth Schedule to the Electricity (Supply) Act, 1948. The Commission however feels that it would not be in the interest of either the consumers or of the Licensee to forego the Reasonable Return and therefore allows an amount of Rs. 4.84 Crs as Reasonable Return calculated as per the provisions of the Sixth Schedule and include it in the calculations of the Revenue Requirement for 2002-03.

Non-Tariff and Other Income

434. The Licensee's projections and the Commission's approved amounts thereagainst are as indicated below:

Table No. 69

(Rs. Crores)

	APNPDCL	**APERC**
Wheeling Charges	0.00	3.65
Non-Tariff Income	98.89	122.23
Total	98.89	125.88

435. Non-Tariff Income includes Customer Charges of Rs. 23.34 Crs. Wheeling charges of Rs. 3.65 Crs has been arrived at by taking the quantum of energy estimated to be wheeled (73 MU) at the Commission's approved rate of 50 paise per Kwh for FY 2002-03.

Aggregate Revenue Requirement

436. The Aggregate Revenue Requirement works out to Rs. 1631.45 Crs as against Rs.1762.07 Crs projected by the Licensee as detailed in the Table below:

Table No. 70

(Rs. Crores)

Total Expenditure	1752.49
Reasonable Return	4.84
Minus: Non-Tariff and Other Income	125.88
Total Net Aggregate Revenue Requirement	1631.45

Revenue from the Tariff and the Gap

437. Determination of the Aggregate revenue Requirement is the first step in the process of tariff formulation. Subsequent Chapters of this Tariff Order (Chapters XIV and XV) discuss the sales projections by the APNPDCL, its revenue gap, the tariff approved by the Commission taking into account the cross subsidy and the external subsidy, the adjusted bulk supply tariff and the consequent adjustments.

CHAPTER – XII

ERC / ARR 2002-03: DISTRIBUTION AND RETAIL SUPPLY

Andhra Pradesh Southern Power Distribution Company Ltd (APSPDCL)

438. APSPDCL, the licence holder for Distribution and Retail Supply of Electricity in the territory assigned to it in Andhra Pradesh as per the Licence issued by the Commission, filed the ARR / ERC under Section 26 (5) of the Reform Act for FY 2002-03 on 31-12-2001. 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 the Commission's alternative calculations.

439. It may be mentioned here that the finalised Second Transfer Scheme has been 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. Though the audit of accounts of APSPDCL for FY 2000-01 is not completed, the Annual Accounts for FY 2000-01 as compiled and finalised by the Licensee (adopting the opening balances as per the Balance Sheet in the Second Transfer Scheme) have been made available to the Commission and the figures as per these accounts have been adopted wherever relevant for purposes of this order.

440. The Licensee in the filings mentioned above has made the following projections of capital expenditure for FY 2002-03.

Table No. 71
Proposed Investments for FY 2002 – 03 as per filing

(Rs. Crores)

	Base Expenditure	Expenditure capitalised	IDC	Total
APSPDCL	170.50	17.05	6.97	194.52

441. Before dealing with the projections for capital expenditure in FY 2002-03, it is necessary to advert to the considerable shortfall in capital expenditure in FY 2000-01 referred by the staff in their presentation. The shortfall in the Distribution and Retail Supply segment is 55%. It is not possible to identify the shortfall in investment for APSPDCL as the filings for FY 2000-01 are not DISCOM-wise (in fact the DISCOMs had not even come into existence by then). The effect of this shortfall has been discussed in detail in para 294 above. Consequently an amount of Rs. 25.74 Crs as apportioned to APSPDCL would be adjusted from the interest determined as allowable to APSPDCL for FY 2002-03.

INVESTMENTS – Progress During FY 2001- 02

442. During FY 2001-02, the actual expenditure on works/ projects for the first six months of the year (upto Sept 2001) has been reported to be Rs. 47 Crs out of the Rs. 144 Crs reckoned in the Tariff Order for FY 2001-02 for Capital Base calculations, registering a progress of 32%. The Commission considers this level of progress unsatisfactory and projecting an outlay of a further Rs. 68.00 Crs (against the staff projection of Rs. 51.00 Crs) for the second half of FY 2001-02 on the strong assurance of the Licensee that this level of expenditure would be incurred and booked, reckons an amount of Rs. 115.00 Crs towards Base Capital Expenditure for arriving at the projected CWIP as on 31-3-2002 to serve as the opening balance for FY 2002-03.

INVESTMENTS – Projections for FY 2002-03

443. As already mentioned above, the filings project a Base Capital Expenditure of Rs. 170.50 Crs for FY2002-03 which together with the expenditure capitalisation and interest during construction (IDC) works out to Rs. 194.52 Crs. Before dealing with the proposals in the filings, it is necessary to mention that there has been practically no progress during the past year in the matter of obtaining approvals for schemes as required under para 9 of the

Licence. The Commission notes with anxiety that scheme - wise details for the Capital Works – in – Progress as on 1-4-2000 (Rs. 273.54 Crs) as per the notified Second Transfer Scheme have not been furnished despite repeated attempts by the staff to obtain this information. The Commission has indicated in its Tariff Order of 24-3-2001 that at least by the next Tariff filing (i.e. the present filing) the Licensee may file project-wise details of expenditure incurred and proposed to be incurred without grouping the projects with reference to the source from which the projects are financed. This has not happened and the scrutiny of the present proposals is rendered difficult. Normally projects or schemes which are to be included in the annual investment plan envisaged in para 9.6 of the Licence (which forms the basis to arrive at the figures of the Capital Base) should be those which already have the Commission's approval in terms of para 9 of the Licence (or those which do not require such approval). But as there are practically no schemes for which Commission's approval has been obtained, the Commission should have in the normal course not considered any investment proposed other than in the schemes on - going as on 1-2-1999, the date of the First Transfer Scheme unbundling the erstwhile APSEB. However, recognising the hardship to the Licensee and the impediment to the progress of schemes already started (on the basis of allocation for the last year) that such a step would cause, the Commission have decided to retain the amount as projected in the filing at Rs. 170.50 Crs for 2002-03 as against Rs.120.00 Crs suggested by the staff. This was done taking into account the strong representations made by the Licensee before the Commission that reduction of investment to the level suggested by the staff would affect priority programmes like ensuring 24 -hour electricity supply to rural areas by Aug 2002. The Commission wishes to state in unambiguous terms that the Commission would allow no relaxation in the requirements in this regard for the Tariff filings for FY 2003-04 and hereby ***directs the Licensee :***

(i) to give highest priority to obtain Commission's approval under para 9 of the Licence for schemes started since 1-2-99 and

complete this task without fail latest by 30-6-2002 (and report compliance to the Commission).

(ii) to file on that date (i.e. on 30-6-2002) an investment plan for FY 2002-03 for an amount of Rs. 194.52 Crs (including expenses capitalisation and IDC) comprising schemes which have Commission's approval. This naturally presupposes that the licensee would have obtained the necessary approval for the schemes under para 9 of the licence.

(iii) to file scheme-wise details for the Capital Works-in-Progress as on 1-4-2000 as per the finalised Second Transfer Scheme (Rs. 273.54 Crs) latest by 31-5-2002 and correlate the same with the CWIP as per the Tariff Order for FY 2000-01, expenditure incurred on projects / works during FY 2001-02 and the Investment Plan for FY 2002-03.

CAPITAL BASE – POSITIVE SIDE

Original Cost of Fixed Assets (OCFA)

444. APSPDCL has proposed an amount of Rs. 1320.57 Crs as the Original Cost of Fixed Assets to be reckoned in the Capital Base. Taking into account the factors mentioned under "Investments" above, the figures for OCFA work out as follows:

Table No.72
Statement Of Fixed Assets

(Rs. in Crores)

NAME OF THE ITEM	APSPDCL	APERC
Original Cost of Fixed Assets (OCFA) as on 1-4-2001	1046.42	1046.42
Add : Works likely to be completed during FY 2001-02	273.27	100.00
OCFA as on 31-3-2002	1319.69	1146.42
Add: works likely to be completed during FY 2002-03	183.59	100.00
Gross OCFA as on 31-3-2003	1503.28	1246.42

Less: Consumer Contributions	182.71	155.71
Net OCFA as on 31-3-2001	1320.57	1090.71

Accordingly OCFA taken to Capital Base is Rs. 1090.71 Crs.

Capital Works-in-Progress (CWIP)

445. As discussed above in detail under investments, the Commission has decided to reckon as investment for FY 2002-03 an amount of Rs. 170.50 Crs as proposed by the Licensee. Consequently, the amount to be reckoned under CWIP for Capital Base Calculations for FY 2002-03 works out to Rs. 278.40 Crs as shown in the Table below due to the changes in the works completion and Capitalisation.

Table No. 73

Statement of Works - In - Progress for FY 2002-03

(Rs. Crores)

	APSPDCL	**APERC**
Opening Balance of CWIP 1-4-2001	145.73	145.73
Additional Investments during the year (FY 2001-02)	143.35	115.00
Expenses during the year Capitalised	14.34	11.50
Interest during construction charged to Capital (IDC)	13.42	11.65
Total Additions : Capital Expenditure	171.11	138.15
Total (OB + Additions)	316.84	283.88
Less : Works Capitalised	273.27	100.00
Closing Balance of CWIP as on 31-3-02	**43.57**	**183.88**
Additional Investments during the year (FY 2002-03)	170.50	170.50
Expenses during the year Capitalised	17.05	17.05
Interest during construction charged to Capital (IDC)	6.97	6.97
Total Additions : Capital Expenditure	194.52	194.52
Total (OB + Additions)	238.09	378.40
Less : Works Capitalised	183.59	100.00

Closing Balance of CWIP as on 31-3-03	**54.50**	**278.40**

Working Capital Requirements

446. The Licensee's plea for Working Capital and the interest on borrowings therefor have been considered in detail in para 235 above and the Commission have given the course of action required of the Licensee for establishing the need for Working Capital under conditions of reasonable efficiency in the Licensee's operations. The Working Capital items allowable as per the Sixth Schedule are dealt with in the paragraphs below:

Average Cost of Stores

447. APSPDCL has claimed an amount of Rs. 37.58 Crs towards Average Cost of Stores for inclusion in the Capital Base Calculations. This is considered excessive compared to the level of repairs and maintenance expenses projected for the year by the Licensee. An amount of Rs. 6.22 Crs calculated at two months requirement of the Repairs and Maintenance expenses (Rs. 37.30 Crs) by the Commission is considered reasonable and is therefore provided.

Average Cash and Bank Balance

448. The APSPDCL has proposed Rs. 19.23 Crs 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. This was the basis followed in the Tariff Order for FY 2001-02 also. Calculated on this

basis, the amount works out to Rs. 18.18 Crs which is provided for in the calculation of the Capital Base. This is detailed in the Table below:

Table No 74

(Rs. Crores)

Wages and Salaries	136.37
Admin. And General Expenses	27.96
Repairs and Maintenance	37.30
Rent, Rates and Taxes	0.85
Contribution to Employee funds	15.67
Total expenses	**218.15**
Average Cash and Bank Balances (218.15÷12)	**18.18**

CAPITAL BASE- NEGATIVE ELEMENTS

Accumulated Depreciation

449. The accumulated depreciation as projected by the Licensee in the filings is Rs. 623.35 Crs against which Rs. 609.94 Crs is admitted. The difference is due to the capitalisation of assets in FY 2001-02 being taken at less than the projected levels.

Loans from Govt. and Approved Institutions:

450. The APSPDCL has projected an amount of Rs. 93.15 Crs towards Government loans and Rs. 399.77 Crs towards loans from approved institutions aggregating to Rs. 492.92 Crs. SCrsutiny of the APSPDCL's Capital Works in Progress / programme showed that the capital expenditure to end of March 2002 would be less than that projected in the ARR. This has been dealt with in the paragraph under Investments above. In view of this reduction in the capital

expenditure, the loan drawals required have also been reduced appropriately. Besides, there are on going schemes carried forward from earlier years in respect of which capital expenditure is incurred in FY 2002-03. In all, an amount of Rs. 473.97 Crs is allowed against Rs. 492.92 Crs projected in the filing.

Consumer Security Deposits

451. The Licensee's request for excluding the Consumer Security Deposits from the negative side of the Capital Base has not been approved by the Commission. This is dealt with in detail in the para no. 235 on Working Capital. The Consumer Security Deposits as projected by APSPDCL at Rs. 234.41 Crs has been adopted for Capital Base calculations.

Net Capital Base

452. With the above changes in the positive and negative elements of the Capital Base, the Net Capital Base works out to Rs. 75.19 Crs as detailed in the Table below as against Rs. 315.61 Crs projected by the Licensee.

Table No. 75

Capital Base Calculations for FY 2002-03

(Rs. Crores)

NAME OF THE ITEM	APSPDCL	APERC
Positive Elements of Capital Base		
Original Cost of Fixed Assets	1320.57	1090.71
Capital Work in Progress	54.50	278.40
Working Capital		
a) Average Cost of Stores	37.58	6.22
b) Average Cash and Bank Balance	19.23	18.18
Total of Positive Elements of Capital Base	**1431.88**	**1393.51**
Negative Elements of Capital Base		
Accumulated Depreciation	623.35	609.64
Government Loans	93.15	473.97

Approved Loans	399.77	
Consumer Security Deposits	0.00	234.41
Total of Negative Elements of Capital Base	1116.27	1318.32
Net Capital Base	**315.61**	**75.19**

EXPENDITURE

Purchase of Energy

453. APSPDCL has projected a requirement of 9212 MU of energy against which the Commission has allowed 8731 MU. The corresponding cost has been arrived at as Rs.1821.00 Crs as against Rs. 1908.10 Crs shown in the ARR.

Wages and Salaries

454. The Licensee has projected an amount of Rs. 149.21 Crs towards Wages and Salaries (net of capitalisation) for inclusion in the Annual revenue requirement of FY 2002-03 and Rs. 15.40 Crs (net of capitalisation) towards Employee Funds for pension and gratuity aggregating to Rs. 164.61 Crs.

455. The projections for wages and salaries have been accepted by the staff as filed by the Licensee except for minor variations in the calculations in respect of Dearness Allowance. On representation by the Licensee, an amount of Rs. 1.99 Crs not included in the filing is allowed towards new reCrsuitment. The Licensee has clarified that the figures projected include provision towards Pay Revision. 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 which comes up after the Pay Revision process is completed and implemented.

456. Regarding capitalisation, the Licensee has proposed a total capitalisation of Rs. 14.57 Crs including capitalisation out of employee's pension and gratuity funds. In order that the provision towards employee's pension and gratuity funds are reflected at the gross level (and not net of any amount), the capitalisation out of Employees Funds has been taken into account under salaries and wages itself. Thus an amount of Rs. 14.57 Crs has been capitalised and the amount taken to the revenue requirement for salaries and wages is Rs. 136.37 Crs as in the table below:

Table No. 76

(Rs. Crores)

Wages, Salaries & Allowances	150.94
Less: Capitalisation	14.57
Net of Capitalisation-Salaries & Wages	136.37

The provision towards Employee Funds is shown separately infra.

Administration and General Expenses

457. The APSPDCL has projected an amount of Rs. 27.96 Crs (net of capitalisation of Rs. 2.48 Crs) which is accepted as reasonable.

Repairs and Maintenance

458. APSPDCL has projected an amount of Rs. 37.30 Crs which is accepted as reasonable.

Rent, Rates and Taxes

459. APSPDCL has projected an amount of Rs. 0.85 Crs which is accepted as reasonable.

Approved Loan Interest

460. APSPDCL has projected an amount of Rs. 74.07 Crs (net of capitalisation of Rs. 6.97 Crs) which is inclusive of interest on existing loans, fresh loans and other financial charges. Because of the changes in the Capital Works-in-Progress programme and the consequent changes in loan requirement, there is correspondingly a change in the interest amount as well as in the Capitalisation of the IDC. The gross amount allowed on this account is Rs. 72.32 Crs. Talking into account the interest Capitalised representing IDC amounting to Rs.6.97 Crs, the net works out to Rs. 65.35 Crs as detailed in the Table below:

Table No. 77

(Rs. Crores)

Total Interest allowed	72.32
Less: Interest Capitalised	6.97
Net Interest provided	**65.35**

461. As already mentioned above (in para no 441), an amount of Rs. 25.74 Crs is to be adjusted towards the shortfall in Capital Expenditure and consequent shortfall in loan drawals and interest expenditure for FY 2000-01. With this adjustment, the amount taken for revenue requirement is Rs. 39.61 Crs.

Interest on Consumer's Security Deposits

462. APSPDCL has projected an amount of Rs. 6.86 Crs which is accepted.

Legal Charges and Auditors' Fees

463. APSPDCL has claimed an amount of Rs. 0.05 Crsore towards Legal Charges and Rs. 0.01 crore towards Auditors' Fee which is accepted as reasonable.

Depreciation

464. APSPDCL has projected an amount of Rs. 97.99 Crs and the amount admitted is Rs. 84.58 Crs. The difference is on account of the lower level of capitalisation of completed works for FY 2001-02 as shown above under Original Cost of Fixed Assets.

Other Expenses

465. The claim is Rs. 9.43 Crs which is accepted as reasonable.

Contribution to Employee Funds

466. As already explained, the provision towards Employee Funds is made at 13% of Basic Pay plus DA. The amount provided is Rs. 15.67 Crs (gross and not net of any Capitalisation) as against Rs. 15.40 Crs projected in the ARR net of capitalisation.

467. ***The Licensee is directed to ensure that till such time the Trusts formed become fully operational, an amount of Rs. 1.306 Crore per month is Credited from month to month to non-drawal bank accounts already opened.*** The Licensee is advised to take up with the Bank (s) appropriately to ensure that the amounts in the non-drawal bank accounts earn the maximum possible interest.

Contribution to Contingencies Reserve

468. The Licensee has claimed an amount of Rs. 7.52 Crs calculated at 0.50% of the Original Cost of Fixed Assets (OCFA) as contribution to Contingencies Reserve. For FY 2000-01 as well as for FY 2001-02 the contribution claimed and allowed was at 0.25% of OCFA. While the Sixth Schedule no doubt permits an appropriation between 0.25% and 0.50% of OCFA, no justification has been furnished for the claim at the maximum percentage permitted by law. The utilisation of the amounts provided towards the reserve should be the guiding factor in this regard. The Commission therefore allows the provision at 0.25%

only for FY 2002-03. Because of the changes in the Original Cost of Fixed Assets as discussed above, the amount to be provided works out to Rs. 3.12 Crs @ 0.25 % of the Original Cost of Fixed Assets as against Rs. 7.52 Crs claimed by APSPDCL.

469. The filing shows that the Licensee does not intend to make any appropriation towards the Contingencies Reserve for FY 2001-02. The Commission draw the attention of the Licensee to Paragraphs IV and V of the Sixth Schedule to the Electricity Supply Act, 1948. The requirement here is to "appropriate to Contingencies Reserve from the revenues of each year of account…" and not from the profits of the year. ***The Commission therefore direct the Licensee that in so far as a special appropriation towards Contingencies Reserve has been made in the Revenue Requirement calculations for FY 2001-02, it is mandatory to provide for Contingencies Reserve in the accounts for FY 2001-02 and also comply with the requirement of the Sixth Schedule that the sums appropriated to the Contingencies Reserve shall be invested in securities authorised under the Indian Trusts Act, 1882 and such investment shall be made with in a period of six months of the close of the year of account in which such appropriation is made.*** The Licensee may specifically note from Para V of the Sixth Schedule (ibid) that any drawal from the Contingencies Reserve can be made only with the prior approval of the Commission.

Total Expenditure

470. In view of the above changes, the total expenditure works out to Rs.2182.81 Crs as against Rs. 2334.75 Crs projected by the Licensee as summarised in the following table.

Table No. 78

(Rs. Crores)

EXPENDITURE ITEMS	APSPDCL	APERC

Purchase of Energy	1908.10	1821.00
Wages and Salaries	149.21	136.37
Administration and General expenses	27.96	27.96
Repairs and Maintenance	37.30	37.30
Rent, Rates and Taxes	0.85	0.85
Approved Loan Interest	74.07	39.61
Int on Consumers' Security Deposits	6.86	6.86
Legal Charges	0.05	0.05
Auditor's Fee	0.01	0.01
Depreciation	97.99	84.58
Other Expenses	9.43	9.43
Contribution to Employee Funds	15.40	15.67
Special Appropriations		
Contribution to Contingency Reserve	7.52	3.12
TOTAL EXPENDITURE	**2334.75**	**2182.81**

Reasonable Return

471. APSPDCL has not claimed in the filings the Reasonable Return which it is eligible for as per the Sixth Schedule to the Electricity (Supply) Act, 1948. The Commission however feels that it would not be in the interest of either the consumers or of the Licensee to forego the Reasonable Return and therefore allows an amount of Rs. 14.40 Crs as Reasonable Return calculated as per the provisions of the Sixth Schedule and include it in the calculations of the Revenue Requirement for 2002-03.

Non-Tariff and Other Income

472. The Licensee's projections and the Commission's approved amounts thereagainst are as indicated below:

Table No. 79

(Rs. Crores)

	APSPDCL	APERC
Wheeling Charges	0.00	17.75
Non-Tariff Income	80.13	117.06
Total	**80.13**	**134.81**

473. Non-Tariff Income includes Customer Charges of Rs. 36.93 Crs. Wheeling charges of Rs. 17.75 Crs has been arrived at by taking the quantum of energy estimated to be wheeled (355 MU) at the Commission's approved rate of 50 paise per Kwh for FY 2002-03.

Aggregate Revenue Requirement

474. The Aggregate Revenue Requirement works out to Rs. 2062.40 Crs as against Rs.2254.62 Crs projected by the Licensee as detailed in the Table below:

Table No. 80

(Rs. Crores)

Total Expenditure	2182.81
Reasonable Return	14.40
Minus: Non-Tariff and Other Income	134.81
Total Net Aggregate Revenue Requirement	**2062.40**

Revenue from the Tariff and the Gap

475. Determination of the Aggregate revenue Requirement is the first step in the process of tariff formulation. Subsequent chapters of this Tariff Order (Chapters XIV and XV) discuss the sales projections by the APSPDCL, its revenue gap, the tariff approved by the Commission taking into account the cross subsidy and the external subsidy, the adjusted bulk supply tariff and the consequent adjustments.

CHAPTER – XIII

ERC / ARR 2002-03 :DISTRIBUTION AND RETAIL SUPPLY

Andhra Pradesh Central Power Distribution Company Ltd (APCPDCL)

476. APCPDCL, the licence holder for Distribution and Retail Supply of Electricity in the territory assigned to it in Andhra Pradesh as per the Licence issued by the Commission, filed the ARR / ERC under Section 26 (5) of the Reform Act for FY 2002-03 on 31-12-2001. 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 the Commission's alternative calculations.

477. It may be mentioned here that the finalised Second Transfer Scheme has been 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. Though the audit of accounts of APCPDCL for FY 2000-01 is not completed, the Annual Accounts for FY 2000-01 as compiled and finalised by the Licensee (adopting the opening balances as per the Balance Sheet in the Second Transfer Scheme) have been made available to the Commission and the figures as per these accounts have been adopted wherever relevant for purposes of this order.

478. The Licensee in the filings mentioned above has made the following projections of capital expenditure for FY 2002-03.

Table No. 81
Proposed Investments for FY 2002 – 03 as per filing

(Rs. Crores)

	Base Expenditure	Expenditure capitalised	IDC	Total
APCPDCL	357.00	35.70	51.22	443.92

479. Before dealing with the projections for capital expenditure in FY 2002-03, it is necessary to advert to the considerable shortfall in capital expenditure in FY 2000-01 referred by the staff in their presentation. The shortfall in the Distribution and Retail Supply segment is 55%. It is not possible to identify the shortfall in investment for APCPDCL as the filings for FY 2000-01 are not DISCOM-wise (in fact the DISCOMS had not even come into existence by then). The effect of this shortfall has been discussed in detail in para 294 above. Consequently an amount of Rs. 37.83 Crs as apportioned to APCPDCL would be adjusted from the interest determined as allowable to APCPDCL for FY 2002-03.

INVESTMENTS – Progress During FY 2001- 02

480. During FY 2001-02, the actual expenditure on works/ projects for the first six months of the year (upto Sept 2001) has been reported to be Rs. 55 Crs out of the Rs. 322 Crs reckoned in the Tariff Order for FY 2001-02 for Capital Base calculations, registering a progress of 17%. The Commission considers this level of progress highly unsatisfactory and projecting an outlay of a further Rs. 92.56 Crs for the second half of FY 2001-02 on the strong assurance of the Licensee that this level of expenditure would be incurred and booked, reckons an amount of Rs. 147.56 Crs towards Base Capital Expenditure for arriving at the projected CWIP as on 31-3-2002 to serve as the opening balance for FY 2002-03.

INVESTMENTS – Projections for FY 2002-03

481. As already mentioned above, the filings project a Base Capital Expenditure of Rs. 357.00 Crs for FY2002-03 which together with the expenditure capitalisation and interest during construction (IDC) works out to Rs. 443.92 Crs. Before dealing with the proposals in the filings, it is necessary to mention that there has been practically no progress during the past year in the matter of obtaining approvals for schemes as required under para 9 of the

Licence. The Commission notes with anxiety that scheme - wise details for the Capital Works – in – Progress as on1-4-2000 (Rs. 285.37 Crs) as per the notified Second Transfer Scheme have not been furnished despite repeated attempts by the staff to obtain this information. The Commission has indicated in its Tariff Order of 24-3-2001 that at least by the next Tariff filing (i.e. the present filing) the Licensee may file project-wise details of expenditure incurred and proposed to be incurred without grouping the projects with reference to the source from which the projects are financed. This has not happened and the sCrsutiny of the present proposals is rendered difficult. Normally projects or schemes which are to be included in the annual investment plan envisaged in para 9.6 of the Licence (which forms the basis to arrive at the figures of the Capital Base) should be those which already have the Commission's approval in terms of para 9 of the Licence (or those which do not require such approval). But as there are practically no schemes for which Commission's approval has been obtained, the Commission should have in the normal course not considered any investment proposed other than in the schemes on - going as on 1-2-1999, the date of the First Transfer Scheme unbundling the erstwhile APSEB. However, recognising the hardship to the Licensee and the impediment to the progress of schemes already started (on the basis of allocation for the last year) that such a step would cause, the Commission have decided to retain the amount as projected in the filing at Rs.357 Crs for 2002-03 as against Rs.130.00 Crs suggested by the staff. This was done taking into account the strong representations made by the Licensee before the Commission with the assurance that there are projects lined up for the amount projected and that reduction of investment to the level suggested by the staff would affect priority programmes like ensuring 24 -hour electricity supply to rural areas by Aug 2002. The Commission wishes to state in unambiguous terms that the Commission would allow no relaxation in the requirements in this regard for the Tariff filings for FY 2003-04 and hereby ***directs the Licensee :***

(i) to give highest priority to obtain Commission's approval under para 9 of the Licence for schemes started since 1-2-99 and

complete this task without fail latest by 30-6-2002 and report compliance to the Commission.

(ii)

(iii) ***to file on that date (i.e. on 30-6-2002) an investment plan for FY 2002-03 for an amount of Rs. 443.92 Crs (including expenses capitalisation and IDC) comprising schemes which have Commission's approval. This naturally presupposes that the licensee would have obtained the necessary approval for the schemes under para 9 of the licence.***

(iv) ***to file scheme-wise details for the Capital Works-in-Progress as on 1-4-2000 as per the finalised Second Transfer Scheme (Rs. 98.05 Crs) latest by 31-5-2002 and correlate the same with the CWIP as per the Tariff Order for FY 2000-01, expenditure incurred during FY 2001-02 and the Investment Plan for FY 2002-03.***

CAPITAL BASE – POSITIVE SIDE

Original Cost of Fixed Assets (OCFA)

482. APCPDCL has proposed an amount of Rs. 1943.51 Crs as the Original Cost of Fixed Assets to be reckoned in the Capital Base. Taking into account the factors mentioned under "Investments" above, the figures for OCFA work out as follows:

Table No. 82
Statement Of Fixed Assets

(Rs. in Crores)

NAME OF THE ITEM	APCPDCL	APERC
Original Cost of Fixed Assets (OCFA) as on 1-4-2001	1465.88	1465.88
Add : Works likely to be completed during FY 2001-02	305.36	100.00
OCFA as on 31-3-2002	1771.24	1565.88
Add: works likely to be completed during FY 2002-03	390.95	100.00

Gross OCFA as on 31-3-2003	2162.19	1665.88
Less: Consumer Contributions	218.69	187.89
Net OCFA as on 31-3-2001	1943.50	1477.99

Accordingly OCFA taken to Capital Base is Rs. 1477.99 Crs.

Capital Works-in-Progress (CWIP)

483. As discussed above in detail under investments, the Commission has decided to reckon as investment for FY 2002-03 an amount of Rs. 357 Crs as proposed by the Licensee. Consequently, the amount to be reckoned under CWIP for Capital Base Calculations for FY 2002-03 works out to Rs. 707.62 Crs as shown in the Table below due to the changes in the works completion and Capitalisation.

Table No 83

Statement of Works - In - Progress for FY 2002-03

(Rs. Crores)

	APCPDCL	**APERC**
Opening Balance of CWIP 1-4-2001	286.27	286.27
Additional Investments during the year (FY 2001-02)	322.17	147.56
Expenses during the year Capitalised	32.22	14.76
Interest during construction charged to Capital (IDC)	42.73	15.11
Total Additions : Capital Expenditure	397.12	177.43
Total (OB + Additions)	683.39	463.70
Less : Works Capitalised	305.36	100.00
Closing Balance of CWIP as on 31-3-02	**378.03**	**363.70**
Additional Investments during the year (FY 2002-03)	357.00	357.00
Expenses during the year Capitalised	35.70	35.70
Interest during construction charged to Capital (IDC)	51.22	51.22
Total Additions : Capital Expenditure	443.92	443.92
Total (OB + Additions)	821.95	807.62

Less : Works Capitalised	206.67	100.00
Closing Balance of CWIP as on 31-3-03	**615.28**	**707.62**

Working Capital Requirements

484. The Licensee's plea for Working Capital and the interest on borrowings therefor have been considered in detail in para 235 above and the Commission have given the course of action required of the Licensee for establishing the need for Working Capital under conditions of reasonable efficiency in the Licensee's operations. The Working Capital items allowable as per the Sixth Schedule are dealt with in the paragraphs below:

Average Cost of Stores

485. APCPDCL has claimed an amount of Rs. 54.05 Crs towards Average Cost of Stores for inclusion in the Capital Base Calculations. This is considered excessive compared to the level of repairs and maintenance expenses projected for the year by the Licensee. An amount of Rs. 12.50 Crs calculated at two months requirement of the Repairs and Maintenance expenses (Rs. 75 Crs) by the Commission is considered reasonable and is therefore provided.

Average Cash and Bank Balance

486. The APCPDCL has proposed Rs. 23.52 Crs 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. This was the basis followed in the Tariff Order for FY 2001-02 also. Calculated on this

basis, the amount works out to Rs. 23.23 Crs which is provided for in the calculation of the Capital Base. This is detailed in the Table below:

Table No 84

(Rs. Crores)

Wages and Salaries	150.40
Admin. And General Expenses	32.94
Repairs and Maintenance	75.00
Rent, Rates and Taxes	1.63
Contribution to Employee funds	18.82
Total expenses	**278.79**
Average Cash and Bank Balances (278.79÷12)	**23.23**

CAPITAL BASE- NEGATIVE ELEMENTS

Accumulated Depreciation

487. The accumulated depreciation as projected by the Licensee in the filings is Rs. 934.59 Crs against which Rs. 918.87 Crs is admitted. The difference is due to the capitalisation of assets in FY 2001-02 being taken at less than the projected levels.

Loans from Govt. and Approved Institutions:

488. The APCPDCL has projected an amount of Rs. 192.35 Crs towards Government loans and Rs. 624.03 Crs towards loans from approved institutions plus an amount of Rs. 82.83 Crs as Other Market Borrowings for Capital Expenditure (Capex). SCrsutiny of the APCPDCL's Capital Works in Progress / programme showed that the capital expenditure to end of March 2002 would be less than that projected in the ARR. This has been dealt with in the paragraph under Investments above. In view of this reduction in the capital expenditure, the loan drawals required have also been reduced appropriately. Besides, there are on going schemes carried forward from earlier years in respect of which capital expenditure is incurred in FY 2002-03. In all, an amount of Rs. 821.37 Crs is allowed against Rs. 899.21 Crs projected in the filing.

Consumer Security Deposits

489. The Licensee's request for excluding the Consumer Security Deposits from the negative side of the Capital Base has not been approved by the Commission. This is dealt with in detail in the para no. 235 on Working Capital. The Consumer Security Deposits as projected by APCPDCL at Rs. 438.58 Crs has been adopted for Capital Base calculations.

Net Capital Base

490. With the above changes in the positive and negative elements of the Capital Base, the Net Capital Base works out to Rs. 42.52 Crs as detailed in the Table below as against Rs. 618.27 Crs projected by the Licensee.

Table No. 85

Capital Base Calculations for FY 2002-03

(Rs. Crores)

NAME OF THE ITEM	APCPDCL	APERC
Positive Elements of Capital Base		
Original Cost of Fixed Assets	1943.51	1477.99
Capital Work in Progress	430.99	707.62
Working Capital		
a) Average Cost of Stores	54.05	12.50
b) Average Cash and Bank Balance	23.52	23.23
Total of Positive Elements of Capital Base	**2452.07**	**2221.34**
Negative Elements of Capital Base		
Accumulated Depreciation	934.59	918.87
Government Loans	192.35	
Approved Loans	624.03	821.37
Other Market Borrowings for Capex	82.83	
Consumer Security Deposits	0.00	438.58
Total of Negative Elements of Capital Base	1833.80	2178.82

Net Capital Base	**618.27**	**42.52**

EXPENDITURE

Purchase of Energy

491. APCPDCL has projected a requirement of 15690 MU of energy against which the Commission has allowed 14949 MU. The corresponding cost has been arrived at as Rs.3117.87 Crs as against Rs. 3249.90 Crs shown in the ARR.

Wages and Salaries

492. The Licensee has projected an amount of Rs. 152.96 Crs towards Wages and Salaries (net of capitalisation) for inclusion in the Annual revenue requirement of FY 2002-03 and Rs. 16.25 Crs (net of capitalisation) towards Employee Funds for pension and gratuity aggregating to Rs. 169.21 Crs.

493. The projections for wages and salaries have been accepted by the staff as filed by the Licensee except for minor variations in the calculations in respect of Dearness Allowance. On representation by the Licensee, an amount of Rs. 2.56 Crs not included in the filing is allowed towards new reCrsuitment. The Licensee has clarified that the figures projected include provision towards Pay Revision. 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 which comes up after the Pay Revision process is completed and implemented.

494. Regarding capitalisation, the Licensee has proposed a total capitalisation of Rs. 29.88 Crs including capitalisation out of employee's pension and gratuity funds. In order that the provision towards employee's pension and gratuity funds are reflected at the gross level (and not net of any amount), the capitalisation out of Employees Funds has been taken into account under salaries and wages itself. Thus an amount of Rs. 29.88 Crs has been capitalised and the amount

taken to the revenue requirement for salaries and wages is Rs. 150.40 Crs as in the table below:

Table No. 86

(Rs. Crores)

Wages, Salaries & Allowances	180.28
Less: Capitalisation	29.88
Net of Capitalisation-Salaries & Wages	150.40

The provision towards Employee Funds is shown separately infra.

Administration and General Expenses

495. The APCPDCL has projected an amount of Rs. 32.94 Crs (net of capitalisation of Rs. 5.82 Crs) which is accepted as reasonable.

Repairs and Maintenance

496. APCPDCL has projected an amount of Rs. 78.44 Crs against which Rs. 75.00 Crs is accepted as reasonable.

Rent, Rates and Taxes

497. APCPDCL has projected an amount of Rs. 1.63 Crs which is accepted as reasonable.

Approved Loan Interest

498. APCPDCL has projected an amount of Rs. 75.50 Crs (net of capitalisation of Rs. 51.22 Crs) which is inclusive of interest on existing loans, fresh loans and other financial charges. Because of the changes in the Capital Works-in-Progress programme and the consequent changes in loan requirement, there is correspondingly a change in the interest amount as well as in the Capitalisation of the IDC. The gross amount allowed on this account is Rs. 106.80 Crs. Talking into account the interest Capitalised representing IDC amounting to Rs. 51.22 Crs, the net works out to Rs. 55.58 Crs as detailed in the Table below:

Table No.87

(Rs. Crores)

Total Interest allowed	106.80
Less: Interest Capitalised	51.22
Net Interest provided	**55.58**

499. As already mentioned above (in para no. 479), an amount of Rs. 37.83 Crs is to be adjusted towards the shortfall in Capital Expenditure and consequent shortfall in loan drawals and interest expenditure for FY 2000-01. With this adjustment, the amount taken for revenue requirement is Rs. 17.75 Crs.

Interest on Consumer's Security Deposits

500. APCPDCL has projected an amount of Rs. 12.56 Crs which is accepted.

Legal Charges and Auditors' Fees

501. APCPDCL has claimed an amount of Rs. 0.06 Crsore towards Legal Charges and Rs. 0.01 crore towards Auditors' Fee which is accepted as reasonable.

Depreciation

502. APCPDCL has projected an amount of Rs. 130.70 Crs and the amount admitted is Rs. 114.98 Crs. The difference is on account of the lower level of capitalisation admitted for FY 2001-02 as explained above under Original Cost of Fixed Assets.

Other Expenses

503. The claim is Rs. 14.15 Crs which is accepted as reasonable.

Contribution to Employee Funds

504. As already explained, the provision towards Employee Funds is made at 13% of Basic Pay plus DA. The amount provided is Rs. 18.82 Crs (gross and not

net of any Capitalisation) as against Rs. 16.25 Crs projected in the ARR net of capitalisation.

505. ***The Licensee is directed to ensure that till such time the Trusts formed become fully operational, an amount of Rs. 1.569 crore per month is credited from month to month to non-drawal bank accounts already opened.*** The Licensee is advised to take up with the Bank (s) appropriately to ensure that the amounts in the non-drawal bank accounts earn the maximum possible interest.

Contribution to Contingencies Reserve

506. The Licensee has claimed an amount of Rs. 10.81 Crs calculated at 0.50% of the Original Cost of Fixed Assets (OCFA) as contribution to Contingencies Reserve. For FY 2000-01 as well as for FY 2001-02 the contribution claimed and allowed was at 0.25% of OCFA. While the Sixth Schedule no doubt permits an appropriation between 0.25% and 0.50% of OCFA, no justification has been furnished for the claim at the maximum percentage permitted by law. The utilisation of the amounts provided towards the reserve should be the guiding factor in this regard. The Commission therefore allows the provision at 0.25% only for FY 2002-03. Because of the changes in the Original Cost of Fixed Assets as discussed above, the amount to be provided works out to Rs. 4.16 Crs @ 0.25 % of the Original Cost of Fixed Assets as against Rs. 10.81 Crs claimed by APCPDCL.

507. The filing shows that the Licensee does not intend to make any appropriation towards the Contingencies Reserve for FY 2001-02. The Commission draw the attention of the Licensee to Paragraphs IV and V of the Sixth Schedule to the Electricity Supply Act, 1948. The requirement here is to "appropriate to Contingencies Reserve from the revenues of each year of account……" and not from the profits of the year. ***The Commission therefore direct the Licensee that in so far as a special appropriation towards Contingencies Reserve has been made in the Revenue Requirement***

calculations for FY 2001-02, it is mandatory to provide for Contingencies Reserve in the accounts for FY 2001-02 and also comply with the requirement of the Sixth Schedule that the sums appropriated to the Contingencies Reserve shall be invested in securities authorised under the Indian Trusts Act, 1882 and such investment shall be made with in a period of six months of the close of the year of account in which such appropriation is made. The Licensee may specifically note from Para V of the Sixth Schedule (ibid) that any drawal from the Contingencies Reserve can be made only with the prior approval of the Commission.

Total Expenditure

508. In view of the above changes, the total expenditure works out to Rs.3560.33 Crs as against Rs. 3775.91 Crs projected by the Licensee as summarised in the following table.

Table No. 88

(Rs. Crores)

EXPENDITURE ITEMS	**APCPDCL**	**APERC**
Purchase of Energy	3249.90	3117.87
Wages and Salaries	152.96	150.40
Administration and General expenses	32.94	32.94
Repairs and Maintenance	78.44	75.00
Rent, Rates and Taxes	1.63	1.63
Approved Loan Interest	75.50	17.75
Int on Consumers' Security Deposits	12.56	12.56
Legal Charges	0.06	0.06
Auditor's Fee	0.01	0.01
Depreciation	130.70	114.98
Other Expenses	14.15	14.15
Contribution to Employee Funds	16.25	18.82
Special Appropriations		
Contribution to Contingency Reserve	10.81	4.16
TOTAL EXPENDITURE	**3775.91**	**3560.33**

Reasonable Return

509. APCPDCL has not claimed in the filings the Reasonable Return which it is eligible for as per the Sixth Schedule to the Electricity (Supply) Act, 1948. The Commission however feels that it would not be in the interest of either the consumers or of the Licensee to forego the Reasonable Return and therefore allows an amount of Rs. 10.91 Crs as Reasonable Return calculated as per the provisions of the Sixth Schedule and include it in the calculations of the Revenue Requirement for 2002-03.

Non-Tariff and Other Income

510. The Licensee's projections and the Commission's approved amounts thereagainst are as indicated below:

Table No. 89

(Rs. Crores)

	APCPDCL	**APERC**
Wheeling Charges	0.00	70.00
Non-Tariff Income	155.79	184.17
Total	155.79	254.17

511. Non-Tariff Income includes Customer Charges of Rs. 28.38 Crs. Wheeling charges of Rs. 70.00 Crs has been arrived at by taking the quantum of energy estimated to be wheeled (1400 MU) at the Commission's approved rate of 50 paise per Kwh for FY 2002-03.

Aggregate Revenue Requirement

512. The Aggregate Revenue Requirement works out to Rs. 3317.07 Crs as against Rs.3620.12 Crs projected by the Licensee as detailed in the Table below:

Table No. 90

(Rs. Crores)

Total Expenditure	3560.33
Reasonable Return	10.91
Minus: Non-Tariff and Other Income	254.17
Total Net Aggregate Revenue Requirement	3317.07

Revenue from the Tariff and the Gap

513. Determination of the Aggregate revenue Requirement is the first step in the process of tariff formulation. Subsequent Chapters of this Tariff Order (Chapters XIV and XV) discuss the sales projections by the APCPDCL its revenue gap, the tariff approved by the Commission taking into account the cross subsidy and the external subsidy, the adjusted bulk supply tariff and the consequent adjustments.

CHAPTER – XIV : CONSOLIDATED POSITION OF THE FOUR DISCOMS

514. The consolidated position of the Net Aggregate Revenue Requirement of the four DISCOMS together works out to Rs.8243.35 Crs as detailed in the table below:

Table No.91
The Aggregate Revenue Requirement for the Four DISCOMS together for FY 2002-03

(Rs. in Crores)

Name of the Item	APEPDCL	APNPDCL	APSPDCL	APCPDCL	TOTAL
Total Expenditure	1331.71	1752.49	2182.81	3560.33	8827.34
Reasonable Return	1.99	4.84	14.40	10.91	32.14
Minus: Non-Tariff and other Income	101.27	125.88	134.81	254.17	616.13
Total Net Aggregate Revenue Requirement	1232.43	1631.45	2062.40	3317.07	8243.35

515. The Aggregate Revenue from current tariffs for the four DISCOMS is as follows:

Table No. 92

(Rs. in Crores)

	Filing	APERC
APEPDCL	1260	1218
APNPDCL	1015	984
APSPDCL	1596	1537
APCPDCL	2750	2649
Total	6621	6388

516. The resultant gap is Rs.1855.35 Crs. to be covered through tariff increase, efficiency gains and GoAP subsidy.

CHAPTER XV
SALES PROJECTIONS, REVENUES AND REVENUE GAP

517. The DISCOMS filed estimated MU sales for each category for FY2002-03. The estimates primarily are based on actual sales for FY2000-01 and sales for the first nine months of FY2001-02 and projected sales for the remaining three months.

Evaluation of Sales Forecast

518. All four DISCOMS followed similar methodology in forecasting sales for FY2002-03. Some noticeable features of the sales forecast are:

- An increase in recorded consumption by domestic consumers with provision of meters to regularised unauthorised connections.
- An increase in recorded consumption by LT Category II: non-domestic consumers due to a shift of consumers from LT category VII.
- Reduction of sales in HT category I: Industrial due to slow-down in industrial growth and increase in third party sales.

519. The Commission has used three methods to evaluate the sales forecast of the DISCOMS, for FY2002-03. These are;

- Statistical trend analysis state wide for each category of consumers. This has been done to verify the conformity of the sales forecast for FY2002-03 with the trend estimates.
- Analysis of the aggregate sales growth based on recorded actual sales of the past three years of DISCOMS/APTRANSCO. Adjustments are made whenever estimates are observed to deviate from past trends.
- Disaggregated month wise sales analysis was also carried out to compare the monthly forecast with the actuals of the same month, in the previous year adjusting wherever the forecast was considered unrealistic.

520. The Commission has finally adjusted & moderated the sales forecast as given in the table below taking into consideration.

- Policies and ongoing efforts of the DISCOMS.

- Present economic conditions and the performances of the sector.
- Other key issues in Tariff policy changes.

Table No. 93

AGGREGATE SALES FOR ALL DISCOMS

(in MU)

CONSUMER CATEGORY	FILINGS	APERC	DIFFERENCE
Low Tension			
Category I: Domestic	**7496**	**7496**	**0**
Category II: Non-Domestic and Commercial	**1583**	**1461**	**-122**
Category III (a & b): Industrial-Normal & Optional	**2020**	**1942**	**-78**
Category IV: Cottage Industries and Dhobighats	**30**	**32**	**2**
Category V: Agricultural	**10594**	**9936**	**-658**
Category VI: Local Bodies Street Lighting & PWS scehmes	**552**	**551**	**-1**
Category VII: General Purpose	**91**	**90**	**-1**
Category VIII: Temporary Supply	**11**	**11**	**0**
High Tension			
Category I: Industry – General	**3864**	**3634**	**-230**
Category II: Industry – Other	**712**	**675**	**-37**
Category IV: Irrigation and Agriculture	**182**	**182**	**0**
Category V: Railway Traction	**987**	**987**	**0**
Category VI: Townships and Residential Colonies	**178**	**178**	**0**
OTHER SALES (not included above)	**1292**	**1134**	**-158**
TOTAL	**29593**	**28309**	**-1284**

Revenue Estimation

521. To arrive at the Revenue at the current tariffs for FY 2002-03 the DISCOMS took current year average realisation with sales forecast for the ensuing year.

522. The Commission notes that this method has an inherent handicap as it does not enable computation of revenue from minimum charges and from sales separately. In view of this, the Commission does not reckon the revenue from minimum charges and sales separately for FY2002-03.

> ***The Commission directs that the DISCOMS by the time of next filing shall estimate revenue from minimum charges and sale of electricity separately. By October, 2002 the DISCOMS shall demonstrate to the satisfaction of the Commission that the revenue is estimated as per the direction of the Commission.***

523. The DISCOMS computed the revenue from fixed charges at 100 percent of the contracted demand for HT Category of consumers. The revenue from fixed charges at 100 percent of the CMD is unlikely as the billing demand is the

actual demand or 80 percent of the contracted maximum demand whichever is higher. The Commission has computed the revenue from fixed charges at 90 percent of the CMD, being realistic.

524. The Commission notes with concern that DISCOMS were unable to estimate the revenue from sale of electricity to LT Category VI: Local bodies and public lighting based on kWh sales and applicable tariff. Given the data constraint, there is no way to compute the tariff revenue straight from KWH sales and the applicable tariff. The Commission directs that the DISCOMS shall, on priority, complete the sales database for this category of consumers.

> ***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 should comply with this directive not later than October 2002. For next ERC filing, the DISCOMS should be in a position to file the MU sales to each sub category of consumers within this category.***

525. The DISCOMS estimated the revenue for sales forecast at current tariffs at Rs. 6621 Crs using average realization method for FY2002-03. The Commission has recomputed the revenue at current tariffs at Rs.6388 Crs, which is less than DISCOM estimates by Rs.233 Crs. The difference arises on account of the following;

- Downward adjustment of the sales forecast
- Computation of fixed charges at 90 percent of CMD rather than at 100 percent.
- Differnces in estimation of revenue from minimum charges.

526. The Commission on the basis of past data and trend analysis and after detailed discussions with DISCOMS and MDs of RESCOs has moderated the sales forecast of the DISCOMS from 29593 MU to 28309 MU, for FY 2002-03 thus effecting a reduction of 1284 MU.

527. The revenue approved by the Commission as can be seen from the table works out to Rs. 6434 Crs as against the revenue from proposed tariff of Rs. 6972 Crs for the ensuing year.

Table No. 94
REVENUE AT CURRENT TARIFF: ALL DISCOMS

(Rs. Crores)

CONSUMER CATEGORY	FILINGS	APERC
Low Tension		
Category I: Domestic	1665	1665
Category II: Non-Domestic and Commercial	930	846
Category III (a & b): Industrial-Normal & Optional	845	814
Category IV: Cottage Industries and Dhobighats	6	6
Category V: Agricultural	284	284
Category VI: Local Bodies Street Lighting & PWS scehmes	116	117
Category VII: General Purpose	41	39
Category VIII: Temporary Supply	6	7
High Tension		
Category I: Industry - General	1788	1700
Category II: Industry - Other	380	360
Category IV: Irrigation and Agriculture	6	5
Category V: Railway Traction	454	454
Category VI: Townships and Residential Colonies	58	57
OTHER SALES (not included above)	41	35
TOTAL	6621	6388

Table No. 95
REVENUE FROM PROPOSED AND APPROVED TARIFFS

(Rs. Crores)

CONSUMER CATEGORY	PROPOSED By DISCOMS	APERC	DIFFERENCE
Low Tension			
Category I: Domestic	1775	1725	-50
Category II: Non-Domestic and Commercial	989	845	-144
Category III (a & b): Industrial-Normal & Optional	899	798	-101
Category IV: Cottage Industries and Dhobighats	6	6	0
Category V: Agricultural	305	305	0
Category VI: Local Bodies Street Lighting & PWS scehmes	122	138	16
Category VII: General Purpose	43	36	-7
Category VIII: Temporary Supply	7	7	0
High Tension			
Category I: Industry – General	1807	1635	-172
Category II: Industry – Other	413	362	-51
Category IV: Irrigation and Agriculture	7	26	19
Category V: Railway Traction	493	454	-39

Category VI: Townships and Residential Colonies	**62**	**57**	**-5**
OTHER SALES (not included above)	**44**	**39**	**-5**
TOTAL	**6972**	**6434**	**-538**

REVENUE GAP

528. As per the filings, the combined revenue gap at current tariffs for the DISCOMS is estimated at Rs.1957 Crs and at proposed tariffs, the gap is estimated at Rs. 2027 Crs. for FY2002-03 after taking into account the impact of the revised BST. The revenue gap at current tariffs for FY 2002-03 as estimated by the Commission is Rs.1554.92 Crs and at approved tariffs for the ensuing year the gap is Rs. 1509.38 Crs. after taking into account the directed efficiency gains of Rs. 300 Crs.

Table No. 96
ALL DISCOMS: REVENUE GAP FOR FY 2002-03

(Rs. Crores)

		Current Year Tariff		**Ensuing Year Tariff**	
		DISCOMSFilings	**APERC**	**DISCOMS Proposed**	**APERC**
1	Reasonable Return	0.00	32.14	0.00	32.14
2	Expenditure	8948.63	8827.33	9368.44	8827.33
3	Non-Tariff Income	370.01	370.01	370.01	481.38
4	Wheeling Charges	0.00	0.00	0.00	134.75
5	Revenue Requirement (1+ 2 - 3 - 4)	8578.62	8243.34	8998.43	8243.34
6	Revenue	6621.17	6388.2	6971.80	6433.95
7	Efficiency Gains	0.00	300.00	0.00	300.00
8	Net Revenue Gap (5 - 6 - 7)	-1957.45	-1554.92	-2026.63	-1509.39

CENTRAL POWER DISTRIBUTION COMPANY LIMITED

529. The Commission approved the MU sales at 11210 MU as against the projection of 11766 MU by the Licensee for FY2002-03, effecting a reduction of 556 MU. Major reduction in sales are in LT Category V: Agriculture, HT Category I: Industry and HT Others: RESCOs. The RESCOs have been consulted for this purpose. The revenue at current tariffs on the revised sale is computed at Rs.2649 Crs against the estimate made by the Licensee at

Rs.2750 Crs. The revenue from approved tariffs by the Commission on the revised sales is estimated as Rs.2642 Crs for FY2002-03, which is lower than the filing of Rs.2885 Crs.

530. As per the filing, the revenue gap (aggregate revenue requirement in excess of tariff revenue) at current tariffs is estimated at Rs.697 Crs and at proposed tariffs the gap is estimated at Rs. 736 Crs for FY2002-03. With the Commission's alternative calculations, the revenue gap at current tariff is Rs.606.1 Crs. and at approved tariffs for the ensuing year the gap is Rs.515 Crs after taking into account the directed efficiency gains of Rs. 160 Crs.

Table No. 97

SALES AND REVENUE – CPDCL

	SALES - MU		Revenue at Current Tariffs		Revenue at FY 2003 Tariffs	
	CPDCL	APERC	CPDCL	APERC	CPDCL	APERC
LOW TENSION	8848	8561	1605	1591	1699	1600
Domestic Cat I	2799	2799	668	668	711	684
Non Domestic Cat II	707	687	429	414	453	412
Indl. Supply Cat III	815	815	348	348	365	336
Cottage Indl. Cat IV	10	10	2	2	2	2
Irri. & Agri Cat V	4302	4035	95	95	102	103
Public lighting Cat VI	165	165	40	41	42	41
Gen. Purpose Cat VII	40	40	18	17	19	16
Temp Cat VIII	10	10	6	6	6	6
HIGH TENSION	2918	2649	1145	1058	1186	1042
Indl. Seg Cat I	1875	1686	868	796	886	757
Indl. Non-Seg Cat II	400	385	212	204	230	205
Irr & agri Cat IV	168	168	5	4	5	23
Rail traction Cat V	72	72	33	33	36	33

Colony Consumption Cat VI	51	51	16	16	18	16
Resco 's	352	287	10	5	11	7
Temporary	0	0	0	0	0	0
TOTAL SALES	11766	11210	2750	2649	2885	2642

Table No 98
CPDCL: REVENUE GAP FOR FY 2002-03

(Rs.Crores)

		Current Year Tariff		Ensuing Year Tariff	
Sl.No.	Items	Filing	APERC	Proposed	APERC
1	Reasonable Return	0.00	10.91	0.00	10.91
2	Expenditure	3602.89	3560.34	3776.11	3560.34
3	Non-Tariff Income	155.79	155.79	155.79	184.17
4	Wheeling Charges	0.00	0.00	0.00	70.00
5	Revenue Requirement (1+ 2 – 3 - 4)	3447.10	3415.46	3620.32	3317.08
6	Revenue	2749.94	2649.36	2884.60	2641.77
7	Efficiency Gains	0.00	160.00	0.00	160.00
8	Net Revenue Gap (5 - 6 - 7)	-697.16	-606.1	-735.72	-515.31

NORTHERN POWER DISTRIBUTION COMPANY LIMITED

531. The Commission approved the MU sales at 5685 MU as against the projection of 5925 MU by the Licensee for FY2002-03, effecting a reduction of 360 MU. Major reduction in sales are in LT Category V: Agriculture, HT Category I: Industry and HT Others: RESCO. The RESCO has been consulted for this purpose. The revenue at current tariffs on the revised sale is computed at 984 Crs against the estimate made by the Licensee at Rs.1015 Crs. The revenue from approved tariffs by the Commission on the revised sales is estimated as Rs.1008 Crs for FY2002-03, which is lower than the filing of Rs.1050 Crs.

532. As per the filing, the revenue gap (aggregate revenue requirement in excess of tariff revenue) at current tariffs is estimated at Rs.664 Crs and at proposed tariffs the gap is estimated at Rs. 712 Crs for FY2002-03. With the Commission's alternative calculations, the revenue gap at current tariff is

Rs. 619.58 Crs. and at approved tariffs for the ensuing year the gap is Rs.568.22 Crs after taking into account the directed efficiency gains of Rs. 55 Crs.

Table No.99

SALES AND REVENUE – NPDCL

	SALES – MU		**Revenue at Current Tariffs**		**Revenue at FY 2003 Tariffs**	
	NPDCL	**APERC**	**NPDCL**	**APERC**	**NPDCL**	**APERC**
LOW TENSION	4468	4246	555	530	597	565
Domestic Cat I	1197	1197	242	242	260	260
Non Domestic Cat II	173	157	97	89	104	86
Indl. Supply Cat III	263	225	121	104	131	112
Cottage Indl. Cat IV	4	4	1	1	1	1
Irri. & Agri Cat V	2702	2534	68	68	74	74
Public lighting Cat VI	120	120	22	22	23	30
Gen. Purpose Cat VII	9	9	4	4	4	4
Temp Cat VIII	0	0	0	0	0	0
HIGH TENSION	1457	1439	460	454	453	443
Indl. Seg Cat I	700	695	299	297	278	283
Indl. Non-Seg Cat II	42	35	23	20	25	20
Irr & agri Cat IV	2	2	0	0	0	0
Rail traction Cat V	244	244	112	112	122	112
Colony Consumption Cat VI	44	44	15	14	16	14
Resco 's	425	419	11	10	12	13
Temporary	0	0	0	0	0	0
TOTAL SALES	5925	5685	1015	984	1050	1008

Table No. 100
NPDCL: REVENUE GAP FOR FY 2002-03

(Rs. Crores)

		Current Year Tariff		Ensuing Year Tariff	
Sl.No.	Items	Filing	APERC	Proposed	APERC
1	Reasonable Return	0.00	4.84	0.00	4.84
2	Expenditure	1778.06	1752.48	1861.12	1752.48
3	Non-Tariff Income	98.99	98.99	98.99	122.23
4	Wheeling Charges	0.00	0.00	0.00	3.65
5	Revenue Requirement (1+ 2 - 3 - 4)	1679.07	1658.33	1762.13	1631.44
6	Revenue	1015.05	983.75	1050.20	1008.22
7	Efficiency Gains	0.00	55.00	0.00	55.00
8	Net Revenue Gap (5 - 6 - 7)	-664.02	-619.58	-711.93	-568.22

SOUTHERN POWER DISTRIBUTION COMPANY LIMITED

533. The Commission approved the MU sales at 6876 MU as against the projection of 7254 MU by the Licensee for FY2002-03, effecting a reduction of 378 MU. Major reduction in sales are in LT Category V: Agriculture, HT Category I: Industry and HT Others: RESCOs. The RESCOs have been consulted for this purpose. The revenue on the revised sale is computed at 1537 Crs against the estimate made by the Licensee at Rs.1596 Crs. The revenue from approved tariffs by the Commission on the revised sales is estimated as Rs.1560 Crs for FY2002-03, which is lower than the SPDCL filing of Rs.1697 Crs.

534. As per the filing, the revenue gap (aggregate revenue requirement in excess of tariff revenue) at current tariff is estimated at Rs.557 Crs and at proposed tariff the gap is estimated at Rs. 558 for FY2002-03. With the Commission's alternative calculations, the revenue gap at current tariff is Rs. 525.12 Crs. and at approved tariffs for the ensuing year the gap is Rs.447.04 Crs after taking into account the directed efficiency gains of Rs. 55 Crs.

Table No. 101
SALES AND REVENUE – SPDCL

	SALES – MU		Revenue at Current Tariffs		Revenue at FY 2003 Tariffs	
	SPDCL	APERC	SPDCL	APERC	SPDCL	APERC
LOW TENSION	5620	5388	1017	982	1087	1012
Domestic Cat I	1981	1981	445	445	475	475
Non Domestic Cat II	389	369	224	212	239	214
Indl. Supply Cat III	600	540	226	203	243	189
Cottage Indl. Cat IV	16	16	3	3	3	3
Irri. & Agri Cat V	2450	2298	74	74	80	80
Public lighting Cat VI	156	156	32	32	34	39
Gen. Purpose Cat VII	27	27	12	12	13	11
Temp Cat VIII	1	1	1	1	1	1
HIGH TENSION	1634	1488	579	555	609	549
Indl. Seg Cat I	666	630	313	299	321	292
Indl. Non-Seg Cat II	135	120	74	66	81	66
Irr & agri Cat IV	4	4	1	1	1	1
Rail traction Cat V	345	345	159	159	172	159
Colony Consumption Cat VI	60	60	20	19	21	19
Resco 's	425	329	14	12	14	12
Temporary	0	0	0	0	0	0
TOTAL SALES	7254	6876	1596	1537	1697	1560

Table No.102
SPDCL: REVENUE GAP FOR FY 2002-03

(Rs.Crores)

		Current Year Tariff		Ensuing Year Tariff	
Sl.No.	**Items**	**Filing**	**APERC**	**Proposed**	**APERC**
1	Reasonable Return	0.00	14.40	0.00	14.40
2	Expenditure	2233.12	2182.81	2334.82	2182.81
3	Non-Tariff Income	80.13	80.13	80.13	117.06
4	Wheeling Charges	0.00	0.00	0.00	17.75
5	Revenue Requirement (1+ 2 – 3 - 4)	2152.99	2117.08	2254.69	2062.40
6	Revenue	1596.20	1536.96	1696.70	1560.36
7	Efficiency Gains	0.00	55.00	0.00	55.00
8	Net Revenue Gap (5 - 6 - 7)	-556.79	-525.12	-557.99	-447.04

EASTERN POWER DISTRIBUTION COMPANY LIMITED

535. The Commission approved the MU sales at 4538 MU as against the projection of 4648 MU by the Licensee for FY2002-03, effecting a reduction of 11MU. Major reduction in sales are in LT Category V: Agriculture, HT Category I: Industry and HT Others: RESCOs. The RESCOs have been consulted for this purpose. The revenue at current tariffs on the revised sale is computed at Rs.1218 Crs against the estimate made by the Licensee at Rs.1260 Crs. The revenue from approved tariffs by the Commission on the revised sales is estimated as Rs.1224 Crs for FY2002-03, which is lower than the EPDCL filing of Rs.1340 Crs.

536. As per the filing, the revenue gap (aggregate revenue requirement in excess of tariff revenue) at current tariff is estimated at Rs.39.48 Crs and at proposed tariff the gap is estimated at Rs. 21 Crs for FY2002-03. With the Commission's alternative calculations, the revenue gap at current tariff is Rs. 50.25 Crs. and at approved tariffs for the ensuing year there is as surplus of Rs.21.18 Crs after taking into account the directed efficiency gains of Rs. 30 Crs.

Table No. 103
SALES AND REVENUE – EPDCL

	SALES – MU		Revenue at Current Tariffs		Revenue at FY 2003 Tariffs	
	EPDCL	APERC	EPDCL	APERC	EPDCL	APERC
LOW TENSION	3443	3324	716	674	762	683
Domestic Cat I	1519	1519	310	309	330	306
Non Domestic Cat II	314	248	180	131	193	133
Indl. Supply Cat III	342	362	151	159	160	161
Cottage Indl. Cat IV	1	2	0	0	0	0
Irri. & Agri Cat V	1140	1069	47	47	49	49
Public lighting Cat VI	110	110	21	21	22	28
Gen. Purpose Cat VII	15	14	7	6	7	6
Temp Cat VIII	0	0	0	0	0	0
HIGH TENSION	1205	1214	544	544	578	541
Indl. Seg Cat I	623	623	308	308	323	303
Indl. Non-Seg Cat II	135	135	71	71	77	71
Irr & agri Cat IV	8	8	0	0	0	1
Rail traction Cat V	326	326	150	150	163	150
Colony Consumption Cat VI	23	23	8	7	8	7
Resco 's	89	99	7	7	7	7
Temporary	0	0	0	0	0	0
TOTAL SALES	4648	4538	1260	1218	1340	1224

Table No.104
EPDCL: REVENUE GAP FOR FY 2002-03

(Rs. Crores)

		Current Year Tariff		Ensuing Year Tariff	
Sl.No.	**Items**	**Filing**	**APERC**	**Proposed**	**APERC**
1	Reasonable Return	0.00	1.99	0.00	1.99
2	Expenditure	1334.56	1331.70	1396.39	1331.70
3	Non-Tariff Income	35.10	35.10	35.10	57.92
4	Wheeling Charges	0.00	0.00	0.00	43.35
5	Revenue Requirement (1+ 2 - 3 - 4)	1299.46	1298.59	1361.29	1232.42
6	Revenue	1259.98	1218.34	1340.30	1223.60
7	Efficiency Gains	0.00	30.00	0.00	30.00
8	Net Revenue Gap (5 - 6 - 7)	-39.48	-50.25	-20.99	21.18

CHAPTER XVI: TARIFF DESIGN

TARIFF STRUCTURE FOR RETAIL SUPPLY TARIFF

537. Scientific pricing principles of the Cost-to-Serve (CoS) using the embedded cost as approved for the Distribution and retail supply business is the basis for fixing of retail tariffs while the embedded cost of the Transmission and bulk supply business is used for fixing the BST and wheeling charges. Two major changes have been made to the CoS model filed by the DISCOMS as follows

i) retaining evening peak for this Order rather than shifting to morning peak as proposed in the cost-to-serve submissions; and

ii) retaining the use of class coincident peak loads instead of non-coincident peak loads to allocate demand related costs.

538. The decision to retain evening peak was based on the consideration that available information only indicates a possible morning peak, which tends to match with the evening peak. In fact, load flow data submitted in the ERC filings show that there are two peaks, but the evening peak is still more pronounced. Changes in peak are indicative of changes in the consumption pattern. Since evidence to support this change is not substantiated, the Commission prefers to wait and observe consumption patterns before accepting the changed peak load timings. Interestingly, the Licensees claim that the morning peak occurs between 0900hrs and 1100 hrs as against the earlier morning peak between 0600hrs and 0900 hrs. Shift to the morning peak may alter the allocation factors among the different consumer categories. In the CoS model, the overall costs are classified into ‘Demand’, ‘Energy’ and ‘Customer’ components according to allocation factors and these factors were assigned to different customer categories. The allocation factors for various customer classes based on morning peak demand may differ from the allocation factors based on evening peak demand.

539. The decision to continue with coincident peak demand even in this Order as against the renewed proposal to shift to non-coincident peak demand is based on the consideration that the division of distribution business into four business companies is a juridical decision. In terms of market structure, the prevailing power system functions as an integrated transmission and distribution business. The bulk supply tariff is a charge paid by the DISCOMS for the business of bulk supply undertaken by APTRANSCO. As yet, the DISCOMS are not purchasing power independently to match individual peak requirements. The power flow system is a unified system and the system's peak is taken to coincide with the local or DISCOM's peak. Shift to non-coincident peak is possible once data on DISCOMS' peaks and simultaneous peak demand is available. With detailed load flow studies, the Commission will consider shifting to non-coincident peak.

540. The emphasis 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 consider it appropriate, to reduce their tariff rates. Complementing the reduction in rates, simplicity of tariff design through merger of slabs and uniformity of rates is yet another feature of this tariff order.

Allocation of efficiency gains

541. The costs derived for each category on the basis of allocation factors divided by the number of units consumed by the category (net of losses) is the full cost tariff or the cost to serve for that category. 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. The desired cross-subsidy is set by fixing constraints on increase of tariff in respect of subsidizing categories. The quantum of cross subsidy is then distributed among the subsidized category in proportion to the deficit of the respective category to the deficit of the system.

542. The Fully Allocated Cost Tariff is notified to the GoAP for Policy directions 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 subsidized categories are to be reduced. GoAP by way of subsidy would make good the resultant gap in the revenue requirement. On the basis of the policy directions of the GoAP for provision of subsidies, the Commission modifies the fully allocated costs by reduction of tariffs in respect of the subsidized categories to the extent of the subsidy provided by the GoAP. The tariff so arrived at, is approved by the Commission and notified accordingly. The table below gives the Fully Allocated Cost Tariff communicated to GoAP.

Table No. 105

Schedule of Retail Tariffs –

Fully Allocated Cost – FY 2002-03

		Components of tariff									
		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)		
LOW TENSION											
Category I: Domestic								**166,461**	**172,477**	**227,232**	**298446**
	0 - 50		135		145		**230**	61,483	60,654	96,209	
	51 - 100		260		280		**350**	41,574	44,772	55,965	
	101 - 200		285		305		**365**	29,840	31,934	38,216	
	201 - 300		450		475		**525**	13,590	14,345	15,855	
	301 - 400		500		525		**575**	6,750	7,088	7,763	
	> 400		575		595		**575**	13,225	13,685	13,225	
Category II: Non-Domestic and Commercial								**84,636**	**89,334**	**84,502**	**47679**
	0 - 100		340		395		**395**	20,796	23,011	23,011	
	101 - 200		660		755		**700**	13,337	15,142	14,039	
	> 200		745		755		**700**	50,503	51,181	47,452	
Category III (a & b): Industrial - (1)		**(per HP)**		**(per HP)**		**(per HP)**		**81,395**	**85,402**	**81,907**	**50113**

(a)	First 1000 upto 75 HP	180	385	444	403	**444**	**385**	34,404	38,101	36,464	
	Balance upto 75 HP	180	430	444	403	**444**	**385**	46,992	47,301	45,443	
						(per KVA)					
(b)	For 75 HP and above					**100**	**385**				
				(per HP)							
Category IV: Cottage Industries and Dhobighats		**120**	**174**	**120**	**180**	**120**	**225**	**621**	**640**	**784**	**989**
Category V: Agriculture								**28,381**	**30,536**	**115,518**	**225184**
	DPAP areas	(per HP)		(per HP)		**(per HP)**					
	Up to 3 HP (2.25kw)	200		225	@	**1,200**	**@**	1,871	2,105	11,228	
	> 3 HP up to 5 HP (2.25to 3.75kw)	350		375	@	**1,375**	**@**	1,816	1,945	7,133	
	> 5 HP up to 10 HP (375 to 7.5kw)	450		475	@	**1,475**	**@**	404	427	1,325	
	> 10 HP (7.5kw)	550		575	@	**1,575**	**@**	29	31	84	
	Other areas	(per HP)		(per HP)		**(per HP)**					
	Up to 3 HP (2.25kw)	250		275	@	**1,250**	**@**	9,765	10,742	48,827	
	> 3 HP up to 5 HP (2.25to 3.75kw)	400		425	@	**1,425**	**@**	7,796	8,284	27,774	
	> 5 HP up to 10 HP (375 to 7.5kw)	500		525	@	**1,525**	**@**	2,942	3,089	8,974	
	> 10 HP (7.5kw)	600		625	@	**1,625**	**@**	3,756	3,913	10,173	
Category VI: Local Bodies Street Lighting & PWS schemes			**242**		**250**		**260**	**11,659**	**13,775**	**14,326**	**15698**
<u>Local Bodies</u>											
Street Lighting											
	Minor Panchayats		**148**		**156**		**162**				
	Major Panchayats		**198**		**208**		**216**				
	Nagarpalikas and Municipalities Gr.3		**260**		**274**		**285**				
	Municipalities Gr.1 & 2		**310**		**326**		**339**				
	Municipalities Selection Spl.Gr. 335				**353**		**367**				
	Corporations		**360**		**379**		**394**				
PWS Schemes											
	Minor Panchayats			**Agri Tariff**		**Agri - Metered Tariff**					
	Major Panchayats			**Agri Tariff**		**Agri - Metered Tariff**					
	Nagarpalikas and Municipalities Gr.3										

	Upto 1000 units	**240**	**355**	**240**	**375**	**20**	**390**				
	Balance units		**385**		**405**		**421**				
	Municipalities Gr.1 & 2										
	Upto 1000 units		**355**	**240**	**375**	**20**	**390**				
	Balance units		**385**		**405**		**421**				
	Municipalities Selection Spl.Gr.										
	Upto 1000 units		**355**	**240**	**375**	**20**	**390**				
	Balance units		**385**		**405**		**421**				
	Corporations										
	Upto 1000 units		**385**	**240**	**405**	**20**	**421**				
	Balance units		438		**460**		**478**				
Category VII: General Purpose			**430**		**450**		**400**	**3,870**	**4,050**	**3,600**	**2701**
Category VIII: Temporary Supply			**620**		**650**		**620**	**694**	**728**	**694**	**248**
TOTAL LOW TENSION								**377,717**	**396,941**	**528,563**	**641058**
HIGH TENSION											
Category I: Industry - General		**2,040**		**2,340**		**2,340**		**169,982**	**163,532**	**163,547**	**83391**
	For first 1 lakh units	2,040	376		400		**371**	77,877	78,680	75,505	
	Next 1 lakh units	2,040	390		400		**371**	24,437	24,592	23,600	
	Balance units	2,040	395		350		**371**	67,669	60,260	64,443	
Category II: Industry - Other		**2,040**	**450**	**2,340**	**485**	**2,340**	**450**	**36,046**	**37,942**	**36,230**	**14806**
				(per HP)							
Category IV: Irrigation and Agriculture		**400**	**35***	**430**	**35***			**479**	**515**	**2,570**	**3235**
	Govt. Lift Irrigation Schemes						**178**				
	Others						**35**				
Category V: Railway Traction			**460**		**499**		**460**	**45,402**	**49,251**	**45,402**	**21693**
Category VI: Townships and Residential Colonies			**320**		**342**		**320**	**5,696**	**6,088**	**5,696**	**3855**
Rural Co-operatives			**30**		**32**		**109**	**3,520**	**4,624**	**12,367**	**26304**
Temporary								**-**	**-**	**-**	**0**

TOTAL HIGH TENSION								**261,125**	**261,250**	**265,811**	**153286**
SYSTEM TOTAL								**638,842**	**658,191**	**794,375**	**794,343**
								638,842			
TOTAL EXPENDITURE								**794,334**	**794,334**	**794,334**	
FSA applicable to all categories expect Agriculture											
@ Optional Metered Tariff for Agriculture - upto 2500 Units @ 20 Ps/Unit and Balance @ 50 Ps/Unit											
*** : HT Irrigation and Agricultural Optional Metered Tariff subject to a minimum of Rs.300/HP/Year of Contracted Load**											
(1) LT III : 75 HP to 150HP Demand Charges Rs.100/KVA and Energy Charges Rs.3.85 / KwH											

Directions of GoAP on Subsidy

543. The GoAP having seen the Fully Allocated Cost Tariff, directed that the tariff in respect of the subsidized categories may be reduced to levels proposed by the DISCOMS for which subsidy of Rs.1509.38 Crs would be made available to the DISCOMS. The table below gives the details of subsidy allocation for FY 2002-03

Table No. 106
DETAILS OF SUBSIDY ALLOCATION IN FY 2002-03

Particulars	Amount in Crores
Domestic	541.79
Cottage Industries	1.50
Local Bodies	8.27
LT Agriculture	837.39
RESCOS	96.22
HT Agriculture	2.86
Sugar cane Crsushing*	13.7
Aquaculture **	7.65
Total	**1509.38**
* to retain 50 paise per unit **consumers with less than 10 HP pumpsets	

544. The GoAP subsidy as in the earlier Tariff Orders has been mainly for Domestic, Agriculture and RESCOs. The GoAP also indicated that tariff of 50 paise per unit for Sugar cane Crsushing should be maintained for which Rs.13.7 Crs subsidy is allocated. In the case of Aquaculture, a specific request

was made to lower prevailing tariffs from 125 paise per unit for consumers with less than 10 HP to 90 paise for which subsidy of Rs.7.65 Crs is provided.

Administration of Subsidy

545. Subsidy provided by the GoAP is administered as follows:

a) The subsidy given by the GoAP as per Section 12(3) of Reform Act, 1998 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 as directed by the 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.

546. The subsidy will be paid in 12 equal monthly installments 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.

FINAL RETAIL TARIFFS

547. Sec 26 of the APER Act 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, the consumer's 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-subsidisation.

548. While designing the tariffs for the various categories the Commission in the present Order has attempted 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.

Category -LT-I : Domestic

549. The Commission has carefully examined the request of GoAP and the public to retain the existing six slabs in the domestic category, but prefers to reduce the number of slabs from 6 to 5 by merging the last two slabs. Various factors have prompted the Commission decision. Firstly, continued existence of multiple connections persuades the Commission that smaller number of slabs do help to prevent abuse. Secondly, consumption pattern of all households have changed towards utilisation of more electrical and electronic gadgets and tend to obfuscate the need for finer distinction in terms of many slabs. In fact consumption pattern of the last two-slabs are very similar and it is appropriate to merge them. Thirdly, the lifeline slab has been retained with only a slight increase of 10 paise per unit. The rate they will now pay is 145 Paise per unit.

550. The tariff rates are as in the table below. Tariff rates for all slabs are as proposed by the DISCOMS except for the last (5th) slab which at 550 ps/unit is an average from merger of the last two slabs. The cost to serve for this category is 410 paise per unit.

Table No. 107
CAT-LT-I : DOMESTIC

	DISCOMS			APERC	
Slab units /month	**Current Energy Charge ps/unit**	**Slab units /month**	**Proposed energy Charge ps/unit**	**Slab units /month**	**Energy Charge ps/unit**
0-50	135	0-50	145	0-50	145
51-100	260	51-100	280	51-100	280
101-200	285	101-200	305	101-200	305
201-300	450	201-300	475	201-300	475
301-400	500	301-400	525	301-400	550
>400	575	>400	595	>400	550

Category LT-II: Non-Domestic and Commercial

551. The Non-Domestic and Commercial category is a subsidising category in which the Commission has lowered the tariff rate of the last two slabs from 755 paise per unit proposed by the DISCOMS to 700 paise per unit and merged the last two slabs into one and accepted 395 paise for the first slab of 0-100 units per month proposed by the DISCOMS. The number of slabs have been reduced from three to two. The cost to serve for this category is 338 paise per unit.

Table No. 108

CAT-LT-II : NON-DOMESTIC AND COMMERCIAL

	DISCOMS		APERC	
Slab	**Current Energy Charge ps/unit**	**Proposed energy Charge ps/unit**	**Slab**	**Energy Charge ps/unit**
0-100 units/month	340	395	0-100 units/month	395
101-200 units/month	665	755	101-200 units/month	700
More than 200 units/month	745	755	More than 200 units/month	700

Category LT III (a)

552. For this Category, the fixed charges have been raised from Rs.15/- per H.P. per month to Rs.37/- per H.P. per month as proposed by DISCOMS. The energy charges are, however, reduced to 385 ps/unit from 403 ps/unit proposed by DISCOMS after merger of the existing two slabs. With the reduced energy charges, the existing tariff for the first slab remains unchanged, while for the second slab, the charges go down from 430 ps/unit to 385 ps/unit. The two existing slabs in this Category have been merged into one single slab.

Category LT III (b)

553. The DISCOMS have proposed an increase in the fixed charges for this Category from Rs.15 per HP per month to Rs.37 per HP per month and a reduction in energy charges from 430 ps/unit to 403 ps/unit. They have also proposed an optional two-part tariff with Rs.100/- per kVA as demand charges and 403 ps/unit as energy charges. The Commission dispensing with the earlier practice have introduced two-part tariff with Rs.100/- per kVA per month as demand charges and 385 ps/unit as energy charges as against 403 ps/unit proposed by the DISCOMS.

554. The same two-part tariff has been made optional for industries with 50 HP to 75 HP of connected load. Under this two-part tariff {(for both Cat.III(a) & III(b)}, the consumer is given the benefit of declaring a contracted demand which can be lower than the connected load. The billing demand for two-part tariff shall be the recorded demand or the contracted demand whichever is higher. If the recorded demand exceeds the contracted demand, such excess demand shall be billed at the demand charge prescribed under H.T. Cat-I.

555.The reduction of energy rates are intended to help promote small industry. The Cost to serve this category is 269 ps/unit.

Table No. 109
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
Industrial-III (A) Upto the Load of 75 HP						
First 1000 units	15	385	37	403	37	385
Balance		430		403		385
Industrial -III (B) Load >75 HP and up to 150 HP	15	430	100/KVA/ Month	403	100/KVA/ Month	385

Category-LT-IV : Cottage Industries

556. The Commission accepts the rates proposed by the Licensee of Rs.120 /HP/Year (Rs.10/HP/Month)and energy charges of 180 ps/unit proposed by the Licensee as given below. The cost to serve this category is 316 ps/unit. Dhobighats which were earlier not metered are included in this category in line with the Commission's directive to fix meters for all consumers except agriculture.

Table No. 110
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	174	10	180	10	180

Category-LT-V: Agriculture

557. The agricultural tariff increased marginally as proposed by the Licensees is given below. Average revenue per unit at this rate is 31 ps/unit. The cost to serve is 238 paise per unit and GoAP have agreed to provide a subsidy of Rs. 837.39 Crs. While retaining the proposed tariff on a flat rate, the Commission has preferred to continue the optional metered tariff of 20 ps / unit for the first 2500 units per annum and 50 ps/unit for the remaining units of consumption.

Table No. 111
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								
upto 3HP	200	0-2500 units per annum	20paise per unit	225		225	0-2500 units per annum	20paise per unit
>3Hp upto 5Hp	350			375		375		
>5 Hp upto 10Hp	450	More than 2500 units per annum	50 paise per unit	475		475	More than 2500 units per annum	50 paise per unit
10 Hp and above	550			575		575		
Other Areas								
upto 3HP	250	0-2500 units per annum	20 paise per unit	275		275	0-2500 units per annum	20 paise per unit
>3Hp upto 5Hp	400			425		425		

>5 Hp upto 10Hp	500	More than 2500 units per annum	50 paise per unit	525		525	More than 2500 units per annum	50 paise per unit
10 Hp and above	600			625		625		

558. There is a large waiting list of about 4 lakh consumers for new Agriculture service Connections. Service connections to these are being given at the rate of 50,000 nos. per annum. In order to facilitate an out-of-turn allotment to the needy, a Scheme has now been introduced, whereby a service connection will be given on metering basis and the charge per unit will be 125 ps/unit, which is the full-cost tariff after taking into account the subsidy by GoAP, the cross-subsidy and the efficiency measures.

559. The Commission, in the tariff order for FY2001-02, announced 50 percent concession in tariff for agricultural consumers who adopt the DSM measures specified therein. In view of several oral submissions that the period for adoption of DSM measures is not sufficient, the Commission extends this concession for the consumers who adopted the stated DSM measures until 31-3-2004.

Category-LT-VI : Local Bodies

560. The cost to serve of this category is 295 ps/unit. The Commission has accepted the proposals of DISCOMS for this category as given below.

Table No. 112

CAT-LT-VI : LOCAL BODIES

Slab	Current charges: Fixed Charges (Rs/HP/ Year)	Current charges: Energy ps/ unit	DISCOMS Proposed charges: Fixed Charges (Rs/HP/ Year)	DISCOMS Proposed charges: Energy ps/ unit	APERC: Fixed Charges (Rs/HP/ Year)	APERC: Energy ps/ unit
Street Lighting						
Minor Panchayats		148		156		156
Major Panchayats		198		208		208
Nagarpalikas and Municipalities Gr.3		260		274		274
Municipalities Gr.1 & 2		310		326		326
Municipalities Selection Spl. Grade		335		353		353
Corporations		360		379		379
PWS Schemes						
Minor Panchayats	Agricultural tariff as applicable in "other areas"					
Major Panchayats	Agricultural tariff as applicable in "other areas"					
Nagarpalikas and Municipalities Gr.3						
Upto 1000 Units	240	355	240	375	240	375
Balance Units		385		405		405
Municipalities Gr.1 & 2						
Upto 100 units	240	355	240	375	240	375
Balance units		385		405		405
Municipalities Selection Spl. Gr.						
Upto 1000 units	240	355	240	375	240	375
Balance units		385		405		405
Corporations						
Upto 1000 units	240	385	240	405	240	405
Balance units		438		460		460

Category-LT-VII : General Purpose

561. The LT General Purpose category covers places of worship, Government Schools & Hostels, Charitable Institutions, (including Public Charitable Trusts and Societies registered under the Societies Registration Act running educational and medical relief institutions running on a no-profit basis).

562. The rate for this category has been reduced to 400 ps/unit from the current tariff of 430 ps/unit, and 450 ps/unit proposed by the DISCOMS for FY 2002-03 keeping in view the purpose of the use. The cost to serve for this category is 312 ps/unit.

Table No. 113
CAT-LT-VII: GENERAL PURPOSE

DISCOMS		APERC
(Current) Energy Charge (Paise/ Unit)	**(Proposed) Energy Charge (Paise/Unit)**	**Energy Charge (Paise/Unit)**
430	450	400

Category-LT-VIII : Temporary Supply

563. The DISCOMS have proposed to increase the current tariff of 620 ps/unit to 650 ps/unit. The Commission has decided to continue the current tariff of 620 ps/unit for FY 2002-03 as the present level of tariff is already high. The cost to serve this category is 239 ps/unit.

Table No. 114
CAT-LT-VIII : TEMPORARY SUPPLY

DISCOMS		APERC
(Current) Energy Charge (Paise/ Unit)	**(Proposed) Energy Charge (Paise/Unit)**	**Energy Charge (Paise/Unit)**
620	620	620

High Tension

Category –HT-I: Industry

564. The proposals of DISCOMS to increase the demand charges from Rs.170/- to Rs.195/- per kVA per month have been accepted by the Commission. But the Commission has fixed the energy charges at 371 paise per unit against 400 paise per unit proposed by DISCOMS for the first two slabs. At 371 paise per unit the energy charges are lower than those for FY 2001-02 for the first two slabs. However, the Commission has increased the energy charges to 371 paise per unit against 350 paise per unit proposed by DISCOMS for the third slab, thereby merging the existing three slabs into one slab. These changes have been effected in this category keeping in view the need to spur the industrial growth within the State and to rationalize tariffs in line with the cost to serve which at present is 244 paise per unit.

565. The incentive scheme introduced last year for HT-I has been continued with modifications to improve the same. The incentives continue to be applicable for increased consumption in excess of the average monthly consumption for FY 2000-01. The discount rate will be applied on the entire inCrsemental consumption. The threshold load factor (LF) has been brought down from 40% to 30%. This is to facilitate industries with a LF between 30% and 40% to take advantage of the incentive scheme. The benefit of the Scheme will be available for a period of 3 years upto 31 -3-2005.

566. DISCOMS have proposed an incentive of 25% discount on energy charges to new industries and captive repatriation. The Commission finds that such incentives would be disCrsiminatory and place the existing consumers at a disadvantage. The Commission therefore has not agreed to this proposal.

Table No. 115
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
For first 1 Lakh units/month	170	376	195	400	195	371
Next 1 Lakh units /month		390		400		371
Balance units during the month		395		350		371

Category –HT-II: Others

567. The DISCOMS have proposed an increase of Demand charges from Rs.170/KVA/month to Rs.195/KVA/month. This is accepted by the Commission. The Commission has fixed the energy charges at 450 ps/unit against 485 ps/unit proposed by DISCOMS. The cost to serve for this category of consumers is 238 ps/unit.

Table No. 116
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
170	450	195	485	195	450

Category –HT-IV: Irrigation and Agriculture

568. This category has been classified into Government Lift Irrigation Schemes and other Irrigation Schemes. The charges for Government Lift Irrigation Schemes will cover the fully allocated cost 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 is currently 178 ps/unit. For the other irrigation schemes the flat rate per HP has been increased from Rs.400 per HP per annum to Rs.430 / HP/ annum as proposed by DISCOMS, with an optional metered tariff of 35 ps/unit.

Table No. 117
CAT-HT-IV : IRRIGATION AND AGRICULTURE

<table>
<tr><th>S.No</th><th>Category</th><th colspan="2">Current charges</th><th colspan="2">DISCOMS proposed charges</th><th colspan="2">APERC</th></tr>
<tr><td rowspan="2">A.</td><td rowspan="2">Government Lift Irrigation Scheme</td><td>Fixed Charges (Rs/HP/ Year)</td><td>Optional Metered tariff ps/ unit</td><td>Fixed Charges (Rs/HP/ Year)</td><td>Optional Metered tariff ps/ unit</td><td>Fixed Charges (Rs/HP/ Year)</td><td>Metered tariff ps/ unit</td></tr>
<tr><td>400.</td><td>35*</td><td>430</td><td>35*</td><td>----</td><td>178</td></tr>
<tr><td>B.</td><td>Irrigation & Agricultural - General</td><td>400</td><td>35*</td><td>430</td><td>35*</td><td>430</td><td>35*</td></tr>
<tr><td colspan="8">* The metered tariff is Optional and is subject to a minimum of Rs.300/HP/year of Contracted Load</td></tr>
</table>

Category –HT-V: Railway Traction

569. No tariff increase has been made for HT- V Railway traction although DISCOMS have proposed increase to 499 ps/unit from the existing rate of 460 ps/unit as any further increase is not considered desirable now. The cost to serve for this category is 226 ps/unit.

Table No. 118
CAT-HT-V : RAILWAY TRACTION

<table>
<tr><th></th><th colspan="2">APTRANSCO</th><th>APERC</th></tr>
<tr><td></td><td>Current Energy Charge (Paise/Unit)</td><td>Proposed Energy Charge (Paise/Unit)</td><td>Energy Charge (Paise/Unit)</td></tr>
<tr><td></td><td>460</td><td>499</td><td>460</td></tr>
</table>

Category –HT-VI: Townships / Colonies

570. The tariff has been retained at the existing level of 320 ps/unit although the DISCOMS have proposed increase to 342 ps/unit keeping in view that this is meant for domestic and street lighting purposes. The cost to serve this category is 223 ps/unit.

Table No. 119
CAT-HT-V : TOWNSHIPS/COLONIES

DISCOMS		APERC
Current Energy Charge (Paise/Unit)	**Proposed Energy Charge (Paise/Unit)**	**Energy Charge (Paise/Unit)**
320	342	320

Rural Electric Cooperative Societies (RESCOs)

571. The Licensee projected an average realization of 32ps. Per kWh for supplies to Rural Electric Cooperative Societies. The cost to serve as per the APERC estimates is 241 ps/unit

572. Licences have been extended to the nine Rural Electric Co-operative Societies for a further period of one year upto 31-03-2003 pending decision on their further continuance based on viability in the reform and restructuring set up of the power sector. The Commission have accepted the proposal of the APTRANSCO to supply power at current charges to the nine Rural Electric Co-operative Societies. Accordingly, the Commission decided that the current rates be charged to Rural Electric Co-operative Societies temporarily till further orders are issued on the BST applicable to each of the RESCOs.

573. This retail tariff determined by the Commission is applicable to the consumers of the nine Rural Electric Cooperative Societies also.

Table No. 120
Rural Electric Co-operative Societies

DISCOMS		APERC
Current Average Energy Charge (Paise/Unit)	Proposed Average Energy Charge (Paise/Unit)	Average Energy Charge (Paise/Unit)
32	34	34

574. The schedule of tariffs for FY2002-03 is finalised on the above lines. The table below gives the schedule of tariffs for FY2002-03 after adjusting the GoAP subsidy among different categories of consumers.

SCHEDULE OF ELECTRICITY TARIFF - 2002-03

LT Categories				
Category No.	**Purpose**	**Rates for the year 2002-2003**		
		Fixed Charges	**Energy Charge Ps/Unit**	**Total Revenue In Rs Lakhs**
I	**Domestic**			172509
	0 - 50 Units/Month	--	145	60654
	51- 100 Units/Month	--	280	44772
	101 - 200 Units/Month	--	305	31934
	201 - 300 Units/Month	--	475	14345
	More than 300 Units/Month	--	550	20805
II	**Non-Domestic / Commercial**			84502
	0 - 100 Units/Month	--	395	23011
	More than 100 Units/Month	--	700	61491
III (A)	**Industrial upto 75 HP**			79772
	For all Units/Month		385	

		Rs.37/HP/Month of connected Load or Optional Rs.100/KVA per month of contracted Demand		
III (B)	**Industrial** Above 75 HP upto 150 HP All Units	Rs. 100/ KVA per month of Contracted Demand	385	
IV	**Cottage Industry and Dhobi Ghats** All Units	Rs.10/HP/Month	180	640 180
V	Agriculture			30536
	Flat rate Tariff			
	DPAP Areas			
	1)Upto 3 HP	Rs.225/HP/Year		2105
	2)More than 3 HP upto 5 HP	Rs.375/HP/Year		1945
	3)More than 5 HP and upto 10 HP	Rs.475/HP/Year	--	427
	4) Above 10 HP	Rs.575/HP/Year		31
	Metered Tariff (optional)			
	0-2500 units per annum		20	20
	More than 2500 units per annum		50	50
	Other Areas (OA)			
	1)Upto 3 HP	Rs.275/HP/Year		10742
	2)More than 3 HP upto 5 HP	Rs.425/HP/Year		8284
	3)More than 5 HP and upto 10 HP	Rs.525/HP/Year		3089
	4) Above 10 HP	Rs.625/HP/Year		3913
	Metered Tariff (optional)			
	0-2500 units per annum		20	20
	More than 2500 units per annum		50	50
	Out of turn allotment – Metered tariff		125	125

VI (A)	Local Bodies/ Street Lighting / PWS			13775
	Local Bodies			
	Street Lighting			
	Minor Panchayats		156	
	Major Panchayats		208	
	Nagarpalikas and Municipalities Gr 3		274	
	Municipalities Gr 1 & 2		326	
	Municipalities Selection Special Grade		353	
	Corporations		379	
VI (B)	**Local bodies PWS Scheme**			
	Minor Panchayats	Metered Agri. Tariff		
	Major Panchayats	Metered Agri. Tariff		
	Nagarpalikas and Municipalities Gr 3			
	Up to 1000 units Balance Units	20/HP/Month		
	Municipalities Gr 1 & 2			
	Upto 1000 Units Balance Units	20/HP/Month		
	Municipalities Special and Selection Grade			
	Up to 1000 units Balance Units	20/HP/Month	405 Ps/Unit	
	Corporations			
	Upto 1000 Units Balance Units	20/HP/Month	405 Ps/Unit 460 Ps/Unit	
VII	**General Purpose**		400 Ps/Unit	3600
VIII	**Temporary Supply**		**620**	694
	Agriculture Purpose		230Ps/Unit	
	Other than Agriculture		620Ps/Unit	
	TOTAL LT SUPPLY			**386028**
HT Categories				
I	Industrial #			

	For all Units	195/KVA per month	371	163547
II	Non-Industrial	195/KVA per month	450	36230
IV	Irrigation and Agriculture			2570
IV(A)	Govt. Lift Irrigation Schemes		178	
IV(B)	Others	430//HP/Year		
	Optional metered tariff		35*	
V	Railway Traction		460	45402
VI	Townships/colonies		320	5696
	Rural Cooperatives		34	3924
	Temporary Supply	$	$	
	TOTAL HT SUPPLY			**257368**
	SYSTEM TOTAL			**643396**

1. FSA applicable to all categories except agriculture but includes Government Lift Irrigation Schemes in Cat HT-IV. 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. *HT Irrigation and Agriculture optional metered tariff subject to a minimum of Rs.300/HP/Year of the Contracted Load.

$ 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

Category HT I: The following incentives are applicable for consumers Of DISCOMS:

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.

3. Minimum charges

LT categories			
Category No	**Purpose**		**Rates for the year 2002- 03**
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 (B)	Industrial Optional and for 75–150HP		Recorded demand during the month or 80% of contracted demand whichever is higher and 50 Units/KVA of Billing Demand per month
VI (A)	Street Lighting	Panchayats	Rs.2/Point/Month
		Municipalities and Corpns.	Rs.6/Point/Month
VII	General Purpose	Single Phase	Rs.50/Month
		Three Phase	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
II	Non-Industrial		25 Units/KVA of billing demand per month
IV(A&B)	Agriculture		Minimum consumption charges 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

4. 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 APTRANSCO 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%

5.The Customer charges, are as given below. Meter and all other charges as existing shall continue.

CUSTOMER CHARGES:

For all LT Categories inclusive of Agricultural Services	Rs. 20/- per month *
*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/-

Rates for pilferage and malpractice cases as existing.

6. WHEELING CHARGES:

Rate for all units wheeled is Re.0.50 paise per unit in cash and compensation in kind for system losses of 28.4%.

TARIFF STRUCTURE FOR THE BULK SUPPLY TARIFF

575. 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).

576. APTRANSCO in their filing have proposed uniform single part bulk supply tariff of 207.1ps / unit to the DISCOMS. Once the infrastructure/information is ready and better load flow studies are available, the Commission expects to structure the BST on a two-part basis comprising a demand component linked to coincident peak demand and an energy component. Such pricing will help the DISCOMS to improve overall load profile and reduce cost of power purchased. In the present calculation, the estimated BST is in single part.

577. 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.

578. Further, Section 26(8) of the Reform Act directs the Commission to "endeavour to fix tariffs in such 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 as explained in detail in para 577 above.

579. Based on the Commission's approved ARR for APTRANSCO, the bulk supply tariff is 208.6 per unit. The Commission relied upon the Cost to Serve computations and arrived at the Fully Allocated Costs after reducing 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.

580. The differential BST are 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 mandated by Section 26 (8) of the Reform Act, 1998.

(ii). that each of the DISCOMS earns the prescribed return as permitted under Schedule VI of Electricity (Supply) Act, 1948.

Schedule of Bulk Supply Tariffs

581. 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.121

Table on Schedule of Bulk Supply Tariff

(Rs. Crores)

	NPDCL	EPDCL	SPDCL	CPDCL	Discoms
Revenue	1008.22	1223.60	1560.36	2641.77	6433.96
Subsidy	353.41	211.81	437.97	506.20	1509.38
Power Purchase Cost	1290.76	1373.56	1811.68	3109.39	7585.39
Other Cost	246.83	191.25	361.81	442.46	1242.36
Reasonable Return	4.84	1.99	14.40	10.91	32.14
Revenue Requirement	1542.43	1566.80	2187.89	3562.77	8859.89
Non-Tariff Income	125.88	101.27	134.81	254.17	616.13
Net Revenue Requirement	1416.55	1465.53	2053.08	3308.60	8243.76
Efficiency Gains	55.00	30.00	55.00	160.00	300.00
Total Expenditure allowed	1361.55	1435.53	1998.08	3148.60	7943.76
Surplus / (Deficit)	0.00	0.00	0.00	0.00	0.00
MUs purchased by each Discom	7219.00	5468.00	8731.00	14949.00	36367.00
Bulk Supply Tariff Ps/KwH	**178.8**	**251.2**	**207.5**	**208.0**	**208.6**

582. The Bulk Supply Tariffs to the different DISCOMS are as at the last row of the above table.

WHEELING CHARGES

583. In Order bearing OP 162/2002, dated 24-3-2002 the Commission has directed that wheeling charges in cash (50 ps/unit) are payable to DISCOMS by the persons desirous of availing the wheeling services. The Commission also decided that losses in A.P.Grid System would be reimbursed in kind. The Commission desired that the DISCOMS should enter into appropriate financial and technical arrangements with APTRANSCO and also among themselves. It

is necessary that these arrangements are finalised quickly so that APTRANSCO and DISCOMS are in a position to take into account the changed circumstances while finalising the ARR for FY 2003-04.

584. 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 2002.

(A.V.SUBBA RAO)	**(D.LAKSHMINARAYANA)**	**(G.P.RAO)**
MEMBER	**MEMBER**	**CHAIRMAN**

ANNEXURE - A

LIST OF DIRECTIVES

LV Side Meter Readings: Agricultural Consumption Estimate

1. The licensees shall read all meters installed on the LV side of the Agriculture distribution transformers monthly and report all the readings to the Commission in the electronic format already issued to them. The licensees shall complete the one-year sample study based on DTR meter readings for the period 11/2001 to 10/2002. The DISCOM shall file comprehensive calculations by each Mandal on agricultural consumption estimate for this period at the end of each month till November, 2002.

(Para 197)

Unauthorised Agricultural Services

2. The DISCOMS shall disconnect all unauthorised and not regularisedagricultural services within three months and file a compliance report with the Commission.

(Para 200)

Metered Tariff for Agricultural Consumption

3. The DISCOMS shall give wide publicity for metered tariff for Agricultural consumption. The applications for meters by Agricultural Consumers shall be attended to on a priority basis and the meters shall be installed within fifteen days from the date of application of the consumer.

(Para 202)

Removal of Phase Converters

4. The DISCOMS shall issue a notice to agricultural consumers through newspapers stating that the usage of phase converters is illegal and these phase converters would be removed after 30 days from the date of the publication of the notice. Upon the completion of the notice period, the DISCOMS shall remove all the phase converters. The persons who do not comply should be proceeded against under the recently amended Sections 39 and 49 I.E Act, 1910.

(Para 204)

Metering of Agricultural Services

5. The DISCOMS shall file an action plan for metering of agricultural consumers with the Commission by 30-6-2002 as part of the compliance of the earlier directive. The DISCOMS under no circumstances shall

release new agricultural services without meters and meter all the new agricultural services released in FY2001-02.

(Para 205)

Agricultural Census Reports

6. The DISCOMS shall make the copies of agricultural census reports available to the public on request on payment of reasonable charges not exceeding the printing and/or photocopy cost of the reports.

(Para 207)

Commercial Losses in EHV System

7. 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 findings to the Commission within six months from the date of this order.

(Para 215)

Audit of Receivables

8. 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.

(Para 222)

Sales Database

9. The DISCOMS shall build the sales database with the available data starting from April 2002 with all required fields as prescribed by the Commission. Each DISCOM shall build the sales database for one circle immediately and file the same with the Commission by 15.06.2002. The database for the entire DISCOM should be completed by 31.08.2002.

(Para 226)

Working Capital: Discussion Paper

10. The Licensees shall prepare a detailed paper on working capital requirements with special reference to their own working capital requirements and file the same with the Commission by July 31, 2002.

(Para 236)

Merit Order Procedure

11. 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 coordination committee and conduct regular monthly meetings of the Committee as envisaged in the Grid Code approved by the Commission.

(Para 248)

Efficiency Gains

12. The Commission directs that combined Efficiency Gains of Rs. 300 Crores be achieved by all the four DISCOMS for FY 2002-03. The Distribution of Efficiency Gains between the four DISCOMS is as:

APEPDCL : 30 Crores

APNPDCL : 55 Crores

APSPDCL : 55 Crores

APCPDCL : 160 Crores.

(Para 250)

High Quality Meters and Decentralization of Billing, Collection, etc.

13. The DISCOMS shall install high quality meters on connection in all towns and Mandal head quarters by December 2002. 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.

(Para 252)

Unauthorised Loads – Voluntary Disclosure Scheme

14. The Commission directs the DISCOMS to introduce a 'Voluntary Disclosure Scheme' operative from 1-05-2002 to 31-07-2002, wherein, the consumers who volunteer to regularise their unauthorised load or unauthorised additional load would be allowed a discount of 50% on the normal development and service line charges within 15 days of intimation of the scheme by Licensee.

(Para 253)

Distribution Transformers Failure

15. The DISCOMS shall reduce the rate of failure of the distribution transformers during FY2002-03 to the following levels:

DISCOM	TARGET
EPDCL	13.00%
CPDCL	15.00%
NPDCL	15.00%
SPDCL	15.00%

(Para 256)

Multiple Connections

16. The Commission directs the Distribution Companies to conduct a door - to - door checking of all services and to remove all multiple connections by 31 October '2002. 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.

(Para 271)

APTRANSCO

Approvals for Schemes and Details of CWIP as on 01-04-2000

17 APTRANSCO is directed:

- to give highest priority to obtain Commission's approval under para 10 of the Licensee for schemes started since 1-2-99 and complete this task without fail latest by 30th June, 2002 (and report compliance to the Commission).

- to file on that date (i.e. by 30th June, 2002) an investment plan for FY 2002-03 for an amount of Rs. 819.00 Crores (including Capitalisation and IDC) comprising schemes which have Commission's approval. This naturally presupposes that the licensee would have obtained the necessary approval for the schemes under para 10 of the licence.

- to file scheme-wise and work-wise details for the Capital Works-in-Progress as on 1-4-2000 as per the Finalised Second Transfer Scheme (Rs. 1016.76 Crores) latest by 31st May, 2002 and correlate the same with the CWIP as per the Tariff Order for FY 2000-01, expenditure incurred during FY 2001-02 and the Investment Plan for FY 2002-03.

(Para 298)

Employee Funds – Credit to Non-drawal Bank Accounts:

18. APTRANSCO is directed to ensure that till such time the Trusts formed become fully operational, an amount of Rs. 0.815 Crores per month is Credited from month to month to non-drawal bank accounts already opened. The Licensee is advised to take up with the Bank (s) appropriately to ensure that the amounts in the non-drawal bank accounts earn the maximum possible interest.

(Para 348)

Employee Funds – Financial Action Plan (For Arrears of FY 2000-01):

19. The Commission directs that a Financial Action Plan should be filed before the Commission by 30th June 2002 indicating as to when and how the remittance of the required amounts to non-drawal bank accounts would be made.

(Para 349)

Contingencies Reserve –To provide required sum in the Accounts for FY 2000-01:

20. The Commission direct that the appropriation of the required sums towards Contingencies Reserve for FY 2000-01 be made even now if feasible (having regard to the status of the statutory audit of accounts for that year) and complete the investment action required in that behalf latest by 31st July, 2002

(Para 354)

APEPDCL

Approvals for Schemes and Details of CWIP as on 01-04-2000

21. **APEPDCL is directed:**

a. to give highest priority to obtain Commission's approval under para 9 of the Licence for schemes started since 1-2-99 and complete this task without fail latest by 30-6-2002 and report compliance to the Commission.

b. to file on that date (i.e. on 30-6-2002) an investment plan for FY 2002-03 for an amount of Rs. 236.83 Crores (including expenses Capitalisation and IDC) comprising schemes which have Commission's approval. This naturally presupposes that the licensee would have obtained the necessary approval for the schemes under para 9 of the licence.

c. to file scheme-wise and details for the Capital Works-in-Progress as on 1-4-2000 as per the finalised Second Transfer Scheme (Rs. 85.41 Crores) latest by 31-5-2002 and correlate the same with the CWIP as per the Tariff Order for FY 2000-01, expenditure incurred during FY 2001-02 and the Investment Plan for FY 2002-03.

(Para 367)

Employee Funds – Credit to Non-drawal Bank Accounts:

22. APEPDCL is directed to ensure that till such time the Trusts formed become fully operational, an amount of Rs. 0.8125 crore per month is credited from month to month to non-drawal bank accounts already opened. The Licensee is advised to take up with the Bank (s) appropriately to ensure that the amounts in the non-drawal bank accounts earn the maximum possible interest.

(Para 391)

Contingencies Reserve – To make required appropriations in the Accounts for FY 2001-02:

23. The Commission direct APEPDCL that in so far as a special appropriation towards Contingencies Reserve has been made in the Revenue Requirement calculations for FY 2001-02, it is mandatory to provide for Contingencies Reserve in the accounts for FY 2001-02 and comply with the requirement of the Sixth Schedule that the sums appropriated to the Contingencies Reserve shall be invested in securities authorised under the Indian Trusts Act, 1882 and such investment shall be made within a period of six months of the close of the year of account in which such appropriation is made.

(Para 393)

APNPDCL

Approvals for Schemes and Details of CWIP as on 01-04-2000

24. **APNPDCL is directed:**

   a. to give highest priority to obtain Commission's approval under para 9 of the Licence for schemes started since 1-2-99 and complete this task without fail latest by 30-6-2002 and report compliance to the Commission.

   b. to file on that date (i.e. on 30-6-2002) an investment plan for FY 2002-03 for an amount of Rs. 194.58 Crores (including expenses Capitalisation and IDC) comprising schemes which have Commission's approval. This naturally presupposes that the licensee would have obtained the necessary approval for the schemes under para 9 of the licence.

   c. to file scheme-wise and details for the Capital Works-in-Progress as on 1-4-2000 as per the finalised Second Transfer Scheme (Rs. 98.05 Crores) latest by 31-5-2002 and correlate the same with the CWIP as per the Tariff Order for FY 2000-01, expenditure incurred during FY 2001-02 and the Investment Plan for FY 2002-03.

(Para 405)

Employee Funds – Credit to Non-drawal Bank Accounts:

25. APNPDCL is directed to ensure that till such time the Trusts formed become fully operational, an amount of Rs. 0.91 crore per month is credited from month to month to non-drawal bank accounts already opened. The Licensee is advised to take up with the Bank (s) appropriately to ensure that the amounts in the non-drawal bank accounts earn the maximum possible interest.

(Para 429)

Contingencies Reserve – To make required appropriations in the Accounts for FY 2001-02:

26. The Commission direct APNPDCL that in so far as a special appropriation towards Contingencies Reserve has been made in the Revenue Requirement calculations for FY 2001-02, it is mandatory to provide for Contingencies Reserve in the accounts for FY 2001-02 and comply with

the requirement of the Sixth Schedule that the sums appropriated to the Contingencies Reserve shall be invested in securities authorised under the Indian Trusts Act, 1882 and such investment shall be made within a period of six months of the close of the year of account in which such appropriation is made.

(Para 431)

APSPDCL

Approvals for Schemes and Details of CWIP as on 01-04-2000

27. **APSPDCL is directed:**

- to give highest priority to obtain Commission's approval under para 9 of the Licence for schemes started since 1-2-99 and complete this task without fail latest by 30-6-2002 and report compliance to the Commission.
- to file on that date (i.e. on 30-6-2002) an investment plan for FY 2002-03 for an amount of Rs. 194.52 Crores (including expenses Capitalisation and IDC) comprising schemes which have Commission's approval. This naturally presupposes that the licensee would have obtained the necessary approval for the schemes under para 9 of the licence.
- to file scheme-wise and details for the Capital Works-in-Progress as on 1-4-2000 as per the finalised Second Transfer Scheme (Rs. 273.54 Crores) latest by 31-5-2002 and correlate the same with the CWIP as per the Tariff Order for FY 2000-01, expenditure incurred during FY 2001-02 and the Investment Plan for FY 2002-03.

(Para 443)

Employee Funds – Credit to Non-drawal Bank Accounts:

28. APSPDCL is directed to ensure that till such time the Trusts formed become fully operational, an amount of Rs. 1.306 crore per month is credited from month to month to non-drawal bank accounts already opened. The Licensee is advised to take up with the Bank (s) appropriately to ensure that the amounts in the non-drawal bank accounts earn the maximum possible interest.

(Para 467)

Contingencies Reserve – To make required appropriations in the Accounts for FY 2001-02:

29. The Commission direct APSPDCL that in so far as a special appropriation towards Contingencies Reserve has been made in the Revenue Requirement calculations for FY 2001-02, it is mandatory to provide for Contingencies Reserve in the accounts for FY 2001-02 and comply with the requirement of the Sixth Schedule that the sums appropriated to the Contingencies Reserve shall be invested in securities authorised under the Indian Trusts Act, 1882 and such investment shall be made within a period of six months of the close of the year of account in which such appropriation is made.

(Para 469)

APCPDCL

Approvals for Schemes and Details of CWIP as on 01-04-2000

30. APCPDCL is directed:

a. to give highest priority to obtain Commission's approval under para 9 of the Licence for schemes started since 1-2-99 and complete this task without fail latest by 30-6-2002 and report compliance to the Commission.

b. to file on that date (i.e. on 30-6-2002) an investment plan for FY 2002-03 for an amount of Rs. 443.92 Crores (including expenses Capitalisation and IDC) comprising schemes which have Commission's approval. This naturally presupposes that the licensee would have obtained the necessary approval for the schemes under para 9 of the licence.

c. to file scheme-wise and details for the Capital Works-in-Progress as on 1-4-2000 as per the finalised Second Transfer Scheme (Rs. 98.05 Crores) latest by 31-5-2002 and correlate the same with the CWIP as per the Tariff Order for FY 2000-01, expenditure incurred during FY 2001-02 and the Investment Plan for FY 2002-03.

(Para 481)

Employee Funds – Credit to Non-drawal Bank Accounts:

31. APCPDCL is directed to ensure that till such time the Trusts formed become fully operational, an amount of Rs. 1.569 crore per month is credited from month to month to non-drawal bank accounts already opened. The Licensee is advised to take up with the Bank (s)

appropriately to ensure that the amounts in the non-drawal bank accounts earn the maximum possible interest.

(Para 505)

Contingencies Reserve – To make required appropriations in the Accounts for FY 2001-02:

32. The Commission direct APCPDCL that in so far as a special appropriation towards Contingencies Reserve has been made in the Revenue Requirement calculations for FY 2001-02, it is mandatory to provide for Contingencies Reserve in the accounts for FY 2001-02 and comply with the requirement of the Sixth Schedule that the sums appropriated to the Contingencies Reserve shall be invested in securities authorised under the Indian Trusts Act, 1882 and such investment shall be made within a period of six months of the close of the year of account in which such appropriation is made.

(Para 507)

Revenue Estimation Methodology

33. The DISCOMS shall abandon the methodology of computing revenue based on average realization by next ERC filing. In lieu of this, the DISCOMS shall use the sales database to derive the revenue from sales of electricity and revenue because of minimum charges. The DISCOMS by October, 2002 shall demonstrate to the satisfaction of the Commission that the revenue is estimated straight by applying the tariffs and other yardsticks derived from databases. The Commission will review the efforts by DISCOMS in this direction from time to time.

(Para 522)

Local Bodies and Public Lighting: Sales Volumes

34. 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 September 2002. For next ERC filing, the DISCOMS shall be in a position to file the MU sales to each sub category of consumers within this category

(Para 524)

Annexure 'B'

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 has sought waiver to file audited accounts for FY 2000-01. Licensee clarified that audit is in progress.	Licensee is directed to submit Audited Accounts for all years upto FY 2000-01 latest by end of September 2002.
2.	Section 3.4.1	The Licensee has sought waiver to estimate figures for the current 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.
3.	Form 1.1a, 1.1b.	Licensee has sought waiver for providing information regarding Voltage-wise break up 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 to ensure that the deficiencies in the accounting and information systems are rectified latest by end of June 2002 and file a compliance report by 15.07.2002.
4	Form 4.4 to 4.8	Modifying the Forms DISCOM wise data instead of voltage class wise data as given in the guidelines	Waiver granted for this filing only
5	Form 4.5	Submitting Marginal Cost Study	Waiver granted for this filing only
6	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
7	Form 4.7	Cross subsidy statement with Marginal cost revenues	Waiver granted for this filing only

DISCOMS

S. No	DISCOM	Reference	Waiver sought	Commission's decision
1.	ALL DISCOMS	Section 2.1.4	DISCOMS have sought the waiver with regard to audited accounts for the financial year ended March 31, 2001.	Licensee is directed to submit Audited Accounts for all years upto FY 2000-01 latest by end of September 2002.
	ALL DISCOMS	Section 2.1.4	DISCOMs have sought waiver to estimate figures for the current 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 as audited accounts for FY 2000-01 are not available.	Waiver approved for this filing only
2.	ALL DISCOMS	Form 1.1a,1.1b	DISCOMs have sought waiver from providing fixed assets break up by voltage as voltage-wise classification of assets is not available.	Waiver granted for this filing. For the next filing data will have to be provided. Progress in this direction to be submitted quarterly on 30-6-2002, 30-9-2002 and 31-12-2002.

Annexure 'C'

SCHEDULE OF RETAIL TARIFF RATES AND TERMS & CONDITIONS IN RESPECT OF THE FOUR DISCOMS FOR FY - 2002-03

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 optional category under LT III(B).

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, Theaters, 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 organisation come under this category.

A) DEMAND CHARGES

Per KVA of Billing Demand .. **Rs.195** per KVA per month

PLUS

B) ENERGY CHARGES

For all units consumed during the month .. **371** 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

Notes:

1) Incentive

a) The following non-telescopic incentives are applicable for these consumers:

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%

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, 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 .. **450** Paise per unit
During the month

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 Theaters devoted purely for purpose of propagation of art and cultural activities and are not let out with a profit motive and in respect of 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	.. **178 paise/unit**
	Subject to the minimum of **Rs.300/HP/Year** of Contracted Load
FSA will be extra as applicable	

H.T. Category-IV (B)- AGRICULTURAL

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 conditions of supply.

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 ..**460** 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 -- **10%** of total connected load
Street Lighting put together

Non-Domestic/ Commercial and -- **10%** of total connected load
General Purpose put together

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 2200000 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 TRANSCO 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 CHARGES:

An amount of Rs.0.50 / unit for the energy wheeled in cash and compensation in kind for system losses of 28.4% for using Andhra Pradesh network (APTRANSCO and / or DISCOMS)

(13). The Tariffs are exclusive of Electricity charges payable as per the provisions of 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).

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 except the optional category LT-III (B).

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
101-200 Units/month	305
201-300 Units/month	475
Above 300 Units/month	550
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 complex.

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

This will be applicable upto 56KW.

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 100 Units /month	.. **395 Paise** per Unit
Above 100 Units/ month	.. **700 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 sided 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:

For all units consumed/Month - **385** Paise per unit

(a) Fixed Charges - **Rs.37** per HP per month on connected load
(b) Demand charges for optional two part tariff - Rs.100/kVA per month on contracted demand

Tariff for Pisciculture and Prawn culture units with - **125 Ps/Kwh**
Connected Load below 10HP

Sugar cane crushing - **50 paise/kwh**

<u>Note:</u> Consumers with connected load between 50 and 75 HP can opt for a two part tariff.

FSA will be extra as applicable

<u>NOTE :</u>

(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 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 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.

L.T. CATEGORY - III(B) - INDUSTRIAL - OPTIONAL CATEGORY

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**.

Demand Charges - **Rs.100/kVA/Month** of Contracted demand

FSA will be extra as applicable.

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 Category III(A), optional & III(B)

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 Category -III(B) also.

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.

<u>L.T. CATEGORY – V(A) – Agricultural</u>

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 125 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 for his pumping system.

   (i) Friction less foot valve
   (ii) HDPE piping suction and delivery
   (iii) ISI marked monobloc pumpset.
   (iv) Capacitor of adequate rating for the pumpset.

   This discount would be continued for a period up to 31st March 2005.

L.T. CATEGORY-VI

Applicable for supply of energy for lighting on public roads, streets, thoroughfares including parks, markets, cart-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. PWS Schemes:

Minor Panchayats	Metered agriculture Tariff 35 paise/ kwh
Major Panchayats	Metered agriculture Tariff 35 paise/ kwh

Nagarpalikas & Municipalities		Energy charges	Fixed charges
Municipalities Gr.3:			
Upto 1000 Units		**375 Paise/Unit**	
Balance Units	..	**405 Paise/Unit**	
Municipalities Grade 1 & 2:			
Upto 1000 Units		**375 Paise/Unit**	
Balance Units	..	**405 Paise/Unit**	
Municipalities Selection Spl.Gr.	**..**		**Rs. 20/HP/ Month of Contracted Load subject To a minimum of 5 HP.**
Upto 1000 units		**375 Paise /Unit**	
Balance Units	..	40**5 Paise/Unit**	
Municipal Corporations:			
Upto 1000 Units	..	**405 Paise/Unit**	
Balance Units	..	**4 60Paise/Unit**	

FSA will be extra as applicable

Notes (Street Lighting):

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. Where however, 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 of Government Educational Institutions, 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.

L.T. CATEGORY-VIII - L.T. Temporary supply

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) services.

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 and if the connected load of the consumer is found to be in excess of his contracted load, the provisions of Terms and Conditions of supply 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 charges payable as per the provisions of 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. Tariff 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 provided a Fuseman/Wireman can be spared for such work	Rs.100/- for each day or part thereof.

(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 Clause 39.7.2 of the 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

a) Other than welding transformers

Every L.T. Consumer using induction motors shall install L.T. Shunt Capacitors of specified rating as given below:

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

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

Sl.No	Rating of Welding Transformer In KVA	Rating of Capacitor in KVAR
14	14	11
15	15	12
16	16	12
17	17	13
18	18	14
19	19	15
20	20	15
21	21	16
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 such 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, the consumer shall attract penal provisions as per conditions of supply

2. Low Power factor surcharge is not applicable for the consumers under the flat rate tariff. Instead, these consumers are required to install L.T.Shunt Capacitors of specified rating as indicated in these Tariffs annexed , failing which they are liable to pay capacitor surcharge at the rates indicated in Part-'D'. In case the L.T.shunt capacitors of specified rating are not installed within one month period from date of notice after detection, without prejudice to right of the Licensee to collect surcharge and without prejudice to such other rights having accrued to the Licensee or any other right of the Licensee, the supply to the consumer may be discontinued. The consumer attracts the penal provision as per the conditions of supply.

3. In case the rated capacity of the 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.