



**ANDHRA PRADESH  
ELECTRICITY REGULATORY COMMISSION**

**TARIFF ORDER**

on

Distribution Business for the period 2006-07 to 2008-09  
and

Retail Supply Business for the FY 2006-07

of

CENTRAL POWER DISTRIBUTION COMPANY OF A P LTD

EASTERN POWER DISTRIBUTION COMPANY OF A P LTD

NORTHERN POWER DISTRIBUTION COMPANY OF A P LTD

and

SOUTHERN POWER DISTRIBUTION COMPANY OF A P LTD

**23<sup>rd</sup> March 2006**

Singareni Bhavan, Red Hills, Lakdi-ka-pool  
Hyderabad - 04

## PREFACE

The Tariff Order for FY 2006-07 is the first Multi-year Tariff (MYT) Order for the four Distribution Companies of Andhra Pradesh namely for APCPDCL, APEPDCL, APNPDCL and APSPDCL. In accordance with Regulation No.4 of 2005 the Commission has determined the Aggregate Revenue Requirement for the Distribution Business of each Company and has fixed the Wheeling Charges for FY 2006-07, 2007-08 and 2008-09 - the first Control Period. The Aggregate Revenue Requirement for the Retail Supply Business has been determined separately for each company and the Retail Tariffs have been fixed for each consumer category for FY2006-07 after estimating the costs attributable to that category and adjusting to the subsidy provided by GoAP.

The Order is however, a common Order for the four Distribution Companies. This format has been preferred as against issuing four separate Orders only to make it easier for readers accustomed to the prevailing practice of a Common Order. There are other advantages in a Common Order. Many of the problems of the power sector are common to the entire State as reflected in the issues raised at the public hearings for each DISCOM and the Commissions' response is but uniform. To conform with Section 62 of the Electricity Act, 2003 and Regulation No. 4 the Commission has within the common Order maintained the separate identities of network business and the Retail Supply Business.

To facilitate easy reading, the Order is structured to cover common issues relating to the filings raised by the public and of methodology in the beginning followed by the operative portion relating to the Distribution business and thereafter for the Retail Supply business.

Chapters II to VII cover all common aspects related to the Filings which include Legal and other issues raised during the hearings, Staff presentation and Licensees' response, Statement of GoAP and Commission's analysis of these issues. The next set of Chapters (VIII to X) outline the methodological aspects that went into the analysis of the filings and cover MYT concepts, broad parameters for analyzing the revenue requirement of the two businesses and the tariff design for wheeling charges and fixing of retail tariffs.

Chapters XI, XII, XIII, and XIV deal completely with the revenue requirement of the Distribution business and admitted by the Commission. Each chapter ends with the wheeling charges that the DISCOM is permitted to levy for use of his network business. The last four chapters (Chapters XV to XVIII) are entirely on the retail supply business and fixing of retail tariffs that a DISCOM is permitted to charge for supply of electricity to a consumer category in his licensed area. Annexures, which provide details of the calculations adopted by the Commission relevant to the operative portions of the DISCOMs, are given at the end of the Order.

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**ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION  
Hyderabad**

Present

**Sri. K. Swaminathan, Chairman  
Sri. K. Sreerama Murthy, Member  
Sri. Surinder Pal, Member**

**Dated: 23-03-2006**

**O.P No.2 of 2006**

Central Power Distribution Company  
of Andhra Pradesh Limited

and

**O.P No. 3 of 2006**

Eastern Power Distribution Company  
of Andhra Pradesh Limited

and

**O.P No. 4 of 2006**

Northern Power Distribution Company  
of Andhra Pradesh Limited

and

**O.P No. 5 of 2006**

Southern Power Distribution Company  
of Andhra Pradesh Limited

...Applicants

These came up for public hearings before several consumers, the representatives of various consumer organizations, political parties and other stakeholders, on 16.02.2006 at Karimnagar (O.P.No.4 of 2006), on 18.02.2006 at Rajahmundry (O.P.No.3 of 2006), on 20.02.2006 at Nellore (O.P.No.5 of 2006) and on 22.02.2006 at Kurnool (O.P.No.2 of 2006), and having stood over for consideration till this day, the Commission passed the following common

**O R D E R**

## CHAPTER - I

### INTRODUCTION

1. The Electricity Act 2003 (Act 36 of 2003), hereinafter called "the Central Act", came into force with effect from 10-06-2003. While the previous Acts governing the electricity supply in the country Viz., the Indian Electricity Act 1910 (9 of 1910), the Electricity (Supply) Act 1948 (54 of 1948), and the Electricity Regulatory Commissions Act 1998 (14 of 1998) stand repealed as on the date of this order, the provisions of A.P. Electricity Reform Act 1998 (hereinafter called 'the Reform Act'), not inconsistent with the provisions of the Central Act, continue to apply to the State of Andhra Pradesh (A.P.).
2. The four Distribution Companies (hereinafter referred to as the 'distribution licensees' or 'DISCOMs') namely, the Eastern Power Distribution Company of A.P Limited (hereinafter, 'APEPDCL' or 'EPDCL'), the Central Power Distribution Company of A.P Limited (APCPDCL / CPDCL), the Northern Power Distribution Company of A.P Limited (APNPDCL / NPDCL), and the Southern Power Distribution Company of A.P Limited (APSPDCL / SPDCL), are the holders of Distribution and Retail Supply Licences (Licences No.12/2000, 13/2000, 14/2000 and 15/2000, respectively) to carry out the distribution business and the retail supply businesses in their respective areas of Andhra Pradesh for a period of 30 years from 01-04-2001.
3. (a). Each licensee is obliged to file, in terms of Sections 62 and 64 of the Central Act, read with Andhra Pradesh Electricity Regulatory Commission (Conduct of Business) Regulations 1999 as adopted by the Andhra Pradesh Electricity Regulatory Commission (Transitory provisions for Determination of Tariff) Regulation 2004 (No.9 of 2004), the Guidelines for Revenue and Tariff Filings framed by the Commission and the provisions of the licence, its calculations related to each licenced 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 and the application for tariffs for the ensuing financial year.

4. (b). From the year 2006-07 onwards, the Commission has decided to go in for a multi-year tariff framework and accordingly notified, on 14.11.2005, the APERC (Terms and Conditions for Determination of Tariff for Wheeling and Retail Sale of Electricity) Regulation, 2005 (Regulation No.4 of 2005) (hereinafter referred to as the “W&RST Regulation”). Under this Regulation, each distribution licensee has to make the filings, as hitherto, but in respect of the distribution business, for a control period, generally, of 5 years, the first control period, however being of a 3-year duration (2006-07 to 2008-09). The filings for the retail supply business shall, however, be on annual basis, for the first control period and thereafter for the entire Control Period for the subsequent control periods.
5. Each of the four Distribution Companies submitted its filings for its Aggregate Revenue Requirement (ARR) and / application for Tariffs for distribution and retail supply businesses on 31.12.2005. While the filings for determination of tariff for wheeling of electricity (distribution business) were for the entire 3-year control period, 2006-07 to 2008-09, the filings in respect of the retail supply tariffs were only for 2006-07, as provided for in the Regulation.
6. The Commission has to determine the tariffs for wheeling of electricity (hereinafter referred to as the ‘wheeling charges’) for each year of the Control Period 2006-07 to 2008-09 and the retail supply of electricity (hereinafter the ‘Retail Supply Tariff’ or ‘RST’) for FY 2006-07, based on the filings of the DISCOMs and considering the objections/suggestions received/heard from general public and all other stakeholders, on those filings.
7. Under section 61 of the Electricity Act, 2003, while specifying the terms and

conditions for determination of tariff, the Commission has to be guided inter-alia by the provisions of clauses (a) to (i) thereof. One of these provisions refers to the Tariff Policy to be notified by the Central Government. Tariff Policy has been notified very recently, on the 6<sup>th</sup> of January 2006, after the notification by the Commission of the aforementioned W&RST Regulation on 14.11.2005 and after the submission of their ARR filings and applications for tariff by the 4 DISCOMs on 31.12.2005. Certain follow-up actions like, approach to 'distribution margin', rates of depreciation, development of operating norms, etc., for the guidance of State Commissions are yet to be taken by CERC and / or Forum of Regulators. Nevertheless, the Commission in determination of tariffs and in issuing this Order has paid due regard, to the extent possible, to the Tariff Policy. The Commission will be taking further actions required of it under the Tariff Policy in due course of time.

## **CHAPTER - II**

### **FILING OF ARR / TARIFF PROPOSALS**

8. Each of the four Distribution Companies viz., APCPDCL, APEPDCL, APNPDCCL and APSPDCL the Distribution and Retail Supply Licensees (hereinafter referred to as the 'DISCOMs'), filed their Expected revenue from existing charges (ERC), Aggregate Revenue Requirement (ARR), and tariff proposals for carrying out the Distribution business for the control period, 2006-07 to 2008-09, and Retail Supply Business for FY 2006-07. These filings were taken on record.

#### **Notification calling for objections/suggestions**

9. The DISCOMs were directed to serve public notices through publication on, 04.01.2006, in at least two daily newspapers in English and two in Telugu having circulation in their respective areas informing the general public that they had filed their respective ARR and Tariff proposals for the first control period 2006-07 to 2008-09 in respect of their distribution business, and for FY 2006-07 in respect of retail sale of electricity, with the Andhra Pradesh Electricity Regulatory Commission, (hereinafter referred to as "the Commission" or "APERC"), and that copies of the filings (together with supporting materials) were available in the offices of the Chief General Manager, RAC, of the DISCOMs with headquarters at Hyderabad (APCPDCL - O.P.No.2 of 2006), Visakhapatnam (APEPDCL - O.P.No.3 of 2006) Warangal (APNPDCCL - O.P.No.4 of 2006) and Tirupathi (APSPDCL - O.P.No.5 of 2006) and all Superintending Engineers incharge of Operation Circles, for inspection/perusal/purchase by interested persons and that objections/suggestions can be filed on these proposals with the Secretary, APERC, by 01.02.2006.

### **Objections/suggestions received**

10. Following the public notice, 174 persons / organisations sent their objections/suggestions to Secretary, APERC, on the ARR/Tariff proposals of DISCOMs by due date i.e. 01.02.2006 and another 20 thereafter, raising the number of those responding to 194.
11. The Commission directed the DISCOMs vide its letter dated 21-01-2006 to send replies to all the public objections by 07-02-2006 and also supply a copy of the same to the objector by the same date.
12. Notice of public hearings on 16<sup>th</sup>, 18<sup>th</sup>, 20<sup>th</sup> and 22<sup>nd</sup> February 2006 as follows was given to the four DISCOMs and the GoAP:

**Table 1: Programme of Public Hearings on Arr/Tariff Filings by Licensees**

<b>Date</b>	<b>Place of hearing</b>	<b>Time</b>	<b>Venue</b>	<b>Licensee (s) on whose filings the hearings were scheduled</b>
16.02.2006	Karimnagar	10.30 a.m. to 1.30 p.m. and 2.30 p.m. to 5.00 p.m.	Z.P.Hall, Karimnagar	APNPDCL
18.02.2006	Rajahmundry	10.30 a.m. to 1.30 p.m. and 2.30 p.m. to 5.00 p.m.	Anam Kala Kendram, Rajahmundry	APEPDCL
20.02.2006	Nellore	9.30 a.m. to 1.30 p.m. and 2.30 p.m. to 5.00 p.m.	Town Hall, Nellore	APSPDCL
22.02.2006	Kurnool	10.30 a.m. to 1.30 p.m. and 2.30 p.m. to 5.00 p.m.	Punnami Function Hall, A.P.Tourism Department, Kurnool	APCPDCL

13. All persons who had expressed their desire to be heard in person were also intimated in writing the dates on which they would be heard. General public were also informed of the dates of public hearings on 15.01.2006 through a press release. At the hearings, some persons / organizations who had not

earlier requested for being heard in person, were also accommodated.

14. The Licensee-wise break-up of objections received and, the number of objectors desiring to be heard in person are indicated hereunder:

**Table 2: Number of Objections / Suggestions Received on ARR / Tariff Filings**

Name of the Licensees	Number of		
	Objections received	Objectors desiring to be heard	Objectors actually attended the hearing
APCPDCL	40	34	23
APNPDCL	21	17	11
APEPDCL	31	26	19
APSPDCL	102	87	38
<b>Total</b>	<b>194</b>	<b>164</b>	<b>91</b>

### **Hearings**

15. During the hearings,

- (i). the licensees made brief opening presentations at the commencement of the public hearings on their respective filings;
- (ii). then, the Commission heard all the objectors desiring to be heard in person;
- (iii). next, the Staff of the Commission made presentations on the issues and concerns relating to the filings of respective licensees; and
- (iv). the respective licensees responded on the issues raised by the objectors during the hearing and to the presentations made by the Commission Staff, as directed by the Commission.

16. The Joint Secretary, Energy, Government of Andhra Pradesh (GoAP), standing in for the Special Chief Secretary, Energy, GoAP, made a statement

before the Commission during the Hearing on 16.02.2006 expressing the views of Government on the accomplishments of the power sector since introduction of the reforms, Government's commitment towards free power supply to agricultural consumers while simultaneously promoting demand side management (DSM) measures, rationalization of tariffs for HT industrial consumers and Government's commitment to provide required financial assistance to the sector including subsidy.

17. Many important issues relating to the ARR/Tariff proposals of Licensees were discussed in the State Advisory Committee (SAC) meeting held on 04.03.2006 and suggestions made by the members of SAC have been taken into consideration by the Commission while finalising the Tariff Order.

## CHAPTER - III

### REVIEW OF TARIFF FILINGS - FY2005-06

18. The Commission approved Tariffs for FY 2005-06 on 22.03.2005. To manage change on account of: i) the impending exit of APTRANSCO from trading activity from June 2005; ii) introduction of Open Access from September 2005; and iii) also the introduction of the Multi-year tariff principles from FY 2006-07 was the main focus of the Tariff Order for FY 2005-06. Introduction of these measures meant that the power sector in Andhra Pradesh would be undergoing a rapid transformation. The draft Tariff Policy of the Government of India (GoI) which had been released in February of 2005 had hinted at changes in the design of the tariff structure that ERCs would be required to implement. In this environment of impending change, the Tariff Order for FY 2005-06 concentrated on strengthening the functioning of the Licensees by introducing measures appropriate to Open Access and competition without losing sight of the need to ensure financial viability of the Licensees without delivering a rate-shock to the consumers, especially those from the vulnerable sections of the public.
19. APTRANSCO and the DISCOMs filed their ARR/ERC and FPT on 30.11.2004 in respect of their licensed business. On 07.02.2005, they submitted Addendum filings consequent to the new Agricultural Power Supply Policy announced by the Government of Andhra Pradesh (GoAP).
20. APTRANSCO's application for tariff filings was for the recovery of an estimated ARR of Rs.9601.28 Crores through: i) Bulk Supply Tariffs; ii) Transmission charges; and iii) State Load Despatch Centre (SLDC) charges. The DISCOMs' filings were for recovery of the ARRs of Rs.4914.60 Crores for APCPDCL, Rs.2058.72 Crores for APEPDCL, Rs.1592.28 Crores for APNPDCL and Rs.2594.03 Crores for APSPDCL totaling Rs.11159.63 Crores for all the four DISCOMs taken together. The proposed tariffs left an uncovered revenue gap of Rs.2396.30 Crores.

21. Against the total revenue requirement of Rs.11159.63 Crores (net of non-tariff income of Rs.652.72 Crores) the Commission admitted Rs.10481.90 Crores (net of non-tariff income of Rs.651.73 Crores and efficiency gains of Rs.125 Crores) leaving a gap of Rs.1599.48 Crores to be covered on the basis of fully allocated costs.
22. The GoAP gave directions to reduce the tariff of certain categories (domestic, cottage industries, local bodies, LT agriculture, RESCOs, HT agriculture, sugarcane crushing and aqua-culture) and agreed to provide an amount of Rs.1599.48 Crores as subsidy.
23. Estimation of network charges gains additional importance under Open Access. The Tariff Order for FY 2004-05 had laid the foundations for design of transmission and wheeling charges, but the implementation of these charges remained in abeyance on account of pending Court cases. In the filings for FY 2005-06 APTRANSCO proposed Transmission charges of Rs.66.61/kW/month, SLDC charges of Rs.4.38/kW/month for the use of its High Tension (HT) network by Open Access consumers and Bulk Supply Tariff of 197.54 paise/unit for the DISCOMs. Transmission losses were projected at 5%. The DISCOMs proposed wheeling charges for use of the Distribution system and projected losses voltage-wise. The Commission modified the charges for network usage both for Transmission and the Distribution networks.
24. The Commission fixed the Transmission tariffs at Rs.69.25/kW/Month while accepting the APTRANSCO's loss projection of 5% despite actual data showing loss levels as being slightly less than 5%. APTRANSCO was however, exhorted to endeavour to reach a loss level of 4.5% by year-end.
25. A major policy decision on Transmission charges taken in the Tariff Order of FY 2005-06 was the introduction of non-discriminatory tariffs between Open Access consumers availing transmission network and the DISCOMs. The DISCOMs were not however, required to pay Transmission and SLDC charges separately as the Bulk Supply tariff charged by APTRANSCO was all-inclusive.

The Order provided that as and when APTRANSCO is divested of its trading activity, the DISCOMs will have to pay the Transmission and SLDC charges as applicable to others.

26. Wheeling charges of each DISCOM were determined on the basis of the admitted revenue requirements. The Tariff Order for FY 2005-06 departed from the earlier practice; by fixing losses, voltage-wise, as another step towards relating costs to charges levied on users of the Distribution system, ensuring thereby a further move towards fair and non-discriminatory practices. The Commission would have preferred to determine wheeling charges also, voltage-wise, but was constrained by data availability.
27. On the retail tariff front, changes were initiated in the tariff design of HT-I Industrial Category by further alignment of tariffs with cost-to-serve. Of more significance, however, was the fixation of energy charges, voltage-wise, as against the earlier practice of these charges being the same for all voltage levels. Basic energy charge was reduced from Rs. 3.50/unit to i) Rs. 3.25/unit for 132 kV and above consumers, a decrease of 7.14%; ii) Rs.3.35/unit for 33 kV and above consumers, a decrease of 4.28% and iii) Rs. 3.40/unit for 11 kV and below consumers, a decrease of 2.86%. The incentive structure design was also modified. While lowering the incentive rates, the Order modified the eligibility criteria by doing away with the linkage with the consumption levels obtaining in FY 2000-01. This had tended to dampen the positive impact of the incentive scheme.
28. Apart from changes in the tariff design, the Commission also endeavored, to instill some rigour into the functioning of the Licensees in regard to execution and completion of investment schemes. In the Tariff Order for FY 2004-05, the Commission had exhorted the Licensees to complete projects on time and excluded inclusion of CWIP from the Capital Base. In furtherance of this process the Commission in the Tariff Order FY 2005-06, laid down the procedures that are required to be followed by the Licensees before capital works are allowed to be capitalized and included in the Capital Base. The concept of Physical Completion Certificates and Financial

Completion Certificates was introduced to discourage undue projections of capitalization that could inflate the capital base. Such discipline was overdue as the Commission was desirous of, and is, shifting to multi-year framework from FY 2006-07 where the filings and tariff determination are for an entire control period.

## **CHAPTER - IV**

### **IMPORTANT ISSUES RAISED IN OBJECTIONS/ SUGGESTIONS FILED AND DURING PUBLIC HEARINGS AND REPLIES BY LICENSEES**

#### **PART A - LEGAL ISSUES**

**29. Issue 1: Wheeling charges**

(a). Wheeling charges, in respect of such pre-existing wheeling agreements will continue to be the same as specified in the relevant policy of State Government and these charges are inclusive of the Transmission charges. The existing wheeling agreements are protected and cannot be varied, altered or abrogated at the instance of DISCOMs or by any purported exercise of any power of the Commission. The DISCOMs' proposals presume/suggest abrogation of all existing agreements completely, requiring fresh agreements with DISCOMs as per previous order of the Commission, which has been set aside by the Hon'ble High Court.

**DISCOMs:** The present ARR proposals are in accordance with the provisions of the Electricity Act, 2003. All the issues raised in the objections are also issues before the Hon'ble Supreme Court where the appeals are pending.

(b). The proposal for wheeling charges in the tariff of DISCOMs is contrary to the judgment of the Hon'ble High Court of A.P. setting aside the order of the APERC in respect of wheeling charges for the year 2002-03 which provided for wheeling agreements to be entered into by the DISCOMs.

**DISCOMs:** It is in the purview of APERC.

**30. Issue 2: Pending cases of PPAs with IPPs**

What is the latest position of pending cases on PPAs entered with IPPs? What action has been taken to impress the concerned courts on the urgency and importance of these matters for early disposal?

**DISCOMs:**

**GVK and SPECTRUM:**

**(i). Financial parameters:**

In matters on revision of financial parameters for computing tariff, like working capital and interest on working capital, etc., the proceedings initiated by the APERC have been stayed by the Hon'ble High Court of A.P. pursuant to the writ petitions (WPs) filed by these IPPs.

**(ii). Operating parameters:**

APTRANSCO filed petition before APERC for deletion of the alternative fuel clause in the year 2004 and it also filed petitions for revision of operating parameters, viz., station heat rate and auxiliary consumption, which are pending consideration in APERC.

**(iii). Capital cost:**

In respect of Spectrum, in 2004, APTRANSCO paid fixed charges based on reduced capital cost. The IPP obtained stay from Hon'ble High Court of AP.

**LANCO:**

**(i). Installed capacity:**

In respect of the petition filed before APERC on the Installed Capacity, the proceedings are held up on account of the issue of jurisdiction of APERC. The IPP filed W.P. in the High Court on the issue of jurisdiction while the licensee filed an appeal before the High Court on the orders of City Civil Court, which was affirmed by High Court. APTRANSCO filed an appeal in the Supreme Court and finally the issue of the jurisdiction was left to the High Court to be decided by it. The matter is pending in High Court.

**(ii). Capital cost:**

The IPP obtained stay order from the City Civil Court on the petition filed before APERC for revision of capital cost of the project (Rs.1027 Crores).

The appeal filed by APTRANSCO on the order of City Civil Court is pending in A.P.High Court. A petition is also filed before the Commission, which is pending consideration.

**(iii). Alternate fuel clause:**

A petition is filed for deletion of Naptha and LSHS as alternative fuel and same is pending in APERC.

**(iv). Liquidated damages:**

The APTRANSCO issued notice to the IPP on 14-12-2005 for recovery of Rs.95.16 Crores towards liquidated damages for delay in achieving COD of the project and adjusted an amount of Rs.46.25 Crores from the bill of November 2005. APTRANSCO/DISCOMs filed petitions before APERC regarding recovery of liquidated damages. IPP filed W.Ps in the High Court. A single judge of Hon'ble High Court suspended the letter dated 14-12-2005. The DISCOMs have filed an appeal wherein a Division Bench of the Hon'ble High Court while staying the order of the single judge, directed APTRANSCO/DISCOMs not to recover further amounts. Further, the Bench directed APERC to take up hearing on this issue.

**(v). Operating parameters:**

APTRANSCO filed petitions before APERC to revise Tariff and operating parameters like station heat rate, auxiliary consumption on par with BSES an upcoming project approved by APERC and other gas-based projects. The matter is pending consideration before APERC.

**Five gas-based projects:** Petitions filed before APERC for deletion of alternative fuel clause are being heard by the Commission.

**NCE projects:** The W.Ps filed by NCE (non-conventional energy) developers against disallowing payment for the energy in excess of 100% PLF were disposed off by the Hon'ble High Court of AP directing the NCE developers to file objections before APERC and they are filing objections, while the

licensee also filed petitions as directed earlier by the Commission.

**NCE Tariff:** The High Court disposed off the WPs filed by NCE developers, directing them to file appeals before Appellate Tribunal, which they did. The Tribunal issued the interim order (as done by the High Court earlier) to pay 50% of differential between new and old rates in addition to new rates. The hearing by Tribunal is in progress.

## PART B - OTHER ISSUES

### Responses on issues relating to all DISCOMs

#### 31. Issue 1: Return on capital employed (ROCE)

Though the DISCOMs have preferred to forgo the component of reasonable return on equity, the same may be allowed as was done during the last few years. It also needs to be examined whether the return as percentage of equity exceeds 14%, and if so, re-examine the desirability of allowing the excessive return as per the formula prescribed by the Commission.

**DISCOMs:** The Licensees have proposed to forgo the return component, but shall abide by the decision of the Commission. As per the Tariff Policy, the return fixed by CERC for transmission can be adopted by SERCs with appropriate modifications on account of higher risks for distribution licensees.

#### 32. Issue 2: Distribution losses

For 2006-07, the DISCOMs have proposed to adopt a modified methodology to compute distribution losses by excluding the EHT sales. They have projected a loss of 18.31% for 2006-07 as against 19.17% for 2005-06 (under this methodology) i.e. a reduction of only 0.86%, which seems to be inadequate considering the estimated massive investments of Rs.1418.42

Crores in 2005-06 as against Rs.937.10 Crores permitted by the Commission, and proposed investments of Rs.1808 Crores during 2006-07. The losses should be reduced by implementing HVDS schemes, by providing pole-mounted meters, etc. Hence a target of 1.5% reduction in losses may be set, with due variations for individual DISCOMs.

**DISCOMs:** Bulk of the additional investments are on policy-driven schemes for social benefits, improvement in quality of supply and for meeting the load growth. The DISCOM-wise details of investments in system improvement (SI) schemes which result in loss reduction for the Control Period as a whole are as follows:

**Table 3: Investments in System Improvement Schemes and Loss Reduction**

DISCOM	EPDCL	SPDCL	CPDCL	NPDCL
Investment in SI (Rs. Crores)	178.65	142.85	514.72	260.00
Proposed reduction in distribution losses	1.44%	1.98%	2.83%	2.93%
Incremental sales (as projected over 2005-06) (in MU)	1512	2129	4209	928

DISCOMs are taking up HVDS schemes and also several measures like energy audit, stepping up inspections, etc., to curb theft, etc.

33. Issue 3: Reduction of Tariff

The DISCOMs have proposed reduction in tariff for the HT Category I (A), I (B), II and V (Railways) resulting in loss of revenue, notwithstanding the expected additional sales growth. Is it desirable to go on reducing tariffs for HT consumers only while LT-I domestic consumers (in higher slabs) and LT-II commercial consumers continue to pay higher tariffs?

**DISCOMs:** Consequent to introduction of Open Access under the provisions of the Electricity Act, 2003, the DISCOMs are facing potential threat of the subsidizing HT consumers migrating to competitive sources of supply. The proposed reduction will largely address this threat and also protect the cross-subsidy available to the subsidized consumers.

34. Issue 4: Power purchase costs

The DISCOMs have shown the same variable cost (Rs.1.13 per kWh) for the power from APGENCO's thermal stations for the current year (2005-06) and for the ensuing year (2006-07), and thus did not take into account the impact of additional costs on account of likely import of coal by APGENCO. Similarly, gas price increases indicated by GAIL have not been taken into account. This results in underestimation of revenue gap thereby reducing the subsidy / cross-subsidy requirement and requiring adjustment through fuel surcharge from non-agricultural consumers.

**DISCOMs:** The power purchase costs are indicated on the basis of the rates claimed by generators in September 2005 bills as per the practice allowed so far. The Central generating stations have started using imported coal from 2005-06 itself and hence these costs are already reflected in the rates adopted. The current regulatory practice does not allow the costs to be claimed on the basis of future expected increase in rates. Any variations, plus or minus (+ or -), are passed on through FSA to the consumers.

35. Issue 5: Fuel surcharge adjustment - Non-backing down due to technical limits

For the 1<sup>st</sup> half year (April-September 2005), against the FSA claim of Rs.142.28 Crores, the Commission directed adjustment of Rs.179.64 Crores. The reasons for the differential of Rs.37.66 Crores are not clear from the orders. What are the divergent stands taken by DISCOMs and the Commission?

**DISCOMs:** There are some discrepancies in the Commission's order to the extent of Rs.17.01 Crores, which were requested to be adjusted in the FSA claim for 3<sup>rd</sup> quarter of 2005-06. The difference of balance amount of Rs.20.35 Crores is attributable to non-backing down of thermal stations on

account of technical limits (1<sup>st</sup> quarter:Rs.6.01 Crores; 2<sup>nd</sup> quarter : Rs.14.34 Crores).

36. **Issue 6: Renewable power purchase obligation (RPPO)**

The stipulation that the DISCOMs should purchase 0.5% of the power from wind-based projects is unwarranted since Section 86 (1) (e) of the Act mandates the obligation to purchase specified percentage from NCE projects, but not source-wise percentage.

**DISCOMs:** The Act entrusts APERC with the responsibility of promoting NCE and the DISCOMs are bound by the orders of the Commission.

37. **Issue 7: Implications of Tariff Policy notified by the Government of India**

(a) As per clause 8.3.1 of this Policy, notified by Government of India under section 3 of the Central Act, consumers using below a specified level (say 30 units / month) may receive a special support through cross-subsidy. Tariff for them to be at least 50% of average cost of supply. How many consumers will fall within this class and what will be the tariff for them for 2006-07?

**DISCOMs:** It may not be appropriate for the Licensees to speculate on tariffs for this group, having submitted the tariff proposals to the Commission on 31-12-2005, prior to the notification of the Tariff Policy on 06-01-2006.

(b) Cross-subsidy reduction trajectory

As per clause 8.3.2 of the Policy, tariffs are to be within 20% of the average cost of supply by the end of 2010-11. To what extent, the cross-subsidy will be reduced and what will be its impact on GoAP subsidy if tariffs are fixed as proposed, for 2006-07, to make up for shortfall in cross-subsidy?

**DISCOMs:** The Licensees will abide by the decision of the Commission.

(c) What will be the pre-determined level of consumption referred to in clause 8.3.4 of the Policy for agricultural category and what will be the efficient cost of service to be charged for consumption above that level?

**DISCOMs:** This is matter to be decided by the GoAP and the APERC.

(d) Methodology for computation of cross-subsidy surcharge

What will be the impact of the methodology specified in clause 8.5.1 of the Tariff Policy regarding computation of cross-subsidy surcharge on the DISCOMs?

**DISCOMs:** The Licensees will abide by the decision of the APERC.

38. Issue 8: Metering, etc. of agricultural services

As per the Electricity Act, 2003, all agricultural services should have been metered by June 2006. What are the total number of agricultural connections and the connected load?

**DISCOMs:** The Commission extended the time for fixing the meters to agricultural services upto March, 2008.

**Table 4: Number of Agriculture Connections and Connected Load**

DISCOM	Total number of connections	Total connected load
CPDCL	790526	4037614 HP
NPDCL	726470	2832701 HP

39. Issue 9: LT line losses and Agricultural consumption

(a). Estimation of LT line losses is a guesswork. By showing losses at lower level, agricultural consumption goes up. The implication of this is higher incidence of subsidy. The LT line losses projected by CPDCL (1.06%

to 6.46%, with average of 3.76%) seems to be not correct as the losses projected by NPDCL (1.85% to 13.39% with average of 7.62%). So the savings in reduction of losses shown by the Licensees on account of fixing of capacitors at 6% seem to be impractical as this would mean loss level to be nullified as per the values given by them. Therefore, it would be appropriate to assume LT line losses in the range of 10 to 14% for all the DISCOMs.

**DISCOMs:** As per the filings, it is envisaged that, the savings in consumption on account of installation of capacitors would be around 6% and not the reduction in losses as stated by the petitioner.

(b). For realistic assessment of losses, much broader representative sampling is to be taken and all the agricultural services under the DTRs chosen for sampling be metered. Only then, a fairly good indication of agricultural consumption would be possible.

**DISCOMs:** The present method based on readings from LV side of DTRs on a sample basis provides the best estimate under a situation where 100% metering is not available at the consumer level or at the DTR level.

(c). In the absence of proper assessment of distribution loss, the proposal for multi-year tariff linked to reduction in loss is unacceptable.

**DISCOMs:** Estimates for the current year and ensuing year were provided based on last 12 to 18 months' data, the trends observed in the previous years regarding the seasonal variations and the proposed initiatives to be taken up by licensees in curbing unauthorized connections.

40. Issue 10: 24-hour lighting supply to rural areas

It is a known fact that the Government of AP has directed all DISCOMs to provide 24-hour lighting supply to rural areas duly segregating agricultural feeders. But in the ARRs filed by the licensees, nothing is mentioned about it.

**DISCOMs:** The position of segregation of the feeders is as follows:

**Table 5: Position of Segregation of Agriculture Feeders**

DISCOM	Total number of rural feeders	Number segregated (*)
CPDCL	2175	2088
EPDCL	-	-
NPDCL	1993	1993
SPDCL	1581	1386

(\*) As per filings

In the filings, the Licensees have committed to provide 24-hour lighting supply to rural areas subject to the availability of energy.

41. Issue 11: Status of fixing of capacitors

(a). The licensee estimated the loss reduction in LT agricultural network on the basis of fixing of capacitors to all agricultural services. The status of fixing of capacitors to the agricultural services may be indicated.

**DISCOMs:** Status of fixing of capacitors is indicated as follows:

**Table 6: Status of Fixing of Capacitors**

DISCOM	Number of capacitors fixed
CPDCL	60812
EPDCL	16766
NPDCL	50568
SPDCL	25341

(b). The savings in frictional losses by switching over to HDPE pipes are marginal and may not be justified considering the substantial capital investment required.

**DISCOMs:** Not agreeable to the suggestion (EPDCL & NPDCL).

42. Issue 12: Quality control cells

Have quality control cells been formed?

**DISCOMs:** Quality control cell is established, to check the quality of works in respect of substations, refurbishment of transformers, etc.

43. Issue 13: Nellore Thermal Station (NTS)

NTS stands as an example of the irrationality of the merit order being adopted in the State. The total cost per unit of NTS is less than that of all IPPs, but it is forced to close down. People of Nellore are already experiencing decline in quality of power supply. Steps to be initiated to restart the station.

**DISCOMs:** In view of the guidelines of the Commission on the Merit Order dispatch, NTS cannot be considered for dispatch.

44. Issue 14: Four new gas-based IPPs

Against the availability of 57940 MU in the State, the power proposed to be procured is 53566 MU. Thus 4374 MU excess energy is available. The energy expected from these 4 plants for 2006-07 is 2047MU. Even if the new 4 IPPs are not available, there will be no problem. These four plants may not be included in the power procurement plan. Further, the gas meant for old plants is being diverted to these new plants to show that they work. The Commission to see that the gas meant for old stations is not diverted to the new plants.

**DISCOMs:** The petitioner would surely appreciate the fact that capacity addition in the sector needs to be planned based on various factors including future demand, seasonal variations in demand, system peak

demand and so on. Determination of capacity requirement based on any particular one or two years' requirement is not prudent.

45. Issue 15: LVS Mini Power Plant

Even when variable cost from LVS is Rs.2.75 per unit, APTRANSCO procured power at Rs.4.03/ unit, from Central Generating Stations during the summer of 2005. It is also learnt that PPA with LVS is redrawn to the benefit of IPP and to the detriment of the interests of consumers. Under the revised PPA, LVS is allowed 7 days' period to start power generation while such plants take less than 3 days to start generation.

**DISCOMs:** As per the order of Hon'ble Supreme Court and directions of APERC, ad-hoc agreements are drawn till the final judgment is delivered. AP Power Coordination Committee (APPCC)/Licensees are making all efforts to reduce the costs related to LVS. Pursuant to the negotiations, M/s. LVS Power Limited agreed to reduce interest on working capital from 12% to 10% during operation as well as non-operation period, to consider O&M expenses at the first year level without any escalation, and for reduction of 20% in O&M expenses during non-operation period, resulting in overall reduction of Rs.2.017 Crores in fixed costs.

46. Issue 16: Outsourcing of maintenance of substations

The experience with privatizing the maintenance of substations has shown that non-qualified persons will be handling very sensitive jobs at below-minimum wages. Given the nature of electricity, it should be seen that only qualified persons are placed at different levels.

**DISCOMs:** O&M of substations is awarded to private agencies with a condition to engage minimum ITI qualified persons as operators and also to pay wages as per the Minimum Wages Act.

47. Issue 17: Carpentry and blacksmithy

(a). Cottage Industry categorization to be allowed up to connected load of 10 HP for carpentry and blacksmithy. Welding units to be permitted under blacksmithing activity under LT Category-IV, within the connected load of 5 HP.

**DISCOMs:** LT Category-IV is a subsidised category and is expected to carry on its activity with minimum usage of machinery. Hence, high capacity load utilisation cannot be allowed.

(b). Development charges may be applied, based on the connected load and not on contracted load. Development charges should not be collected for conversion from LT Cat - II to LT Cat - IV.

**DISCOMs:** For conversion from LT Category - II, to Cottage Industry, no development charges are required.

(c). Engineering and Iron Works may be classified under LT Category - IV.

**DISCOMs:** Same reply as in (a) above.

48. Issue 18: APGENCO Issues

(a). The APGENCO filed petition (O.P.No.6/2006) before the Commission:

- (i). for admitting expenses on account of wage revision order in August 2002;
- (ii). to allow hydel incentive from 2003-04 onwards;
- (iii). to increase auxiliary consumption for VTPS; and
- (iv). to treat colony consumption at generating stations as captive consumption, which are required to be considered by the Commission.

**DISCOMs:** The Commission has admitted the said petition and the licensees will provide their views at the appropriate proceedings before the

Commission.

**(b).** APGENCO filed a petition (O.P.7/2006) before the Commission seeking approval for revised capital cost of the Srisailam left bank power house for payment of fixed charges.

**DISCOMs:** The said petition was admitted by the Commission and the Licensees will provide their views at the appropriate proceedings.

**(c).** Since the ARRs of DISCOMs for 2006-07 and subsequent years (control period) are now under consideration, adequate provisions may be made so that there are no financial constraints for the DISCOMs if the above-mentioned matters are decided in favour of APGENCO.

**DISCOMs:** Licensee will abide by the decision of the APERC on this issue.

**(d). Backing down of APGENCO thermal stations**

APGENCO stations are instructed to back down their generation and are allowed to generate at only 60% of their capacity, due to which they are made to operate inefficiently with higher auxiliary consumption, higher specific secondary fuel oil consumption and higher heat rate resulting in extra cost per unit of generation. Power is made surplus by maintaining only 6-hour supply in rural areas.

**DISCOMs:** The power purchase planned by the licensees is based on merit order dispatch. The licensees have explicitly expressed their readiness with the network to enable 24-hour lighting supply to rural areas. The licensees have planned for the same through adequate purchase of power.

**(e).** During the ensuing year, Srisailam Left Bank Power House is expected to contribute substantial power (1163.72 MU). How much of this contribution is over and above the capacity of the Right Bank Power House

that will be eligible for payment at Rs.1.16 per unit? Will the Commission allow the fixed cost of Left Bank Power House as the pump-mode operation has commenced?

**DISCOMs:** The Licensees will abide by the decision of the Commission.

49. Issue 19: SLDC Charges

SLDC charges are part of power purchase costs and hence they are to be excluded from the ARR of distribution business. If DISCOMs are required to pay SLDC charges as a liability under distribution business, the other users of distribution network also are required to pay SLDC charges.

**DISCOMs:** Load Despatch Charges are to be covered under the ARR of Distribution Licensees as per clause 11 of the Regulation No.4 of 2005. The consumers who use both Transmission and Distribution networks have to pay SLDC charges (**paragraph 690** of Tariff Order, 2005-06).

50. Issue 20: O&M expenses

The O&M expenses in LT system are much higher than in the high voltage system due to larger number of consumers and due to higher wear and tear/ maintenance requirements. Therefore, a proper weightage be applied considering these relevant well-known factors.

**DISCOMs:** The Licensees have proposed norms, which incorporate the effect of number of consumers, number of substations and length of lines. This cost is allocated based on the energy handled in the system. Therefore, the licensees believe that the effect of critical parameters is properly covered in the calculation.

51. Issue 21: Incidence of transmission losses

The proposal that transmission losses and charges are payable where “transmission network is involved between the generator and the consumer” is, vague, capable of controversy and also erroneous. It must be recognized that in all cases of wheeling, there is actually no physical movement of the

energy from the generator to the consumer, and that the energy is actually moved by displacement / substitution. All consequent and reasonable effect has to be given to this indisputable fact. It is further contended that if the generator and the consumer are under the same Distribution Licensee within its distribution network, but connected to different substations, the saving in Transmission charges and losses of the Distribution Licensee at the former substation cancels out the identical charges and losses at the latter substation. If the Generator and the consumer are under different Distribution licensees within their respective distribution networks, the Distribution licensee receiving energy from the generator saves the transmission charges and losses to that extent. Therefore, the two Distribution licensees are required to settle accounts between themselves. There is therefore no warrant or justification whatsoever in imposing or levying any transmission charges and losses upon the Generator or the consumer.

**DISCOMs:** The objector's statement “....transmission network is involved between the generator and the consumer...” is meant to differentiate it from the scenario where the generator and the consumer are in the same portion of the distribution network emanating out of a single EHT substation. In the latter case, the transmission network usage is not required which means that the transmission losses and transmission charges need not be considered. The petitioner also recognizes the same while expressing that “If the generator and the consumer are in the same portion of the distribution network emanating out of a single EHT substation. It is not disputed that the transmission charges and losses are not applicable.”

52. Issue 22: Outsourcing of top posts

The DISCOMs are outsourcing top posts like GM (HRD), GM (IT), GM (Planning), GM (Energy Audit), GM (Projects), GM (Customer Service), etc. The existing officers of DISCOM who possess required qualification (MBA) are not being considered and only outside persons are taken. These posts

require in-house knowledge for efficient performance. Hence these posts should not be outsourced in the interest of DISCOMs.

**DISCOMs:** Reforms in electricity sector have necessitated outsourcing to qualified / well-experienced persons in the light of implementation requirements of the Electricity Act 2003, Open Access, ABT, automation, IT, etc.

53. Issue 23: Inter-stores transactions

Inter-stores transactions are not being accounted for properly and the materials drawn from the stores of other circles remain unadjusted without being charged to works or the stock accounts. All such transactions need to be brought to works account or the stores stock account. The correct procedure followed in APNPDCL has been giving good results.

**DISCOMs:** The process of reconciliation of Inter-Unit accounts is in progress and is expected to be completed by May 2006. The action for write-off of Inter-Unit balances against provisions available is being taken up in the final 3<sup>rd</sup> Transfer Scheme and necessary action is being taken in following the procedure laid down in this regard.

54. Issue 24: Delayed Payment Surcharge

Delayed payment surcharge (Additional charges) works out to 25.55% per annum. The GoAP requested for reduction. In view of all-round reduction in rates of interest, the APERC may consider reduction.

**DISCOMs:** Surcharge for delayed payment is not only to recover interest cost but is also aimed at discouraging such delays.

55. Issue 25: Contingencies Reserve and its investments

The illegal provisions for the Contingencies Reserve and its investment should be withdrawn retrospectively by APTRANSCO and DISCOMs.

**DISCOMs:** Provision for Contingencies Reserve has been made for meeting contingencies as provided for in the VI Schedule to Electricity (Supply) Act, 1948. If it is not provided each year, the entire capital expenditure incurred will get loaded on to the ARR of a particular year, which will adversely affect the Transmission Tariff burdening the users.

56. **Issue 26: Energy Conservation**

Steps be taken to encourage engineers to become energy managers as per the Energy Conservation Act, 2001, and to follow efficiency norms which are mandatory.

**DISCOMs:** The DISCOMs took up measures to segregate agricultural feeders, installation of capacitor banks at substations and provided line capacitors, use of energy efficient CFLs, adoption of DSM, HVDS, etc.

57. **Issue 27: Railway Traction Tariff (CPDCL, NPDCL, SPDCL)**

**(a).** The proposed two-part tariff for HT Category V-Railway Traction, does not result in reduction of 20 paise/unit. The overall unit rate on the basis of the consumption in 2005-06 works out to 457.44 paise/unit in CPDCL and 437 paise/unit for all DISCOMs.

**DISCOMs:** The data provided by the Railways reveals that the Recorded Maximum Demand is far higher than the Contracted Maximum Demand. Thus the Railways are exceeding contracted demand, thereby putting additional strain on the system without compensating for the same. This reinforces the case for two-part tariff.

**(b).** The benefit of reduction in transmission losses from 4.97% for 2005-06 to 4.5%  $\pm$  0.3% for 2006-07 should be passed on to the Railways which spent substantial amount in PF improvement equipment, contributing to reduction in losses and cost-to-serve.

**DISCOMs:** An effective reduction of 20 paise / unit is proposed in the proposed tariffs for the ensuing year. The benefits of efficiency improvements including loss reduction will be passed on to all consumers including Railways.

(c). The cost-to-serve (CoS) for Railway Traction was Rs.2.97 / unit in 2005-06, and is Rs.2.74, Rs.2.98, and Rs.3.30, in Central, Southern, and Northern Power Distribution companies respectively for 2006-07. The increase in average cost per unit for Railway Traction even when CoS has reduced, implies that cross-subsidy is increased for Railways, which is against the provisions of the Electricity Act, 2003.

**DISCOMs:** The effective rate with normal contracted demand definitely works out to lesser tariff by 20 paise / unit. Hence, there is no increase in cross-subsidy.

#### **Responses on issues relating to APCPDCL**

58. Issue 1: Vacant posts

How many posts are vacant out of the sanctioned strength? Is there any ban on new recruitments? When will the vacant posts be filled up? What are the financial implications if all posts are filled up? Will any preference be given to the casual labour / contract workers engaged so far?

**APCPDCL:** The Licensee is filling up the vacancies as and when the need arises.

59. Issue 2: Expenditure on meter reading / billing / collection

(a). What are the actual expenses incurred per bill per month, when the meter reading/billing/collection is done by the Licensee's staff and when outsourced (including e-seva)? Are the DISCOMs considering the option of entrusting this task to Section Officers as per the practice in Tamil Nadu?

**APCPDCL:** The expenses are as follows (for bill preparation)

(a) In Hyderabad City : Rs.1.49 to Rs.1.95 per bill;

(b) In all other municipal towns: Rs.1.50 per bill;

(c) In rural areas: Rs.1.65 per bill.

Expenses for maintaining the accounts are Re.1.00 per service (plus Service Tax)

For electricity bill collection by various agencies:

- (i) E-seva / APONLINE : Rs.5.00 per transaction (Cities & urban areas);
- (ii) E-seva (rural SDPs) : Rs.2.00 per transaction
- (iii) Private collection agencies : Rs.1.00 to Rs.2.00 per transaction

In Hyderabad City, for 50% of consumer services, the work of meter reading and spot billing is being done by the departmental staff, and the balance 50% by private agencies. The collection of revenue is attended to by the departmental staff as well as by private agencies including e-Seva.

**(b). Tamil Nadu practice:**

In Tamil Nadu, single window system is followed for the last 15/20 years, which is proved successful. Meter reading, billing and collection are done at section level under the control of Section Officer and there is no separate Electricity Revenue Office (ERO). This system will result in saving of Rs.50 Crores/year for all DISCOMs put together while providing better consumer service in resolving meter reading/billing problems.

**APCPDCL:** While appreciating the suggestion, it is assured that the present system is being monitored at appropriate levels. The revenue wing functions under the overall control of Superintending Engineer at Circle level.

**60. Issue 3: Tariff for Ferro Alloys**

**(a).** The Ferro Alloys producers are facing problems to compete in market, on account of high electricity tariffs and reduction of import duty on ferro

silicon resulting in closure of the factories leading to loss of livelihood of about 1000 families dependent on the main and ancillary industries. The tariff may be reduced to 212 paise/unit.

**APCPDCL:** The licensee has proposed substantial reduction from 287 paise/unit to 255 paise/unit, which is reasonable and is significantly lower even than the energy charge component of two-part tariff applicable for HT category-I, Industry-General.

**(b).** The tariffs for HT Category I, Industrial-General have been brought down from 371 paise/unit in 2002-03 to 280 paise/unit in 2006-07. The BST is also reduced from 208.6 paise/unit in 2002-03 to 197.54 paise/unit in 2005-06. The tariff for Ferro Alloys units in Orissa is 230 paise/unit.

**APCPDCL:** The proposed reduction from 287 paise/unit to 255 paise/unit is reasonable.

**(c).** The events like power restrictions, labour unrest, terrorist threats, natural calamities, equipment breakdown, market conditions, etc. may be considered while regulating 85% annual LF. During the above periods de-ration and re-ration should be allowed with 2 weeks' notice.

**APCPDCL:** 85% LF is an inherent feature of the tariff designed for Ferro Alloys. The Licensee shall follow the GTCS approved by the Commission for de-ration / re-ration.

61. **Issue 4: Agricultural activities at Cottage Industry**

The agricultural activities of processing the seasonal agricultural products with modern machinery may be classified under Cottage Industry.

**APCPDCL:** The category classification as specified in its Tariff Orders by APERC is implemented by the Licensee.

62. Issue 5: HVDS

(a). Are there any feeders, which are already converted to HVDS, and if so, what are the savings in line losses and reduction in DTR failures?

**APCPDCL:** No specific reply by CPDCL. However, the status of HVDS implementation is provided.

(b). Statewide investment on HVDS in 2004-05 stood at Rs.379.27 Crores and during 2005-06, is expected to reach Rs.797.00 Crores, the total expenditure on this scheme during the two years adding up to Rs.1176.27 Crores. Given the claims made regarding HVDS, it is important to re-examine the whole project in the background of the experience so far. APNPDCL has mentioned certain criteria in terms of length of the line and overload on DTRs for taking up HVDS. Whether such criteria are followed by APCPDCL?

**APCPDCL:** In APCPDCL, the 11 kV agricultural feeders with line losses above 20% and DTRs having overload are being converted to HVDS in 1<sup>st</sup> phase. All 11 kV agricultural feeders in the 6 districts will be converted to HVDS in a phased manner.

63. Issue 6: NTPC - Simhadri

Important information like merit order, employee costs, etc., are not mentioned in the filings. NTPC - Simhadri plant is not mentioned in Form 1.3a for 2006-07.

**APCPDCL:** The omission of NTPC-Simhadri in Form 1.3a for 2006-07 is inadvertent. Regarding employee costs, the Regulation No.4 of 2005 requires the licensee to file composite O&M cost, which include employee costs, administration & general expenses and repair & maintenance expenditure. However, the break-up is provided in Section 4.1.1.4 of the filing.

64. Issue 7: List of defaulters

List of defaulters with more than Rs.50,000 arrears has not been filed with the ARR.

**APCPDCL:** The arrears list up to 30-09-2005 has already been posted on the website of CPDCL, [www.apcentralpower.com](http://www.apcentralpower.com). It was not included in the ARR filing due to large volume of the data.

65. Issue 8: Arrears

At the end of 2004-05, the arrears stood at Rs.1078.64 Crores and the revenue stood at 4908.15 Crores. Thus the arrears are more than one-fifth of the revenue. How the licensee is planning to collect these arrears?

**APCPDCL:** The DISCOM is making all the efforts to collect the arrears: by effecting disconnections as required, regular inspections of disconnected and bill-stopped services, implementation of RR Act as applicable, centralised collections from the Government departments / undertakings, following up with the pending court cases.

66. Issue 9: Expenditure on e-Seva Service

In spite of disallowing the expenditure on bill collection through e-Seva centers by the Commission and issuing directions to the licensee to report how the expenditure is accounted in their accounts, the licensee did not respond to the directions of the Commission.

**APCPDCL:** E-Seva service has been retained in order to provide better service to the consumers. Expenditure on e-Seva is accounted for in Schedule 10-Administration and General Expenses.

67. Issue 10: Different bill collection rates

The discrimination in different rates for collection of bills by different agencies in Kurnool city (e-seva - Rs.5, RSDF - Rs.2, private collection agents

- Re.1) should be removed and the same rate to be allowed to all agencies.

**APCPDCL:** No specific reply by DISCOM.

68. Issue 11: Tariff for LT Category-II

(a). LT Category - II consumers are levied the highest tariff, which needs to be rectified by fixing reasonable Tariff.

**APCPDCL:** The Electricity Act, 2003, and the AP Reform Act, 1998, permit the APERC to consider the need for cross-subsidy while fixing the tariff. APCPDCL follows the APERC orders.

(b). Classification of hotels and restaurants

Tourism industry is recognised as an industry, Hospitality industry is an infrastructure, being a basic and essential service industry and an integral part of Tourism industry. Hence, the hotels and restaurants irrespective of size and status, should be considered under LT category-III.

**DISCOM:** The classification of consumers is based on the purpose of use and nature of consumption as per the existing tariff orders.

69. Issue 12:

Security Deposit may be reduced by 50%. Otherwise many small-scale industries have to be closed down.

**APCPDCL:** Licensee is following the provisions of Regulation No.6 of 2004 notified by the Commission.

70. Issue 13: Tariff for IT assesses under agriculture:

The tariff of Rs.2.00 per unit (Re.1.00 for those adopting DSM measures) fixed for corporate farmers and Income Tax assesses is applicable only if meters are fixed. APCPDCL started issuing bills for the 6-month period without fixing meters, for a huge amount (Rs.11,000) for a 5HP motor,

without stating the basis on which the amount is billed.

**APCPDCL:** Where meters are not fixed, the bills for paying category-wise are issued on the basis of assessed consumption.

71. **Issue 14: Multiple Domestic connections**

To avoid billing at higher tariff in the 5-slab structure, the domestic consumers are resorting to multiple connections. The categorization should be on the basis of financial capacity of consumer which can be decided based on house tax.

**APCPDCL:** The existing 5-slab structure is telescopic and is designed to take care of paying capacities of domestic consumers. New connections are released only after inspection by field officers. Regular inspections are being conducted to identify and remove the multiple connections.

72. **Issue 15: Minimum charges during power cuts**

When power cuts are imposed, actual units consumed only should be billed for and minimum charges should not be levied.

**APCPDCL:** Minimum charges are levied as per the provision of Tariff Order and the General Terms and Conditions of Service (GTCS) approved by APERC.

73. **Issue 16: Colony tariff**

CRPF colony at Jai Jawahar Nagar, Secunderabad, is given supply under HT Category VI. The tariff of Rs.3.50 per unit for domestic consumption under HT VI is on the high side. The houses in the colony are already provided with meters. APTRANSCO did not agree for change of categorization from HT Category-VI to LT Category-I. Request for its classification under LT Category-I as per Note 4 under LT Category I-Domestic, in Part B-(LT Tariffs). The electricity duty may be exempted as per Article 287 of the

Constitution of India.

**APCPDCL:** LT single-point supply in respect of State Government / Central Government departments is considered in respect of pure residential complexes / dwelling units. HT Category-VI supply is extended to colonies / townships as per Tariff classification / conditions. Electricity duty is levied as per AP Electricity Duty Act. Exemption is given only to Central Government offices.

74. **Issue 17: Procurement of Non-conventional energy**

The power procurement projections filed by APCPDCL have not factored in some wind power units sanctioned by NEDCAP, some of which are already commissioned.

**APCPDCL:**

The procurement plan covers only the 1<sup>st</sup> year of the control period and, hence, any project expected to come up beyond that period has not been considered.

75. **Issue 18: DSM measures**

**(a).** DSM measures should not be allowed to slip and become a cause to necessitate the provision for an altogether different category for fixing tariff. Farmers can be penalized in other ways as a temporary measure till they rectify defects. Therefore, a separate categorization under DSM measures is not necessary.

**APCPDCL:** As per GoAP policy, power supply to new connections has to be extended with DSM measures only. GoAP policy on agriculture supply and the Tariff Order are being implemented.

**(b).** In Telangana and Rayalaseema areas, ground water is scarce and worse in drought years, requiring larger number of bores with increased

number of power connections. Hence categorization of such cases (exceeding 3) under different tariff is not justified.

**APCPDCL:** GoAP policy and Tariff Order are implemented.

**(c). Separate categorization for drip / sprinkler irrigation:**

Similarly in modern methods of irrigation like drip irrigation and sprinkler irrigation the number of electrical connections will be more when compared to ordinary methods of irrigation. Separate categorization with higher tariff for such connections is not justified.

**APCPDCL:** GoAP policy and Tariff Order are implemented.

### **Responses on issues relating to APNPDCL**

**76. Issue 1: Vacant posts**

How many posts are vacant out of the sanctioned strength? Is there any ban on new recruitments? When will the vacant posts be filled up? What are the financial implications if all posts are filled up? Will any preference be given to the casual labour / contract workers engaged so far?

**APNPDCL:** Total sanctioned posts are 10,620 out of which 3,408 are vacant. There is no ban on recruitment. Depending on the exigencies, the work is outsourced. The Licensee is filling up the vacancies as and when the need arises. The financial implication is Rs.25 Crores, if all the posts are filled up. In respect of Junior Lineman, preference is given to the contract workers, apprentices at the time of interview.

**77. Issue 2: Expenditure on meter reading / billing / collection**

**(a). What are the actual expenses incurred per bill per month, when the meter reading/billing/collection is done by the Licensee's staff and when outsourced (including e-seva)? Are the DISCOMs considering the option of**

entrusting this task to Section Officers as per the practice in Tamil Nadu?

**APNPDCL:** The cost of meter reading billing and collection in the DISCOM is as follows:

**Table 7: Cost of Meter Reading / Billing / Collection in APNPDCL**

	Rural	Town
Spot biling	1.55	1.35
Remuneration	1.15	1.15
Service Tax	0.28	0.26
Stationary	0.25	0.25
E-Seva expenditure	2.00	5.00
Total MBC cost per bill	<b>5.23</b>	<b>8.01</b>

The available staff strength in the DISCOM is not enough to take up the activities of metering, billing and collection.

**(b). Tamil Nadu practice:**

In Tamil Nadu single window system is followed for the last 15/20 years, which is proved successful. Meter reading, billing and collection are done at section level under the control of Section Officer and there is no separate Electricity Revenue Office (ERO). This system will result in saving of Rs.50 Crores/year for all DISCOMs put together while providing better consumer service in resolving meter reading/billing problem.

**APNPDCL:** While appreciating the suggestion, it is assured that the present system is being monitored at appropriate levels. The revenue wing functions under the overall control of Superintending Engineer at Circle level.

**78. Issue 3:**

The agricultural activities of processing the seasonal agricultural products with modern machinery may be classified under Cottage Industry.

**APNPDCL:** The handicrafts and poultry industries with less than 5 HP load are classified as cottage industries. As stated by the objector the industries with modern machinery are recognized as cottage industries if the load is less than 5 HP.

#### **Reponses on issues relating to APEPDCL**

79. Issue 1: Agriculture tariff

(a). The description of payment category of IT assessees may be replaced by IT payees.

**APEPDCL:** Present policy is good.

(b). Extend free power to all farmers except for corporate farming and IT payees.

**APEPDCL:** Licensee does not agree with the proposal. The present policy is well thought out and there is no need to change the policy.

(c). Free supply to be given even for paddy in Rabi crop as farmers lost the first crop due to heavy rains.

**APEPDCL:** Not agreeable. Such proposal would drastically deplete ground water.

(d). In Bandaru Lanka, dry lands are considered as wetlands and bills are issued.

**APEPDCL:** Command area classification to extend free power under major / minor irrigation has been done based on certification by the MRO.

80. Issue 2: Agriculture connections and power supply

(a). New connections are given under Tatkal category only.

**APEPDCL:** The contention is not correct. New service connections under Agriculture general category (free power) are also being released.

**(b).** Power supply to Agriculture should be given for 12 hours per day in a single stretch.

**APEPDCL:** System capacity would not support such a proposal. Hence, it is not possible.

**(c).** Name transfers are being delayed on grounds like division of joint family, size of landholding, etc.

**APEPDCL:** There is no delay in name transfer approvals. Specific cases may be brought to the notice of DISCOM.

**(d).** Licensee by not supplying quality and integrated power supply is necessitating repeated wetting of fields, thereby increasing the costs.

**APEPDCL:** Quality power is supplied to Agriculture sector as per the notified timings and schedules.

#### 81. Issue 3: Ferro Alloys

**(a).** The tariff for Ferro Alloys may be fixed at Rs.2.20 / unit without Demand charge and minimum charges treating Ferro Alloys as bulk consumers.

**APEPDCL:** The licensee has proposed Rs.2.55 / unit. It is for the Commission to decide.

**(b).** Ferro Alloys units may be permitted to de-rate or re-rate their contracted maximum demand with two weeks' notice.

**APEPDCL:** The licensee will follow the provisions of the Terms and Conditions of Supply approved by the Commission.

82. Issue 4: Railway Traction

(a). The benefit of lower cost-to-serve when supply is taken at high voltage should be given to railways. Cross-subsidies have to be progressively reduced as per the Electricity Act, 2003. As the railway installations are connected to EHT system of APTRANSCO and as there is no value addition by DISCOM, the tariff for railways should be closer to the power purchase price of DISCOM. Higher tariffs stand in the way of additional electrification.

**APEPDCL:** It is the Commission's prerogative to consider the issues raised and fix the tariff.

(b). Simultaneous maximum demand of the individual Traction substations, which are contiguous in nature, may be recorded and charged accordingly (Rajasthan methodology). Demand fluctuations are borne by the APTRANSCO system and not by DISCOM system as Railways are connected to the grid of APTRANSCO.

**APEPDCL:** The proposal is not acceptable.

(c). Demand charge at proposed rate of Rs.195/kVA/month seems to be very high. Differential demand tariff for peak and off-peak may be specified allowing overdrawal up to 30% of contracted demand as allowed in Tariff Orders of Orissa Electricity Regulatory Commission (OERC).

**APEPDCL:** The proposal is not acceptable.

(d). Maximum Demand overshoots on account of exigencies in the Traction system or APTRANSCO grid and hence may be ignored.

**APEPDCL:** Not agreeable.

(e). Incentive may be given for improvement in power factor above 90% as Railways have made considerable investments and provided capacitor banks

to improve the power factor.

**APEPDCL:** The licensee is not agreeable for incentive on account of higher power factor.

**(f).** Railways being a part of Government of India, Security Deposit (SD) need not be collected as there is no element of insecurity. As per Section 47 (4) of Electricity Act, 2003, interest is to be paid on the SD at Bank rate or more. In view of proposed two-part tariff, the Additional Demand required may be supplied with the existing Security Deposit.

**APEPDCL:** The distribution licensee is required to follow the Regulation governing the Security Deposits, i.e. Regulation No.6 of 2004 notified by APERC.

**(g).** Incentive may be given for early payment (within 3 days) as allowed by OERC.

**APEPDCL:** This matter is to be decided by the APERC.

**(h).** Meter rent should not be levied as there is no rationale for such levy. Yearly testing of meters may be made compulsory so that any defect in the recording system is not carried further. Literature on the technology of meters and principles utilized should be approved by Railways before installation of meter. Also meters are to be shifted from APTRANSCO substations to Traction substations.

**APEPDCL:** No meter rent is collected from consumers. DISCOM has been conducting periodical testing of energy meters pertaining to HT / EHT consumers annually. The proposal for prior approval by Railways of meter technology / principles of notification is not agreeable. The meters will be shifted on payment of shifting charges.

83. Issue 5: Incentive for off-peak consumption by HT-I consumers

The incentive rate for HT Category-I may be fixed at least at 30% on the consumption above 70% LF. Also an incentive scheme for off-peak consumption may be introduced.

**APEPDCL:** APERC to examine the issue.

84. Issue 6: Power intensive industries

Separate tariff for power intensive industries may be introduced.

**APEPDCL:** The licensee is not agreeable.

85. Issue 7: Increase in demand charges

There is steep increase of Rs.55 / kVA / month in demand charges which is neutralizing the effect of reduction in the energy charge. The demand charges may be reduced.

**APEPDCL:** All these issues were taken into account while proposing new tariffs and hence unable to agree.

86. Issue 8: Street-lighting on national highways

(a). APEPDCL has categorized the street lighting on the 4-lane national highway under LT Category-II, which is not justified. As the existing category for public lighting is applicable to only local bodies, a new category may be incorporated for highway lighting service for autonomous bodies like National Highways Authority of India (NHAI) with appropriate charges.

**APEPDCL:** Licensee is not agreeable.

(b). Such highway lighting is to be covered under LT Category VI(A) Street lighting of local bodies.

**APEPDCL:** The Commission examined the issue last year also in **paragraphs 262 to 264** of its Tariff Order for 2005-06 and finds no justification and is still of the view that the proposal is devoid of merit.

### **Responses on issues relating to APSPDCL**

87. Issue 1: Public hearings

- (a). Public hearings should be conducted in all Circles, wherever the number of petitions is sufficient say, 20, to hold a day's hearing.
- (b). The Commission should allow reasonable time for each petitioner to express his views in the public hearing.
- (c). The Commission should record all the objections howsoever frivolous they may appear to be.
- (d). Presentation on Government Subsidy may be made at all the hearings, by a senior representative of State Government, who should also respond to the issues raised by the public concerning the State Government.
- (e). Requests made earlier to allow cross-examination of licensees were denied by APERC. As the replies of licensees are evasive and as licensees are avoiding to reply to uncomfortable questions, it is necessary to allow the participants to seek clarifications on the responses given by licensee at the public hearing.

**APSPDCL:** These matters are within the purview of APERC.

88. Issue 2: DSM measures for agriculture

- (a). Capacitors should be installed with Government funds for small and marginal farmers. The pumpset manufacturers and State Government should together install ISI pumpsets by exchange of old pumpsets with new ones, collecting the balance amount. Some incentive should be offered to farmers involving only 10% of cost to the farmer.

**APSPDCL:** This is within the purview of the State Government and the APERC.

(b). There are different views on the level of savings by adopting DSM measures (30%, 6%, 3%, etc). It is desirable to make available the studies undertaken by various organizations (NEDCAP, APCOST, CIRE, GoAP) in this regard to gain confidence of the farmers.

**APSPDCL:** No specific reply

89. Issue 3: New connections - Impact of DSM measures

(a). The farmers' reluctance to adopt DSM measures is mentioned as stumbling block in release of new agricultural connections resulting in huge backlog. It is difficult to buy this argument with hardly 5% new services released. It is suspected that the authorities are reluctant to release new connections considering it as a liability. The backlog may be cleared in a time-bound manner.

**APSPDCL:** As per the present Policy, all new service connections (agriculture) are released subject to compliance with DSM measures.

(b). **Poor progress in release of new agriculture connections**

Only 618 agricultural services were released in 2005 against the target of 11,400 out of 85,305 pending applications. Only 6872 connections are released against target of 41,600 under Tatkal Scheme. How will this help control the unauthorized use by farmers?

**APSPDCL:** The delay in release of new connections is due to non-compliance with DSM measures, which is a pre-condition for release of new connections.

(c). First new connection should be given under free category to any farmer on application.

**APSPDCL:** No specific reply

90. Issue 4: Growth rate of energy consumption

The growth rate in agriculture consumption in the filings is the lowest @ 7% as against the 22% growth in all categories put together for next 3 years. Is it on the basis of savings with DSM /energy conservation measures? There is no meaning in making such a proposition, which proved wrong as per past experience.

**APSPDCL:** Expecting good monsoon, possible savings of 20% with full DSM compliance for new connections, and 6% saving with installation of capacitors by all agricultural consumers, the growth rate is estimated as 7% for next 3 years.

91. Issue 5: Other matters concerning agriculture

(a). Prohibition of paddy in Rabi season should not be applicable to Chittoor, Nellore and Prakasam districts as North-East monsoon is the main rain-bearing season for these districts. Free supply be given for Rabi crop as there is no Khariff crop.

**APSPDCL:** This is within the purview of the State Government.

(b). The agricultural connections, which are being used since 20 to 30 years have been removed without any notice. This is atrocious. Hence all these services may be restored and customer charges may be collected. Though earlier, the SPDCL advised farmers to pay customer charges, they did not pay as the services are not restored.

**APSPDCL:** If specific service connection numbers are provided, appropriate action will be taken.

(c). Action should be taken to regularize unauthorised connections, with a nominal fee.

**APSPDCL:** The licensee has taken appropriate action to regularize the unauthorised agricultural connections

**(d).** Even metering at DTRs is useful only to the extent of 49% of metered DTRs. What purpose will be served if all agricultural services are metered as per Commission's Order?

**APSPDCL:** No reply

**(e).** Brick manufacture under agriculture pumpsets

Farmers are using the water from agricultural pumpsets for manufacture of bricks in the fields when there is no crop. Licensees are levying fine up to Rs.50,000 and changing the category of such connections to LT category - II (Commercial). It is not reasonable to charge entire consumption at this tariff. Such consumers will pay for the power used for 1 to 2 hours a day for 25 days in a month from January to May (5 months).

**APSPDCL:** Use of electricity for a purpose other than for which the sanction was given is treated as unauthorised use of electricity and will be dealt with as per the provisions of the Act.

**(f).** Collection of Rs.500 / month for sugarcane crushing is irregular. Metered supply @50 paise/unit works out to only Rs. 180 per month (Rs.500 X 0.75 X 3 hours X 50 paise = Rs.6 / day).

**APSPDCL:** Sugarcane is recognized as seasonal industry, based on Tariff Order 2005 -06. Tariff is less than that for industries.

**(g).** Lift irrigation schemes in Prakasham district

Separate lines may be laid and 16 hours/day supply may be extended to the 300 lift irrigation schemes which are irrigating about 1 lakh acres in Prakasham district.

**APSPDCL:** This is within the purview of State Government. The schemes

having separate lines are given additional supply for over 7 hours with specific permission of the Government, when such additional supply is found necessary.

(h). Power should be supplied to all Government Lift Irrigation schemes (APIIC) for 16 hours a day - with meters.

**APSPDCL:** No specific reply

92. Issue 6: Agriculture tariff

(a). Charges should be collected from farmers using electricity for farmhouses in the name of agriculture connections.

**APSPDCL:** Corporate farmers/Income Tax assesses are charged @ Rs.2 per unit.

(b). Customer charges for agricultural consumers should be reduced to Rs.10 per month.

**SPDCL:** Licensee is not agreeable to the suggestion.

(c). It is not reasonable to charge farmers @ Rs.1.25 per unit when sugarcane crushing is charged @ Rs.50 paise/unit and prawn culture below 10 HP is charged at 90 paise/unit.

**APSPDCL:** This is within the purview of the APERC.

93. Issue 7:

(a). Supply to rural industries

Three-phase supply to rural areas may be given for 12 to 24 hours to help rural industries. Since 3-phase supply is restricted to 7 hours per day, the fixed charge may be reduced from Rs.37/HP/month to Rs.25/HP/month. There is also a claim to reduce fixed charges to Rs.15/HP/month and energy

charges to be reduced from Rs.3.95 to Rs.3/unit.

**APSPDCL:** In case any industrial consumer comes forward requesting for 24-hour supply, he has to bear the estimated expenditure to extend exclusive feeder. Reduction in fixed charges is not feasible.

**(b).** Prawn culture units availing supply under LT category - III (A) need not take separate connection for lighting load as per rules. But APSPDCL is insisting upon separate connections for lighting.

**APSPDCL:** When three-phase supply is extended for 4 hours in the day and 3 hours in the night for Group-A, there will be no supply in the night for other Group-B (full 7-hours are given in day time for Group-B) as per the roaster. Hence, consumers will have to take separate connections if lighting supply is required in the week when there would be no supply in the night.

**(c).** Aquaculture may be recognized as agriculture

**APSPDCL:** Government has recognized aquaculture under LT Category - III, given subsidy as in agriculture and it is charged for at 0.90 paise/unit.

94. Issue 8: Domestic consumption up to 250 watts

Domestic consumers up to 250 watts should be levied minimum charges of only Rs.35. But APSPDCL is collecting Rs.70.

**APSPDCL:** For load below 250 watts, minimum charges per month is Rs.25 and customer charges is Rs.15 per month.

95. Issue 9: Tariff for LT Category II

**(a).** LT category - II (Commercial/Non-Domestic) consumers have to pay Rs.6.25 per unit for energy in excess of 50 units, which is the highest tariff. Another slab of 51-100 units may be introduced.

**APSPDCL:** No specific reply from licensee.

**(b).** Separate category may be introduced for small businesses like cottage industries in the Industrial Sector.

**APSPDCL:** This is within the purview of the APERC.

**(c).** Minimum charges should be reduced from Rs.50 to Rs.10.

**APSPDCL:** It is not possible. However, this is in the purview of APERC.

**96. Issue 10: PWS Schemes**

As there are 5 to 7 pumping points in many Panchayats, the first slab, in respect of PWS Schemes of Minor Panchayats may be fixed at 5,000 units/month instead of 2,500 units/month, which is equally applied for both minor as well as major Panchayats in the existing tariffs.

**APSPDCL:** This will be examined by APERC.

**97. Issue 11: Religious places and private colleges**

Small as well as big temples/private colleges are treated on the same footing with equal tariff of Rs.4 per unit. A three-slab structure as follows is suggested.

Up to 50 units	-	Rs.2 per unit
51 - 100 units	-	Rs.4 per unit
above 100 units	-	Rs.6 per unit

**APSPDCL:** This is within the purview of the APERC.

**98. Issue 12: Metering, billing and collection issues**

**(a).** With the introduction of monthly billing, the customer charges are

collected @ Rs.20 per month instead of Rs.20 for 2 months. This will cause heavy burden on most of Domestic consumers who are within the 50-units slab. Hence bimonthly billing may be restored.

**APSPDCL:** Customer charges are collected @ Rs. 20 (or Rs.15) per month. In case of bimonthly billing, the customer charges are Rs.40 (or Rs.30) for 2 months.

**(b).** It is reported in the press that meter reading/billing/collection is costing Rs.8 per service (meter reading: Re.1.50, Accounting agency: Re.1.40 for preparing the bill and Rs.5 for e-Seva center). If Tamil Nadu model of conducting the billing activity under section office is adopted, there will be a saving of Rs.40 Crores.

**APSPDCL:** Suggestion to adopt Tamil Nadu model will be examined.

**(c).** Billing should not be outsourced to private agencies. Their attitude is very non-cooperative (e.g., in Nellore Town). The spot billing and bill collections are done on contract. There is no transparency. Recently, spot billing contract was awarded in Benami names in Guntur.

**APSPDCL:** As there is shortage of staff, the billing work is entrusted to private agencies.

**(d).** Payment of bills may be received at ERO counters from 9 A.M to 5 P.M. instead of up to 1 P.M.

**APSPDCL:** Collections are being received up to 02:00 P.M. due to shortage of staff.

**(e).** Meter reading/disconnection schedule may be strictly followed on specific dates without deviation.

**APSPDCL:** The consumers are divided into two groups and readings on two

dates. It is not possible to take readings at a time for all the consumers.

(f). Surcharge of Rs.50 for payment of bills with delay of even one day is causing hardship to consumers.

**APSPDCL:** It is not possible to reduce penalty from Rs.50 to Rs.10.

99. Issue 13: HVDS and RGYY Schemes

(a). Results of the study conducted on the schemes executed in the last 4 years in SPDCL are not encouraging. The data reveals that in only 25% of the cases there is significant drop in losses.

**APSPDCL:** The loss reduction depends on two factors: (i) Regularisation of unauthorised loads, and (ii). difference in size of conductor (while converting from LT to HT) and length of line.

(b). AB switches are not being provided to isolate the faulty DTRs. It is becoming a big problem due to long delays in attending to the faults by taking l/c (line-clearance) from the substation. APSPDCL took 25 days to replace the failed DTR at Dunnuru SS -2.

**APSPDCL:** To overcome delay in attending to minor repairs, AB switches are being installed for a cluster of about 5 DTRs and for spur lines.

(c). When new transformers are erected, the farmers are constructing the plinth, erecting the poles and stringing the conductor. But the contractors are getting payment for the work done by farmers. This should be stopped.

**APSPDCL:** The estimate covers the full expenses as it will be difficult to foresee where such 'sramadanam' can be expected. Instructions were issued to officers not to pay to the contractors for such contribution of help from the farmers.

**(d). Rajiv Gandhi Gruha Vidyudeekaran Yojana**

APSPDCL is expected to invest Rs.345.62 Crores in the 4-year period 2005-06 to 2008-09. The cost per household jumps from Rs.937.5 in 2005-06 to Rs.2857.14 in 2006-07. Sudden jump in one year needs to be explained.

**APSPDCL:** Further release of services includes cost of additional transformers and metering cost. Hence, the average cost has increased.

**(e). Instead of investing in HVDS, the DISCOM may invest in DSM measures and supply capacitors, foot valves, HDPE pipes and ISI motors to farmers and save 25% energy.**

**APSPDCL:** No specific reply

**100. Issue 14: Cost of maintenance of substations by private agencies**

While O&M expenses have increased by 12% and 10.4% in 2004-05 and 2005-06, respectively, the cost of maintenance of substations by private agencies increased by 38% in 2005 and 24% in 2006.

**APSPDCL:** The cost of maintenance of substations has increased as new substations are being added.

**101. Issue 15: Accidents**

The number of fatal/non-fatal accidents has come down over the years. The Human Rights Commission awarded relief of Rs.2 lakhs in case of an accident in SPCL. In the case of bus accident in Kadapa district, Rs.2 lakhs ex-gratia was given. The GoI mooted an insurance scheme under which Rs.50,000 is given in case of fatal accident and Rs.25,000 in case of serious injuries. A direction may be issued to all DISCOMs to follow uniform policy of providing reasonable relief to the victims of accidents; the APERC may formulate necessary guidelines.

**APSPDCL:** Relief is given as per existing provisions.

102. Issue 16:

The staff of the DISCOM should not be posted in their native mandal. The existing persons may be transferred immediately to ensure that justice is done to farmers.

**APSPDCL:** The suggestion is under implementation.

103. Issue 17: Standards of performance and Grievance redressal

(a). There is no mention in the filings about the Standards of Performance notified by the APERC in the A.P.Gazette dated 22-06-2004. Similarly, there is no mention of the Forum for redressal of grievances of consumers (notified by APERC in A.P.Gazette dated 06-02-2004). The filings also do not contain the data on the domestic consumers with connected load up to 250 Watts using up to 15 units/month (Rs.10 subsidy).

**APSPDCL:** No specific reply.

(b). The Adalats conducted at field level are being conducted as a routine (Mokkubadi thantu) ritual, without any result and consequently the consumers are forced to approach courts, Forum, Ombudsman, etc. No departmental action is taken to identify the cause of these problems nor are the consumers given relief.

**APSPDCL:** Departmental action is being taken against staff who are not discharging their duty as per rules and are responsible for hardship to consumers.

104. Issue 18: No co-opted Members on Forums

(a). There is no co-opted Member in the Forum for redressal of grievances

of consumers. SPDCL may be directed to appoint the co-opted Member in the Forum after inviting nominations from eligible persons.

**APSPDCL:** This is within the purview of the APERC.

**(b).** Hearings by Forum may be conducted in the district of the complainant so as to reduce the burden of expenses on the complainant. Similarly, the licensee may be asked to reimburse the expenses of successful complainants at the Forums.

**APSPDCL:** This is within the purview of the APERC.

#### 105. Issue 19: Passbooks

Passbooks are to be issued to all consumers as per Tariff Order of 2005-06. But consumers are not aware of any such passbooks.

**APSPDCL:** Started issuing passbooks to consumers other than Domestic category.

#### 106. Issue 20: Telugu language

All correspondence should be done in Telugu only. Agreements should be executed in Telugu language.

**APSPDCL:** For translation into Telugu, we have consulted Potti Sriramulu Telugu University. Reply is awaited.

#### 107. Issue 21: Shifting charges and transfer of connections

**(a).** Shifting charge of Rs.3600 is very high

**APSPDCL:** Charges are based on estimation.

(b). The connections of deceased consumers should be transferred to legal heirs on their application without any fees.

**APSPDCL:** It is in the purview of the APERC.

## CHAPTER - V

### STAFF PRESENTATION AND RESPONSE OF LICENSEES

#### PART A - STAFF PRESENTATION

108. The Commission Staff on behalf of and for the benefit of the consumers, made a presentation at the public hearings on their analysis of the tariff filings of the respective DISCOMs. The analysis covered both the Distribution business and the Retail Supply business of the Distribution Licensees.

##### **Distribution Business:**

109. The revenue requirement for the Distribution business as filed by the Licensees and as assessed by the Staff are given in the Table below:

**Table 8: Revenue Requirement for the Distribution Business for Control Period**

	As per DISCOM Filings			As per STAFF		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
APCPDCL	656.42	761.74	829.27	579.36	657.94	739.10
APEPDCL	343.96	409.34	427.77	310.51	335.24	367.67
APNPDCL	391.90	454.00	494.75	330.00	347.00	380.00
APSPDCL	558.09	638.75	720.11	400.60	423.91	455.02

- i. APCPDCL filed revenue requirement at Rs.2247.44 Crores for its distribution business for the Control Period and as per Staff analysis, the revenue requirement for CPDCL is Rs.1976.40 Crores.
- ii. APEPDCL filed revenue requirement at Rs.1181.09 cr for its distribution business for the Control Period. As per Staff analysis, the revenue requirement for EPDCL is Rs.1013.42 Crores.
- iii. APNPDCL filed revenue requirement at Rs.1341 cr for its distribution business for the Control Period. As per Staff analysis, the revenue requirement for NPDCL is Rs.1057 Crores.

iv. APSPDCL filed revenue requirement at Rs.1916.94 cr for its distribution business for the Control Period. As per Staff analysis, the revenue requirement for SPDCL is Rs.1279.53.

**Rate Base:**

110. Variations in the Rate Base between filings and the Staff estimates as shown in the tables below are on account of quants of investment, capitalization and debt-equity ratio, found as more reasonable by the Staff.

**Investments:**

**Table 9: Investments for APCPDCL for the Control Period**

APCPDCL	As per APCPDCL			As per Staff			(Rs. Crores)
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09	
1.0 Assets (1.1+1.2)	3710.90	4275.84	4777.49	3649.74	4121.85	4537.19	
1.1 Opening Balance	3194.40	3710.90	4275.84	3179.48	3649.73	4121.83	
1.2 Additions to OCFA	516.50	564.94	501.65	470.26	472.12	415.36	

**Table 10: Investments for APEPDCL for the Control Period**

APEPDCL	As per APEPDCL			As per Staff			(Rs. Crores)
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09	
1.0 Assets (1.1+1.2)	1956.39	2296.12	2573.73	1885.68	2174.36	2499.01	
1.1 Opening Balance	1645.05	1956.39	2296.12	1645.05	1885.68	2174.36	
1.2 Additions to OCFA	311.34	339.73	277.61	240.63	288.68	324.65	

**Table 11: Investments for APNPDCL for the Control Period**  
**(Rs. Crores)**

APNPDCL	As per APNPDCL			As per Staff		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
1.0 Assets (1.1+1.2)	2021.73	2378.16	2722.58	1925.73	2204.67	2529.68
1.1 Opening Balance	1753.67	2021.74	2378.16	1709.38	1925.73	2204.68
1.2 Additions to OCFA	268.06	356.42	344.42	216.35	278.94	325.00

**Table 12: Investments for APSPDCL for the Control Period**  
**(Rs. Crores)**

APSPDCL	As per APSPDCL			As per Staff		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
1.0 Assets (1.1+1.2)	2597.96	3066.84	3501.97	2484.69	2859.69	3259.69
1.1 Opening Balance	2150.79	2597.96	3066.84	2150.79	2484.69	2859.69
1.2 Additions to OCFA	447.17	468.88	435.13	333.90	375.00	400.00

The Licensees have taken a debt -equity ratio of 70:30. The Staff consider a debt-equity ratio of 75:25 as more appropriate. The Staff as against the Licensees' projection of 10% as the cost of debt has taken 9% as to be more realistic. The Staff has taken 14% Return on Equity for the Distribution business in the WACC calculations.

#### **Expenditure Items**

111. The net expenditure estimated by Staff for the control period for each of the DISCOMs is as follows:

APCPDCL: The Staff estimates for APCPDCL are Rs.439.58 Crores for FY2006-07 as against Rs. 530.41 Crores filed by the Licensee. For FY 2007-08, and 2008-09 the Staff estimates are Rs.494.02 Crores and Rs.553.10 Crores as against the filings of Rs.577.55 Crores and Rs.616.40 Crores for the respective years.

APEPDCL: The Staff estimates for APEPDCL are Rs237.24 Crores for FY 2006-07 as against Rs.281.73 Crores filed by the Licensee. For FY 2007-08, and

2008-09 the Staff estimates are Rs.250.22 Crores and Rs.267.60 Crores as against the filings of Rs.311.86 Crores and Rs.314.46 Crores for the respective years.

APNPDCL: The Staff estimates for APNPDCL are Rs.244.41 Crores for FY 2006-07 as against Rs.310.04 Crores filed by the Licensee. For FY 2007-08, and 2008-09 the Staff estimates are Rs.250.92 Crores and Rs. 265.21 Crores as against the filings of Rs.338.66 Crores and Rs.357.91 Crores for the respective years.

APSPDCL: The Staff estimates for APCPDCL are Rs.325.86 Crores for FY 2006-07 as against Rs.441.62 Crores filed by the Licensee. For FY 2007-08, and 2008-09 the Staff estimates are Rs.336.99 Crores and Rs.353.79 Crores as against the filings of Rs.547.48 Crores and Rs.625.26 Crores for the respective years.

The variations in expenditure between Staff estimates and Licensees filings are on account of: i) shifting of SLDC charges to Retail Supply business; ii) Operations & Maintenance (O&M) costs as per norms; and iii) non-allowance of provision for Advance against Depreciation.

#### **Wheeling Charges**

112. The Staff is of the opinion that wheeling charges should be levied on the basis of usage of the network and accordingly determined the charges on capacity basis. The Staff calculations of wheeling charges based on their estimated revenue requirements for the control period are compared with the wheeling charges as filed by the DISCOMs in the tables below. The wheeling charges are fixed voltage wise on the basis of contracted capacity of the users. The wheeling charges as applicable to the Retail Supply business are taken therein:

**Table 13: Wheeling Charges - APCPDCL**

APCPDCL	As per DISCOMs			As per STAFF		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
	Rs./kWh			Rs./kVA/month		
33kV	0.27	0.28	0.29	35.25	36.63	38.82
11kV	0.35	0.37	0.38	100.27	103.58	109.91
LT	0.40	0.44	0.44	142.22	146.10	155.41

**Table 14: Wheeling Charges - APEPDCL**

APEPDCL	DISCOMs			STAFF		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
	Rs./kWh			Rs./kVA/month		
33kV	0.39	0.39	0.39	11.68	11.81	12.10
11kV	0.45	0.46	0.46	58.78	59.16	60.66
LT	0.65	0.72	0.70	39.90	237.20	244.01

**Table 15: Wheeling Charges - APNPDCL**

APNPDCL	DISCOMs			STAFF		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
	Rs./kWh			Rs./kVA/month		
33kV	0.40	0.43	0.45	25.66	25.98	27.35
11kV	0.51	0.56	0.58	94.04	95.18	100.17
LT	0.69	0.77	0.81	205.09	207.45	218.24

**Table 16: Wheeling Charges - APSPDCL**

APSPDCL	DISCOMs			STAFF		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
	Rs./kWh			Rs./kVA/month		
33kV	0.36	0.38	0.39	26.19	25.76	25.90
11kV	0.53	0.55	0.58	115.17	113.06	113.82
LT	0.62	0.65	0.69	161.23	158.30	159.59

**Distribution losses:**

113. Distribution losses are to be borne in kind in addition to the wheeling charges, as follows:

**Table 17: Distribution (Wheeling) Losses**

Distribution Licensee	2006-07			2007-08			2008-09		
	33kV	11kV	LT	33kV	11kV	LT	33kV	11kV	LT
APCPDCL	4.21	6.46	8.16	4.0	6.13	7.75	3.81	5.84	7.38
APEPDCL	6.10	4.42	6.71	5.92	4.29	6.52	5.28	4.19	6.36
APNPDCL	5.45	5.83	8.67	5.18	5.55	8.24	4.92	5.27	7.83
APSPDCL	4.85	5.33	7.27	4.67	5.13	7.00	4.49	4.93	6.72

**Retail Supply Business**

114. The Revenue requirement for Retail supply business as per the W&RST Regulation has been projected for the first year of the Control Period, 2006-07. Difference in Staff estimates of the Revenue Requirement for the Retail Supply business (RSB) and the filings is on account of:

- a. Inclusion of PGCIL costs in the retail supply business as these form part of the power purchase cost. Consequently, the Staff has included Rs.84.78 Crores, Rs.32.56 Crores, Rs.32.99 Crores and Rs.44.65 Crores respectively in the ARRs for Retail Supply business of APCPDCL, APEPDCL, APNPDCL and APSPDCL;
- b. Transmission charges as per Staff calculations are included in the ARR for Retail Supply business of the respective Discom:
  - i. Rs.220.39 Crores for APCPDCL
  - ii. Rs.98.71 Crores for APEPDCL
  - iii. Rs.77.59 Crores for APNPDCL
  - iv. Rs.125.80 Crores for APSPDCL
- c. Shifting of SLDC charges from the Distribution business and their re-computation by the Staff are as follows:
  - i. SLDC charges for APCPDCL is Rs.10.44 Crores
  - ii. SLDC charges for APEPDCL is Rs.4.67 Crores

- iii. SLDC charges for APNPDCL is Rs.3.68 Crores
- iv. SLDC charges for APSPDCL is Rs.5.96 Crores
- d. HT incentive amount has been excluded from expenditure and has been treated as a deduction from sales revenue
- e. Supply margin has been provided as per the concept of 'distribution margin' of Tariff Policy. The supply margin provided by the Staff is:
  - i. Rs. 34.25 Crores for APCPDCL
  - ii. Rs.14.82 Crores for APEPDCL
  - iii. Rs.8.42 Crores for APNPDCL
  - iv. Rs.15.97 Crores for APSPDCL

The Staff estimation of the Revenue Requirement for Retail supply as against the Licenses' filings for 2006-07 are given in the table below:

**Table 18: Revenue Requirement for Retail Supply Business**

	APCPDCL		APEPDCL		APNPDCL		APSPDCL		(Rs. Crores)
	APCPDCL	Staff	APEPDCL	Staff	APNPDCL	Staff	APSPDCL	Staff	
Aggregate Revenue requirement	4446.37	4285.04	1799.13	1791.35	1713.75	1681.57	2516.49	2474.28	
Less: Non-tariff income	332.76	380.54	139.48	168.59	169.88	181.47	183.15	207.41	
Net Revenue requirement	4113.61	3904.50	1659.65	1622.76	1543.87	1500.10	2333.34	2266.87	

**Sales:**

115. The Staff examined the sales projections of the Licensees for FY2006-07 and undertook a separate exercise based on growth trend of the previous five years. Differences in Staff projections and of the Licensees are as follows:

APCPDCL projected sales at 18500 MU for FY 2006-07 and Revenue at Rs.4499.79 Crores, inclusive of HT incentive. As per the Staff, the sales is

estimated at 18301 MU and Revenue at Rs. 4686.62 Crores inclusive of HT incentive of Rs. 120 Crores.

APEPDCL projected sales at 7195.17 MU for FY 2006-07 and Revenue at Rs.1919.86 Crores, inclusive of HT incentive. As per the Staff the sales is estimated at 7406 MU and Revenue at Rs. 1975.64 Crores inclusive of HT incentive of Rs. 33.12 Crores.

APNPDCL projected sales at 6900 MU for FY 2006-07 and Revenue at Rs.1143.39 Crores, inclusive of HT incentive. As per the Staff the sales is estimated at 6908 MU and Revenue at Rs. 1145.29 Crores inclusive of HT incentive of Rs. 23.15 Crores.

APSPDCL projected sales at 10084 MU for FY 2006-07 and Revenue at Rs. 2124.33 Crores, inclusive of HT incentive. As per the Staff the sales is estimated at 10166 MU and Revenue at Rs. 2168.42 Crores inclusive of HT incentive of Rs.38.50 Crores.

## **PART B - RESPONSES OF THE LICENSEES TO THE STAFF PRESENTATION**

116. The responses of the Licensees on the Staff presentation have been uniform and largely related to the treatment of certain issues, which the licensees opine, will adversely affect their financial and operational performance.

These issues are as follows:

### **Advance Against Depreciation (AAD):**

117. The Licensees in their response have pointed out that the Staff methodology of adopting the exiting CERC rates for depreciation without corresponding AAD will result in the legitimate costs remaining uncovered to the extent of:

Rs. 84.73 Crores in respect of APCPDCL;

Rs.42.65 Crores in respect of APEPDCL;

Rs.64.69 Crores in respect of APNPDCL; and

Rs.128.66 Crores in respect of APSPDCL.

The Licensees have sought to draw attention of the Commission to clause 5.3 (c) of the Tariff Policy that specifically states that the depreciation have to be fixed afresh by CERC for generation and transmission assets and the rates so notified by CERC would also be applicable for distribution with appropriate notification or as may be evolved by Forum of Regulators in such a manner that there is no requirement of AAD. The Licensees submit that as per current Regulation of the Commission and as per existing CERC norms and the spirit of the Tariff Policy, the Commission may consider continuing with the existing CERC norms in toto. This is their preferred option to providing carrying cost on loans either raised or diverted for meeting the payment schedule on capital loans.

#### **Interest on Consumer Security Deposits**

118. The Licensees submit that if interest on Consumer Security Deposits is shown on the expense side as done by the Staff then Delayed Payments Surcharge should be included on the income side. Their approach is based on the consideration that Consumer Security Deposits are used to fund their receivables from sales of power. The Licensees also state that they have already factored the complete revenue from Delayed Payment Surcharge on receivables in the form of non-tariff income. They therefore, suggest either inclusion or deletion of the both the items.

#### **Capital Structure, Cost of Debt and Return on Capital Employed:**

119. On the issue of cost of debt, the Licensees have responded that the Staff estimate of 9% interest for the entire control period is low. The Licensees believe that while the average cost of debt at present is closer to 9%, they expect the rates to harden as the market is showing a rising trend in interest costs. Under these circumstances, the cost of debt should be taken at 10% as filed, as this rate is closer to the yield on long-term Government of India securities.

Regarding the Staff factoring 14% as cost of equity, the Licensees submit that the risks involved in the distribution business are higher and the cost of

equity at 16% will be more appropriate. They state that the Tariff Policy holds the same view.

The Licensees submit that the debt-equity ratio should be fixed at 70:30 rather than at 75:25 as proposed by the Staff as this would permit better leverage for the DISCOMs considering the higher risk profile of the distribution business.

**Provision for bad debts:**

120. The Licensees request for provision for bad debts as an allowable expenditure as filed and quote from the Tariff Policy to substantiate their claims.

**O&M norms**

121. Details have been sought on the methodology adopted by the Staff for arriving at the O&M norms, more so, since the filings provide detailed explanations on the methodology adopted by the Discoms. The Licensees in their submissions have stated that the Staff projections of O&M costs will only lead to under recovery of actual cost. They also point out that the impact of the forthcoming pay revisions has not been factored in the Staff projections. This needs to be considered. Therefore, the filed O&M norms and expenses be allowed with the provision that additional costs on account of pay revision will be allowed on the basis of actuals.

**Wheeling charges:**

122. The Discoms surmise that the Staff wheeling charges for which no methodology was indicated is based on contracted capacity. They note that under this methodology, the wheeling charges at 33 kV are lower than even the transmission charges and accordingly consider the methodology adopted in the filing as appropriate since it relates to cost causation.

**Sales and Revenue forecasts:**

123. In response to the higher sales figures indicated by the Staff, the Licensees submit that the projected Agricultural consumption for APCPDCL be

maintained at 5,938 MU which is the expected consumption for FY 2006-07 based on monthly consumption readings. The data shows that Agricultural consumption in the current Rabi season has been very high. In fact in their submission the Licensees point out that reduction in projected Agricultural consumption, which for CPDCL is even lower than actual or previous year's Tariff Order level, will result in severe loss for the Company. The Licensees have submitted the revised sales figures and concomitant change in revenue to be considered in the Order and is given below:

**Table 19: APCPDCL - Revised Sales Volume for FY 2006 -07**

(MUs)

Category	As per Filing	As per Revised Filing	As per Staff	Difference
Agriculture	5938	5938	5325	(613)
HT-I	5143	5393	5541	148
Ferro Alloys	0	300	0	(300)
HT-II	739	774	754	(20)

The total impact of these changes as per the submission of APCPDCL is an increase in revenue by Rs. 64 Crores.

**Table 20: APEPDCL - Revised Sales Volume for FY 2006 -07**

(MUs)

Category	As per Filing	As per Revised Filing	As per Staff	Difference
Agriculture	1260	1260	1199	(61)
HT-I	1556	1656	1786	130
Ferro Alloys	371	491	371	(120)
HT - II	219	249	244	(5)
Railways	405	405	429	24
RESCOs	141	141	132	(9)

The total impact of these changes as per the submission of APEPDCL is an increase in revenue by Rs. 3 Crores.

**Table 21: APNPDCL - Revised Sales Volume for FY 2006 -07**

(MUs)

Category	As per Filing	As per Revised Filing	As per Staff	Difference
HT - I	768	768	778	10
HT - II	50	50	49	-1

The Licensee submits that the filed sales and revenue only be considered.

**Table 22: APSPDCL - Revised Sales Volume for FY 2006-07**

Category	As per Filing	As per Revised Filing	As per Staff	Difference (MUs)
HT - I	1535	1605	1673	68
HT - II	169	184	174	(10)
RESCOs	223	223	163	(60)

The total impact of these changes as per the submission of APSPDCL is an increase in revenue by Rs.16 Crores.

124. This matter is discussed in the subsequent Chapters also.

## CHAPTER - VI

### STATEMENT OF GOVERNMENT OF ANDHRA PRADESH

125. The Government of Andhra Pradesh (GoAP) presented its views before the Commission during the public hearing at Karimnagar on 16<sup>th</sup> February 2006. At the outset, Sri K.Devanand, Joint Secretary to Government, Energy Department, standing in for Sri A.K.Goyal, Special Chief Secretary to Government, who could not attend the hearing personally due to being preoccupied with the ongoing State Assembly's Budget Session, highlighted some of the more important achievements of the power sector since the commencement of the reform process in the State.
126. Sri Devanand stated that since the commencement of reform programme in the sector in the State in 1998, the utilities have put in persistent efforts and have implemented over the years several structural and efficiency improvement-related measures resulting in substantial improvement in overall performance of the sector. All key sector performance indicators have shown significant improvements, notable of them being reduction in T&D losses from about 37.90% in 1999-2000 to an estimated level of about 21.36% in 2005-06. It was a matter of pride to the Government, he added, that all the utilities have recorded profit and achieved a combined profit of about Rs.57 crore during the financial year 2004-05 and the sector was rightly ranked number one by the Ministry of Power. Such exemplary performance is not possible except through consistent support from employees, general public and professional guidance from the Commission.
127. Sri Devanand noted that the year 2005-06 has witnessed a significant market development, which is expected to unveil competition in the electricity sector in the State and lead to greater electricity reach apart from competitive electricity prices for the consumers. As per the provisions of Electricity Act, 2003, GoAP has notified the Third Transfer Scheme for allocation of trading functions of APTRANSCO in favour of distribution companies. This key sector change is expected to further improve the efficiencies in the functioning of distribution companies and also result in greater advantages to consumers in the coming years. He added that GoAP

is aware of some recent changes in the regulatory environment in the State like open access, multi-year tariffs, etc. and is committed to providing strategic and policy support, as required.

128. With regard to filings made by utilities for the year 2006-07, he stated that these reflect the key objectives set by GoAP. In this connection, he expressed appreciation for the efforts put in by the utilities in ensuring supply of quality power, particularly to the agricultural consumers. He emphasized that GoAP attaches highest priority to the farm sector and to alleviate their difficulties emanating from the past successive drought years, free power supply scheme covers about 95% of total agricultural consumers in the State and for the coming year (2006-07) this scheme would continue to operate for all the existing beneficiaries. He expressed the belief that the scheme has provided and will continue to provide necessary support to farming community in the State. He also stated that GoAP is keen on promoting Demand Side Management (DSM) measures consisting of installation of capacitors, friction less foot valves, ISI mark pump sets and HDPE or RPVC piping, to promote not only efficiency in consumption of precious energy resources, but also to ensure quality power supply to farmers by reducing burn-out rates, failure of DTRs., etc.
129. Sri Devanand also stated that GoAP believes that long run economic development is sustainable through greater rural development and for this purpose 100% electrification of all the villages and rural households is critical. Towards this objective, GoAP had chalked out a laudable programme i.e. "INDIRAMMA" (Integrated Novel Development in Rural Areas and Model Municipal Areas) starting from April 1, 2006, which aims at achieving 100% saturation in areas like housing, electrification of unelectrified habitations and households, etc., in model villages and urban areas in each district. The scheme is targeted to achieve 100% electrification of all the identified habitations and households to be achieved through implementation of Rajiv Gandhi Grameen Vidyuteekaran Yojana programme (also called RGGVY). Utilities have already started working on this programme.

130. Sri Devanand mentioned that to improve quality of supply particularly to agricultural consumers, High Voltage Distribution System (HVDS) is being implemented in identified circles, which will be extended to all the circles in the coming years. This system is expected to not only reduce the line losses but also expected to substantially improve the service delivery conditions to consumers in the State. Further, the GoAP is keen to promote industrial development in the State through various measures. In this connection, he commended the efforts put in by the utilities in implementing various measures to support tariff rationalization exercise, and stated that for the financial year 2006-07, utilities have proposed tariff rationalization measures for HT category of industrial consumers, which will be a boon to the industries in the State.
131. Lauding the achievements of APGENCO, the State-owned generation company, which, he mentioned was geared up to add about 459 MW during 2006-07, Sri Devanand stated that GoAP is committed to providing necessary support to the utilities in the State to ensure that adequate capacity is available in the State to meet the demand for power from the consumers in Andhra Pradesh.
132. Sri Devanand also added that for the ensuing financial year, GoAP is committed to providing necessary financial assistance as needed by the sector, including subsidy to the utilities in accordance with the provisions of Section 65 of the Electricity Act, 2003. He specifically highlighted the fact that for the financial year 2005-06, the committed subsidy amount aggregating to Rs.1599 Crores was being released in advance each month as per the directives of the Commission.
133. Concluding, he reiterated and reassured that the support from GoAP in the pursuit of providing quality power to consumers in Andhra Pradesh at affordable prices, will continue in the coming years and power sector, being the critical backbone for economic development will continue to receive highest attention from the Government.

## CHAPTER - VII

### COMMISSION'S ANALYSIS ON SUBSTANTIVE ISSUES

#### PART A - LEGAL ISSUES

##### **Status of petitions filed by licensees on PPAs:**

134. A number of objectors expressed concern in their written responses to the filings of the licensees and during the public hearings on the pendency of a number of petitions / appeals before this Commission, the Hon'ble High Court and the Hon'ble Supreme Court. The licensees' responses on this issue are indicated at **paragraph 30**.
135. It was also argued and that the Commission was dragging its feet in respect of certain petitions filed before it. In a throw-back to the Commission's earlier observation in **paragraph 149** of the Tariff Order for FY 2003-04 that the Commission had no authority to reopen the Power Purchase Agreements (PPAs) concluded before the coming into force of the Reform Act, it was agitated that under the Central Act, read with the Mumbai High Court judgement in the Dabhol case, the Commission was vested with full powers to reopen all such PPAs. The Commission likes to point out that in dealing with petitions before it, the Commission acts as a quasi-judicial body and its decisions are also judicial in nature, appealable to the Hon'ble Appellate Tribunal for Electricity and also subject to the writ and other jurisdictions of the Hon'ble High Court and the Hon'ble Supreme Court. The Commission's very jurisdiction, has, in a number of cases, been questioned and is under challenge before the High Court and the Supreme Court. The Commission, like any other authority, while discharging its various functions has to remain within the boundaries drawn by the various statutes and the judicial pronouncements.

**Non-conventional Energy (NCE):**

136. A few of the objectors have submitted that the Commission does not have any authority while exercising its powers under section 86(1) (e) of the Electricity Act, 2003, to specify a percentage of NCE to be procured in the area of a distribution licensee. They have instead argued that the Commission's authority is limited to specifying the overall percentage of NCE without any source-wise break-up. The aforementioned provision of the Act is reproduced below:

**"86. Functions of State Commission (1) The State Commission shall discharge the following functions, namely:-**

*(e). promote cogeneration and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee*

137. The Commission is of the view that the legal provision as cited above does not prohibit the Commission from specifying source-wise percentages depending on the quantum of the resource available and the capacity it can support on a sustainable basis vis-à-vis the capacity already established. It is relevant to mention here that because of over-exploitation of the biomass resource in the State, the Commission has for the present specified that no further biomass-based power shall be purchased by the licensees than that already committed through the PPAs already entered into and consented to by the Commission.

**Wheeling agreements:**

138. A number of objectors have contended that wheeling agreements entered into prior to the coming into force of the Electricity Act, 2003, on 10<sup>th</sup> June, 2003, and in pursuance of the specific policy directions of the Government

continue to subsist since the previous order of the Commission to levy wheeling charges on the parties concerned has been set aside by the Hon'ble High Court.

139. The Commission clarifies that while it is determining, inter-alia, the tariff for wheeling of electricity in this Order, the tariffs as determined by it shall be subject to the orders of the Hon'ble Supreme Court in the appeals pending before it and orders of the Hon'ble High Court in the writ petitions pending before it.

## **PART B - OTHER SUBSTANTIVE ISSUES RAISED BY PUBLIC**

### **Public hearing:**

140. It has been pleaded, especially by those appearing before the Commission during the public hearing held at Nellore in respect of APSPDCL filings, that public hearing be conducted in all the circles wherever the number of petitioners is adequate i.e. 20 or so, adequate time should be allowed to all desiring to be heard; all objections be recorded; presence of senior representative of GoAP who should also respond to the issues raised; and the participants be allowed to cross examine the licensees, a request earlier not agreed to by the Commission.
141. At the very outset, the Commission would like to point out that it has to complete the tariff determination process within a prescribed time limit for five licensees. Obviously, therefore, it can conduct public hearings only at a limited number of places. It would be appreciated that for the Tariff Order 2005-06, it held hearings at four places after a long gap and has, this year, conducted the hearings in the circles away from the headquarters of the licensees. The idea is the consumers of as many circles / districts as possible should be made aware of, and given an opportunity to participate in, the regulatory processes of the Commission. The Commission will, nevertheless, keep the suggestion for hearings at a larger number of places in mind, while

drawing up the schedule of hearings for the next Tariff Order.

142. As regards the time allowed for expressing one's views, it has always been the endeavour of the Commission to allow each one of the participants to present his views fully. Commission however expects the consumer-participants to keep in view the Commission's own time constraints and be as brief and to the point as possible. The Commission expects them, while airing their views to confine themselves to the more important issues since their written responses are already available with the Commission.
143. As regards the presence of a government nominee at all the public hearings, the Commission had made a request to GoAP to this effect. The Joint Secretary, Energy Department, did attend the hearings at Karimnagar, Rajahmundry and Kurnool while another official represented the Government at Nellore. The Commission, however, does not accept the suggestion that the government nominee should respond to the issues raised at the public hearings since what is under examination at these hearings is the filings of the licensees.
144. Insofar as cross-examination of licensees is concerned, the Commission reiterates its earlier decision. Time permitting, however, the Commission would always request the licensees to offer clarifications on the important issues, if any, remaining unresponded.

**Availability of copies of ARR/Tariff filings:**

145. It has been requested that copies of ARR / tariff filings should be made available at all the district headquarters. The Commission accepts the request and directs that

*The Licensees shall henceforth make available copies of their ARR/Tariff filings available at all the district headquarters.*

**Hearing by Forums at district headquarters:**

146. It has been pleaded that the Forums may conduct their hearings in the district of the complainant concerned and also that the licensees may be asked to reimburse the expenses of successful complainants.
147. The Commission leaves it to the discretion of the Chairpersons of the Forums to conduct the hearings at the district headquarters or other convenient places depending upon the number of complaints relating to the district / area, etc. As to the reimbursement of expenses of successful complainants, the Licensees shall reimburse to them reasonable travelling expenses, like train/bus fare in case such complainants had to attend the hearings at stations other than the place of their electricity connection.

**Absence of Co-opted Member on Forums for Redressal of Consumer Grievances:**

148. It has been brought to the notice of the Commission that none of the Forums for redressal of grievances of consumers has a co-opted member, representing the consumer organizations, even though Licensees are required to associate such a member in terms of clause 3(4) of APERC (Establishment of Forum and Vidyut Ombudsman for redressal of grievances of consumers Regulation, 2004 (Regulation No. 1 of 2004). The Commission expresses its unhappiness that the co-opted members have not been appointed even though a period of over two years has elapsed since the notification of the aforementioned Regulation, on 06.02.2004. The Commission directs that:

*The distribution licensees will ensure that the co-opted members are in place on their respective Forums for Redressal of Grievances of Consumers by 30.09.2006 and report compliance to the Commission by 15.10.2006. In case of any specific difficulty in appointment of these members, the same may be brought to the notice of the Commission by 15<sup>th</sup> July 2006, positively.*

**Inadequate response from licensees:**

149. The Commission notes with regret that in a few cases, the response of the licensees to the issues raised by the objectors / consumer-participants is either inadequate or not to the point. For example:
150. On the issue of Metering, etc., of agricultural services (**paragraph 38**), while the EPDCL and SPDCL have not provided the number of connections and the total connected loads as desired by the objector, the EPDCL has not mentioned the date, up to which the time limit for metering of all agricultural services has been extended by the Commission; the Commission has in fact extended the time limit up to 31<sup>st</sup> March 2008 for all the DISCOMs. The Commission would also like EPDCL and SPDCL to provide information in regard to number of connections / connected load to the objector(s) concerned by 30.06.2006 under intimation to the Commission; and

**Consumer Pass-books**

151. In response to consumer-participants pointing out that passbooks had not been issued, in spite of the directive of the Commission to this effect in Tariff Order for 2005-06 (**paragraph 104**), APSPDCL has stated that it had started issuing passbooks to consumers other than those under the Domestic category. This hardly constitutes any worthwhile compliance with the Commission's directive. The Commission, therefore, directs that

*The APSPDCL in particular and the other licensees in general, shall take up the implementation of the Commission's directive to issue passbooks to all consumers in right earnest and submit a progress report thereon every 30<sup>th</sup> July and 31<sup>st</sup> January. However, it will be the consumer's responsibility to get the passbook updated at the time of meter reading / issue of the bill.*

**Procurement of non-conventional energy:**

152. The Commission notices from the power procurement projections of some of the licensees that their non-conventional energy procurement does not conform to the levels specified in the Commission's order dt:27.09.2005 on renewable power purchase obligation in O.P.No.9 of 2005. It is observed that the total NCE Power Procurement of all the four DISCOMs works out to only 3.9% as mentioned in Paragraph 274 as against 5% specified in RPPO order dated 27-09-2005. The Commission directs that the licensees concerned shall take all necessary steps to comply with their obligations under the aforementioned Order for 2006-07.

**Return on Capital Employed Vs Return on equity**

153. A number of objectors have raised questions on the RoCE approach adopted by the Commission, which, according to them, allows licensees a higher RoE than that generally admissible. The concern apparently flows from the CERC norm of allowing RoE at 14% to generation and transmission utilities (for Distribution, it has to be higher considering the risks involved). A specific reference has also been made to the RoCE computations of APTRANSCO, the transmission licensee, in its ARR filings for FY 2006-07, concluding that if the interest component is excluded therefrom, the residuary return works out to a high 20.88% on the licensee's equity. Many of the objectors have also simultaneously pleaded that the licensees should not be allowed to forgo the RoE, as proposed in their filings.

154. At the very outset, the Commission allays the apprehension of the objectors that it may indeed accept the offer of the licensees to forgo the RoE. The Commission is of the firm belief that a reasonable return is sine qua non for the health of the licensees in general and the electricity sector, in particular. The Commission has therefore duly factored the cost of equity while laying down the formula for computation of RoCE.

155. Coming to the specific instance referred to above, even after assuming the computations to be correct though full details are not available, the Commission likes to point out that the Cost of Equity (return related)

component is high in percentage terms because of the low equity base of the licensee, a GoAP-owned utility. Further, the said high return is what appears in the filings and not what is allowed by the Commission. The Commission for instance, has allowed the normative equity component as only 25% as against 30% in the licensee's filings. This, too, brings down the RoE. One pertinent fact that tends to get overlooked is that were the GoAP to augment their equity in APTRANSCO to the level of 30% allowed by CERC, the RoE as computed by the objectors would cease to look high. Also, the investments are not confined to debt and equity alone; internal accruals are often in investment business.

156. Another major factor in favour of allowing a reasonable return irrespective of the quantum of equity, is that if that be not done, the licensee will not have much interest in running his business more efficiently and providing better service to the consumer. For example, in an extreme case of a licensee with a fully debt-funded capital structure, the licensee will not be entitled to a single paisa as return. The extent of his interest in running his business efficiently can be well imagined.
157. It is indeed possible that a licensee under RoCE may at times earn a higher RoE, but it is not that the consumer gains nothing in the bargain. Some of the gains to the consumer do not however, appear in the balance sheets. The first gain to the risk is borne by the licensee, protecting the consumer from the risk of interest rates going up during the control period. On the interest aspect, the consumer also gains in another way, inasmuch as that the licensee will have a vested interest in redesigning his capital structure and would endeavour to earnestly negotiate for better borrowing term and /or go in for loan-swapping, wherever possible, to reduce his interest costs, the benefit of which will be passed to the consumers in the subsequent control period(s). The Licensee will also have a vested interest in early completion of the projects / schemes if only to get them included in his regulated rate Base at the earliest to earn him the RoE on normative basis. This too benefits the consumer.
158. Summing up, therefore, RoE is a mechanical approach assuring as it does to

the licensee a fixed return on equity and interest as per the actuals, with no incentive to him to reduce its interest costs. The RoCE approach on the other hand allows the licensee to choose own capital structure and in the MYT framework, where the costs of debt and equity are frozen upfront for the entire control period to provide inter-alia for regulatory certainty, we necessarily have to move away from the ‘actuals’ towards the ‘normative’.

159. In any case, the Commission will be revisiting the whole issue before the commencement of the next control period.

**Depreciation:**

160. The DISCOMs have in their filings claimed depreciation at the rates specified by Central Electricity Regulatory Commission (CERC) plus advance against depreciation (AAD) in accordance with the provisions of CERC Regulation dated 26<sup>th</sup> March 2004 on Terms and Conditions of Tariff. The Commission Staff on the other hand, relying upon the Tariff Policy notified by the GoI on 06.01.2006 have proposed that the licensees be allowed depreciation at the rates specified by CERC as above, but not the AAD as the Tariff Policy frowns upon the AAD being allowed.
161. While it is correct that the Tariff Policy does not favour the AAD being allowed, the conclusion arrived at by the Commission Staff is nevertheless not correct. The Tariff Policy lays down that the rates of depreciation shall be notified by CERC for generation and transmission tariffs, and that the rates so notified would also be applicable for distribution with appropriate modification as may be evolved by Forum of Regulators (FOR). These rates should, however, be such that there is “no need” for any AAD.
162. Depreciation enables a licensee to meet his obligations for repayment of loans availed for creation of long-term assets. Allowing the licensee lower rates of depreciation than those specified by CERC, i.e. without the component of AAD could leave the licensee financially distressed inasmuch as he may have to look elsewhere for additional financing to meet his

repayment liabilities. In the process, his creditworthiness could also get adversely affected. In this view of the matters, the Commission is left with two choices: one, that it adopts the existing CERC formulation in toto i.e. comprising both depreciation and AAD or, two, goes in for the erstwhile formulation prescribed by the Ministry of Power, GoI.

163. The Commission has carefully considered this issue. Considering that the CERC is yet to come up with the revised rates of depreciation for generation and transmission and the FOR also has thereafter to consider those rates for adoption for distribution as envisaged in the Tariff Policy, the Commission is of the view that no useful purpose will be served by going in for any adhoc arrangement, by now adopting the existing CERC rates (depreciation plus AAD) only to switch over later to the new CERC/FOR formulation. Accordingly, the Commission has decided to allow the DISCOMs insofar as the present control period is concerned depreciation at the MOP rates as hitherto.

**Contingencies Reserve:**

164. The Contingencies Reserve was created in pursuance of the provisions of the Sixth Schedule to the Electricity (Supply) Act, 1948, from the revenues of the licensees at the rate of not less than 0.25% and not more than 0.50 % of the original cost of fixed assets (OCFA) provided that such appropriations to the Reserve will cease as and when the accumulations reach 5% of OCFA. The stipulated ceiling of 5% has not been reached in case of any of the licensees in the State. The Electricity Act, 1948, was repealed by the Electricity Act, 2003, which came into force w.e.f. 10.06.2003.
165. While finalizing its W&RST Regulation (Regulation No.4 of 2005), the Commission carefully considered the continuance or otherwise of this Reserve and decided that no further contributions be made to it w.e.f. FY2006-07. Appreciating simultaneously, however, that the minimal cushion so far available to the licensees through this Reserve did serve some purpose, the Commission decided not to disband the Reserve altogether.

166. The Tariff Policy notified by the GoI on 06.01.2006 i.e. after the issue of the aforementioned W&RST Regulation on 14.11.2005, lays down that the Contingencies Reserve should be drawn up only with prior approval of the Commission and only in the event of contingency conditions specified by the Commission through Regulations. Pending issue of an appropriate Regulation, therefore, the Commission reiterates its earlier directive with a modification as regards to allowing some freedom to the licensees to go in for, if they so desire, some more remunerative investments. The Commission accordingly directs that:

*The contributions towards Contingencies Reserve must be invested in securities authorized under the Indian Trusts Act, 1882, within a period of six months from the close of the year of account in which the appropriation is made. Any drawal from the Reserve can be made only to meet the emergent expenditure required to restore the system after damage caused by natural calamities, fire accidents, etc. Such drawals should be reported to the Commission within 15 days with details of the damage to the system.*

*Should the licensee, however, desire to invest the accumulations in the Reserve in securities / investments other than those authorized under the Indian Trusts Act, it must seek prior approval of the Commission indicating inter-alia the securities/instruments in which they propose to invest the funds and the investment ratings of those securities / investments from at least two reputed rating agencies.*

#### **Costing of power generated from SSLBPH:**

167. APGENCO, a State-owned generating company, has requested the Commission to consider Srisailam Left Bank Power House (SSLBPH) as an integral part of its composite PPA with DISCOMs. APGENCO has also recently filed, on 10<sup>th</sup> February, 2006, an application for determination of Tariffs for its power stations (including SSLBPH) which is yet to be taken on record. Considering, however, the proceedings having already been initiated on the

filings of the four DISCOMs and pending disposal of APGENCO's application, the Commission decides that the payment for the power generated from SSLBPH will continue to be made as per the methodology specified in **paragraphs 475 to 477** of Tariff Order 2004-05 and reiterated in **paragraph 375** of Tariff Order 2005-06.

**Backing down of APGenco's thermal generating stations:**

168. Some of the objectors have raised the issue that the Merit Order operation is causing loss of incentive to APGENCO plants.
169. It needs to be appreciated that any power purchases deviating from the Merit Order involve higher power purchase costs. It is not therefore, desirable to exempt the APGENCO stations with higher variable costs from the merit order for the sole purpose of enabling them to earn some incentive from GOI. That would only result in passing on the higher costs to the consumers through retail tariffs.

**Methodology for determination of cross-subsidy surcharge:**

170. While dwelling on the Tariff Policy notified by GoI on 06.01.06, some of the objectors have pointed out that clause 8.3 of the Policy requires the tariffs to be within 20% of the average cost of supply by the end of the year 2010 - 11 and desired to know as to, to what extent the cross-subsidy surcharge will be reduced and the impact of such reduction on the subsidy provided by GoAP.
171. The Commission, as the objectors are perhaps aware, is in pursuance of the provisions of the Tariff Policy, having another look at the issue of cross-subsidy surcharge, and has already held a consultation process. The Commission is, therefore, deciding upon the issues involved separately.

**Incidence of transmission Charges / losses**

172. Some of the objectors have pointed out that the proposal that transmission losses and charges are payable where "transmission network is involved

between the generator and the consumer" is, vague, capable of controversy and also erroneous. It is contended that if the generator and the consumer are in the same portion of the distribution network emanating out of a single EHT substation, it is not disputed that the transmission charges and losses are not applicable. However, the position is substantially no different in other cases also so far as either the generator or consumer is concerned. It must be recognized that in all such cases of wheeling, there is actually no physical movement of the energy from the generator to the consumer, and that the energy is actually moved by displacement / substitution. All consequent and reasonable effect has to be given to this indisputable fact. It is further contended that if the generator and the consumer are under the same Distribution Licensee within its distribution network, but connected to different substations, the transmission charges and losses are not incurred by the Distribution Licensee at the substation receiving electricity from the generator, but are incurred at the substation from which the consumer receives the electricity. The saving in Transmission charges and losses of the Distribution Licensee at the former substation cancels out the identical charges and losses at the latter substation. Since the Distribution Licensee is required to pay to the transmission licensee only one single charge and compensation for losses on a KW/month basis, there is no warrant or justification for any further charge or compensation for losses being imposed or levied on the generator or the consumer in respect of that quantity of power.

173. If the Generator and the consumer are under different Distribution licensees within their respective distribution networks, the Distribution licensee receiving energy from the generator saves the transmission charges and losses to that extent. The Distribution licensee which delivers the energy to the consumer requires to pay the transmission charges and losses to the transmission licensee to that extent. Therefore, the two Distribution licensees are required to settle accounts between themselves such that the Distribution Licensee receiving the energy from the Generator pays an amount equal to the transmission charges and losses for that capacity to the

Distribution Licensee delivering energy to the consumer. There is therefore no warrant or justification whatsoever in imposing or levying any transmission charges and losses upon the Generator or the consumer.

174. DISCOM's response to aforementioned is that the statement “....transmission network is involved between the generator and the consumer...” is meant to differentiate it from the scenario where the generator and the consumer are in the same portion of the distribution network emanating out of a single EHT substation. In the latter case, the transmission network usage is not required which means that the transmission losses and transmission charges need not be considered. The petitioner also recognizes the same while expressing that “If the generator and the consumer are in the same portion of the distribution network emanating out of a single EHT substation. It is not disputed that the transmission charges and losses are not applicable.”
175. After due consideration of the objection and the response of the DISCOM, the Commission is of the view that where the entry and exit points are within the same DISCOM area **no transmission charges and losses are payable** even if it involves more than one EHT sub-station. However, if entry and exit points are in more than one DISCOM, **the transmission charges and losses in kind are payable** as generally, the energy will flow through interface points, involving transmission system.

#### **Investments and Distribution losses:**

176. For 2006-07, the DISCOMs have proposed to adopt a modified methodology to compute distribution losses by excluding the EHT sales as instructed by the Commission. They have projected the losses at 18.31% for 2006-07 as against 19.17% for 2005-06 (under this methodology) i.e. a reduction of only 0.86%, which according to a number of objectors is inadequate considering the estimated massive investments of Rs. 1418.42 Crores in 2005-06 as against Rs. 937.10 Crores permitted by the Commission, and proposed investments of Rs. 1808 Crores during 2006-07. The losses should be

reduced by implementing HVDS schemes, by providing pole-mounted meters, etc. The objectors have accordingly suggested that a target of 1.5% reduction in losses may be set, with due variations for individual DISCOMs.

177. DISCOMs in their response have stated that the bulk of the additional investments is on policy - driven schemes for social benefits, improvement in quality of supply and for meeting the load growth. DISCOMs are taking up HVDS schemes and also several measures like energy audit, stepping up inspections, etc., to curb theft, etc.

178. The DISCOM-wise details of investments in system improvement (SI) schemes along with HVDS schemes which result in loss reduction for the Control Period as a whole are as follows:

**Table 23: Investments in System Improvement Schemes Including HVDS**

DISCOM	CPDCL	EPDCL	NPDCL	SPDCL
Investment in SI (Rs. Crores)	514.72	178.65	260.00	142.85
Proposed reduction in distribution losses	2.83%	1.44%	2.93%	1.98%
Incremental sales (as projected over 2005-06) (in MU)	4209	1512	928	2129
SI Schemes allowed by the Commission including HVDS (Rs. Crores)	633.00	301.81	526.00	383.38

179. The Commission agrees with the DISCOMs' opinion that investments in system improvement and HVDS schemes only will result in loss reduction. Nevertheless, the Commission has examined the loss reduction proposals of the DISCOMs and fixed the distribution loss targets at levels better than those proposed for the control period by them, based on each DISCOM's investment proposals, network configuration, and load mix.

**IDC on projects delayed:**

180. In regard to the investments, it is also important that the projects / schemes taken up are completed on schedule so that the full benefits therefrom, as envisaged, flow to the consumers quickly, and the consumer is also not saddled with avoidable cost overruns due to the time overruns in the shape of extra interest during construction (IDC), etc. The Commission accordingly directs that:

*The licensees shall take all possible measures to ensure that the projects / schemes taken up are completed on schedule. In this regard, the Commission clarifies that it will not allow any interest during construction for delays exceeding one month and three months in respect of completion of projects / schemes with the completion schedules of up to one year and more than one year, respectively, unless the Commission's approval for extension in the completion schedules is obtained in advance.*

**HVDS Scheme:**

181. Some objectors have expressed the view that the implementation of schemes like HVDS should ensure additional reduction of distribution losses, especially in agricultural lines. It is also stated that the results of study conducted on the schemes executed in the last 4 years in SPDCL are not encouraging, and that the data reveals that in only 25% of the cases, there is a significant drop in losses.

182. DISCOMs in their reply, have stated that the HVDS schemes are aimed towards taking the HT lines closer to end-consumers by providing small capacity DTRs, and the objectives are to reduce unauthorized tappings, reduction of DTR failures, improvement of voltage profile, reliability of supply and reduction in LT losses, besides inculcating ownership attitude among the farmers by limiting the number of connections to 3 to 5 on small capacity DTRs.

183. The Commission concurs with the DISCOMs' response. It has however been brought to the notice of the Commission that aerial bunched cables (ABC) are not provided at all places leaving scope for unauthorized usage leading to DTR failures. The schemes approved by the Commission invariably provide for use of ABC for LT line from DTR to the consumer installation. Hence, the Commission directs that :

***In all future HVDS schemes, aerial bunched cables (ABC) alone shall be used for LT system. In the schemes already executed without ABC also, the bare conductor should now be replaced by ABC.***

**Safety:**

184. The Commission has been concerned with the safety aspects of the electricity installations, particularly the distribution system. It is distressing to often come across news items of people losing lives in electrical accidents caused by loose, drooping or snapping wires, etc. The trauma of the families of the deceased can be well imagined.

185. During the course of the public hearings too, the Commission heard a number of complaints about the adequacy of the compensation paid by the licensees and the delays in payment etc. The Commission also received a petition from a lady seeking its good offices in settling her compensation claim in respect of a member of family who she mentioned as having died in electrical accident in 2003.

186. The Commission would not like to go into the question of liability of the distribution licensees in such cases as also the quantum of the compensation would mean treading on an unfamiliar terrain littered with various medico-legal issues. Nevertheless, the Commission cannot also remain a silent bystander. The Commission accordingly directs, as a first step, that

*The distribution licensees will chalk out by 30.09.2006, a cogent and viable plan of action to adhere to appropriate safety standards, in particular, to periodically inspect their electrical installations to take prompt action to rectify any shortcomings noticed or brought to their notice and to lay down a time schedule therefor. They will also work out and display on their website a transparent procedure for determination and payment of compensation in respect of electrical accidents involving humans as well as animals.*

**Procedure for measurement of LT Line losses:**

187. Some of the objectors have pointed out that the guidelines formulated by the Commission for assessment of Distribution losses are defective. They have suggested that meters be installed at all pump sets under the distribution transformers (where metering is presently provided on LV side) so as to have more accurate assessment of LT Line losses.
188. It is acknowledged that provision of meters to individual pump sets will give a more precise data on the LT line losses. It is however, also to be noted that as it is, even a small number of meters connected to selected DTRs could not be read properly, yielding thereby a very small percentage of valid readings. The level of invalid meter readings will only increase if the suggestion made by Objectors is accepted. It may be further mentioned here that the DISCOMs are required to install meters for all agriculture consumers by March 2008 in accordance with the Commission's Proceedings No. Secy/03/2005 notified on 29-06-2005.

**Pole-mounted metering:**

189. Some objectors have suggested that the DISCOMs should step up their efforts to curb theft and pilferage of power. It has also been suggested that the DISCOMs should go in for pole-mounted meters, as done in Hyderabad city, in other areas also where losses are high.

190. The Commission learns from APCPDCL that considerable loss reduction has been achieved by shifting meters from consumers' premises to the poles in the areas where the loss levels are high. Taking note of this, the Commission endorses the suggestion and directs that:

*APCPDCL should extend its scheme of shifting the meters from the consumers' premises to the poles where the loss levels are high. Other DISCOMs should also adopt this practice in their distribution areas where the losses are high. This shall be subject to the provisions of the relevant Regulations of the CEA.*

**Ferro Alloys Units:**

191. A number of pleas have been made by and on behalf of various ferro alloys units that in view of the various difficulties being experienced by them, the industry is no longer competitive and is unable to retain its standing in the market. The Commission has accordingly been requested to bring down the tariff for these units from 255 paise / unit as proposed by the licensees to about 220 paise / unit.

192. At the outset, the Commission would like to point out that in an open economy like ours; the industries are bound to come across ups and downs. As to which industry needs to be provided with protection, to what extent and how cannot be decided upon by the Commission. The responsibility, if at all, can only be discharged by the Governments - State as well as Central. The Commission therefore likes to retain the tariff as proposed by the licensees. It notes that the tariff proposed by the licensees is lower by 32 paise / unit than the existing tariff of 287 paise / unit. The Commission also takes note of the statement of the GoAP referred to in **Paragraph 128** of this Order that the filings of the licensees "reflect the key objectives set by GoAP".

**Power intensive industries:**

193. Some of the objectors have pleaded for a separate tariff structure for power intensive industries. The Commission finds no special circumstances or justification for according a special status to these industries, as the load factor incentive allowed adequately takes care of such consumption.

**Incentive for HT consumers with power factor exceeding 0.9:**

194. It has been pleaded that whereas penalties are levied on those with power factor of less than 0.9, no incentives are provided to those who maintain a power factor of over 0.9, helping thereby reduce the system losses as also improve the voltage profile of the system. The Commission has carefully considered the request and is of the view that ideally the power factor should be unity (1.0). Since this can be achieved very rarely, 0.9 has been laid down as the minimum acceptable level of power factor, non-achievement of which attracts penalty. Those with higher power factor are achieving only what is normally expected of them. The Commission, therefore, does not find any justification for providing an incentive for this purpose.

**Incentive for off-peak consumption to HT consumers:**

195. It has been pleaded that the Commission should introduce an incentive scheme for off-peak consumption by HT consumers.
196. The Commission does not deem it appropriate to provide such an incentive to a particular category of consumers. The Commission is endeavouring to move towards the time-of-day tariffs and such tariffs will have the contemplated incentive built into them.

**Impact of reduction in HT tariffs for industries on DISCOM revenues:**

197. Some of the objectors, while referring to the proposed reduction in HT tariffs for industries by the licensees expressed concern about the adverse effect thereof on the revenues of the licensees. In the course of public hearings, CMDs, of the four DISCOMs, presented a revised picture of the

additional HT sales to the industrial consumers and the revenues realized therefrom, which depicts a net increase of Rs.5 Crores for all the DISCOMs put together as follows:

**Table 24: Estimated Additional Sales and Revenues on Account of Reduction in HT Tariffs**

Category	Sales growth rates without tariff reduction	Additional growth due to tariff reduction	Expected total growth	Net additional revenue at proposed tariffs from additional sales	(Rs. Crores)
					Net surplus (deficit) due to additional sales
HT-I	12.2%	5.2%	17.4%	94.4	(15.8)
HT-Ib	-43.9%	63.5%	19.6%	42.1	30.2
HT-II	9.5%	7.4%	16.9%	28.7	17.7
Railways	2.7%	0.0%	2.7%	0.0	(27.1)
Total				165.2	5.0

**Increase in demand charges:**

198. Some of the consumer-participants have contemplated that the increase in demand charges for HT consumers is steep and unjustified. The Commission is unable to appreciate the view expressed by looking at only the increase in the demand charges while ignoring the relief provided in respect of energy charges. As it is, the combined effect of the two taken together is a net decrease, and not increase, in the electricity charges.

**Tariff for industries vis-à-vis other categories:**

199. Some of the objectors have questioned the equity of reduction of tariffs for industries while no such reduction is proposed in respect of other categories, especially for those in the higher slabs of the Domestic category (475 paise / unit in the 201 - 300 units/month slab and 550 paise / unit for consumptions above 300 units / month) where the tariffs are much higher than those proposed for industries.

200. In their reasoning (paragraph 33) in support of the proposed reduction in tariffs for industries, the licensees have stated that they have proposed this reduction, so as to remain competitive in the electricity sector. The sector is now indeed opening up, with the advent of Open Access accompanied by group captives and merchant plants which may wean away some of the subsidizing consumers of the licensees, the industrial consumers being among the top candidates. The Commission agrees with the licensees that they have to take all reasonable steps to remain competitive.

**Tariff for street-lighting on national highways:**

201. The issue of tariff for highway lighting was raised by certain agencies in-charge of its maintenance. While one agency sought its classification under LT Category VI-A Street-lighting as applicable to the local bodies, another agency requested for introduction of an altogether new category for autonomous bodies like National Highways Authority of India, instead of the LT Category II tariff presently charged by APEPDCL. The Commission notes that the said Authority is a commercial organization and street-lighting on the national highways, if any, provided by it is a part of commercial / contractual obligations to be discharged by the Authority itself or by its contractors. The Commission therefore finds nothing wrong in the licensees charging tariff as per LT Category-II for this activity.

**Tariff for Panchayats upgraded as Municipalities / Nagar Panchayats:**

202. The existing Schedule of tariff rates lays down separate tariffs for street-lighting, protected water supply schemes, etc., depending upon the grading of Panchayats (minor/major) and Nagarpalikas and Municipalities (Grade I, II, III, etc.,) as done by the GoAP. A few of the Panchayats were recently upgraded to the higher categories of local bodies. It has been represented by the Commissioners of these upgraded bodies and the Directorate of Municipal and Urban Development that the higher tariffs applicable to the higher categories of bodies to which the erstwhile Panchayats have been

upgraded may not be levied for a period of five years because of their weak resource base.

203. The Commission believes that the upgradation confers on the upgraded bodies the right to levy higher rates and taxes and also that the rights and obligations should go together. Otherwise too, the Electricity Act, 2003, does not permit the Commission to specify preferential tariffs for some of the consumers in a category merely because of their paying capacity.

**Engineering and Iron works as cottage industries:**

204. Some consumer-participants have represented that engineering and iron works with connected load of up to 10 HP should be treated as cottage industries and accordingly categorized under LT Category-IV. The Commission is not persuaded that engineering and iron works industries have the attributes of a cottage industry. The request is, therefore, not acceded to.

**Tariff for religious places and educational institutions:**

205. Some consumers have requested the Commission that the tariff for religious places and private educational institutions is high and may be reduced.
206. The Commission had examined the issue last year also in **paragraphs 262 to 264** of its Tariff Order for 2005-06, and continues to be of the view that the proposal cannot be accepted.

**Categorization of old age homes:**

207. The Commission has received representations that the present categorization of old age homes under LT Category - II is causing hardship to them inasmuch as the inmates who are very senior citizens obliged to stay in these homes due to various circumstances, are finding it difficult to meet these electricity charges.

208. Accepting the fact that the old age homes, notwithstanding the collection of charges by them from the inmates, serve a social purpose by taking care of the senior citizens badly in need of such habitation, the Commission is of the view that these homes should be treated on par with the student hostels run by Government and accordingly, classifies such homes run by recognized service institutions under LT Category -VII (General purpose).

**Filling up of vacant posts:**

209. A number of representations have been made to the Commission that the licensees are not filling up vacant posts and are outsourcing various items of work including those relating to the top management posts. The Commission is of the considered view that managing their internal affairs and day-to-day functioning is the responsibility of the licensees alone and the Commission should not be interfering in those matters.

**Restoration of bimonthly billing:**

210. Some of the consumer-participants have requested for reversion to the bi-monthly billing by licensees as earlier in force. The Commission likes to clarify that monthly billing was introduced with the view (i). to improving the liquidity position of the licensees who will otherwise have to be allowed to raise finances from elsewhere involving extra interest costs which will necessarily have to be passed on to the consumers, and (ii). lessening the load on those consumers who may find it difficult to pay two months' charges at a time. The Commission therefore, is not in favour of disturbing the status quo.

**Penalty Vs Reconnection charge:**

211. Some of the consumer-participants have requested that the penalty of Rs.50 levied on payments of bills delayed even by a single day is too high and should be reduced to Rs.10. The Commission clarifies that there is no penalty per se of Rs.50 allowed to be levied anywhere in the tariffs. What is permitted is a delayed payment surcharge of 7 paise for every

Rs.100/month of the bill amount for payments beyond the due date. Levy of the said Rs.50 is for reconnection of supply but only if the supply had earlier been disconnected. To clarify the matters once again, the Commission reiterates its earlier directive that:

***The Licensee shall not collect any reconnection charges unless the connection has actually been disconnected.***

**Brick manufacturing:**

212. The Commission has been requested that brick manufacturing may also be covered under the tariff for Agriculture. The Commission finds no attributes of agricultural activity in brick manufacturing and does not therefore accede to the request.

**Fee for title transfer of connections:**

213. It has been represented that the connections of deceased consumers should be transferred to their legal heirs without charging any fee. The Commission is unable to accede to the request as such title transfers do involve certain amount of work on the part of the licensees and the fee prescribed - Rs.25 in respect of Domestic consumers and Rs.50 in respect of others - is by no means excessive.

**Expenditure on meter reading/billing/collection:**

214. A number of objectors have raised issues in regard to the meter reading / billing / collection procedures adopted by the distribution licensees. It has been submitted that the meter reading / billing / collection charges are higher than the cost involved in case the job is undertaken in-house, unduly high charges are being paid to eSeva centers, the work should not be outsourced, different rates are being allowed to different agencies and that the option of entrusting the task to licensees' own Section Officers as per the practice obtaining in Tamil Nadu should be considered. Some of the

objectors, on the other hand, have expressed happiness with the facility of bill payment through e-Seva centers.

215. The Commission does not like to be intrusive in the day-to-day functioning of the licensees. The licensees themselves are much better placed to decide as to which are the more effective and economic options available to them for performing meter reading / billing / collection functions. Nevertheless, the Commission likes to point out that as the customer charges are already being levied by the Licensees on the consumers, the Commission will not allow the expenditure incurred by the licensees on availing of services of e-Seva centers to be passed on to the consumers.

**24-hour supply to rural areas:**

216. A number of rural consumer-participants have represented that they should be allowed 24-hr supply especially considering the fact that the power supply position in the State has improved substantially due to good monsoons.
217. The Commission notes the response of the licensees that they are committed to supplying power for 24-hours to villagers, subject to availability. The licensees should make earnest attempts to see that this commitment is fulfilled.

**DSM Measures and free supply of power to agricultural consumers:**

218. The GoAP allowed free power supply to agricultural consumers w.e.f.14.05.2004. Subsequently, on 25<sup>th</sup> January 2005, it announced a new agricultural power supply policy effective from 1<sup>st</sup> April 2005, requiring inter-alia, the agricultural consumers to undertake Demand Side Management (DSM) measures consisting of installation of capacitors, frictionless foot valves, ISI-marked pumpsets, HDPE/RPVC piping, etc. Some of these measures are to be complied with by 31.03.06, failing which the

consumers availing free supply shall not be entitled for free supply from 01.04.2006.

219. Numerous objectors - farmers, farmers' associations, consumer activists, some political parties, etc., - have represented that these measures should be taken up by GoAP or the licensees, and that some of these measures do not even serve any purpose and should not be insisted upon.
220. Free power supply is a policy decision of GoAP and for this, the GoAP provides subsidy to the distribution licensees in accordance with Section 65 of the Electricity Act, 2003. The whole issue therefore lies fully within the domain of GoAP and it is the GoAP alone which has to determine as to under and subject to what conditions and to whom the free supply of power is to be allowed and what measures to adopt to avoid excessive use of electricity as also the depletion of the underground water. In the whole of this scenario, the Commission has no role to play. The Commission also believes that the objectors have adequate avenues available to them to communicate their views to the GoAP through various channels, without depending upon the good offices of the Commission. Last year too, in pursuance of **paragraphs 260-261** of its Tariff Order, 2005-06, the Commission had informed the Government of the divergent views expressed by different organizations. The Commission accordingly advises the objectors to take up the matter, if considered necessary, directly with the GoAP in an appropriate manner. However, the Commission wishes to express its belief that the appropriate energy conservation and demand side management measures are crucial to the sector to reduce costs and for effective use of electrical energy. This view of the Commission is also reflected in the levy of Low Power Factor surcharge and the Capacitor surcharge.

**Regularisation of unauthorized agricultural connections:**

221. Some of the objectors have pleaded for regularization of unauthorized agricultural connections on payment of a nominal fee. In this connection, the Commission is of the view that the supply of power to agriculture is highly subsidized by GoAP. As such, any decision on regularization of the authorized agricultural connections, the terms and conditions therefor as also the timeframe, lies within the domain of the GoAP and not of the Commission.

**GoAP support to regulatory processes:**

222. The Commission would like to place on record, its appreciation of the unstinted support extended by GoAP to the Commission, the regulatory processes and for regular payments of subsidy amounts to the Utilities, as determined by the Commission from time to time.

## CHAPTER - VIII

### MULTI-YEAR TARIFF FRAMEWORK

#### **Multi-year Tariffs and Regulation:**

223. The main thrust of the W&RST Regulation is, in accordance with the National Tariff Policy, towards the introduction of the MYT framework with effect from FY 2006-07 in Distribution business, aimed at achieving operational efficiencies in the Distribution business, by providing incentives to and levying penalties on the Licensees for overachieving and failing to achieve, respectively, the targets set out for items that are deemed 'controllable' by the Commission. The Commission can also set trajectories for other items, if considered necessary, for enhancing the efficiency of the licensees' operations. While the Commission had outlined the 'controllable' and 'uncontrollable' items in its Tariff Order for FY2005-06 for the purpose of regulatory treatment of 'true-up', in an MYT framework, the entire concept of 'controllable' and 'uncontrollable' undergoes a definitional change in that the reference is now with regard to the targets fixed and consequently the associated problems of meeting the targets. Before examining 'controllable' and 'uncontrollable' items, it is appropriate to identify the items that are amenable to fixation of targets.

224. In this Chapter, the approach as outlined in the W&RST Regulation, is analysed, separately for Distribution business and for the Retail Supply business.

#### **PART A - DISTRIBUTION BUSINESS**

#### **225. Items amenable to fixation of targets:**

a) Operation & Maintenance (O&M) costs which include Employee - related costs, Repairs and maintenance costs and Administrative and general expenses constitute the obvious candidates for fixation of targets. The Commission in the W&RST Regulation has considered it appropriate to fix O&M costs by using pre-determined norms or formulae, based on the submissions of the Licensee. The O&M cost

for the Base Year is determined on the basis of latest audited accounts, best estimates of Licensee for the O&M expenses for relevant years and other factors considered relevant. The Licensee can also propose the required indexation for projecting the O&M costs over the relevant control period. Using pre-determined norms or formulae the O&M expenses for the Base Year will be used for projecting the expenses for each year of the Control period.

b) *Return on Capital Employed:* The Commission has considered it appropriate to adopt Return on Capital Employed (RoCE) instead of Return on Equity (RoE), providing thereby greater flexibility to the Licensee to determine its capital structure based on own perceptions of financial market functioning. The RoCE will be computed on the Regulated Rate Base (RRB) using the Weighted Average Cost of Capital (WACC). WACC derivation is the consequence of three components: (i) Debt-Equity Ratio, (ii) Cost of Debt, and (iii) Return on Equity, all determined at the beginning of the Control Period. All the three components will be based on the Licensee's proposals, previous years' pattern, market conditions and other factors considered relevant by the Commission. Once fixed, these three components will not be changed during the Control period.

**Regulated rate base:**

226. The RRB of the Distribution business will consist of both short-term and long-term assets. Under long-term assets are included the OCFA (Original Cost of Fixed Assets) plus new investments expected to be capitalized during the year minus the accumulated depreciation and consumer contributions. Short-term assets refer to working capital. The Licensee is required to provide detailed scheme-wise / project-wise Capital Investment Plan with a capitalization schedule covering the entire Control Period. As regards inclusion of investments in the capital base, the procedures set out in Tariff Order 2005-06 (**paragraph 390**) regarding submission of Physical Completion Certificates and Financial Completion Certificates will continue

to apply. Similarly, Capital Works-in-Progress (CWIP) will continue to be not included in the rate base.

**Loss reduction:**

227. The Licensees are required to file a loss reduction trajectory for each year of the Control Period, while duly complying with the Licensees' Standards of Performance.

**Controllable and Uncontrollable Items in MYT:**

228. The table below summarizes the items considered 'controllable' and 'uncontrollable' by the Commission of the MYT filings of DISCOMs for the Distribution business:

**Table 25: Classification of ARR Items in Distribution Business**

ARR Item	Controllable or Uncontrollable
O&M Expenses	Controllable
RoCE	Controllable
Depreciation	Controllable
Taxes on Income	Uncontrollable
Non-tariff Income	Controllable

229. As in the earlier filings, true-up will be permitted only in the case of 'uncontrollable' items, but on the availability of data as per actuals, with provision for any carrying cost on account of delay. Regarding 'controllable' items, the Commission will review the gains and losses on each item and make appropriate adjustments, wherever required. A statement of gains and losses for each controllable item will be presented in the filings for the next Control Period.

**Determination of wheeling tariff/charges**

230. The ARR determined for distribution business will be the basis for determining wheeling tariffs/charges.
231. Variations in revenue recovery over approved revenue requirements on account of variations in distribution system usage will be adjusted in the subsequent control period with financing cost at average rate of borrowing

during the year to which the variations relate.

## PART B - RETAIL SUPPLY BUSINESS

232. Cost of power procurement: In addition to the items mentioned in paragraph 227 above, the retail supply business shall include the cost of power purchase, an 'uncontrollable' item. While approving the cost of power procurement, the Commission shall determine the quantum of electricity to be procured, consistent with power procurement plan, from various sources of supply in accordance with the principle of merit order scheduling and dispatch, based on a ranking of all approved sources of supply in the order of their respective variable costs, with certain exceptions, as in the case of non-conventional energy (NCE) projects, accorded by various general and specific orders of the Commission the status of 'must-run' projects. In order to arrive at the quantum and cost of power procurement, the Commission shall adopt the Sales Forecast, the Distribution loss trajectory and the Power Procurement Plan approved as part of the Resource Plan of the Licensee.

### Retail tariffs

233. The tariffs determined by the Commission for the retail sale of electricity (hereinafter referred to as the 'Retail tariffs' or 'RST') will be for the recovery of the ARR for the Retail Supply business inclusive of its share of PGCIL costs, Transmission charges, SLDC charges and Wheeling charges.

## **CHAPTER - IX**

### **BROAD PARAMETERS FOR ANALYSIS OF THE REVENUE REQUIREMENT**

234. The W&RST Regulation has laid down the broad principles for analyzing the ARR<sub>s</sub> of the DISCOMs for the Distribution business and the Retail Supply business in the MYT framework. The Commission considers it appropriate to discuss here some of the broad parameters used for analyzing the ARR<sub>s</sub>.

235. The Licensees, have filed a combined ARR for both the Distribution business and the Retail Supply business. A cost allocation statement segregating the accounts between the two businesses has also been submitted. However, while estimating the revenue gap, the revenue from proposed wheeling tariff / charges and from tariffs for retail supply have been taken together. In accordance with the W&RST Regulation, the two businesses have been considered separately by the Commission. Part - A of this Chapter covers the Distribution business and Part - B, the Retail Supply business.

#### **PART A - DISTRIBUTION BUSINESS**

##### **Rate Base:**

236. The Rate Base consists of three components: a) Original Cost of Fixed Assets (OCFA), b) Additions expected to be made to OCFA by capitalization of new investments, and c) Working Capital. Amounts written off or set aside towards depreciation and the consumer contributions are deducted therefrom.

##### **Original Cost of Fixed Assets (OCFA):**

237. The Rate Base for the purpose of computing the Return on Capital Employed (RoCE) will consist of the investments completed and capitalized during the

year and the proposed asset creation expected during the ensuing year after adjusting for depreciation and user contributions. Capitalization of works will be considered only on submission of the Physical Completion Certificates and the Financial Completion Certificates (at the time of true up).

**Capital Expenditure:**

238. The Commission has examined in detail the capital expenditure projections proposed by the Licensees. Based on the physical and financial progress of schemes / projects during FY 2005-06 and taking into consideration the status of project planning, approvals obtained / granted and the procurement/tendering process of works yet to commence, only those investments that are likely to be completed and thereby added on to fixed assets during the control period have been accepted for inclusion in the Rate Base.
239. **Working Capital:** The requirement of working capital in accordance with the W&RST Regulation shall be equivalent to approved O&M expenses for one month.
240. **Deductions to Rate Base:** Deductions have been made from the OCFA on account of accumulated depreciation and consumer contributions inclusive of capital grants and capital subsidies received by the Licensee.

**EXPENDITURE ITEMS**

241. The following items of expenditure are considered for the relevant business:
242. **SLDC charges:** SLDC charges relating to the Distribution Licensees are removed from the Distribution business as these are an expenditure item relating to the Retail supply business.

**O&M expense benchmarking:**

243. In line with the MYT principles, the Discoms have proposed a formula for arriving at an O&M norm on the basis of which O&M expenses have been projected for each year of the control period. The licensees have estimated the O&M costs for FY 2005-06 and projected the expenses, item-wise, for FY 2006-07. The licensees have used the data for FY 2006-07 for developing O&M cost norms based on 3 parameters, namely, the number of substations, line length and the number of consumers. These norms have been used for making the O&M cost projections for the next two years of the control period i.e. FY 2007-08 and FY 2008-09 after incorporating the additions expected from investment plans and load growth.

244. The Commission finds the approach adopted by the Discoms as unacceptable since what has been used as the basis for O&M cost is the projected performance (for 2006-07) instead of actual or benchmarked (normative) performance. The weightages provided by different DISCOMs to each of the parameters are also varying. Hence, the Commission has carried out a comprehensive benchmarking exercise to arrive at the O&M cost for each of the licensees for each year of the control period. For this exercise, the Commission also considered the relative performance of distribution licensees in other States and of the distribution circles within the State. It was observed from the comparative benchmarking exercise that the AP DISCOMs are comparatively efficient and hence the Commission carried out an inter-se comparative benchmarking exercise confined to the AP DISCOMs for the O&M costs.

245. The methodology adopted by the Commission for the benchmarking exercise is as follows:

246. Firstly, in line with the performance-based regulation, the Commission finalised the DISCOM outputs or parameters that would be the cost drivers for O&M expenses. These parameters comprise energy sold by the DISCOMs ,

number of consumers served and length of the lines (as a proxy for expanse) to be maintained by the licensees.

247. Secondly, these parameters were consolidated into one single output, which is termed as “Composite Output” and the same has been compared with O&M costs across all DISCOMs. The Composite Output adopted is as follows:
248. Composite Output = (no. of consumers)<sup>a</sup> \* (energy sales in MU)<sup>b</sup> \* (ckt km of line length)<sup>c</sup>, where ‘a’, ‘b’ and ‘c’ denote respectively, the weightages of 55%, 20% and 25% to the respective parameters.
249. Thirdly, the past performance (FY 01 - 06) of the licensees was analysed to assess the relative performance of the DISCOMs with reference to the Composite Output. For this purpose, O&M expenses incurred during the period FY 01-05 were adjusted for inflation to bring them up to FY 06 levels. From the data obtained, it was observed that APCPDCL’s performance can be taken as the reference point for other DISCOMs.
250. While a benchmarking approach based on the above methodology would be ideal from the viewpoint of output-based regulation, the Commission felt that the following issues also need to be taken into account:
  - a. Given that only four companies are under consideration and those too have fairly wide variations in performance levels, an output-based normative approach would lead to stringent performance requirements for some of the DISCOMs while allowing relative laxity for others, apart from not setting stretch-targets for the better-performing companies at all.
  - b. Given also that the current tariff order is for the first control period, the Commission would prefer to keep an eye on individual elements of the O&M expenses. For example, employee costs typically account for 60-75% of overall O&M expenses, and it would be necessary for the Commission to study this element separately in order to be able to arrive at a medium to long-term perspective duly taking into account the wide

fluctuation from time to time due to the impact of wage revisions, etc. Similarly, the Commission would like to ensure the adequacy of R&M expenses.

251. Hence, for the first control period, the Commission has preferred to project the O&M expenses of the Licensees' expenditure by increasing the employee and A&G costs at inflation (5%), and providing for R&M costs corresponding to 2.5% of old assets (Gross Block as on 31st March 2002) plus 1.25% to 2% of new assets (Additions to the Gross Block during 2002-03 onwards up to the year under consideration).

**Depreciation:**

252. The DISCOMs have projected Depreciation plus advance against depreciation (AAD) as stipulated in the CERC Regulation on terms and conditions of tariff, in accordance with the provisions of the W&RST Regulation. As discussed in **Paragraph 160 to 163**, however, the Commission has decided to continue with the existing practice of following MoP rates for depreciation. Accordingly, no AAD is provided.
253. **Return on Capital Employed:** RoCE is computed on the Rate base. The rate base is estimated for each year of the control period and RoCE is computed using a Weighted Average Cost of Capital. For the purpose of deriving the WACC, debt-equity ratio of 75:25 is taken. The cost of debt is determined after considering the Licensees' proposals, present cost of debt, prevailing market conditions and other relevant factors. Fourteen percent (14%) return on equity (RoE) is provided for the Distribution business, on par with Generation and Transmission which together with an element of the distribution margin as contemplated in clause 5.3 (b) of the Tariff Policy, apparently considering the higher level of risks involved in the retail supply business, is taken as overall 16% return. Though the said 'distribution margin' is yet to be evolved by the Forum of Regulators (FoR) as per the Tariff Policy, the overall RoE at 16% considered reasonable, having also been

in vogue till now. The Commission plans to re-visit the overall return while determining tariffs for the next control period. It may also decide that the licensees share the return with the consumers if it is excessive.

## **PART B - RETAIL SUPPLY BUSINESS**

254. The ARR for retail supply business contains mainly the power purchase cost, which is computed in line with the approved Power Procurement Plan. The other items of expenditure for the Retail Supply business are: i) PGCIL (Power Grid Corporation of India Limited & ULDC (Unified Load Despatch Centre) charges; ii) transmission tariffs iii) wheeling charges; iv) SLDC charges; v) retail supply margin; and vi) other expenditure (mainly the interest on security deposits). Some of the common issues concerning all the DISCOMs are discussed in this Part.

### **EXPENDITURE:**

#### **Purchase of Energy:**

#### **Energy availability:**

255. The DISCOMs have filed the total availability of energy from different sources for FY 2006-07 as 57,940.65 MU. Broadly, the sources of energy are as shown in the Table below. The station-wise and month-wise availability is shown in **Annexure-F(i)**. The Commission has accepted the projected availability level of 57,940.65 MU and used the same month-wise and station-wise availability for computation of cost of energy for FY 2006-07.

**Table 26: Source-wise Availability of Energy for FY 2006-07**

(MU)

Source of Energy	DISCOMs filing	Approved by APERC
APGENCO:		
Thermal stations	22,079.21	22,079.21
Hydel stations	7,587.00	7,587.00
CGS-SR	10,588.25	10,588.25
NTPC-Simhadri	7,400.00	7,400.00
APGPCL	382.73	382.73
IPPs	7,698.99	7,698.99
OTHERS : a) Non-Conventional	2,094.47	2,094.47
b) Mini Power plants	110.00	110.00
<b>TOTAL</b>	<b>57,940.65</b>	<b>57,940.65</b>

**Energy requirement:**

256. The DISCOMs originally filed the combined requirement of energy to be purchased during FY 2006-07 as 53565.74 MU based on the aggregate sales of 42679.21 MU and grossed up for losses in Transmission and Distribution networks. Subsequently, they revised their sales and energy purchase requirements to 43599.00 MU and 54717.00 MU respectively, mainly on account of expected increase in sales due to HT tariff rationalisation. The Table below shows the DISCOM-wise break-up of sales and energy requirement as filed and revised by them.

**Table 27: Sales and Energy Requirement for FY 2006-07 (As per Filings)**

(MU)

DISCOM	As originally filed		Revised figures	
	Sales	Purchase Requirement	Sales	Purchase Requirement
APCPDCL	18,500.09	23,469.62	19,085.00	24,210.00
APEPDCL	7,195. 17	8,744.44	7,446.00	9,049.00
APNPDCL	6,900.09	8,762.10	6,900.00	8,762.00
APSPDCL	10,083.85	12,589.73	10,169.00	12,696.00
Total	42,679.21	53,565.74	43,599.00	54,717.00

257. The Commission had directed the DISCOMs in May, 2005 to compute the losses in distribution system by excluding the energy sales in EHT system. The DISCOMs, however, in their ARR/FPT filings for FY 2006-07 put the sales for all categories under two groups L.T.Categories and H.T.Categories. They did not, however, file voltage-wise sales and voltage-wise losses for computation of the quantum of energy required to be purchased.

258. Based on the Expected Revenue from Charges (ERC) computations filed by the DISCOMs, the Commission separated the EHT sales from HT sales arriving at sales at 11kV, 33kV and at 132kV and above levels for each DISCOM. The Commission made reasonable assumptions for categories for which no voltage levels were mentioned by the licensees. The category-wise and voltage-wise sales so arrived at were segregated into monthly sales, based on the category-wise and month-wise consumption pattern filed by the DISCOMs. The month-wise and category-wise sales for FY 2006-07 so arrived at are given in **Annexures - I(i) to I(iv)**.

259. The Commission computed the energy purchase requirements by grossing up the sales at a particular voltage with the percentages of losses applicable at that voltage level to arrive at the input for the next higher voltage level as shown in **Annexure - G**. The DISCOMs were asked to furnish their voltage-wise losses as against the combined losses for LT, 11 kV and 33kV levels put together filed by them. The voltage-wise losses in percentage terms furnished by the DISCOMs in response are shown in the Table below:

**Table 28: Losses Voltage-wise**

% age loss for input at voltage level	APCPDCL	APEPDCL	APNPDCL	APSPDCL	(Percentage)
132kV loss as % of 132 kV input	4.50%	4.50%	4.50%	4.50%	4.50%
33 kV loss as % of 33 kV input	4.21%	6.10%	5.45%	4.85%	
11 kV loss as % of 11 kV input	7.44%	5.06%	6.29%	5.76%	
LT loss as % of LT input	12.44%	9.26%	11.11%	9.58%	

260. The Commission in its computation of energy requirement has used the above mentioned loss levels of respective DISCOM except the loss level percentage for 132kV & above level. For the latter, the Commission has adopted the loss percentage of 4.45% as determined in its Order dated 23.03.2006 in O.P.No.1 of 2006 on determination of transmission tariffs.

261. The Table below shows the summary of sales and power purchase requirements of each DISCOM as filed by the DISCOMs and as accepted by the Commission.

**Table 29: Sales and Power Purchases Approved by Commission for FY 2006-07**  
(MU)

DISCOM	Sales (DISCOM)	Sales (APERC)	Purchase Requirement (DISCOM)	Purchase Requirement (APERC)
APCPDCL	19,085.00	19,084.83	24,210.00	24,084.87
APEPDCL	7,446.00	7,444.49	9,049.00	9,028.80
APNPDCL	6,900.00	6,901.27	8,762.00	8,743.18
APSPDCL	10,169.00	10,132.29	12,696.00	12,623.77
<b>Total</b>	<b>43,599.00</b>	<b>43,562.88</b>	<b>54,717.00</b>	<b>54,480.63</b>

**Energy Despatch:**

262. As per section 32 of the Electricity Act, 2003, the State Load Despatch Centre (SLDC) is the apex body to ensure integrated operation of the power system in the State and is also responsible for optimum scheduling and despatch of electricity within the State, in accordance with the contracts entered into with the licensees or the generating companies operating in the State.

263. The monthly availability of energy from different power stations as filed by the licensees was used for monthly Merit Order Despatch. Thereafter, the monthly energy requirements of all the four DISCOMs were stacked up and the stations despatched according to their availability in the merit order for the respective months to arrive at the optimum cost of energy. The month-wise and station-wise despatches in MU as adopted for computation

of cost of energy are given in Annexure - F(ii), and adopted for the combined energy purchase requirement of all the four DISCOMs during FY 2006-07.

**Cost of energy:**

**APGENCO**

264. The DISCOMs have submitted that a fixed cost of Rs.1,564.68 Crores for FY 2006-07 has been estimated by APPCC (A.P. Power Coordination Committee, a body constituted under G.O.Ms.No.59 dated 07.06.2005, and coordinating various activities of the DISCOMs) based on a proposal submitted by APGENCO (A.P.Power Generation Corporation Limited) and the same has been considered in their ARRs. In addition, they have proposed Rs.141.49 Crores as the fixed cost for RTPP Stage-II, which is expected to commence operation with effect from August, 2006. Hence, the Commission accepted a total fixed cost of Rs.1,706.17 Crores for FY 2006-07 for all the power stations (both Thermal & Hydel) of APGENCO.

265. The Commission, in its computation of cost of energy, has adopted the station-wise variable costs of APGENCO's thermal stations based on fuel cost adjustment (FCA) bill of APGENCO for the month of September, 2005 as proposed by the DISCOMs. The variable cost of RTPP Stage II is Rs.1.18/kWh. These costs are shown in the Table below:

**Table 30: Variable Cost of APGENCO Thermal Stations for FY 2006-07**

(Rs./kWh)

Station	Variable cost
VTPS(I,II,III)	1.24414
RTPP	1.48908
RTPP Stage II	1.18000
KTPS (A,B,C)	1.03564
KTPS-D (KTPS-V)	0.91225
RTS-B	1.02691

**Costing of power generated from SSLBPH:**

266. For Srisailam Left Bank Power House (SSLBPH), the DISCOMs have proposed a weighted average variable cost of Rs.1.156/unit (Non-monsoon = Rs.1.49, Monsoon = Re. 0.91). They have considered the period from June to October as monsoon period and November to March as non-monsoon period. The Commission has adopted this rate only for the purpose of estimation of power purchase cost for FY 2006-07. As mentioned in **paragraph 167** of this Order, the Commission has, however, decided that the payment for the power generated from SSLBPH will continue to be made as per the methodology specified in **paragraphs 475 to 477** of Tariff Order 2004-05 and reiterated in **paragraph 375** of Tariff Order 2005-06.

267. Further, it is gathered that one or more units of Srisailam Complex is/are backed down or shut down during surplussing season (monsoon period), after backing down of the units of Thermal Power Stations up to their technical limits as approved by the Commission, losing sight of the benefits flowing from the exercise of the available option of shutting down one or more of the thermal units, as may be required to maintain Grid frequency and system stability. It can be well appreciated that this would result in depleting the limited fossil fuel sources and wastage of inexpensive and eco-friendly hydel power. Hence, the Commission directs that:

*DISCOMs should closely coordinate with APGENCO to ensure that no unit of Srisailam complex (Left Bank Power House and Right Bank Power House) is backed down or shut down during the surplussing season. In case of generation of surplus energy by them over and above the requirements of DISCOMs and other users of energy, they should shut down some unit(s) of Thermal Power Stations with marginal variable cost in the merit order if reduction of generation up to backing down limit does not help bring down the frequency to a safe level.*

**Central Generating Stations:**

268. The Commission has accepted the fixed charges and variable charges for Central Generating Stations (CGS) as filed by the DISCOMs. The DISCOMs have considered the variable cost of September, 2005 for projecting the power purchase costs of CGS for FY 2006-07. These costs are shown in the Table below:

**Table 31: Power Purchase Costs of CGS for FY 2006-07**

Station	Capacity allocated to AP (MW)	Fixed cost for FY 2006-07 (Rs.Crores)	Variable charges (Rs./kWh)
NTPC - SR (Ramagundam) Stage I & II	677.25	145.80	1.0022
NTPC - SR (Ramagundam) Stage III	160.70	75.60	0.9747
NLC TPS II Stage I	105.71	19.13	1.1408
NLC TPS II Stage II	191.52	49.74	1.1408
NPC-MAPS	--	--	2.0291
NTPC Talcher Stage-2	450.00	222.91	0.8038
NTPC Simhadri	1000.00	452.00	1.0174

269. The DISCOMs have also projected Rs.8.85 Crores (Rs.6.55 Crores for NTPC SR Stage I & II Rs.1.83 Crores for NTPC SR Stage III and Rs.0.47 Crores for NTPC Talcher Stage -2) towards incentive amount for FY 2006-07 and the same has been accepted by the Commission.

**APGPCL:**

270. The DISCOMs have proposed the following cost structure for purchase of energy from A.P.Gas Power Corporation Limited (APGPCL) as per the existing Memorandum of Understanding:

**Table 32: Power Purchase Costs of APGPCL for FY 2006-07**

APGPCL	Demand Charge(Rs./kVA)	Fixed Cost (Rs./kWh)	Variable Cost (Rs./kWh)
Station -I	75.00	0.09	1.58
Station -II	--	0.58	1.07

271. Based on the above, the fixed charges for Stations-I & II of APGPCL come to Rs.2.32 Crores & Rs.16.04 Crores respectively, for FY 2006-07, and have been accepted.

**IPPs:**

272. The Commission has accepted the fixed charges and variable charges of Independent Power Producers (IPPs) as filed by the DISCOMs. The DISCOMs have considered the variable costs of September, 2005 for projecting the overall cost for FY 2006-07. These costs are shown in the Table below:

**Table 33: Power Purchase Costs of IPPs for FY 2006-07**

Station	Capacity for AP (MW)	Fixed cost for FY 2006-07 (Rs.Crores)	Variable charges (Rs./kWh)
GVK	216.82	160.34	1.03788
Spectrum	208.31	158.09	1.0347
Kondapalli	351.49	310.88	1.2371
BSES/Reliance	220.00	158.406	1.073
GVK - Extension	220.00	37.31	0.92
Vemagiri	370.00	57.40	0.92
Gouthami	464.00	41.02	0.92
Konaseema	445.00	33.48	0.96

273. The DISCOMs have projected Rs.21.21 Crores for GVK and Rs.9.73 Crores for Spectrum towards incentive for FY 2006-07 and the same has been accepted by the Commission.

**Other sources:**

**a) Mini Power Plants:**

The DISCOMs have projected availability of 110 MU from Mini power plants like Srivaths (17.20 MW) @Rs. 1.37/kWh and LVS (36.80 MW, which has been shut down because of higher variable charges @Rs.4.09/kWh).

**b) Non-Conventional Energy (NCE) sources:**

The DISCOMs have projected purchase of 2094.47 MU from NCE sources. The cost break-up of this quantum of energy is given in the Table below:

**Table 34: Power Purchase Costs and Quantum for NCE Projects for FY 2006-07**

Station	Energy (MU)	Other cost for FY 2006-07 (Rs. Crores)	Variable charges (Rs./kWh)
NCE - Biomass	1,209.85	35.59	2.87
NCE - Bagasse	532.16	17.47	2.71
NCE - Municipal Waste to Energy	70.30	--	3.59
NCE - Industrial Waste to Energy	106.61	1.51	2.96
NCE - Wind Power	33.33	--	3.31
NCE - Mini Hydel	121.95	5.96	2.20
NCE - NCL Energy Ltd.	20.28	--	1.78
<b>Total</b>	<b>2094.47</b>	<b>60.53</b>	<b>2.82</b>

274. In addition to the 2,094.47 MU purchase from NCE sources, the Commission has treated the power purchase of 32 MU from Mini Hydel Stations of APGENCO with the capacity of 20 MW and below, such as PABR (20 MW yielding 7 MU), Nizamsagar PH (10 MW; 8 MU), Singur PH (15 MW; 5 MU) and Mini Hydro & others (14.16 MW; 12 MU) as purchase from NCE sources. Hence, the purchase from NCE sources as a percentage of total purchase for all four DISCOMs works out to 3.90% in place of 5.00% specified by the Commission. [Please refer to Paragraph 152 also]

275. As far as purchase from NCE sources is concerned, EPDCL and SPDCL have NCE availability of up to 4.97% and 7.29% respectively of their power purchases, which is higher than the sector average of 3.90%, whereas, CPDCL and NPDCL have NCE availability of 1.94% and 3.01% respectively. Appreciating that the allocation of NCE projects to the DISCOMs, on the basis of their location was to ensure that the project developers are not put to avoidable inconvenience, in having to deal with more than one DISCOM, and not that some of the DISCOMs are disadvantaged due to the higher cost

of electricity from these projects, the Commission has decided to distribute the cost of purchase from NCE sources among the four DISCOMs equally, i.e. each DISCOM will have 3.90% purchase from NCE sources.

**PGCIL & ULDC charges:**

276. The Commission has withdrawn the PGCIL Transmission and ULDC Charges amounting to Rs.194.99 Crores from the ARR of APTRANSCO for its transmission business and allocated these costs to the four DISCOMs, in the ratio of their respective allocation of energy from Central Generating Stations (CGS).

**Summary of power purchase cost:**

277. Details of power purchases from different sources as filed by the DISCOMs and accepted by the Commission for estimating the power purchase cost during FY 2006-07 are summarized in the following tables:

**Table 35: Power Purchase Costs as Filed - All DISCOMs**

Source	Power purchase	Fixed costs	Variable costs	Tax, incentives, Other charges	Total cost	Average cost
	(MU)	(Rs Crores)	(Rs Crores)	(Rs Crores)	(Rs Crores)	(Rs/kWh )
APGenco	26,536.30	1,706.17	2,280.86	-	3,987.03	1.50
Thermal	18,950.00		2,146.22	-		
Hydel	7,586.30		134.64	-		
CGS-SR	10,588.24	514.18	1,045.63	99.31	1,659.13	1.57
CGS-E R						
NTPC-Simhadri	7,400.00	452.00	752.88	24.08	1,228.95	1.66
APGPCL-I&II	382.73	18.36	46.37	-	64.73	1.69
IPPs	7,698.91	956.93	828.41	30.93	1,816.28	2.36
NCE & Others	2,112.14	43.25	652.66		695.91	3.29
<b>Grand Total</b>	<b>54,718.32</b>	<b>3,690.90</b>	<b>5,606.81</b>	<b>154.32</b>	<b>9,452.03</b>	<b>1.73</b>

**Table 36: Power Purchase Costs for FY 2006-07 as Approved by APERC - All DISCOMs**

Source	Power Purchase (MU)	Fixed Cost (Rs. Crores)	Variable Cost (Rs. Crores)	Incentive (Rs. Crores)	Income Tax & Others (Rs. Crores)	Total Cost (Rs. Crores)	Avg. Cost (Rs. / Unit)
APGENCO	26382.96						
Thermal	18796.66	1706.17	2237.27	0.00	0.00	3943.44	1.49
Hydel	7586.30						
CGS	10588.24	513.18	1045.63	8.85	90.49	1658.15	1.57
NTPC-Simhadri	7400.00	452.00	752.88	22.93	1.12	1228.93	1.66
APGPCL	276.57	18.36	29.59	0.00	0.00	47.95	1.73
IPPs	7698.91	956.93	828.57	30.94	0.00	1816.44	2.36
OTHERS	2133.95	43.25	595.10	0.23	60.30	698.88	3.28
<b>TOTAL</b>	<b>54480.64</b>	<b>3689.88</b>	<b>5489.05</b>	<b>62.95</b>	<b>151.91</b>	<b>9393.79</b>	<b>1.72</b>

**Table 37: Summary Table of Power Purchase Costs & PGCIL Costs for FY 2006-07**

Cost element	Fixed cost filed (Rs.Crores)	Fixed cost approved (Rs. Crores)	Variable cost filed (Rs./kWh)	Variable cost approved (Rs./kWh)	Power purchase cost as filed (Rs/kWh)	Power purchase cost as approved (Rs/kWh)
Generation	3690.90	3689.88	1.0247	1.0075	1.73	1.72
PGCIL Transmission & ULDC Charges	194.99	194.99			0.036	0.036

278. The average power purchase cost for all four DISCOMs works out to Rs.1.72/kWh (excluding PGCIL cost and ULDC charges) as against Rs.1.73/kWh filed by the DISCOMs, and Rs.1.76/kWh inclusive of the PGCIL cost and ULDC charges.

279. The Commission directs the DISCOMs to charge FSA every quarter in accordance with the existing formula. The allowable power purchases for each quarter of the ensuing year and the variable cost to be adopted for this calculation are provided in the following table:

**Table 38: Despatch for DISCOM Sales and Variable Cost - Month/Quarter-wise for FY 2006-07**

Month/ Quarter	Purchase requirement as EHT input (MUs)	Total despatch for DISCOM sales only (MUs)	Total Variable Cost (Rs.Crores)	Variable Cost per kWh Rs.
Apr-06	4399.89	4399.89	453.08	1.02975
May-06	4326.71	4326.71	453.26	1.04758
June-06	4253.69	4253.69	460.90	1.08354
QRT 1	12980.29	12980.29	1367.24	1.05332
July-06	4203.87	4203.87	432.14	1.02795
Aug-06	4617.21	4617.21	437.28	0.94705
Sep-06	4511.89	4511.89	423.47	0.93856
QRT 2	13332.96	13332.96	1292.88	0.96969
Oct-06	4870.13	4870.13	473.96	0.97321
Nov-06	4541.32	4541.32	450.01	0.99092
Dec-06	4539.38	4539.38	463.78	1.02168
QRT 3	13950.83	13950.83	1387.75	0.99475
Jan-07	4659.07	4659.07	478.98	1.02806
Feb-07	4501.78	4501.78	463.12	1.02874
Mar-07	5055.71	5055.71	499.08	0.98716
QRT 4	14216.56	14216.56	1441.17	1.01373
Total	54480.64	54480.64	5489.05	1.00752

**Cost adjustment for D-to-D energy transfer:**

280. The Commission has approved 54,480.64 MU as the combined power purchase requirement of all the four DISCOMs. Within this approved quantum, each DISCOM has to pay for both the Fixed Cost and the Variable Cost, based on their energy drawals. Hence the Commission decides that DISCOM-to-DISCOM (D-to-D) energy transfers within the approved quantum will be priced at average fixed cost of purchases from all power stations, which works out to Re. 0.67728/kWh plus marginal variable cost of Rs.1.24414/kWh. This is the variable cost of VTPS-III, which is likely to get despatched as the marginal station in most of the months during FY 2006-07. The Table below shows the cost of energy for each DISCOM prior to and after the D-to-D energy transfers within the approved quantum of energy:

**Table 39: Power Purchase Costs after D-to-D Trade for FY 2006-07**

DISCOM	Allocation from total approved energy (MU)	Energy purchase Required (MU)	Surplus / (Deficit) (MU)	Power Purchase cost before D-to-D transfer (Rs. Crores)	Power Purchase cost after D-to-D transfer (Rs. Crores)
APCPDCL	23197.11	24084.87	(887.77)	3917.17	4087.75
APEPDCL	9235.46	9028.80	206.65	1640.84	1601.13
APNPDCL	9126.21	8743.18	383.03	1554.70	1481.10
APSPDCL	12921.90	12623.77	298.13	2281.15	2223.87
Total	54480.64	54480.64	0.00	9393.85	9393.85

**NCE cost adjustment:**

281. As already discussed in **paragraph No.275**, the Commission has decided to proportionately distribute the cost of purchase from NCE sources among the four DISCOMs, i.e. each DISCOM will have to bear the cost of 3.90% of its total purchase requirement from NCE sources at the weighted average cost of purchase, i.e. Rs.3.05784/kWh. After the D-to-D energy transfer, there is no more transfer, in energy terms, from one DISCOM to another DISCOM. The NCE-deficit DISCOMs have to pay the cost differential (between NCE purchase rate of Rs.3.05784/kWh and D-to-D energy transfer rate of Rs.1.92142/kWh) which works out to Rs.1.13642/kWh to the NCE-surplus DISCOMs. The Table below shows the NCE cost adjustment among DISCOMs.

**Table 40: NCE Cost Adjustment Among DISCOMs for FY 2006-07**

DISCOM	Allocation from NCE sources (MU)	NCE purchase required (MU)	Surplus / (Deficit) (MU)	Power Purchase cost before NCE cost adjustment (Rs. Crores)	Power Purchase cost after NCE cost adjustment (Rs. Crores)
APCPDCL	450.68	940.07	(489.39)	4087.75	4143.36
APEPDCL	459.42	352.41	107.01	1601.13	1588.97
APNPDCL	274.57	341.26	(66.70)	1481.10	1488.68
APSPDCL	941.84	492.73	449.12	2223.87	2172.83
Total	2126.51	2126.51	0.00	9393.85	9393.85

282. The details of cost of energy for each DISCOM are enclosed as **Annexures - H(i) to H(iv).**

**Distribution Losses:**

283. The following table gives the loss levels filed by the DISCOMs and those accepted by the Commission, exclusive of the transmission losses. Considering the investments in HVDS, System Improvement schemes and quality metering proposed for the control period FY 2006-07 to FY2008-09, the Commission feels that there is further room for commercial loss reduction and accordingly the Commission has revised the loss trajectory filed by the DISCOMs as follows:

**Table 41: Loss Trajectory**

LOSS TRAJECTORY				(Percentage)
	2006-07	2007-08	2008-09	
CPDCL	18.90%	17.41%	16.29%	
APERC	18.90%	16.91%	15.89%	
EPDCL	17.08%	16.25%	15.76%	
APERC	17.08%	15.83%	15.07%	
NPDCL	19.92%	18.80%	17.87%	
APERC	19.92%	18.01%	17.08%	
SPDCL	17.31%	16.46%	15.68%	
APERC	17.31%	15.86%	14.94%	

## CHAPTER - X

### TARIFF DESIGNING AND COST-TO-SERVE

#### PART A - INTRODUCTORY

284. Section 62 of the Central Act requires the Commission to determine the tariff for

- supply of electricity by a generating company to a distribution licensee
- transmission of electricity
- wheeling of electricity and
- retail sale of electricity

285. In exercise of the powers conferred in the provisions of the Central Act, the Commission has formulated regulations on determination of tariff for transmission of electricity (Regulation No.5 of 2005) and Wheeling and Retail Sale of electricity (Regulation No. 4 of 2005). To meet the requirements of the Central Act, GoAP has transferred the bulk supply or trading business to the four distribution licensees and hence the supply of electricity by a generating company to a distribution licensee is governed by the terms and conditions specified in the respective Power Purchase Agreements (PPAs).

286. In this Tariff Order, the Commission has determined the tariffs for transmission, wheeling and retail sale of electricity based on the regulations framed and section 61 of the Central Act. The Commission has used the Embedded CoS model since the first Tariff Order for FY 2000-01 both for tariff fixation and allocation of cross-subsidy. In this Tariff Order, the Commission has carried out a few changes in the Embedded CoS model due to the following factors:

Change in the industry structure due to allocation of PPAs to distribution companies, as APTRANSCO cannot engage in the business of trading;

Exclusion of inter-state transmission (PGCIL) expenses from intra-state transmission charges;

Ensure non-discriminatory transmission and wheeling charges for open access users;

Determination of transmission and distribution cost based on normative and benchmarking principles;

Transmission and wheeling cost allocations and corresponding tariff determination to be based on the regulations finalised by the Commission;

Determination of voltage-wise network costs instead of average cost methodology.

## **PART B - DESIGN OF WHEELING (NETWORK) TARIFFS**

287. There are two basic tenets in the design of wheeling tariffs/charges. These are: i) the charges must reflect the costs imposed by a user for use of the network and ii) these charges should be non-discriminatory. The Commission in determining the wheeling tariffs/charges for each DISCOM for the control period has incorporated these principles. In this chapter we shall briefly outline the design of wheeling tariffs/charges for the control period.

### **Licensees:**

288. The licensees' filing on wheeling tariffs has been based on the presumption that Operation and Maintenance related expenses are dependent on one common factor i.e. energy sold and hence they have allocated the operating expenses to all the three voltage levels viz., 33 kV, 11 kV and LT network based on energy handled by the respective voltage network. Non-operating expenditure, that includes interest cost, depreciation, return, etc., has been allocated based on the asset-base at each respective voltage level. The total allocated costs for each voltage network have been assumed to be recovered through energy handled at respective voltages and the licensees have proposed energy-based wheeling charges.

**Commission's Approach:**

289. The Commission appreciates the licensees' effort to provide voltage-wise asset costs in compliance with the Commission exhortations in its earlier orders where the Commission has indicated its inclination to move towards voltage-based wheeling charges. The Commission has however carried out a few changes in the licensees' proposals and has allocated all the network costs based on the voltage-wise assets at 33 kV, 11 kV and LT. The distribution network costs are fixed in nature and hence the Commission has allocated the distribution costs on asset base basis instead of partly on energy volume basis and partly on asset base basis.

290. After determining the network costs at each voltage level, the same have been allocated to the consumer categories based on the load contracted and/or incidents. This is in line with intra-state transmission tariff regulation wherein the transmission charges are allocated based on the transmission capacity contracted by Distribution Licensees and Open Access consumers. Generally, the contracts would be available only for HT and Open Access consumers. Therefore, the Commission has considered contracted capacity for HT and Open Access consumers and non-coincident peak for other categories of consumers i.e. LT consumers. The contracted basis cost allocated to consumer categories, especially the HT consumers, would also ensure non-discriminatory wheeling charges between native consumers and Open Access users.

291. One more important step for allocation of voltage-wise costs is that the entire 33kV costs have been allocated to all the voltage networks i.e. 33kV, 11kV and LT network as this network is utilised by all the users of the distribution network. The 11kV and LT networks would on the other hand not be utilised by 33kV consumers, and therefore, the 11kV costs would be shared only by 11kV and LT network consumers and LT costs would be shared only by LT consumers.

292. After allocating the total costs for each voltage based on the above methodology, the wheeling tariff / charges for each voltage have been determined based on the capacity handled by respective voltages. These capacity-based charges as against the licensee proposed energy-based rates shall ensure uniform charges for all users at a particular voltage level, ensure tariffs being rationalised to the extent that the fixed costs in the distribution would be recovered through fixed charges for HT and Open Access users, and also ensure non-discriminatory unbundled wheeling tariffs.

## **PART C - DESIGN OF RETAIL SUPPLY TARIFF FOR FY2006-07**

### **Determination of Tariff**

293. Based on the factors mentioned in Part - I, the Cost of supply (CoS) for each of the consumer categories underwent a change vis-à-vis the earlier year. This is mainly on account of methodology differences in the CoS model due to the industry structure changes and finalisation of tariff regulations after detailed consultations and public hearings. This should not be construed as reduction or increase in the consumer category costs; instead it can be construed as re-assessment of cross-subsidy levels for each consumer category based on the revised CoS methodology. The methodology adopted or altered for computing consumer level cost of supply is discussed below:

### **Power Purchase Cost Allocation:**

294. The model undergoes no change on the allocation of power purchase cost amongst consumer categories. The fixed cost of power purchase, as done in the earlier years, is allocated based on the coincident peak of the consumer categories and the variable cost of the power purchase is allocated based on the energy (sales plus losses) component of the consumer categories. For the purpose of coincident peak, the Commission has considered system peak. The licensee has considered the evening peak because the system peak is occurring in the evening if the agricultural loads which are supplied

in off-peak hours are not considered.

295. One of the changes in the power purchase cost is the inclusion of Regional transmission (PGCIL) expenses. In the earlier years, Regional transmission expenses (PGCIL) were included along with the intra-state transmission (APTRANSCO) expenses and allocated to the consumer categories. However, that treatment did not have implications on the consumer categories in the earlier years as power purchase and transmission functions were carried out by APTRANSCO and the cost allocation was done based on single-part bulk supply tariff which accounted for both the power purchase costs and transmission costs including inter-state transmission expenses.
296. For the present tariff year under consideration, APTRANSCO is only an intra-state transmission provider and hence the Commission has included the Regional and inter-state transmission expenses in the power purchase cost.
297. The power purchase cost for each of the distribution licensees is based on the allocation of PPAs in the third transfer scheme and that cost along with the Regional and inter-state transmission expenses which are allocated based on DISCOMs' share in the CGS are apportioned into fixed and variable components. Fixed Cost is allocated based on the system peak of consumer categories and the variable cost is allocated based on the energy drawn i.e. sales plus losses of each consumer category.

#### **Transmission Cost Allocation:**

298. In the earlier years, the Transmission Cost was allocated to consumer categories based on the evening coincident peak of consumer categories. For FY 2006-07, however, as the transmission has been de-linked from Distribution and Retail Supply businesses, the transmission tariffs have been determined by the Commission separately, in its Order dated 23-03-2006, in O.P.No.1 of 2006, and the transmission costs allocated based on the contracted capacity of the transmission users i.e. Distribution licensees and

Open Access users. For the consumer categories, where the contracts are not available, the Commission has considered non-coincident peak as a proxy for contracts and allocated the transmission cost accordingly.

**Wheeling Cost Allocation:**

299. Commission has followed transmission cost allocation principles for wheeling charges also. In the earlier years, the wheeling cost was also allocated based on the evening coincident peak. In this Tariff Order, for the same reasons mentioned as for the transmission cost allocation, the Commission has allocated the wheeling costs based on the contracted capacity of consumer categories and for categories where the contracted capacity is not available, non-coincident peak has been adopted for allocation of the wheeling costs.
300. In addition to the contracted capacity allocation, one of the key changes includes determination of voltage-wise costs as filed by the distribution licensees. In the earlier years, wheeling costs pertaining to lower voltages i.e. 33 kV, 11 kV and LT were also been allocated to 132 kV consumers based on average cost methodology as the licensees could not provide voltage-wise asset and cost details.
301. In their tariff filings, the licensees have provided voltage-wise asset and cost details. After review of the filings and information, the Commission has determined voltage-wise network costs and network losses. The voltage-wise network cost implies that 132 kV consumers would not be subject to the wheeling charges. Similarly 33 kV consumers would be paying only for 33 kV costs of the network, where as 11 kV consumer would be paying for 33 kV costs as well as 11 kV costs and similarly LT consumer would be paying for 33 kV, 11 kV and LT costs. This approach is in line with the provisions of the Central Act and will ensure cost-reflective and non-discriminatory wheeling and transmission tariffs.

**Retail Supply Cost Allocation:**

302. The retail supply costs are allocated based on the energy drawn by each consumer category. In the earlier years, this cost was combined with the distribution cost. For the present tariff year under consideration, as per the filings, the Commission has separated the retail supply cost from the wheeling cost and has allocated the same based on the energy drawn by each consumer category.

**Cost-to-Serve Model:**

303. The Embedded Cost-of-Service model is the basis for fixing the retail tariffs for FY 2006-07, and wheeling charges for FY 2006-07 to 2008-09 i.e. for all the three years of the Control period. This model is in line with Section 61 (g) of the Electricity Act 2003, which mandates the Commission to ensure that the tariff progressively reflect the cost of supply of electricity and also reduces cross-subsidies. The CoS enables identification of costs attributable to each category of consumers and therefore the basis for tariff fixation. The Commission has used the CoS model since the first Tariff Order for FY 2000-01 for both tariff fixation and allocation of cross-subsidy.

304. The Commission has carried out a few changes in the CoS model as mentioned in the Part - I of this chapter. In line with the changes the Commission has allocated the generation fixed cost based on the coincident peak. The Commission has earlier been using coincident peak as the system planning exercise and capacity additions are based on the system peak requirements. For this year, however, the Commission has allocated the Transmission and Distribution Costs based on the contracted capacity of the consumer categories and non-coincident peak. This allocation is in line with the Regulations No.4 &5 of 2005.

305. The present CoS of each category cannot be compared with the CoS of earlier years as earlier, the entire demand cost was allocated based on the

coincident peak. In this Tariff Order, the Commission has carried out a few modifications in the methodology to determine inter-alia the voltage-wise costs and compute the CoS for each category of consumers for the ensuing year.

**CHAPTER - XI**  
**REVENUE REQUIREMENT FOR DISTRIBUTION BUSINESS 2006-07 TO 2008-09**  
**APCPDCL**

**General Overview of the Licensee's Filings:**

306. The Licensee, in its filing, for Distribution business and Retail supply business, has shown its ARRs for filing each of the businesses separately, in addition to the combined ARR of both the business. A cost allocation statement segregating the accounts between the two businesses has also been submitted. However, while estimating the recovery of the revenue gap, the revenue from proposed wheeling tariff charges and from tariffs for retail supply have been taken together. In accordance with the W&RST Regulation in this overview, the two businesses have been taken separately.

**Financials:**

307. APCPDCL has requested the Commission to permit it to charge the following wheeling charges, voltage-wise, together with losses to be borne in kind:

**Table 42: Wheeling Charges & Losses for the Control Period at Different Voltages**

	33KV	11KV	LT
FY 2006-07 - Wheeling charges(paise/kWh) - Losses (%)	27	35	40
	4.21	6.46	8.16
FY 2007-08 - Wheeling charges (paise/kWh) - Losses (%)	28	37	44
	4.00	6.13	7.75
FY 2008-09 - Wheeling charges (paise/kWh) - Losses (%)	29	38	45
	3.81	5.84	7.38

308. The proposed wheeling charges tariffs will enable APCPDCL to recover its ARR for the Distribution business for each year of the Control period as given in the table below:

**Table 43: ARR for Distribution Business of APCPDCL for the Control Period**

	(Rs. Crores)		
	FY 06-07	FY 07-08	FY 08-09
ARR of Distribution Business	656.42	761.74	829.27

309. APCPDCL expects to recover its ARR through Wheeling charges from the Retail supply business consumers and from other users of the distribution system. For the current year (2005-06), the licensee is expecting to raise bills for Rs.32.94 Crores for third party wheeling and taking this as the basis, has projected a revenue of Rs. 36.23 Crores as wheeling revenue from third parties during the ensuing year, at current tariffs.

310. The total revenue requirement for Distribution business filed by the Licensee is also inclusive of SLDC charges.

311. APCPDCL has claimed interest on loans, depreciation as per Central Electricity Regulatory Commission (CERC) rates and advance against depreciation (AAD). It has claimed Return on Capital Employed restricting to interest on loans only.

**Resource Plan for the Control Period:**

312. In compliance with the W&RST Regulation and the Guidelines, APCPDCL has also submitted the Resource Plan for the Control Period comprising the Sales Forecast and Load Forecast, Power Procurement Plan and Distribution Plan along with the Capital Investment Plan for the Control Period.

**PART A - REVENUE REQUIREMENT**

313. The Commission has examined the ARR/ERC and the FPT of APCPDCL, and indicates herein the areas where the computations of the Licensee are found to be incorrect or unacceptable, with reasons therefor and the Commission's alternative computations. In this chapter, the Commission will

determine the ARR for the Distribution business and accordingly fix the Wheeling tariff / charges for the entire Control Period in accordance with the provisions of the W&RST Regulation.

**Original Cost of Fixed Assets:**

314. The licensee has projected the Original Cost of Fixed Assets (OCFA) for FY 2006-07 at Rs.3710.90 Crores, Rs.4275.84 Crores for FY 2007-08 and Rs.4777.49 Crores for FY 2008-09. The Commission has suitably moderated the additions to the fixed assets in FY 2005-06 as per trends of the progress achieved towards project planning and project completion, and approved the OCFA for the control period as follows:

**Table 44: Original Cost of Fixed Assets**

	APCPDCL			APERC			(Rs. Crores)
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09	
Assets	3710.90	4275.84	4777.49	3598.93	4018.55	4440.55	
Opening balance	3194.40	3710.90	4275.84	3179.48	3649.73	4121.83	
Additions	516.50	564.94	501.65	419.44	368.81	318.72	

The additions during each year of the control period in the Table above are based on the progress achieved towards project formulation, expenditure incurred, etc., as follows:

**Capital outlay-FY 2006- 07:**

315. The Licensee in the filings has made the following projections of capital expenditure for FY 2006-07:

**Table 45: Proposed Capital Outlay for FY 2006 - 07**

Base capital expenditure	Expenditure capitalisation	(Rs. Crores)	
		*IDC	Total
564.32	28.03	29.35	621.70

\* Interest during construction (IDC)

316. The Base capital expenditure of Rs.564.32 Crores is for HVDS, RGGVY and other System Improvement Schemes to strengthen the System, the details of which are examined later. The Licensee has proposed Rs. 28.03 Crores towards expenditure capitalisation and Rs. 29.35 Crores towards IDC, raising the aggregate capital expenditure to Rs.621.70 Crores.

**Capital Works - in - Progress (CWIP):**

*Progress during FY 2005 - 06:*

317. In the ARR for FY 2006-07, the DISCOM has projected a revised capital outlay (Base expenditure) of Rs. 413.37 Crores for FY 2005-06 along with IDC of Rs. 26.79 Crores and expenditure capitalization of Rs.26.67 Crores, which aggregate to Rs. 466.83 Crores as total capital expenditure expected to be incurred during FY 2005-06 as against Rs.350.70 Crores (base expenditure + IDC + expenses capitalized) reckoned in the Tariff Order for FY 2005-06. The Commission considers this projection to be on the higher side keeping in view the progress of expenditure during the first nine months of the year, up to December 2005, and allows an amount of Rs. 362.42 Crores towards base expenditure as detailed in the Table below:

**Table 46: Estimated Capital Outlay for FY 2005-06**

(Rs. Crores)

Name of the Scheme	Expenditure up to 12 / 2005	Tariff Order	APCPDCL	APERC
System Improvement	30.00	39.00	39.27	39.27
Metering Schemes	50.00	50.00	50.00	50.00
HVDS	15.00	12.50	52.50	25.00
RGGVY	58.65	-	58.65	58.65
Service Release	20.25	40.00	48.45	45.00
PFC	20.00	50.00	50.00	30.00
SI Distribution	34.24	50.00	50.00	50.00
Pumpset Energisation	10.00	15.00	15.00	15.00
APDRP	30.00	49.50	49.50	49.50
<b>Total</b>	<b>268.14</b>	<b>306.00</b>	<b>413.37</b>	<b>362.42</b>

318. The amount to be taken to CWIP in respect of the above schemes works out to Rs.412.58 Crores as detailed in the Table below:

**Table 47: Amounts Taken for CWIP for FY 2005-06**  
(Rs. Crores)

Particulars	APCPDCL	APERC
Base capital expenditure	413.37	362.42
Expenses capitalized	26.67	26.67
Interest (IDC) capitalized	26.79	23.49
Total	<b>466.83</b>	<b>412.58</b>

319. The projected CWIP as on 31-03-2006 would constitute the Opening Balance for FY 2006-07.

*Projections for FY 2006-07, 2007-08 and 2008-09:*

320. As regards FY 2006-07, the ARR filings project a Base capital expenditure of Rs.564.32 Crores for FY2006-07, which together with the expenditure capitalization of Rs.28.03 Crores and IDC of Rs.29.35 Crores aggregates to Rs.621.70 Crores. Based on the progress, the Commission allows an estimated amount of Rs.385.65 Crores as base capital expenditure. The details are as follows:

**Table 48: Scheme-wise Details for Base Capital Expenditure for FY 2006-07 to 2008-09**

Name of the Scheme	(Rs. Crores)								
	2006-07	2007-08	2008-09	CPDCL	APERC	CPDCL	APERC	CPDCL	APERC
System Improvement	126.97	75.00	65.50	50.00	139.25	60.00			
Metering Schemes	32.00	32.00	20.00	20.00	30.00	20.00			
HVDS	109.00	75.00	125.00	50.00	172.00	50.00			
RGGVY	58.65	58.65	58.84	58.84	0.00	0.00			
Service Release	59.70	40.00	61.54	40.00	63.37	40.00			
PFC	108.00	60.00	0.00	0.00	0.00	0.00			
SI Distribution	55.00	30.00	61.00	35.00	67.00	40.00			
Pump set Energisation	15.00	15.00	15.00	15.00	15.00	15.00			
<b>Total</b>	<b>564.32</b>	<b>385.65</b>	<b>406.88</b>	<b>268.84</b>	<b>486.62</b>	<b>225.00</b>			

321. The DISCOM shall submit quarterly progress reports on physical and financial progress on each of the schemes.

322. As stated above, the Commission has decided to reckon outlays of Rs.362.42 Crores for FY 2005-06 and Rs. 385.65 Crores for FY 2006-07 as Base Capital expenditure (paragraphs 317 and 320). These, together with the expenses and the IDC capitalized, work out respectively to Rs.412.58 Crores and Rs.433.21 Crores; consequently, the amounts reckoned for CWIP work out to Rs.405.68 Crores for FY 2005-06 and Rs.419.44 Crores for FY 2006-07. The year-wise position of CWIP is detailed in the Table below:

**Table 49: Statement of Estimated Capital Works-in-Progress for FY 2005-06 to 2008-09**

Particulars	2005-06	2006-07	2007-08	2008-09	(Rs. Crores)
<b>Opening balance of CWIP</b>	<b>398.78</b>	<b>405.68</b>	<b>419.44</b>	<b>368.81</b>	
<b>Add : Capital Expenditure</b>	<b>362.42</b>	<b>385.65</b>	<b>268.84</b>	<b>225.00</b>	
Expenses Capitalised	26.67	27.50	29.77	30.74	
Interest During Construction	23.49	20.06	19.57	12.88	
<b>Less: Investment Capitalised</b>	<b>405.68</b>	<b>419.44</b>	<b>368.81</b>	<b>318.72</b>	
<b>Closing balance of CWIP</b>	<b>405.68</b>	<b>419.44</b>	<b>368.81</b>	<b>318.72</b>	

#### **Depreciation and Consumer Contributions:**

323. Deductions have been made from the OCFA on account of accumulated depreciation and consumer contributions inclusive of capital grants and subsidies received by the Licensee.

**Table 50: Deductions to Original Cost of Fixed Assets**

	APCPDCL			APERC		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
Depreciation	1491.51	1634.66	1768.78	1462.11	1614.58	1786.43
Opening balance	1340.27	1491.51	1634.66	1331.21	1462.11	1614.58
Additions during the year	151.24	143.15	134.12	130.90	152.47	171.85
Consumer Contribution	814.06	989.56	1119.93	814.06	989.56	1119.93
Opening balance	646.57	814.06	989.56	646.57	814.06	989.56
Additions during the year	167.49	175.49	130.37	167.49	175.49	130.37

**Working Capital:**

324. Working Capital requirement equivalent to one month's O&M expenses as allowed for the year has been included in the Rate Base.

**Table 51: Working Capital**

	(Rs. Crores)					
	APCPDCL			APERC		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
Working Capital	31.53	32.55	33.83	30.94	32.49	33.91

**Rate Base for the Control Period**

325. After the above adjustments, the Regulated Rate Base approved by the Commission for each year of the Control period is determined as given in the table below:

**Table 52: Regulated Rate Base**

	(Rs. Crores)					
	APCPDCL			APERC		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
Regulated Rate Base	1337.98	1561.03	1804.03	1293.16	1426.47	1559.85

326. The Commission thus allows Rs.1293.16 Crores for FY 2006-07, Rs. 1426.47 Crores for FY 2007-08 and Rs.1559.85 Crores for FY 2008-09 as against the Rate Base of Rs.1337.98 Crores for FY 2006-07, Rs. 1561.03 Crores for FY 2007-08, Rs.1804.03 Crores projected by the Licensee. (For Details please see Annexure - E(i)).

**Expenditure**

327. The Commission examined the different items of expenditure and has carried out the following corrections:

**SLDC charges:**

328. The Licensee's share of SLDC charges of Rs 23.47 Crores for FY 2006-07 is taken to the ARR of the Retail Supply business.

**Depreciation and Advance Against Depreciation:**

329. Depreciation as per prevailing practice is continued as discussed in paragraphs 160 to 163. Accordingly, no AAD is provided.

**O&M Charges**

330. The O&M charges for APCPDCL have been fixed taking into account the norms explained in paragraphs 243 to 251. The charges are Rs.398.77 Crores for FY2006-07, Rs. 419.61 Crores for FY 2007-08 and Rs.437.64 Crores for FY 2008-09.

**Special appropriation for safety measures:**

331. The Commission has voiced its deep concern at the existing levels of safety measures in paragraphs 184 to186 of this order. To augment the efforts of the Licensee in this regard the Commission allows a special appropriation of Rs.5 Crores for each year of the Control Period. The amount will be spent by the Licensee on the basis of a proposal to be got approved by the Commission.

**Table 53: Expenditure Items in Distribution Business (APCPDCL)**

	APCPDCL			APERC		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
SLDC Charges	23.47	25.43	27.23	0.00	0.00	0.00
Operation and Maintenance Charges	406.44	437.87	487.09	398.77	419.61	437.64
Depreciation	66.51	79.67	94.34	130.90	152.47	171.85
Advance Against Depreciation	84.73	63.48	39.78	0.00	0.00	0.00
Taxes on Income	0.00	0.00	0.00	0.00	0.00	0.00
Other Expenditure	6.64	2.17	2.17	4.47	0.00	0.00
Special Appropriations for Safety measures	0.00	0.00	0.00	5.00	5.00	5.00
Less IDC Capitalised	29.35	29.62	27.86	0.00	0.00	0.00
Less O&M Expenses Capitalised	28.03	31.07	34.21	27.50	29.77	30.74
Net Expenditure	530.41	577.55	616.40	511.64	547.31	583.75

332. The Commission approved expenditure is Rs.511.64 Crores for FY 2006-07 as against Rs.530.41 Crores claimed by the Licensee. Similarly, for FY 2007-08 the Commission approves an expenditure of Rs. 547.31 Crores as against Rs. 577.55 Crores filed by APCPDCL and Rs. 583.75 Crores for FY 2008-09 as against the filings of Rs. 616.40 Crores. Item-wise expenditure details are mentioned below:

#### **Return on Capital Employed**

333. The RoCE for the Distribution business is computed taking into account a debt-equity ratio of 75:25 and the cost of debt at 9% and equity at 14%. For FY 2006-07, the Commission permits RoCE of Rs.132.55 Crores as against the APCPDCL filings of Rs.126.00 Crores. For FY 2007-08, the RoCE allowed is Rs. 146.21 Crores as against the Licensee's projection of Rs.184.20 Crores and for FY 2008-09, the amount allowed is Rs. 159.88 Crores as against the Licensee's of Rs.212.88 Crores. The details are given in the following table:

**Table 54: Return on Capital Employed for the Control Period**

	(Rs. Crores)					
	APCPDCL			APERC		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
Regulated Rate Base	1337.98	1561.03	1804.03	1293.16	1426.47	1559.85
Capital Structure						
Debt, percent	NA	0.70	0.70	0.75	0.75	0.75
Equity, percent	NA	0.30	0.30	0.25	0.25	0.25
Cost of Funds	NA	0.00	0.00	0.00	0.00	0.00
Cost of Debt, percent	NA	0.10	0.10	0.09	0.09	0.09
Return on Equity, percent*	NA	0.16	0.16	0.14	0.14	0.14
Cost of Capital	NA	0.12	0.12	0.10	0.10	0.10
Return on Capital Employed, Rs.Cr*	126.00	184.20	212.88	132.55	146.21	159.88

*Licensee has sought to forego ROE for 2006-07. With RoE, the RoCE works out to Rs. 157.88 Crores.*

### **Revenue requirement**

334. The revenue requirements for the Distribution business of APCPDCL as approved by the Commission work out to Rs.644.18 Crores for FY 2006-07, Rs.693.52 Crores for FY 2007-08 and Rs. 743.63 Crores for FY 2008-09 (For details please see Annexure -E(i)).

**Table 55: Revenue Requirement for the Control Period**

**(Rs. Crores)**

	APCPDCL			APERC		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
Net Expenditure	530.41	577.55	616.40	511.64	547.31	583.75
Return on Capital Employed	126.00	184.20	212.88	132.55	146.21	159.88
Non-Tariff Income	0.00	0.00	0.00	0.00	0.00	0.00
Revenue Requirement, Net	656.41	761.75	829.28	644.18	693.52	743.63

### **Wheeling Tariff / Charges**

335. The Revenue requirement approved by the Commission will be recovered from Wheeling tariffs/charges on all those using the Distribution network including of the Licensee.

## **PART B - WHEELING TARIFF / CHARGES FOR THE CONTROL PERIOD FOR APCPDCL**

336. Wheeling tariff / charges are determined on the contracted capacity of the users to enable the Licensee to recover its revenue requirement. Separate charges are specified for each year of the control period and shall remain fixed during the control period.

### **Wheeling Tariff/Charges for FY2006-07, -08, -09**

337. The Commission determines the wheeling tariffs for each year of the control period.

(a). These charges as given below are applicable for use of distribution system of a licensee by other licensees, generating companies, captive power plants, or users / open access users under Regulation No.2 of 2005.

**Table 56: Wheeling Tariff/Charges for the Control Period for APCPDCL**

	APCPDCL			APERC		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
	Rs./kWh			(Rs. kVA/Month)		
33kV	0.27	0.28	0.29	32.70	33.05	32.77
11kV	0.35	0.37	0.38	91.02	92.51	92.52
LT	0.40	0.44	0.45	126.44	129.18	130.37

*The users of the network will in addition bear energy losses in kind.*

**Losses:**

(b). The following are the losses in kind up to the respective voltage level at which the wheeled energy is delivered or injected whichever voltage is lower:

**Table 57: Wheeling Losses at Different Voltage Levels (APCPDCL)**

Voltage	2006-07	2007-08	2008-09
33 kV	4.21%	4.00%	3.81%
11 kV	11.34%	10.73%	10.25%
LT	22.37%	20.33%	19.58%

*Wheeling tariff/charges are leviable with reference to the demand at the entry point.*

**338. Notes:**

- (i). The Distribution licensee shall deliver the quantum of energy given to it for wheeling, reduced by the distribution losses in kind indicated in Paragraph 337(b) above.
- (ii). If the wheeling involves transmission of energy through transmission system of a Transmission Licensee, the consumer or the supplier as the case may be, has to pay the applicable transmission charges and transmission energy losses in kind also.
- (iii). Transmission system is considered to be involved in the wheeling of energy in the following cases:

- (a). Entry/Exit point is connected to the EHT system.
- (b). The entry and exit points are connected to the networks of more than one DISCOM.
- (iv). Except in the cases of iii(a) above, where the entry and exit points are in the same DISCOM area, no transmission charges are payable.
- (v). If the wheeling of electricity is through the distribution system of more than one distribution licensee, the wheeling charges shall be payable to the distribution licensee of the area where the electricity is delivered.
- (vi). These charges shall, however, be subject to the orders of the Hon'ble Supreme Court in the pending appeals, which have arisen out of the interpretation of the provisions of the Reform Act and have been the subject matter of the order passed by the Hon'ble High court. This order shall be read subject to any orders, directions etc., that may be issued by the Hon'ble High Court and the Hon'ble Supreme Court in the pending proceedings.

**(Also please see Annexure - C)**

**CHAPTER - XII**  
**REVENUE REQUIREMENT FOR DISTRIBUTION BUSINESS 2006-07 TO 2008-09**  
**APEPDCL**

**General Overview of the Licensee's Filings**

339. The Licensee, in its filing, for Distribution business and Retail supply business, has shown its ARRs for filing each of the businesses separately, in addition to the combined ARR of both the businesses. A cost allocation statement segregating the accounts between the two businesses has also been submitted. However, while estimating the recovery of the revenue gap, the revenue from proposed wheeling tariff charges and from tariffs for retail supply have been taken together. In accordance with the W&RST Regulation in this overview, the two businesses have been taken separately.

**Financials:**

340. APEPDCL has requested the Commission to permit it to charge the following wheeling charges, voltage-wise, together with losses to be borne in kind:

**Table 58: Wheeling Charges & Losses for the Control Period at Different Voltages**

	33kV	11kV	LT
FY2006-07 - Wheeling charges (paise/kWh)0000	39	45	65
	6.10	4.42	6.71
FY2007-08 - Wheeling charges (paise/kWh)	39	46	72
	5.92	4.29	6.52
FY2008-09 - Wheeling charges (paise/kWh)	39	46	70
	5.78	4.19	6.36

341. The proposed wheeling charges tariffs will enable APEPDCL to recover its ARR for the Distribution business for each year of the Control period as given in the table below:

**Table 59: ARR for Distribution Business of APEPDCL for the Control Period**

	(Rs. Crores)		
	FY 06-07	FY 07-08	FY 08-09
ARR of Distribution Business	343.96	409.34	427.79

342. APEPDCL expects to recover its ARR through Wheeling charges from the Retail supply business consumers and from other users of the distribution system.

343. The total revenue requirement for Distribution business filed by the Licensee is also inclusive of SLDC charges.

344. APEPDCL has claimed interest on loans, depreciation as per Central Electricity Regulatory Commission (CERC) rates and advance against depreciation (AAD). It has claimed Return on Capital Employed restricting to interest on loans only.

**Resource Plan for the Control Period:**

345. In compliance with the W&RST Regulation and the Guidelines, APEPDCL has also submitted the Resource Plan for the Control Period compressing the Sales Forecast and Load Forecast, Power Procurement Plan and Distribution Plan along with the Capital Investment Plan for the Control Period.

**PART A - REVENUE REQUIREMENT**

346. The Commission has examined the ARR/ERC and the FPT of APEPDCL, and indicates herein the areas where the computations of the Licensee are found to be incorrect or unacceptable, with reasons therefor and the Commission's alternative computations. In this chapter, the Commission will determine the ARR for the Distribution business and accordingly fix the Wheeling tariff / charges for the entire Control Period in accordance with the provisions of the W&RST Regulation.

**Original Cost of Fixed Assets:**

347. The licensee has projected the Original Cost of Fixed Assets (OCFA) for FY 2006-07 at Rs.1956.39 Crores, Rs.2296.12 Crores for FY 2007-08 and Rs.2573.73 Crores for FY 2008-09. The Commission has suitably moderated the additions to the fixed assets in FY 2005-06 as per trends of the progress achieved towards project planning and project completion, and approved the OCFA for the control period as follows:

**Table 60: Original Cost of Fixed Assets**

	APEPDCL			APERC			(Rs. Crores)
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09	
Assets	1956.39	2296.12	2573.73	1783.88	2024.14	2265.78	
Opening balance	1645.05	1956.39	2296.12	1563.81	1783.88	2024.14	
Additions during the year	311.34	339.73	277.61	220.06	240.27	241.64	

348. The additions during each year of the control period in the table above are based on the progress achieved towards project formulation, expenditure incurred, etc., as follows:

**Capital outlay - Progress during FY 2005 - 06:**

349. The Licensee in the filings has made the following projections of capital expenditure for FY 2006-07:

**Table 61: Proposed Capital Outlay for FY 2006 - 07**

(Rs. Crores)			
Base capital expenditure	Expenditure capitalisation	IDC*	Total
300.91	27.46	23.04	351.41

\* Interest during construction (IDC)

350. The Base capital expenditure of Rs.300.91 Crores is for HVDS, RGGVY and other System Improvement schemes to strengthen the System and other schemes, the details of which are examined later. The Licensee has proposed Rs.27.46 Crores towards expenditure capitalisation and Rs.23.04 Crores towards IDC, raising the aggregate capital expenditure to Rs 351.41 Crores.

#### **Capital Works-in-Progress (CWIP)**

##### *Capital outlay - Progress during FY 2005- 06:*

351. In the ARR for FY 2006-07, the DISCOM has projected a revised capital outlay (Base expenditure) of Rs.230.00 Crores for FY 2005-06 along with IDC of Rs.16.24 Crores and expenditure capitalization of Rs. 25.04 Crores, which aggregate to Rs.271.28 Crores as total capital expenditure expected to be incurred during FY 2005-06 as against Rs.162.92 Crores (base expenditure + IDC + expenses capitalized) reckoned in the Tariff Order for FY 2005-06. The Commission considers this projection to be on the higher side keeping in view the progress of expenditure during the first nine months of the year, up to December 2005, and allows an amount of Rs. 216.00 Crores towards base expenditure as detailed in the Table below:

**Table 62: Estimated Capital Outlay for FY 2005-06**

**(Rs. Crores)**

	<b>Expenditure up to 12/05</b>	<b>TO</b>	<b>APEPDCL</b>	<b>APERC</b>
SI Schemes	11.84	26.90	15.00	13.00
HVDS Schemes	20.46	0.00	37.00	30.00
RGGVY Schemes	0.00	0.00	0.00	0.00
Service Release	15.21	25.00	25.00	20.00
APDRP Schemes	74.64	80.00	125.00	125.00
Other Schemes	28.00	15.00	28.00	28.00
	<b>150.15</b>	<b>146.90</b>	<b>230.00</b>	<b>216.00</b>

352. The amount to be taken to CWIP in respect of the above schemes works out to Rs.254.77 Crores as detailed in the Table below:

**Table 63: Amounts Taken for CWIP for FY 2005-06**

	(Rs. Crores)	
	APEPDCL	APERC
Base capital expenditure	230.00	216.00
Expenses capitalized	25.04	23.52
Interest (IDC) capitalized	16.24	15.25
<b>Total</b>	<b>271.28</b>	<b>254.77</b>

353. The projected CWIP as on 31-03-2006 would constitute the Opening Balance for FY 2006-07.

*Capital Outlay - Projections for FY 2006-07, 2007-08 and 2008-09:*

354. As regards FY 2006-07, the ARR filings project a Base capital expenditure of Rs.300.91 Crores for FY2006-07, which together with the expenditure capitalization of Rs.27.46 Crores and IDC of Rs.23.04 Crores aggregates to Rs.351.41 Crores. Based on the progress, the Commission allows an estimated amount of Rs.216.00 Crores as base capital expenditure for Base year FY 2005-06. The details are as follows:

**Table 64: Scheme-wise Details for Base Capital Expenditure for FY 2006-07 to 2008-09**

	(Rs. Crores)					
	FY 2006-07		FY 2007-08		FY 2008-09	
	APEPDCL	APERC	APEPDCL	APERC	APEPDCL	APERC
SI Schemes	87.91	16.00	85.74	55.00	5.00	30.00
HVDS	42.00	17.00	53.81	40.00	25.35	35.00
RGGVY	80.00	80.00	80.00	80.00	99.33	99.33
Service Release	25.00	20.00	25.00	15.00	25.00	15.00
APDRP	40.00	40.00	0.00	0.00	0.00	0.00
Other Schemes	26.00	26.00	33.93	28.93	30.00	25.00
<b>Total</b>	<b>300.91</b>	<b>199.00</b>	<b>278.48</b>	<b>218.93</b>	<b>184.68</b>	<b>204.33</b>

355. The DISCOM shall submit quarterly progress reports on physical and financial progress on each of the schemes.

356. As already stated above, the Commission has decided to reckon outlays of Rs.216.00 Crores for FY 2005-06 and Rs.199.00 Crores for FY 2006-07 as Base Capital expenditure (paragraphs 348 to 354). These, together with the expenses and the IDC capitalized, work out respectively to Rs.254.77 Crores and Rs.239.75 Crores; consequently, the amounts reckoned for CWIP work out to Rs.200.37 Crores for FY 2005-06 and Rs.220.06 Crores for FY 2006-07. The year-wise position of CWIP are detailed in the Table below:

**Table 65: Statement of Estimated Capital Works-in-Progress for FY 2005-06 to 2008-09 (Rs. Crores)**

Particulars	2005-06	2006-07	2007-08	2008-09
<b>Opening balance of CWIP</b>	<b>145.97</b>	<b>200.37</b>	<b>220.06</b>	<b>240.27</b>
<b>Add: Capital Expenditure</b>	<b>216.00</b>	<b>199.00</b>	<b>218.93</b>	<b>204.33</b>
Expenses Capitalised	23.52	25.52	25.42	26.08
Interest During Construction	15.25	15.24	16.12	12.60
<b>Less: Investment Capitalised</b>	<b>200.37</b>	<b>220.06</b>	<b>240.27</b>	<b>241.64</b>
<b>Closing balance of CWIP</b>	<b>200.37</b>	<b>220.06</b>	<b>240.27</b>	<b>241.64</b>

#### **Depreciation and Consumer Contributions:**

357. Deductions have been made from the OCFA on account of accumulated depreciation and consumer contributions inclusive of capital grants and subsidies received by the Licensee.

**Table 66: Deductions to Original Cost of Fixed Assets**

	APEPDCL			APERC			(Rs. Crores)
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09	
Depreciation	755.64	832.45	896.53	741.38	847.06	966.01	
Opening Balance	666.80	755.64	832.45	647.87	741.38	847.06	
Additions during the year	88.84	76.81	64.08	93.51	105.68	118.95	
Consumer Contributions	478.41	575.41	689.81	478.41	575.41	689.81	
Opening Balance	371.41	478.41	575.41	371.41	478.41	575.41	
Additions during the year	107.00	97.00	114.40	107.00	97.00	114.40	

**Working Capital:**

358. Working Capital requirement equivalent to one month's O&M expenses as allowed for the year has been included in the Rate Base.

**Table 67: Working Capital**

(Rs. Crores)

	APEPDCL			APERC		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
Working Capital	19.37	20.82	22.60	15.87	15.77	16.49

**Rate Base for the Control Period**

359. After the above adjustments, the Regulated Rate Base approved by the Commission for each year of the Control period is determined as given in the table below:

**Table 68: Regulated Rate Base**

(Rs. Crores)

	APEPDCL			APERC		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
Regulated Rate Base	683.95	826.12	960.42	570.18	598.65	622.31

360. The Commission thus allows Rs.570.18 Crores for FY 2006-07, Rs. 598.65 Crores for FY 2007-08, Rs.622.31 Crores for FY 2008-09 as against the Rate Base of Rs.683.95 Crores for FY 2006-07, Rs. 826.12 Crores for FY 2007-08, Rs.960.42 Crores projected by APEPDCL [Refer Annexure - E(ii)].

**Expenditure**

361. The Commission examined the different items of expenditure and has carried out the following corrections:

**SLDC charges:**

362. The Licensee's share of SLDC charges of Rs.4.38 Crores for FY 2006-07 is taken to the ARR of the Retail Supply business.

**Depreciation and Advance Against Depreciation:**

363. Depreciation as per prevailing practice is continued as discussed in paragraphs 160 to 163. Accordingly, no AAD is provided.

**O&M Charges**

364. The O&M charges for APEPDCL have been fixed taking into account the norms explained above. The charges are Rs.215.98 Crores for FY 2006-07, Rs. 214.68 Crores for FY 2007-08 and Rs. 223.97 Crores for FY 2008-09.

**Special appropriation for safety measures:**

365. The Commission has voiced its deep concern at the existing levels of safety measures in paragraph 184 to 186 of this order. To help augment the efforts of the Licensees in this regards the Commission allows a special appropriation of Rs.5 Crores for each year of the Control Period. The amount will be spent by the Licensee on the basis of schemes / projects approved by the Commission.

**Table 69: Expenditure Items in Distribution Business (APEPDCL)**

(Rs. Crores)

	APEPDCL			APERC		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
Expenditure	332.22	340.92	345.55	316.42	327.16	348.59
SLDC Charges	9.02	9.77	10.46	0.00	0.00	0.00
Operation and Maintenance Charges	232.43	252.54	270.34	215.98	214.68	223.97
Depreciation	46.19	53.54	62.28	93.51	105.68	118.95
Advance Against Depreciation	42.65	23.27	1.80	0.00	0.00	0.00
Taxes on Income	0.00	0.00	0.00	0.00	0.00	0.00
Other Expenditure	1.93	1.80	0.67	1.93	1.80	0.67
Special Appropriations - Safety measures	0.00	0.00	0.00	5.00	5.00	5.00
Less Expenses Capitalized	50.49	29.06	31.09	25.52	25.42	26.08
IDC Capitalised	23.04	20.51	11.39	0.00	0.00	0.00
O&M Expenses Capitalised	27.46	29.06	31.09	25.52	25.42	26.08
Net Expenditure	281.73	311.86	314.46	290.90	301.74	322.51

366. The Commission approved expenditure is Rs.290.90 Crores for FY 2006-07 as against Rs.281.73 Crores claimed by the Licensee. For FY 2007-08 the Commission considers appropriate an expenditure of Rs. 301.74 Crores as

against Rs. 311.86 Crores filed by APEPDCL and Rs. 322.51 Crores for FY 2008-09 as against the filings of Rs. 314.46 Crores. Item-wise expenditure details are mentioned below:

#### **Return on Capital Employed**

367. The RoCE is estimated taking into account the debt-equity ratio of 75:25 and the cost of debt at 9% and of equity at 14% for the Distribution business. For FY 2006-07, the Commission permits RoCE of Rs.58.44 Crores as against the APEDPCL filings of Rs.62.23 Crores. For FY 2007-08 the RoCE allowed is Rs. 61.36 Crores as against the Licensee's projection of Rs.97.48 Crores and for FY 2008-09, the amount allowed is Rs. 63.79 Crores as against the Licensee's projection of Rs.113.33 Crores. The details are given in the following table:

**Table 70: Return on Capital Employed for the Control Period**

	(Rs. Crores)					
	APEPDCL			APERC		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
Regulated Rate Base	683.95	826.11	960.41	570.18	598.65	622.31
Capital Structure						
Debt, (percent)	NA	0.70	0.70	0.75	0.75	0.75
Equity, (percent)	NA	0.30	0.30	0.25	0.25	0.25
Cost of Funds	NA	0.00	0.00	0.00	0.00	0.00
Cost of Debt, (percent)	NA	0.10	0.10	0.09	0.09	0.09
Return on Equity,( percent)	NA	0.16	0.16	0.14	0.14	0.14
Cost of Capital	NA	0.12	0.12	0.10	0.10	0.10
Return on Capital Employed, Rs.Cr	62.23	97.48	113.33	58.44	61.36	63.79

*Licensee has sought to forego RoE for FY2006-07. With RoE, the RoCE works out to Rs 80.71 Crores.*

#### **Revenue requirement**

368. The revenue requirement for the Distribution business of APEPDCL approved by the Commission is Rs. 349.35 Crores for FY 2006-07, Rs. 363.11 Crores for FY 2007-08 and Rs. 386.30 Crores for FY 2008-09. [Refer Annexure - E(ii)].

**Table 71: Revenue Requirement for the Control Period**

	(Rs. Crores)					
	APEPDCL			APERC		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
Net Expenditure	281.73	311.86	314.46	290.90	301.74	322.51
Return on Capital Employed	62.23	97.48	113.33	58.44	61.36	63.79
Non Tariff Income	0.00	0.00	0.00	0.00	0.00	0.00
Revenue Requirement, Net	343.96	409.34	427.79	349.35	363.11	386.30

**Wheeling Tariff/Charges**

369. The Revenue requirement approved by the Commission will be recovered from Wheeling tariffs/charges on all those using the Distribution network including the consumers of the Licensee.

**PART B - WHEELING TARIFFS/CHARGES FOR THE CONTROL PERIOD FOR APEPDCL**

370. Wheeling tariff / charges are determined on the contracted capacity of the users to enable the Licensee to recover its revenue requirement. Separate charges are specified for each year of the control period and remain fixed during the control period.

**Wheeling Tariff/Charges for FY 2006-07, FY 2007-08 and FY 2008-09**

371. The Commission determines the wheeling tariffs for each year of the control period. These charges as given below are applicable for use of distribution system of a licensee by other licensees, a generating companies, or captive power plants, or users/open access users under Regulation No.2 of 2005.

**Table 72: Wheeling Tariff/Charges for the Control Period for APEPDCL**

	APEPDCL			APERC		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
	Rs./kWh			(Rs. kVA/Month)		
33kV	0.39	0.39	0.39	11.28	10.90	10.74
11kV	0.45	0.46	0.46	56.41	54.60	53.98
LT	0.65	0.72	0.70	224.00	218.49	218.94

*The users of the network will in addition bear energy losses in kind.*

**Losses:**

372. The following are the losses in kind up to the respective voltage level at which the wheeled energy is delivered or injected whichever voltage is lower.

**Table 73: Wheeling Losses at Different Voltage Levels (APEPDCL)**

Voltage	2006-07	2007-08	2008-09
33 kV	6.10%	5.92%	5.78%
11 kV	10.85%	10.51%	10.27%
LT	19.11%	17.84%	17.11%

**Wheeling tariff/charges are leviable with reference to the demand at the entry point.**

**373. Notes:**

- (i). The Distribution licensee shall deliver the quantum of energy given to it for wheeling, reduced by the distribution losses in kind indicated in **Paragraph 372** above.
- (ii). If the wheeling involves transmission of energy through transmission system of a Transmission Licensee, the consumer or the supplier as the case may be, has to pay the applicable transmission charges and transmission energy losses in kind also.
- (iii). Transmission system is considered to be involved in the wheeling of energy in the following cases.
  - a) Entry/Exit point is connected to the EHT system.

- b) The entry and exit points are connected to the networks of more than one DISCOM.
- (iv) Except in the cases of iii(a) above, where the entry and exit points are in the same DISCOM area, no transmission charges are payable.
- (v) If the wheeling of electricity is through the distribution system of more than one distribution licensee, the wheeling charges shall be payable to the distribution licensee of the area where the electricity is delivered.
- (vi) These charges shall, however, be subject to the orders of the Hon'ble Supreme Court in the pending appeals, which have arisen out of the interpretation of the provisions of the Reform Act and have been the subject matter of the order passed by the Hon'ble High court. This order shall be read subject to any orders, directions etc., that may be issued by the Hon'ble High Court and the Hon'ble Supreme Court in the pending proceedings.

(Also please see Annexure -C)

**CHAPTER - XIII**  
**REVENUE REQUIREMENT FOR DISTRIBUTION BUSINESS 2006-07 TO 2008-09**  
**APNPDCL**

**General Overview of the Licensee's Filings**

374. The Licensee, in its filing, for Distribution business and Retail supply business, has shown its ARRs for filing each of the businesses separately, in addition to the combined ARR of both the businesses. A cost allocation statement segregating the accounts between the two businesses has also been submitted. However, while estimating the recovery of the revenue gap, the revenue from proposed wheeling tariff charges and from tariffs for retail supply have been taken together. In accordance with the W&RST Regulation in this overview, the two businesses have been taken separately.

**Financials:**

375. APNPDCL has requested the Commission to permit it to charge the following wheeling charges, voltage-wise, together with losses to be borne in kind:

**Table 74: Wheeling Charges & Losses for the Control Period at Different Voltages**

	33kV	11kV	LT
FY2006-07 - Wheeling charges (paise/kWh)	40	51	69
- Losses (%)	5.45	5.83	8.67
FY2007-08 - Wheeling charges (paise/kWh)	43	56	77
- Losses (%)	5.18	5.55	8.24
FY2008-09 - Wheeling charges (paise/kWh)	45	58	81
- Losses (%)	4.92	5.27	7.83

376. These tariffs will enable APNPDCL to recover its ARR for the Distribution business for each year of the Control period as given in the table below:

**Table 75: ARR of APNPDCL for the Control Period**

	<b>(Rs. Crores)</b>		
	<b>FY 06-07</b>	<b>FY 07-08</b>	<b>FY 08-09</b>
ARR of Distribution Business	391.92	454.22	494.75

377. APNPDCL expects to recover its ARR through Wheeling charges from the Retail supply business consumers and from other users of the distribution system.

378. The total revenue requirement for Distribution business filed by the Licensee is also inclusive of SLDC charges.

379. APNPDCL has claimed interest on loans, depreciation as per Central Electricity Regulatory Commission (CERC) rates and advance against depreciation (AAD). It has claimed Return on Capital Employed restricting to interest on loans only.

**Resource Plan for the Control Period:**

380. In compliance with the W&RST Regulation and the Guidelines, APNPDCL has also submitted the Resource Plan for the Control Period compresing the Sales Forecast and Load Forecast, Power Procurement Plan and Distribution Plan along with the Capital Investment Plan for the Control Period.

**PART A - REVENUE REQUIREMENT**

381. The Commission has examined the ARR/ERC and the FPT of APNPDCL, and indicates herein the areas where the computations of the Licensee are found to be incorrect or unacceptable, with reasons therefor and the Commission's alternative computations. In this chapter, the Commission will determine the ARR for the Distribution business and accordingly fix the Wheeling tariff / charges for the entire Control Period in accordance with the provisions of the W&RST Regulation.

**Original Cost of Fixed Assets:**

382. The licensee has projected the Original Cost of Fixed Assets (OCFA) for FY 2006-07 at Rs.2021.73 Crores, Rs.2378.16 Crores for FY 2007-08 and Rs.2722.58 Crores for FY 2008-09. The Commission has suitably moderated the additions to the fixed assets in FY 2005-06 as per trends of the progress achieved towards project planning and project completion, and approved the OCFA for the control period as follows:

**Table 76: Original Cost of Fixed Assets**

	APNPDCL			APERC			(Rs. Crores)
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09	
Assets	2021.73	2378.16	2722.58	1882.12	2125.33	2345.65	
Opening balance	1753.67	2021.74	2378.16	1643.57	1882.12	2125.33	
Additions	268.06	356.42	344.42	238.55	243.21	220.32	

383. The additions during each year of the control period in the Table above are based on the progress achieved towards project formulation, expenditure incurred, etc., as follows:

**Capital outlay - Progress during FY 2005 - 06:**

384. The Licensee in the filings has made the following projections of capital expenditure for FY 2006-07:

**Table 77: Proposed Capital Outlay for FY 2006 - 07**

(Rs. Crores)			
Base capital expenditure	Expenditure capitalisation	IDC*	Total
328.00	20.08	20.69	368.77

\* Interest during construction (IDC)

385. The Base capital expenditure of Rs.328.00 Crores is for HVDS, RGGVY, System Improvement Schemes to strengthen the System, the details of which are examined later. The Licensee has proposed Rs. 20.08 Crores

towards expenditure capitalisation and Rs. 20.69 Crores towards IDC, raising the aggregate capital expenditure to Rs.368.77 Crores.

**Capital Works - in - Progress (CWIP):**  
*Capital Outlay - Progress during FY 2005- 06:*

386. In the ARR for FY 2006-07, the DISCOM has projected a revised capital outlay (Base expenditure) of Rs. 177.46 Crores for FY 2005-06 along with IDC of Rs. 17.03 Crores and expenditure capitalization of Rs.18.89 Crores, which aggregate to Rs. 213.38 Crores as total capital expenditure expected to be incurred during FY 2005-06 as against Rs.197.70 Crores (base expenditure + IDC + expenses capitalized) reckoned in the Tariff Order for FY 2005-06. The Commission considered the progress of expenditure during the first nine months of the year, up to December 2005, and allows an amount of Rs. 177.46 Crores towards base expenditure as detailed in the Table below:

**Table 78: Estimated Capital Outlay for FY 2005-06**  
**(Rs. Crores)**

Name of the Scheme	Expenditure up to 12/05	T.O	APNPDCL	APERC
SI	20.72	16.69	16.69	16.69
T&D and SI	36.11	41.36	49.36	49.36
HVDS	6.32	18.00	12.00	12.00
RGGVY	0.00	0.00	5.00	5.00
APDRP	19.02	47.41	43.41	43.41
Service Release (Dist plan)	20.39	29.00	29.00	29.00
Other Schemes	15.81	20.00	22.00	22.00
<b>Total :</b>	<b>118.37</b>	<b>172.46</b>	<b>177.46</b>	<b>177.46</b>

387. The amount to be taken to CWIP in respect of the above schemes works out to Rs.213.38 Crores as detailed in the Table below:

**Table 79: Amounts Taken for CWIP for FY 2005-06**

Particulars	APNPDCL	APERC
Base capital expenditure	177.46	177.46
Expenses capitalized	18.89	18.89
Interest (IDC) capitalized	17.03	17.03
<b>Total</b>	<b>213.38</b>	<b>213.38</b>

388. The projected CWIP as on 31-03-2006 would constitute the Opening Balance for FY 2006-07.

*Capital Outlay - Projections for FY 2006-07, 2007-08 and 2008-09:*

389. As regards FY 2006-07, the ARR filings project a Base capital expenditure of Rs.328.00 Crores for FY2006-07, which together with the expenditure capitalization of Rs.20.08 Crores and IDC of Rs.20.69 Crores aggregates to Rs.368.77 Crores. Based on the progress, the Commission allows an estimated amount of Rs.187.00 Crores as base capital expenditure. The details are as follows:

**Table 80: Scheme-wise Details for Base Capital Expenditure for FY 2006-07 to 2008-09**

Name of the Scheme	2006-07		2007-08		2008-09	
	APNPDCL	APERC	APNPDCL	APERC	APNPDCL	APERC
SI	112.00	67.00	93.00	48.00	55.00	35.00
HVDS	106.00	15.00	118.00	60.00	163.00	90.00
RGGVY	60.00	60.00	70.00	70.00	5.00	5.00
APDRP	10.00	5.00	0.00	0.00	0.00	0.00
Service Release	30.00	30.00	30.00	25.00	30.00	25.00
Other Schemes	10.00	10.00	10.00	10.00	10.00	10.00
<b>Total :</b>	<b>328.00</b>	<b>187.00</b>	<b>321.00</b>	<b>213.00</b>	<b>263.00</b>	<b>165.00</b>

390. The DISCOM shall submit quarterly progress reports on physical and financial progress on each of the schemes.

391. As already stated above, the Commission has decided to reckon outlays of Rs.177.46 Crores for FY 2005-06 and Rs.187.00 Crores for FY 2006-07 as Base Capital expenditure (paragraphs 386 to 389). These, together with the

expenses and the IDC capitalized, work out respectively to Rs.213.38 Crores and Rs.217.90 Crores; consequently, the amounts reckoned for CWIP work out to Rs. 259.19 Crores for FY 2005-06 and Rs.238.55 Crores for FY 2006-07. The year-wise position of CWIP is detailed in the Table below:

**Table 81: Statement of Estimated Capital Works-in-Progress for FY 2005-06 to 2008-09**

Particulars	2005-06	2006-07	2007-08	2008-09	(Rs. Crores)
<b>Opening balance of CWIP</b>	<b>305.00</b>	<b>259.19</b>	<b>238.55</b>	<b>243.21</b>	
Add : Capital Expenditure	177.46	187.00	213.00	165.00	
Expenses Capitalised	18.89	19.11	19.22	19.20	
Interest During Construction	17.03	11.80	15.66	13.22	
<b>Less: Investment Capitalised</b>	<b>259.19</b>	<b>238.55</b>	<b>243.21</b>	<b>220.32</b>	
<b>Closing balance of CWIP</b>	<b>259.19</b>	<b>238.55</b>	<b>243.21</b>	<b>220.32</b>	

**Depreciation and Consumer Contributions:**

392. Deductions have been made from the OCFA on account of accumulated depreciation and consumer contributions inclusive of capital grants and subsidies received by the Licensee.

**Table 82: Deductions to Original Cost of Fixed Assets**

	APNPDCCL			APERC			(Rs. Crores)
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09	
Depreciation	787.75	883.80	983.84	760.05	811.30	909.40	
Opening balance	680.96	787.75	883.80	677.67	721.03	811.30	
Additions during the year	106.79	96.05	100.04	82.38	90.27	98.10	
Consumer Contribution	352.63	458.31	499.69	352.63	458.31	499.68	
Opening balance	255.71	352.63	458.32	255.71	352.63	458.31	
Additions during the year	96.92	105.68	41.37	96.92	105.68	41.37	

**Working Capital:**

393. Working Capital requirement equivalent to one month's O&M expenses as allowed for the year has been included in the Rate Base.

**Table 83: Working Capital**

	APNPDCL			APERC			(Rs. Crores)
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09	
Working Capital	18.90	20.64	22.15	16.39	16.74	17.56	

**Rate Base for the Control Period**

394. After the above adjustments, the Regulated Rate Base approved by the Commission for each year of the Control period is determined as given in the table below:

**Table 84: Regulated Rate Base**

	APNPDCL			APERC			(Rs. Crores)
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09	
Regulated Rate Base	868.08	979.34	1159.69	756.21	848.83	913.71	

395. The Commission thus allows Rs.756.21 Crores for FY 2006-07, Rs. 848.83 Crores for FY 2007-08, Rs.913.71 Crores for FY 2008-09 as against the Rate Base of Rs.868.08 Crores for FY 2006-07, Rs. 979.34 Crores for FY 2007-08, Rs.1159.69 Crores projected by APNPDCL [Refer Annexure - E(iii)].

**Expenditure:**

396. The Commission examined the different items of expenditure and has carried out the following corrections:

**SLDC charges**

397. The Licensee's share of SLDC charges of Rs 4.26 Crores for FY 2006-07 is taken to the ARR of the Retail Supply business.

### **Depreciation and Advance Against Depreciation:**

398. Depreciation as per prevailing practice is continued as discussed in paragraphs 160 to 163. Accordingly, no AAD is provided.

### **O&M Charges**

399. The O&M charges for APNPDCCL have been fixed taking into account the norms explained above. The charges are Rs.215.82 Crores for FY2006-07, Rs. 220.15 Crores for FY 2007-08 and Rs. 229.98 Crores for FY 2008-09.

### **Special appropriation for safety measures:**

400. The Commission has voiced its deep concern at the existing levels of safety measures in paragraphs 184 to 186 of this order. To help augment the efforts of the Licensees in this regards the Commission allows a special appropriation of Rs.5 Crores for each year of the Control Period. The amount will be spent by the Licensee on the basis of schemes / projects approved by the Commission.

**Table 85: Expenditure Items in Distribution Business (APNPDCCL)**

	APNPDCCL			APERC		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
Expenditure	350.81	360.22	380.42	306.65	315.42	333.08
SLDC Charges	9.14	9.90	10.60	0.00	0.00	0.00
Operation and Maintenance Charges	226.81	247.67	265.74	215.82	220.15	229.98
Depreciation	42.10	46.73	53.56	82.38	90.27	98.10
Advance Against Depreciation	64.69	49.32	46.48	0.00	0.00	0.00
Taxes on Income	0.00	0.00	0.00	0.00	0.00	0.00
Other Expenditure	8.07	6.60	4.04	3.45	0.00	0.00
Special Appropriations - Safety measures	0.00	0.00	0.00	5.00	5.00	5.00
Less Expenses Capitalized	40.77	21.56	22.51	19.11	19.22	19.20
IDC Capitalised	20.69	23.60	21.07	0.00	0.00	0.00
O&M Expenses Capitalised	20.08	21.56	22.51	19.11	19.22	19.20
Net Expenditure	310.04	338.66	357.91	287.55	296.21	313.88

401. The Commission approved expenditure is Rs.287.55 Crores for FY 2006-07 as against Rs.310.04 Crores claimed by the Licensee. For FY 2007-08 the Commission considers appropriate an expenditure of Rs. 296.21 Crores as against Rs. 338.66 Crores filed by APNPDCCL and Rs. 313.88 Crores for FY 2008-09 as against the filings of Rs. 357.91 Crores. Item wise expenditure details are mentioned below:

#### **Return on Capital Employed**

402. The RoCE is estimated taking into account the debt-equity ratio of 75:25 and the cost of debt at 9% and of equity at 14% for the Distribution business. For FY 2006-07, the Commission permits RoCE of Rs.77.51 Crores as against the APEDPCL filings of Rs.81.88 Crores. For FY 2007-08 the RoCE allowed is Rs. 87.01 Crores as against the Licensee's projection of Rs.115.56 Crores and for FY 2008-09, the amount allowed is Rs. 93.66 Crores as against the Licensee's of Rs.136.84 Crores. The details are given in the following table:

**Table 86: Return on Capital Employed for the Control Period**

(Rs. Crores)

	APNPDCCL			APERC		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
Regulated Rate Base	868.08	979.34	1159.69	756.21	848.83	913.71
Capital Structure						
Debt, (percent)	NA	0.70	0.70	0.75	0.75	0.75
Equity, (percent)	NA	0.30	0.30	0.25	0.25	0.25
Cost of Funds						
Cost of Debt, (percent)	NA	0.10	0.10	0.09	0.09	0.09
Return on Equity,( percent)	NA	0.16	0.16	0.14	0.14	0.14
Cost of Capital	NA	0.12	0.12	0.10	0.10	0.10
Return on Capital Employed, Rs.Cr	81.88	115.56	136.84	77.51	87.01	93.66

Licensee has sought to forego RoE for FY2006-07. With RoE the RoCE works out to Rs.102.43 Crores.

#### **Revenue requirement**

403. The revenue requirement for the Distribution business of APNPDCCL approved by the Commission is Rs. 365.06 Crores for FY 2006-07, Rs. 383.21 Crores for FY 2007-08 and Rs. 407.53 Crores for FY 2008-09 [Refer Annexure - E(iii)].

**Table 87: Revenue Requirement for the Control Period**

(Rs. Crores)

	APNPDCL			APERC		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
Net Expenditure	310.04	338.66	357.91	287.55	296.21	313.88
Return on Capital Employed	81.88	115.56	136.84	77.51	87.01	93.66
Non Tariff Income	0.00	0.00	0.00	0.00	0.00	0.00
Revenue Requirement, Net	391.92	454.22	494.75	365.06	383.21	407.53

**Wheeling Tariff / Charges**

404. The Revenue requirement approved by the Commission will be recovered from Wheeling Tariffs/charges on all those using the Distribution network including the consumers of the Licensee.

**PART B - WHEELING TARIFFS/CHARGES FOR THE CONTROL PERIOD FOR APNPDCL**

405. Wheeling tariffs/charges are determined on the contracted capacity of the users to enable the Licensee to recover its revenue requirement. Separate charges are specified for each year of the control period and remain fixed during the control period.

**Wheeling Tariff/Charges for FY2006-07, FY2007-08 and FY2008-09**

406. The Commission determines the wheeling tariffs for each year of the control period. These charges as given below are applicable for use of distribution system of a licensee by other licensees, generating companies. Captive power plants, or users/open access users under Regulation No.2 of 2005.

**Table 88: Wheeling Tariff/Charges for the Control Period for APNPDCL**

	APNPDCL			APERC		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
	Rs./kWh			(Rs. kVA/Month)		
33kV	0.40	0.43	0.45	23.49	23.86	24.65
11kV	0.51	0.56	0.58	85.94	87.31	90.20
LT	0.69	0.77	0.81	185.52	188.44	194.61

*The users of the network will in addition bear energy losses in kind.*

**Losses:**

407. The following are the losses in kind up to the respective voltage level at which the wheeled energy is delivered or injected whichever voltage is lower

**Table 89: Wheeling Losses at Different Voltage Levels (APNPDCL)**

Voltage	2006-07	2007-08	2008-09
33 kV	5.45%	5.18%	4.92%
11 kV	11.40%	10.83%	10.29%
LT	21.24%	19.28%	18.29%

**Wheeling tariff/charges are leviable with reference to the demand at the entry point.**

**408. Note:**

- i) The Distribution licensee shall deliver the quantum of energy given to it for wheeling, reduced by the distribution losses in kind indicated in **Paragraph 407** above.
- ii) If the wheeling involves transmission of energy through transmission system of a Transmission Licensee, the consumer or the supplier as the case may be, has to pay the applicable transmission charges and transmission energy losses in kind also.
- iii) Transmission system is considered to be involved in the wheeling of energy in the following cases:
  - a) Entry/Exit point is connected to the EHT system.
  - b) The entry and exit points are connected to the networks of more than one DISCOM.
- iv) Except in the cases of iii(a) above, where the entry and exit points are in the same DISCOM area, no transmission charges are payable.
- v) If the wheeling of electricity is through the distribution system of more than one distribution licensee, the wheeling charges shall be payable to the distribution licensee of the area where the electricity is delivered.
- vi) These charges shall, however, be subject to the orders of the Hon'ble Supreme Court in the pending appeals, which have arisen out of the

interpretation of the provisions of the Reform Act and have been the subject matter of the order passed by the Hon'ble High court. This order shall be read subject to any orders, directions etc., that may be issued by the Hon'ble High Court and the Hon'ble Supreme Court in the pending proceedings.

**[Also please see Annexure - C]**

**CHAPTER - XIV**  
**REVENUE REQUIREMENT FOR DISTRIBUTION BUSINESS 2006-07 TO 2008-09**  
**APSPDCL**

**General Overview of the Licensee's Filings**

409. The Licensee, in its filing, for Distribution business and Retail supply business, has shown its ARRs for filing each of the businesses separately, in addition to the combined ARR of both the businesses. A cost allocation statement segregating the accounts between the two businesses has also been submitted. However, while estimating the recovery of the revenue gap, the revenue from proposed wheeling tariff charges and from tariffs for retail supply have been taken together. In accordance with the W&RST Regulation in this overview, the two businesses have been taken separately.

**Financials:**

410. APSPDCL has requested the Commission to permit it to charge the following wheeling charges, voltage-wise, together with losses to be borne in kind:

**Table 90: Wheeling Charges & Losses for the Control Period at Different Voltages**

	<b>33 kV</b>	<b>11 kV</b>	<b>LT</b>
FY2006-07 - Wheeling charges (paise/kWh)	36	53	62
	- Losses (%)	4.85	5.33
FY2007-08 - Wheeling charges (paise/kWh)	38	55	65
	- Losses (%)	4.67	5.13
FY2008-09 - Wheeling charges (paise/kWh)	39	58	69
	- Losses (%)	4.49	4.93

411. The proposed wheeling charges / tariffs will enable APSPDCL to recover its ARR for the Distribution business for each year of the Control period as given in the table below:

**Table 91: ARR for Distribution Business of APSPDCL for the Control Period**

	(Rs. Crores)		
	FY 06-07	FY 07-08	FY 08-09
ARR of Distribution business	558.08	638.75	720.11

412. APSPDCL expects to recover its ARR through Wheeling charges from the Retail supply business consumers and from other users of the distribution system.

413. The total revenue requirement for Distribution business filed by the Licensee is also inclusive of SLDC charges.

414. APSPDCL has claimed interest on loans, depreciation as per Central Electricity Regulatory Commission (CERC) rates and advance against depreciation (AAD). It has claimed Return on Capital Employed restricting to interest on loans only.

**Resource Plan for the Control Period:**

415. In compliance with the W&RST Regulation and the Guidelines, APSPDCL has also submitted the Resource Plan for the Control Period comprising the Sales Forecast and Load Forecast, Power Procurement Plan and Distribution Plan along with the Capital Investment Plan for the Control Period.

**PART A - REVENUE REQUIREMENT**

416. The Commission has examined the ARR/ERC and the FPT of APSPDCL, and indicates herein the areas where the computations of the Licensee are found to be incorrect or unacceptable, with reasons therefore and the

Commission's alternative computations. In this chapter, the Commission will determine the ARR for the Distribution business and accordingly fix the Wheeling tariff / charges for the entire Control Period in accordance with the provisions of the W&RST Regulation.

**Original Cost of Fixed Assets:**

417. The licensee has projected the Original Cost of Fixed Assets (OCFA) for FY 2006-07 at Rs.2597.96 Crores, Rs.3066.84 Crores for FY 2007-08 and Rs.3501.97 Crores for FY 2008-09. The Commission has suitably moderated the additions to the fixed assets in FY 2005-06 as per trends of the progress achieved towards project planning and project completion, and approved the OCFA for the control period as follows:

**Table 92: Original Cost of Fixed Assets**

(Rs. Crores)

	APSPDCL			APERC		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
Assets	2597.96	3066.84	3501.97	2440.02	2734.02	3032.70
Opening balance	2150.79	2597.96	3066.84	2150.79	2440.02	2734.02
Additions	447.17	468.88	435.13	289.23	294.00	298.68

**Capital Outlay - Progress during FY 2005 - 06**

418. The Licensee in the filings has made the following projections of capital expenditure for FY 2006-07:

**Table 93: Proposed Capital Outlay for FY 2006 - 07**

(Rs. Crores)

Base capital expenditure	Expenditure capitalisation	IDC*	Total
393.68	38.29	34.58	466.55

\* Interest during construction (IDC)

419. The Base capital expenditure of Rs.393.68 Crores is for HVDS,RGGY and other System Improvement Schemes to strengthen the System, the details of which are examined later. The Licensee has proposed Rs.38.29 Crores towards expenditure capitalisation and Rs.34.58 Crores towards IDC, raising the aggregate capital expenditure to Rs.466.55 Crores.

### **Capital Works-in-Progress (CWIP)**

#### *Capital Outlay - Progress during FY 2005- 06:*

420. In the ARR for FY 2006-07, the DISCOM has projected a revised capital outlay (Base expenditure) of Rs.403.00 Crores for FY 2005-06 along with IDC of Rs.28.18 Crores and expenditure capitalization of Rs. 35.74 Crores, which aggregate to Rs.466.92 Crores as total capital expenditure expected to be incurred during FY 2005-06 against Rs.225.78 Crores (base expenditure + IDC + expenses capitalized) reckoned in the Tariff Order for FY 2005-06. The Commission considers this projection to be on the higher side keeping in view the progress of expenditure during the first nine months of the year, up to December 2005, and allows an amount of Rs. 241.32 Crores towards base expenditure as detailed in the Table below:

**Table 94: Estimated Capital Outlay for FY 2005-06**

(Rs. Crores)

<b>Name of the Scheme</b>	<b>Expenditure up to 12/05</b>	<b>T.O</b>	<b>SPDCL</b>	<b>APERC</b>
SI	39.49	20.00	45.00	45.00
HVDS	63.51	33.65	100.00	24.85
RGGVY	0.00	0.00	30.00	30.00
Releasing of Agl services	34.80	23.10	45.00	30.00
APDRP	8.93	55.00	80.00	68.68
Other Schemes	26.02	48.00	103.00	42.79
<b>Total</b>	<b>172.75</b>	<b>179.75</b>	<b>403.00</b>	<b>241.32</b>

421. The amount to be taken to CWIP in respect of the above schemes works out to Rs.293.93 Crores as detailed in the Table below:

**Table 95: Amounts Taken for CWIP for FY 2005-06**

Particulars	APSPDCL	APERC
Base capital expenditure	403.00	241.32
Expenses capitalized	35.74	35.74
Interest (IDC) capitalized	28.18	16.87
<b>Total</b>	<b>466.92</b>	<b>293.93</b>

422. The projected CWIP as on 31-03-2006 would constitute the Opening Balance for FY 2006-07.

*Capital Outlay - Projections for FY 2006-07, 2007-08 and 2008-09:*

423. As regards FY 2006-07, the ARR filings project a Base capital expenditure of Rs.393.68 Crores for FY2006-07, which together with the expenditure capitalization of Rs.38.29 Crores and IDC of Rs.34.58 Crores aggregates to Rs.466.55 Crores. Based on the progress, the Commission allows an estimated amount of Rs.264.00 Crores as base capital expenditure. The details are as follows:

**Table 96: Scheme-wise Details for Base Capital Expenditure for FY 2006-07 to 2008-09**

Name of the Scheme	(Rs. Crores)					
	2006-07	2007-08	2008-09	SPDCL	APERC	SPDCL
SI	46.47	25.00	60.38	40.00	36.00	30.00
HVDS	92.19	25.00	103.00	60.00	141.51	60.00
RGGVY	100.00	100.00	100.00	100.00	115.62	115.62
Service Release	45.00	25.00	40.16	20.00	40.00	20.00
APDRP	30.21	42.00	0.00	0.00	0.00	0.00
Other Schemes	79.81	47.00	43.00	20.00	41.49	20.00
<b>Total</b>	<b>393.68</b>	<b>264.00</b>	<b>346.54</b>	<b>240.00</b>	<b>374.62</b>	<b>245.62</b>

424. The DISCOM shall submit quarterly progress reports on physical and financial progress on each of the schemes.

425. As already stated above, the Commission has decided to reckon outlays of Rs.241.32 Crores for FY 2005-06 and Rs.264.00 Crores for FY 2006-07 as Base Capital expenditure (**paragraphs 420 to 423**). These, together with the expenses and the IDC capitalized, work out respectively to Rs.293.93 Crores and Rs.324.55 Crores; consequently, the amounts reckoned for CWIP work out to Rs.398.53 Crores for FY 2005-06 and Rs.433.85 Crores for FY 2006-07. The year-wise position of CWIP is detailed in the Table below:

**Table 97: Statement of Estimated Capital Works-in-Progress for FY 2005-06 to 2008-09**

Particulars	2005-06	2006-07	2007-08	2008-09	(Rs. Crores)
<b>Opening balance of CWIP</b>	375.55	398.53	433.85	441.00	
<b>Add : Capital Expenditure Expenses Capitalised</b>	241.32	264.00	240.00	245.62	
Interest During Construction	35.74	37.36	37.75	38.47	
<b>Less: Investment Capitalised</b>	270.95	289.23	294.00	298.68	
<b>Closing balance of CWIP</b>	398.53	433.85	441.00	448.03	

#### **Depreciation and Consumer Contributions:**

426. Deductions have been made from the OCFA on account of accumulated depreciation and consumer contributions inclusive of capital grants and subsidies received by the Licensee.

**Table 98: Deductions to Original Cost of Fixed Assets**

	APSPDCL			APERC		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
Depreciation	1153.80	1364.75	1621.79	1056.56	1171.97	1296.56
Opening balance	976.91	1153.80	1364.75	950.04	1056.56	1171.97
Additions during the year	176.89	210.95	257.04	106.52	115.41	124.59
Consumer Contributions	737.99	920.99	1118.99	737.99	920.99	1118.99
Opening balance	552.99	737.99	920.99	552.99	737.99	920.99
Additions during the year	185.00	183.00	198.00	185.00	183.00	198.00

## **Working Capital**

427. Working Capital requirement equivalent to one month's O&M expenses as allowed for the year has been included in the Rate Base.

**Table 99: Working Capital**

	APSPDCL			APERC			(Rs. Crores)
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09	
Working Capital	26.65	29.83	32.63	22.89	23.56	24.69	

## **Rate Base for the Control Period**

428. After the above adjustments, the Regulated Rate Base approved by the Commission for each year of the Control period is determined as given in the table below:

**Table 100: Regulated Rate Base**

	APSPDCL			APERC			(Rs. Crores)
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09	
Regulated Rate Base	690.17	773.46	803.77	669.50	666.82	653.79	

429. The Commission thus allows Rs.669.50 Crores for FY 2006-07, Rs.666.82 Crores for FY 2007-08, Rs.653.79 Crores for FY 2008-09 as against the Rate Base of Rs.690.17 Crores for FY 2006-07, Rs. 773.46 Crores for FY 2007-08, Rs.803.77 Crores projected by APSPDCL [Refer Annexure - E(iv)].

## **Expenditure**

430. The Commission examined the different items of expenditure and has carried out the following corrections:

### **SLDC charges**

431. The Licensee's share of SLDC charges of Rs 5.91 Crores for FY 2006-07 is taken to the ARR of the Retail Supply business.

### **Depreciation and Advance Against Depreciation:**

432. Depreciation as per prevailing practice is continued as discussed in **Paragraphs 160 to 163**. Accordingly, no AAD is provided.

### **O&M Charges**

433. The O&M charges for APSPDCL have been fixed taking into account the norms explained above. The charges are Rs.312.00 Crores for FY 2006-07, Rs. 320.50 Crores for FY 2007-08 and Rs.334.70 Crores for FY 2008-09.

### **Special appropriation for safety measures:**

434. The Commission has voiced its deep concern at the existing levels of safety measures in **paragraphs 184 to 186** of this order. To help augment the efforts of the Licensees in this regards the Commission allows a special appropriation of Rs.5 Crores for each year of the Control Period. The amount will be spent by the Licensee on the basis of schemes / projects approved by the Commission.

**Table 101: Expenditure Items in Distribution Business (APSPDCL)**

**(Rs. Crores)**

	APSPDCL			APERC		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
Expenditure	514.49	589.97	671.33	423.52	440.91	464.29
SLDC Charges	12.36	13.39	14.34	0.00	0.00	0.00
Operation and Maintenance Charges	319.74	357.97	391.56	312.00	320.50	334.70
Depreciation	48.23	57.79	68.21	106.52	115.41	124.59
Advance Against Depreciation	128.66	153.16	188.83	0.00	0.00	0.00
Taxes on Income	0.00	0.00	0.00	0.00	0.00	0.00
Other Expenditure	5.50	7.66	8.39	0.00	0.00	0.00
Special Appropriations - Safety measures	0.00	0.00	0.00	5.00	5.00	5.00
Less Expenses Capitalized	72.87	42.49	46.07	37.36	37.75	38.47
IDC Capitalised	34.58	33.79	32.97	0.00	0.00	0.00
O&M Expenses Capitalised	38.29	42.49	46.07	37.36	37.75	38.47

Net Expenditure	441.62	547.48	625.26	386.16	403.16	425.81
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435. The Commission approved expenditure is Rs.386.16 Crores for FY 2006-07 as against Rs.441.62 Crores claimed by the Licensee. For FY 2007-08 the Commission considers appropriate an expenditure of Rs. 403.16 Crores as against Rs. 547.48 Crores filed by APSPDCL and Rs. 425.81 Crores for FY 2008-09 as against the filings of Rs.625.26 Crores. Item wise expenditure details are mentioned below:

#### Return on Capital Employed

436. The RoCE is estimated taking into account the debt-equity ratio of 75:25 and the cost of debt at 9% and of equity at 14% for the Distribution business. For FY 2006-07, the Commission permits RoCE of Rs.68.62 Crores as against the APSPDCL filings interest claim of Rs.116.46 Crores. For FY 2007-08 the RoCE allowed is Rs. 68.35 Crores as against the Licensee's projection of Rs.91.27 Crores and for FY 2008-09, the amount allowed is Rs. 67.01 Crores as against the Licensee's of Rs.94.85 Crores. The details are given in the following table:

Table 102: Return on Capital Employed for the Control Period

(Rs. Crores)

	APSPDCL			APERC		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
Regulated Rate Base	690.17	773.46	803.77	669.50	666.82	653.79
Capital Structure						
Debt,(percent)	0.70	0.70	0.70	0.75	0.75	0.75
Equity, (percent)	0.30	0.30	0.30	0.25	0.25	0.25
Cost of Funds		0.00	0.00	0.00	0.00	0.00
Cost of Debt, (percent)	0.10	0.10	0.10	0.09	0.09	0.09
Return on Equity,( percent)	0.16	0.16	0.16	0.14	0.14	0.14
Cost of Capital	0.12	0.12	0.12	0.10	0.10	0.10
Return on Capital Employed, Rs.Cr	81.44	91.27	94.85	68.62	68.35	67.01

*Licensee has claimed interest of Rs.116.46 Crores for FY2006-07 as against the RoCE entitlement of Rs.81.44 Crores.*

### **Revenue requirement**

437. The revenue requirement for the Distribution business of APSPDCL approved by the Commission is Rs. 454.78 Crores for FY 2006-07, Rs.471.51 Crores for FY 2007-08 and Rs. 492.83 Crores for FY 2008-09 [Refer Annexure - E(iv)].

**Table 103: Revenue Requirement for the Control Period**

	APSPDCL			APERC		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
Net Expenditure	441.62	547.48	625.26	386.16	403.16	425.81
Return on Capital Employed	116.46	91.27	94.85	68.62	68.35	67.01
Non Tariff Income	0.00	0.00	0.00	0.00	0.00	0.00
Revenue Requirement, Net	558.08	638.75	720.11	454.78	471.51	492.83

### **Wheeling Tariff/Charges**

438. The Revenue requirement approved by the Commission will be recovered from Wheeling tariffs/charges on all those using the Distribution network including the consumers of the Licensee.

## **PART B - WHEELING TARIFFS/CHARGES FOR THE CONTROL PERIOD FOR APSPDCL**

439. Wheeling tariff / charges are determined on the contracted capacity of the users to enable the Licensee to recover its revenue requirement. Separate charges are specified for each year of the control period and shall remain fixed during the control period.

### **Wheeling Tariff/Charges for FY2006-07, FY 2007-08 and FY 2008-09**

440. The Commission determines the wheeling tariffs for each year of the control period. These charges as given below are applicable for use of distribution system of a licensee by other licensees, generating companies, captive power plants, or users/open access users under Regulation No.2 of 2005.

**Table 104: Wheeling Tariff/Charges for the Control Period for APSPDCL**

	APSPDCL			APERC		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
Rs. /kWh				(Rs. kVA/Month)		
33kV	0.36	0.38	0.39	25.03	24.34	23.82
11kV	0.53	0.55	0.58	109.43	106.75	104.83
LT	0.62	0.65	0.69	152.06	148.68	146.63

*The users of the network will in addition bear energy losses in kind.*

**Losses:**

441. The following are the losses in kind up to the respective voltage level at which the wheeled energy is delivered or injected whichever voltage is lower:

**Table 105: Wheeling Losses at Different Voltage Levels (APSPDCL)**

Voltage	2006-07	2007-08	2008-09
33 kV	4.85%	4.67%	4.49%
11 kV	10.34%	9.94%	9.56%
LT	18.92%	17.47%	16.64%

Wheeling tariff/charges are leviable with reference to the demand at the entry point.

442. Note:

- i) The Distribution licensee shall deliver the quantum of energy given to it for wheeling, reduced by the distribution losses in kind indicated in **Paragraph 441** above.
- ii) If the wheeling involves transmission of energy through transmission system of a Transmission Licensee, the consumer or the supplier as the case may be, has to pay the applicable transmission charges and transmission energy losses in kind also.

- iii) Transmission system is considered to be involved in the wheeling of energy in the following cases:
  - a. Entry/Exit point is connected to the EHT system.
  - b. The entry and exit points are connected to the networks of more than one DISCOM.
- iv) Except in the cases of iii(a) above, where the entry and exit points are in the same DISCOM area, no transmission charges are payable.
- v) If the wheeling of electricity is through the distribution system of more than one distribution licensee, the wheeling charges shall be payable to the distribution licensee of the area where the electricity is delivered.
- vi) These charges shall, however, be subject to the orders of the Hon'ble Supreme Court in the pending appeals, which have arisen out of the interpretation of the provisions of the Reform Act and have been the subject matter of the order passed by the Hon'ble High court. This order shall be read subject to any orders, directions etc., that may be issued by the Hon'ble High Court and the Hon'ble Supreme Court in the pending proceedings.

[Also please see Annexure - C]

## CHAPTER - XV

### LICENSEES' FILINGS FOR RETAIL SUPPLY BUSINESS

443. The Commission, having examined the distribution business of the four DISCOMs in the earlier chapters, deals with in the chapters that follow, their revenue requirement relating to the retail supply business. The key aspects of the retail supply business are: (a) sales forecast, (b) distribution losses, (c) power procurement volume, (d) revenue requirement, (e) revenue from tariffs, (f) Non-tariff income and (g) Revenue gap/surplus. The Commission first outlines in brief the salient features of the Licensees' filings and then takes up each issue for evaluation. In the course of the public hearings, three of the DISCOMs have revised their HT sales volumes and revenue therefrom for some of the consumer categories. The original and revised figures, for HT-IA, HT-IB and HT-II categories are as follows, DISCOM-wise:

**Table 106: Revisions in HT Sales Volumes and Revenue**

Company	Category	Purpose	Filings		Revised	
			Sales (MU)	Revenue (Rs. Crores)	Sales (MU)	Revenue (Rs. Crores)
APCPDCL	HT IA	Industrial	5143.42	1910.64	5393.00	2004.00
	HT IB	Ferro Alloys	0.00	0.00	300.00	77.00
	HT II	Non-Industrial	738.84	383.34	774.00	401.00
	Total		5882.27	2293.97	6467.00	2482.00
APEPDCL	HT IA	Industrial	1555.78	630.57	1656.00	671.00
	HT IB	Ferro Alloys	371.34	94.69	491.00	125.00
	HT II	Non- Industrial	218.56	109.65	249.00	125.00
	Total		2145.68	834.91	2396.00	921.00
APSPDCL	HT IA	Industrial	1535.31	570.27	1605.00	596.00
	HT IB	Ferro Alloys	0.00	0.00	0.00	0.00
	HT II	Non - Industrial	168.69	88.78	184.00	97.00
	Total		1704.00	659.05	1789.00	693.00

444. In the subsequent chapters, for analysing the ARRs of the DISCOMs, only the revised sales and consequential revisions in other parts of the ARR have been taken into consideration.

## CHAPTER - XVI

### RETAIL SUPPLY BUSINESS OF APCPDCL

#### PART A - REVENUE REQUIREMENT

##### **Filings in brief:**

445. The Company has considered different forecasting methodologies but mostly relied on the trend methodology, user surveys and analysis of previous years' information in projecting the sales volumes for categories other than LT Agriculture. For LT Agriculture, it has relied upon the DTR meter-reading information and the connected loads. Based on this procedure, the Company expects sales of 18500 MU for FY2006-07 to different categories of consumers.
446. The Company having projected sales of 18500 MU, proposes to procure 23469 MU for its retail supply business for FY 2006-07. The difference between the procurement and sales volumes is the underlying losses, both technical and commercial. The total loss percentage, the ratio of difference between power purchase and sales volumes to power purchase volume, works out to 21.17 percent for FY 2006-07.
447. The company has projected its gross revenue requirement (expenditure) at Rs. 4446.37 Crores consisting of power purchase cost, transmission charges and other expenditure. The company expects to earn, during the year, Rs.332.76 Crores as non-tariff income, i.e. the income from sources other than the tariffs. Accordingly, its net revenue requirement is placed at Rs.4113.61 Crores.
448. The gross revenue at current tariffs from the sale of 18500 MU to different categories of consumers is estimated at Rs.4604.31 Crores for FY 2006-07. The

revenue estimates include revenue from tariffs; the amount of incentives payable to the HT Category -I: Industry General category of consumers as per proposed incentive rates has been considered by the company as an expense item.

449. The company arrived at the total revenue requirement and revenue from tariffs for the FY 2006-07 through aggregating the respective items of distribution and retail supply businesses. Accordingly, for FY2006-07, total revenue requirement is Rs. 4770.02 Crores and revenue from tariffs is Rs.4640.54, including Rs.36.23 Crores revenue from wheeling charges. The revenue gap as per the filing works out to Rs. 129.47 Crores. The details of revenue requirement, revenue from tariffs and revenue gap are given below:

**Table 107: APCPDCL - Revenue Requirement for FY2006 -07**

Sl. No.	Particulars	(Rs. Crores)
1	Revenue requirement for Retail Supply	(*) 4770.03
2	Revenue from tariffs	4640.54
2.1	Revenue from wheeling tariff / charges	36.23
3	Revenue gap (1-2)	129.47

(\*) - *This includes Distribution ARR of Rs.656.42 Crores.*

## COMMISSION ANALYSIS

### Sales forecast:

450. The Commission after having reckoned the forecasting procedure followed by the company and additional information made available, approves the sales volume of 19085 MU for FY 2006-07.

### HT Sales:

451. The sales growth rate in respect of industrial consumers appears to be on the decline. The Commission Staff projected the sales to HT categories to be at higher levels based on previous trends. The Commission is however of the view

that potential for continuation of higher growth in sales needs to be first established before constraining the Licensee's financing by assuming higher sales volumes. The Commission therefore, approves the volumes as projected by the Licensee for HT categories, and directs, for better appraisal of the strengths and weaknesses of the Licensee with regard to these sales, that:

*The Licensee shall carry out a census of all HT consumers covering aspects like type of activity, connected load, contracted load, captive capacity, types of loads, sources of power purchase including third parties, and other technical and commercial parameters and file a report thereon with the Commission by 30<sup>th</sup> September 2006.*

**LT Agricultural sales:**

452. The company has filed sales of 5938 MU to Agricultural consumers for FY 06-07 whereas the Staff reckoned the possible consumption at 5324 MU, based on DTR meter readings. The CMD of the company, during the filing, requested for the filed volume of 5938 MU to be accepted citing good monsoons and consequent higher drawals of energy due to higher acreage being brought under cultivation. The Staff worked out different alternative possible consumption levels, lower than the volumes filed, based on DTR meter reading data.
453. The Commission noted that Staff estimates are sensitive to quality and coverage of available DTR meter reading information. The Commission however, notes with regret that while valid meter readings of DTRs for a continuous period of 12 months should normally constitute a robust input for reliable estimation of agricultural consumption levels, the ratio of such valid meter readings is a poor 19% for the period November 2004 - October 2005. Given this background, the Commission approves the consumption level of 5,938 MU as filed by the company and directs that:

***The Licensee shall initiate all possible steps to ensure the ratio of the valid DTRs to metered DTRs is at least 50 percent w.e.f. July 2006. Valid DTR for this purpose is the DTR for which the meter is in working condition and meter readings are available for the entire year. The Licensee may also propose, if so deemed fit by it, a more suitable metering cycle in place of present monthly meter reading cycle to arrive at the annual consumption.***

**Sales to other categories:**

454. Sales to Domestic category of consumers are also approved as projected by the Company, duly reckoning the need for additional volumes on account of Rajeev Gandhi Gramin Vidyuteekaran Yojana (RGGGY) scheme for electrification of rural homes. Also no changes have been effected in sales volumes for other categories. The details of the sales volumes for each category of consumers as approved by the Commission for the FY2006-07 are given below:

**Table 108: Sales Volumes for FY2006-07**

Category	Purpose	(MU) Sales
LT I	Domestic	3558.12
LT II	Non-Domestic/Commercial	1113.70
LT III	Industrial	994.46
LT IV	Cottage Industry	13.86
LT V	Agriculture	5938.00
LT VI	Public Lighting	555.51
LT VII	General Purpose	48.03
LT VIII	Temporary Supply	2.63
HT IA	Industry, General	5393.00
HT IB	Industry, Ferro Alloys	300.00
HT II	Non-Industrial	774.00
HT IV	Irrigation & Agricultural	238.81
HTV	Railway Traction	88.05
HT VI	Townships/Colonies	66.66
	HT Temporary Supply	0.00
	RESCOs	0.00
Total		19084.83

**Distribution losses and power purchase volumes:**

455. The distribution losses for FY 2006-07 for the distribution network are indicated in paragraph 283 of this Order. The sales have been reckoned at different voltages and adjusted to the relevant loss percentages to arrive at the required energy purchase level for FY 2006-07. As per the Commission's alternate calculations at voltage levels, the loss percentage for FY 2006-07 is placed at 20.76 and is lower than that in the Licensee's filings. The details are given below:

**Table 109: Sales, Energy Losses and Energy Purchases**

Sales, Purchase and Losses	APCPDCL	APERC
Energy Sales(MU)	19085	19085
Energy Purchases(MU)	24211	24085
Total Losses(MU)	5126	5000
Total Loss(%)	21.17%	20.76%

**Power Purchase Cost:**

456. The power purchase cost as per the filings is Rs.4069.95 Crores for procurement of 24211.13 MU and with the revised volumes of energy sales as referred to in paragraph 443 adjusted for revision of losses as in paragraph 283, the power purchase cost is projected at Rs.4143.36 Crores for procurement of 24084.87 MU for FY 2006-07. The higher power purchase cost despite the lower volumes of energy procurement is due to changes in source-mix, unit cost changes etc., the details are provided in Annexure H(i).

**Transmission cost:**

457. The company filed the transmission cost for FY 2006-07 as Rs.309.32 Crores. The Commission in its order on transmission tariffs issued separately in O.P.No. 1 of 2006 has determined the transmission tariff Rs.42.60/kW/month

for FY 2006-07. Based on the generation capacity allocated to the Company, the transmission cost for FY 2006-07 is worked out to Rs.250.09 Crores and the same is adopted for computing its revenue requirement.

**SLDC cost:**

458. The Company had included the SLDC cost of Rs.23.47 Crores for FY 2006-07 in its ARR filing for distribution business. The Commission in its above mentioned order on transmission tariffs has determined the SLDC charge at Rs.1.86/kW/month for FY 2006-07. Based on the generation capacity allocated to the Company, its share of the SLDC cost for FY 2006-07 works out to Rs.10.91 Crores and the same is included in its revenue requirement for Retail supply business as this cost relates to power purchase and not to the Distribution business.

**PGCIL and ULDC costs:**

459. The Company did not consider the costs associated with PGCIL transmission network (evacuating the power from central generating stations) and related ULDC costs in its retail supply business. The Commission in its order on transmission tariffs has observed that these costs relate to power purchases. The Commission has reckoned the share of these costs attributable to this company at Rs.84.78 Crores for FY2006-07.

**HT Incentive cost:**

460. The Company has treated the amount payable as per the incentive scheme for expenditure and accordingly included Rs.120 Crores as cost for FY 2006-07. The Commission, on the other hand is of the view that the incentive amount should be seen as a rebate in tariffs, and does not reckon the HT incentive amount as a cost. The amount is accordingly taken as a deduction from the

revenues from this category of consumers to project a correct picture of revenue receipts. The company revised the HT incentive amount at proposed tariff at Rs.94 Crores and the Commission reckoned the same in this Order.

**Consumer Security Deposit cost:**

461. The company filed the interest cost on security deposits at Rs.37.77 Crores for FY 2006-07. This cost is filed as per the Commission's Regulation relating to the security deposits and is accepted by the Commission.

**Supply margin:**

462. The Commission has provided Rs.6.47 Crores as margin for retail supply business as per the intent of the Tariff Policy (clause 5.3(a)) notified by Government of India. It is to be noted that this margin will not lead to additional cost to the consumers since the Commission has reckoned the cost of equity at 14% p.a. instead of 16% p.a. for network business as filed by the Company.

**Revenue requirement:**

463. For FY 2006-07, the gross revenue requirement for retail supply business is Rs.4511.49 Crores as per the filings made by the Company and as per the Commission's alternate calculations, the revenue requirement is placed at Rs.4533.38 Crores.
464. The company filed the non-tariff income at Rs.332.77 Crores and as per the Commission's calculations, this has been reckoned as Rs. 404.37 Crores. The increase in non-tariff income is mainly on account of interest income of Rs.56.66 Crores on consumer security deposits which had not been taken into account by the Licensee.

465. The net revenue requirement, i.e. the gross revenue requirement minus the non-tariff income, for FY 2006-07 is Rs.4178.72 Crores as per the filings. As per the Commission's alternate calculations, as per the preceding paragraphs, however, the net revenue requirement for the year is placed at Rs.4129.01 Crores.
466. The company has considered the distribution business ARR net of wheeling revenue at Rs.620.18 Crores as cost for the retail supply business for FY 2006-07. The Commission determined the share of DISCOM in the distribution ARR for FY2006-07 at Rs.637.91 Crores. The Commission considered this share as distribution cost for retail supply business for FY2006-07. With this, the net revenue requirement for retail supply business is placed at Rs.4766.92 Crores for FY2006-07.

**Revenue from tariffs:**

467. For FY 2006-07, the revenue from tariffs at proposed tariffs was estimated by the Company at Rs. 4687.70 Crores and as per the Commission's calculations as above, the revenue from tariffs for the year is recomputed at Rs.4619.07 Crores. The domestic slab sales proportions for the Company are taken at 2005-06 levels. The revenue from HT I: Industry, General category is less on account of deduction of the HT incentive amount from the projected revenue therefrom as explained in paragraph 460. The details are given below:

**Table 110: Revenue from Tariffs for FY 2006-07**

Category	Purpose	(Rs. Crores)	
		APCPDCL	APERC
LT I	Domestic	892.73	938.52
LT II	Non-Domestic/Commercial	646.79	646.79
LT III	Industrial	419.46	419.46
LT IV	Cottage Industry	2.74	2.74
LT V	Agriculture	11.32	11.32
LT VI	Public Lighting	101.57	101.57
LT VII	General Purpose	19.21	19.21
LT VIII	Temporary Supply	1.63	1.63
HT IA	Industry, General	2004.00	1893.41
HT IB	Industry, Ferro Alloys	77.00	76.50
HT II	Non-Industrial	401.00	398.34
HT IV	Irrigation & Agricultural	49.27	49.27
HT V	Railway Traction	37.65	36.98
HT VI	Townships/Colonies	23.33	23.33
	HT Temporary Supply	0.00	0.00
	RESCOs	0.00	0.00
<b>Total</b>		<b>4687.70</b>	<b>4619.07</b>

### **Revenue Gap**

468. The revenue requirement of Rs.4766.92 Crores as accepted by the Commission and expected revenue of Rs. 4619.07 Crores at proposed tariffs for FY 2006-07 form the basis for the determination of the tariffs for retail supply. These computations leave the Company with a revenue gap of Rs.147.85 Crores for FY 2006-07. In Part-B of this chapter, the Commission deals with the determination of retail supply tariffs for FY 2006-07.

Table 111: Revenue Requirement for FY 2006-07

SI.No	Revenue requirement item	APCPDCL	(Rs. Crores) APERC
1	Power purchase cost	4069.95	4143.36
2	Transmission cost	309.32	250.09
3	PGCIL and ULDC cost	0.00	84.78
4	SLDC cost	0.00	10.91
5	HT Incentive cost	132.22	0.00
6	Interest on consumer security deposits		37.77
7	Supply margin	0.00	6.47
8	Distribution cost	620.18	637.91
9	Gross ARR	5131.67	5171.29
10	Less Non-tariff income	332.77	404.37
11	Net Revenue Requirement	4798.90	4766.92
12	Less Revenue from tariff	4687.70	4619.07
13	Revenue Gap	111.20	147.85

## PART B - RETAIL TARIFFS

469. The Commission determined Retail Tariff for APCPDCL for FY2006-07 in accordance with Section 62 of the Electricity Act, 2003 is given in the table below. The Tariff so finalized are communicated to GoAP to intimate whether it requires, the grant of any subsidy to any consumer or class of consumers in the tariff determined by the Commission, under Section 65 of the Electricity Act, 2003.

Table 112: Commission Determined Tariffs - FY2006-07

APCPDCL

CONSUMER CATEGORY		Tariff proposed by DISCOM			Commission Determined Tariff		
		Fixed Charge (Rs./HP/month)	Demand Charge (Rs/kVA/month)	Energy Charge (paise/unit)	Fixed Charge (Rs/HP/month)	Demand Charge (Rs/kVA/month)	Energy Charge (paise/unit)
LT I	DOMESTIC						
LT01	Slab 1 (0-50)		0	145	0	0	161
LT01	Slab 2 (51-100)		0	280	0	0	286
LT01	Slab 3 (101-200)		0	305	0	0	309
LT01	Slab 4 (201-300)		0	475	0	0	475
LT01	Slab 5 (>300)		0	550	0	0	550
LT II	NON-DOMESTIC				0	0	
LT02	Slab 1 (0-50)	0	0	395	0	0	395
LT02	Slab 2 (>50)	0	0	625	0	0	625
LT IIIa	INDUSTRIAL NORMAL				0	0	
LT03	Industrial Normal	37	0	375	37	0	375
LT03	Industrial Optional		100	375		100	375
LT03	Pisciculture/Prawn culture	0	0	90	0	0	90
LT03	Sugarcane crushing	0	0	50	0	0	50
LT IIIb	INDUSTRIAL OPTIONAL				0	0	
LT03	SSI Units		0 100	375		0 100	375
	Seasonal Industries [LT Cat-III(A) (i)	(?) 37	--	440 **	(?) 37	--	440 **
LT03	Seasonal Industries [LT Cat - III(A) (ii) and LT Cat - III (B)		§ 100	440 **		§ 100	440 **
LT IV	COTTAGE INDUSTRIES	10	0	180	10	0	187
LT V	IRRIGATION AND AGRICULTURE						
LT05	With DSM Measures						
LT05	Dry Land F. (Connections <=3)	0	0	0	0	0	17
LT05	Wet Land F( Holdings<=2.5 Acres)	0	0	0	0	0	0
LT05	Dry Land F. (Connections > 3)	* 210	0	20	0	0	36
LT05	Wet Land F( Holdings > 2.5 Acres)	* 210	0	20	0	0	36
LT05	Corporate Farmers & IT Assesses	0	0	100	0	0	109
LT05	Without DSM Measures				0	0	
LT05	Dry Land F. (Connections <=3)	* 210	0	20	0	0	17
LT05	Wet Land F( Holdings<=2.5 Acres)	* 210	0	20	0	0	17
LT05	Dry Land F. (Connections > 3)	* 525	0	50	0	0	63
LT05	Wet Land F( Holdings > 2.5 Acres)	* 525	0	50	0	0	63
LT05	Corporate Farmers & IT Assesses	0	0	200	0	0	200
LT Vb	AGRICULTURE (TATKAL)	0	0	20	0	0	36
LT Via	LOCAL BODIES, STREET LIGHTING AND PWS SCHEMES				0	0	

CONSUMER CATEGORY		Tariff proposed by DISCOM			Commission Determined Tariff		
		Fixed Charge (Rs./HP/month)	Demand Charge (Rs/kVA/month)	Energy Charge (paise/unit)	Fixed Charge (Rs/HP/month)	Demand Charge (Rs/kVA/month)	Energy Charge (paise/unit)
LT06	<b>Street Lighting</b>				0	0	
LT06	Minor Panchayats	0	0	156	0	0	178
LT06	Major Panchayats	0	0	208	0	0	226
LT06	Nagarpalikas & Municipalities (Gr 3)	0	0	274	0	0	286
LT06	Municipalities (Gr 1&2)	0	0	326	0	0	334
LT06	Municipalities Selection Special Group	0	0	353	0	0	358
LT06	Corporations	0	0	379	0	0	382
LT Vib	<b>PWS Schemes</b>				0	0	
LT06	Minor/ Major Panchayats				0	0	
LT06	Upto 2500 units/Yr	0	0	20	0	0	54
LT06	Above 2500 units/Yr	0	0	50	0	0	50
LT06	All Nagarpalikas & Municipalities			0	0	0	
LT06	Upto 1000 units	20	0	375	20	0	378
LT06	More than 1000 units	20	0	405	20	0	406
LT06	Municipal Corporations			0	0	0	
LT06	Upto 1000 units	20	0	405	20	0	405
LT06	More than 1000 units	20	0	460	20	0	460
LT VII	<b>GENERAL PURPOSE</b>	0	0	400	0	0	401
LT VIII	<b>TEMPORARY SUPPLY</b>	0	0	620	0	0	620
LT08	Tempoary Supply to Agriculture	0	0	230	0	0	230
HT I	<b>INDUSTRY GENERAL</b>				0	0	
HT01	132 kV and above		250	280	0	250	280
HT01	33kV		230	310	0	230	310
HT01	11 kV and below		195	330	0	195	330
	Seasonal Industries	0	@	#	0	@	#
HT Ib	<b>FERRO ALLOYS</b>			255	0	0	255
HT01	Lights and Fans			440	0	0	440
HT01	Colony			350	0	0	350
HT II	<b>Non-Industrial</b>						
HT02	132 kV and above		250	365	0	250	365
HT02	33kV		230	390	0	230	390
HT02	11 kV and below		195	440	0	195	440
HT IV	<b>IRRIGATION AND AGRICULTURE</b>				0	0	
(A)3	Government Lift Irrigation Schemes		0	236	0	0	236
(B)3	Others		0	0	0	0	23
HT V	<b>RAILWAY TRACTION</b>			195	355	0	420
HT VI	<b>TOWNSHIPS AND RESIDENTIAL COLONIES</b>		0	350	0	0	350

CONSUMER CATEGORY	Tariff proposed by DISCOM			Commission Determined Tariff		
	Fixed Charge (Rs./HP/month)	Demand Charge (Rs/kVA/month)	Energy Charge (paise/unit)	Fixed Charge (Rs./HP/month)	Demand Charge (Rs/kVA/month)	Energy Charge (paise/unit)
HT Temporary Supply	0	\$	\$	0	\$	\$

- \$ - 1.5 times the normal tariff for the respective HT category
- # - Energy rates as applicable for different voltages under HT Cat-II
- \*\* - Off-season tariff
- \* - Equivalent flat rate tariff
- § - Demand changes shall be billed on recorded demand or 30% of contracted demand, whichever is higher.
- @ - Demand changes at the rates applicable for respective voltage shall be billed on the recorded Demand or 30% of the contracted Demand whichever is higher
- (? ) - On 30% of Contracted Load.

#### Directions of GoAP on Subsidy

470. GoAP informed the Commission that the tariff in respect of the subsidized categories may be reduced to the levels proposed by the DISCOM and accordingly, agreed to make available the consequent total financial implication of Rs.147.85 Crores as subsidy to the DISCOM. The table below gives the details of subsidy allocation for FY 2006-07 to the various subsidized categories:

Table 113: Details of Subsidy Allocation in FY 2006-07

(Rs. Crores)	
Particulars	Amount
Domestic	33.89
Cottage Industries	0.09
LT Agriculture	102.00
Local (Public) Bodies	11.18
HT Agriculture	0.69
RESCOS	0.00
<b>Total</b>	<b>147.85</b>

471. The GoAP subsidy has been mainly for Domestic and Agriculture categories. The table below shows the break-up of revenue, cross-subsidy and subsidy for FY2006-07 for APCPDCL for the subsidized categories.

**Table 114: Details of Revenues, Cross-subsidy and Government Subsidy FY 2006-07 (Rs. Crores)**

Subsidised categories	Revenue	Cross-subsidy	Government subsidy
Domestic (0-200)	673.86	386.64	33.89
Cottage Industry	2.74	1.05	0.09
Agriculture	8.61	1163.62	102.00
Local Bodies	120.69	127.53	11.18
HT Agriculture	0.00	7.85	0.69
<b>Total</b>	<b>805.90</b>	<b>1686.68</b>	<b>147.85</b>

**Administration of Subsidy:**

472. Subsidy provided by the GoAP is administered as follows:

- The subsidy given by the GoAP as per Section 65 of Electricity Act 2003 is for maintaining the tariffs at the levels proposed by the DISCOMs in respect of the subsidized categories.
- Each DISCOM gets the subsidy commensurate to the extent of energy sales projected in each subsidised category.
- The subsidy allocation to each DISCOM as calculated in (b) above must be paid by the GoAP to the respective DISCOMs in monthly instalments, in advance.

473. The Subsidy administration mechanism Directive outlined in paragraph 860 of the Tariff Order for FY2004-05 and reiterated in paragraph 701 of Tariff Order FY2005-06 and as extracted below shall apply.

*“The DISCOMs shall file before the Commission the actual sales to subsidized categories of consumers for whom the GoAP agreed to pay the subsidy every month and the Commission will monitor the units actually sold by the DISCOMs vis-à-vis the subsidy provided. At the end of the year, subsidy adjustments will be made based on the consumption of units in respect of various subsidized categories.”*

## Final Retail Tariffs

474. Section 62(3) of the Electricity Act, 2003, stipulates that the Appropriate Commission while determining the tariff should not show any undue preference to any consumer of electricity, but may differentiate according to the consumers' load factor, power factor, voltage, total consumption of electricity etc. Accordingly, the Commission followed the prescribed criteria while differentiating among consumers.

### LT Category -I: Domestic

475. The tariff rates remain unchanged, as the GoAP have decided to provide the required subsidy. The cost-to-serve for this category is Rs.3.78 per unit.

**Table 115: LT Category - I: Domestic Tariff**

Slab (units/month)	Current Energy charge (ps/unit)	DISCOMs	APERC
		Proposed Energy charge (ps/unit)	Approved Energy charge (ps/unit)
0-50	145	145	145
51-100	280	280	280
101-200	305	305	305
201-300	475	475	475
Above 300	550	550	550

476. Consumers in the domestic category who wish to avail power at connected load above 56 KW are permitted to do so by fixing meters on the HT side. The charges applicable will be those of LT - I Domestic.

### LT Category -II: Non-Domestic and Commercial

477. The non-domestic and commercial category LT-II, which covers shops, offices, commercial establishments, entertainment centers, studios etc. The cost-to-serve for this category is Rs.3.65 per unit. The Commission has retained the existing tariffs.

**Table 116: LT Category - II: Non-Domestic and Commercial Tariff**

Slab	Current Energy charge (ps/unit)	DISCOMs	APERC Approved
		Proposed Energy charge (ps/unit)	Energy charge (ps/unit)
0 - 50	395	395	395
51 & above	625	625	625

#### **LT Category III (A) -Industry**

478. This category consists entirely of industrial loads in the LT category. The cost-to-serve for this category is Rs.3.04 per unit. The industrial consumer under LT-III(A) with load of 50 HP and above are given an option to choose a tariff based on demand charges per kVA instead of the fixed charge per HP. Accordingly the Commission specifies that the contracted demand declared shall not be less than 25 kVA for those who opt for the demand -related tariff.

#### **LT Category -III (A)- Seasonal Industry**

479. There is no change in the tariffs for this category. The demand charges during the off-season will be on the basis of recorded maximum demand or 30% of the contracted demand whichever is higher, if it is optional category; otherwise, fixed charges shall be payable at 30% of the contracted load. The energy charges applicable will be those of HT-II. The definition of “seasonal industry”, will be the same as for HT-I category.

#### **LT Category III (B) -Industry**

480. LT-III (B) is a separate category created in LT-III Industrial for the small scale industries whose connected load is more than 75HP and below 150 HP, which would normally qualify as HT-I category. As in the earlier Orders, the consumer is given the benefit of declaring a contracted demand lower than the connected load. A two-part tariff is levied which consists of demand charges and energy charges.

### LT Category -III (B) - Seasonal Industry

481. There is no change in the tariffs for this category. The demand charges during the off-season will be on the basis of recorded maximum demand or 30% of the contracted demand whichever is higher. The energy charges applicable will be those of HT-II. The definition of “seasonal industry”, will be the same as for HT-I category.

482. The permissible lighting load continues to be 10% of total consumption in line with industrial consumers in the HT segment.

**Table 117: LT Category - III: Industrial Tariff**

Slab	Current charges		DISCOM Proposed charges		APERC Approved charges	
	Fixed charges	Energy charge (paise/ unit)	Fixed charges	Energy charge (paise/ unit)	Fixed charges	Energy charges (paise/ unit)
<b>Category III(A): Industrial</b>						
(i). Industrial - normal up to 75 HP	Rs.37/HP/month	375	Rs.37/HP/ month	375	Rs.37/HP/ Month	375
(ii). Industrial - Optional 50-75 HP	Rs.100/kVA/month	375	Rs.100/ kVA/month	375	Rs.100/ kVA/month	375
(iii). Pisciculture and Prawn Culture (below 10HP)	--	90	--	90	--	90
(iv). Sugarcane Crushing (coming under agricultural services)	--	50	--	50	--	50
<b>Category III (B): Industrial</b>						
Above 75 HP up to 150 HP	Rs.100/kVA/month	375	Rs.100/kVA/ month	375	Rs.100/kVA/ month	375
<b>Category III (A&amp;B) Seasonal Industries - Off-season tariff (During season the applicable tariff of the respective categories will apply)</b>						
LT-III A(i)	--	--	--	--	Rs.37/HP/ month on 30% of the CL	440
LT-III A(ii)	--	--	--	--	Rs.100/kVA/ per month on RMD or 30% of the CMD which ever is higher	440

Slab	Current charges		DISCOM Proposed charges		APERC Approved charges	
	Fixed charges	Energy charge (paise/ unit)	Fixed charges	Energy charge (paise/ unit)	Fixed charges	Energy charges (paise/ unit)
LT-III(B)	Rs.100/kVA/ per month on RMD or 30% of the CMD which ever is higher	440	Rs.100/kVA/ per month on RMD or 30% of the CMD which ever is higher	440	Rs.100/kVA/ per month on RMD or 30% of the CMD which ever is higher	440

CL: contracted Load; CMD: Contracted maximum demand; RMD: Recorded maximum demand

#### LT Category -IV: Cottage Industries

483. The Cost-to-Serve this category is Rs. 2.97 /unit. The GoAP having agreed to provide subsidy for retaining the tariffs at the existing levels as proposed by the Discom, the Commission retains the existing tariffs for this category.

**Table 118: LT Category - IV: Cottage Industries & Dhobighats Tariff**

Current Charges		DISCOM		APERC	
		Proposed charges	Approved charges	Fixed charge (Rs/HP/ Month)	Energy charge (ps/ unit)
Fixed Charge (Rs/HP/ month)	Energy charge (ps/ unit)	Fixed charge (Rs/HP/ month)	Energy charge (ps/ unit)	10	180

#### LT Category -V: Agriculture

484. The cost-to-serve for this category is Rs.2.15 /unit. The GoAP having agreed to provide subsidy for retaining the tariffs at the existing levels as proposed by the DISCOM, the Commission retains the existing tariffs for this category.

**Table 119: LT Category - V: Agriculture Tariffs**

Slab	Current Charges		DISCOM		APERC	
			Proposed charges		Approved charges	
	Fixed Charge (Rs/HP/ month)	Energy charge (ps/ unit)	Fixed charge (Rs/HP/ month)	Energy charge (ps/ unit)	Fixed charge (Rs/HP/ Month)	Energy charge (ps/ unit)
<b>With DSM Measures #</b>						
Dry Land F. (Connections <=3)	0.00	0.00	0.00	0.00	0.00	0.00
Wet Land F(Holdings<=2.5 Acres)	0.00	0.00	0.00	0.00	0.00	0.00
Dry Land F. (Connections > 3)	0.00	20	0.00	20	0.00	20
Wet Land F( Holdings > 2.5 Acres)	0.00	20	0.00	20	0.00	20
Corporate Farmers & IT Assesses	0.00	100	0.00	100	0.00	100
<b>Without DSM Measures</b>						
Dry Land F. (Connections <=3)	0.00	0.00	0.00	0.00	210*	20
Wet Land F(Holdings<=2.5 Acres)	0.00	0.00	0.00	0.00	210*	20
Dry Land F. (Connections > 3)	0.00	50	0.00	50	525*	50
Wet Land F(Holdings > 2.5 Acres)	0.00	50	0.00	50	525*	50
Corporate Farmers & IT Assesses	0.00	200	0.00	200	0.00	200
AGRICULTURE (TATKAL)	0.00	20	0.00	20	0.00	20

(\*) - *Equivalent flat rate tariff*

(#) - The Farmers eligible for free supply under Dry Land as well as Wet Lands have to comply with the following Demand Side Management measures (DSM) as applicable for his pumping system viz., submersible and surface pump sets in the following stages failing which they shall not be eligible for free supply.

Stage - I to be complied by March 2006

Friction less foot valve (exempted for submersible pumpset)  
Capacitor of adequate rating for the pumpset

Stage - II to be complied by March 2008

HDPE or RPVC piping suction and/or delivery  
ISI-marked monobloc or submersible pumpset

Free supply shall not be allowed for Paddy in second crop. Farmers in dry land areas shall not be eligible for free supply if they grow Paddy in second crop.

All new connections shall be given only with DSM measures implemented and with meters.

### LT Category -VI : Local Bodies

485. The Cost-to-Serve for this category is Rs.4.48 /unit. The GoAP having agreed to provide subsidy, wherever required, for retaining the tariffs at the existing levels as proposed by the DISCOM, the Commission retains the existing tariffs for this category.

Table 120: LT Category - VI: Local Bodies Tariff

Slab	Current charges		DISCOM Proposed charges		APERC Approved charges	
	Fixed charge (Rs/HP/ Month)	Energy (paise/ unit)	Fixed charge (Rs/HP/ Month)	Energy (paise/ unit)	Fixed charge (Rs/HP/ month)	Energy (paise/ unit)
<b>Local Bodies Street Lighting &amp; PWS schemes</b>						
<b>A. Street Lighting</b>						
Minor Panchayats	156		156		156	
Major Panchayats	208		208		208	
Nagarpalikas and Municipalities Gr.3	274		274		274	
Municipalities Gr.1 & 2	326		326		326	
Municipalities Selection Spl.Gr.	353		353		353	
Corporations	379		379		379	
<b>B. PWS Schemes</b>						
<b>Panchayats (Major and Minor)</b>						
Up to 2500 Units	20		20		20	
Above 2500 Units	50		50		50	
<b>All Nagarpalikas and Municipalities</b>						
Up to 1000 Units	20	375	20	375	20	375
Balance Units		405		405		405
<b>Corporations</b>						
Up to 1000 Units	20	405	20	405	20	405
Balance Units		460		460		460

### LT Category -VII: General Purpose

486. The LT General Purpose category covers places of worship like churches, temples, mosques, gurudwaras, Crematoriums, Government educational institutions, and student hostels of Government educational institutions and educational institutions run by charitable institutions (Public charitable trusts and Societies registered under Societies Registration Act running educational and medical institutions on a no-profit basis), recognized service institutions, social welfare hostels run by Government of Andhra Pradesh, and old age homes run by recognized service institutions.

487. The cost-to-serve for this category is Rs.4.41/unit. The DISCOM has not proposed any changes in the rates to this category and the Commission has retained the existing tariffs.

**Table 121: LT Category - VII: General Purpose Tariff**

(Paise/unit)

Current Energy charge	DISCOM	APERC
	Proposed Energy charge	Approved Energy charge
400	400	400

### LT Category-VIII: Temporary Supply

488. The cost-to-serve for this category is Rs 4.14/unit. The rates remain unchanged and the Commission has retained the existing tariffs.

**Table 122: LT Category - VIII: Temporary Supply (General) Tariff**

(Paise/unit)

Slabs	Current Energy charge	DISCOM	APERC
		Proposed Energy charge	Approved Energy charge
General	620	620	620
Agriculture	230	230	230

## HIGH TENSION

### HT Category -I: Industry

489. The Commission has started the tariff rationalisation process for this category from 2002-03. This rationalisation has helped sustain the industrial growth in the state, which has also helped the DISCOM increase its revenue base, reduce losses and provide more cross-subsidy.
490. For the ensuing year, the Commission has approved the licensee's proposal for tariff rationalisation. The licensee has proposed reduction in the voltage-wise energy rates (reduction of 45 paise/unit for 132kV, 25 paise/unit for 33kV and 10 paise for 11kV) and an increase in the demand charges (increase of 55 Rs/kVA/month for 132kV and 35 Rs/kVA/month for 33kV) for two voltage levels. These changes resulted in net reduction of HT Tariffs by about 3.77% ranging from 7.14% reduction for 132kV and 1.43% for 11kV consumers.
491. The Cost-to-Serve for this category is Rs 2.52 for 11kV consumers, Rs 2.11 for 33kV consumers and Rs 1.90 for 132kV consumers. The Commission has approved the licensee proposed tariffs.
492. The Licensee after this positive move towards cost-based tariffs needs to step out further in future filings. The demand charges of 11kV consumers should normally be more than those of 132 kV consumers, if the tariffs have to move towards cost reflective levels and the Commission directs that:

*The Licensee shall review the methods of fixing the demand charges, devise suitable policy path for future and file a working paper with the Commission by 30<sup>th</sup> September 2006. The Commission will in turn consult the public and other stakeholders before deciding upon the further course of action.*

493. Changes have been proposed in the existing incentive scheme, which is valid till March 2006. The new incentive scheme as proposed by DISCOMs has been approved by the Commission to remain in force during April 2006 - March, 2007.

494. The Tariff for Ferro Alloys Units has been changed from Rs. 2.87 ps/unit to Rs. 2.55 ps/unit as proposed by the Licensees. These consumers are not entitled for the load factor incentive mentioned above.

**Table 123: HT Category - I: Industrial Tariff**

Slab	Current charges		DISCOM Proposed charges		APERC Approved charges	
	Demand charges (Rs/kVA/ month)	Energy charge (ps/unit)	Demand charges (Rs/kVA/ month)	Energy charge (ps/ unit)	Demand Charges (Rs/kVA/ month)	Energy charge (ps/ unit)
(a). Industry - General #						
132 kV and above	195	350	250	280	250	280
33 kV	195	350	230	310	230	310
11 kV and below	195	350	195	330	195	330
(b). Ferro Alloys	0	287	0	255*	0	255*
* - Based on 85% Load Factor. Energy falling short of 85% Load Factor will be billed as deemed consumption.						
Lighting	440		440		440	
Colony	350		350		350	

*# Load factor incentive allowed as per formula specified in the schedule of Retail Supply Tariffs.*

#### **HT Category -II: Non-Industrial Tariff**

495. This is an amorphous category and covers all consumers who are not covered in other HT categories. The Cost-to-Serve for this category at the respective voltage levels are: (i) Rs.2.36/unit for 132kV,(ii) Rs.2.81 for 33 kV and (iii) Rs.3.52 for 11kV consumers.

Table 124: HT Category - II: Non-Industrial Tariff

Slabs	Current charges		DISCOM Proposed charges		APERC Approved charges	
	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)
132 kV and above	195	440	250	365	250	365
33 kV	195	440	230	390	230	390
11 kV and below	195	440	195	440	195	440

#### HT Category -IV: Irrigation and Agriculture

496. The Cost-to-Serve this category is Rs.2.84/unit. This category has been classified into Government Lift Irrigation Schemes [HT-IV (A)] and other Irrigation Schemes [HT-IV (B)]. The Commission for FY2006-07, approves the proposed tariff and the tariff for this category would be reviewed in the next tariff order in the context of many lift irrigation schemes getting commissioned.

497. Tariffs for Lift Irrigation schemes owned by the private societies have been made free under the new agricultural power supply policy of GoAP and the GoAP have agreed to provide the requisite subsidy.

Table 125: HT Category - IV: Irrigation and Agriculture Tariff

Category	Current charges		DISCOM Proposed charges		APERC Approved charges	
	Fixed charges (Rs/kVA/ annum)	Energy charge (ps/ unit)	Fixed charges (Rs/kVA/ annum)	Energy charge (ps/ unit)	Fixed charges (Rs/kVA/ annum)	Energy charge (ps/ unit)
A: Govt. Lift Irrigation Schemes	0	236	0	236	0	236
B: Others	0	0	0	0	0	0

#### HT Category - V: Railway Traction

498. The cost-to-serve for this category is Rs.2.51/unit. As directed in the Tariff Order for FY2005-06 the Licensee has proposed a two-part tariff for this category in FY2006-07.

499. The railway setup in the State is being supplied power for a number of years on a single-part tariff basis. As the railways were often expressing their dissatisfaction, inter-alia with the seemingly high energy charge under the single-part structure compared to the energy charge in the two-part tariff elsewhere, the Commission directed the licensees, in paragraph 725 of its Tariff Order, 2005-06, to propose a two-part tariff structure for Railway Traction. This has been duly filed by the licensees along with a mention that the proposed structure is equivalent to 420 paise/unit as against the present tariff of 440 paise/unit

500. The railways have pleaded strongly for the retention of single-part tariff and also submitted that the proposed tariff in fact ranges from 430.54 paise/unit to 457.44 paise/unit across the DISCOMs. Pending detailed evaluation of all the issues/contentions, the Commission decides the tariff 420 paise/unit for Railway Traction, applicable for the year 2006-07 alone, not to be treated as the basis for determination of tariff for the subsequent years.

Table 126: HT Category - V: Railway Traction Tariff

(Paise/Unit)

Current Energy charge	DISCOM		APERC	
	Proposed Fixed charge (Rs/kVA/Month)	Proposed Energy charge	Proposed Fixed charge (Rs/kVA/Month)	Approved Energy charge
440	195	355	0	420

#### HT Category - VI: Townships / Colonies

501. The Cost-to-Serve this category is Rs.2.61/unit. There is no change in tariffs for this category.

Table 127: HT Category - VI: Townships/Colonies Tariff  
(Paise/Unit)

Current Energy Charge	DISCOM	APERC
	Proposed Energy charge	Approved Energy charge
350	350	350

*Note: The Schedule of Retail Supply Tariffs applicable for all categories of consumers for 2006-07 is provided in Chapter XX*

## CHAPTER- XVII

### RETAIL SUPPLY BUSINESS OF APEPDCL

#### PART A - REVENUE REQUIREMENT

##### **Filings in brief:**

502. The Company has considered different forecasting methodologies but mostly relied on the trend methodology, user surveys and analysis of previous years' information in projecting the sales volumes for categories other than LT Agriculture. For LT Agriculture, it has relied upon the DTR meter-reading information and the connected loads. Based on this procedure, the Company expects sales of 7195 MU for FY 2006-07 to different categories of consumers.
503. The Company having projected sales of 7195 MU, proposes to procure 8745 MU for its retail supply business for FY 2006-07. The difference between the procurement and sales volumes is the underlying losses, both technical and commercial. The total loss percentage, the ratio of difference between power purchase and sales volumes to power purchase volume, works out to 17.72 percent for FY 2006-07.
504. The company has projected its gross revenue requirement (expenditure) at Rs.1799.13 Crores consisting of power purchase cost, transmission charges and other expenditure. The company expects to earn, during the year, Rs.139.48 Crores as non-tariff income, i.e. the income from sources other than the tariffs. Accordingly, its net revenue requirement is placed at Rs.1659.65 Crores.
505. The gross revenue at current tariffs from the sale of 7195 MU to different categories of consumers is estimated at Rs.1958.82 Crores for FY 2006-07. The revenue estimates includes revenue from tariffs; the amount of incentives

payable to the HT 1: Industry General category of consumers as per proposed incentive rates has been considered by the company as an expense item.

506. The company arrived at the total revenue requirement and revenue from tariffs for the FY 2006-07 through aggregating the respective items of distribution and retail supply businesses. Accordingly, for FY2006-07, total revenue requirement is Rs.2003.61 Crores and revenue from tariffs is Rs.1958.82 Crores. The revenue gap as per the filing works out to Rs.44.79 Crores. The details of revenue requirement, revenue from tariffs and revenue gap are given below:

**Table 128: APEPDCL: Revenue Requirement for FY2006-07**

<b>(Rs. Crores)</b>		
<b>Sl. No.</b>	<b>Particulars</b>	<b>Amount</b>
1	Revenue requirement for Retail Supply	* 2003.61
2	Revenue from tariffs	1958.82
2.1	Revenue from wheeling tariff / charges	0.00
3	Revenue gap (1-2)	44.79

(\*) This includes Distribution ARR of Rs.343.96 Crores

## **COMMISSION ANALYSIS**

### **Sales forecast:**

507. The Commission after having reckoned the forecasting procedure followed by the company and additional information made available, approves the sales volume of 7445 MU for FY 2006-07.

**HT Sales:**

508. The sales growth rate in respect of industrial consumers appears to be on the decline. The Commission Staff projected the sales to HT categories to be at higher levels based on previous trends. The Commission is however of the view that potential for continuation of higher growth in sales needs to be first established before constraining the Licensee's financing by assuming higher sales volumes. The Commission therefore, approves the volumes as projected by the Licensee for HT categories, and directs, for better appraisal of the strengths and weaknesses of the Licensee with regard to these sales, that:

*The Licensee shall carry out a census of all HT consumers covering aspects like type of activity, connected load, contracted load, captive capacity, types of loads, sources of power purchase including third parties, and other technical and commercial parameters and file a report thereon with the Commission by 30<sup>th</sup> September 2006.*

**LT Agricultural sales:**

509. The company has filed sales of 1260 MU to Agricultural consumers for FY 06-07 whereas the Staff reckoned the possible consumption at 1199 MU, based on DTR meter readings. The CMD of the company, during the filing, requested for the filed volume of 1260 MU to be accepted citing good monsoons and consequent higher drawals of energy due to higher acreage being brought under cultivation. The Staff worked out different alternative possible consumption levels, lower than the volumes filed, based on DTR meter reading data.

510. The Commission noted that Staff estimates are sensitive to quality and coverage of available DTR meter reading information. The Commission however, notes with regret that while valid meter readings of DTRs for a continuous period of 12 months should normally constitute a robust input for reliable estimation of agricultural consumption levels, the ratio of such valid meter readings is a poor 49% for the period November 2004 - October 2005. Given this background, the Commission approves the consumption level of 1259.68 MU as filed by the company and directs that:

The Licensee shall initiate all possible steps to ensure the ratio of the valid DTRs to metered DTRs is at least 60 percent w.e.f. July 2006. Valid DTR for this purpose is the DTR for which the meter is in working condition and meter readings are available for the entire year. The Licensee may also propose, if so deemed fit by it, a more suitable metering cycle in place of present monthly meter reading cycle to arrive at the annual consumption.

**Sales to other categories:**

511. Sales to Domestic category of consumers are also approved as projected by the Company, duly reckoning the need for additional volumes on account of Rajeev Gandhi Gramin Vidyuteekaran Yojana (RGGGY) scheme for electrification of rural homes. Also no changes have been effected in sales volumes for other categories except 1 MU less for REESCOs based on filings. The details of the sales volumes for each category of consumers as approved by the Commission for the FY2006-07 are given below:

**Table 129: Sales Volumes for FY2006-07**

Category	Purpose	(MU)
LT I	Domestic	2142.93
LT II	Non-Domestic/Commercial	399.92
LT III	Industrial	396.88
LT IV	Cottage Industry	1.62
LT V	Agriculture	1259.68
LT VI	Public Lighting/PWS Schemes	194.02
LT VII	General Purpose	24.04
LT VIII	Temporary Supply	0.00
HT IA	Industry, General	1656.00
HT IB	Industry, Ferro Alloys	491.00
HT II	Non-Industrial	249.00
HT IV	Irrigation & Agricultural	57.15
HT V	Railway Traction	405.21
HT VI	Townships/Colonies	27.04
	HT Temporary Supply	0.00
	REESCOs	140.00
Total		7444.49

**Distribution losses and power purchase volumes:**

512. The distribution losses for FY 2006-07 for the distribution network are indicated in Paragraph 283 of this Order. The sales have been reckoned at different voltages and adjusted to the relevant loss percentages to arrive at the required energy purchase level for FY 2006-07. As per the Commission's alternate calculations at voltage levels, the loss percentage for FY 2006-07 is placed at 17.54 and is lower than that in the Licensee's filings. The details are given below:

**Table 130: Sales, Energy Losses and Energy Purchases**

Sales, Purchase and Losses	APEPDCL	APERC
Energy Sales(MU)	7445.49	7444.49
Energy Purchases(MU)	9049.00	9028.00
Total Losses(MU)	1603.51	1583.51
Total Loss(%)	17.72%	17.55%

**Power Purchase Cost:**

513. The power purchase cost as per the filings is Rs.1660.43 Crores for procurement of 9048.96 MU and with the revised volumes of energy sales as referred to in Paragraph 443 adjusted for revision of losses as in paragraph 283, the power purchase cost is placed at Rs.1588.97 Crores for procurement of 9028.80 MU for FY 2006-07. The lower power purchase cost is due to lower volume of energy procurement, changes in source-mix, unit cost changes etc; the details are provided in Annexure H(ii).

**Transmission cost:**

514. The company filed the transmission cost for FY 2006-07 as Rs.118.81 Crores. The Commission in its order on transmission tariffs issued separately in O.P.No.1 of 2006, has determined the transmission tariff Rs.42.60/kW/month for FY 2006-07. Based on the generation capacity allocated the Company, the

transmission cost for FY 2006-07 is worked out to Rs. 100.31 Crores and the same is adopted for computing its revenue requirement.

**SLDC cost:**

515. The Company had included the SLDC cost of Rs. 9.02 Crores for FY 2006-07 in its ARR filing for distribution business. The Commission in its above mentioned order on transmission tariffs has determined the SLDC charge at Rs.1.86/kW/month for FY 2006-07. Based on the generation capacity allocated the Company, its share of the SLDC cost for FY 2006-07 works out to Rs.4.38 Crores and the same is included in its revenue requirement for Retail supply business as this cost relates to power purchases and not to the Distribution business.

**PGCIL and ULDC costs:**

516. The Company did not consider the costs associated with PGCIL transmission network (evacuating the power from central generating stations) and related ULDC costs in its retail supply business. The Commission in its order on transmission tariffs has observed that these costs relate to power purchases. The Commission has reckoned the share of these costs attributable to this company at Rs. 32.56 Cr for FY2006-07.

**HT Incentive cost:**

517. The Company has treated the amount payable as per the incentive scheme as expenditure and accordingly included Rs.33 Crores as cost for FY 2006-07. The Commission, on the other hand, is of the view that the incentive amount should be seen as a rebate in tariffs, and does not reckon the HT incentive amount as a cost. The amount is accordingly taken as a deduction from the revenues from

this category of consumers to project a correct picture of revenue receipts. The company revised the HT incentive amount at proposed tariff at Rs.27 Crores and the Commission reckoned the same in this Order.

**Consumer Security Deposit cost:**

518. The company filed the interest cost on security deposits at Rs.25.22 Crores for FY 2006-07. This cost is filed as per the Commission's Regulation relating to the security deposits and is accepted by the Commission.

**Supply margin:**

519. The Commission has provided Rs. 2.85 Crores as margin for retail supply business as per the intent of the Tariff Policy (clause 5.3(a)) notified by Government of India. It is to be noted that this margin will not lead to additional cost to the consumers since the Commission has reckoned the cost of equity at 14% p.a. instead of 16% p.a. for network business as filed by the Company.

**Revenue requirement:**

520. For FY 2006-07, the gross revenue requirement for retail supply business is Rs.1831.94 Crores as per the filings made by the Company and as per the Commission's alternate calculations, the revenue requirement is placed at Rs.1754.28 Crores.

521. The company filed the non-tariff income at Rs. 139.48 Crores and as per the Commission's calculations, this has been reckoned as Rs. 131.88 Crores. The Commission reckoned interest income of Rs.37.83 Crores on consumer security deposits, which had not been taken into account by the Licensee.

522. The net revenue requirement, i.e. the gross revenue requirement minus the non-tariff income, for FY 2006-07 is Rs.1692.46 Crores as per the filings. As per the Commission's alternate calculations, as per the preceding paragraphs,

however, the net revenue requirement for the year is placed at Rs.1622.40 Crores.

523. The company has considered the distribution business ARR net of wheeling revenue at Rs.343.96 Crores as cost for the retail supply business for FY 2006-07. The Commission, in Paragraph 368 of this Order, determined the share of DISCOM in the distribution ARR for FY2006-07 at Rs.349.25 Crores. The Commission considered this share as distribution cost for retail supply business for FY2006-07. With this, the total revenue requirement for retail supply business is placed at Rs.1971.65 Crores for FY2006-07.

**Revenue from tariffs:**

524. For FY 2006-07, the revenue from tariffs at proposed tariffs was estimated by the Company at Rs. 2005.91 Crores and as per the Commission's calculations as above, the revenue from tariffs for the year is recomputed at Rs.1965.04 Crores. The revenue from HT I: Industry, General category is less on account of deduction of the HT incentive amount from the projected revenue therefrom as explained in Paragraph 517. The details are given below:

**Table 131: Revenue from Tariffs for FY 2006-07**

Category	Purpose	APEPDCL	APERC	(Rs. Crores)
LT I	Domestic	446.84	446.84	
LT II	Non-Domestic/Commercial	226.77	226.77	
LT III	Industrial	160.44	160.44	
LT IV	Cottage Industry	0.32	0.32	
LT V	Agriculture	3.62	3.62	
LT VI	Public Lighting/PWS Schemes	34.67	34.67	
LT VII	General Purpose	9.82	9.82	
LT VIII	Temporary Supply	0.00	0.00	
HT IA	Industry, General	671.00	634.23	
HT IB	Industry, Ferro Alloys	125.00	125.21	
HT II	Non-Industrial	125.00	122.30	
HT IV	Irrigation & Agricultural	11.92	11.92	
HT V	Railway Traction	171.73	170.19	
HT VI	Townships/Colonies	9.46	9.46	
	HT Temporary Supply	0.00	0.00	
	RESCOs	9.31	9.24	
	<b>Total</b>	<b>2005.91</b>	<b>1965.04</b>	

### Revenue Gap

525. The revenue requirement of Rs.1971.65 Crores as accepted by the Commission and expected revenue of Rs. 1965.04 Crores at proposed tariffs for FY 2006-07 form the basis for the determination of the tariffs for retail supply. These computations leave the Company with a revenue deficit of Rs.6.61 Crores for FY 2006-07. In Part-B of this Chapter, the Commission deals with the determination of retail supply tariffs of FY 2006-07.

**Table 132: Revenue Requirement for FY 2006 -07**

Sl.No	Revenue requirement item	APEPDCL	(Rs. Crores) APERC
1	Power purchase cost	1660.43	1588.97
2	Transmission cost	118.81	100.31
3	PGCIL and ULDC cost	0.00	32.56
4	SLDC cost	0.00	4.38
5	HT Incentive cost	52.70	0.00
6	Interest on consumer security deposits		25.22
7	Supply margin	0.00	2.85
8	Distribution cost	343.95	349.25
9	Gross ARR	2175.89	2103.53
10	Less Non -tariff income	139.48	131.88
11	Retail Supply Revenue Requirement	2036.41	1971.65
12	Less Revenue from tariff	2005.91	1965.04
13	<b>Revenue Gap</b>	<b>30.50</b>	<b>6.61</b>

### PART B - RETAIL TARIFFS

526. The Commission determined Retail Tariff for APEPDCL for FY2006-07 in accordance with Section 62 of the Electricity Act, 2003 as given in the table below. The Tariffs so finalized are communicated to GoAP to intimate whether it requires, the grant of any subsidy to any consumer or class of consumers in the tariff determined by the Commission, under Section 65 of the Electricity Act, 2003.

**Table 133: Commission Determined Tariffs FY 2006-07**

**APEPDCL: RETAIL SUPPLY TARIFF FOR FY2006-07**

CONSUMER CATEGORY	Tariff proposed by DISCOM			Commission Determined Tariff		
	Fixed Charge (Rs./HP/month)	Demand Charge (Rs/kVA/month)	Energy Charge (paise/unit)	Fixed Charge (Rs/HP/month)	Demand Charge (Rs/kVA/month)	Energy Charge (paise/unit)
LT I <b>DOMESTIC</b>						
LT01 Slab 1 (0-50)		0	145	0	0	147
LT01 Slab 2 (51-100)		0	280	0	0	281
LT01 Slab 3 (101-200)		0	305	0	0	305
LT01 Slab 4 (201-300)		0	475	0	0	475
LT01 Slab 5 (>300)		0	550	0	0	550
LT II <b>NON-DOMESTIC</b>				0	0	
LT02 Slab 1 (0-50)	0	0	395	0	0	395
LT02 Slab 2 (>50)	0	0	625	0	0	625
LT IIIa <b>INDUSTRIAL NORMAL</b>				0	0	
LT03 Industrial Normal	37	0	375	37	0	375
LT03 Industrial Optional		100	375		100	375
LT03 Pisciculture/Prawn culture	0	0	90	0	0	92
LT03 Sugarcane crushing	0	0	50	0	0	50
LT IIIb <b>INDUSTRIAL OPTIONAL</b>				0	0	
LT03 SSI Units		0 100	375		0 100	375
Seasonal Industries [LT Cat-III(A) (i)	(₹) 37	--	440 **	(₹) 37	--	440 **
LT03 Seasonal Industries [LT Cat - III(A) (ii) and LT Cat - III (B)		₹ 100	440 **		₹ 100	440 **
LT IV <b>COTTAGE INDUSTRIES</b>	10	0	180	10	0	181
LT V <b>IRRIGATION AND AGRICULTURE</b>						
LT05 With DSM Measures						
LT05 Dry Land F. (Connections <=3)	0	0	0	0	0	2
LT05 Wet Land F( Holdings<=2.5 Acres)	0	0	0	0	0	-
LT05 Dry Land F. (Connections > 3)	* 210	0	20	0	0	22
LT05 Wet Land F( Holdings > 2.5 Acres)	* 210	0	20	0	0	22
LT05 Corporate Farmers & IT Assesses	0	0	100	0	0	101
LT05 Without DSM Measures				0	0	
LT05 Dry Land F. (Connections <=3)	* 210	0	20	0	0	2
LT05 Wet Land F( Holdings<=2.5 Acres)	* 210	0	20	0	0	2
LT05 Dry Land F. (Connections > 3)	* 525	0	50	0	0	52

CONSUMER CATEGORY		Tariff proposed by DISCOM			Commission Determined Tariff		
		Fixed Charge (Rs./HP/month)	Demand Charge (Rs/kVA/month)	Energy Charge (paise/unit)	Fixed Charge (Rs/HP/month)	Demand Charge (Rs/kVA/month)	Energy Charge (paise/unit)
LT05	Wet Land F( Holdings > 2.5 Acres)	* 525	0	50	0	0	52
LT05	Corporate Farmers & IT Assesses	0	0	200	0	0	200
LTVb	AGRICULTURE (TATKAL)	0	0	20	0	0	22
LT Via	LOCAL BODIES, STREET LIGHTING AND PWS SCHEMES				0	0	
LT06	Street Lighting				0	0	
LT06	Minor Panchayats	0	0	156	0	0	158
LT06	Major Panchayats	0	0	208	0	0	210
LT06	Nagarpalikas & Municipalities (Gr 3)	0	0	274	0	0	275
LT06	Municipalities (Gr 1&2)	0	0	326	0	0	327
LT06	Municipalities Selection Special Group	0	0	353	0	0	353
LT06	Corporations	0	0	379	0	0	379
LT Vib	PWS Schemes				0	0	
LT06	Minor / Major Panchayats				0	0	
LT06	Upto 2500 units/Yr	0	0	20	0	0	20
LT06	Above 2500 units/Yr	0	0	50	0	0	53
LT06	All Nagarpalikas & Municipalities						
LT06	Upto 1000 units	20	0	375	20	0	375
LT06	More than 1000 units	20	0	405	20	0	405
LT06	Municipal Corporations						
LT06	Upto 1000 units	20	0	405	20	0	405
LT06	More than 1000 units	20	0	460	20	0	460
LT VII	GENERAL PURPOSE	0	0	400	0	0	400
LT VIII	TEMPORARY SUPPLY	0	0	620	0	0	620
LT08	Temporary Supply to Agriculture	0	0	230	0	0	230
HT I	INDUSTRY GENERAL				0	0	
HT01	132 kV and above		250	280	0	250	280
HT01	33kV		230	310	0	230	310
HT01	11 kV and below		195	330	0	195	330
	Seasonal Industries	0	@	#	0	@	#
HT Ib	FERRO ALLOYS			255	0	0	
HT01	Lights and Fans			440	0	0	440
HT01	Colony			350	0	0	350
HT II	Non-Industrial						
HT02	132 kV and above		250	365	0	250	365

CONSUMER CATEGORY		Tariff proposed by DISCOM			Commission Determined Tariff		
		Fixed Charge (Rs./HP/month)	Demand Charge (Rs/kVA/month)	Energy Charge (paise/unit)	Fixed Charge (Rs./HP/month)	Demand Charge (Rs/kVA/month)	Energy Charge (paise/unit)
HT02	33kV			230	0	230	390
HT02	11 kV and below			195	0	195	440
HT IV	IRRIGATION AND AGRICULTURE				0	0	
(A)3	Government Lift Irrigation Schemes			0	0	0	236
(B)3	Others			0	0	0	2
HT V	RAILWAY TRACTION			195	0	0	420
HT VI	TOWNSHIPS AND RESIDENTIAL COLONIES			0	0	0	350
	HT Temporary Supply	0	\$	\$	0	\$	\$
HT06	Rural Co-operatives						
	Anakapalli	0	0	66	0	0	66
	Chipurupalli	0	0	66	0	0	66

- § - 1.5 times the normal tariff for the respective HT category
- # - Energy rates as applicable for different voltages under HT Cat-II
- \*\* - Off-season tariff
- \* - Equivalent flat rate tariff
- § - Demand changes shall be billed on recorded demand or 30% of contracted demand, whichever is higher.
- @ - Demand changes at the rates applicable for respective voltage shall be billed on the recorded Demand or 30% of the contracted Demand whichever is higher
- (₹) - On 30% of Contracted Load.

#### Directions of GoAP on Subsidy

527. GoAP informed the Commission that the tariff in respect of the subsidized categories may be reduced to the levels proposed by the DISCOM and accordingly, agreed to make available the consequent total financial implication of Rs.6.61 Crores as subsidy to the DISCOM. The table below gives

the details of subsidy allocation for FY 2006-07 to the various subsidized categories:

**Table 134: Details of Subsidy Allocation in FY 2006-07**

Particulars	Amount (Rs.Crores)
Domestic	2.97
Cottage Industries	0.0013
LT Agriculture	3.05
Local (Public) Bodies	0.40
HT Agriculture	0.01
RESCOS	0.10
Total	6.61

528. The GoAP subsidy has been mainly for Domestic and Agriculture categories. The table below shows the break-up of revenue, cross-subsidy and subsidy for FY2006-07 for APEPDCL for the subsidized categories.

**Table 135: Details of Revenues, Cross-subsidy and Government Subsidy FY 2006-07**

Subsidised categories	Revenue	Cross-subsidy	Government subsidy (Rs. Crores)
Domestic (0-200)	415.25	317.67	2.97
Cottage Industry	0.32	0.14	0.0013
Agriculture	6.33	326.29	3.05
Local Bodies	30.13	43.16	0.40
HT Agriculture	0.00	1.52	0.01
RESCO	9.24	17.61	0.10
Total	461.27	706.39	6.61

#### **Administration of Subsidy:**

529. Subsidy provided by the GoAP is administered as follows:

- The subsidy given by the GoAP as per Section 65 of Electricity Act 2003 is for maintaining the tariffs at the levels proposed by the DISCOMs in respect of the subsidized categories.
- Each DISCOM gets the subsidy commensurate to the extent of energy sales projected in each subsidised category.

c) The subsidy allocation to each DISCOM as calculated in (b) above must be paid by the GoAP to the respective DISCOMs in monthly instalments, in advance.

530. The Subsidy administration mechanism Directive outlined in **paragraph 860** of the Tariff Order for FY2004-05 and reiterated in paragraph 701 of Tariff Order FY2005-06 and as extracted below shall apply.

*“The DISCOMs shall file before the Commission the actual sales to subsidized categories of consumers for whom the GoAP agreed to pay the subsidy every month and the Commission will monitor the units actually sold by the DISCOMs vis-à-vis the subsidy provided. At the end of the year, subsidy adjustments will be made based on the consumption of units in respect of various subsidized categories.”*

#### Final Retail Tariffs

531. Section 62(3) of the Electricity Act, 2003, stipulates that the Appropriate Commission while determining the tariff should not show any undue preference to any consumer of electricity, but may differentiate according to the consumers' load factor, power factor, voltage, total consumption of electricity etc. Accordingly, the Commission followed the prescribed criteria while differentiating among consumers.

#### LT Category -I: Domestic

532. The tariff rates remain unchanged, as the GoAP have decided to provide the required subsidy. The cost-to-serve for this category is Rs.3.67 per unit.

**Table 136: LT Category - I: Domestic Tariff**

Slab (units/month)	Current Energy charge (ps/unit)	DISCOM	APERC
		Proposed Energy charge (ps/unit)	Approved Energy charge (ps/unit)
0-50	145	145	145
51-100	280	280	280
101-200	305	305	305
201-300	475	475	475
Above 300	550	550	550

533. Consumers in the domestic category who wish to avail power at connected load above 56 KW are permitted to do so by fixing meters on the HT side. The charges applicable will be those of LT - I Domestic.

#### **LT Category -II: Non-Domestic and Commercial**

534. The non-domestic and commercial category LT-II, which includes shops, offices, commercial establishments, entertainment centers, studios etc. The cost-to-serve for this category is Rs.3.63 per unit. The DISCOMs have not proposed any changes in the rates for this category and the Commission has retained the existing tariffs.

**Table 137: LT Category - II: Non-Domestic and Commercial Tariff**

<b>Slab</b>	<b>Current Energy charge (ps/unit)</b>	<b>DISCOM</b>	<b>APERC Approved</b>
		<b>Proposed Energy charge (ps/unit)</b>	<b>Energy charge (ps/unit)</b>
0 - 50	395	395	395
51 & above	625	625	625

#### **LT Category III (A) -Industry**

535. This category consists entirely of industrial loads in the LT category. The cost-to-serve for this category is Rs.3.04 per unit. DISCOMs have not suggested any changes in the tariff for this category and the Commission has retained the existing tariffs. The industrial consumer under LT-III(A) with load of 50 HP and above are given an option to choose a tariff based on demand charges per kVA instead of the fixed charge per HP. Accordingly the Commission specifies that the contracted demand declared shall not be less than 25 kVA for those who opt for the demand tariff.

#### **LT Category -III (A)- Seasonal Industry**

536. There is no change in the tariffs for this category. The demand charges during the off-season will be on the basis of recorded maximum demand or 30% of the contracted demand whichever is higher, if it is optional category; otherwise, fixed charges shall be payable at 30% of the contracted load. The energy charges applicable will be those of HT-II. The definition of “seasonal industry”, will be the same as for HT-I category.

### LT Category - III (B) -Industry

537. LT Category-III (B) is a separate category created in LT-III Industrial for the small scale industries whose connected load is more than 75HP and below 150 HP, which would normally qualify as HT-I category. As in the earlier Orders, the consumer is given the benefit of declaring a contracted demand lower than the connected load. A two-part tariff is levied which consists of demand charges and energy charges.

### LT Category -III (B) - Seasonal Industry

538. There is no change in the tariffs for this category. The demand charges during the off-season will be on the basis of recorded maximum demand or 30% of the contracted demand whichever is higher. The energy charges applicable will be those of HT-II. The definition of "seasonal industry", will be the same as for HT-I category.

539. The permissible lighting load as permitted in the Tariff Order for FY2005-06 is 10% of total consumption in line with industrial consumers in the HT segment.

Table 138: LT Category - III: Industrial Tariff

Slab	Current charges		DISCOM Proposed charges		APERC Approved charges	
	Fixed charges	Energy charge (paise/ unit)	Fixed charges	Energy charge (paise/ unit)	Fixed charges	Energy charges (paise/ unit)
<b>Category III(A): Industrial</b>						
(i). Industrial - normal up to 75 HP	Rs.37/HP/month	375	Rs.37/HP/ Month	375	Rs.37/HP/ Month	375
(ii). Industrial - Optional 50-75 HP	Rs.100/kVA/month	375	Rs.100/ kVA/month	375	Rs.100/ kVA/month	375
(iii). Pisciculture and Prawn Culture (below 10HP)	--	90	--	90	--	90
(iv). Sugarcane Crushing (coming under agricultural services)	--	50	--	50	--	50
<b>Category III (B): Industrial</b>						
Above 75 HP up to 150 HP	Rs.100/kVA/month	375	Rs.100/kVA/ month	375	Rs.100/kVA/ month	375
<b>Category III (A&amp;B) Seasonal Industries - Off-season tariff (During season the applicable tariff of the respective categories will apply)</b>						

Slab	Current charges		DISCOM Proposed charges		APERC Approved charges	
	Fixed charges	Energy charge (paisa/ unit)	Fixed charges	Energy charge (paisa/ unit)	Fixed charges	Energy charges (paisa/ unit)
LT-III A(i)	--	--	--	--	Rs.37/HP/ month on 30% of the CL	440
LT-III A(ii)	--	--	--	--	Rs.100/kVA/ per month on RMD or 30% of the CMD which ever is higher	440
LT-III (B)	Rs.100/kVA/ per month on RMD or 30% of the CMD which ever is higher	440	Rs.100/kVA/ per month on RMD or 30% of the CMD which ever is higher	440	Rs.100/kVA/ per month on RMD or 30% of the CMD which ever is higher	440

CL: contracted Load; CMD: Contracted maximum demand; RMD: Recorded maximum demand

#### LT Category-IV : Cottage Industries

540. The Cost-to-Serve this category is Rs. 3.00 /unit. The DISCOM has not proposed any changes in the rates for this category and the Commission has retained the existing tariffs.

**Table 139 : LT Category - IV: Cottage Industries & Dhabighats Tariff**

Current Charges		DISCOM Proposed charges		APERC Approved charges	
Fixed Charge (Rs/HP/ month)	Energy charge (ps/ unit)	Fixed charge (Rs/HP/ month)	Energy charge (ps/ unit)	Fixed charge (Rs/HP/ Month)	Energy charge (ps/ unit)
10	180	10	180	10	180

#### LT Category-V: Agriculture

541. The cost-to-serve for this category is Rs.2.60/unit. The Commission has accepted the proposal of the DISCOM.

Table 140 : LT Category - V: Agriculture Tariffs

Slab	Current Charges		DISCOM		APERC	
			Proposed charges		Approved charges	
	Fixed Charge (Rs/HP/ month)	Energy charge (ps/ unit)	Fixed charge (Rs/HP/ month)	Energy charge (ps/ unit)	Fixed charge (Rs/HP/ Month)	Energy charge (ps/ unit)
<b>With DSM Measures #</b>						
Dry Land F. (Connections <=3)	0.00	0.00	0.00	0.00	0.00	0.00
Wet Land F(Holdings<=2.5 Acres)	0.00	0.00	0.00	0.00	0.00	0.00
Dry Land F. (Connections > 3)	0.00	20	0.00	20	0.00	20
Wet Land F( Holdings > 2.5 Acres)	0.00	20	0.00	20	0.00	20
Corporate Farmers & IT Assesses	0.00	100	0.00	100	0.00	100
<b>Without DSM Measures</b>						
Dry Land F. (Connections <=3)	0.00	0.00	0.00	0.00	210*	20
Wet Land F(Holdings<=2.5 Acres)	0.00	0.00	0.00	0.00	210*	20
Dry Land F. (Connections > 3)	0.00	50	0.00	50	525*	50
Wet Land F(Holdings > 2.5 Acres)	0.00	50	0.00	50	525*	50
Corporate Farmers & IT Assesses	0.00	200	0.00	200	0.00	200
AGRICULTURE (TATKAL)	0.00	20	0.00	20	0.00	20

(\*) - Equivalent flat rate tariff

(#) - The Farmers eligible for free supply under Dry Land as well as Wet Lands have to comply with the following Demand Side Management measures (DSM) as applicable for his pumping system viz., submersible and surface pump sets in the following stages failing which they shall not be eligible for free supply.

Stage - I to be complied by March 2006

Friction less foot valve (exempted for submersible pumpset)  
Capacitor of adequate rating for the pumpset

Stage - II to be complied by March 2008

HDPE or RPVC piping suction and/or delivery  
ISI-marked monobloc or submersible pumpset

Free supply shall not be allowed for Paddy in second crop. Farmers in dry land areas shall not be eligible for free supply if they grow Paddy in second crop.

All new connections shall be given only with DSM measures implemented and with meters.

#### LT Category - VI : Local Bodies

542. The cost-to-serve for this category is Rs.4.13 /unit. The DISCOM has not proposed any changes in the rates for this category and the Commission has retained the existing tariffs.

**Table 141: LT Category - VI: Local Bodies Tariff**

Slab	Current charges		DISCOM Proposed charges		APERC Approved charges	
	Fixed charge (Rs/HP/ Month)	Energy (paise/ unit)	Fixed charge (Rs/HP/ Month)	Energy (paise/ unit)	Fixed charge (Rs/HP/ month)	Energy (paise/ unit)
<b>Local Bodies Street Lighting &amp; PWS schemes</b>						
<b>A. Street Lighting</b>						
Minor Panchayats		156		156		156
Major Panchayats		208		208		208
Nagarpalikas and Municipalities Gr.3		274		274		274
Municipalities Gr.1 & 2		326		326		326
Municipalities Selection Spl.Gr.		353		353		353
Corporations		379		379		379
<b>B. PWS Schemes</b>						
<b>Panchayats (Major and Minor)</b>						
Up to 2500 Units		20		20		20
Above 2500 Units		50		50		50
<b>All Nagarpalikas and Municipalities</b>						
Up to 1000 Units	20	375	20	375	20	375
Balance Units		405		405		405
<b>Corporations</b>						
Up to 1000 Units	20	405	20	405	20	405
Balance Units		460		460		460

### LT Category - VII: General Purpose

543. The LT General Purpose category covers places of worship like churches, temples, mosques, gurudwaras, Government educational institutions, crematoriums and student hostels of Government educational institutions and educational institutions run by charitable institutions (Public charitable trusts and Societies registered under Societies Registration Act running educational and medical institutions on a no-profit basis), recognized service institutions, and social welfare hostels run by Government of Andhra Pradesh and old age homes run by recognized service institutions.

544. The cost-to-serve for this category is Rs.4.05/unit. The DISCOM has not proposed any changes in the rates to this category and the Commission has retained the existing tariffs.

**Table 142: LT Category - VII: General Purpose Tariff**

(Paise/unit)		
Current Energy charge	DISCOM	APERC
	Proposed Energy charge	Approved Energy charge
400	400	400

### LT Category - VIII: Temporary Supply

545. The cost-to-serve for this category is Rs.4.14/unit. The rates remain unchanged and the Commission has retained the existing tariffs.

**Table 143: LT Category - VIII: Temporary Supply (General) Tariff**

Slabs	Current Energy charge	(Paise/unit)	
		DISCOM	APERC
General	620	620	620
Agriculture	230	230	230

## **HIGH TENSION**

### **HT Category-I: Industry**

546. The Commission has started the tariff rationalisation process for this category from 2002-03 and while doing so the Commission has ensured that the tariffs progressively reflect cost of supply to that particular category. This rationalisation has also supported the DISCOM to sustain the industrial growth in the state, which helped the DISCOM in increasing its revenue base, reduce losses besides providing more cross subsidy.
547. For the ensuing year, the Commission has approved the licensee's proposal as it is in the right direction of tariff rationalisation. The licensee has proposed reduction in the voltage-wise energy rates (reduction of 45 paise/unit for 132kV, 25 paise/unit for 33kV and 10 paise for 11kV) and an increase in the demand charges (increase of 55 Rs/kVA/month for 132kV and 35 Rs/kVA/month for 33kV) for two voltage levels. These changes resulted in net reduction of HT Tariffs by about 3.77% ranging from 7.14% reduction for 132kV and 1.43% for 11kV consumers.
548. The Cost-to-Serve for this category is Rs 2.19 for 11 kV consumers, Rs 1.95 for 33kV consumers and Rs 1.92 for 132kV consumers. The Commission has approved the licensee proposed tariffs.
549. The Licensee after this positive move towards cost-based tariffs needs to step out further in future filings. The demand charges of 11kV consumers should normally be more than those of 132 kV consumers, if the tariffs have to move towards cost reflective levels and the Commission directs:

*The Licenses shall review the methods of fixing the demand charges, devise suitable policy path for future and file a working a paper with the Commission. The Commission will in turn consult the public on this paper for its incorporation.*

550. Changes have been proposed in the existing incentive scheme, which is valid till March 2006. The new incentive scheme as proposed by DISCOMs has been approved by the Commission to remain in force, till 31st March, 2007.

551. The Tariff for Ferro Alloys Units has been changed from Rs. 2.87 ps/unit to Rs. 2.55 ps/unit as proposed by the Licensees. These consumers are not entitled for the load factor incentive mentioned above.

**Table 144: HT Category - I: Industrial Tariff**

Slab	Current charges		DISCOMs Proposed charges		APERC Approved charges	
	Demand charges (Rs/kVA/ month)	Energy charge (ps/unit)	Demand charges (Rs/kVA/ month)	Energy charge (ps/ unit)	Demand Charges (Rs/kVA/ month)	Energy charge (ps/ unit)
(a). Industry - General #						
132 kV and above	195	350	250	280	250	280
33 kV	195	350	230	310	230	310
11 kV and below	195	350	195	330	195	330
(b). Ferro Alloys	0	287	0	255*	0	255*
<i>* - Based on 85% Load Factor. Energy falling short of 85% Load Factor will be billed as deemed consumption.</i>						
Lighting		440		440		440
Colony		350		350		350

*# Load factor incentive allowed as per formula specified in the schedule of Retail Supply Tariffs.*

## HT Category - II: Non-Industrial

552. This is an amorphous category and covers all consumers who are not covered in other HT categories. The Cost-to-Serve this category at the respective voltage levels are: (i) Rs.2.16/unit for 132kV,(ii) Rs.2.12 for 33 kV and (iii) Rs.2.78 for 11kV consumers.

Table 145: HT Category - II: Non-Industrial Tariff

Slabs	Current charges		DISCOM Proposed charges		APERC Approved charges	
	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)
132 kV and above	195	440	250	365	250	365
33 kV	195	440	230	390	230	390
11 kV and below	195	440	195	440	195	440

## HT Category - IV: Irrigation and Agriculture

553. The Cost-to-Serve this category is Rs.2.32/unit. This category has been classified into Government Lift Irrigation Schemes [HT-IV (A)] and other Irrigation Schemes [HT-IV (B)]. The Commission for FY2006-07, approves the proposed tariff and the tariff for this category would be reviewed in the next tariff order in the context of many lift irrigation schemes getting commissioned. Tariffs for Lift Irrigation schemes owned by the private societies have been made free under the new agricultural power supply policy.

Table 146: HT Category - IV: Irrigation and Agriculture Tariff

Category	Current charges		DISCOMs Proposed charges		APERC Approved charges	
	Fixed charges (Rs/kVA/ annum)	Energy charge (ps/ unit)	Fixed charges (Rs/kVA/ annum)	Energy charge (ps/unit)	Fixed charges (Rs/kVA/ annum)	Energy charge (ps/ unit)
A: Govt. Lift Irrigation Schemes	0	236	0	236	0	236
B: Others	0	0	0	0	0	0

#### **HT Category - V: Railway Traction**

554. The cost-to-serve for this category is Rs.2.43/unit. As directed in the Tariff Order for FY2005-06 the Licensee has proposed a two-part tariff for this category in FY2006-07.

555. The railway setup in the State is being supplied power for a number of years on a single-part tariff basis. As the railways were often expressing their dissatisfaction, inter-alia with the seemingly high energy charge under the single-part structure compared to the energy charge in the two-part tariff elsewhere, the Commission directed the licensees, in paragraph 725 of its Tariff Order, 2005-06, to propose a two-part tariff structure for Railway Traction. This has been duly filed by the licensees along with a mention that the proposed structure is equivalent to 420 paise/unit as against the present tariff of 440 paise/unit.

556. The railways have pleaded strongly for the retention of single-part tariff and also submitted that the proposed tariff in fact ranges from 430.54 paise/unit to 457.44 paise/unit across the DISCOMs. Pending detailed evaluation of all the issues/contentions, the Commission decides the tariff of 420 paise/unit for Railway Traction, applicable for the year 2006-07 alone, not to be treated as the basis for determination of tariff for the subsequent years.

**Table 147: HT Category - V: Railway Traction Tariff**

**(Paise/Unit)**

Current Energy charge	DISCOM		APERC	
	Proposed Fixed charge (Rs/kVA/Month)	Proposed Energy charge	Proposed Fixed charge (Rs/kVA/Month)	Approved Energy charge
440	195	355	0	420

#### **HT Category - VI: Townships / Colonies**

561. <sup>1</sup>The Cost-to-Serve this category is Rs.2.61/unit. There is no change in tariffs for this category.

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<sup>1</sup>**Note:** Paragraphs 557 to 560 are intentionally left blank.

**Table 148: HT Category - VI: Townships/Colonies Tariff**

(Paise/Unit)		
Current Energy Charge	DISCOMs	APERC
	Proposed Energy charge	Approved Energy charge
350	350	350

**RESCOS**

562. The Cost-to-Serve this category is Rs.1.97/unit. There is no change in tariffs for this category.

**Table 149: RESCOS Tariff - Anakapalli & Chipurupalli**

(Paise/Unit)		
Current Energy Charge	DISCOMs	APERC
	Proposed Energy charge	Approved Energy charge
66	66	66

*Note: The Schedule of Retail Supply Tariffs applicable for all categories of consumers for 2006-07 is provided in Chapter XX*

## **CHAPTER - XVIII**

### **RETAIL SUPPLY BUSINESS OF APNPDCL**

#### **PART A - REVENUE REQUIREMENT**

##### **Filings in brief:**

563. The Company has considered different forecasting methodologies but mostly relied on the trend methodology, user surveys and analysis of previous years' information in projecting the sales volumes for categories other than LT Agriculture. For LT Agriculture, it has relied upon the DTR meter-reading information and the connected loads. Based on this procedure, the Company expects sales of 6900 MU for FY 2006-07 to different categories of consumers.
  
564. The Company having projected sales of 6900 MU, proposes to procure 8762 MU for its retail supply business for FY 2006-07. The difference between the procurement and sales volumes is the underlying losses, both technical and commercial. The total loss percentage, the ratio of difference between power purchase and sales volumes to power purchase volume, works out to 21.25 percent for FY 2006-07.
  
565. The company has projected its gross revenue requirement (expenditure) at Rs.1713.75 Crores consisting of power purchase cost, transmission charges and other expenditure. The company expects to earn, during the year, Rs.169.88 Crores as non-tariff income, i.e. the income from sources other than the tariffs. Accordingly, its net revenue requirement is placed at Rs. 1543.87 Crores.
  
566. The gross revenue at current tariffs from the sale of 6900 MU to different categories of consumers is estimated at Rs.1170.31 Crores for FY 2006-07. The

revenue estimates include revenue from tariffs; the amount of incentives payable to the HT 1: Industry General category of consumers as per proposed incentive rates has been considered by the company as an expense item.

567. The company arrived at the total revenue requirement and revenue from tariffs for the FY 2006-07 through aggregating the respective items of distribution and retail supply businesses. Accordingly, for FY2006-07, total revenue requirement is Rs. 1935.77 Crores and revenue from tariffs is Rs.1143.39 Crores. The revenue gap as per the filing works out to Rs. 765.46 Crores. The details of revenue requirement, revenue from tariffs and revenue gap are given below:

**Table 150: APNPDCL: Revenue Requirement for FY2006-07  
(Rs. Crores)**

Sl. No.	Particulars	Amount
1	Revenue requirement for Retail Supply	* 1935.77
2	Revenue from tariffs	1170.31
2.1	Revenue from wheeling tariff / charges	1170.31
3	Revenue gap (1-2)	765.46

\* This includes distribution ARR of Rs. 391.90 Crores.

## COMMISSION ANALYSIS

### Sales forecast:

568. The Commission after having reckoned the forecasting procedure followed by the company and additional information made available, approves the revised sales volume of 6901 MU for FY 2006 -07.

**HT Sales:**

569. The sales growth rate in respect of industrial consumers appears to be on the decline. The Commission Staff projected the sales to HT categories to be at higher levels based on previous trends. The Commission is however of the view that potential for continuation of higher growth in sales needs to be first established before constraining the Licensee's financing by assuming higher sales volumes. The Commission therefore, approves the volumes as projected by the Licensee for HT categories, and directs, for better appraisal of the strengths and weaknesses of the Licensee with regard to these sales, that:

*The Licensee shall carry out a census of all HT consumers covering aspects like type of activity, connected load, contracted load, captive capacity, types of loads, sources of power purchase including third parties, and other technical and commercial parameters and file a report thereon with the Commission by 30<sup>th</sup> September 2006.*

**LT Agricultural sales:**

570. The company has filed sales of 2909 MU to Agricultural consumers for FY 2006-07 whereas the Staff also reckoned the possible consumption at 2909 MU, based on DTR meter readings. The CMD of the company, during the filing, requested for the filed volume of 2909 MU to be accepted citing good monsoons and consequent higher drawals of energy due to higher acreage being brought under cultivation. The Staff worked out different alternative possible consumption levels, lower than the volumes filed, based on DTR meter reading data.

571. The Commission noted that Staff estimates are sensitive to quality and coverage of available DTR meter reading information. The Commission however, notes with regret that while valid meter readings of DTRs for a continuous period of 12 months should normally constitute a robust input for reliable estimation of agricultural consumption levels, the ratio of such valid meter readings is a poor 38% for the period November 2004 - October 2005.

Given this background, the Commission approves the consumption level of 2909 MU as filed by the company and directs that:

***The Licensee shall initiate all possible steps to ensure the ratio of the valid DTRs to metered DTRs is at least 50 percent w.e.f.July 2006. Valid DTR for this purpose is the DTR for which the meter is in working condition and meter readings are available for the entire year. The Licensee may also propose, if so deemed fit by it,a more suitable metering cycle in place of present monthly meter reading cycle to arrive at the annual consumption.***

**Sales to other categories:**

572. Sales to Domestic category of consumers are also approved as projected by the Company, duly reckoning the need for additional volumes on account of Rajeev Gandhi Grameen Vidyuteekaran Yojana (RGGGY) scheme for electrification of rural homes. Also no changes have been effected in sales volumes for other categories except for RESCO based on filings. The details of the sales volumes for each category of consumers as approved by the Commission for the FY2006 -07 are given below:

**Table 151: Sales Volumes for FY2006-07**

Category	Purpose	(MU)
LT I	Domestic	1410.95
LT II	Non-Domestic/Commercial	254.25
LT III	Industrial	243.51
LT IV	Cottage Industry	4.38
LT V	Agriculture	2909.06
LT VI	Public Lighting	252.17
LT VII	General Purpose	15.53
LT VIII	Temporary Supply	0.10
HT IA	Industry, General	768.47
HT IB	Industry, Ferro Alloys	0.00
HT II	Non-Industrial	50.43
HT IV	Irrigation & Agricultural	156.00
HT V	Railway Traction	295.67
HT VI	Townships/Colonies	148.62
	HT Temporary Supply	0.00
	RESCOs	392.00
<b>Total</b>		<b>6901.14</b>

**Distribution losses and power purchase volumes:**

573. The distribution losses for FY 2006-07, for the distribution network are indicated in **Paragraph 283** of this Order. The sales have been reckoned at different voltages and adjusted to the relevant loss percentages to arrive at the required energy purchase level for FY 2006-07. As per the Commission's alternate calculations at voltage levels, the loss percentage for FY 2006-07 is placed at 21.07 and it lower than the Licensee's filings. The details are given below:

**Table 152: Sales, Energy Losses and Energy Purchases**

Sales, Purchases and Losses	APNPDCL	APERC
Energy Sales(MU)	6900.00	6901.27
Energy Purchases(MU)	8762.00	8743.18
Total Losses(MU)	1862.00	1841.91
Total Loss(%)	21.25%	21.07%

**Power Purchase Cost:**

574. The power purchase cost as per the filings is Rs. 1541.06 Crores for procurement of 8761.78 MU and with the revised volumes of energy sales adjusted for revision of losses as in Paragraph 283, the the power purchase cost is placed at Rs. 1488.68 Crores for procurement 8743.18 MU for FY2006-07. The lower power purchase cost is mainly due to lower volumes of energy procurement, changes in source-mix, unit cost changes etc.; the details are provided in **Annexure H(iii)**;

**Transmission cost:**

575. The company filed the transmission cost for FY 2006-07 as Rs.120.37 Crores. The Commission in its order on transmission tariffs issued separately in O.P.No.1 of 2006, has determined the transmission tariff Rs.42.60/kW/month

for FY 2006-07. Based on the generation capacity allocated the Company, the transmission cost for FY 2006-07 is worked out to Rs.97.57 Crores and the same is adopted for computing its revenue requirement.

**SLDC cost:**

576. The Company had included the SLDC cost of Rs. 9.14 Crores for FY 2006-07 in its ARR filing for distribution business. The Commission in its above mentioned order on transmission tariffs has determined the SLDC charge at Rs.1.86/kW/month for FY 2006-07. Based on the generation capacity allocated the Company, its share of the SLDC cost for FY 2006-07 works out to Rs. 4.26 Crores and the same is included in its revenue requirement for Retail supply business as this cost relates to power purchases and not to the Distribution business.

**PGCIL and ULDC costs:**

577. The Company did not consider the costs associated with PGCIL transmission network (evacuating the power from central generating stations) and related ULDC costs in its retail supply business. The Commission in its order on transmission tariffs has observed that these costs relate to power purchases. The Commission has reckoned the share of these costs attributable to this company at Rs. 32.99 Cr for FY2006-07.

**HT Incentive cost:**

578. The Company has treated the amount payable as per the incentive scheme as expenditure and accordingly included Rs.23 Crores as cost for FY 2006-07. The Commission, on the other hand, is of the view that the incentive amount should be seen as a rebate in tariffs, and does not reckon the HT incentive amount as

a cost. The amount is accordingly taken as a deduction from the revenues from this category of consumers to project a correct picture of revenue receipts. The company revised the HT incentive amount at proposed tariff at Rs.15 cr and the Commission reckoned the same in this Order.

**Consumer Security Deposit cost:**

579. The company filed the interest cost on security deposits at Rs.11.62 Crores for FY 2006-07. This cost is filed as per the Commission's Regulation relating to the security deposits and is accepted by the Commission.

**Supply margin:**

580. The Commission has provided Rs.3.78 Crores as margin for retail supply business as per the intent of the Tariff Policy (clause 5.3(a)) notified by Government of India. It is to be noted that this margin will not lead to additional cost to the consumers since the Commission has reckoned the cost of equity at 14% p.a. instead of 16% p.a. for network business as filed by the Company.

**Revenue requirement:**

581. For FY 2006-07, the gross revenue requirement for retail supply business is Rs.1705.23 Crores as per the filings made by the Company and as per the Commission's alternate calculations, the revenue requirement is placed at Rs.1638.90 Crores.

582. The company filed the non-tariff income at Rs. 169.88 Crores and as per the Commission's calculations, this has been reckoned as Rs.169.07 Crores.

583. The net revenue requirement, i.e. the gross revenue requirement minus the non-tariff income, for FY 2006-07 is Rs. Rs.1535.35 Crores as per the filings. As per the Commission's alternate calculations, as per the preceding paragraphs, however, the net revenue requirement for the year is placed at Rs.1469.83 Crores.

584. The company has considered the distribution business ARR net of wheeling revenue at Rs.391.90 Crores as cost for the retail supply business for FY 2006-07. The Commission, in Paragraph 403 of this Order, determined the share of DISCOM in the distribution ARR for FY2006-07 at Rs.365.06 Crores. The Commission considered this share as distribution cost for retail supply business for FY2006-07. With this, the net revenue requirement for retail supply business is placed at Rs.1834.89 Crores for FY2006-07.

**Revenue from tariffs:**

585. For FY 2006-07, the revenue from tariffs at proposed tariffs was estimated by the Company at Rs. 1143.39 Crores and as per the Commission's calculations as above, the revenue from tariffs for the year is recomputed at Rs. 1133.21 Crores. The domestic slab sales proportions for the Company are taken at 2005-06 levels. The revenue from HT I: Industry, General category is less on account of deduction of the HT incentive amount from the projected revenue therefrom as explained in Paragraph 578. The details are given below:

**Table 153: Revenue from Tariffs for FY 2006-07**

**(Rs. Crores)**

Category	Purpose	APNPDCCL	APERC
LT I	Domestic	313.25	316.80
LT II	Non-Domestic/Commercial	141.86	141.86
LT III	Industrial	113.78	113.78
LT IV	Cottage Industry	0.91	0.91
LT V	Agriculture	13.50	13.50
LT VI	Public Lighting	32.40	32.40
LT VII	General Purpose	6.21	6.21
LT VIII	Temporary Supply	0.06	0.06
HT IA	Industry, General	278.09	263.09
HT IB	Industry, Ferro Alloys	0.00	0.00
HT II	Non-Industrial	28.86	28.86
HT IV	Irrigation & Agricultural	23.83	23.87
HT V	Railway Traction	122.98	124.18
HT VI	Townships/Colonies	52.02	52.02
	HT Temporary Supply	0.00	0.00
	RESCOs	15.64	15.68
<b>Total</b>		<b>1143.39</b>	<b>1133.21</b>

586. The revenue requirement of Rs.1834.89 Crores as accepted by the Commission and expected revenue of Rs. 1133.21 Crores at proposed tariffs for FY 2006-07 form the basis for the determination of the tariffs for retail supply. These computations leave the Company with a revenue deficit of Rs.701.68 Crores for FY 2006-07. In Part-B of this chapter, the Commission deals with the determination of retail supply tariffs for FY 2006-07.

**Table 154: Revenue Requirement for FY 2006-07**

(Rs. Crores)

Sl.No	Revenue requirement item	APNPDCCL	APERC
1	Power purchase cost	1541.06	1488.68
2	Transmission cost	120.37	97.57
3	PGCIL and ULDC cost	0.00	32.99
4	SLDC cost	0.00	4.26
5	HT Incentive cost	43.80	0.00
6	Interest on consumer security deposits		11.62
7	Supply margin	0.00	3.78
8	Distribution Cost	391.90	365.06
8	Aggregate revenue requirement	1705.23	1638.90
9	Gross ARR	2097.13	2003.96
10	Less Non-tariff income	169.88	169.07
11	Net Revenue Requirement	1927.25	1834.89
12	Less Revenue from tariff	1143.39	1133.21
13	Revenue Gap	783.86	701.68

## PART B - RETAIL TARIFFS

587. The Commission determined Retail Tariff for APNPDCCL for FY2006-07 in accordance with Section 62 of the Electricity Act, 2003 is given in the table below. The Tariffs so finalized are communicated to GoAP to intimate whether it requires, the grant of any subsidy to any consumer or class of consumers in the tariff determined by the Commission, under Section 65 of the Electricity Act, 2003.

**Table 155: Commission Determined Tariffs FY 2006-07**

CONSUMER CATEGORY		Tariff proposed by DISCOM			Commission Determined Tariff		
		Fixed Charge (Rs./HP/month)	Demand Charge (Rs/kVA/month)	Energy Charge (paise/unit)	Fixed Charge (Rs/HP/month)	Demand Charge (Rs/kVA/month)	Energy Charge (paise/unit)
LT I	<b>DOMESTIC</b>						
LT01	Slab 1 (0-50)		0	145	0	0	274
LT01	Slab 2 (51-100)		0	280	0	0	328
LT01	Slab 3 (101-200)		0	305	0	0	334
LT01	Slab 4 (201-300)		0	475	0	0	475
LT01	Slab 5 (>300)		0	550	0	0	550
LT II	<b>NON-DOMESTIC</b>				0	0	
LT02	Slab 1 (0-50)	0	0	395	0	0	395
LT02	Slab 2 (>50)	0	0	625	0	0	625
LT IIIa	<b>INDUSTRIAL NORMAL</b>				0	0	
LT03	Industrial Normal	37	0	375	37	0	375
LT03	Industrial Optional		100	375		100	375
LT03	Pisciculture/Prawn culture	0	0	90	0	0	90
LT03	Sugarcane crushing	0	0	50	0	0	50
LT IIIb	<b>INDUSTRIAL OPTIONAL</b>				0	0	
LT03	SSI Units		0 100	375		0 100	375
	Seasonal Industries [LT Cat - III(A) (i)	(?) 37	--	440 * *	(?) 37	--	440 * *
LT03	Seasonal Industries [LT Cat - III(A) (ii) and LT Cat - III (B)		§ 100	440 * *		§ 100	440 * *
LT IV	<b>COTTAGE INDUSTRIES</b>	10	0	180	10	0	266
LT V	<b>IRRIGATION AND AGRICULTURE</b>						
LT05	With DSM Measures						
LT05	Dry Land F. (Connections <=3)	0	0	0	0	0	163
LT05	Wet Land F( Holdings<=2.5 Acres)	0	0	0	0	0	0
LT05	Dry Land F. (Connections > 3)	* 210	0	20	0	0	168
LT05	Wet Land F( Holdings > 2.5 Acres)	* 210	0	20	0	0	168
LT05	Corporate Farmers & IT Assesses	0	0	100	0	0	187
LT05	Without DSM Measures				0	0	

CONSUMER CATEGORY		Tariff proposed by DISCOM			Commission Determined Tariff		
		Fixed Charge (Rs./HP/month)	Demand Charge (Rs/kVA/month)	Energy Charge (paise/unit)	Fixed Charge (Rs/HP/month)	Demand Charge (Rs/kVA/month)	Energy Charge (paise/unit)
LT05	Dry Land F. (Connections <=3)	* 210	0	20	0	0	163
LT05	Wet Land F( Holdings<=2.5 Acres)	* 210	0	20	0	0	163
LT05	Dry Land F. (Connections > 3)	* 525	0	50	0	0	175
LT05	Wet Land F( Holdings > 2.5 Acres)	* 525	0	50	0	0	175
LT05	Corporate Farmers & IT Assesses	0	0	200	0	0	200
LTVb	AGRICULTURE (TATKAL)	0	0	20	0	0	168
LT Via	LOCAL BODIES, STREET LIGHTING AND PWS SCHEMES				0	0	
LT06	Street Lighting				0	0	
LT06	Minor Panchayats	0	0	156	0	0	326
LT06	Major Panchayats	0	0	208	0	0	339
LT06	Nagarpalikas & Municipalities (Gr 3)	0	0	274	0	0	355
LT06	Municipalities (Gr 1&2)	0	0	326	0	0	368
LT06	Municipalities Selection Special Group	0	0	353	0	0	375
LT06	Corporations	0	0	379	0	0	381
LTVb	PWS Schemes				0	0	
LT06	Minor / Major Panchayats						
LT06	Upto 2500 units/Yr	0	0	20	0	0	293
LT06	Above 2500 units/Yr	0	0	50	0	0	300
LT06	All Nagarpalikas & Municipalities						
LT06	Upto 1000 units	20	0	375	20	0	375
LT06	More than 1000 units	20	0	405	20	0	405
LT06	Municipal Corporations						
LT06	Upto 1000 units	20	0	405	20	0	405
LT06	More than 1000 units	20	0	460	20	0	460
LT VII	GENERAL PURPOSE	0	0	400	0	0	400
LT VIII	TEMPORARY SUPPLY	0	0	620	0	0	620
LT08	Tempoary Supply to Agriculture	0	0	230	0	0	230
HT I	INDUSTRY GENERAL				0	0	
HT01	132 kV and above		250	280	0	250	280
HT01	33kV		230	310	0	230	310
HT01	11 kV and below		195	330	0	195	330
	Seasonal Industries	0	@	#	0	@	#
HT Ib	FERRO ALLOYS			255	0	0	255
HT01	Lights and Fans			440	0	0	440
HT01	Colony			350	0	0	350
HT II	Non-Industrial						
HT02	132 kV and above		250	365	0	250	365
HT02	33kV		230	390	0	230	390
HT02	11 kV and below		195	440	0	195	440
HT IV	IRRIGATION AND AGRICULTURE				0	0	

CONSUMER CATEGORY		Tariff proposed by DISCOM			Commission Determined Tariff		
		Fixed Charge (Rs./HP/month)	Demand Charge (Rs/kVA/month)	Energy Charge (paise/unit)	Fixed Charge (Rs/HP/month)	Demand Charge (Rs/kVA/month)	Energy Charge (paise/unit)
(A)3	Government Lift Irrigation Schemes		0	236	0	0	236
(B)3	Others		0	0	0	0	149
HT V	RAILWAY TRACTION		195	355	0	0	420
HT VI	TOWNSHIPS AND RESIDENTIAL COLONIES		0	350	0	0	350
	HT Temporary Supply	0	\$	\$	0	\$	\$
HT06	Rural Co-operatives - Siricilla		0	40	0	0	40

- \$ - 1.5 times the normal tariff for the respective HT category
- # - Energy rates as applicable for different voltages under HT Cat-II
- \*\* - Off-season tariff
- \* - Equivalent flat rate tariff
- § - Demand changes shall be billed on recorded demand or 30% of contracted demand, whichever is higher.
- @ - Demand changes at the rates applicable for respective voltage shall be billed on the recorded Demand or 30% of the contracted Demand whichever is higher
- (? ) - On 30% of Contracted Load.

### Directions of GoAP on Subsidy

588. GoAP informed the Commission that the tariff in respect of the subsidized categories may be reduced to the levels proposed by the DISCOM and accordingly, agreed to make available the consequent total financial implication of Rs. 701.68 Crores as subsidy to the DISCOM. The table below gives the details of subsidy allocation for FY 2006-07 to the various subsidized categories:

**Table 156: Details of Subsidy Allocation in FY 2006-07**

Particulars	Amount (Rs. Crores)
Domestic	135.31
Cottage Industries	0.38
LT Agriculture	463.58
Local (Public) Bodies	48.44
HT Agriculture	8.18
RESCOS	45.79
<b>Total</b>	<b>701.68</b>

589. The GoAP subsidy has been mainly for Domestic and Agriculture categories. The table below shows the break-up of revenue, cross-subsidy and subsidy for FY2006-07 for APNPDCL for the subsidized categories.

**Table 157: Details of Revenues, Cross Subsidy and Government Subsidy FY 2006-07**

Subsidised categories	Revenue	Cross- subsidy	Government subsidy
Domestic (0-200)	284.15	70.66	135.31
Cottage Industry	0.91	0.20	0.38
Agriculture	13.50	242.10	463.58
Local Bodies	27.11	25.30	48.44
HT Agriculture	0.00	4.27	8.18
RESCO	15.68	23.91	45.79
<b>Total</b>	<b>341.31</b>	<b>366.44</b>	<b>701.68</b>

### **Administration of Subsidy:**

590 Subsidy provided by the GoAP is administered as follows:

- a) The subsidy given by the GoAP as per Section 65 of Electricity Act 2003 is for maintaining the tariffs at the levels proposed by the DISCOMs in respect of the subsidized categories.
- b) Each DISCOM gets the subsidy commensurate to the extent of energy sales projected in each subsidised category.
- c) The subsidy allocation to each DISCOM as calculated in (b) above must be paid by the GoAP to the respective DISCOMs in monthly instalments, in advance.

591 The Subsidy administration mechanism Directive outlined in paragraph 860 of the Tariff Order for FY2004-05 and reiterated in paragraph 701 of Tariff Order FY2005-06 and as extracted below shall apply.

*“The DISCOMs shall file before the Commission the actual sales to subsidized categories of consumers for whom the GoAP agreed to pay the subsidy every month and the Commission will monitor the units actually sold by the DISCOMs vis-à-vis the subsidy provided. At the end of the year, subsidy adjustments will be made based on the consumption of units in respect of various subsidized categories.”*

### **Final Retail Tariffs**

592 Section 62(3) of the Electricity Act, 2003, stipulates that the Appropriate Commission while determining the tariff should not show any undue preference to any consumer of electricity, but may differentiate according to the consumers' load factor, power factor, voltage, total consumption of electricity etc. Accordingly, the Commission followed the prescribed criteria while differentiating among consumers.

### **LT Category - I : Domestic**

593 The tariff rates remain unchanged, as the GoAP have decided to provide the required subsidy. The cost-to-serve for this category is Rs.3.95 per unit.

**Table 158: LT Category - I: Domestic Tariff**

Slab (units/month)	Current Energy charge (ps/unit)	DISCOMs	APERC
		Proposed Energy charge (ps/unit)	Approved Energy charge (ps/unit)
0-50	145	145	145
51-100	280	280	280
101-200	305	305	305
201-300	475	475	475
Above 300	550	550	550

594 Consumers in the domestic category who wish to avail power at connected load above 56 KW are permitted to do so by fixing meters on the HT side. The charges applicable will be those of LT - I Domestic.

#### **LT Category - II: Non-Domestic and Commercial**

595 The non-domestic and commercial category LT-II, which includes shops, offices, commercial establishments, entertainment centers, studios etc. The cost-to-serve for this category is Rs.4.47 per unit. The DISCOM has not proposed any changes in the rates for this category and the Commission has retained the existing tariffs.

**Table 159: LT Category - II: Non-Domestic and Commercial Tariff**

Slab	Current Energy charge (ps/unit)	DISCOM	APERC Approved
		Proposed Energy charge (ps/unit)	Energy charge (ps/unit)
0 - 50	395	395	395
51 & above	625	625	625

#### **LT Category - III (A) - Industry**

596 This category consists entirely of industrial loads in the LT category. The Cost-to-Serve for this category is Rs.3.45 per unit. DISCOMs have not suggested any changes in the tariff for this category and the Commission has retained the existing tariffs. The industrial consumer under LT-III(A) with load of 50 HP and above are given an option to choose a tariff based on demand charges per kVA instead of the fixed charge per HP. Accordingly

the Commission specifies that the contracted demand declared shall not be less than 25 kVA for those who opt for the demand tariff.

#### **LT Category - III (A) - Seasonal Industry**

597 There is no change in the tariffs for this category. The demand charges during the off-season will be on the basis of recorded maximum demand or 30% of the contracted demand whichever is higher, if it is optional category; otherwise, fixed charges shall be payable at 30% of the contracted load. The energy charges applicable will be those of HT-II. The definition of "seasonal industry", will be the same as for HT-I category.

#### **LT Category - III (B) - Industry**

598 LT-III (B) is a separate category created in LT-III Industrial for the small scale industries whose connected load is more than 75HP and up to 150 HP, which would normally qualify as HT-I category. As in the earlier Orders, the consumer is given the benefit of declaring a contracted demand lower than the connected load. A two-part tariff is levied which consists of demand charges and energy charges.

#### **LT Category - III (B) - Seasonal Industry**

599 There is no change in the tariffs for this category. The demand charges during the off-season will be on the basis of recorded maximum demand or 30% of the contracted demand whichever is higher. The energy charges applicable will be those of HT-II. The definition of "seasonal industry", will be the same as for HT-I category.

600 The permissible lighting load as permitted in the Tariff Order for FY2005-06 is 10% of total consumption in line with industrial consumers in the HT segment.

Table 160: LT Category - III: Industrial Tariff

Slab	Current charges		DISCOM Proposed charges		APERC Approved charges	
	Fixed charges	Energy charge (paise/ unit)	Fixed charges	Energy charge (paise/ unit)	Fixed charges	Energy charges (paise/ unit)
<b>Category III(A): Industrial</b>						
(i). Industrial - normal up to 75 HP	Rs.37/HP/month	375	Rs.37/HP/ month	375	Rs.37/HP/ Month	375
(ii). Industrial - Optional 50-75 HP	Rs.100/kVA/month	375	Rs.100/ kVA/mont h	375	Rs.100/ kVA/month	375
(iii). Pisciculture and Prawn Culture (below 10HP)	--	90	--	90	--	90
(iv). Sugarcane Crushing (coming under agricultural services)	--	50	--	50	--	50
<b>Category III (B): Industrial</b>						
Above 75 HP up to 150 HP	Rs.100/kVA/month	375	Rs.100/kV A/month	375	Rs.100/kVA/ month	375
<b>Category III (A&amp;B) Seasonal Industries - Off-season tariff (During season the applicable tariff of the respective categories will apply)</b>						
LT-III A(i)	--	--	--	--	Rs.37/HP/ month on 30% of the CL	440
LT-III A(ii)	--	--	--	--	Rs.100/kVA/ per month on RMD or 30% of the CMD which ever is higher	440
LT-III (B)	Rs.100/kVA/ per month on RMD or 30% of the CMD which ever is higher	440	Rs.100/kV A/ per month on RMD or 30% of the CMD which ever is higher	440	Rs.100/kVA/ per month on RMD or 30% of the CMD which ever is higher	440
CL: contracted Load; CMD: Contracted maximum demand; RMD: Recorded maximum demand						

#### LT Category - IV: Cottage Industries

601. The Cost-to-Serve this category is Rs. 3.69/unit. The DISCOM has not proposed any changes in the rates for this category and the Commission has retained the existing tariffs.

**Table 161: LT Category - IV: Cottage Industries & Dhabighats Tariff**

Current Charges		DISCOM		APERC	
		Proposed charges		Approved charges	
Fixed Charge (Rs/HP/month)	Energy charge (ps/ unit)	Fixed charge (Rs/HP/month)	Energy charge (ps/ unit)	Fixed charge (Rs/HP/Month)	Energy charge (ps/ unit)
10	180	10	180	10	180

**LT Category - V: Agriculture**

602. The cost-to-serve for this category is Rs.2.48/unit. The Commission has accepted the proposal of the DISCOM.

**Table 162: LT Category - V: Agriculture Tariffs**

Slab	Current Charges		DISCOM		APERC	
			Proposed charges		Approved charges	
	Fixed Charge (Rs/HP/month)	Energy charge (ps/ unit)	Fixed charge (Rs/HP/month)	Energy charge (ps/ unit)	Fixed charge (Rs/HP/Month)	Energy charge (ps/ unit)
<b>With DSM Measures #</b>						
Dry Land F. (Connections <=3)	0.00	0.00	0.00	0.00	0.00	0.00
Wet Land F(Holdings<=2.5 Acres)	0.00	0.00	0.00	0.00	0.00	0.00
Dry Land F. (Connections > 3)	0.00	20	0.00	20	0.00	20
Wet Land F( Holdings > 2.5 Acres)	0.00	20	0.00	20	0.00	20
Corporate Farmers & IT Assesses	0.00	100	0.00	100	0.00	100
<b>Without DSM Measures</b>						
Dry Land F. (Connections <=3)	0.00	0.00	0.00	0.00	210*	20
Wet Land F(Holdings<=2.5 Acres)	0.00	0.00	0.00	0.00	210*	20
Dry Land F. (Connections > 3)	0.00	50	0.00	50	525*	50
Wet Land F(Holdings > 2.5 Acres)	0.00	50	0.00	50	525*	50
Corporate Farmers & IT Assesses	0.00	200	0.00	200	0.00	200
AGRICULTURE (TATKAL)	0.00	20	0.00	20	0.00	20

(\*) - Equivalent flat rate tariff

(#) - The Farmers eligible for free supply under Dry Land as well as Wet Lands have to comply with the following Demand Side Management measures (DSM) as applicable for his pumping system viz., submersible and surface pump sets in the following stages failing which they shall not be eligible for free supply.

Stage - I to be complied by March 2006

Friction less foot valve (exempted for submersible pumpset)  
Capacitor of adequate rating for the pumpset

Stage - II to be complied by March 2008

HDPE or RPVC piping suction and/or delivery  
ISI-marked monobloc or submersible pumpset

Free supply shall not be allowed for Paddy in second crop. Farmers in dry land areas shall not be eligible for free supply if they grow Paddy in second crop.

All new connections shall be given only with DSM measures implemented and with meters.

#### LT Category - VI: Local Bodies

603. The Cost-to-Serve for this category is Rs.4.38 /unit. The DISCOM has not proposed any changes in the rates for this category and the Commission has retained the existing tariffs.

**Table 163: LT Category - VI: Local Bodies Tariff**

Slab	Current charges		DISCOM Proposed charges		APERC Approved charges	
	Fixed charge (Rs/HP/ Month)	Energy (paise/ unit)	Fixed charge (Rs/HP/ Month)	Energy (paise/ unit)	Fixed charge (Rs/HP/ month)	Energy (paise/ unit)
<b>Local Bodies Street Lighting &amp; PWS schemes</b>						
<b>A. Street Lighting</b>						
Minor Panchayats		156	156		156	
Major Panchayats		208	208		208	
Nagarpalikas and Municipalities Gr.3		274	274		274	
Municipalities Gr.1 & 2		326	326		326	
Municipalities Selection Spl.Gr.		353	353		353	
Corporations		379	379		379	

Slab	Current charges		DISCOM Proposed charges		APERC Approved charges	
	Fixed charge (Rs/HP/ Month)	Energy (paise/ unit)	Fixed charge (Rs/HP/ Month)	Energy (paise/ unit)	Fixed charge (Rs/HP/ month)	Energy (paise/ unit)
<b>B. PWS Schemes</b>						
<b>Panchayats (Major and Minor)</b>						
Up to 2500 Units		20		20		20
Above 2500 Units		50		50		50
<b>All Nagarpalikas and Municipalities</b>						
Up to 1000 Units	20	375	20	375	20	375
Balance Units		405		405		405
<b>Corporations</b>						
Up to 1000 Units	20	405	20	405	20	405
Balance Units		460		460		460

#### LT Category - VII: General Purpose

604. The LT General Purpose category covers places of worship like churches, temples, mosques, gurudwaras, Government educational institutions, old age homes and student hostels of Government educational institutions and educational institutions run by charitable institutions (Public charitable trusts and Societies registered under Societies Registration Act running educational and medical institutions on a no-profit basis), recognized service institutions, and social welfare hostels run by Government of Andhra Pradesh.

605. The Cost-to-Serve for this category is Rs.3.30/unit. The DISCOM has not proposed any changes in the rates to this category and the Commission has retained the existing tariffs.

Table 164: LT Category - VII: General Purpose Tariff

Current Energy charge	(Paise/unit)	
	DISCOM	APERC
	Proposed Energy charge	Approved Energy charge
400	400	400

### LT Category - VIII: Temporary Supply

606. The LT General Purpose category covers places of worship like churches, temples, mosques, gurudwaras, crematoriums, Government educational institutions and student hostels of Government educational institutions and educational institutions run by charitable institutions (Public charitable trusts and Societies registered under Societies Registration Act running educational and medical institutions on a no-profit basis), recognized service institutions, and social welfare hostels run by Government of Andhra Pradesh and old age homes run by recognized service institutions.

607. The cost-to-serve for this category is Rs.4.21/unit. The rates remain unchanged and the Commission has retained the existing tariffs.

**Table 165: LT Category - VIII: Temporary Supply (General) Tariff**

Slabs	Current Energy charge	DISCOM	APERC
		Proposed Energy charge	Approved Energy charge
General	620	620	620
Agriculture	230	230	230

### HIGH TENSION

#### HT Category - I: Industry

608. The Commission has started the tariff rationalisation process for this category from 2002-03 and while doing so the Commission has ensured that the tariffs progressively reflect Cost of Supply to that particular category. This rationalisation has also supported the DISCOM to sustain the industrial growth in the state, which helped the DISCOM in increasing its revenue base, reduce losses besides providing more Cross Subsidy.

609. For the ensuing year, the Commission has approved the licensee's proposal as it is in the right direction of tariff rationalisation. The licensee has proposed reduction in the voltage-wise energy rates (reduction of 45 paise/unit for

132kV, 25 paise/unit for 33kV and 10 paise for 11kV) and an increase in the demand charges (increase of 55 Rs/kVA/month for 132kV and 35 Rs/kVA/month for 33kV) for two voltage levels. These changes resulted in net reduction of HT Tariffs by about 3.77% ranging from 7.14% reduction for 132kV and 1.43% for 11kV consumers.

610. The Cost-to-Serve for this category is Rs 2.90 for 11kV consumers, Rs 2.17 for 33kV consumers and Rs 2.01 for 132 kV consumers. The Commission has approved the licensee proposed tariffs.
611. The Licensee after this positive move towards cost-based tariffs needs to step out further in future filings. The demand charges of 11kV consumers should normally be more than those of 132 kV consumers, if the tariffs have to move towards cost reflective levels and the Commission directs that:

*The Licensees shall review the methods of fixing the demand charges, devise suitable policy path for future and file a working paper with the Commission. The Commission will in turn consult the public on this paper for its incorporation.*

612. Changes have been proposed in the existing incentive scheme, which is valid till March 2006. The new incentive scheme as proposed by DISCOMs has been approved by the Commission to remain in force, till 31st March, 2007.
613. The Tariff for Ferro Alloys Units has been changed from Rs. 2.87 ps/unit to Rs. 2.55 ps/unit as proposed by the Licensees. These consumers are not entitled for the load factor incentive mentioned above.

Table 166: HT Category - I: Industrial Tariff

Slab	Current charges		DISCOM Proposed charges		APERC Approved charges	
	Demand charges (Rs/kVA/ month)	Energy charge (ps/unit)	Demand charges (Rs/kVA/ month)	Energy charge (ps/ unit)	Demand Charges (Rs/kVA/ month)	Energy charge (ps/ unit)
(a). Industry - General #						
132 kV and above	195	325	250	280	250	280
33 kV	195	335	230	310	230	310
11 kV and below	195	340	195	330	195	330
(b). Ferro Alloys	0	287	0	255*	0	255*
* - Based on 85% Load Factor. Energy falling short of 85% Load Factor will be billed as deemed consumption.						
Lighting	440		440		440	
Colony	350		350		350	

# Load factor incentive allowed as per formula specified in the schedule of Retail Supply Tariffs.

#### HT Category - II: Non- Industrial

614. This is an amorphous category and covers all consumers who are not covered in other HT categories. The Cost-to-Serve this category at the respective voltage levels are: (i) Rs. 4.51/unit for 132kV, (ii) Rs.2.64 for 33 kV and (iii) Rs.3.56 for 11kV consumers.

Table 167: HT Category - II: Non-Industrial Tariff

Slabs	Current charges		DISCOM Proposed charges		APERC Approved charges	
	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)
132 kV and above	195	440	250	365	250	365
33 kV	195	440	230	390	230	390
11 kV and below	195	440	195	440	195	440

#### HT Category - IV: Irrigation and Agriculture

615. The Cost-to-Serve this category is Rs.2.27/unit. This category has been classified into Government Lift Irrigation Schemes [HT-IV (A)] and other

Irrigation Schemes [HT-IV (B)]. The Commission for FY2006-07, approves the proposed tariff and the tariff for this category would be reviewed in the next tariff order in the context of many lift irrigation schemes getting commissioned. Tariffs for Lift Irrigation schemes owned by the private societies have been made free under the new agricultural power supply policy.

**Table 168: HT Category - IV: Irrigation and Agriculture Tariff**

Category	Current charges		DISCOM Proposed charges		APERC Approved charges	
	Fixed charges (Rs/kVA/ annum)	Energy charge (ps/ unit)	Fixed charges (Rs/kVA/ annum)	Energy charge (ps/ unit)	Fixed charges (Rs/kVA/ annum)	Energy charge (ps/ unit)
A: Govt. Lift Irrigation Schemes	0	236	0	236	0	236
B: Others	0	0	0	0	0	0

#### **HT Category - V: Railway Traction**

616. The cost-to-serve for this category is Rs.2.71/unit. As directed in the Tariff Order for FY2005-06 the Licensee has proposed a two-part tariff for this category in FY2006-07.

617. The railway set up in the State is being supplied power for a number of years on a single-part tariff basis. As the railways were often expressing their dissatisfaction, inter-alia with the seemingly high energy charge under the single-part structure compared to the energy charge in the two-part tariff elsewhere, the Commission directed the licensees, in paragraph 725 of its Tariff Order, 2005-06, to propose a two-part tariff structure for Railway Traction. This has been duly filed by the licensees along with a mention that the proposed structure is equivalent to 420 paise/unit as against the present tariff of 440 paise/unit.

618. The railways have pleaded strongly for the retention of single-part tariff and also submitted that the proposed tariff in fact ranges from 430.54 paise/unit to

457.44 paise/unit across the DISCOMs. Pending detailed evaluation of all the issues/contentions, the Commission decides the tariff of 420 paise/unit for Railway Traction, applicable for the year 2006-07 alone, not to be treated as the basis for determination of tariff for the subsequent years.

**Table 169: HT Category - V: Railway Traction Tariff**

Current Energy charge	DISCOM		APERC		(Paise/Unit)
	Proposed Fixed charge (Rs/kVA/Month)	Proposed Energy charge	Proposed Fixed charge (Rs/kVA/Month)	Proposed Energy charge	
440	195	355	0	420	

**HT Category - VI: Townships / Colonies**

619. The Cost-to-Serve this category is Rs.2.49/unit. There is no change in tariffs for this category.

**Table 170: HT Category - VI: Townships/Colonies Tariff**

Current Energy Charge	DISCOM		APERC Approved Energy charge	(Paise/Unit)
	Proposed Energy charge			
350	350		350	

## RESCOS

620. The Cost-to-Serve this category is Rs.2.49/unit. There is no change in tariffs for this category.

Table 171: HT Category: Rescos Tariff - Siricilla

Current Energy Charge	(Paise/Unit)	
	DISCOM Proposed Energy charge	APERC Approved Energy charge
40	40	40

*Note: The Schedule of Retail Supply Tariffs applicable for all categories of consumers for 2006-07 is provided in Chapter XX*

## **CHAPTER - XIX**

### **RETAIL SUPPLY BUSINESS OF APSPDCL**

#### **PART A - REVENUE REQUIREMENT**

##### **Filings in brief:**

621. The Company has considered different forecasting methodologies but mostly relied on the trend methodology, user surveys and analysis of previous years' information in projecting the sales volumes for categories other than LT Agriculture. For LT Agriculture, it has relied upon the DTR meter-reading information and the connected loads. Based on this procedure, the Company expects sales of 10084 MU for FY 2006-07 to different categories of consumers.
  
622. The Company having projected sales of 10084 MU, proposes to procure 12590 MU for its retail supply business for FY 2006-07. The difference between the procurement and sales volumes is the underlying losses, both technical and commercial. The total loss percentage, the ratio of difference between power purchase and sales volumes to power purchase volume, works out to 19.90 percent for FY 2006-07.
  
623. The company has projected its gross revenue requirement (expenditure) at Rs.2516.50 Crores, consisting of power purchase cost, transmission charges and other expenditure. The company expects to earn, during the year, Rs.183.15 Crores as non-tariff income, i.e. the income from sources other than the tariffs. Accordingly, its net revenue requirement is placed at Rs. 2333.34 Crores.

624. The gross revenue at current tariffs from the sale of 10084 MU to different categories of consumers is estimated at Rs.2161.59 Crores for FY 2006-07. The revenue estimates include revenue from tariffs; the amount of incentives payable to the HT 1: Industry General category of consumers as per proposed incentive rates has been considered by the company as an expense item.

625. The company arrived at the total revenue requirement and revenue from tariffs for the FY 2006-07 through aggregating the respective items of distribution and retail supply businesses. Accordingly, for FY2006-07, total revenue requirement is Rs. 2891.41 Crores and revenue from tariffs is Rs.2161.59 Crores. The revenue gap as per the filing works out to Rs. 729.82 Crores. The details of revenue requirement, revenue from tariffs and revenue gap are given below:

**Table 172: APSPDCL - Revenue Requirement for FY2006-07**

**(Rs. Crores)**

<b>Sl. No.</b>	<b>Particulars</b>	<b>Amount</b>
1	Revenue requirement for Retail Supply	(*)2891.43
2	Revenue from tariffs	2161.59
2.1	Revenue from wheeling tariff / charges	0.00
3	Revenue gap (1-2)	729.84

(\*) This includes Distribution ARR of Rs.558.09 Crores.

## COMMISSION ANALYSIS

### **Sales forecast:**

626. The Commission after having reckoned the forecasting procedure followed by the company and additional information made available, approves the sales volume of 10132 MU for FY 2006-07.

### **HT Sales:**

627. The sales growth rate in respect of industrial consumers appears to be on the decline. The Commission Staff projected the sales to HT categories to be at higher levels based on previous trends. The Commission is however of the view that potential for continuation of higher growth in sales needs to be first established before constraining the Licensee's financing by assuming higher sales volumes. The Commission therefore, approves the volumes as projected by the Licensee for HT categories, and directs, for better appraisal of the strengths and weaknesses of the Licensee with regard to these sales, that:

**The Licensee shall carry out a census of all HT consumers covering aspects like type of activity, connected load, contracted load, captive capacity, types of loads, sources of power purchase including third parties, and other technical and commercial parameters and file a report thereon with the Commission by 30<sup>th</sup> September 2006.**

### **LT Agricultural sales:**

628. The company has filed sales of 3291 MU to Agricultural consumers for FY 2006-07 whereas the Staff also reckoned the possible consumption at 3291 MU, based on DTR meter readings. The CMD of the company, during the filing, requested for the filed volume of 3291 MU to be accepted citing good monsoons and consequent higher drawals of energy due to higher acreage being brought under

cultivation. The Staff worked out different alternative possible consumption levels, lower than the volumes filed, based on DTR meter reading data.

629. The Commission noted that Staff estimates are sensitive to quality and coverage of available DTR meter reading information. The Commission however, notes with regret that while valid meter readings of DTRs for a continuous period of 12 months should normally constitute a robust input for reliable estimation of agricultural consumption levels, the ratio of such valid meter readings is a poor 37% for the period November 2004 - October 2005. Given this background, the Commission approves the consumption level of 3291.06 MU as filed by the company and directs that:

***The Licensee shall initiate all possible steps to ensure the ratio of the valid DTRs to metered DTRs is at least 50 percent w.e.f. July 2006. Valid DTR for this purpose is the DTR for which the meter is in working condition and meter readings are available for the entire year. The Licensee may also propose, if so deemed fit by it, a more suitable metering cycle in place of present monthly meter reading cycle to arrive at the annual consumption.***

**Sales to other categories:**

630. Sales to Domestic category of consumers are also approved as projected by the Company, duly reckoning the need for additional volumes on account of Rajeev Gandhi Grameen Vidyuteekaran Yojana (RGGGY) scheme for electrification of rural homes. Also no changes have been effected in sales volumes for other categories. The sales volumes to Kuppam RESCO have been matched the requirement of the RESCO based on filings. The details of the sales to each category of consumers for the FY2006-07 are given below:

**Table 173: Sales Volumes for FY2006-07**

(MU)

Category	Purpose	Sales
LT I	Domestic	2677.93
LT II	Non-Domestic/Commercial	553.27
LT III	Industrial	704.38
LT IV	Cottage Industry	22.69
LT V	Agriculture	3291.06
LT VI	Public Lighting	308.59
LT VII	General Purpose	34.17
LT VIII	Temporary Supply	1.87
HT IA	Industry, General	1605.00
HT IB	Industry, Ferro Alloys	0.00
HT II	Non-Industrial	184.00
HT IV	Irrigation & Agricultural	40.74
HT V	Railway Traction	459.69
HT VI	Townships/Colonies	62.85
	HT Temporary Supply	0.03
	RESCOs	186.00
<b>Total</b>		<b>10132.29</b>

**Distribution losses and power purchase volumes:**

631. The distribution losses for FY 2006-07 for the distribution network are indicated in Paragraph 283 of this Order. The sales have been reckoned at different voltages and adjusted to the relevant loss percentages to arrive at the required energy purchase level for FY 2006-07. As per the Commission's alternate calculations at voltage levels, the loss percentage for FY 2006-07 is placed at 19.74 and it lower than the Licensee's filings. The details are given below:

**Table 174: Sales, Energy Losses and Energy Purchases**

Sales, Purchase and Losses	APSPDCL	APERC
Energy Sales(MU)	10169	10132
Energy Purchases(MU)	12696	12624
Total Losses(MU)	2527	2492
Total Loss(%)	19.90%	19.74%

**Power Purchase Cost:**

632. The power purchase cost as per the filings is Rs.2275.94 Crores for procurement of 12696.44 MU and with the revised volumes of energy sales as referred to in Paragraph 443 adjusted for revision of losses as in **Paragraph 283**, the power purchase cost is placed at Rs.2172.83 Crores for procurement of 12623.77 MU for FY 2006-07. The lower power purchase cost is due to lower volume of power purchase, Changes in source-mix, unit cost changes etc. The details are provided in Annexure H(iv).

**Transmission cost:**

633. The company filed the transmission cost for FY 2006-07 as Rs.162.91 Crores. The Commission in its order on transmission tariffs issued separately in O.P.No. 1 of 2006, has determined the transmission tariff Rs.42.60/kW/month for FY 2006-07. Based on the generation capacity allocated the Company, the transmission cost for FY 2006-07 is worked out to Rs. 135.32 Crores and the same is adopted for computing its revenue requirement.

**SLDC cost:**

634. The Company had not included any SLDC costs for FY 2006-07 in its ARR filing for distribution business. The Commission in its above mentioned order on transmission tariffs has determined the SLDC charge at Rs.1.86/kW/month for FY 2006-07. Based on the generation capacity allocated the Company, its share of the SLDC cost for FY 2006-07 works out to Rs. 5.91 Crores and the same is included in its revenue requirement for Retail supply business as this cost relates to power purchases and not to the Distribution business.

**PGCIL and ULDC costs:**

635. The Company did not consider the costs associated with PGCIL transmission network (evacuating the power from central generating stations) and related

ULDC costs in its retail supply business. The Commission in its order on transmission tariffs has observed that these costs relate to power purchases. The Commission has reckoned the share of these costs attributable to this company at Rs.44.65 Cr for FY2006-07.

**HT Incentive cost:**

636. The Company has treated the amount payable as per the incentive scheme as expenditure and accordingly included Rs.39 Crores as cost for FY 2006-07. The Commission, on the other hand, is of the view that the incentive amount should be seen as a rebate in tariffs, and does not reckon the HT incentive amount as a cost. The amount is accordingly taken as a deduction from the revenues from this category of consumers to project a correct picture of revenue receipts. The company revised the HT incentive amount at proposed tariff at Rs.31 Crores and the Commission reckoned the same in this Order.

**Consumer Security Deposit cost:**

637. The company filed the interest cost on security deposits at Rs.19.95 Crores for FY 2006-07. This cost is filed as per the Commission's Regulation relating to the security deposits and is accepted by the Commission.

**Supply margin:**

638. The Commission has provided Rs.3.35 Crores as margin for retail supply business as per the intent of the Tariff Policy (clause 5.3(a)) notified by Government of India. It is to be noted that this margin will not lead to additional cost to the consumers since the Commission has reckoned the cost of equity at 14% p.a. instead of 16% p.a. for network business as filed by the Company.

**Revenue requirement:**

639. For FY 2006-07, the gross revenue requirement for retail supply business is Rs.2521.97 Crores as per the filings made by the Company and as per the Commission's alternate calculations, the revenue requirement is placed at Rs.2382.01 Crores.
640. The company filed the non-tariff income at Rs. 183.15 Crores and as per the Commission's calculations, this has been reckoned as Rs. 215.26 Crores. The increase in non-tariff income is mainly on account of interest income of Rs.29.93 Crores on consumer security deposits which had not been taken into account by the Licensee.
641. The net revenue requirement i.e. the gross revenue requirement minus the non-tariff income, for FY 2006-07 is Rs.2338.82 Crores as per the filings. As per the Commission's alternate calculations, as per the preceding paragraphs, however, the net revenue requirement for the year is placed at Rs.2166.75 Crores. The company has considered the distribution business ARR net of wheeling revenue at Rs.558.09 Crores as cost for the retail supply business for FY 2006-07. The Commission determined the share of DISCOM in the distribution ARR for FY2006-07 at Rs.452.97 Crores. The Commission considered this share as distribution cost for retail supply business for FY 2006-07. With this, the total revenue requirement for retail supply business is placed at Rs.2619.72 Crores for FY2006-07.

**Revenue from tariffs:**

642. For FY 2006-07, the revenue from tariffs at proposed tariffs was estimated by the Company at Rs. 2158.28 Crores and as per the Commission's calculations as above, the revenue from tariffs for the year is recomputed at Rs.2124.19 Crores. The revenue from HT I: Industry, General category is less on account of deduction of the HT incentive amount from the projected revenue therefrom as

explained in Paragraph 636. The details are given below:

Table 175: Revenue from Tariffs for FY 2006-07

(Rs. Crores)

Category	Purpose	APSPDCL	APERC
LT I	Domestic	599.49	599.49
LT II	Non-Domestic/Commercial	312.51	312.51
LT III	Industrial	249.21	249.21
LT IV	Cottage Industry	4.33	4.33
LT V	Agriculture	7.76	7.76
LT VI	Public Lighting	55.50	55.50
LT VII	General Purpose	14.01	14.01
LT VIII	Temporary Supply	1.16	1.16
HT IA	Industry, General	596.00	561.10
HT IB	Industry, Ferro Alloys	0.00	0.00
HT II	Non-Industrial	97.00	95.49
HT IV	Irrigation & Agricultural	4.66	4.66
HT V	Railway Traction	189.97	193.07
HT VI	Townships/Colonies	22.00	22.00
	HT Temporary Supply	0.02	0.02
	RESCOs	4.67	3.91
<b>Total</b>		<b>2158.28</b>	<b>2124.19</b>

643. The revenue requirement of Rs. 2619.72 Crores as accepted by the Commission and expected revenue of Rs. 2124.19 Crores at proposed tariffs for FY 2006-07 form the basis for the determination of the tariffs for retail supply. These computations leave, the Company with a revenue deficit of Rs.495.53 Crores for FY 2006-07. In Part-II of this chapter, the Commission deals with the determination of retail supply tariffs FY 2006-07.

**Table 176: Revenue Requirement for FY 2006-07**

Sl.No	Revenue requirement item	APSPDCL	APERC
1	Power purchase cost	2275.94	2172.83
2	Transmission cost	162.91	135.32
3	PGCIL and ULDC cost	0.00	44.65
4	SLDC cost	0.00	5.91
5	HT Incentive cost	83.12	0.00
6	Interest on consumer security deposits		19.95
7	Supply margin	0.00	3.35
8	Distribution cost	558.09	452.97
9	Gross ARR	3080.66	2834.98
10	Less Non-tariff income	183.15	215.26
11	Net Revenue Requirement	2896.91	2619.72
12	Less Revenue from tariff	2158.28	2124.19
13	Revenue Gap	738.63	495.53

## **PART B - RETAIL TARIFFS**

644. The Commission determined Retail Tariff for APSPDCL for FY2006-07 in accordance with Sec 62 of the Electricity Act, 2003 as given in the table below. The Tariff so finalized are communicated to GoAP to intimate whether it requires, the grant of any subsidy to any consumer or class of consumers in the tariff determined by the Commission, under Section 65 of the Electricity Act, 2003.

Table 177: Commission Determined Tariffs FY 2006-07

SPDCL: Retail Supply Tariff for FY 2006-07

CONSUMER CATEGORY	Tariff proposed by DISCOM			Commission Determined Tariff		
	Fixed Charge (Rs./HP/month)	Demand Charge (Rs/kVA/month)	Energy Charge (paise/unit)	Fixed Charge (Rs/HP/month)	Demand Charge (Rs/kVA/month)	Energy Charge (paise/unit)
LT I DOMESTIC						
LT01 Slab 1 (0-50)		0	145	0	0	212
LT01 Slab 2 (51-100)		0	280	0	0	294
LT01 Slab 3 (101-200)		0	305	0	0	308
LT01 Slab 4 (201-300)		0	475	0	0	475
LT01 Slab 5 (>300)		0	550	0	0	550
LT II NON-DOMESTIC				0	0	
LT02 Slab 1 (0-50)	0	0	395	0	0	395
LT02 Slab 2 (>50)	0	0	625	0	0	625
LT IIIa INDUSTRIAL NORMAL				0	0	
LT03 Industrial Normal	37	0	375	37	0	375
LT03 Industrial Optional		100	375		100	375
LT03 Pisciculture/Prawn culture	0	0	90	0	0	168
LT03 Sugarcane crushing	0	0	50	0	0	50
LT IIIb INDUSTRIAL OPTIONAL				0	0	
LT03 SSI Units		0 100	375		0 100	375
Seasonal Industries [LT Cat-III(A) (i)	(₹) 37	--	440 **	(₹) 37	--	440 **
LT03 Seasonal Industries [LT Cat - III(A) (ii) and LT Cat - III (B)		₹ 100	440 **		₹ 100	440 **
LT IV COTTAGE INDUSTRIES	10	0	180	10	0	213
LT V IRRIGATION AND AGRICULTURE						
LT05 With DSM Measures						
LT05 Dry Land F. (Connections <=3)	0	0	0	0	0	98
LT05 Wet Land F( Holdings<=2.5 Acres)	0	0	0	0	0	0
LT05 Dry Land F. (Connections > 3)	* 210	0	20	0	0	109
LT05 Wet Land F( Holdings > 2.5 Acres)	* 210	0	20	0	0	109
LT05 Corporate Farmers & IT Assesses	0	0	100	0	0	153
LT05 Without DSM Measures				0	0	
LT05 Dry Land F. (Connections <=3)	* 210	0	20	0	0	98
LT05 Wet Land F( Holdings<=2.5 Acres)	* 210	0	20	0	0	98
LT05 Dry Land F. (Connections > 3)	* 525	0	50	0	0	126
LT05 Wet Land F( Holdings > 2.5 Acres)	* 525	0	50	0	0	126
LT05 Corporate Farmers & IT Assesses	0	0	200	0	0	200
LTb AGRICULTURE (TATKAL)	0	0	20	0	0	109
LT Via LOCAL BODIES, STREET LIGHTING AND PWS SCHEMES				0	0	
LT06 Street Lighting				0	0	
LT06 Minor Panchayats	0	0	156	0	0	240

CONSUMER CATEGORY	Tariff proposed by DISCOM			Commission Determined Tariff		
	Fixed Charge (Rs./HP/month)	Demand Charge (Rs/kVA/month)	Energy Charge (paise/unit)	Fixed Charge (Rs/HP/month)	Demand Charge (Rs/kVA/month)	Energy Charge (paise/unit)
LT06 Major Panchayats	0	0	208	0	0	268
LT06 Nagarpalikas & Municipalities (Gr 3)	0	0	274	0	0	305
LT06 Municipalities (Gr 1&2)	0	0	326	0	0	333
LT06 Municipalities Selection Special Group	0	0	353	0	0	353
LT06 Corporations	0	0	379	0	0	379
LT Vib PWS Schemes				0	0	
LT06 Minor / Major Panchayats				0	0	
LT06 Upto 2500 units/Yr	0	0	20	0	0	165
LT06 Above 2500 units/Yr	0	0	50	0	0	181
LT06 All Nagarpalikas & Municipalities		0		0	0	
LT06 Upto 1000 units	20	0	375	20	0	375
LT06 More than 1000 units	20	0	405	20	0	405
LT06 Municipal Corporations		0		0	0	
LT06 Upto 1000 units	20	0	405	20	0	405
LT06 More than 1000 units	20	0	460	20	0	460
LT VII GENERAL PURPOSE	0	0	400	0	0	400
LT VIII TEMPORARY SUPPLY	0	0	620	0	0	620
LT08 Tempory Supply to Agriculture	0	0	230	0	0	230
HT I INDUSTRY GENERAL				0	0	
HT01 132 kV and above		250	280	0	250	280
HT01 33kV		230	310	0	230	310
HT01 11 kV and below		195	330	0	195	330
	Seasonal Industries	0	@	#	0	@
HT Ib FERRO ALLOYS			255	0	0	255
HT01 Lights and Fans			440	0	0	440
HT01 Colony			350	0	0	350
HT01						
HT II Non-Industrial				0	0	
HT02 132 kV and above		250	365	0	250	365
HT02 33kV		230	390	0	230	390
HT02 11 kV and below		195	440	0	195	440
HT IV IRRIGATION AND AGRICULTURE				0	0	
(A)3 Government Lift Irrigation Schemes		0	236	0	0	236
(B)3 Others		0	0	0	0	92
HT V RAILWAY TRACTION		195	355	0	0	420
HT VI TOWNSHIPS AND RESIDENTIAL COLONIES		0	350	0	0	350
	HT Temporary Supply	0	\$	\$	0	\$
HT06 Rural Co-operatives - Kuppam	0	0	21	0	0	21

- § - 1.5 times the normal tariff for the respective HT category
- # - Energy rates as applicable for different voltages under HT Cat-II
- \*\* - Off-season tariff
- \* - Equivalent flat rate tariff
- § - Demand changes shall be billed on recorded demand or 30% of contracted demand, whichever is higher.
- @ - Demand changes at the rates applicable for respective voltage shall be billed on the recorded Demand or 30% of the contracted Demand whichever is higher
- (&) - On 30% of Contracted Load.

#### **Directions of GoAP on Subsidy**

645. GoAP informed the Commission that the tariff in respect of the subsidized categories may be reduced to the levels proposed by the DISCOM and accordingly, agreed to make available the consequent total financial implication of Rs. 495.53 Crores as subsidy to the DISCOM. The table below gives the details of subsidy allocation for FY 2006-07 to the various subsidized categories:

**Table 178: Details of Subsidy Allocation in FY 2006-07**

Particulars	(Rs.Crores) Amount
Domestic	120.63
Cottage Industries	0.75
LT Agriculture	332.58
Local (Public) Bodies	24.09
HT Agriculture	1.94
RESCOS	15.54
Total	<b>495.53</b>

646. The GoAP subsidy has been mainly for Domestic and Agriculture categories. The table below shows the break-up of revenue, cross-subsidy and subsidy for FY2006-07 for APSPDCL for the subsidized categories.

**Table 179: Details of Revenues, Cross Subsidy and Government Subsidy FY 2006-07**

Subsidised categories	Revenue	Cross-subsidy	Government subsidy	(Rs. Crores)
Domestic (0-200)	517.98	174.40	120.63	
Cottage Industry	4.33	1.09	0.75	
Agriculture	23.00	480.82	332.58	
Local Bodies	28.58	34.83	24.09	
HT Agriculture	0.00	2.81	1.94	
RESCO	3.91	22.47	15.54	
Total	577.8	716.42	495.53	

**Administration of Subsidy:**

647. Subsidy provided by the GoAP is administered as follows:

- The subsidy given by the GoAP as per Section 65 of Electricity Act 2003 is for maintaining the tariffs at the levels proposed by the DISCOMs in respect of the subsidized categories.
- Each DISCOM gets the subsidy commensurate to the extent of energy sales projected in each subsidised category.
- The subsidy allocation to each DISCOM as calculated in (b) above must be paid by the GoAP to the respective DISCOMs in monthly instalments, in advance.

648. The Subsidy administration mechanism Directive outlined in paragraph 860 of the Tariff Order for FY2004-05 and reiterated in paragraph 701 of Tariff Order FY2005-06 and as extracted below shall apply.

*“The DISCOMs shall file before the Commission the actual sales to subsidized categories of consumers for whom the GoAP agreed to pay the subsidy every month and the Commission will monitor the units actually sold by the DISCOMs vis-à-vis the subsidy provided. At the end of the year, subsidy adjustments will be made based on the consumption of units in respect of various subsidized categories.”*

## Final Retail Tariffs

649. Section 62(3) of the Electricity Act, 2003, stipulates that the Appropriate Commission while determining the tariff should not show any undue preference to any consumer of electricity, but may differentiate according to the consumers' load factor, power factor, voltage, total consumption of electricity etc. Accordingly, the Commission followed the prescribed criteria while differentiating among consumers.

### LT Category - I: Domestic

650. The tariff rates remain unchanged, as the GoAP have decided to provide the required subsidy. The cost-to-serve for this category is Rs.3.43 per unit.

**Table 180: LT Category - I: Domestic Tariff**

Slab (units/month)	Current Energy charge (ps/unit)	DISCOM	APERC
		Proposed Energy charge (ps/unit)	Approved Energy charge (ps/unit)
0-50	145	145	145
51-100	280	280	280
101-200	305	305	305
201-300	475	475	475
Above 300	550	550	550

651. Consumers in the domestic category who wish to avail power at connected load above 56 KW are permitted to do so by fixing meters on the HT side. The charges applicable will be those of LT - I Domestic.

### LT Category - II: Non-Domestic and Commercial

652. The non-domestic and commercial category LT-II, which includes shops, offices, commercial establishments, entertainment centers, studios etc. The cost-to-serve for this category is Rs.3.65 per unit. The DISCOMs have not proposed any changes in the rates for this category and the Commission has retained the existing tariffs.

**Table 181: LT Category - II: Non-Domestic and Commercial Tariff**

Slab	Current Energy charge (ps/unit)	DISCOM	APERC Approved
		Proposed Energy charge (ps/unit)	Energy charge (ps/unit)
0 - 50	395	395	395
51 & above	625	625	625

**LT Category - III (A) - Industry**

653. This category consists entirely of industrial loads in the LT category. The cost-to-serve for this category is Rs.2.91 per unit. DISCOMs have not suggested any changes in the tariff for this category and the Commission has retained the existing tariffs. The industrial consumer under LT-III(A) with load of 50 HP and above are given an option to choose a tariff based on demand charges per kVA instead of the fixed charge per HP. Accordingly the Commission specifies that the contracted demand declared shall not be less than 25 kVA for those who opt for the demand tariff.

**LT Category - III (A) - Seasonal Industry**

654. There is no change in the tariffs for this category. The demand charges during the off-season will be on the basis of recorded maximum demand or 30% of the contracted demand whichever is higher, if it is optional category; otherwise, fixed charges shall be payable at 30% of the contracted load. The energy charges applicable will be those of HT-II. The definition of “seasonal industry”, will be the same as for HT-I category.

**LT Category - III (B) - Industry**

655. LT-III (B) is a separate category created in LT-III Industrial for the small scale industries whose connected load is more than 75HP and upto 150 HP, which would normally qualify as HT-I category. As in the earlier Orders, the consumer is given the benefit of declaring a contracted demand lower than the connected load. A two-part tariff is levied which consists of demand charges and energy charges.

### LT Category - III (B) - Seasonal Industry

656. There is no change in the tariffs for this category. The demand charges during the off-season will be on the basis of recorded maximum demand or 30% of the contracted demand whichever is higher. The energy charges applicable will be those of HT-II. The definition of “seasonal industry”, will be the same as for HT-I category.

657. The permissible lighting load as permitted in the Tariff Order for FY2005-06 is 10% of total consumption in line with industrial consumers in the HT segment.

**Table 182: LT Category - III: Industrial Tariff**

Slab	Current charges		DISCOM Proposed charges		APERC Approved charges	
	Fixed charges	Energy charge (paise/ unit)	Fixed charges	Energy charge (paise/ unit)	Fixed charges	Energy charges (paise/ unit)
<b>Category III(A): Industrial</b>						
(i). Industrial - normal up to 75 HP	Rs.37/HP/month	375	Rs.37/HP/ month	375	Rs.37/HP/ Month	375
(ii). Industrial - Optional 50-75 HP	Rs.100/kVA/month	375	Rs.100/ kVA/month	375	Rs.100/ kVA/month	375
(iii). Pisciculture and Prawn Culture (below 10HP)	--	90	--	90	--	90
(iv). Sugarcane Crushing (coming under agricultural services)	--	50	--	50	--	50
<b>Category III (B): Industrial</b>						
Above 75 HP up to 150 HP	Rs.100/kVA/month	375	Rs.100/kVA/ month	375	Rs.100/kVA/ month	375
<b>Category III (A&amp;B) Seasonal Industries - Off-season tariff (During season the applicable tariff of the respective categories will apply)</b>						
LT-III A(i)	--	--	--	--	Rs.37/HP/ month on 30% of the CL	440
LT-III A(ii)	--	--	--	--	Rs.100/kVA/ per month on RMD or 30% of the CMD which ever is higher	440
LT-III (B)	Rs.100/kVA/ per month on RMD or 30% of the CMD which ever is higher	440	Rs.100/kVA/ per month on RMD or 30% of the CMD which ever is higher	440	Rs.100/kVA/ per month on RMD or 30% of the CMD which ever is higher	440
CL: contracted Load; CMD: Contracted maximum demand; RMD: Recorded maximum demand						

#### LT Category - IV : Cottage Industries

658. The Cost-to-Serve this category is Rs. 2.91 /unit. The DISCOM has not proposed any changes in the rates for this category and the Commission has retained the existing tariffs.

**Table 183: LT Category - IV: Cottage Industries & Dhobighats Tariff**

Current Charges		DISCOM		APERC	
		Proposed charges		Approved charges	
Fixed Charge (Rs/HP/month)	Energy charge (ps/ unit)	Fixed charge (Rs/HP/month)	Energy charge (ps/ unit)	Fixed charge (Rs/HP/Month)	Energy charge (ps/ unit)
10	180	10	180	10	180

#### LT Category - V: Agriculture

659. The cost-to-serve for this category is Rs.2.40/unit. The Commission has accepted the proposal of the DISCOM.

**Table 184: LT Category - V: Agriculture Tariffs**

Slab	Current Charges		DISCOM		APERC	
	Fixed Charge (Rs/HP/month)	Energy Charge (ps/ unit)	Fixed charge (Rs/HP/month)	Energy charge (ps/ unit)	Fixed charge (Rs/HP/Month)	Energy charge (ps/ unit)
With DSM Measures #						
Dry Land F. (Connections <=3)	0.00	0.00	0.00	0.00	0.00	0.00
Wet Land F(Holdings<=2.5 Acres)	0.00	0.00	0.00	0.00	0.00	0.00
Dry Land F. (Connections > 3)	0.00	20	0.00	20	0.00	20
Wet Land F( Holdings > 2.5 Acres)	0.00	20	0.00	20	0.00	20
Corporate Farmers & IT Assesses	0.00	100	0.00	100	0.00	100

Without DSM Measures						
Dry Land F. (Connections <=3)	0.00	0.00	0.00	0.00	210*	20
Wet Land F(Holdings<=2.5 Acres)	0.00	0.00	0.00	0.00	210*	20
Dry Land F. (Connections > 3)	0.00	50	0.00	50	525*	50
Wet Land F(Holdings > 2.5 Acres)	0.00	50	0.00	50	525*	50
Corporate Farmers & IT Assesses	0.00	200	0.00	200	0.00	200
<b>AGRICULTURE (TATKAL)</b>	<b>0.00</b>	<b>20</b>	<b>0.00</b>	<b>20</b>	<b>0.00</b>	<b>20</b>

(\*) - Equivalent flat rate tariff

# The Farmers eligible for free supply under Dry Land as well as Wet Lands have to comply with the following Demand Side Management measures (DSM) as applicable for his pumping system viz., submersible and surface pump sets in the following stages failing which they shall not be eligible for free supply.

Stage - I to be complied by March 2006

Friction less foot valve (exempted for submersible pumpset)  
Capacitor of adequate rating for the pumpset

Stage - II to be complied by March 2008

HDPE or RPVC piping suction and/or delivery  
ISI-marked monobloc or submersible pumpset

Free supply shall not be allowed for Paddy in second crop. Farmers in dry land areas shall not be eligible for free supply if they grow Paddy in second crop.

All new connections shall be given only with DSM measures implemented and with meters.

#### **LT Category - VI : Local Bodies**

660. The cost-to-serve for this category is Rs.3.76 /unit. The DISCOM has not proposed any changes in the rates for this category and the Commission has retained the existing tariffs.

Table 185: LT Category - VI: Local Bodies Tariff

Slab	Current charges		DISCOM Proposed charges		APERC Approved charges	
	Fixed charge (Rs/HP/ Month)	Energy (paise/ unit)	Fixed charge (Rs/HP/ Month)	Energy (paise/ unit)	Fixed charge (Rs/HP/ month)	Energy (paise/ unit)
<b>Local Bodies Street Lighting &amp; PWS schemes</b>						
<b>A. Street Lighting</b>						
Minor Panchayats		156		156		156
Major Panchayats		208		208		208
Nagarpalikas and Municipalities Gr.3		274		274		274
Municipalities Gr.1 & 2		326		326		326
Municipalities Selection Spl.Gr.		353		353		353
Corporations		379		379		379
<b>B. PWS Schemes</b>						
<b>Panchayats (Major and Minor)</b>						
Up to 2500 Units		20		20		20
Above 2500 Units		50		50		50
<b>All Nagarpalikas and Municipalities</b>						
Up to 1000 Units	20	375	20	375	20	375
Balance Units		405		405		405
<b>Corporations</b>						
Up to 1000 Units	20	405	20	405	20	405
Balance Units		460		460		460

#### LT Category - VII : General Purpose

661. The LT General Purpose category covers places of worship like churches, temples, mosques, gurudwaras, crematoriums, Government educational institutions and student hostels of Government educational institutions and educational institutions run by charitable institutions (Public charitable trusts and Societies registered under Societies Registration Act running educational and medical institutions on a no-profit basis), recognized service institutions, and social welfare hostels run by Government of Andhra Pradesh and old age homes run by recognized service institutions.

662. The cost-to-serve for this category is Rs.3.70/unit. The DISCOM has not proposed any changes in the rates to this category and the Commission has retained the existing tariffs.

**Table 186: LT Category - VII: General Purpose Tariff**

(Paise/Unit)		
Current Energy charge	DISCOM Proposed Energy charge	APERC Approved Energy charge
400	400	400

**LT Category - VIII: Temporary Supply**

663. The cost-to-serve for this category is Rs.3.61/unit. The rates remain unchanged and the Commission has retained the existing tariffs.

**Table 187: LT Category - VIII: Temporary Supply (General) Tariff**

Slabs	Current Energy charge	(Paise/unit)	
		DISCOM Proposed Energy charge	APERC Approved Energy charge
General	620	620	620
Agriculture	230	230	230

**HIGH TENSION**

**HT Category - I: Industry**

664. The Commission has started the tariffs rationalisation process for this category from 2002-03 and while doing so the Commission has ensured that the tariff progressively reflect cost of supply to that particular category. This rationalisation has also supported the DISCOM to sustain the industrial growth in the state, which helped the DISCOM in increasing its revenue base, reduce losses besides providing more cross subsidy.

665. For the ensuing year, the Commission has approved the licensee proposal as it is in the right direction of tariff rationalisation. The licensee has proposed reduction in the voltage-wise energy rates (reduction of 45 paise/unit for 132kV, 25 paise/unit for 33kV and 10 paise for 11kV) and an increase in the demand charges (increase of 55 Rs/kVA/month for 132kV and 35 Rs/kVA/month

for 33kV) for two voltage levels. These changes resulted in net reduction of HT Tariffs by about 3.77% ranging from 7.14% reduction for 132kV and 1.43% for 11kV consumers.

666. The Cost-to-Serve for this category is Rs 2.38 for 11kV consumers, Rs 2.06 for 33kV consumers and Rs 1.95 for 132kV consumers. The Commission has approved the licensee proposed tariffs.
667. The Licensee after this positive move towards cost-based tariffs needs to step out further in future filings. The demand charges of 11kV consumers should normally be more than those of 132 kV consumers, if the tariffs have to move towards cost reflective levels and the Commission directs that:

*The Licensee shall review the methods of fixing the demand charges, devise suitable policy path for future and file a working a paper with the Commission. The Commission will in turn consult the public on this paper for its incorporation.*

668. Changes have been proposed in the existing incentive scheme, which is valid till March 2006. The new incentive scheme as proposed by DISCOMs has been approved by the Commission to remain in force, till 31st March, 2007.
669. The Tariff for Ferro Alloys Units has been changed from Rs. 2.87 ps/unit to Rs. 2.55 ps/unit as proposed by the Licensees. These consumers are not entitled for the load factor incentive mentioned above.

Table 188: HT Category - I: Industrial Tariff

Slab	Current charges		DISCOM Proposed charges		APERC Approved charges	
	Demand charges (Rs/kVA/ month)	Energy charge (ps/unit)	Demand charges (Rs/kVA/ month)	Energy charge (ps/ unit)	Demand Charges (Rs/kVA/ month)	Energy charge (ps/ unit)
(a). Industry - General #						
132 kV and above	195	350	250	280	250	280
33 kV	195	350	230	310	230	310
11 kV and below	195	350	195	330	195	330
(b). Ferro Alloys	0	287	0	255*	0	255*
* - Based on 85% Load Factor. Energy falling short of 85% Load Factor will be billed as deemed consumption.						
Lighting		440		440		440
Colony		350		350		350

# Load factor incentive allowed as per formula specified in the schedule of  
Retail Supply Tariffs.

#### HT Category - II: Non-Industrial

670. This is an amorphous category and covers all consumers who are not covered in other HT categories. The Cost-to-Serve this category at the respective voltage levels are: (i) Rs.2.16/unit for 132kV,(ii) Rs.2.85 for 33 kV and (iii) Rs.3.16 for 11kV consumers.

Table 189: HT Category - II: Non-Industrial Tariff

Slabs	Current charges		DISCOM Proposed charges		APERC Approved charges	
	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)
132 kV and above	195	440	250	365	250	365
33 kV	195	440	230	390	230	390
11 kV and below	195	440	195	440	195	440

#### HT Category - IV: Irrigation and Agriculture

671. The Cost-to-Serve this category is Rs.2.26/unit. This category has been classified into Government Lift Irrigation Schemes [HT-IV (A)] and other Irrigation Schemes [HT-IV (B)]. The Commission for FY2006-07, approves the

proposed tariff and the tariff for this category would be reviewed in the next tariff order in the context of many lift irrigation schemes getting commissioned. Tariffs for Lift Irrigation schemes owned by the private societies have been made free under the new agricultural power supply policy.

**Table 190: HT Category - IV: Irrigation and Agriculture Tariff**

Category	Current charges		DISCOM Proposed charges		APERC Approved charges	
	Fixed charges (Rs/kVA/ annum)	Energy charge (ps/ unit)	Fixed charges (Rs/kVA/ annum)	Energy charge (ps/ unit)	Fixed charges (Rs/kVA/ annum)	Energy charge (ps/ unit)
A: Govt. Lift Irrigation Schemes	0	236	0	236	0	236
B: Others	0	0	0	0	0	0

#### **HT Category - V: Railway Traction**

672. The Cost-to-Serve for this category is Rs.2.40/unit. As directed in the Tariff Order for FY2005-06 the Licensee has proposed a two-part tariff for this category in FY2006-07.
673. The railway setup in the State is being supplied power for a number of years on a single-part tariff basis. As the railways were often expressing their dissatisfaction, inter-alia with the seemingly high energy charge under the single-part structure compared to the energy charge in the two-part tariff elsewhere, the Commission directed the licensees, in paragraph 725 of its Tariff Order, 2005-06, to propose a two-part tariff structure for Railway Traction. This has been duly filed by the licensees along with a mention that the proposed structure is equivalent to 420 paise/unit as against the present tariff of 440 paise/unit.
674. The railways have pleaded strongly for the retention of single-part tariff and also submitted that the proposed tariff in fact ranges from 430.54 paise/unit to 457.44 paise/unit across the DISCOMs. Pending detailed evaluation of all the issues/contentions, the Commission decides the tariff of 420 paise/unit for Railway Traction, applicable for the year 2006-07 alone, not to be treated as the basis for determination of tariff for the subsequent years.

Table 191: HT Category - V: Railway Traction Tariff

Current Energy charge	DISCOM		APERC		(Paise/Unit)
	Proposed Fixed charge (Rs/kVA/Month)	Proposed Energy charge	Proposed Fixed charge (Rs/kVA/Month)	Approved Energy charge	
440	195	355	0	420	

**HT Category - VI: Townships / Colonies**

675. The Cost-to-Serve this category is Rs.2.26/unit. There is no change in tariffs for this category.

Table 192: HT Category - VI: Townships/Colonies Tariff

Current Energy Charge	DISCOM		APERC		(Paise/Unit)
	Proposed Energy charge	Approved Energy charge	Proposed Energy charge	Approved Energy charge	
350	350	350	350	350	

**RESCOS**

676. The Cost-to-Serve this category is Rs.2.27/unit. There is no change in tariffs for this category.

Table 193: RESCOS Tariff - Kuppam

Current Energy Charge	DISCOM		APERC		(Paise/Unit)
	Proposed Energy charge	Approved Energy charge	Proposed Energy charge	Approved Energy charge	
21	21	21	21	21	

**Note:** The Schedule of Retail Supply Tariffs applicable for all categories of consumers for 2006-07 is provided in Chapter XX

## CHAPTER - XX

### SCHEDULE OF RETAIL SUPPLY TARIFF - FY 2006-07

677. Summing up, the Commission specifies the following Retail Supply Tariffs for 2006-07 which shall be applicable uniformly to the consumers of all the four Distribution Companies in their respective licensed areas of supply, as also the four Rural Electric Co-operative Societies:

**Table 194: Schedule of Retail Supply Tariff - FY 2006-07**

Category No.	Purpose	Rates for the year 2006-07	
		Fixed Charges	Energy Charge (Paise/Unit)
<b>LT Categories</b>			
I	<b>Domestic</b> 0 - 50 Units/Month 51- 100 Units/Month 101 - 200 Units/Month 201 - 300 Units/Month More than 300 Units/Month	-- -- -- -- --	145 280 305 475 550
II	<b>Non-Domestic / Commercial</b> 0 - 50 Units/Month Above 50 Units/Month	-- --	395 625
III (A)	<b>Industrial</b>		
	(i) Industrial - Normal upto 75HP (ii) Industrial-Optional 50 to 75 HP	Rs.37/HP/Month of connected Load Rs.100/ kVA per month of contracted Demand (Optional)	375 375
	(iii) Pisciculture and Prawn culture below 10 HP (iv) Sugarcane crushing (under agricultural services) Off-season tariff for seasonal loads under (i) Off-season tariff for seasonal loads under (ii)	-- -- Rs.37/HP/month on 30% of contracted load Rs.100/kVA/month on recorded demand or 30% of contracted demand, whichever is higher	90 50 440 440
III (B)	<b>Industrial</b> Above 75 HP upto 150 HP, SSI	Rs.100/ kVA per month of Contracted Demand	375
	Off-season tariff for Seasonal loads	Rs.100/ kVA per month of recorded demand or 30% of contracted demand whichever is	440

Category No.	Purpose	Rates for the year 2006-07	
		Fixed Charges	Energy Charge (Paise/Unit)
		higher.	
IV	<b>Cottage Industry and Dhobi Ghats</b>	Rs.10/HP/ Month	180
	All Units		
V(A)	Agriculture		
With DSM @	Dry Land Farmers (Connections <=3)	--	0.00
	Wet Land Farmers (Holdings<=2.5 Acres)	--	0.00
	Dry Land Farmers (Connections > 3)	* 210/HP/Year	20
	Wet Land Farmers (Holdings > 2.5 Acres)	* 210/HP/Year	20
	Corporate Farmers & IT Assesses		100
Without DSM	Dry Land Farmers (Connections <=3)	* 210/HP/Year	20
	Wet Land Farmers (Holdings<=2.5 Acres)	* 210/HP/Year	20
	Dry Land Farmers (Connections > 3)	* 525/HP/Year	50
	Wet Land Farmers (Holdings > 2.5 Acres)	* 525/HP/Year	50
	Corporate Farmers & IT Assesses	--	200
V (B)	<b>AGRICULTURE (TATKAL) out of turn allotment (Tatkal) with DSM</b>	--	20
VI (A)	<b>Local Bodies - Street Lighting</b>		
	Minor Panchayats	--	156
	Major Panchayats	--	208
	Nagarpalikas and Municipalities Gr 3	--	274
	Municipalities Gr 1 & 2	--	326
	Municipalities Selection & Special Grade Corporations	--	353
		--	379
VI (B)	<b>Local bodies - PWS Schemes</b>		
	Minor / Major Panchayats	--	20
	Upto 2500 units / year	--	50
	Above 2500 units / year		
	<b>All Nagarpalikas and Municipalities</b>		
	Gr 1, 2, 3 and special / selection Grade		
	Upto 1000 units / month	Rs.20/HP/Month	375
	Balance Units		405
	<b>Corporations</b>		
	Upto 1000 Units / month	Rs.20/HP/Month	405
	Balance Units		460
VII	<b>General Purpose</b>	--	400

Category No.	Purpose	Rates for the year 2006-07	
		Fixed Charges	Energy Charge (Paise/Unit)
VIII	Temporary Supply	--	230
	Agriculture Purpose	--	620
	Other than Agriculture	--	

HT CATEGORIES	Purpose	Demand Charges	Energy Charge Paise/Unit
Category No.			
I	Industrial #  (A) Industry - General 132 kV and above 33 kV 11 kV and below Off-seasonal tariff for Seasonal Industries  (B) Ferro Alloys - applicable to entire off take from DISCOMs and without Load Factor incentives. Lighting Colony	Rs.250/kVA/month Rs.230/kVA/month Rs.195/kVA/month £ Based on 85% Load Factor. Energy falling short of 85% Load Factor will be billed as deemed consumption	280 310 330 ? 255 440 350
II	Non-Industrial 132 kV and above 33 kV 11 kV and below	Rs.250/kVA/month Rs.230/kVA/month Rs.195/kVA/month	365 390 440
IV IV(A) IV(B)	Irrigation and Agriculture Govt. Lift Irrigation Schemes Others	-- --	236 0
V	Railway Traction	--	420
VI	Townships/colonies	--	350
	HT Temporary Supply RESCOS Anakapalli Cheepurupalli Siricilla Kuppam		\$ 66 66 40 21

FSA applicable to all categories except agriculture. Fuel Surcharge Adjustment (FSA) is applicable as notified by the Commission from time to time as per the regulations made by the Commission in this behalf.

(\*) Equivalent flat rate tariff

® The Farmers eligible for free supply under Dry Land as well as Wet Lands have to comply with DSM measures as applicable to his pumping system viz., submersible and surface pump sets in the following stages failing which they shall not be eligible for free supply.

Stage - I to be complied by March 2006

Friction less foot valve (exempted for submersible pumpset)  
Capacitor of adequate rating for the pumpset

Stage - II to be complied by March 2008

HDPE or RPVC piping suction and/or delivery  
ISI-marked monobloc or submersible pumpset

Free supply shall not be allowed for Paddy in second crop. Farmers in dry land areas shall not be eligible for free supply if they grow Paddy in second crop.

All new connections shall be given only with DSM measures implemented and with meters.

# Category HT I (A) The following incentives are applicable for consumers for the energy consumed from the Distribution Company:

Load Factor Band	Incentive Rate	Energy Eligibility
>50% and upto 70%	25%	For incremental consumption over 50% Load Factor(LF)
>70%	25%	For incremental consumption over 40%LF

*This incentive scheme will be effective till 31<sup>st</sup> March, 2007*

£ - Demand charge applicable to respective voltage level on recorded demand or 30%

of CMD, whichever is higher.

? - Energy Charge applicable to respective voltage level under HT Category - II

\$ - 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

## Minimum charges

LT categories			
Category No.	Purpose	Rates for the year 2006-07	
I	Domestic	Single Phase upto 250 W	Rs.25/Month
		above 250W	Rs.50/Month
II	Non-domestic/ Commercial	Three Phase	Rs.150/Month
		Single Phase	Rs.65/Month
III (A)(ii)	Industrial Optional } 75-150HP }	Three Phase	Rs.200/Month
			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 Municipalities And Corpsns.	Rs.2/Point/Month Rs.6/Point/Month
VII	General Purpose	Single Phase	Rs.50/Month
		Three Phase	Rs.150/Month
VIII	Temporary Supply	Agriculture	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 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

## HT Categories

Minimum billing demand	Recorded demand during the month or 80% of contracted demand whichever is higher
------------------------	--

## Min.Energy Charges

Category No.	Purpose	Rates for the year 2006-07
I(A)	Industrial - General	50 Units/kVA of billing demand per month
I(B)	Ferro Alloys	Guaranteed energy off-take at 85%LF on CMD or recorded demand whichever is higher. Energy falling short of 85%LF will be billed as deemed consumption.
II	Non-Industrial	25 Units/kVA of billing demand per month
V	Railway Traction	32 Units/kVA of Contracted demand/ month
VI	Townships/Colonies	25 Units/kVA of contracted demand/ month

## 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 through independent feeders

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 10000 kVA	132 or 220	66 or below	12%	10%

## Customer Charges

The Customer charges, are as given below:

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 kV Rs.1500/- per month

678. All other conditions as per the Annexure D to this Order will be applicable for the respective categories under LT and HT supply.

679. These tariffs take effect from 01<sup>st</sup> April, 2006.

This Order is signed on the 23<sup>rd</sup> day of March, 2006

Sd/-  
**SURINDER PAL**  
**MEMBER**

Sd/-  
**K. SREERAMA MURTHY**  
**MEMBER**

**Sd/-  
K. SWAMINATHAN  
CHAIRMAN**

## ANNEXURE - A

### LIST OF DIRECTIVES ON DISTRIBUTION BUSINESS

#### **DIRECTIVES BROUGHT FORWARD FOR CONTINUED COMPLIANCE**

##### **Energy Audit**

1). The DISCOMs shall conduct regular and thorough energy audit to ensure accountability. A copy of the Energy Audit Reports of each DISCOM to be filed with the Commission on a quarterly basis.

The Commission directs that the Licensee shall henceforth reconcile the energy accounting figures annually and file reconciliation statements along with the audited Annual Accounts every year.

##### **Management of Industrial Feeders**

2). The DISCOMs are hereby directed that they shall submit data log sheets for supply conditions pertaining to the previous 30 days through RS 232 communications port, along with an abstract summary statement pertaining to their company regarding interruptions to industrial feeders once in a month to the Commission. The Commission intends to observe the time being taken to restore power and the quality of power supplied to industries to ensure supply of uninterrupted quality power.

##### **Capital Investments**

3). Considering the importance of capitalization of works, the Commission lays down the following requirements to be fulfilled before accepting inclusion of the value of a capitalized work in the OCFA:

(i). On completion of a capital work, a physical completion certificate (PCC) to the effect that the work in question has been fully executed, physically, and the assets created are put to use, to be issued by the concerned engineer not below the rank of Superintendent Engineer.

(ii). The PCC shall be accompanied or followed by a financial completion certificate (FCC) to the effect that the assets created have been duly entered in the Fixed Assets Register by transfer from the CWIP register to OCFA. The FCC shall have to be issued by the concerned finance officer not below the rank of Senior Accounts Officer.

(iii). The above-mentioned certificates have to be submitted to the Commission within 60 days of completion of work, at the latest.

(iv). The Commission may also inspect or arrange to inspect, at random, a few of the capitalized works included in the OCFA to confirm that the assets created are actually being used and are useful for the business.

## **FRESH DIRECTIVES**

### **Availability of copies of ARR/Tariff filings**

4). The Licensees shall henceforth make available copies of their ARR/Tariff filings available at all the district headquarters. (Paragraph 145)

### **Contingencies Reserve**

5). The contributions towards Contingencies Reserve must be invested in securities authorized under the Indian Trusts Act, 1882, within a period of six months from the close of the year of account in which the appropriation is made. Any drawal from the Reserve can be made only to meet the emergent expenditure required to restore the system after damage caused by natural calamities, fire accidents, etc. Such drawals should be reported to the Commission within 15 days with details of the damage to the system.

Should the licensee, however, desire to invest the accumulations in the Reserve in securities / investments other than those authorized under the Indian Trusts Act, it must seek prior approval of the Commission indicating inter-alia the securities/instruments in which they propose to invest the funds and the investment ratings of those securities / investments from at least two reputed rating agencies.

(Paragraph 166)

### **Safety**

6). The distribution licensees will chalk out by 30.09.2006, a cogent and viable plan of action to adhere to appropriate safety standards, in particular, to periodically inspect their electrical installations to take prompt action to rectify any shortcomings noticed or brought to their notice and to lay down a time schedule therefor. They will also work out and display on their website a transparent procedure for determination and payment of compensation in respect of electrical accidents involving humans as well as the animals. (Paragraph 186)

### **Timely Completion of Projects**

7). The licensees shall take all possible measures to ensure that the projects / schemes taken up are completed on schedule. In this regard, the Commission clarifies that it will not allow any interest during construction for delays exceeding one month and three months in respect of completion of projects / schemes with the completion schedules of up to one year and more than one year, respectively, unless the Commission's approval for extension in the completion schedules is obtained in advance.

(Paragraph 180)

## **HVDS Schemes**

8). In all future HVDS schemes, aerial bunched cables (ABC) alone shall be used for LT system. In the schemes already executed without ABC also, the bare conductor should now be replaced by ABC. (Paragraph 183)

## ANNEXURE - B

### LIST OF DIRECTIVES ON RETAIL SUPPLY BUSINESS

#### DIRECTIVES BROUGHT FORWARD FOR CONTINUED COMPLIANCE

##### **Filing of Agricultural Estimates**

1). The DISCOMs shall file the monthly agricultural consumption estimate in two parts, a) consumption estimate for unmetered services based on LV side DTR meters, and b) consumption on account of services released under Tatkal scheme and metered services. The estimate shall be filed with the Commission by 25<sup>th</sup> of every month.

##### **Metering & Billing**

2). The Commission reiterates its previous directive (Tariff Order for 2002-03) that a) for loads of 20HP and above but below 50HP, LT demand meters should be fixed; and b) for loads of 50HP and above but up to 75HP, tri-vector meters be fixed and the metering should be on the HT side.

3). The Commission directs the DISCOMs to conduct a door-to-door checking of all services and to remove all multiple connections and on a continuous basis.

4). (a) The Commission directs that the DISCOMs should make full-scale efforts to fill the gaps in sales database and achieve the stipulated 2 to 3 percent sales ratio of assessed sales of total metered sales by 30th September, 2006.

(b) The DISCOMs shall file a Metering, Billing and Collection (MBC) report based on sales database, by 25<sup>th</sup> of every month without fail.

##### **Subsidy Administration**

5). The DISCOMs shall file before the Commission the actual sales to subsidized categories of consumers for whom the GOAP agreed to pay the subsidy every month and the Commission will monitor the units actually sold by the DISCOMs

vis-à-vis the subsidy provided. At the end of the year, subsidy adjustments will be made based on the consumption of units in respect of various subsidized categories. For measuring the sales to the subsidized categories, the agricultural consumption estimate based on LV side meter readings on DTRs shall be the basis. For measuring the sales to metered categories of consumers, the sales database shall be the basis.

6). The Commission reiterates that in case the subsidy is not paid regularly on monthly basis, in advance, by GoAP, the DISCOMs shall revert to the full cost tariff fixed by the Commission.

7). The GOAP obligation towards subsidy payments to DISCOMs is limited to the quantities mentioned in this order. If the DISCOMs exceed tariff order quantities and thus the subsidy requirement, the Commission will not entertain any request for additional quantities of energy to subsidized categories unless the permission of the GoAP is taken for additional subsidy if the excess consumption relates to agriculture. In other categories, if there is excess consumption, no additional subsidy will be recommended by the Commission to GoAP.

#### **Defaulters' List**

8). The Licensees shall henceforth post on their website, the list of all those defaulters whose dues exceed Rs.50,000, along with the reasons for non-collection and details of litigation involved, if any. This data shall be updated every six months and will be displayed on the first of the second month following the end of the previous half - year. Thus, the data pertaining to the dues as on 31<sup>st</sup> March shall be posted by 1<sup>st</sup> May and that as on 30<sup>th</sup> September by 1<sup>st</sup> of the following November.

**FRESH DIRECTIVES:**

**Absence of Co-opted Members on Forums for Redressal of Consumer Grievance**

9). The distribution licensees will ensure that the co-opted members are in place on their respective Forums for Redressal of Grievances of Consumers by 30.09.2006 and report compliance to the Commission by 15.10.2006. In case of any specific difficulty in appointment of these members, the same may be brought to the notice of the Commission by 15<sup>th</sup> July 2006, positively. **(Paragraph 148)**

**Penalty Vs Reconnection Charges**

10). The Licensee shall not collect any reconnection charges unless the connection has actually been disconnected. **(Paragraph 211)**

**Generation of Power from Hydel Stations of APGENCO**

11). DISCOMs should closely coordinate with APGENCO to ensure that no unit of Srisailam complex (Left Bank Power House and Right Bank Power House) is backed down or shut down during the surplussing season. In case of generation of surplus energy by them over and above the requirements of DISCOMs and other users of energy, they should shut down some unit(s) of Thermal Power Stations with marginal variable cost in the merit order if reduction of generation up to backing down limit does not help bring down the frequency to a safe level. **(Paragraph 267)**

**Market Survey**

12). The Licensee shall carry out a census of all HT consumers covering aspects like type of activity, connected load, contracted load, captive capacity, types of loads, sources of power purchase including third parties, and other technical and commercial parameters and file a report thereon with the Commission by 30<sup>th</sup> September 2006. **(Paragraphs 451,508,569,627)**

**Agricultural consumption Estimates (CPDCL, NPDCL, SPDCL)**

13) (a). The Licensee shall initiate all possible steps to ensure the ratio of the valid DTRs to metered DTRs is at least 50 percent w.e.f. July 2006. Valid DTR for this purpose is the DTR for which the meter is in working condition and meter readings

are available for the entire year. The Licensee may also propose, if so deemed fit by it, a more suitable metering cycle in place of present monthly meter reading cycle to arrive at the annual consumption. **(Paragraphs 453,571,629)**

(b). **EPDCL:** The Licensee shall initiate all possible steps to ensure the ratio of the valid DTRs to metered DTRs is at least 60 percent w.e.f. July 2006. Valid DTR for this purpose is the DTR for which the meter is in working condition and meter readings are available for the entire year. The Licensee may also propose, if so deemed fit by it, a more suitable metering cycle in place of present monthly meter reading cycle to arrive at the annual consumption. **(Paragraph 510)**

### **Demand Charges**

14). The Licenses shall review the methods of fixing the demand charges, devise suitable policy path for future and file a working paper with the Commission by 30<sup>th</sup> September 2006. The Commission will in turn consult the public and other stakeholders before deciding upon the further course of action.

**(Paragraphs 492,549,611,667)**

### **Consumer Pass Books**

15). The APSPDCL in particular and the other licensees in general, shall take up the implementation of the Commission's directive to issue passbooks to all consumers in right earnest and submit a progress report thereon every 30<sup>th</sup> July and 31<sup>st</sup> January. However, it will be the consumer's responsibility to get the passbook updated at the time of meter reading / issue of the bill. **(Paragraph 151)**

### **Pole-mounted metering**

16). CPDCL should extend its scheme of shifting the meters from the consumer premises to the poles where the loss levels are high. Other DISCOMs should also adopt this practice in their Distribution areas where the loss levels are high. This shall be subject to the provisions of the relevant Regulations of the CEA. **(Paragraph 189)**

## ANNEXURE - C

### SCHEDULE OF WHEELING TARIFF/CHARGES AND TERMS & CONDITIONS IN RESPECT OF THE FOUR DISTRIBUTION COMPANIES FOR THE CONTROL PERIOD

(Reference to Part - B of Chapters XI, XII, XIII and XIV)

#### WHEELING CHARGES AND LOSSES FOR FY 2006-07, 2007-08 AND 2008-09

The wheeling charges and losses as per The Terms and Conditions for determination of tariff for wheeling and retail sale of electricity, Regulation No 4 of 2005, given below are applicable for use of distribution system of a licensee by other licensees, generating companies, captive power plants and consumers who are permitted open access as per terms and conditions of Open Access Regulation, (2 of 2005). The wheeling charges and losses in kind shall be up to the respective voltage level at which the wheeled electricity is delivered or injected whichever voltage is lower;

##### i) APCPDCL

###### Wheeling Charges/Losses for the Control Period for APCPDCL

	2006-07	2007-08	2008-09
(Rs. kVA/Month)			
33 kV	32.70	33.05	32.77
11 kV	91.02	92.51	92.52
LT	126.44	129.18	130.37

Losses:

Voltage	2006-07	2007-08	2008-09
33 kV	4.21%	4.00%	3.81%
11 kV	11.34%	10.73%	10.25%
LT	22.37%	20.33%	19.58%

ii) APEPDCL

**Wheeling Charges/Losses for the Control Period for APEPDCL**

	2006-07	2007-08	2008-09
(Rs. kVA/Month)			
33 kV	11.28	10.90	10.74
11 kV	56.41	54.60	53.98
LT	224.00	218.49	218.94

Losses:

Voltage	2006-07	2007-08	2008-09
33 kV	6.10%	5.92%	5.78%
11 kV	10.85%	10.51%	10.27%
LT	19.11%	17.84%	17.11%

iii) APNPDCL

**Wheeling Charges/Losses for the Control Period for APNPDCL**

	2006-07	2007-08	2008-09
(Rs. kVA/Month)			
33 kV	23.49	23.86	24.65
11 kV	85.94	87.31	90.20
LT	185.52	188.44	194.61

Losses:

Voltage	2006-07	2007-08	2008-09
33 kV		5.45%	5.18%
11 kV		11.40%	10.83%
LT		21.24%	19.28%

iv) APSPDCL

**Wheeling Charges/Losses for the Control Period for APSPDCL**

	2006-07	2007-08	2008-09
(Rs. kVA/Month)			
33 kV	25.03	24.34	23.82
11 kV	109.43	106.75	104.83
LT	152.06	148.68	146.63

**Losses:**

Voltage	2006-07	2007-08	2008-09
33 kV	4.85%	4.67%	4.49%
11 kV	10.34%	9.94%	9.56%
LT	18.92%	17.47%	16.64%

**Notes:**

- a). The Distribution licensee shall deliver the quantum of electricity given to it for wheeling, reduced by the distribution losses in kind at the voltage at which the energy is injected or delivered whichever voltage is lower.
- b). Wheeling charges / losses are payable for the contracted demand of the open-access user at the entry point of the consumer.
- c). If the wheeling involves transmission of electricity through transmission system of a Transmission Licensee, the consumer or the supplier as the case may be, has to pay the applicable transmission charges and transmission losses in kind also.
- d). Transmission system is considered to be involved in the wheeling of electricity in the following cases:
  - (i). Entry/Exit point is connected to the EHT system.
  - (ii). The entry and exit points are connected to the networks of more than one DISCOM.
- e). Hence, transmission charges are also payable in the cases mentioned in (d) above.
- f). If the wheeling of electricity is through the distribution system of more than one distribution licensee, the wheeling charges shall be payable to the distribution licensee of the area where the electricity is delivered.
- g). These charges shall, however, be subject to the orders of the Hon'ble Supreme Court in the pending appeals, which have arisen out of the interpretation of the provisions of the Reform Act and have been the subject matter of the order passed by the Hon'ble High court. This order shall be read subject to any order, directions etc. that may be issued by the Hon'ble High Court and the Hon'ble Supreme Court in the pending proceedings.

**ANNEXURE - D**  
**SCHEDULE OF RETAIL TARIFF RATES AND TERMS & CONDITIONS AND IN  
RESPECT OF THE FOUR DISTRIBUTION COMPANIES FOR FY - 2006-07**

**PART 'A' - H.T. TARIFFS**

These tariffs are applicable for supply of Electricity to H.T. Consumers having loads with a contracted demand of 70 kVA and above and/or having a connected load exceeding 75 H.P/56 kW excepting the LT III (B) industrial category.

**H.T. CATEGORY - I**

This tariff is applicable for supply to all H.T. Industrial Consumers. Industrial purpose shall mean manufacturing, processing and/or preserving goods for sale, but shall not include shops, Business Houses, Offices, Public Buildings, Hospitals, Hotels, Hostels, Choultries, Restaurants, Clubs, Theatres, Cinemas, Railway Stations and other similar premises notwithstanding any manufacturing, processing or preserving goods for sale. The Water Works of Municipalities and Corporations and any other Government organisations come under this category. The Information Technology units identified and approved by the Consultative Committee on IT industry (CCITI) constituted by Govt. of AP also fall under this category.

**INDUSTRY - GENERAL**

**DEMAND CHARGES & ENERGY CHARGES**

	Demand Charges Rs/kVA/month of Billing Demand	Energy Charges Paise/unit
132kV and above	250	280
33kV	230	310
11kV	195	330

**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
- iii) FSA will be extra as applicable

## FERRO ALLOY UNITS

### DEMAND CHARGES & ENERGY CHARGES

	Demand Charges	Energy Charges
Ferro Alloys	Rs/kVA/month of Billing Demand Nil	Paise/unit 255

#### Conditions

1. Guaranteed energy off-take at 85% annual Load Factor on Contracted Maximum Demand or Actual Demand whichever is higher. The energy falling short of 85% Load Factor will be billed as deemed consumption.
2. The consumer shall draw his entire power requirement from DISCOMs only.
3. Not eligible for HT-I Load Factor incentive.

FSA will be extra as applicable

#### Notes:

##### 1) Incentive

a) The following incentives are applicable for HT-category-I (A) consumers:

<u>Load Factor (LF)</u>	<u>Discount applicable on the energy rates</u>
More than 50% up to 70%	25% on the energy above 50% LF
More than 70%	25% on the energy above 40% LF

b) The incentive scheme is applicable for the consumption with the above mentioned load factors. This scheme will be effective tilll 31 March 2007.

##### 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 440 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 light and fan loads has not been done, 15% of the total energy consumption shall be billed at 440 paise per unit and the balance units shall be charged at the corresponding energy tariff under HT category -I(A).

##### 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 350 paise per unit.

##### 5) Seasonal Industries

Where a consumer avails supply of energy for manufacture of sugar or ice or salt,

decorticating, ginning and pressing, fruit processing, tobacco processing and re-drying 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 & ENERGY CHARGES**

	Demand Charges #	Energy Charges
	Rs/kVA/month of Billing Demand	Paise/unit
132kV and above	250	365
33kV	230	390
11kV	195	440

# Based on the Recorded Maximum Demand or 30% of the Contracted Demand whichever is higher

**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 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 declared cannot be changed, during the Tariff year in which it is declared.
- 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 Non - Industrial

This tariff is applicable to all H.T. Consumers other than those covered under other H.T. Categories:

DEMAND CHARGES & ENERGY CHARGES		
	Demand Charges	Energy Charges
	Rs/kVA/month of Billing Demand	Paise/unit
132kV and above	250	365
33kV	230	390
11kV	195	440

#### **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

In respect of Government controlled Auditoriums and Theatres run by public charitable institutions for purpose of propagation of art and culture which are not let out with a profit motive and in respect of other Public Charitable Institutions rendering totally free service to the general public the overall unit rate (including customer charges) may be limited to the tariff rates under L.T. Category-VII General purpose in specific cases as decided by the Licensee.

### H.T. CATEGORY-III (Deleted)

### H.T. CATEGORY-IV (A)- GOVT. LIFT IRRIGATION SCHEMES

This tariff is applicable to lift irrigation schemes managed by Government.

#### **ENERGY CHARGES:**

For all units consumed during .. 236 paise/unit  
the month

FSA will be extra as applicable if it is for purposes other than  
agriculture.

### 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).

**ENERGY CHARGES: zero paise/unit**

#### **NOTE:**

- i). If the consumer does not maintain the capacitors of requisite capacity as indicated in PART-'D' of this Annexure, the consumer attracts the penal provisions as per the General Terms and Conditions of Supply notified by the licensees from time to time, as also indicated in Note 4 in Part 'D' of this Annexure.
- ii). The metering is mandatory for both categories A&B and Energy reading shall be taken even if the supply is free.
- iii). The Customer Charges are payable as per PART 'C' herein.
- iv). The Low Power Factor surcharge condition mentioned in General conditions of HT Supply under part 'A' HT - Tariffs shall be applicable for Govt. lift irrigation schemes.

### 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 ..420 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 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 .. 350 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

## 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, seeking to avail supply on common feeders shall be:

For Total Contracted Demand with the Licensee and all other sources.

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 seeking to avail supply through independent feeders from the substations where transformation to required voltage takes place shall be:

For total contracted Demand with the licensees and all other sources.

Upto 2500 kVA 11000 Volts

2501 kVA to 10,000 kVA 33000 Volts

Above 10000 kVA 132000 Volts or 220000 Volts

The relaxations are subject to the fulfillment of following conditions:

(a). The consumer should have an exclusive dedicated feeder from the substation;

(b). The consumer shall pay full cost of the service line as per standards specified by APTRANSCO/DISCOM including take off arrangements at substation;

### B. VOLTAGE SURCHARGE

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:

				Rates % Extra Over Normal Rate	
				Demand Charge	Energy Charge
	kVA	kV	kV	kVA	Kwh
1.	70 to 1500	11	6.6 or below	12%	10%
2.	1501 to 5000	33	11 or below	12%	10%
3.	Above 5000	132 or 220	66 or below	12%	10%

**Note:** The FSA will be extra as applicable

For HT consumer availing supply from through independent feeders.

Sl. No	Contracted Demand with DISCOM and other sources	Voltage at Which supply should be availed	Voltage at Which Consumer is availing supply	Rates % Extra Over Normal Rate	
				Demand Charge (kVA)	Energy Charge (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) 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.

**(6) 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.

**(7) 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.

**(8) ADDITIONAL CHARGES FOR BELATED PAYMENT OF CHARGES**

The consumer shall pay an additional charge at Seven (7) paise per One hundred rupees 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.

**(9) 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.

**(10) FUEL SURCHARGE ADJUSTMENT**

Fuel Surcharge Adjustment (FSA) is applicable to all categories except agriculture. FSA is applicable as notified by the Commission from time to time as per the regulations made by the Commission in this behalf.

**(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. This levy is subject to the orders of the Hon'ble Supreme Court in the

pending appeals before it.

(12). The Tariffs are exclusive of Electricity duty payable as per the provisions of AP Electricity Duty Act.

(13). 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 including the LT-III (B) Industrial category.

#### L.T. CATEGORY-I-DOMESTIC

##### Applicability

Applicable for supply of energy for lights and fans and other domestic purposes in domestic premises.

##### **Rates**

Consumers shall pay electricity charges as shown below:

0-50 units per month	145 paise per unit
51-100 Units/month	280 paise per unit
101-200 Units/month	305 paise per unit
201-300 Units/month	475 paise per unit
Above 300 Units/month	550 paise per unit

Subject to monthly minimum charges of:

##### **Single Phase:**

Upto 250 W	.. Rs.25/ Month
Above 250 W	.. Rs.50/ Month
<b>Three Phase</b>	.. Rs.150/ Month

FSA will be extra as applicable

**Notes:**

1. For loads less than 3KW single phase supply only will be given.
2. If electricity supplied in domestic premises is required to be used for non-domestic and commercial purposes a separate connection should be taken for such loads under LT-II failing which the entire supply shall be charged under L.T.Category-II tariff apart from liability for penal charges as per the terms and conditions of the supply.
3. For common services like Water supply, common lights in corridors and supply for lifts in multistoried buildings, consumers shall pay electricity charges as follows:
  - (i). At L.T.Category-I, if the plinth area occupied by the domestic consumers is 50% or more of the total plinth area.
  - (ii). At L.T.Category-II, if the plinth area occupied by the domestic consumers is less than 50% of the total plinth area.
  - (iii). If the service in a flat is for domestic purpose, it will be charged at L.T.Category -I (Domestic). If the service in a flat is for commercial or office use or any other purpose, which does not fall under any L.T.Category, it will be charged at L.T. Non-Domestic Category-II.
4. Single Point LT services released to residential complexes of State Government/ Central Government Departments under specific orders of Licensee with Contracted Load/ Connected Load in excess of 56 KW/75 HP shall continue to be billed under LT-I Domestic tariff slab rate applicable based on the average monthly energy consumption per each authorized dwelling i.e. total energy consumption in the month divided by the number of such dwelling units, in the respective residential complexes.

The above orders are subject to the following conditions, namely:

- a). Orders are applicable to Police Quarters and other State/Central Government residential complexes specifically sanctioned by the Licensee.
- b). Provided that it is at the request of the designated officer, who shall give an unconditional undertaking that he will pay up the bill for CC charges to the Licensee irrespective of collection from the individual occupants.
- c). The consumers shall be billed at the appropriate slab rate in tariff based on the average 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.

5. Where an individual consumer seeks to avail supply for Domestic purpose with a connected load of over 56KW/75HP, such consumers may be given supply under this category subject to the following conditions.

- (a). The metering shall be provided by the DISCOMs on HT side of the distribution transformer
- (b). Meter reading shall be done monthly and the energy recorded in the HT metering shall be billed at tariff rates under LT category I.

#### L.T. CATEGORY-II - NON-DOMESTIC AND COMMERCIAL

##### Applicability

Applicable for supply of energy for lights and fans for non-domestic and commercial purposes excluding loads falling under L.T. Categories I, III to VII and shall include supply of energy for lighting, fans, heating and power appliances in Commercial and Non-Domestic premises such as shops, business houses, offices, public buildings, hospitals, hostels, hotels, choultries, restaurants, clubs, theaters, cinema halls, railway stations, Timber Depots, Photo Studios and other similar premises.

The Educational Institutions run by individuals, Non-Government Organisations or Private Trusts and their student hostels are also classified under this category. Exclusions for this would be those that qualify to be under Category LT-VII.

Consumers shall pay electricity charges as shown below:

First 50 Units /month	.. <b>395 Paise</b> per Unit
Above 50 Units/ month	.. <b>625 Paise</b> per Unit
Monthly Minimum Charges	.. <b>Rs. 65</b> per month for <b>Single Phase</b> .. <b>Rs.200</b> per month for <b>Three Phase</b>

FSA will be extra as applicable

**Notes:**

- 1). For Loads less than 5 KW single phase supply only will be given.
- 2). For loads 35 KW and above, a demand meter shall also be provided.
- 3). In respect of the complexes having connected load of more than 56 KW/75 HP released under specific orders of Licensee for Single Point Bulk supply, where such complex is under the control of a specified organisation/ agency taking responsibility to pay monthly current consumption bills regularly and abide by the Terms and Conditions of supply as per agreement, the billing shall be done at the highest slab tariff rate under this category. The energy shall be measured on HT side of the Distribution Transformer feeding the Load. In cases where energy is measured on LT side of the transformer, 3% of the recorded energy during the month shall be added to arrive at the consumption on High Tension side of the transformer.

**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 10% 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. The Information Technology (IT) units identified and approved by the Consultative Committee on IT Industry (CCITI) constituted by GoAP also fall under this category. 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:**

**Industrial - Normal**

	Fixed Charges/ Demand Charges	Energy Charges Paise/unit
<b>(i) Industry(Normal)</b>	Rs37/HP/month of connected load	375
<b>(ii) Industry (Optional)</b>	Rs.100/kVA/month	375
<b>(iii) Tariff for Pisciculture and Prawn culture units with Contracted Load</b>	-----	90
<b>(iv) Sugar cane crushing</b>	-----	50

**Note:**

Consumers with connected load between 50 and 75 HP can opt for a two part optional tariff.

**IMPORTANT FOR LT III(A) INDUSTRIAL -OPTIONAL Demand Tariff Consumers**

- i) The billing demand shall be the maximum demand recorded during the month or **80%** of the contracted demand whichever is higher.
- ii) Energy charges will be billed on the basis of actual Energy consumption or **50 units** per kVA of billing demand whichever is higher

**FSA will be extra as applicable**

**NOTE:**

- (i) The Licensee reserves the right to restrict usage of Electricity by the consumers for Industrial purpose during evening peak load hours i.e 17.00 hours to 21.00 hours in any area based on system constraints through notification by the Superintending Engineer of the area from time to time . Violation of this condition by the industrial consumer shall entail disconnection of power supply.

- (ii) The Contracted load shall be the connected load required by the consumer and so specified in the agreement as per sanction accorded for the service. In the case of Industrial - optional two-part tariff the consumer can declare a contracted demand different from the contracted load but shall not be less than 25 kVA. If the consumer opts for a two part demand tariff the billing demand shall be 80% of the Contracted Demand or Recorded Demand whichever is higher. If the recorded demand exceeds the Contracted Demand such excess demand shall be billed at the demand charge prescribed under HT Category - I (11 kV supply).
- (iii) If the actual connected load for lighting purpose exceeds the prescribed limit of 10%, 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).
  - (a). A demand meter shall be provided for the consumers with connected load 20HP to below 50HP.
  - (b). For loads 50 HP to 75 HP the metering will be provided on HT side of the Distribution Transformer.
  - (c). The consumers provided with metering capable of measuring active and reactive power as per the provisions in (a) and (b) above shall be required to pay LPF surcharge as applicable for HT consumers for the power factor obtaining during billing month subject to ceiling of the level of capacitor surcharge specified for LT consumers under Part-D herein.
  - (d). The Low Power Factor (LPF) surcharge is applicable as in the case of HT consumers for LT Category III (A) Industrial (ii) - Optional demand tariff category.

#### L.T. CATEGORY - III(B) - INDUSTRIAL

- (I) This 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.

<b>Rates:</b>		
III(B) Industry	Demand Charges Rs. 100/kVA/month	Energy Charges 375 paise/unit
<b>IMPORTANT</b>		
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  <b>FSA will be extra as applicable.</b>		

#### **Conditions:**

- (i). The maximum Connected Load under this Category shall not exceed 150 HP including incidental lighting load of not more than 10% of the total connected load. The contracted load shall be as specified in the agreement as per sanction accorded for the service. The consumer shall declare his contracted maximum demand, which shall not be less than 50kVA and shall also be specified in the Agreement.
- (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 (11 kV supply).
- (iii). The consumer should erect his own Distribution Transformer and structure initially along with necessary switchgear. The transformer will be maintained by the Licensee.
- (iv). For new/additional loads the consumer has to comply with the procedures as per

the terms and conditions of supply of the Licensee as applicable to HT Industrial consumers.

- (v). The metering will be on HT side of the Distribution Transformer with a Trivector Meter together with MD indicator. The energy recorded in the meter will be billed at the energy charge mentioned above.
- (vi). The Low Power Factor (LPF) surcharge is applicable as in the case of HT consumers for LT III (B) Category.
- (vii). Customer charges shall be as applicable for HT consumers.
- (viii). The conditions (i) & (iii) mentioned in the NOTE under LT Category -III(A) shall be applicable for LT III (B) Industrial Category also.

## **(II) Seasonal Industries**

Where a consumer avails supply of energy under LT III (A)(i)(ii) and LT III(B) for manufacture of sugar or ice or salt, decorticating, fruit processing, ginning and pressing, tobacco processing and redrying and for such other industries or processes as may be approved by the Commission from time to time principally during certain seasons or limited periods in the year and his main plant is regularly closed down during certain months of the year, he may be charged for the months during which the plant is shut down (which period shall be referred to as the **off-season** period) as follows.

### **LT III(A)(i)**

<b>FIXED CHARGES</b>	
on 30% of contracted load	Rs.37/HP/Month
<b>ENERGY CHARGES</b>	
For all units of energy consumed	Rs.440ps/unit
FSA will be extra as applicable	

### LTIII(A)(ii) & LT III(B)

This concession is subject to the following conditions:

- i) Consumers, classified as seasonal load consumers, who are desirous of availing the seasonal benefits shall specifically declare their season at the time of entering into agreement that their loads should be classified as seasonal loads.
- ii) The period of season shall not be less than 4(four) continuous months. However, consumer can declare longer seasonal period as per actuals.
- iii) *Existing eligible consumers who have not opted earlier for availing of seasonal tariffs will also be permitted to opt for seasonal tariff on the basis of application to the concerned Superintending Engineer of the Licensee.*
- iv) *The seasonal period once notified cannot be changed , during one Tariff year.*
- v) The off-season tariff is not available to composite units having seasonal and other categories of loads.
- vi) The off-season tariff is also not available for such of those units who have captive generation exclusively for process during season and who avail supply from Licensee for miscellaneous loads and other non-process loads.
- vii) Any consumer who after declaring the period of season consumes power for his main plant during the off-season period, shall not be entitled to this concession during that year.
- viii) Development charges @ RS. 500/- per kVA shall be paid by the consumer in advance for availing supply under the above said category with seasonal benefits.

## L.T. CATEGORY-IV

### **Cottage Industries and Dhobighats**

Applicable for supply of energy to Dhobighats & bonafide small Cottage Industries specifically power looms, Carpentry, blacksmithy, Kanchari, Gold smithy, shilpi and pottery having connected load not exceeding 5H.P. including incidental lighting in the premises. Poultry farming units upto 1000 birds strength (subject to certification by A.P.S.M & P.D.C. as to the strength in the poultry farm) come under this category. If the bird strength of birds in the poultry farm exceeds 1,000 birds, electricity supply to such poultry farms shall be classified under L.T. Category-III (A) or HT category I as the case may be according to the connected load.

### **Rates**

For all units consumed .. **180 Paise per unit**

**Fixed Charges** .. Rs.10/- per month per H.P. of contracted load subject to a minimum of **Rs.30/- per month**

FSA will be extra as applicable

### **Notes**

- i) It is not necessary to have a separate service for lighting load in the premises.
- ii) Poultry farming units upto 1000 units without certification from APSM & PDC shall be classified under LT Category-III (A) Industrial Tariff.

### L.T. CATEGORY - V(A) - AGRICULTURAL

Category	Purpose	Fixed charges	Energy Charge Ps/Unit
With DSM measures	Dry Land Farmers (Connections<= 3 Nos.)	*Rs.210/HP/Year	0
	Wet Land Farmers (Holdings<=2.5 Acres)		0
	Dry Land Farmers (Connections > 3 Nos.)		20
	Wet Land Farmers (Holdings >2.5 Acres)		20
	Corporate Farmers & IT Assesses		100
Without DSM measures	Dry Land Farmers (Connections<= 3 Nos.)	*Rs.210/HP/Year	20
	Wet Land Farmers (Holdings<=2.5 Acres)	*Rs.210/HP/Year	20
	Dry Land Farmers (Connections > 3 Nos.)	*Rs.525/HP/Year	50
	Wet Land Farmers (Holdings >2.5 Acres)	*Rs.525/HP/Year	50
	Corporate Farmers & IT Assesses		200
	* Equivalent flat rate tariff		

### LT CATEGORY - V(B) - AGRICULTURAL

Out of Turn Allotment - Tatkal scheme : Energy Charge  
with DSM measures 20paise/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. The Farmers eligible for free supply under Dry Land as well as Wet Lands have to comply with the following Demand Side Management measures (DSM) as applicable for his pumping system viz., submersible and surface pump sets in the following stages failing which they shall not be eligible for free supply.

Stage - I to be complied by March 2006

Friction less foot valve (exempted for submersible pumpset)

Capacitor of adequate rating for the pumpset

Stage - II to be complied by March 2008

HDPE or RPVC piping suction and/or delivery

ISI-marked monobloc or submersible pumpset

Free supply shall not be allowed for Paddy in second crop. Farmers in dry land areas shall not be eligible for free supply if they grow Paddy in second crop.

All new connections shall be given only with DSM measures implemented and with meters.

#### L.T. CATEGORY-VI

Applicable for supply of energy for lighting on public roads, streets, thoroughfares including parks, markets, cart-stands, taxi stands, bridges and also for PWS scheme in the Local Bodies viz., Panchayats/ Municipalities/ Municipal Corporations. Metering is compulsory irrespective of tariff structure.

#### **Rates:**

##### Street Lighting:

For all units consumed

Minor Panchayats : 156 Paise per unit

Major Panchayats : 208 Paise per unit

Nagarpalikas & Municipalities Gr.3 : 274 Paise per unit

Municipalities Gr. 1 & 2 : 326 Paise per unit

Municipalities Selection / Spl. Gr. : 353 Paise per unit

Corporations : 379 Paise per unit

##### **Minimum charges**

Panchayats : Rs.2 per point per month

Municipalities/Corporations : Rs.6 per point per month

FSA will be extra as applicable

**PWS Schemes:**

**Minor / Major Panchayats**

Up to 2500 units/year	: 20 paise per unit
Above 2500 units	: 50 paise per unit

**All Nagarpalikas & Municipalities**

	<b>Energy charges</b>	<b>Fixed charges</b>
Upto 1000 Units	: 375 Paise/Unit	
Balance Units	: 405 Paise/Unit	

**Municipal Corporations:**

Up to 1000 Units	: 405 Paise/Unit
Balance Units	: 460Paise/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. However, where the cost of fittings is borne by the consumer but maintenance is done by the Licensee, the consumer will have to pay fixed charges as in Column (4) below:

Sl. No	Fittings for	Fixed charges Per Month where the cost of fittings is borne by Licensee	Fixed charges per month where the cost of fittings is borne by the Local Body but maintenance by Licensee
(1)	(2)	(3)	(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, Crematoriums, Government Educational Institutions and Student Hostels run by Government agencies, and Educational Institutions run by

charitable Institutions (Public charitable trusts and societies registered under the Societies Registration Act running educational and medical institutions on a no profit basis), recognised service institutions and old age homes run by recognized service institutions.

#### **Rates**

For all the units consumed	: 400 paise per unit
<b>Minimum charges</b>	: 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 the 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**

#### **Temporary supply for Agriculture Purpose:**

#### **Rates**

For all the units consumed	: 230 paise per unit
Minimum charges	: 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) Estimated cost of works and estimated energy charges.**

These charges shall be paid in advance by the consumer in accordance with the procedure prescribed in clause VI of part C along with any other charges payable as specified therein.

**(ii) 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 under a separate connection and charged as such in accordance with the procedure prescribed in clause VI of part C.

**General conditions of L.T. Tariff**

The foregoing L.T. Tariffs are subject to the following conditions.

**1. Classification of Premises**

The Licensee shall have the right to classify or re-classify the supply of energy to any premises under an appropriate category of L.T. Tariff.

**2. The connected load of the consumer shall not exceed his contracted load except in case of LT category III(A) optional and III(B) and if the connected load of the consumer is found to be in excess of his contracted load, the provisions of General Terms and Conditions of supply separately notified shall be applied.**

**3. Additional Charges for belated payment of Bills:**

- (a). The C.C. bills shall be paid by the consumers within the due date mentioned in the bill, i.e. 15 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 Seven (7) Paise per One hundred rupees per day of delay calculated from due date mentioned in the bill up to the date of payment.
- (c). If the C.C. bills amount is not paid within 15 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. Fuel Surcharge Adjustment (FSA) is applicable to all categories except agriculture. FSA is applicable as notified by the Commission from time to time as per the regulations made by the Commission in this behalf.

5. The Tariffs are exclusive of Electricity duty payable as per the provisions of AP Electricity Duty Act.

6. 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 4 ( four) Rural Electric Co-operatives viz., Anakapally, Chepurupally, Siricilla, Kuppam,.

#### 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 connection wires for L.T. Category- V Irrigation and Agricultural purposes shall be laid collecting an amount of Rs.25/- per H.P. of contracted load towards service connection charges.

## II. RECONNECTIONS

(a) Low Tension Services.

- i). Overhead Services : Rs. 50/-
- ii). U.G. Services : Rs. 100/-

(a) High Tension Services.

- i). 11 kV : Rs. 300/-
- ii). 33 kV : Rs. 500/-
- iii). 132/220 kV : Rs. 1000/-

## III. TESTING

	L.T	H.T
(a) Installations:		
(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:		
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
- 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 : Rs. 20/- at the request of the consumer.

This does not include the additional charges payable by the consumer for increasing his connected load in excess of the contracted load, as provided in General Terms and conditions of supply.

(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 : Rs.100/-

(The aforesaid charges do not include the additional charges payable by the consumer for breaking the seals)

	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 kV	:	Rs.1500/- per month
(h) Urgency charges for temporary supply at short notice	:	Rs. 100/-
(i) Special rates chargeable for pilferage:	:	As per the General Terms & Conditions of Supply (GTCS) approved by the Commission from time to time.
(j) Supervision / Inspection & checking charges		
i) For LT Agricultural and Domestic	:	Rs. 50/-
ii) For all other LT categories	:	Rs. 150/-
iii) For HT Services	:	Rs.300/-

#### 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 specified in clause V(h) above.
- (2) Estimated cost of the works means the cost of 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 as mentioned in para (2) above shall be paid by the consumer in advance. After the works are dismantled and retrievable materials returned to stores, 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 addition to the aforesaid charges payable by 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. These charges will be claimed along with the consumption bills.

(4) (a) The consumer requiring supply on temporary basis shall be required to deposit in advance, in addition to the estimated cost of works mentioned in 3(a), the estimated consumption charges at the rate stipulated in Tariff Order for Temporary supply, and worked out on the basis for use of electricity by the consumer for 6 hours per day for a period of 2 months in case the supply is required for more than 10 days. If the period of temporary supply is for 10 days or less, the advance consumption charges for the actual period requisitioned shall be paid.

(b) The Bill for electricity consumed in any month shall be prepared at the tariff applicable plus hire charges as mentioned in 3(b) above. 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.

(c) 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.

(d) 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.

## 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 AND CAPACITOR SURCHARGE**

- (1). Every H.T. Agricultural Consumer and every LT consumer using induction motors and/or welding transformers shall install L.T. Shunt capacitors of the rating specified by the Licensees in the General Terms and Conditions of supply approved by the Commission from time to time. In case the rated capacity of the induction motor or welding transformer falls in between the steps of the stipulated ratings, the capacitors suitable for the next higher step shall be installed by the consumer.
- (2). New connections under HT Category IV(A),(B), LT Category III(A),(B), LT Category IV and LT Category V shall not be given unless the capacitors of required ratings are installed.
- (3). 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, apart from disconnection of supply as provided in the Terms & Conditions of Supply.
- (4). If during inspection, no capacitor is found, or the capacitors already installed are found to be damaged or having defect or ceased to function, such consumer shall be liable to pay surcharge @ 25% of the monthly bill amount, as per the terms and conditions of supply notified by the licensee.
- (5). The LT category III(A) consumers who are provided with metering capable of measuring active and reactive power under the orders of the Commission, shall be required to pay low power factor surcharge as per the rates applicable for HT consumers for the power factor obtaining during the month subject to the ceiling of the level of capacitor surcharge mentioned in item 4 herein.
- (6). Low Power factor surcharge is to be levied for the consumers falling under LT Category III(A)(ii) - Industrial (Optional) and LT III (B) Industrial categories as applicable to HT consumers.

## ANNEXURE - E(i)

### REVENUE REQUIREMENT FOR DISTRIBUTION BUSINESS: FY 2007-09 CPDCL

[Please see Chapter-XI]

**(A). RATE BASE & RoCE:**

		2006-07		2007-08		2008-09	
		Licensee	APERC	Licensee	APERC	Licensee	APERC
1.0	Assets (1.1+1.2)	3710.90	3598.93	4275.84	4018.55	4777.49	4440.55
1.1	OCFA Opening Balance	3194.40	3179.48	3710.90	3649.73	4275.84	4121.83
1.2	Additions to OCFA	516.50	419.44	564.94	368.81	501.65	318.72
2.0	Depreciation (2.1+2.2)	1491.51	1462.11	1634.66	1614.58	1768.78	1786.43
2.1	Opening Balance	1340.27	1331.21	1491.51	1462.11	1634.66	1614.58
2.2	Depreciation during the Year	151.24	130.90	143.15	152.47	134.12	171.85
3.0	Consumer Contributions (3.1+3.2)	814.06	814.06	989.56	989.56	1119.93	1119.93
3.1	Cons. Contributions Opening Balance	646.57	646.57	814.06	814.06	989.56	989.56
3.2	Additions to Cons. Contributions	167.49	167.49	175.49	175.49	130.37	130.37
4.0	Working Capital	31.53	30.94	32.55	32.49	33.83	33.91
5.0	Change in Rate Base ((1.2-2.2-3.2)/2)	98.88	60.53	123.15	20.42	118.58	8.25
6.0	Regulated Rate Base (1.1-2.1-3.1+4+5)	1337.98	1293.16	1561.03	1426.47	1804.03	1559.85
7.0	Capital Structure						
7.1	Debt (percent)	70.00	75.00	70.00	75.00	70.00	75.00
7.2	Equity (percent)	30.00	25.00	30.00	25.00	30.00	25.00
8.0	Cost of Funds						
8.1	Cost of Debt (percent)	10.00	9.00	10.00	9.00	10.00	9.00
8.2	Return on Equity (percent)	16.00	14.00	16.00	14.00	16.00	14.00
9.0	Cost of Capital (percent) ((7.1 X 8.1)+(7.2 X 8.2))	11.80	10.25	11.80	10.25	11.80	10.25
10.0	Return on Capital Employed (Rs. Crores) (6X9)	157.88	132.55	184.20	146.21	212.88	159.88

**(B). ARR FOR FY: 2007-2009 - CPDCL:**

		2006-07		2007-08		2008-09	
		Licensee	APERC	Licensee	APERC	Licensee	APERC
1	SLDC Charges	23.47	0.00	25.43	0.00	27.23	0.00
2	Operation and Maintenance Charges	406.44	398.77	437.87	419.61	487.09	437.64
3	Depreciation	66.51	130.90	79.67	152.47	94.34	171.85
4	Advance Against Depreciation	84.73	0.00	63.48	0.00	39.78	0.00
5	Taxes on Income	0.00	0.00	0.00	0.00	0.00	0.00
6	Other Expenditure	6.64	4.47	2.17	0.00	2.17	0.00
7	Special Appropriations - Safety measures	0.00	5.00	0.00	5.00	0.00	5.00
8	Total Expenditure	587.79	539.14	608.62	577.08	650.61	614.49
9	Less : IDC Capitalised	29.35	0.00	0.00	0.00	0.00	0.00
10	O&M Expenses Capitalised	28.03	27.50	31.07	29.77	34.21	30.74
11	Net Expenditure (8-9-10)	530.41	511.64	577.55	547.31	616.40	583.75
12	Add : Return on Capital Employed	126.00	132.55	184.20	146.21	212.88	159.88
13	<b>Total ARR (11+12)</b>	<b>656.41</b>	<b>644.18</b>	<b>761.75</b>	<b>693.52</b>	<b>829.28</b>	<b>743.63</b>
14	Less : Wheeling Revenue from Third Party / OA	36.23	6.27	0.00	6.35	0.00	6.32
15	Revenue Requirement, Net transferred to RSB (13-14)	620.18	637.91	761.75	687.17	829.28	737.31

## ANNEXURE - E(ii)

### REVENUE REQUIREMENT FOR DISTRIBUTION BUSINESS: FY 2007-09 EPDCL

[Please see Chapter-XII]

**(A). RATE BASE & RoCE:**

		2006-07		2007-08		2008-09	
		Licensee	APERC	Licensee	APERC	Licensee	APERC
1.0	Assets (1.1+1.2)	1956.39	1783.88	2296.12	2024.14	2573.73	2265.78
1.1	OCFA Opening Balance	1645.05	1563.81	1956.39	1783.88	2296.12	2024.14
1.2	Additions to OCFA	311.34	220.06	339.73	240.27	277.61	241.64
2.0	Depreciation (2.1+2.2)	755.64	741.38	832.45	847.06	896.53	966.01
2.1	Opening Balance	666.80	647.87	755.64	741.38	832.45	847.06
2.2	Depreciation during the Year	88.84	93.51	76.81	105.68	64.08	118.95
3.0	Consumer Contributions (3.1+3.2)	478.41	478.41	575.41	575.41	689.81	689.81
3.1	Cons. Contributions Opening Balance	371.41	371.41	478.41	478.41	575.41	575.41
3.2	Additions to Cons. Contributions	107.00	107.00	97.00	97.00	114.40	114.40
4.0	Working Capital	19.37	15.87	20.82	15.77	22.60	16.49
5.0	Change in Rate Base ((1.2-2.2-3.2)/2)	57.75	9.78	82.96	18.79	49.57	4.15
6.0	Regulated Rate Base (1.1-2.1-3.1+4+5)	683.95	570.18	826.12	598.65	960.42	622.31
7.0	Capital Structure						
7.1	Debt (percent)	70.00	75.00	70.00	75.00	70.00	75.00
7.2	Equity (percent)	30.00	25.00	30.00	25.00	30.00	25.00
8.0	Cost of Funds						
8.1	Cost of Debt (percent)	10.00	9.00	10.00	9.00	10.00	9.00
8.2	Return on Equity (percent)	16.00	14.00	16.00	14.00	16.00	14.00
9.0	Cost of Capital (percent) ((7.1 X 8.1)+(7.2 X 8.2))	11.80	10.25	11.80	10.25	11.80	10.25
10.0	Return on Capital Employed (Rs. Crores) (6X9)	80.71	58.44	97.48	61.36	113.33	63.79

**(B). ARR FOR FY: 2007-2009 - EPDCL:**

		2006-07		2007-08		2008-09	
		Licensee	APERC	Licensee	APERC	Licensee	APERC
1	SLDC Charges	9.02	0.00	9.77	0.00	10.46	0.00
2	Operation and Maintenance Charges	232.43	215.98	252.54	214.68	270.34	223.97
3	Depreciation	46.19	93.51	53.54	105.68	62.28	118.95
4	Advance Against Depreciation	42.65	0.00	23.27	0.00	1.80	0.00
5	Taxes on Income	0.00	0.00	0.00	0.00	0.00	0.00
6	Other Expenditure	1.93	1.93	1.80	1.80	0.67	0.67
7	Special Appropriations - Safety measures	0.00	5.00	0.00	5.00	0.00	5.00
8	Total Expenditure	332.22	316.42	340.92	327.16	345.55	348.59
9	Less : IDC Capitalised	23.04	0.00	0.00	0.00	0.00	0.00
10	O&M Expenses Capitalised	27.46	25.52	29.06	25.42	31.09	26.08
11	Net Expenditure (8-9-10)	281.72	290.90	311.86	301.74	314.46	322.51
12	Add : Return on Capital Employed	62.23	58.44	97.48	61.36	113.33	63.79
13	<b>Total ARR (11+12)</b>	<b>343.95</b>	<b>349.35</b>	<b>409.34</b>	<b>363.11</b>	<b>427.79</b>	<b>386.30</b>
14	Less : Wheeling Revenue from Third Party / OA	0.00	0.10	0.00	0.10	0.00	0.10
15	Revenue Requirement, Net transferred to RSB (13-14)	343.95	349.25	409.34	363.01	427.79	386.20

## ANNEXURE - E(iii)

### REVENUE REQUIREMENT FOR DISTRIBUTION BUSINESS: FY 2007-09 NPDCL

[Please see Chapter-XIII]

**(A). RATE BASE & RoCE:**

		2006-07		2007-08		2008-09	
		Licensee	APERC	Licensee	APERC	Licensee	APERC
1.0	Assets (1.1+1.2)	2021.73	1882.12	2378.16	2125.33	2722.58	2345.65
1.1	OCFA Opening Balance	1753.67	1643.57	2021.74	1882.12	2378.16	2125.33
1.2	Additions to OCFA	268.06	238.55	356.42	243.21	344.42	220.32
2.0	Depreciation (2.1+2.2)	787.75	760.05	883.80	811.30	983.84	909.40
2.1	Opening Balance	680.96	677.67	787.75	721.03	883.80	811.30
2.2	Depreciation during the Year	106.79	82.38	96.05	90.27	100.04	98.10
3.0	Consumer Contributions (3.1+3.2)	352.63	352.63	458.31	458.31	499.69	499.68
3.1	Cons. Contributions Opening Balance	255.71	255.71	352.63	352.63	458.32	458.31
3.2	Additions to Cons. Contributions	96.92	96.92	105.68	105.68	41.37	41.37
4.0	Working Capital	18.90	16.39	20.64	16.74	22.15	17.56
5.0	Change in Rate Base ((1.2-2.2-3.2)/2)	32.18	29.62	77.35	23.63	101.51	40.42
6.0	Regulated Rate Base (1.1-2.1-3.1+4+5)	868.08	756.21	979.34	848.83	1159.69	913.71
7.0	Capital Structure						
7.1	Debt (percent)	70.00	75.00	70.00	75.00	70.00	75.00
7.2	Equity (percent)	30.00	25.00	30.00	25.00	30.00	25.00
8.0	Cost of Funds						
8.1	Cost of Debt (percent)	10.00	9.00	10.00	9.00	10.00	9.00
8.2	Return on Equity (percent)	16.00	14.00	16.00	14.00	16.00	14.00
9.0	Cost of Capital (percent) ((7.1 X 8.1)+(7.2 X 8.2))	11.80	10.25	11.80	10.25	11.80	10.25
10.0	Return on Capital Employed (Rs. Crores) (6X9)	102.43	77.51	115.56	87.01	136.84	93.66

**(B). ARR FOR FY: 2007-2009 - NPDCL:**

		2006-07		2007-08		2008-09	
		Licensee	APERC	Licensee	APERC	Licensee	APERC
1	SLDC Charges	9.14	0.00	9.90	0.00	10.60	0.00
2	Operation and Maintenance Charges	226.81	215.82	247.67	220.15	265.74	229.98
3	Depreciation	42.10	82.38	46.73	90.27	53.56	98.10
4	Advance Against Depreciation	64.69	0.00	49.32	0.00	46.48	0.00
5	Taxes on Income	0.00	0.00	0.00	0.00	0.00	0.00
6	Other Expenditure	8.07	3.45	6.60	0.00	4.04	0.00
7	Special Appropriations - Safety measures	0.00	5.00	0.00	5.00	0.00	5.00
8	Total Expenditure	350.81	306.65	360.22	315.42	380.42	333.08
9	Less : IDC Capitalised	20.69	0.00	0.00	0.00	0.00	0.00
10	O&M Expenses Capitalised	20.08	19.11	21.56	19.22	22.51	19.20
11	Net Expenditure (8-9-10)	310.04	287.55	338.66	296.21	357.91	313.88
12	Add : Return on Capital Employed	81.88	77.51	115.56	87.01	136.84	93.66
13	<b>Total ARR (11+12)</b>	391.90	365.06	454.22	383.21	494.75	407.53
14	Less : Wheeling Revenue from Third Party / OA	0.00	0.00	0.00	0.00	0.00	0.00
15	Revenue Requirement, Net transferred to RSB (13-14)	391.90	365.06	454.22	383.21	494.75	407.53

## ANNEXURE - E(iv)

### REVENUE REQUIREMENT FOR DISTRIBUTION BUSINESS: FY 2007-09 SPDCL

[Please see Chapter XIV]

**(A). RATE BASE & RoCE:**

		2006-07		2007-08		2008-09	
		Licensee	APERC	Licensee	APERC	Licensee	APERC
1.0	Assets (1.1+1.2)	2597.96	2440.02	3066.84	2734.02	3501.97	3032.70
1.1	OCFA Opening Balance	2150.79	2150.79	2597.96	2440.02	3066.84	2734.02
1.2	Additions to OCFA	447.17	289.23	468.88	294.00	435.13	298.68
2.0	Depreciation (2.1+2.2)	1153.80	1056.56	1364.75	1171.97	1621.79	1296.56
2.1	Opening Balance	976.91	950.04	1153.80	1056.56	1364.75	1171.97
2.2	Depreciation during the Year	176.89	106.52	210.95	115.41	257.04	124.59
3.0	Consumer Contributions (3.1+3.2)	737.99	737.99	920.99	920.99	1118.99	1118.99
3.1	Cons. Contributions Opening Balance	552.99	552.99	737.99	737.99	920.99	920.99
3.2	Additions to Cons. Contributions	185.00	185.00	183.00	183.00	198.00	198.00
4.0	Working Capital	26.65	22.89	29.83	23.56	32.63	24.69
5.0	Change in Rate Base ((1.2-2.2-3.2)/2)	42.64	-1.14	37.47	-2.21	-9.96	-11.95
6.0	Regulated Rate Base (1.1-2.1-3.1+4+5)	690.17	669.50	773.46	666.82	803.77	653.79
7.0	Capital Structure						
7.1	Debt (percent)	70.00	75.00	70.00	75.00	70.00	75.00
7.2	Equity (percent)	30.00	25.00	30.00	25.00	30.00	25.00
8.0	Cost of Funds						
8.1	Cost of Debt (percent)	10.00	9.00	10.00	9.00	10.00	9.00
8.2	Return on Equity (percent)	16.00	14.00	16.00	14.00	16.00	14.00
9.0	Cost of Capital (percent) ((7.1 X 8.1)+(7.2 X 8.2))	11.80	10.25	11.80	10.25	11.80	10.25
10.0	Return on Capital Employed (Rs. Crores) (6X9)	81.44	68.62	91.27	68.35	94.85	67.01

**(B). ARR FOR FY: 2007-2009 - SPDCL:**

		2006-07		2007-08		2008-09	
		Licensee	APERC	Licensee	APERC	Licensee	APERC
1	SLDC Charges	12.36	0.00	13.39	0.00	14.34	0.00
2	Operation and Maintenance Charges	319.74	312.00	357.97	320.50	391.56	334.70
3	Depreciation	48.23	106.52	57.79	115.41	68.21	124.59
4	Advance Against Depreciation	128.66	0.00	153.16	0.00	188.83	0.00
5	Taxes on Income	0.00	0.00	0.00	0.00	0.00	0.00
6	Other Expenditure	5.50	0.00	7.66	0.00	8.39	0.00
7	Special Appropriations - Safety measures	0.00	5.00	0.00	5.00	0.00	5.00
8	Total Expenditure	514.49	423.52	589.97	440.91	671.33	464.29
9	Less : IDC Capitalised	34.58	0.00	0.00	0.00	0.00	0.00
10	O&M Expenses Capitalised	38.29	37.36	42.49	37.75	46.07	38.47
11	Net Expenditure (8-9-10)	441.62	386.16	547.48	403.16	625.26	425.81
12	Add : Return on Capital Employed	116.46	68.62	91.27	68.35	94.85	67.01
13	<b>Total ARR (11+12)</b>	<b>558.09</b>	<b>454.78</b>	<b>638.75</b>	<b>471.51</b>	<b>720.11</b>	<b>492.83</b>
14	Less : Wheeling Revenue from Third Party / OA	0.00	1.81	0.00	1.77	0.00	1.73
15	Revenue Requirement, Net transferred to RSB (13-14)	558.09	452.97	638.75	469.74	720.11	491.10

## ANNEXURE - F(i)

### STATION-WISE AND MONTH-WISE AVAILABILITY OF ENERGY (Reference: Paragraph 255 of the Order)

	Energy Available (in MUs)													Total 2006-07
	Rs/kWh	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	
NCE - NCL Energy Ltd	1.78	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	20.28
NPC-MAPS	2.03	18.88	19.44	18.88	16.31	14.78	18.88	19.44	18.88	19.44	19.44	14.46	19.44	218.24
NCE - Mini Hydel	2.20	9.68	9.39	9.68	9.39	9.68	9.68	9.39	9.68	9.39	12.13	12.13	11.73	121.95
NCE - Bagasse	2.71	41.89	40.54	41.89	40.54	41.89	41.89	40.54	41.89	40.54	55.30	55.30	49.95	532.16
NCE - Bio-Mass	2.87	101.15	97.89	101.15	97.89	101.15	101.15	97.89	101.15	97.89	107.65	107.65	97.23	1209.84
NCE - Industrial Waste based power project	2.96	7.85	7.60	7.85	7.60	7.85	7.85	7.60	7.85	7.60	12.73	12.73	11.50	106.61
NCE - Wind Power	3.31	2.83	2.74	2.83	2.74	2.83	2.83	2.74	2.83	2.74	2.83	2.83	2.56	33.33
NCE - Municipal Waste to Energy	3.59	5.97	5.78	5.97	5.78	5.97	5.97	5.78	5.97	5.78	5.97	5.97	5.39	70.30
MACHKUND PH AP Share	0.00	35.00	30.00	25.00	30.00	30.00	35.00	36.00	34.00	32.00	32.00	31.00	50.00	400.00
TUNGBHADRA PH AP Share	0.00	2.00	0.00	0.00	9.00	22.00	18.00	19.00	15.00	13.00	13.00	9.00	8.00	128.00
Upper Sileru	0.00	33.00	27.00	26.00	35.00	41.00	35.00	32.00	30.00	36.00	41.00	44.00	47.00	427.00
Lower Sileru	0.00	140.00	135.00	119.00	84.00	92.00	92.00	98.50	103.00	90.00	101.00	102.00	144.50	1301.00
DONKARAYI	0.00	7.00	4.00	4.00	4.00	7.00	9.00	9.00	8.00	8.00	9.00	9.00	9.00	87.00
Srisailam Right Bank	0.00	90.43	64.75	64.73	111.75	280.14	262.95	224.01	147.56	111.15	105.78	124.89	157.44	1745.58
N'Sagar PH	0.00	131.00	81.00	79.00	150.00	273.00	292.00	223.00	158.00	127.00	117.00	130.00	260.00	2021.00
NSRCPH	0.00	1.00	0.00	0.00	1.00	11.00	23.00	28.00	29.00	21.00	13.00	8.00	3.00	138.00
NSLCPH	0.00	0.00	0.00	0.00	0.00	5.00	11.00	15.00	13.00	10.00	5.00	1.00	0.00	60.00
POCHAMPAD PH	0.00	1.00	0.00	0.00	2.00	10.00	13.00	15.00	13.00	10.00	8.00	6.00	5.00	83.00
NIZAMSAGAR PH	0.00	1.00	0.00	0.00	0.00	0.00	1.00	2.00	1.00	0.00	1.00	1.00	1.00	8.00
PABR /PABM	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	2.00	1.00	1.00	0.00	0.00	7.00
Mini Hydro & Others	0.00	0.00	0.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	12.00

	Rs/kWh	Energy Available (in MUs)												Total 2006-07
		Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	
SINGUR	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.50	0.50	0.00	0.00	5.00
Talcher - Stage 1	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Talcher - Stage 2	0.80	259.12	267.23	205.00	267.23	241.43	231.23	267.65	259.32	213.74	267.65	242.67	213.74	2936.02
KTPS V	0.91	309.51	319.83	309.51	242.45	319.83	309.51	319.83	309.51	242.45	319.83	288.88	319.83	3610.95
RTS-B	0.91	38.90	40.20	0.00	0.00	40.20	38.90	40.20	38.90	40.20	40.20	36.31	40.20	394.24
GVK - Extension	0.92	0.00	0.00	0.00	79.38	79.38	33.73	33.73	33.73	33.73	33.73	33.73	33.73	394.86
Vemagiri	0.92	0.00	0.00	0.00	118.35	118.35	50.29	50.29	50.29	50.29	50.29	50.29	50.29	588.71
Gautami	0.92	0.00	0.00	0.00	0.00	0.00	60.10	60.10	60.10	60.10	60.10	60.10	60.10	420.69
Kahalgaon	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Konaseema	0.96	0.00	0.00	0.00	0.00	0.00	49.06	49.06	49.06	49.06	49.06	49.06	49.06	343.42
NTPC (SR) Stage III	0.97	98.67	101.88	14.46	101.88	101.24	98.67	101.88	98.67	101.88	101.88	91.92	101.88	1114.94
NTPC-SR(Ramagundam)	1.00	415.70	429.57	415.70	378.94	330.56	321.86	324.76	367.65	399.90	429.57	387.97	429.57	4631.75
NTPC- Simhadri	1.02	653.98	676.18	653.98	405.15	501.35	543.90	676.18	653.98	675.25	675.25	609.58	675.25	7400.00
Spectrum	1.03	114.51	117.51	114.99	120.38	120.99	117.84	122.90	119.84	124.50	117.96	109.57	45.29	1346.29
KTPS -A	1.04	148.24	153.18	148.24	153.18	116.13	129.71	116.13	148.24	134.66	153.18	138.34	153.18	1692.40
KTPS -B	1.04	148.24	153.18	148.24	153.18	153.18	111.18	116.13	153.18	153.18	153.18	138.36	153.18	1734.43
KTPS -C	1.04	148.24	153.18	148.24	153.18	116.13	111.18	153.18	153.18	153.18	153.18	138.36	153.18	1734.43
GVK	1.04	111.00	117.29	113.10	117.29	117.29	102.63	117.29	113.10	117.29	115.19	105.77	117.29	1364.50
APGCL Station - II	1.07	23.41	24.13	23.41	24.13	24.13	23.41	24.13	23.41	24.13	16.41	21.72	24.13	276.57
BSES(Reliance)	1.07	77.70	80.29	80.29	69.93	80.29	77.70	80.29	77.70	80.29	80.29	72.51	80.29	937.52
NLC TPS-II Stage - I	1.14	54.82	57.09	50.59	47.87	39.27	51.20	40.02	38.66	55.27	57.09	51.20	57.09	600.15
NLC TPS-II Stage - II	1.14	96.85	98.70	80.85	93.78	94.60	85.77	89.06	84.34	73.26	98.70	91.11	100.14	1087.15
Farakka	1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSLM LCPH (Left Bank)	1.16	60.29	43.16	43.16	74.50	186.76	175.30	149.34	98.37	74.10	70.52	83.26	104.96	1163.72
RTPP Stage-II	1.18	0.00	0.00	0.00	0.00	56.25	54.45	84.37	149.71	154.68	196.87	190.50	210.93	1097.76
Kondapalli (Gas)	1.24	213.94	221.07	192.50	152.84	221.07	210.40	217.48	213.94	217.53	121.23	99.84	221.07	2302.92
VTPS - I	1.24	260.71	269.40	260.71	269.40	269.40	65.18	134.70	199.88	269.40	269.40	243.32	269.40	2780.89

	Rs/kWh	Energy Available (in MUs)													Total 2006-07
		Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07		
VTPS - II	1.24	260.71	269.40	260.71	269.40	204.22	260.71	269.40	195.53	182.50	269.40	243.32	269.40	2954.69	
VTPS - III	1.24	260.71	269.40	265.05	269.40	269.40	260.71	269.40	130.35	269.40	269.40	243.32	269.40	3045.94	
Srivathsa	1.37	10.54	10.54	10.54	9.58	9.10	7.67	7.67	9.58	9.58	8.91	8.15	8.15	110.00	
RTPP	1.49	259.99	268.66	259.99	203.66	268.66	259.99	203.66	259.99	268.66	268.66	242.65	268.66	3033.22	
RCL & Short-Term Sources	1.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
APGPCL Station - I	1.58	8.69	9.00	8.69	9.00	9.00	8.69	9.00	8.69	9.00	9.31	8.07	9.00	106.16	
Bi-lateral Purchases(PTC etc.)	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
LVS	4.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
		<b>4665.82</b>	<b>4676.90</b>	<b>4316.60</b>	<b>4393.78</b>	<b>5048.19</b>	<b>4836.82</b>	<b>5018.39</b>	<b>4844.38</b>	<b>4882.94</b>	<b>5122.47</b>	<b>4759.49</b>	<b>5373.83</b>	<b>57939.60</b>	

## ANNEXURE - F(ii)

### STATION-WISE AND MONTH-WISE DESPATCH OF ENERGY (Reference: Paragraph 263 of the Order)

	Energy Despatch ( MU)													Total 2006-07
	Rs/kWh	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	
NCE - NCL Energy Ltd	1.78	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	20.28
NPC-MAPS	2.03	18.88	19.44	18.88	16.31	14.78	18.88	19.44	18.88	19.44	19.44	14.46	19.44	218.24
NCE - Mini Hydel	2.20	9.68	9.39	9.68	9.39	9.68	9.68	9.39	9.68	9.39	12.13	12.13	11.73	121.95
NCE - Bagasse	2.71	41.89	40.54	41.89	40.54	41.89	41.89	40.54	41.89	40.54	55.30	55.30	49.95	532.16
NCE - Bio-Mass	2.87	101.15	97.89	101.15	97.89	101.15	101.15	97.89	101.15	97.89	107.65	107.65	97.23	1209.84
NCE - Industrial Waste based power project	2.96	7.85	7.60	7.85	7.60	7.85	7.85	7.60	7.85	7.60	12.73	12.73	11.50	106.61
NCE - Wind Power	3.31	2.83	2.74	2.83	2.74	2.83	2.83	2.74	2.83	2.74	2.83	2.83	2.56	33.33
NCE - Municipal Waste to Energy	3.59	5.97	5.78	5.97	5.78	5.97	5.97	5.78	5.97	5.78	5.97	5.97	5.39	70.30
	189.94	185.07	189.94	181.94	185.84	189.94	185.07	189.94	185.07	217.74	212.76	199.49	2312.71	
MACHKUND PH AP Share	0.00	35.00	30.00	25.00	30.00	30.00	35.00	36.00	34.00	32.00	32.00	31.00	50.00	400.00
TUNGBHADRA PH AP Share	0.00	2.00	0.00	0.00	9.00	22.00	18.00	19.00	15.00	13.00	13.00	9.00	8.00	128.00
USL	0.00	33.00	27.00	26.00	35.00	41.00	35.00	32.00	30.00	36.00	41.00	44.00	47.00	427.00
LSR	0.00	140.00	135.00	119.00	84.00	92.00	92.00	98.50	103.00	90.00	101.00	102.00	144.50	1301.00
DONKARAYI	0.00	7.00	4.00	4.00	4.00	7.00	9.00	9.00	8.00	8.00	9.00	9.00	9.00	87.00
SSRB PH	0.00	90.43	64.75	64.73	111.75	280.14	262.95	224.01	147.56	111.15	105.78	124.89	157.44	1745.58
NSPH	0.00	131.00	81.00	79.00	150.00	273.00	292.00	223.00	158.00	127.00	117.00	130.00	260.00	2021.00
NSRCPH	0.00	1.00	0.00	0.00	1.00	11.00	23.00	28.00	29.00	21.00	13.00	8.00	3.00	138.00
NSLCPH	0.00	0.00	0.00	0.00	0.00	5.00	11.00	15.00	13.00	10.00	5.00	1.00	0.00	60.00
POCHAMPAD PH	0.00	1.00	0.00	0.00	2.00	10.00	13.00	15.00	13.00	10.00	8.00	6.00	5.00	83.00
NIZAMSAGAR PH	0.00	1.00	0.00	0.00	0.00	0.00	1.00	2.00	1.00	0.00	1.00	1.00	1.00	8.00

	Energy Despatch ( MU)													Total
	Rs/kWh	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	2006-07
PABM	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	2.00	1.00	1.00	0.00	0.00	7.00
Mini Hydel	0.00	0.00	0.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	12.00
SINGUR	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.50	0.50	0.00	0.00	5.00
Talcher - Stage 1	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Talcher - Stage 2	0.80	259.12	267.23	205.00	267.23	241.43	231.23	267.65	259.32	213.74	267.65	242.67	213.74	2936.02
KTPS-D	0.91	309.51	319.83	309.51	242.45	319.83	309.51	319.83	309.51	242.45	319.83	288.88	319.83	3610.95
RTS-B	0.91	38.90	40.20	0.00	0.00	40.20	38.90	40.20	38.90	40.20	40.20	36.31	40.20	394.24
GVK - Extension	0.92	0.00	0.00	0.00	79.38	79.38	33.73	33.73	33.73	33.73	33.73	33.73	33.73	394.86
Vemagiri	0.92	0.00	0.00	0.00	118.35	118.35	50.29	50.29	50.29	50.29	50.29	50.29	50.29	588.71
Gautami	0.92	0.00	0.00	0.00	0.00	0.00	60.10	60.10	60.10	60.10	60.10	60.10	60.10	420.69
Kahalgaon	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Konaseema	0.96	0.00	0.00	0.00	0.00	0.00	49.06	49.06	49.06	49.06	49.06	49.06	49.06	343.42
NTPC (SR) Stage III	0.97	98.67	101.88	14.46	101.88	101.24	98.67	101.88	98.67	101.88	101.88	91.92	101.88	1114.94
NTPC-SR(Ramagundam)	1.00	415.70	429.57	415.70	378.94	330.56	321.86	324.76	367.65	399.90	429.57	387.97	429.57	4631.75
NTPC- Simhadri	1.02	653.98	676.18	653.98	405.15	501.35	543.90	676.18	653.98	675.25	675.25	609.58	675.25	7400.00
Spectrum	1.03	114.51	117.51	114.99	120.38	120.99	117.84	122.90	119.84	124.50	117.96	109.57	45.29	1346.29
KTPS - A	1.04	148.24	153.18	148.24	153.18	116.13	129.71	116.13	148.24	134.66	153.18	138.34	153.18	1692.40
KTPS - B	1.04	148.24	153.18	148.24	153.18	153.18	111.18	116.13	153.18	153.18	153.18	138.36	153.18	1734.43
KTPS - C	1.04	148.24	153.18	148.24	153.18	116.13	111.18	153.18	153.18	153.18	153.18	138.36	153.18	1734.43
GVK	1.04	111.00	117.29	113.10	117.29	117.29	102.63	117.29	113.10	117.29	115.19	105.77	117.29	1364.50
APGPCL II - Allocated capacity	1.07	23.41	24.13	23.41	24.13	24.13	23.41	24.13	23.41	24.13	16.41	21.72	24.13	276.57
BSES(Reliance)	1.07	77.70	80.29	80.29	69.93	80.29	77.70	80.29	77.70	80.29	80.29	72.51	80.29	937.52
NLC TPS-II Stage- I	1.14	54.82	57.09	50.59	47.87	39.27	51.20	40.02	38.66	55.27	57.09	51.20	57.09	600.15
NLC TPS-II Stage- II	1.14	96.85	98.70	80.85	93.78	94.60	85.77	89.06	84.34	73.26	98.70	91.11	100.14	1087.15
Farakka	1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSLB PH	1.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSLM LCPH	1.16	60.29	43.16	43.16	74.50	186.76	175.30	149.34	98.37	74.10	70.52	83.26	104.96	1163.72

	Energy Despatch ( MU)													Total
	Rs/kWh	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	2006-07
RTPP Stage -II	1.18	0.00	0.00	0.00	0.00	56.25	54.45	84.37	149.71	154.68	196.87	190.50	210.93	1097.76
Kondapalli (Gas)	1.24	213.94	221.07	192.50	152.84	221.07	210.40	217.48	213.94	217.53	121.23	99.84	221.07	2302.92
VTPS - I	1.24	260.71	269.40	260.71	269.40	269.40	65.18	134.70	199.88	269.40	269.40	243.32	269.40	2780.89
VTPS - II	1.24	260.71	269.40	260.71	269.40	204.22	260.71	269.40	195.53	182.50	269.40	243.32	269.40	2954.69
VTPS - III	1.24	260.71	207.41	265.05	269.40	125.18	212.12	269.40	105.55	213.09	92.88	243.32	237.08	2501.21
Srivathsa	1.37	10.54	0.00	10.54	9.58	0.00	0.00	7.67	0.00	0.00	0.00	1.15	0.00	39.48
RTPP	1.49	2.75	0.00	205.77	22.75	0.00	0.00	64.40	0.00	0.00	0.00	0.00	0.00	295.67
RCL & Short-Term Sources	1.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APGPCL I - Allocated capacity	1.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bi-lateral Purchases(PTC etc.)	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LVS	4.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		4399.89	4326.71	4253.69	4203.87	4617.21	4511.89	4870.13	4541.32	4539.38	4659.07	4501.78	5055.71	54480.64

**ANNEXURE - G**  
**POWER PURCHASE (IN MU) WITH VOLTAGE-WISE SALES (IN MU) AND VOLTAGE-WISE LOSS(%)**  
(With Filing losses adjusted for 11kV and below)  
(Reference Paragraph 259 of the Order)

**Losses at different Voltages (%)FY2007**

DISCOM	Voltage	FY2007
CPDCL	L.T.	12.44
	11kV	7.44
	33kV	4.21
	132kV	4.45

**Input after grossing up with losses at each level**

Voltage	Sales	LT	11kV	33kV	132kV
L.T.	12224.30	13961.0595	15083.25	15746.17	16479.51
11kV	2417.09		2611.38	2726.15	2853.12
33kV	2215.01			2312.36	2420.05
132kV	2228.42				2332.20
	19084.83		17694.63	20784.68	24084.87
Losses up to respective Voltage:			17.26%	18.90%	20.76%

EPDCL	L.T.	9.26
	11kV	5.06
	33kV	6.10
	132kV	4.45

Voltage	Sales	LT	11kV	33kV	132kV
L.T.	4419.09	4870.0595	5129.6182	5462.8522	5717.2708
11kV	932.88		982.59522	1046.4273	1095.162
33kV	388.16			413.3755	432.62742
132kV	1704.37				1783.7425
	7444.49		6112.2134	6922.65	9028.80
Losses up to respective Voltage:			12.44%	17.08%	17.55%

NPDCL	L.T.	11.11
	11kV	6.29
	33kV	5.45
	132kV	4.45

Voltage	Sales	LT	11kV	33kV	132kV
L.T.	5090.08	5726.2736	6110.6324	6462.8582	6763.8495
11kV	517.85		552.60524	584.45822	611.67788
33kV	233.42			246.87686	258.37452
132kV	1059.92				1109.2831
	6901.27		6663.2377	7294.19	8743.18
Losses up to respective Voltage:			15.84%	19.92%	21.07%

DISCOM	Voltage	FY2007	Voltage	Sales	LT	11kV	33kV	132kV
SPDCL	L.T.	9.58	L.T.	7593.97	8398.5480	8911.8718	9366.1291	9802.3329
	11kV	5.76	11kV	1164.36		1235.5274	1298.5049	1358.9795
	33kV	4.85	33kV	459.46			482.87979	505.3687
	132kV	4.45	132kV	914.50				957.09053
				10132.29		10147.399	11147.51	12623.77
	Losses up to respective Voltage:					13.69%	17.31%	19.74%

All Discoms

L.T.	29327.45	32955.9407	35235.38	37038.01	38762.96
11kV	5032.18		5382.11	5655.54	5918.94
33kV	3296.05			3455.49	3616.42
132kV	5907.21				6182.32
	43562.88		40617.48	46149.04	54480.63
Losses up to respective Voltage:			15.41%	18.40%	20.04%

**ANNEXURE - H(i)**  
**POWER PURCHASE FOR RETAIL SUPPLY BUSINESS: 2006-07**  
**APCPDCL**

Revised Power Purchase Costs for FY 2006-07 as filed by DISCOM  
(Reference: Para graph 282 of the Order)

Source	Power purchase (MU)	Fixed costs (Rs. Crores)	Variable costs (Rs. Crores)	Tax, incentives, Other charges (Rs. Crores)	Total cost (Rs. Crores)	Average cost (Rs/kWh)
APGenco	11537.98					
Thermal	8239.46					
Hydel	3298.52					
CGS-SR	4603.77	223.57	454.64	43.18	721.39	1.57
NTPC-Simhadri	3217.52	196.53	327.35	10.47	534.35	1.66
APGPCL-I&II	166.41	7.98	20.16	-	28.14	1.69
IPPs	3347.48	416.07	360.19	13.45	789.72	2.36
NCE & Others*	1337.96	-	262.79	-	262.79	1.96
<b>Total</b> Sale to other DISCOMs <b>Net Input</b>	<b>24211.13</b>	<b>1586.00</b>	<b>2416.85</b>	<b>67.10</b>	<b>4069.95</b>	<b>1.68</b>

\*Others include 901 MU purchase from other DISCOMs, which is equal to the sum of DISCOM-to-DISCOM sales by other three DISCOMs.

**Power Purchase Costs for FY 2006-07 as approved by APERC**

	Fixed Cost (Rs. Crores)	Variable Cost (Rs. Crores)	Incentive (Rs. Crores)	Income Tax & Others (Rs. Crores)	Total Cost (Rs. Crores)	Avg. Cost (Rs/kWh)
APGENCO	11471.31					
Thermal	8172.79					
Hydel	3298.52					
CGS	4603.77	223.13	454.64	3.85	39.34	720.96
NTPC-Simhadri	3217.52	196.53	327.35	9.97	0.49	534.34
APGPCL	120.25	7.98	12.87	-	-	20.85
IPPs	3347.48	416.07	360.26	13.45	-	789.79
OTHERS	436.77	-	123.27	-	13.35	136.62
<b>TOTAL</b>	<b>23197.11</b>	<b>1585.56</b>	<b>2251.16</b>	<b>27.27</b>	<b>53.18</b>	<b>1.69</b>
Total cost after D-to-D transfer of 887.77 MU deficit energy @ Rs.1.92142/kWh					<b>4087.75</b>	
Total cost after NCE cost adjustment for 489.39 MU deficit energy @ Rs.1.13642/kWh					<b>4143.36</b>	<b>1.72</b>

**ANNEXURE - H(ii)**  
**POWER PURCHASE FOR RETAIL SUPPLY BUSINESS: 2006-07**  
**APEPDCL**

Revised Power Purchase Costs for FY 2006-07 as filed by DISCOM  
(Reference: Para graph 282 of the Order)

Source	Power purchase (MU)	Fixed costs (Rs. Crores)	Variable costs (Rs. Crores)	Tax, incentives, Other charges (Rs. Crores)	Total cost (Rs. Crores)	Average cost (Rs/kWh)
APGenco	4431.56	284.93	380.90	-	665.83	1.50
Thermal	3164.65		358.42	-		
Hydel	1266.91		22.49	-		
CGS-SR	1768.24	85.87	174.62	16.59	277.07	1.57
NTPC-Simhadri	1235.80	75.48	125.73	4.02	205.23	1.66
APGPCL -I&II	63.92	3.07	7.74	-	10.81	1.69
IPPs	1285.72	159.81	138.35	5.17	303.32	2.36
NCE & Others	471.75	43.25	154.91		198.16	4.20
<b>Total</b>	<b>9256.99</b>	<b>652.41</b>	<b>982.26</b>	<b>25.77</b>	<b>1660.43</b>	<b>1.79</b>
Sale to other DISCOMs	208.03					
<b>Net Input</b>	<b>9048.96</b>					

Power Purchase Costs for FY 2006-07 as approved by APERC

	Fixed Cost (Rs. Crores)	Variable Cost (Rs. Crores)	Incentive (Rs. Crores)	Income Tax & Others (Rs. Crores)	Total Cost (Rs. Crores)	Avg. Cost (Rs/kWh)
APGENCO	4405.95					
Thermal	3139.04					
Hydel	1266.91					
CGS	1768.24	85.7	174.62	1.48	276.91	1.57
NTPC-Simhadri	1235.8	75.48	125.73	3.83	205.23	1.66
APGPCL	46.19	3.07	4.94	-	8.01	1.73
IPPs	1285.72	159.81	138.37	5.17	303.34	2.36
OTHERS	493.56	43.25	132.54	-	188.78	3.82
<b>TOTAL</b>	<b>9235.46</b>	<b>652.24</b>	<b>949.83</b>	<b>10.47</b>	<b>28.30</b>	<b>1640.83</b>
Total cost after D-to-D transfer of 206.65 MU surplus energy @ Rs.1.92142/kWh						<b>1601.13</b>
Total cost after NCE cost adjustment for 107.01 MU surplus energy @ Rs.1.13642/kWh						<b>1588.97</b>
						<b>1.76</b>

**ANNEXURE - H(iii)**  
**POWER PURCHASE FOR RETAIL SUPPLY BUSINESS: 2006-07**  
**APNPDC**

**Revised Power Purchase Costs for FY 2006-07 as filed by DISCOM**  
**(Reference: Paragraph 282 of the Order)**

Source	Power purchase (MU)	Fixed costs (Rs. Crores)	Variable costs (Rs. Crores)	Tax, incentives , Other charges (Rs. Crores)	Total cost (Rs. Crores)	Average cost (Rs/kWh)
APGENCO	4489.94	288.68	385.92	-	674.61	1.50
Thermal	3206.34		363.14	-	-	-
Hydel	1283.60		22.78	-	-	-
CGS-SR	1791.53	87.00	176.92	16.80	280.72	1.57
NTPC-Simhadri	1252.08	76.48	127.39	4.07	207.94	1.66
APGPCL-I&II	64.76	3.11	7.85	-	10.95	1.69
IPPs	1302.65	161.91	140.17	5.23	307.31	2.36
NCE & Others*	269.15	-	59.52	-	59.52	2.21
<b>Total</b>	<b>9170.12</b>	<b>617.18</b>	<b>897.77</b>	<b>26.11</b>	<b>1541.06</b>	<b>1.68</b>
Sale to other DISCOMs	408.34					
<b>Net Input</b>	<b>8761.78</b>					

**Power Purchase Costs for FY 2006-07 as approved by APERC**

	Fixed Cost (Rs. Crores)	Variable Cost (Rs. Crores)	Incentive (Rs. Crores)	Income Tax & Others (Rs. Crores)	Total Cost (Rs. Crores)	Avg. Cost (Rs/kWh)
APGENCO	4464.00					
Thermal	3180.40					
Hydel	1283.60					
CGS	1791.53	86.83	176.92	1.50	15.31	280.56
NTPC-Simhadri	1252.08	76.48	127.39	3.88	0.19	207.94
APGPCL	46.80	3.11	5.01	-	-	8.11
IPPs	1302.65	161.91	140.19	5.24	-	307.34
OTHERS	269.15	-	74.47	-	9.05	83.52
<b>TOTAL</b>	<b>9126.21</b>	<b>617.01</b>	<b>902.52</b>	<b>10.61</b>	<b>24.55</b>	<b>1.70</b>
Total cost after D-to-D transfer of 383.03 MU surplus energy @ Rs.1.92142/kWh						
Total cost after NCE cost adjustment for 66.70 MU deficit energy @ Rs.1.13642/kWh						
					<b>1481.10</b>	
					<b>1488.68</b>	<b>1.70</b>

**ANNEXURE - H(iv)**  
**POWER PURCHASE FOR RETAIL SUPPLY BUSINESS: 2006-07**  
**APSPDCL**

Revised Power Purchase Costs for FY 2006-07 as filed by DISCOM  
(Reference: Para graph 282 of the Order)

Source	Power purchase	Fixed costs	Variable costs	Tax, incentives, Other charges	Total cost	Average cost
	(MU)	(Rs. Crores)	(Rs. Crores)	(Rs. Crores)	(Rs. Crores)	(Rs/kWh )
APGenco	6076.81	390.71	522.32	-	913.03	1.50
Thermal	4339.55		491.48	-		
Hydel	1737.26		30.83	-		
CGS-SR	2424.71	117.75	239.45	22.74	379.94	1.57
NTPC-Simhadri	1694.60	103.51	172.41	5.51	281.43	1.66
APGPCL-I&II	87.64	4.20	10.62	-	14.82	1.69
IPPs	1763.05	219.14	189.71	7.08	415.93	2.36
NCE & Others	934.52	-	270.79	-	270.79	2.90
<b>Total</b> Sale to other DISCOMs <b>Net Input</b>	<b>12981.34</b> 284.90 <b>12696.44</b>	<b>835.31</b>	<b>1405.29</b>	<b>35.34</b>	<b>2275.94</b>	<b>1.75</b>

Power Purchase Costs for FY 2006-07 as approved by APERC

	Fixed Cost (Rs. Crores)	Variable Cost (Rs. Crores)	Incentive (Rs. Crores)	Income Tax & Others (Rs. Crores)	Total Cost (Rs. Crores)	Avg. Cost (Rs/kWh)
APGENCO	6041.70					
Thermal	4304.44					
Hydel	1737.26					
CGS	2424.71	117.52	239.45	2.03	20.72	379.72
NTPC-Simhadri	1694.60	103.51	172.41	5.25	0.26	281.43
APGPCL	63.33	4.20	6.78	-	-	10.98
IPPs	1763.05	219.14	189.74	7.09	-	415.96
OTHERS	934.51	-	264.84	-	25.18	290.02
<b>TOTAL</b>	<b>12921.9</b> <b>0</b>	<b>835.08</b>	<b>1385.55</b>	<b>14.36</b>	<b>46.16</b>	<b>2281.15</b>
Total cost after D-to-D transfer of 298.13 MU surplus energy @ Rs.1.92142/kWh						<b>2223.87</b>
Total cost after NCE cost adjustment for 449.12 MU surplus energy @ Rs.1.13642/kWh						<b>2172.83</b>
						<b>1.77</b>
						<b>1.72</b>

**ANNEXURE - I(i)**  
**CATEGORY-WISE MONTHLY SALES FOR FY 2006-07**  
**CPDCL**  
**(Reference: Paragraph 258 of the Order)**

VOLTAGE	CATEGORY	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Total 2006-07
<b>Total of LT Categories</b>		<b>1013.82</b>	<b>1001.21</b>	<b>970.51</b>	<b>927.01</b>	<b>1032.01</b>	<b>984.01</b>	<b>1145.02</b>	<b>1004.62</b>	<b>998.02</b>	<b>1028.02</b>	<b>975.02</b>	<b>1145.02</b>	<b>12224.30</b>
LT	Domestic	325.00	331.00	350.00	308.00	298.00	303.00	300.00	276.12	261.00	252.00	269.00	285.00	3558.12
LT	Non-Domestic	96.25	114.00	108.00	100.00	93.00	92.00	89.00	87.45	84.00	81.00	82.00	87.00	1113.70
LT	Industrial	82.26	89.00	82.00	83.00	83.00	79.00	79.00	75.20	77.00	87.00	90.00	88.00	994.46
LT	Cottage Industries	1.30	1.70	1.00	1.00	1.00	1.00	1.00	1.86	1.00	1.00	1.00	1.00	13.86
LT	Irrigation and Agril.	458.00	415.00	379.00	387.00	509.00	463.00	624.00	514.00	523.00	554.00	481.00	631.00	5938.00
LT	Street Lighting & PWS	46.02	46.02	46.02	44.01	44.01	42.01	47.02	46.34	48.02	49.02	48.02	49.02	555.51
LT	General Purpose	4.00	4.00	4.00	4.00	4.00	4.00	5.00	3.03	4.00	4.00	4.00	4.00	48.03
LT	Temporary Supply	1.00	0.50	0.50	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00	2.63
<b>Total of HT Categories at 11 kV</b>		<b>198.24</b>	<b>204.18</b>	<b>213.31</b>	<b>199.25</b>	<b>205.14</b>	<b>204.95</b>	<b>191.34</b>	<b>193.02</b>	<b>190.93</b>	<b>199.20</b>	<b>211.71</b>	<b>205.82</b>	<b>2417.09</b>
11 kV	Industry-General	143.14	146.70	157.02	151.68	159.16	157.38	144.56	147.16	148.12	155.60	164.14	156.67	1831.32
11 kV	Industry-Others	55.10	57.48	56.29	47.57	45.98	47.57	46.78	45.86	42.81	43.61	47.57	49.16	585.78
11 kV	Rural Electric Co-operatives													0.00
11 kV	Temporary Supply													0.00
<b>Total of HT Categories at 33 kV</b>		<b>177.93</b>	<b>171.10</b>	<b>189.05</b>	<b>171.43</b>	<b>194.44</b>	<b>195.59</b>	<b>184.45</b>	<b>184.48</b>	<b>182.63</b>	<b>188.27</b>	<b>188.82</b>	<b>186.81</b>	<b>2215.01</b>
33kV	Industry-General	141.91	145.44	155.68	150.38	157.80	156.03	143.32	145.90	146.85	154.27	162.74	155.33	1815.66
33kV	Seasonal Industries	0.41	0.42	0.45	0.43	0.46	0.45	0.41	0.42	0.42	0.45	0.47	0.45	5.24
33kV	Industry-Others	14.61	15.24	14.92	12.61	12.19	12.61	12.40	12.16	11.35	11.56	12.61	13.03	155.29
33kV	Govt. Lift Irrigation Schmes	18.36	8.74	15.74	6.99	20.98	23.17	24.75	22.73	20.98	19.23	11.37	15.74	208.78
33kV	Agriculture	2.64	1.26	2.26	1.01	3.02	3.33	3.56	3.27	3.02	2.77	1.63	2.26	30.03

VOLTAGE	CATEGORY	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Total 2006-07
<b>Total of HT Categories at 132 kV and above</b>		<b>177.73</b>	<b>179.96</b>	<b>189.54</b>	<b>184.06</b>	<b>192.85</b>	<b>190.38</b>	<b>176.83</b>	<b>180.63</b>	<b>181.95</b>	<b>190.22</b>	<b>196.45</b>	<b>187.82</b>	<b>2228.42</b>
132 kV & above	Industry-General	128.23	131.42	140.67	135.89	142.58	140.99	129.51	131.84	132.70	139.39	147.05	140.35	<b>1640.61</b>
132 kV & above	Ferro Alloys	24.27	23.94	24.11	24.20	25.97	25.11	24.78	26.12	25.75	26.86	24.75	24.14	<b>300.00</b>
132 kV & above	Lights and Fans	5.71	5.85	6.27	6.05	6.35	6.28	5.77	5.87	5.91	6.21	6.55	6.25	<b>73.09</b>
132 kV & above	Colony Supply	2.12	2.17	2.32	2.24	2.35	2.33	2.14	2.18	2.19	2.30	2.43	2.32	<b>27.08</b>
132 kV & above	Industry-Others	3.10	3.23	3.16	2.67	2.59	2.67	2.63	2.58	2.41	2.45	2.67	2.76	<b>32.93</b>
132 kV & above	Railway Traction	8.00	7.00	7.00	7.00	7.00	7.00	7.00	7.05	8.00	8.00	8.00	7.00	<b>88.05</b>
132 kV & above	Colony Lighting	6.31	6.35	6.00	6.00	6.00	6.00	5.00	5.00	5.00	5.00	5.00	5.00	<b>66.66</b>
<b>Total of all Categories at different voltages</b>		<b>1567.73</b>	<b>1556.45</b>	<b>1562.42</b>	<b>1481.75</b>	<b>1624.45</b>	<b>1574.94</b>	<b>1697.63</b>	<b>1562.76</b>	<b>1553.53</b>	<b>1605.71</b>	<b>1572.00</b>	<b>1725.47</b>	<b>19084.83</b>

**ANNEXURE - I(ii)**  
**CATEGORY-WISE MONTHLY SALES FOR FY 2006-07**  
**EPDCL**  
**(Reference: Paragraph 258 of the Order)**

VOLTAGE	CATEGORY	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Total 2006-07
Total of LT Categories		373.43	385.32	375.12	357.80	373.80	362.38	373.84	360.04	359.37	357.28	355.41	385.30	4419.09
LT	Domestic	172.97	190.43	194.55	190.55	182.95	193.74	197.91	185.42	164.60	150.46	155.60	163.73	2142.93
LT	Non-Domestic	34.12	34.57	37.90	34.25	36.11	34.57	33.97	31.90	31.25	29.16	31.37	30.75	399.92
LT	Industrial	33.05	38.97	35.80	29.47	31.66	29.32	24.79	26.87	32.57	42.07	38.59	33.72	396.88
LT	Cottage Industries	0.55	0.08	0.08	0.07	0.07	0.08	0.06	0.07	0.07	0.08	0.08	0.34	1.62
LT	Irrigation and Agril.	115.26	104.14	89.86	84.58	103.88	86.64	99.37	97.74	112.11	116.55	111.01	138.55	1259.68
LT	Street Lighting & PWS	15.45	15.36	15.35	17.09	17.13	15.91	15.59	15.99	16.57	16.85	16.68	16.05	194.02
LT	General Purpose	2.03	1.77	1.60	1.79	1.98	2.12	2.15	2.05	2.20	2.11	2.08	2.16	24.04
LT	Temporary Supply													0.00
<b>Total of HT Categories at 11 kV</b>		<b>72.64</b>	<b>79.30</b>	<b>80.38</b>	<b>79.56</b>	<b>86.66</b>	<b>79.20</b>	<b>71.08</b>	<b>74.27</b>	<b>70.78</b>	<b>74.94</b>	<b>83.98</b>	<b>80.09</b>	<b>932.88</b>
11 kV	Industry-General	49.83	55.99	56.28	56.23	61.84	56.40	48.51	52.01	49.11	51.61	57.79	53.95	649.57
11 kV	Industry-Others	11.27	11.31	12.24	11.93	12.52	11.46	11.15	10.71	9.67	11.79	14.64	14.60	143.31
11 kV	Rural Electric Co-operatives	11.54	11.99	11.86	11.40	12.29	11.34	11.42	11.54	11.99	11.54	11.54	11.54	140.00
11 kV	Temporary Supply													0.00
<b>Total of HT Categories at 33 kV</b>		<b>26.52</b>	<b>30.90</b>	<b>31.12</b>	<b>31.80</b>	<b>38.83</b>	<b>36.75</b>	<b>33.23</b>	<b>36.19</b>	<b>28.16</b>	<b>29.48</b>	<b>33.44</b>	<b>31.73</b>	<b>388.16</b>
33kV	Industry-General	19.56	21.98	22.10	22.07	24.28	22.14	19.05	20.42	19.28	20.26	22.69	21.18	255.01
33kV	Seasonal Industries	0.16	0.18	0.18	0.18	0.19	0.18	0.15	0.16	0.15	0.16	0.18	0.17	2.03
33kV	Industry-Others	5.81	5.84	6.32	6.16	6.46	5.92	5.75	5.53	4.99	6.09	7.56	7.54	73.96
33kV	Govt. Lift Irrigation Schmes	0.87	2.57	2.24	3.00	6.98	7.53	7.32	8.91	3.30	2.62	2.67	2.52	50.52
33kV	Agriculture	0.11	0.34	0.29	0.39	0.92	0.99	0.96	1.17	0.43	0.34	0.35	0.33	6.63

VOLTAGE	CATEGORY	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Total 2006-07
Total of HT Categories at 132 kV and above		137.69	140.35	143.62	141.92	151.98	143.58	134.19	143.26	136.29	143.15	147.96	140.37	1704.37
132 kV & above	Industry-General	49.52	55.64	55.93	55.87	61.45	56.04	48.21	51.68	48.80	51.28	57.43	53.61	645.46
132 kV & above	Ferro Alloys	39.72	39.18	39.46	39.61	42.51	41.10	40.56	42.75	42.14	43.97	40.50	39.51	491.00
132 kV & above	Lights and Fans	1.88	2.11	2.12	2.12	2.33	2.13	1.83	1.96	1.85	1.95	2.18	2.04	24.51
132 kV & above	Colony Supply	6.09	6.85	6.88	6.87	7.56	6.89	5.93	6.36	6.00	6.31	7.07	6.60	79.41
132 kV & above	Industry-Others	2.49	2.51	2.71	2.64	2.77	2.54	2.47	2.37	2.14	2.61	3.24	3.23	31.73
132 kV & above	Railway Traction	35.01	31.60	33.90	32.64	33.13	32.85	33.05	36.02	33.45	34.96	35.35	33.25	405.21
132 kV & above	Colony Lighting	2.98	2.48	2.62	2.15	2.22	2.03	2.14	2.12	1.89	2.07	2.19	2.14	27.04
Total of all Categories at different voltages		610.28	635.88	630.25	611.08	651.27	621.90	612.34	613.76	594.61	604.84	620.78	637.50	7444.49

**ANNEXURE - I(iii)**  
**CATEGORY-WISE MONTHLY SALES FOR FY 2006-07**  
**NPDCL**

**(Reference: Paragraph 258 of the Order)**

VOLTAGE	CATEGORY	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Total 2006-07
	<b>Total of LT Categories</b>	401.09	322.00	312.00	382.00	469.00	517.53	540.00	450.37	405.00	412.00	371.00	508.10	<b>5090.08</b>
LT	Domestic	121.00	125.00	125.00	125.00	120.00	125.00	126.00	123.09	107.00	99.00	96.00	119.00	<b>1411.09</b>
LT	Non-Domestic	19.15	23.00	23.00	23.00	21.00	20.00	22.00	20.10	20.00	18.00	18.00	27.00	<b>254.25</b>
LT	Industrial	22.00	20.00	20.00	23.00	18.00	18.00	16.00	14.51	17.00	25.00	28.00	22.00	<b>243.51</b>
LT	Cottage Industries	1.38	0.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	<b>4.38</b>
LT	Irrigation and Agril.	214.06	131.00	121.00	190.00	289.00	334.00	354.00	271.00	239.00	247.00	205.00	314.00	<b>2909.06</b>
LT	Street Lighting & PWS	22.00	22.00	21.00	20.00	20.00	19.00	20.00	19.17	21.00	22.00	23.00	23.00	<b>252.17</b>
LT	General Purpose	1.50	1.00	1.00	1.00	1.00	1.53	2.00	1.50	1.00	1.00	1.00	2.00	<b>15.53</b>
LT	Temporary Supply	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	<b>0.10</b>
	<b>Total of HT Categories at 11 kV</b>	<b>46.59</b>	<b>48.42</b>	<b>37.23</b>	<b>38.54</b>	<b>41.46</b>	<b>43.26</b>	<b>47.64</b>	<b>48.30</b>	<b>45.68</b>	<b>36.62</b>	<b>39.34</b>	<b>44.77</b>	<b>517.85</b>
11 kV	Industry -General	6.50	7.54	6.40	6.71	6.61	6.40	6.84	6.32	6.81	6.71	6.50	5.99	<b>79.34</b>
11 kV	Industry -Others	3.90	3.69	3.69	3.69	3.69	3.69	4.61	4.80	3.69	2.77	3.69	4.61	<b>46.50</b>
11 kV	Rural Electric Co-operatives	36.18	37.19	27.14	28.14	31.16	33.17	36.18	37.19	35.18	27.14	29.15	34.17	<b>392.00</b>
11 kV	Temporary Supply													<b>0.00</b>
	<b>Total of HT Categories at 33 kV</b>	<b>16.36</b>	<b>16.36</b>	<b>20.27</b>	<b>13.56</b>	<b>13.46</b>	<b>15.26</b>	<b>16.70</b>	<b>22.97</b>	<b>27.68</b>	<b>21.55</b>	<b>22.37</b>	<b>26.89</b>	<b>233.42</b>
33kV	Industry -General	5.66	6.56	5.57	5.84	5.75	5.57	5.96	5.50	5.93	5.84	5.66	5.21	<b>69.07</b>
33kV	Seasonal Industries	0.62	0.72	0.61	0.64	0.63	0.61	0.65	0.60	0.65	0.64	0.62	0.57	<b>7.59</b>
33kV	Industry -Others	0.06	0.06	0.06	0.06	0.06	0.06	0.08	0.08	0.06	0.05	0.06	0.08	<b>0.77</b>
33kV	Govt. Lift Irrigation Schemes	6.49	5.84	9.09	4.54	4.54	5.84	6.49	10.88	13.63	9.74	10.39	13.63	<b>101.12</b>
33kV	Agriculture	3.52	3.17	4.93	2.47	2.47	3.17	3.52	5.90	7.40	5.28	5.64	7.40	<b>54.88</b>

VOLTAGE	CATEGORY	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Total 2006-07
<b>Total of HT Categories at 132 kV and above</b>		<b>82.08</b>	<b>95.43</b>	<b>83.66</b>	<b>89.06</b>	<b>86.26</b>	<b>84.66</b>	<b>88.13</b>	<b>84.79</b>	<b>88.85</b>	<b>87.99</b>	<b>91.46</b>	<b>97.54</b>	<b>1059.92</b>
132 kV & above	Industry -General	50.21	58.18	49.41	51.81	51.01	49.41	52.82	48.78	52.60	51.81	50.21	46.23	<b>612.48</b>
132 kV & above	Ferro Alloys													<b>0.00</b>
132 kV & above	Lights and Fans	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.00</b>
132 kV & above	Colony Supply	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.00</b>
132 kV & above	Industry -Others	0.26	0.25	0.25	0.25	0.25	0.25	0.31	0.33	0.25	0.19	0.25	0.31	<b>3.15</b>
132 kV & above	Railway Traction	22.30	25.00	23.00	25.00	24.00	25.00	25.00	25.37	25.00	25.00	25.00	26.00	<b>295.67</b>
132 kV & above	Colony Lighting	9.30	12.00	11.00	12.00	11.00	10.00	10.00	10.32	11.00	11.00	16.00	25.00	<b>148.62</b>
<b>Total of all Categories at different voltages</b>		<b>546.12</b>	<b>482.20</b>	<b>453.16</b>	<b>523.15</b>	<b>610.17</b>	<b>660.71</b>	<b>692.47</b>	<b>606.43</b>	<b>567.21</b>	<b>558.16</b>	<b>524.17</b>	<b>677.31</b>	<b>6901.27</b>

**ANNEXURE - I(iv)**  
**CATEGORY-WISE MONTHLY SALES FOR FY 2006-07**  
**SPDCL**

**(Reference: Paragraph 258 of the Order)**

VOLTAGE	CATEGORY	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Total 2006-07
<b>Total of LT Categories</b>		<b>582.37</b>	<b>585.00</b>	<b>562.00</b>	<b>539.00</b>	<b>593.00</b>	<b>552.00</b>	<b>669.00</b>	<b>631.72</b>	<b>690.00</b>	<b>737.00</b>	<b>667.00</b>	<b>785.87</b>	<b>7593.97</b>
LT	Domestic	203.33	218.00	212.00	202.00	204.00	215.00	265.00	246.60	216.00	221.00	237.00	238.00	2677.93
LT	Non-Domestic	44.00	46.00	45.00	42.00	42.00	44.00	51.00	50.27	45.00	46.00	48.00	50.00	553.27
LT	Industrial	64.38	63.00	61.00	60.00	58.00	56.00	52.00	52.00	56.00	60.00	61.00	61.00	704.38
LT	Cottage Industries	1.30	2.00	2.00	2.00	2.00	2.00	2.00	1.39	2.00	2.00	2.00	2.00	22.69
LT	Irrigation and Agri.	242.00	229.00	215.00	206.00	264.00	210.00	271.00	249.06	340.00	376.00	287.00	402.00	3291.06
LT	Street Lighting & PWS	24.29	25.00	25.00	24.00	21.00	23.00	25.00	28.30	28.00	29.00	28.00	28.00	308.59
LT	General Purpose	3.07	2.00	2.00	3.00	2.00	2.00	3.00	4.10	3.00	3.00	4.00	3.00	34.17
LT	Temporary Supply	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.87	1.87
<b>Total of HT Categories at 11 kV</b>		<b>96.95</b>	<b>94.11</b>	<b>92.96</b>	<b>100.04</b>	<b>99.09</b>	<b>89.82</b>	<b>97.59</b>	<b>101.09</b>	<b>106.86</b>	<b>97.73</b>	<b>98.48</b>	<b>89.64</b>	<b>1164.36</b>
11 kV	Industry -General	63.14	63.67	63.67	69.41	67.32	62.62	62.10	67.48	67.84	71.49	75.67	66.80	801.20
11 kV	Industry -Others	17.21	17.85	17.85	15.75	15.75	15.75	12.60	11.87	11.55	13.65	13.65	13.65	177.13
11 kV	Rural Electric Co -operatives	16.60	12.59	11.45	14.88	16.02	11.45	22.89	21.75	27.47	12.59	9.16	9.16	186.00
11 kV	Temporary Supply	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03
<b>Total of HT Categories at 33 kV</b>		<b>35.13</b>	<b>34.42</b>	<b>33.42</b>	<b>36.29</b>	<b>36.22</b>	<b>34.80</b>	<b>35.41</b>	<b>40.15</b>	<b>44.06</b>	<b>43.28</b>	<b>46.43</b>	<b>39.87</b>	<b>459.46</b>
33kV	Industry -General	32.46	32.73	32.73	35.68	34.60	32.19	31.92	34.69	34.87	36.75	38.90	34.34	411.85
33kV	Seasonal Industries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
33kV	Industry -Others	0.67	0.69	0.69	0.61	0.61	0.61	0.49	0.46	0.45	0.53	0.53	0.53	6.87
33kV	Govt. Lift Irrigation Schmes	0.97	0.48	0.00	0.00	0.48	0.97	1.45	2.42	4.23	2.91	3.39	2.42	19.73
33kV	Agriculture	1.03	0.52	0.00	0.00	0.52	1.03	1.55	2.58	4.51	3.09	3.61	2.58	21.01

VOLTAGE	CATEGORY	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Total 2006-07
<b>Total of HT Categories at 132 kV and above</b>		<b>76.89</b>	<b>75.15</b>	<b>76.55</b>	<b>76.95</b>	<b>78.93</b>	<b>73.09</b>	<b>72.38</b>	<b>74.70</b>	<b>74.19</b>	<b>79.98</b>	<b>81.02</b>	<b>74.68</b>	<b>914.50</b>
132 kV & above	Industry -General	29.03	29.27	29.27	31.90	30.94	28.79	28.55	31.02	31.18	32.86	34.78	30.70	<b>368.29</b>
132 kV & above	Ferro Alloys													<b>0.00</b>
132 kV & above	Lights and Fans	1.03	1.04	1.04	1.13	1.10	1.02	1.01	1.10	1.11	1.17	1.23	1.09	<b>13.06</b>
132 kV & above	Colony Supply	0.84	0.84	0.84	0.92	0.89	0.83	0.82	0.89	0.90	0.95	1.00	0.88	<b>10.60</b>
132 kV & above	Industry -Others	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.00</b>
132 kV & above	Railway Traction	40.00	38.00	40.00	38.00	41.00	37.00	37.00	36.69	36.00	40.00	39.00	37.00	<b>459.69</b>
132 kV & above	Colony Lighting	6.00	6.00	5.40	5.00	5.00	5.45	5.00	5.00	5.00	5.00	5.00	5.00	<b>62.85</b>
<b>Total of all Categories at different voltages</b>		<b>791.34</b>	<b>788.67</b>	<b>764.93</b>	<b>752.28</b>	<b>807.24</b>	<b>749.71</b>	<b>874.38</b>	<b>847.67</b>	<b>915.11</b>	<b>957.99</b>	<b>892.92</b>	<b>990.05</b>	<b>10132.29</b>

**ANNEXURE - J**  
**WAIVERS REQUESTED BY DISCOMs**

<b>DISCOM</b>	<b><u>Waiver requested by DISCOM</u></b>	<b>Commission's Decision</b>
APCPDCL	<p><b>Form 4.6:</b> Marginal costs components (by unit) and Class Marginal Costs Revenue (Class revenues from applying appropriate unit marginal costs to corresponding units)</p> <p><b>Form 4.8:</b> Marginal Cost cross-subsidies</p> <p><b>Form 4.9:</b> External subsidy (Allocation of external subsidy among consumer classes)</p>	<p>The DISCOM is directed to submit the relevant forms after undertaking a study for the next Control Period.</p>
APEPDCL	<p><b>Form 4.6:</b> Marginal costs components (by unit) and Class Marginal Costs Revenue (Class revenues from applying appropriate unit marginal costs to corresponding units)</p> <p><b>Form 4.8:</b> Marginal Cost cross-subsidies</p> <p><b>Form 4.9:</b> External subsidy (Allocation of external subsidy among consumer classes)</p>	<p>The DISCOM is directed to submit the relevant forms after undertaking a study for the next Control Period.</p>
APNPDCL	<p><b>Form 4.6:</b> Marginal costs components (by unit) and Class Marginal Costs Revenue (Class revenues from applying appropriate unit marginal costs to corresponding units)</p> <p><b>Form 4.8:</b> Marginal Cost cross-subsidies</p> <p><b>Form 4.9:</b> External subsidy (Allocation of external subsidy among consumer classes)</p>	<p>The DISCOM is directed to submit the relevant forms after undertaking a study for the next Control Period.</p>
APSPDCL	<p><b>Form 4.6:</b> Marginal costs components (by unit) and Class Marginal Costs Revenue (Class revenues from applying appropriate unit marginal costs to corresponding units)</p> <p><b>Form 4.8:</b> Marginal Cost cross-subsidies</p> <p><b>Form 4.9:</b> External subsidy (Allocation of external subsidy among consumer classes)</p>	<p>The DISCOM is directed to submit the relevant forms after undertaking a study for the next Control Period.</p>

## GLOSSARY

AAD	Advance Against Depreciation
ABC	Aerial bunched cables
ABT	Availability Based Tariff
A&G costs	Administrative and General costs
APCPDCL / CPDCL	Central Power Distribution Company of A.P Limited
APEPDCL / EPDCL	Eastern Power Distribution Company of A.P Limited
APERC	Andhra Pradesh Electricity Regulatory Commission
APGENCO	Generation Corporation of Andhra Pradesh Limited
APGPCL	A.P.Gas Power Corporation Limited
APNPDCL/ NPDCL	Northern Power Distribution Company of A.P Limited
APPCC	AP Power Coordination Committee
APSPDCL / SPDCL	Southern Power Distribution Company of A.P Limited
ARR	Aggregate Revenue Requirement
BSES	Bombay Suburban Electric Supply
BST	Bulk Supply Tariff
CEA	Central Electricity Authority
Central Act	The Electricity Act 2003 (Act 36 of 2003),
CERC	Central Electricity Regulatory Commission
CGS	Central Generating Stations
CIRE	Central Institute for Rural Electrification
COD	Commercial Date of Operation
CoS	Cost of Supply
CWIP	Capital Works-in-Progress
DISCOMs	Distribution Companies
DSM	Demand side management
D-to-D	DISCOM-to-DISCOM
DTR	Distribution Transformer
EHT	Extra High Tension
ERC	Expected revenue from charges
ERCs	Electricity Regulatory Commissions
ERO	Electricity Revenue Office
FCA	Fuel cost adjustment
FoR	Forum of Regulators
FPT	Filing of Proposal for Tariff
FSA	Fuel surcharge adjustment
GAIL	Gas Authority of India Limited
GoAP	Government of Andhra Pradesh
GoI	Government of India
GTCS	General Terms and Conditions of Service
HDPE	High Density Poly Ethelene
HT	High Tension
HVDS	High Voltage Distribution system
IDC	Interest during construction

INDIRAMMA	Integrated Novel Development in Rural Areas and Model Municipal Areas
IPPs	Independent Power Producers
ISI	Indian Standards Institute
KW	Kilo Watt
LV	Low voltage
MU	Million units
NCE	Non-conventional energy
NEDCAP	Non Conventional Energy Development Corporation of Andhra Pradesh
NHAI	National Highways Authority of India
NTS	Nellore Thermal Station
O&M	Operations & Maintenance
OCFA	Original Cost of Fixed Assets
OERC	Orissa Electricity Regulatory Commission
O.P.	Original Petition
PGCIL	Power Grid Corporation of India Limited
PLF	Plant Load Factor
PPAs	Power Purchase Agreements
PWS Schemes	Protected Water Schemes
RAC	Regulatory Affairs Cell
Reform Act	A.P. Electricity Reform Act 1998
RGGY Schemes	Rajiv Gandhi Grameen Vidyudeekaran Yojana
ROCE	Return on capital employed
RoE	Return on Equity
RPPO	Renewable power purchase obligation
RPVC piping	High Density Poly Ethelene
RR Act	Revenue Requirement Act
RSB	Retail Supply business
RST	Retail Supply Tariff'
RTPP	Rayalaseema Thermal Power Station/plant
SAC	State Advisory Committee
SD	Security Deposit
SERCs	State Electricity Regulatory Commissions
SI	System improvement
SLDC	State Load Despatch Centre
SSLBPH	Srisailam Left Bank Power House
ULDC	Unified Load Despatch Centre
W&RST	APERC (Terms and Conditions for Determination of Tariff for Wheeling and Retail Sale of Electricity) Regulation, 2005 (Regulation No.4 of 2005)
WACC	Weighted Average Cost of Capital
W.Ps	Writ petitions

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