Order on ARR and Tariff

for

Financial Year 2003-04

UTTARANCHAL ELECTRICITY REGULATORY COMMISSION

Table of Contents

Before

UTTARANCHAL ELECTRICITY REGULATORY COMMISSION

Petition No. 1-ARR/2003

In the Matter of:

Petition dated May 14, 2003 titled "Calculation of expected aggregate revenue from charges which the Petitioner may recover for the financial year 2003-04 and 2004-05 in terms of section 124 of Uttaranchal Electricity Regulatory Commission (Conduct of Business) Regulations, 2002".

AND

In the Matter of:

Uttaranchal Power Corporation Limited
Urja Bhawan, Kanwali Road,
Dehradun

Coram

Sh. Divakar Dev Chairman

Date of Order: 8th September 2003

This Order relates to the petition (hereinafter referred to as "Petition") filed by the Uttaranchal Power Corporation Limited (hereinafter referred to as "UPCL" or "Petitioner") for approval of Aggregate Revenue Requirement (ARR) for the year 2003-04. The Uttaranchal Power Corporation is the sole licensee for the transmission and distribution of electricity in the State. The Distribution and Retail Supply licence was given to the Corporation by the Uttaranchal Electricity Regulatory Commission (hereinafter referred to as "Commission") in June 2003. Prior to that UPCL was the provisional licensee.

1. Introduction

1.1 Historical Background

1.1.1 Reorganisation of Power Sector in UP

The State of Uttaranchal came into existence on 9th November 2000 in accordance with the provisions of the Uttar Pradesh Reorganization Act 2000 (Act 29 of 2000), (hereinafter referred to as "Reorganisation Act"), enacted by the Parliament of India on 25th August 2000.

Section 63 of the Reorganisation Act laid down the broad principles for sharing & transfer of undertakings, assets, rights and liabilities with respect to the Power sector between the States of Uttaranchal & Uttar Pradesh.

Section 63 (1) of the UP Reorganization Act provides that all bodies such as the Uttar Pradesh Power Corporation Limited (UPPCL), Uttar Pradesh Jal Vidyut Nigam Limited (UJVNL), Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited (UPRVUNL) and the Uttar Pradesh Electricity Regulatory Commission (UPERC) would continue to function in those areas in respect of which they were functioning, prior to the segregation, subject to the directions as might have been issued by the Central Government.

Section 63(4) of the Reorganization Act allowed the Government of Uttaranchal (hereinafter referred to as "GoU" or "State Government") to constitute a State Power Corporation at any time after the creation of the State. The Uttaranchal Power Corporation Limited (UPCL) was accordingly established under the Companies Act, 1956, on 12th February 2001. UPCL has been entrusted with the business of transmission and distribution in the State. Based on a Memorandum of Understanding dated 13th March 2001, between the Governments of Uttaranchal and Uttar Pradesh all work pertaining to the transmission, distribution and supply of electricity in the area of Uttaranchal were transferred from UPPCL to UPCL from 1st April 2001. However, there was no decision taken with respect to distribution of the generation assets between the UPJVNL and Uttaranchal Jal Vidyut Nigam (UJVNL).

The Reorganization Act also provides in section 63(3) that the apportionment of the assets, rights and liabilities of the above mentioned entities between the States of Uttar Pradesh and Uttaranchal should be finalized within a specific timeframe through mutual agreement or as decided by the Central Government

The Government of India (GoI), on request of the Government of Uttaranchal and in accordance with the powers conferred on it under section 63 of the Reorganization Act, vide Order No. 42/7/2000 R&R dated 5th November 2001, divided the assets, liabilities, rights, and undertakings of UPPCL and UPJVNL between them and UPCL and UJVNL with effect from 9h November 2001. This, in effect, nullified the MoU between the two State Governments on the transfer date of 1st April 2001. This Order also allocated hydel energy of UPJVNL projects in Uttaranchal to it and provided that "Uttar Pradesh shall have the first right of purchase in respect of any surplus power left-over from the power generated by the units of the UPJVNL existing on the date of this transfer, after meeting the consumption requirements of Uttaranchal." Subsequently, through another Order dated 4h January 2002, the GoI allocated 353.3 MW out of the undivided Uttar Pradesh's share of 3,399.9 MW in the central sector generating stations of the Northern Region to the State of Uttaranchal.

1.1.2 Position of Power Sector in the State

The total energy available in the State of Uttaranchal is about 5300 MU and has the constituents as shown in Table 1.1.

Table 1.1: Energy Availability

S.No.	Availability From	MU
1	State Generation from UJVNL	3070
2	Share from Central Generating Sector	2156
3	IPPs	26
4	Micro Hydel	46

The Total availability of electricity in the State is higher than the total internal requirement of 3900 MU. However, this requirement is the aggregate value derived for a full year, which does not account for seasonal variations in demand and supply through the year. While there are instances of surplus availability in the summer months, the State utilizes nearly its entire allocation of CGS capacity in winter season. Pending complete utilization of CGS share through increased consumption; the State Government has authorized the Corporation to sell the surplus part of its CGS share to other States. 85% of the margin from such sale is to accrue to the Government, while the petitioner is allowed to retain 15% of trading related income as service charges for this activity.

An MoU was signed between the Ministry of Power and the Uttaranchal Government on 25.02.2000. The purpose of the MoU was to affirm the commitment to upgrade the quality of service in the power sector in the State. Government of Uttaranchal proposed to strengthen the transmission and distribution network and maintain supply for 24 hours at affordable rates. It was also proposed in the MoU that Uttaranchal would undertake Energy Audit at all level to reduce system losses and to bring them progressively to the level of 20% by March 2004. This was to be done in a time bound manner, and included the following steps:

a. With a view to minimizing loss at the point of receipt, Uttaranchal would undertake joint verification and sealing of interface points with power suppliers.

b. Efforts would be made to meter all 11 kV feeders by 31-03-2001 and in no case later than 30-09-2001.

c. Approximately 80% metering was estimated in the rural areas of Uttaranchal. With a view to reducing and eliminating power theft, 100% metering of all consumers was to be done by 31-12-2001.

d. The number of billing and collection centres and of computerized billing centres was to be increased in the urban areas by 31-12-2001.

e. Identified distribution circles, such as Dehradun/Mussoorie, Kashipur, Ramnagar, etc. were be developed as profit centres. Separate commercial accounts /shadow Balance Sheets for such centres were to be prepared from 31-03-2001.

f. If commercial viability in distribution was not attained by 31-03-2003 corporatization/ co-operativisation /privatization of distribution was to be considered.

g. Uttaranchal was also to consider innovations such as the creation of user groups/people's co-operatives to oversee IT distribution in composite clusters and to take over the responsibility of billing, collection, theft detection, etc.

In the MoU the State Government had indicated that 12384 out of a total of 15671 villages in Uttaranchal or 79% were electrified. It was proposed that the State would endeavor to reach 100% electrification by 2007. It was also proposed that Uttaranchal would maintain grid discipline and comply with the grid code. The State Government agreed that the Tariff Orders issued by State Electricity Regulatory Commission (SERC) would be implemented fully.

As against the commitments made by the State Government the ground reality of metering and electrification etc. is described below.

(a) Total No. of 11 kV feeders in the State: 704

(b) Electronic Meters installed on the feeders (No.) 690

(It was proposed that balance, 14, 11 kV feeders shall have meters by end of September 2003.)

(c) Status of metering at Retail level: Table 1.2 shows this status

Table 1.2: Status of metering

S.No.	Category of Consumers	Total No of Consumers	Meters Installed	% Metering
1	Domestic	748750	668128	89
2	Commercial	89605	88129	98
3	Industrial	8140	8140	100
4	Agricultural	17324	600	3.4
5	Street Light and others	1372	572	41.6
6	Total	865191	765569	88%

(It was envisaged that 100% metering would be done by the end of year 2004-05.)

(d) Uttaranchal has as many as 2801 un-electrified villages even today. As per the information furnished by UPCL, 923 villages are to be electrified by UREDA through non-conventional sources and the remaining 1878 by UPCL through the grid.

(e) Only about 30% of households in the State are electrified.

1.1.3 Prevailing Tariffs

Presently, the tariffs applicable in the State were notified by the Petitioner after obtaining State Government's tentative approval but without complying with the Governments directive for getting them scrutinized and approved by the Regulatory Commission. These rates are being charged retrospectively from 1st January 2002. Similarly, the Government vide their Order dated 22nd February 2002 worked out the power purchase rate from UJNVL stations for UPCL at 60.5 paise per unit inclusive of a 10% royalty to the Government and again directed that the same may be got approved from the Regulatory Commission, which too has not been done. The Petitioner is, however, currently paying this enhanced unapproved rate for power purchased from UJVNL.

1.1.4 The Regulatory Regime

Under section 87 of the Reorganization Act, the Uttaranchal (Uttar Pradesh Electricity Reforms Act) Adaptation and Modification Order, 2001 (hereinafter referred to as "Adaptation Order") was notified on January 1, 2002. Section 3 the Adaptation Order provided for the establishment of the Uttaranchal Electricity Regulatory Commission. The Uttaranchal Electricity Regulatory Commission was constituted in September 2002. Under section 10 of the Adaptation Order, the functions of the Commission are:

a) To determine the tariff for electricity, wholesale, bulk, grid or retail as thecase may be;

b) To determine the tariff payable for the use of the transmission facilities;

c) To regulate power purchase and procurement process of the transmission utilities and distribution utilities including the price at which the power shall be procured from the generating companies, generating stations or from other sources for transmission, sale distribution or supply in the State.

d) To promote competition, efficiency and economy in the activities of the electricity industry to achieve the objects and purposes of this Act.

e) To regulate investment approval for transmission, distribution or supply of electricity to the entities operating within the State.

f) To aid and advise the State Government in matters concerning electricity generation, transmission, distribution and supply in the State.

g) To issue license for transmission, distribution or supply of electricity and determine the conditions of the license.

h) To regulate the working of licensees and other persons authorized or permitted to engage in the electricity industry in the State and to make their working efficient, economical and equitable.

i) To require licensees to formulate plans and schemes for the promotion of generation, transmission, distribution, supply or utilization of electricity and quality of service and to devise proper power purchase and procurement process.

j) To set standards for the electricity industry in the State including standards relating to quality, continuity and reliability of service.

k) To promote competitiveness and make avenues for participation of private sector in the electricity industry in the State, and also to ensure a fair deal to the consumers.

l) To lay down and enforce safety standards.

m) To aid and advise the State Government in formulation of power policy for the State.

n) To collect and record information relating to generation, transmission, distribution or utilization of electricity.

o) To collect and publish data and forecasts on the demand for, and use of electricity in the State and to require the licensees to collect and publish such data.

p) To regulate the assets, properties and interest in properties relating to the electricity industry in the State in such manner as to safeguard the public interest.

q) To adjudicate upon the disputes and differences between a licensee and utility or to refer the same for arbitration.

r) To co-ordinate with environmental regulatory agencies for evolving Electricity Sector in the State; and

s) To aid and advise the State Government on any other matter referred by the State Government.

The Electricity Act, 2003 repealed the existing central legislations on the subject, viz. Indian Electricity Act, 1910, Electricity (Supply) Act, 1948 and the Electricity Regulatory Commissions Act, 1998. Section 82 of the Electricity Act, 2003 provides that all State Commissions constituted and functioning under section 17 of the Electricity Regulatory Commissions Act, 1998 would be construed and recognized as State Commissions under the new Act and all personnel of these Commissions would continue to hold office on the same terms and conditions under which they were appointed under the 1998 Act. Section 86 of the Electricity Act, 2003 provides that the State Commission would discharge the following functions:

a) Determine the tariff for generation, supply, transmission and wheeling of electricity, wholesale, bulk or retail, as the case may be, within the State:

Provided that where open access has been permitted to a category of consumers under section 42, the State Commission shall determine only the wheeling charges and surcharge thereon, if any, for the said category of consumers.

b) Regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State.

c) Facilitate intra-State transmission and wheeling of electricity.

d) Issue licenses to persons seeking to act as transmission licensees, distribution licensees and electricity traders with respect to their operations within the State.

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.

f) Adjudicate upon the disputes between the licensees and generating companies and to refer any dispute for arbitration.

g) Levy fee for the purposes of this Act.

h) Specify State Grid Code consistent with the Grid Code specified under clause (h) of sub-section (1) of section 79.

i) Specify or enforce standards with respect to quality, continuity and reliability of service by licensees

j) Fix the trading margin in the intra-State trading of electricity, if considered, necessary.

k) Discharges such other functions as may be assigned to it under this Act.

Under the Electricity Act, 2003 the Commission shall also advise the State Government on all matters pertaining to:

i) Promotion of competition, efficiency and economy in activities of the electricity industry;

ii) Promotion of investment in electricity industry; reorganization and restructuring of electricity industry in the State

iii) Matters concerning generation, transmission, distribution and trading of electricity or any other matter referred by the Government.

In exercise of the powers conferred by the section 9 and section 52 of the Adaptation Order, the Commission adopted the Uttaranchal Electricity Regulatory Commission (Conduct of Business Regulations, 2002) (hereinafter referred to as "Conduct of Business Regulations") on 19th September 2002. These were notified in the Official Gazette on October 24, 2002.

1.2 ARR and Tariff Filing

Regulation 125 of the Conduct of Business Regulations of the Uttaranchal Electricity Regulatory Commission requires the licensee to file with the Commission calculations for the ensuing financial year of the expected aggregate revenue from charges under its currently approved tariff and the expected cost of providing services. This submission is required to be made between the 15th and 31st of December every year or as directed by the Commission.

1.2.1 Procedural History

On 4th January 2003, the Petitioner made a request to the Commission to permit it three-week's time for filing the ARR. Again on 22nd January, the UPCL sought further extension of three weeks time to file the ARR. The Commission considered the request and allowed the Petitioner these relaxations.

The Petitioner submitted its filings before the Commission on 15th February 2003. On preliminary examination of the submission, certain shortcomings were found in the filing. The ARR did not include any data to substantiate the projected figures of revenue or expenditure. The Petitioner was required by the Commission to remove the shortcomings in the Petition. The Petitioner failed to comply with the direction of the Commission for submission of required information. The Commission was, therefore, compelled to issue a notice to the Petitioner on 24.04.03 to submit the ARR with the requisite information. Thereupon, the Petitioner once again requested the Commission to grant time till 15.05.03.

The Petitioner finally filed the ARR Petition on 14.05.03. The Petition had projected a revenue gap of Rs. 156 Crore. However, in its earlier Petition filed on 15-02-2003, the Petitioner had projected a revenue surplus of Rs. 2.27 Crore after providing for reasonable return. In the new Petition the Petitioner had not proposed any measure to fill the projected revenue gap. The

Commission, therefore, again asked the Petitioner to file its proposals in this regard by 30.05.03. The Petitioner sought a further extension of time till 10.06.03, which was not allowed by the Commission. The Petitioner's tariff proposals were finally presented to the Commission on 30.05.03. Again the proposals were not given as directed by the Commission. Since the Petitioner had already delayed the filing considerably, the Commission admitted the Petition on the 4th June 2003. Interestingly when asked to submit proposals for covering the gap projected in the ARR, the petitioner has scaled down the projected expenditure by as much as Rs. 114.43 Crore. This speaks volumes for the reliability of the ARR figures and for the sanctity of data presented by the Petitioner on oath.

1.2.2 Inviting Responses on the proposal

The Commission notified the Petitioner's proposals in leading newspapers of the State and invited responses to the same from consumers and other stakeholders. The proposals were published in the following newspapers:

Table 1.3: Public Notice

Date	Name of News Paper
5.6.03	Amar Ujala
6.6.03	Doon Darpan
7.6.03	Uttar Ujala
8.6.03	Times Of India
10.6.3	Badri Vishal
10.6.3	Dainik Jagran

1.2.3 Public Participation

A total of 135 objections were received by the Commission. The Commission considered all objections received by it. The Commission also held public hearings at four different locations in the State namely Rudrapur, Almora, Muni-ki-reti and Dehradun on the 22nd, 24th, 28th and 31st July 2003 respectively. All the objections have been considered and dealt with in Chapter-3.

1.2.4 Interactions with Petitioner and other Stakeholders

During the proceedings of the petition, the Commission interacted, both orally and in writing, with the Petitioner and other stakeholders such as UJVNL and State Government in order to take their views into consideration and to further refine the quality of information filed by the Petitioner.

Commission's effort to examine the ARR has been constrained on account of several factors that include the unfinished tasks related to the transfer of assets and liabilities between the power corporations of the two States and the lack of information on several critical parameters. The Commission has tried to balance the financial viability of the utilities, the consumers' interests and the need for development of the State's power sector. The Commission realises that the power sector is among the key drivers for Uttaranchal economy given the huge potential of hydel resources in the State and the prospects from trading of electricity with major load centers. The Commission has considered the impact of data uncertainty and its consequential impact on the tariff determination process both in the current and future years, when data would become relatively more dependable.

1.3 Performance Review

The Commission has attempted to review the performance of the transmission and distribution licensee, i.e. – the Petitioner, through a process of benchmarking. Benchmarking can be done either through a comparison with other similar entities or through comparison of the utility's performance against itself on a time scale or a comparison with an efficient utility. The Commission has analyzed Petitioner's performance on certain key criteria with the performance of utilities in other reforming States. The criteria for selection of States were based on those that have initiated the reform process in the past. The absence of any targets for the Petitioner in financial year 2002-03 hampers performance comparison against itself. Wherever possible, the Petitioner's performance is measured against its previous achievements in financial year 2001-02.

The Commission would have attempted a review of the performance of UJVNL – the State hydel generating company. However, the Commission is constrained by the non-availability of authentic information concerning the costs and revenues for UJVNL. The Commission proposes to do so while examining UJVNL's tariffs.

The performance review is categorized on the following sets of parameters –

- Commercial parameters
- Financial Parameters

- Quality of Supply

1.3.1 Commercial Parameters

1.3.1.1 Loss Levels

The petitioner has shown a T&D loss level of 35.33% in financial year 2002-03 whereas in Andhra Pradesh, it is 28.4%, in Uttar Pradesh 36.5%, in Karnataka 28.08%, in Haryana the loss level is 40.76%. Given that a large quantum of energy supplied is un-metered, the Commission recognized that measurement of T&D loss is often faulty. Therefore, in addition to specifying separate target for T&D losses and Collection efficiency the Commission also recognized the concept of aggregate loss on account of T&D losses and Collection loss taken together. In this approach the losses are calculated as the total difference between energy purchased and revenue realized on sale of electricity.

1.3.1.2 Collection Efficiency

It is the ratio between the revenue collection and the revenue assessment. In case of Uttaranchal a large quantum of receivables in the shape of past arrears are due from consumers and current dues are also not being fully recovered. At present level of information the collection efficiency does not show the correct efficiency of the Petitioner as it includes arrears collection on the collection side but does not take into account the arrears due on the demand side. The collection data should be separately maintained and presented for collection against the current dues and against the past arrears. This will show the true collection efficiency. A relative comparison of the collection efficiency for the Government and Non-Government categories in Uttaranchal is shown in Table 1.4.

Table 1.4: Position of Realisation and Arrears

S.No.	Category	Assessment	Realization	% Real
	2001-02			
1	Total (Govt)	119.16	9.34	7.84%
2	Total (Non-Govt)	539.41	486.10	90.12%
3	Grand-Total	658.58	495.44	75.23%
	2002-03			
1	Total (Govt)	62.65	5.85	9.34%
2	Total (Non-Govt)	544.60	477.28	87.64%
3	Grand-Total	607.25	483.14	79.56%

From the above Table, it is apparent that while collection from all consumers needs to be improved the collection efficiency from the Government categories is extremely low and there is an urgent need for the Petitioner and the State Government to devise a mechanism for regular and timely payment of electricity dues of Government departments and agencies. Timely and regular payment by Government departments and agencies would improve the overall performance of the Petitioner. It is disturbing to note that collection of dues even from non Government consumers has come down in the financial year 2002-03 from that in the previous year.

An analysis of the sample billing agent data submitted by the Petitioner to the Commission, shows that on an average only 55% of the consumers make payment of electricity dues. This brings out the need for the Petitioner to substantially gear up its revenue collection efforts. The sample billing agent information provided by the Petitioner also shows that 41% of the total arrears due are outstanding for more than 24 months. There is a pressing need for action for improvement in this area of collection of current dues. The Petitioner is already saddled with huge arrears and is getting further burdened with uncollected current dues of unacceptable proportions accumulating over years. The Petitioner should immediately carry out a proper analysis of its past and current unrealized dues and prepare an action plan for their recovery over a reasonable period.

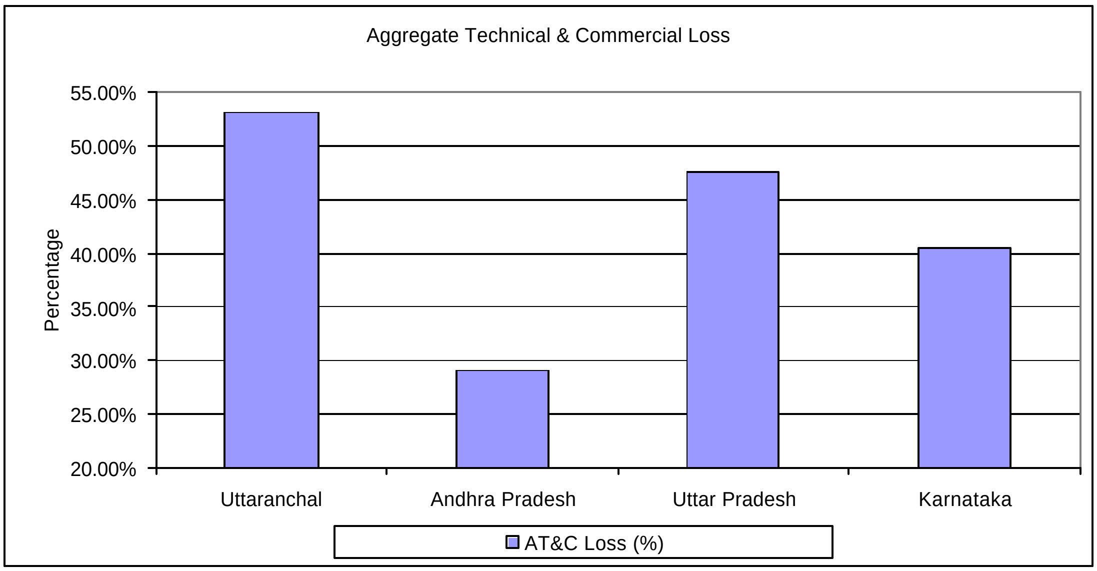
1.3.1.3 Aggregate Technical & Commercial Losses

The aggregate technical and commercial losses of financial years 2001-02 and 2002-03 are as shown in Table 1.5.

Table 1.5: Billing and Collection Loss

Particulars	2001-02	2002-03
Total Power Purchase (MU)	3,687.79	3,755.76
Sale of Power (MU)	2,229.10	2,465.35
Sale of Power (Rs crores)	658.58	607.25
Collection (Rs crores)	495.45	483.14
Billing%	60.4%	65.6%
Collection %	75.23%	79.6%
AT&C loss (%)	54.56%	47.8%

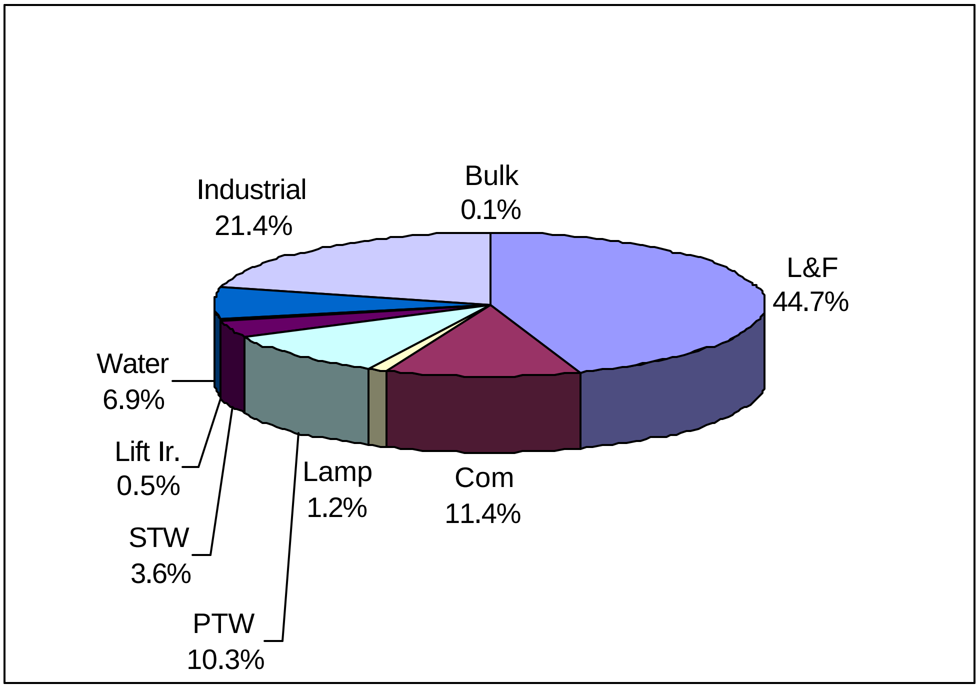
A comparison of AT&C losses with some other states, given in the figure below, demonstrates clearly the inordinately high level of losses in the Petitioner's system and the need for the Petitioner to focus upon efficiency improvements on priority.



1.3.1.4 Category-wise Consumption

The energy supplied to different categories of customers as provided by the Petitioner, without taking into account the trading activity, is compared in the chart below.

Category wise Consumption, 2001-02



The number of unmetered consumers in financial year 2002-03 is 99622 which is 12% of the total consumer base. The consumption of these consumers is estimated based on certain norms. This also affects the estimation of T&D losses. The overestimation of unmetered category consumption was made in the Petition in order to understate the actual T&D losses. In this situation the most obvious and complete solution, to the associated estimation issues, is metering of all consumers. **However, pending 100% metering of such consumers, the Petitioner needs to carry out a study by an independent agency to accurately estimate the consumption norms of such consumers.**

The above position of unmetered connections suggests that there is no serious effort on Petitioner's part to meter consumers. Section 55 of the Electricity Act, 2003 envisages that the Petitioner should meter all its consumers within a period of 2 years. **The Petitioner is hereby directed to take up this work and submit a detailed metering plan to the Commission by 31.12.2003 for metering all its consumers by 31st March 2005.**

1.3.1.5 Meter Reading & Billing

Metering alone would not be sufficient, without ensuring that the meters are regularly read and bills are issued based on such meter readings and, thereafter, collected in a timely manner. Planned and concerted efforts in this direction are required.

The billing agent data submitted by the Petitioner demonstrates poor quality of meter reading. Only 58% of the meters are actually being read. This is a serious issue and needs to be tackled on war footing. Any meter that is not read implies that the energy consumed is not accounted for. This is one major issue contributing to the high losses of the Petitioner.

An analysis of the billing agent data also indicates that the collection efficiency is significantly higher for consumers who receive bills based on meter readings as against those whose bills are raised on some provisional basis. 67% of the consumers who receive bills based on actual meter readings pay the bill during the month itself as against 38% of consumers who receive bills based on provisional basis. This brings out clearly the need for taking proper meter reading and ensuring that the bills are made and delivered properly to the consumer. **The Petitioner needs to develop an efficient mechanism to track preparation and distribution of bills.**

The quality of meter reading is also open to debate. The billing agent data sample submitted by the Petitioner indicates that almost 30% of the domestic consumers have load factor below 5%. Furthermore, 80% of the total meter readings show a load factor of less than 15% implying an improbable usage of less than 4 hours a day. This phenomenon is also common for commercial and small industrial consumers. The Petitioner needs to focus on such core issues, where improvements can contribute significantly towards the bottom line. **The Petitioner should follow the best practices of other reforming States in the country and make this element of the revenue cycle as efficient as possible.**

As stated by the consumers during the hearing process the number of collection centres existing today is also inadequate. Moreover, most of these centres are not automated, leaving room for error and delay. The Petitioner should automate these centres for proper monitoring of billing, collection and convenience of the consumer. The Petitioner should also revisit the issue of number of collection centres and increase the same whereas required.

1.3.2 Financial Parameters

1.3.2.1 Power Purchase

The Petitioner with a T&D loss level of 35.33% has shown a power purchase of a total of 3755.57 MU at a total price of Rs. 326.78 Crore in financial year 2003 in relation to the sale of energy within the State. This price has been arrived at after considering the power purchase price from UJVNL at 60.5 paisa per kWh.

The Commission upon analysis of the power procurement cost for financial year 2002-03 finds the following issues associated with the Petitioner's contention:

1.3.2.1.1. Power Purchase Price from UJVNL

There is a power purchase agreement between the erstwhile UPJVNL & UPPCL, which is valid upto 31.03.2004.

However, Government of Uttaranchal Order dated 22. 02. 02 directed the UPCL to purchase energy from the UJVNL at 60.5 paise per unit subject to ratification by the Commission. No such ratification has been sought so far.

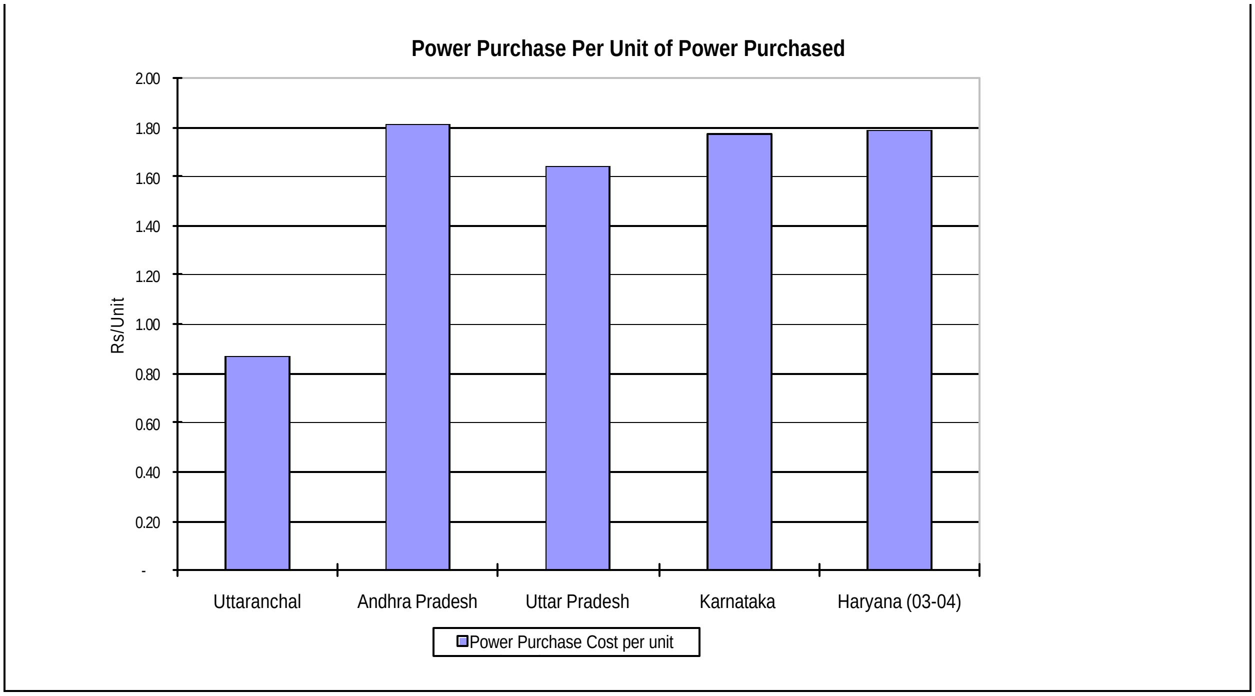
1.3.2.1.2. Cost of traded energy and surplus retention by GoU

UPCL is trading a substantial part of the surplus energy from its allocated shares from the Central Generating Stations (CGS) through the Power Trading Corporation (PTC). For this purpose, the Petitioner has entered into firm contracts to supply 250 MW to Power Trading Corporation round the year. The Government of Uttaranchal has directed the Petitioner to trade the State's surplus CGS share and prescribed an income sharing mechanism between the Petitioner and the Government.

1.3.2.2 Power Purchase Cost

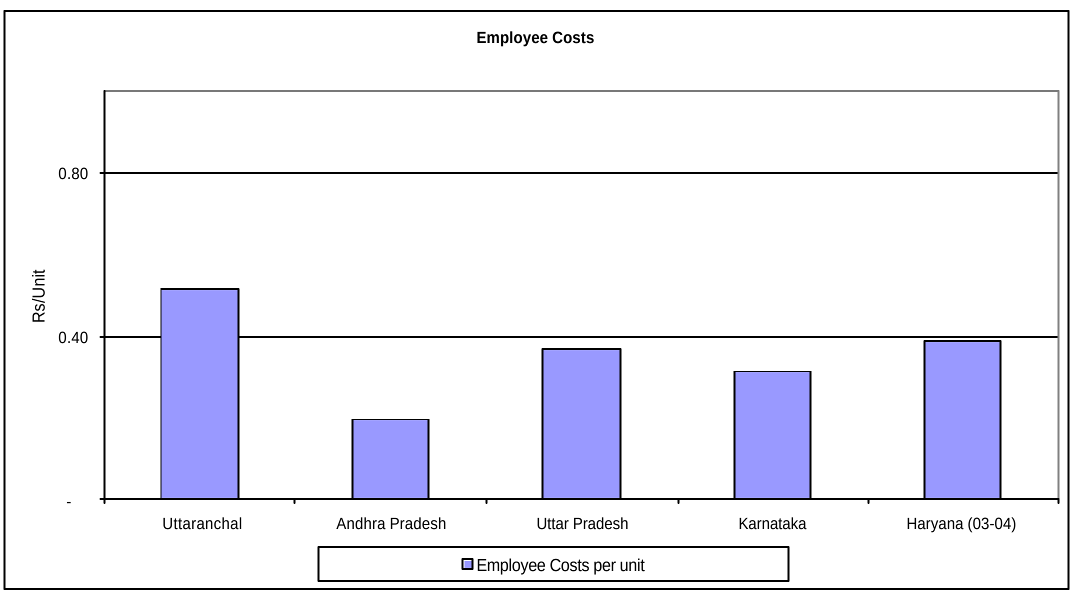
The Petitioner has considered only the variable cost of the CGS plants in determining the income generated on account of such trading. This implies that the entire fixed cost of the CGS plants including that for the portion being traded, is currently being borne by the consumers within the State.

A comparison of the average power purchase cost per unit for financial year 2002-03 with other States is as follows:



1.3.2.3 *Employee Cost*

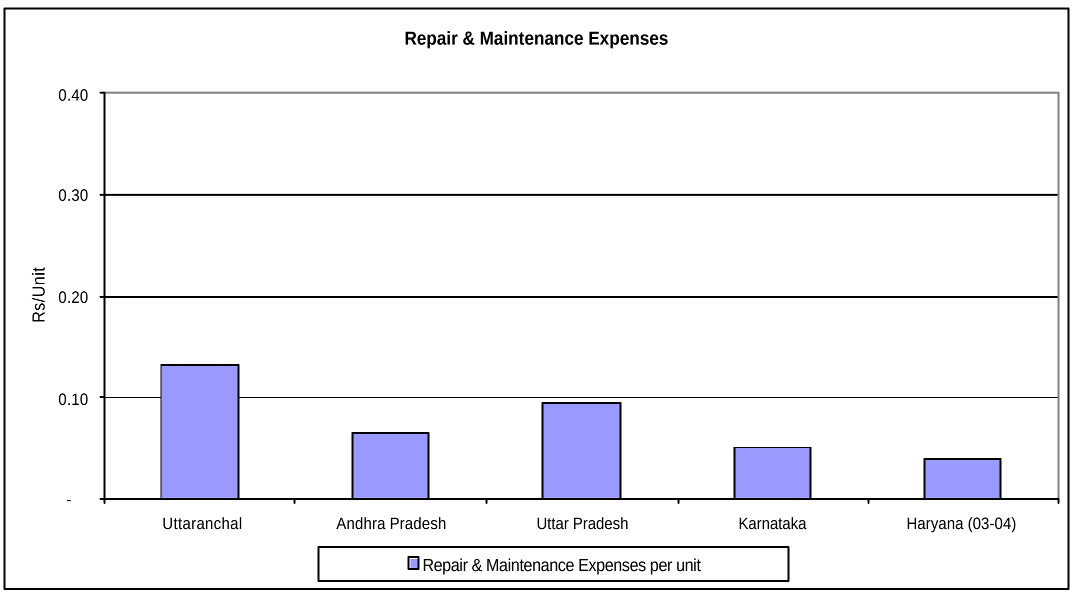
The Petitioner has provided for an expenditure of Rs. 100 Crore towards employee expenses in financial year 2002-03. This expense is for 6303 employees. The figure given below shows the employee cost per unit of sold energy in some other States.



In the State of Uttaranchal the number of employees per 1000 consumers works out to be 7.25. The Petitioners needs to rationalize the workforce through steps like suitably designed Voluntary Retirement Schemes, redeployment and retraining, apart from motivating employees through the introduction of incentive mechanisms to induce improvements in parameters like collection efficiency and T&D losses. On the contrary, the Petitioner has projected substantial increase in the work force, which in view of its already high number needs to be reviewed.

1.3.2.4 *Repair and Maintenance Expenses*

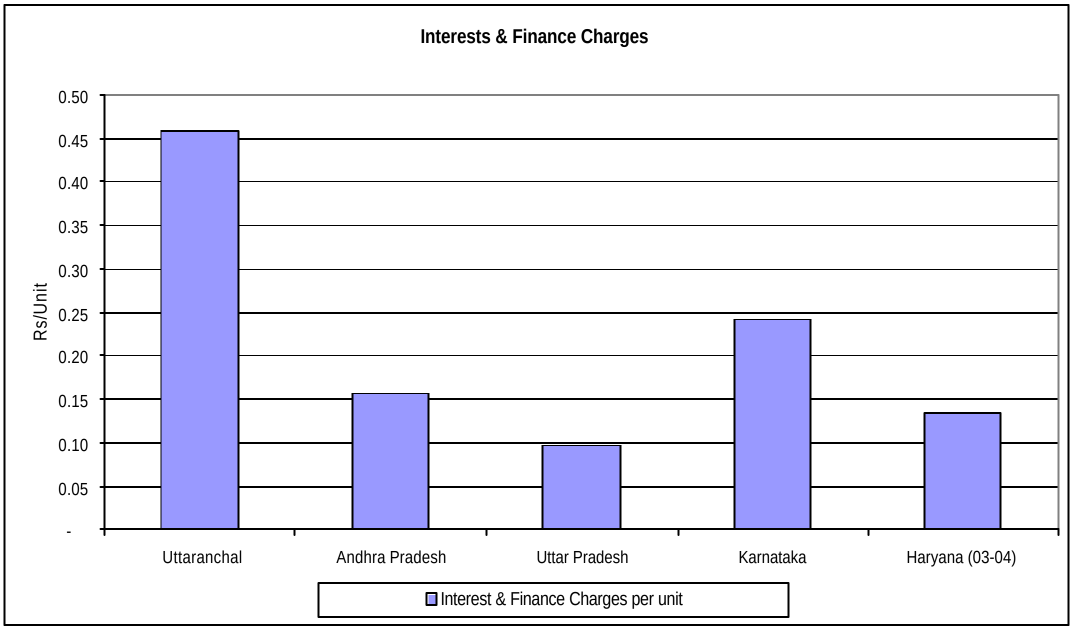
The Petitioner has projected an expenditure of Rs. 35.42 crores towards R&M expenses in financial year 2002-03. This expense as a proportion of Gross Fixed Asset is 4.16%. A comparison of R&M expense per unit of energy sold with some other States is given in the figure below.



1.3.2.5 *Interest Costs*

The financial year 2002-03 interest cost as per the Petitioner is Rs.110.72 Crore.

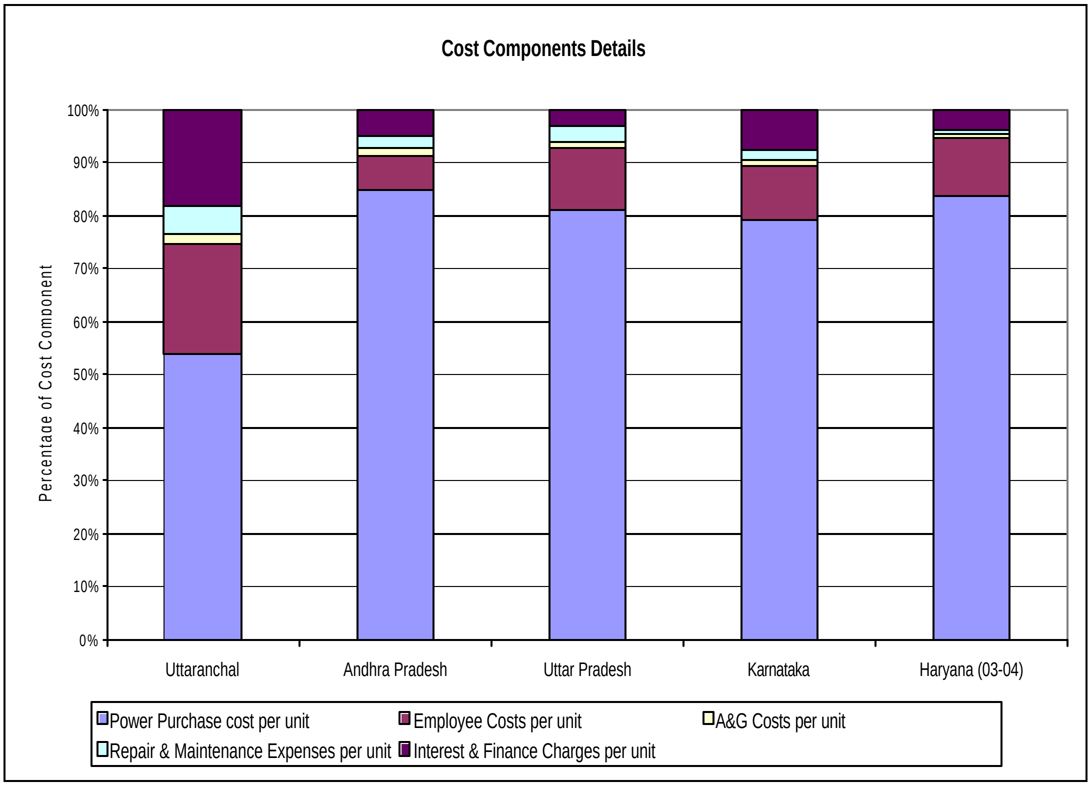
The interest cost which has been actually incurred as claimed by the Petitioner for the year financial year 2002-03 works out to be Rs. 0.29 Crore. The figure given below compares the interest & finance charges per unit of energy sold with some other States.

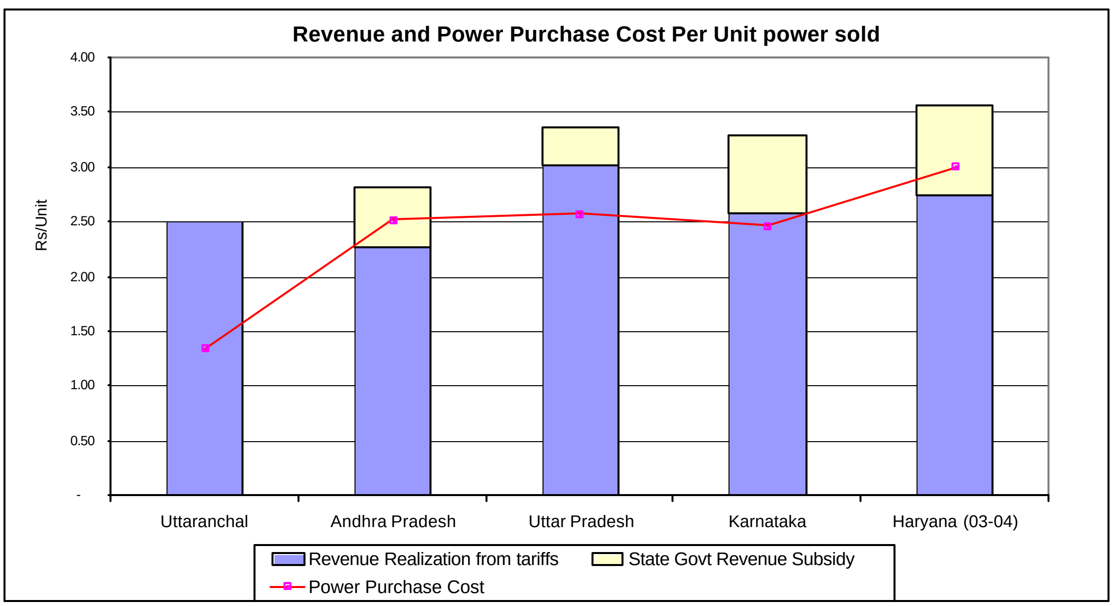


1.3.2.6 Total Cost

Power Purchase cost forms 56% of the total costs for the Petitioner. Interests and Finance costs forms the next big contributor to the costs which accounts of 19% of the total costs. The employee costs forms another 17% of the total costs.

The comparison of the cost component across other States is shown in the charts below and gives the Petitioner's standing with respect to other utilities. Looking at the comparison, it is clear that Uttaranchal has leverage in the expenses mix. There is a scope for reduction in the cost of service if the Corporation limits its employee's cost as well as interest cost. Similarly, Uttaranchal has a clear advantage of low power purchase cost. It also has revenue, without subsidy, which is substantially higher than the cost of power purchase.


Cost Components Details
Percentage of Cost Component
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Uttaranchal
Andhra Pradesh
Uttar Pradesh
Karnataka
Haryana (03-04)
Power Purchase cost per unit
Employee Costs per unit
A&G Costs per unit
Repair & Maintenance Expenses per unit
Interest & Finance Charges per unit

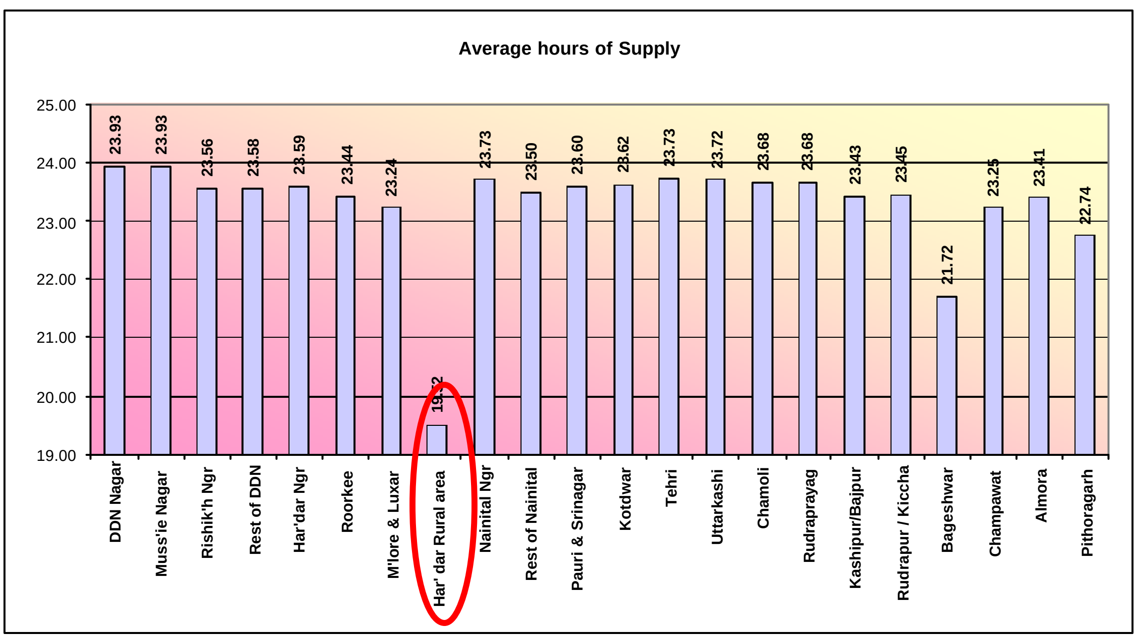

Revenue and Power Purchase Cost Per Unit power sold
Rs/Unit
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
-
Uttaranchal
Andhra Pradesh
Uttar Pradesh
Karnataka
Haryana (03-04)
Revenue Realization from tariffs
State Govt Revenue Subsidy
Power Purchase Cost

1.3.3 Quality of Service

The Petitioner has furnished the circle wise data on the average supply hours. The figure below shows circle wise average hours of supply for financial year 2002-03.

The figure shows that in the rural areas (covering the rural areas of Haridwar and Champawat), the supply hours are significantly lower than the rest of the State. The average hours of supply shown in financial year 2002-03 was 19.52 and 21.72 respectively. This is presumably based on availability at the substation and not actually to the consumer. In the rural area of Haridwar the supply throughout the year was less than 20 hours. The Commission is of the view that with adequate energy being available with the Petitioner, a small part of the surplus energy being traded outside the State may be utilized for improving the number of hours of supply in such areas.

The percentage of 100 kVA transformers that got damaged in financial year 2002-03 was as high as 27%. In comparison, the Distribution Transformer (DTR) failure rate is between 8% and 19% in States like Andhra Pradesh. The Petitioner should formulate and implement a plan of action to reduce the transformer failures, which would improve the supply quality and interruptions significantly.



2. ARR and the Tariff Proposals

This Chapter presents a summary of the submissions made by the Petitioner in its Aggregate Revenue Requirement (ARR) and Tariff proposals. For the reason given in Chapter 4, the Commission has dealt only with the ARR for the financial year 2003-04.

2.1 Abstract of Aggregate Revenue Requirement (ARR)

Abstracts of the physical and financial parameters proposed in the ARR and the proposed tariff increase are provided below in Tables 2.1 & 2.2 respectively.

Table 2.1: Abstract of physical parameters (MU)

Sl. No.	Item	2003-04	
		With Sale of Power to other States	Sale within Uttaranchal
1	Purchase of Power	5073.000	3989.104
2	Sale of Power	3711.900	2628.003
3	Energy Loss	1361.100	1361.101
4	Percentage Loss (%)	26.83%	34.12%

Table 2.2: Abstract of financial parameters of ARR (Rs. Crores)

Sl. No.	Item	2003-04	
		With Sale of Power to other States	Sale within Uttaranchal
1	Revenue Expenditure		
(i)	Power Purchase Cost	572.91	389.80
(ii)	Employee Costs on wages, salaries, other allowances	114.78	114.78
(iii)	Contribution to provide fund, staff pension and gratuity	49.71	49.71
(iv)	Administrative and General Expenses	16.08	16.08
(v)	Repair and Maintenance Expenses	37.42	37.42
(vi)	Depreciation	83.70	83.70
(vii)	Interest and Financing Charges	132.67	132.67
(viii)	Rebate allowed to Consumers	15.40	15.40
(ix)	Provision for Bad and Doubtful Debts	32.76	32.76
(x)	Interest paid on security deposit	0.67	0.67
(xi)	State Govt. Levy on Extra State Sale of Power	46.57	-
	Total expenditure before capitalisation	*1102.77*	*873.09*
(xii)	Less Expenses Capitalized	-48.17	-48.17
	Total Revenue Expenditure	***1054.600***	***824.920***
2	Reasonable Return	16.630	16.630
3	***Total Revenue Requirement***	***1071.230***	***841.550***
4	Aggregate Revenue from Sale of Electricity at existing Tariff	915.490	655.190
5	Other Income	29.710	29.710
6	***Total Aggregate Income***	***945.200***	***684.900***
7	Net Additional Income Required	126.030	156.650
8	***Percentage of Increase over existing Tariff (%)***	***13.77%***	***23.91%***

Salient features of submissions made and assumptions taken by the Petitioner in respect of each of the above parameters have been discussed in the subsequent sections.

2.2 Information inadequacies in the Proposal

2.2.1 Inconsistency in the filed data/information

The Commission has been distressed by the fact that the information submitted by the Petitioner was often inaccurate and inconsistent. Vital information was often withheld or furnished in a misleading manner. Figures were freely played around with and were changed frequently. All this was done in submission made on oath on behalf of the Petitioner. This being the first such exercise, the Commission is condoning such mis-representation. The Petitioner is, however, cautioned against any such action in future, which shall be viewed seriously and dealt with in accordance with law.

2.2.2 Separate Details for Transmission, Distribution and Trading Business

The Petitioner did not submit details of its Transmission, Distribution and Trading Businesses separately. On being asked by the Commission to file the information separately for Transmission, Distribution and trading businesses, the Petitioner claimed that both Transmission & Distribution activities are integrated and no separate business is conducted at the Transmission end and, hence, the information submitted has been clubbed together for these two activities.

The Petitioner has stated that it intends to sell the power available from CPSUs to other States through the Power Trading Corporation Ltd. (PTC), a Government of India Undertaking (Factually not correct). The Petitioner states that since such power would be supplied through the National Grid, no charges have been levied for processing of the sale deal with PTC. The administrative charges towards this activity have been stated to be negligible and as such they have not been considered by the Petitioner.

2.2.3 Accounts for Financial Years 2001-02 and 2002-03

The Petitioner submitted that due to non-finalisation of the transfer from UPPCL, it is not in a position to submit Accounts for the financial years 2001-02 and 2003-04. However, during the course of the proceedings, the Petitioner has submitted Provisional Accounts for the year 2001-02 (from 9th November 2001 to 31st March 2002) and Monthly Trial Balance (MTB) Statements for the financial year 2002-03.

The Petitioner was required to file the cash-flow statements, which has not been done and the reason for not doing so as given by the Petitioner is that cash-flow statements have not been prepared.

2.2.4 Soft Copies of ARR Calculation

Regarding the submission of soft copies of ARR Calculation, the Petitioner submitted that its basic data and maintenance of records have not yet been computerised, although efforts are being made in this respect. Petitioner has submitted that due to this reason the calculations, for the purpose of preparing ARR Petition, have been done manually and thus it is not possible to provide the soft copies of the calculations.

2.2.5 Reason for filing ARR on Average Basis

Notwithstanding categorical directions given by the Commission, the Petitioner has calculated its revenue requirements and expenditure on the basis of average for financial years 2003-04 and 2004-05, completely ignoring the distinction between the ARR and Tariff and the corresponding provisions in the law.

2.2.6 Billing Data as per Categories, sub-categories in Tariff Schedule

Category-wise billing data was required to be filed which has not been done and reason given is that the billing agents have not yet provided separate codes for Public Institutions; hence the information for this category is included with the data for domestic category. For other categories also the Petitioner has not provided break-up of data relating to subcategories as per the existing Tariff Schedule.

2.2.7 Commercial Data

Commercial reports (CS-3 & CS-4) for the financial years 1998-99, 1999-2000 and 2000-01 have not been filed and the Petitioner has claimed that no such information is available and would require considerable time to compile.

2.2.8 Estimation of energy for unmetered consumption

On the norms used to estimate the consumption for unmetered supply in CS-3 & CS-4 Statements of the Petitioner, the Petitioner has given a copy of UPPCL's circular no. 2649/CRU/L-1 dated 20.07.2001 prescribing the norms for estimating the quantum of unmetered supply.

2.3 Major Assumptions made by the Petitioner

The Petitioner has stated that it has used actual performance during previous financial year 2001-02 as the starting point in the estimation of the ARR.

The Petitioner has submitted that it has taken the formal proposal submitted by the UPPCL to UPERC on March 22, 2003 as the basis for evaluation of depreciation, interest liabilities and determination of Capital Base instead of the Government of India's Order dated November 5, 2001 u/s 63(4) of the Reorganisation Act.

For the year 2001-02 the Petitioner has adopted the basis at which the payments were actually made by UPPCL for the period April 1, 2001 to November 9, 2001 and for the period November 9, 2001 onwards on the rates at which the claims as were accrued irrespective of the fact whether the payments were actually made or not.

2.4 Physical Parameters of ARR

2.4.1 Sales Forecast

The Petitioner has stated that the energy consumption data for the financial years 2001-02, 2002-03 and forecast for 2003-04 has been submitted on the basis of the following:

- For 2001-02, on the basis of CS-4 Statements submitted by its field divisions
- For 2002-03, from the actual data of CS-4 Statements for the period April 2002 to January 2003 and estimate for remaining two months on proportionate basis
- For the year 2003-04, on the basis of past trend of growth and the amount being spent for further development
- The growth rates considered by the Petitioner in respect of number of consumers, connected load and energy consumption are much higher than previous years. These growth rates are presented in Table 2.3.

- The reason for taking higher growth rates has been given as good quality of uninterrupted supply in the State and the efforts to reduce theft of electricity.

Table 2.3: Growth rates (%)

Sl. No.	Category of Consumers	Actual for 2002-03*			Taken by Petitioner for 2003-04		
		No. of Consumers	Connected load	Energy Consumption	No. of Consumers	Connected load	Energy Consumption
1	Domestic Light, Fan & Power	3.1	5.1	7.7	4	5.00	10
2	Non – Domestic Light, Fan & Power	0.1	5.4	6.7	1	2	7
3	Public Lamps	0.0	-2.6	-12.6	1.08	1.00	4.00
4	Private Tubewell / Pump sets	1.3	1.5	22.7	3	3.00	7.00
5	State Tube well /World Bank Tubewells	2.5	1.2	-7.2	2.5	2.50	3.73
6	Pumped Canals	3.3	6.9	-12.6	3.16	3.00	3.00
7	Public Water works	4.5	4.9	3.3	4.98	5.00	8.00
8	Industrial – L.T.	-4.3	-0.58	-4.8	1.99	2.00	6.00
9	Industrial – H.T.	3.6	5.1	16.9	4.02	4.39	7.00

**Based on Petitioner's data*

Table 2.4 gives details of energy consumption given by the Petitioner for the years 2001-02, 2002-03 and forecast for 2003-04.

Table 2.4: Energy Consumption details

S. No.	Category	2001-02			2002-03			2003-04		
		No. of Consumers	Connected Load MW)	Sale (MU)	No. of Consumers	Connected Load (MW)	Sale (MU)	No. of Consumers	Connected Load (MW)	Sale (MU)
1	Domestic*	725245	882.259	995.605	747700	927.650	1072.112	777608	974.033	1179.323
2	Commercial	88911	187.600	253.939	89750	197.660	270.924	90648	201.613	289.889
3	Public Lam ps	556	7.829	26.560	556	7.626	23.208	562	7.702	24.136
4	Public Institutions									
5	Irrigation									
a	*PTW*	*16585*	*89.937*	*229.693*	*16800*	*91.272*	*281.765*	*17304*	*94.010*	*301.489*
b	*STW*	*680*	*16.384*	*81.053*	*697*	*16.574*	*75.193*	*714*	*16.988*	*78.001*
c	*Pump Canals*	*92*	*4.177*	*11.109*	*95*	*4.466*	*9.709*	*98*	*4.600*	*10.000*
6	PWW	538	30.101	153.971	562	31.564	159.070	590	33.142	171.796
7	Industrial									
a	*LT*	*8299*	*94.020*	*92.417*	*7940*	*93.478*	*87.985*	*8098*	*95.348*	*93.264*
B	*HT*	*192*	*151.494*	*383.498*	*199*	*159.288*	*448.696*	*207*	*166.275*	*480.105*
8	Railways									
9	Bulk									
	Sub Total	**841108**	**1464.301**	**2227.845**	**864299**	**1529.578**	**2428.662**	**895829**	**1,593.7**	**2628.0**
10	Out of state	2	1.385	36.052	2	1.385	978.645	2	1.385	1083.896
	Total	***841110***	***1465.686***	***2263.897***	***864301***	***1530.963***	***3407.307***	***895831***	***1595.1***	***3711.9***

**Includes Public Institutions*

2.4.2 Energy loss

The Petitioner has defined "Energy loss" as the combination of Technical and Commercial (T&C) losses and has stated these losses with and without taking the quantum of energy supplied to other States. Usually the term used for this loss is "Transmission & Distribution (T&D) loss", which the Commission will also use. When one more component of commercial loss due to collection inefficiency is added to this loss, it is called the Aggregate Technical & Commercial (AT&C) Loss. The Petitioner states to have calculated the loss levels on the basis of the following:

- For financial year 2001-02 & 2002-03, on the basis of actual data of energy purchased and supplied as per statistics furnished by its field units

- For financial year 2003-04, the loss level has been projected based on the proposed loss reduction over the 2002-03 level.

Table 2.5 shows the energy balance and percentage of losses submitted by the Petitioner.

Table 2.5: Energy Balance and Physical Transaction of Power (MUs)

S. No.	Item	2001-02		2002-03		2003-04	
		With Sale of Power to other States	Sale within Uttaranchal	With Sale of Power to other States	Sale within Uttaranchal	With Sale of Power to other States	Sale within Uttaranchal
1	Power Purchase	3687.790	3651.738	4734.220	3755.575	5073.000	3989.104
2	Sale of Power	2263.897	2227.845	3407.307	2428.662	3711.900	2628.003
3	Energy Loss	1423.893	1423.893	1326.913	1326.913	1361.100	1361.101
4	Percentage Loss(%)	38.611%	38.99%	28.03%	35.33%	26.83%	34.12%

2.5 Financial Parameters of ARR

2.5.1 Power Purchase Cost

The Petitioner has stated that it has worked out the power purchase cost for the financial year 2003-04 on the basis of the following:

- Cost of power purchased from UJVNL from its large hydro electric power stations is taken as 60.5 paise per unit.
- Cost of power purchased from micro-hydel plants and small power stations including the Galogi power station is taken as 170 paise per unit.
- Power purchase cost from CPSUs has been worked out on the basis of total payment made to each generating stations. The breakup of various cost elements has not been provided.
- Energy procured from Independent power producers (IPPs) mainly small hydroelectric projects of less than 5 MW capacity has been considered at 250 paise per unit
- 12% free power available to the State from Tanakpur Power Station has been repurchased from Government of Uttaranchal (State Government) by the Petitioner at the pooled rate of power purchased from CPSUs in that month

The average power purchase price has been projected at 112.93 paise/unit for financial year 2003-04 in comparison to the average cost of 87.79 and 106.16 paise/unit for financial years 2001-02 and 2002-03 respectively. While the relevant average cost for making year-wise comparison should be the cost of power required for the State only based on merit order, the Petitioner has given the average of total power purchase cost, including the cost of power that was purchased for trading with other States also and, hence, does not reflect the true cost of power purchased for Uttaranchal. This comes out clearly in the details of power purchase cost submitted by the Petitioner shown in Table 2.6.

Table 2.6: Power Purchase Cost

Sl No.	Source	2001-02			2002-03			2003-04		
		Units (MU)	**Average cost (Paise/ kWh)**	**Total Cost (Rs. Cr.)**	**Units (MU)**	**Average cost (Paise/ kWh)**	**Total Cost (Rs. Cr.)**	**Units (MU)**	**Average cost (Paise/ kWh)**	**Total Cost (Rs. Cr.)**
1	Central Sector									
	(upto 8.11.01)	396.88	185.68	73.69						
	(wef 9.11.01)	402.90	151.30	61.88	1722.30	161.93	278.90	1995.00	168.41	335.98
2	UPJVNL (upto 8.11.01)									
	i) Main Plants	1670.13	36.00	60.12						
	ii) Micro Hydel iii) Golgi P.H.	15.99	170.00	2.72						
3	UJVNL (wef 9.11.01)									
	i) Main Plants	796.59	60.50	48.19	2916.28	60.50	176.43	2963.00	60.50	179.26
	ii) Micro Hydel	10.30	170.00	1.76	3.43	170.00	0.58	5.00	170.00	0.85
	iii) Golgi P.H				34.49	170.00	5.86	40.00	170.00	6.80
4	UPPCL (wef 9.11.01 to 03.01.02)	374.12	185.68	69.47						
5	12% Share in Tanakpur PH									
	(upto 31.12.01)	17.06	Free	0.00						
	(wef 01.01.02 to 31.03.02)	3.82	157.55	0.60	40.85*	179.64	7.34	44.00	186.25	8.20
6	I.P.Ps				11.92	250.00	2.98	26.00	250.00	6.50
7	Additional of Banked energy				4.95	Free	---			--
8	Transmission Charges to PGCIL	-	-	5.32	--	----	30.49			35.32
	Total	***3687.79***	***87.79***	***323.75***	***4734.22***	***106.16***	***502.58***	***5073.00***	***112.93***	***572.91***
	Sale to Other States	*36.05*			*978.46*			*1083.89*		
	Net Uttaranchal	***3651.74***			***3755.76***			***3989.11***		

**Corrected for typographical error against Petitioner's figure of 30.85*

2.5.1.1 *Power Purchase from Central Generating Stations and Others*

For the financial year 2001-02, the Petitioner has stated that plant-wise break-up of the energy purchased from Central Power Generating Stations (CPSUs) was not available because during this period, the billing for the energy consumed in Uttaranchal was done by UPPCL on the basis of pooled cost. Accordingly, the Petitioner approached UPPCL for intimating the rates at which payments due to CPSUs were accepted. The Petitioner has stated that following cumulative progressive rate of energy purchased from CPSUs was intimated by UPPCL, which has been taken for working out Power Purchase Expenditure for 2001-02:

Upto December 2001 Paise 194.43 / kWh

Till end of March 2002 Paise 185.68 / kWh

Table 2.7: Station-wise break-up of power purchase cost for 2002-03

S. No.	Source	Units received (MU)	Amount Payable (Rs. Crores)	Rate (Rs./kWh)
1	**NHPC**			
	SALAL	38.01	2.466	0.65
	TANAKPUR	13.40	1.736	1.30
	CHEMA RA	66.80	11.206	1.68
	URI	73.97	21.342	2.89
	Other Charges	---	---	---
	Sub Total NHPC	*192.19*	*36.750*	*1.91*
2	**NTPC**			
	ANGPP	84.09	13.240	1.57
	AUGPP	127.61	39.167	3.07
	DGPP	135.30	26.921	1.99
	FGUTPP	162.40	31.042	1.91
	FGUTPP-2	62.82	12.272	1.95
	NCPP	14.89	3.326	2.23
	RHSTPS	223.10	31.120	1.39
	SSTPS	649.47	63.388	0.98
	Other Charges (I.Tax)	---	4.692	---
	Sub total NTPC	*1459.72*	*225.172*	*1.54*
3	**NPC**			
	NAPP	63.31	15.021	2.37
	RAPP	5.78	1.792	3.10
	Other Charges	---	0.0482	
	Sub Total NPC	*69.09*	*16.862*	*2.44*
4	**Western Region**	**1.27**	**0.111**	**0.87**
5	**Power Grid**			
	Transmission Charges	---	28.209	0.16
	Other Charges (I.Tax)	---	0.992	---
	NRLDC	---	0.2111	---
	ULDC	---	1.078	---
	Sub total	----	*30.491*	*0.17*
	Total	***1722.30***	***309.387***	***1.80***
6	**Free Power**	**40.85**	**---**	---
	Grand Total	***1763.15***	***309.387***	***1.75***

For working out Cost of Power Purchase for 2002-03, the Petitioner has based its computation on the actual data and actual payments made to CPSUs. In support of the above, the Petitioner has given monthly station-wise break-up of energy purchased and the cost of energy for 2002-03. The station-wise details submitted by the Petitioner for 2002-03 are presented in Table 2.7.

2.5.1.2 *Component-wise break-up not relevant in ABT regime*

Regarding station-wise break-up of these costs into various components such as fixed cost, variable cost, incentives and other costs, the Petitioner has stated that for such break-up the data has to be compiled and it would take considerable time. The Petitioner has stated that in the present Availability Based Tariff (ABT) regime, such data is irrelevant as now billing is done on fixed charges, energy charges and Unscheduled Interchange (UI) charges. It further states that the system of billing of the power purchased from CPSUs is so lengthy and cumbersome that the bills raised originally are followed with supplementaries very frequently.

The Petitioner claims that the station-wise information provided by it will suffice for drawing up merit order dispatch. The Petitioner wrongly claims that after implementation of ABT, the relevance of merit order dispatch is not there and the reason advanced for it, that the constituents have to pay for fixed charges irrespective of energy drawl unless allocation is surrendered permanently, is not correct.

2.5.2 *Employee costs*

The employee costs for the year 2003-04 have been worked out by the Petitioner on the basis of the following:

- A base cost has been determined by incorporating the financial impact of the action of engaging new employees against the sanctioned strength, although the number of actual employees working is lower than the sanctioned strength. No report on study for manpower planning has been enclosed for justifying manpower requirement.
- This cost has been assumed to increase by 6% for the ensuing year. The rate of growth of 6% for financial year 2003-04 over the base cost has been applied by the Petitioner on different elements of employee payments, which is based on:
    - Normal annual increment of 2.5%over basic pay

  - Average annual increase in Dearness Allowance of 6% on Basic pay
  - Increase of 1% of basic pay for higher fixation of pay on promotion and allowing time bound scales
  - The sum of above three components, i.e. 9.5%, has been multiplied by a factor of 0.63 to arrive at the proposed increase of 6% (rationale for this factor of 0.63 has not been given).
- For pension and gratuity benefits, the Petitioner has made a provision of 19.08% on basic pay and dearness allowance on the basis of actuarial benefits study conducted by the consultants to UPPCL.
- The employee cost determined for UPCL as a whole has been apportioned to various functional entities in line with Financial Statements of Accounts.

The details of employee costs across the years are shown in Table 2.8.

Table 2.8: Employee number & co st#

Sl. No.	Category of employee	2001-02			2002-03			2003-04		
		Number		Cost	Number		Cost	Number		Cost
		Sd.*	Working	(Rs.Cr.)	Sd.	Working	(Rs.Cr.)	Sd.	Working	(Rs.Cr.)
1	Board of Directors	4	3	0.14	4	4	0.25	4	4	0.27
2	Support Staff of Board of Directors									
2(a)	Technical	8	8	0.29	9	9	0.35	9	9	0.37
2(b)	Accounts/finance	1	1	0.04	4	1	0.05	4	4	0.16
3	All other staff									
3(a)	Technical									
3(a)(i)	Officers	249	184	4.42	249	249	6.34	259	259	6.99
3(a)(ii)	Staff	5239	4821	72.31	5249	4926	78.32	5348	5348	90.13
3(b)	Non-technical									
3((b)(i)	Administrative									
3(b)(i.i)	Officers	7	7	0.14	8	7	0.15	8	8	0.18
3(b)(i.ii)	Staff	1009	968	11.62	1009	1005	12.79	1022	1022	13.79
3(b)(ii)	Accounts and finance									
3(b)(ii.i)	Officers	23	9	0.18	47	23	0.49	47	47	1.06
3(b)(ii.ii)	Staff	99	76	1.14	99	79	1.26	108	108	1.83
3(b)(iii)	Others (please specify)									
3(b)(iii.i)	Officers									
3(b)(iii.ii)	Staff									
	Total	***6639***	***6077***	***90.28***	***6678***	***6303***	***100.00***	***6809***	***6809***	***114.78***

#Excluding terminal benefits ** Sanctioned*

The Petitioner has also submitted component-wise details of employee cost for financial year 2001-02 which are shown in Table 2.9. The Petitioner has stated that such details have not yet been finalized for 2002-03.

Table 2.9: Component-wise details of Employee Cost for 2001-02

S. No.	Particulars	Cost (Rs. Crores
1	Salary	60.99
2	Over Time	0.00
3	Dearness Allowance	27.36
4	Other Allowance	4.82
5	Bonus / Ex-gratia	0.00
	Sub Total	*93.17*
6	Medical Expenditure / Reimbursement	0.20
7	LTC	0.06
8	Interim Relief	0.03
9	Earn Leave / Encashment	2.76
10	Leave salary contribution	3.10
11	Payment under Works Men Compensation Act	0.28
	Sub Total	*6.43*
12	Staff welfare benefits	0.40
13	Terminal benefits	15.50
	Sub Total	*15.90*
	Grand Total	***115.50****
14	*Amount Capitalised*	*3.27*

*The Petitioner in its ARR claimed a figure of Rs. 90.28 Crore and terminal benefits of Rs. 15.50 Crore but later in its submission gave the above break-up.

Regarding Terminal Benefit liability the Petitioner stated that till December 31, 2002, this amount was realised on behalf of U.P. Power Sector Employees Trust and used for payment of Pension and Gratuity by UPCL (instead of paying to the Trust). The Petitioner has stated that UPCL has taken a decision to absorb the employees of UPPCL who were hitherto on deputation with UPCL. Keeping this in view, the Petitioner proposes to make such contribution towards Terminal Benefit to GoU with effect from January 1, 2003 and in return GoU will take over the responsibility of pension and gratuity.

2.5.3 *Administration and General (A&G) Expenses*

The A&G expenses have been estimated by the Petitioner for UPCL as a whole in a manner similar to that used for employee cost. The Petitioner has calculated A&G expenses for financial year 2003-04 as follows:

- actual expenses for financial year 2002-03 taken as a basis and an increase of 10% per annum for the ensuing year has been assumed.
- 10% increase is considered reasonable as the cost of services has increased at this pace during past years
- even in the Guidelines fixed by the Central Electricity Authority (CEA) for entering into Power Purchase Agreements (PPAs), 10% increase per annum on O&M charges inclusive of A&G Cost is permissible.
- certain new items have been incorporated into the list to account for the establishment of the corporate office, computerisation and other specialised activities.

Table 2.10 gives the A&G expenses submitted by the Petitioner.

Table 2.10: Administrative and General (A&G) Expenses (Rs. Crores)

S.No	Particulars	2001-02	2002-03	2003-04
A.	Administrative & General Expenses			
	Insurance of Employees, Assets etc.	*0.04*	*0.06*	*0.07*
	Telephone, Postage, Telegram, Internet, Charges	*0.44*	*0.62*	*0.68*
	Consultancy Charges	-	*0.85*	*1.42*
	Technical Fees *Other Professional Charges*	- *0.01*	- *0.03*	- *0.03*
	Service Charges for Computerization	-	-	-
	Conveyance and Traveling Expenses (vehicle running, hiring)	*1.41*	*1.88*	*2.88*
	Printing and Stationery	*0.36*	*0.57*	*0.62*
	Advertising	*0.38*	*0.50*	*0.62*
	Electricity and Water Charges	*1.51*	*1.85*	*1.92*
	Miscellaneous (Including Training)	*1.08*	*1.67*	*2.37*
	Freight	-	-	
	Sub Total	5.23	8.03	10.61
B.	Rents, Rates and Taxes	0.51	0.53	0.64
C.	Legal Charges	0.10	0.15	0.15
D.	Audit Fees	0.05	0.05	0.07
E.	Regulatory Commission's Fee and Charges	-	1.87	3.11
F.	Training	0.90	1.20	1.50
	Total	***6.79***	***11.83***	***16.08***

The Petitioner has capitalized an amount of Rs. 0.45 Crores out of Rs. 6.79 Crores during 2001-02.

2.5.4 Repair and Maintenance (R&M) Expenses

Table 2.11 summarises the submissions of the Petitioner with regard to R&M cost. The Petitioner has given the following justification for a rising trend in repair and maintenance (R&M) expenses, although the same is not supported by the high level of transformer failure rates given in Table 2.12:

- A special drive was initiated for keeping the equipment in working condition and to ensure availability of quality power.
- This was necessary due to the poor condition of the lines and sub-stations at the time of transfer of undertaking and the inadequacy of repair and maintenance operations in the past because of paucity of funds in UPSEB / UPPCL.
- In an electricity utility, the redressal of consumers' grievances is on top priority and, therefore, priority has been assigned to specific R&M works.
- The expenditure is within limits and recovery of the same is in the shape of consumers' satisfaction.

Table 2. 11: Repairs and Maintenance (R&M) Costs (Rs. Crores)

Sl. No.	Particulars	2001-02	2002-03	2003-04
1	Plant and Machinery	5.10	8.96	9.76#
2	Transformers	0.68	8.33	9.36
3	Buildings	0.59	2.58	3.28
4	Other Civil Works	0.08	1.35	2.85
5	Hydraulic Works	-	-	-
6	Lines, Cable Network, etc.	8.30	10.29	10.92
7	Sub-station Maintenance by Private Agencies	-	-	-
8	Vehicles	0.02	-	-
9	Furniture and Fixtures	0.01	0.27	0.30
10	Office Equipment	0.01	0.61	0.75
11	Others	-	0.03	0.20
	Total	***14.78***	***32.42****	***37.42***

 # Details of R&M not given.
** Total corrected against Petitioner's submission of 35.42 Crores.*

The Petitioner has provided a Statement of Transformers failure list for 2002-03 for transformers with capacities ranging from 25 kVA to 1000 kVA as shown in Table 2.12.

Table 2.12: Statement of Damaged Transformers during 2002-03

Particulars	25 kVA	63 kVA	100 kVA	160 kVA	250 kVA	400 kVA	630 kVA	800 kVA	1000 kVA
No. of Transformers Installed									
Garhwal zone	*8256*	*1919*	*1236*	*201*	*448*	*271*	*69*	*1*	*22*
Hill zone	*6236*	*1823*	*905*	*101*	*283*	*197*	*33*	*0*	*9*
Total	***14492***	***3742***	***2141***	***302***	***731***	***468***	***102***	***1***	***31***
No. of Transformers damaged									
Garhwal zone	*1256*	*430*	*365*	*22*	*43*	*57*	*3*	*0*	*0*
Hill zone	*1093*	*364*	*231*	*18*	*37*	*38*	*5*	*0*	*1*
Total	***2349***	***794***	***596***	***40***	***80***	***95***	***8***	***0***	***1***
Percentage of damaged transformers	16.21%	21.22%	27.84%	13.25%	10.94%	20.30%	7.84%	0.00%	3.23%

2.5.5 Provision for Bad and Doubtful Debts

The Petitioner has claimed a provision of 5% of the revenue dues for bad and doubtful debts. The Petitioner has stated that the Bad Debts reflected in the books of field is not being written off because the details of provision of Rs. 4300 Crores made at the time of unbundling of UPSEB has not been passed on to them. The Petitioner has, therefore, requested for formulation of a clear policy in this regard under the guidance of the Commission.

2.5.5.1 Arguments justifying 5% provision

The Petitioner has given the following arguments in support of its claim of 5% provision:

- Actual Bad Debts become many times of the Provision made.
- It is difficult to have interface with all the consumers and to accomplish full collection of current billing due to the geographical terrain in Uttaranchal, where consumers are located in remote villages and tokes (Hamlets). No justification and supporting data has, however, been given so as to know why this should lead to bad debts and what is the magnitude of this problem.
- The unrealized arrears become time barred after 6 years under the provisions of Limitation Act unless recovery is sent to D.M. under Government Electrical

Undertakings (Dues Recovery) Act, 1958. The Petitioner has not given the reason as to why the dues remain pending for a period of 6 years.

- Making such provision is covered with the Generally Accepted Accounting Principles.
- The 5% provision claimed by it is quite less against the 95% target for the financial year 2006-07 in the final report on Financial Restructuring Plan (FPR) accepted by the Government of Uttar Pradesh (GoUP), on which erstwhile Uttar Pradesh State Electricity Board (UPSEB) was unbundled. The level of realization of revenue dues from consumers assumed in this report has also been given by the Petitioner as shown in Table 2.13.

Table 2.13: % Realisations assumed in FPR of GoUP

Year	99-00	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09
Realisation capacity	82%	83%	84%	87%	90%	92%	93%	95%	97%	97%

2.5.5.2 *Age-wise receivables*

To assess the magnitude and gravity of the problem of bad debts, the Commission sought age-wise analysis of receivables from the Petitioner. The Petitioner did not submit age-wise analysis but stated that:

- Age-wise analysis of receivables is done at divisional level periodically either with computers or manually.
- In computerized billing, the programming has been stated to be so designed that the billing cycles for which the dues are not being paid are listed in the MIS report for proper monitoring. No detail of the action taken on such MIS reports has been provided by the Petitioner.

2.5.6 *Investment Program*

2.5.6.1 *Capital Expenditure*

The Petitioner has proposed a capital expenditure of Rs. 437.72 Crores during the financial year 2003-04. The details of Capital works in progress (CWIP) and investments capitalised given by the Petitioner are shown in Table 2.14.

Table 2.14: Capital works in progress (Rs. In Crores)

Description	2001-02	2002-03	2003-04
Opening balance	51.20	42.69	57.81
Add: New investment			
Capital expenditure	24.42	225.09	432.52
Interest during construction	0.27	2.53	5.20
Total	***75.89***	***270.31***	***495.53***
Less: Investment capitalised	*33.20*	*212.50*	*426.72*
Closing balance	***42.69***	***57.81***	***68.81***

The break-up of investment plan given by the Petitioner for different project works for financial year 2004 is shown in Table 2.15.

Table 2.15: Investment Program proposed by the Petitioner (Rs. Crores)

S. No.	Name of the Work	2003-04
1	Transmission	
1.1	*Main Transmission Sub-stations*	*101.45*
1.2	*Transmission lines*	*126.57*
1.3	*Secondary Transmission Works*	*79.05*
2	Distribution Works	30.54
3	Rural Electrification	100.10
	Total	437.72

2.5.6.2 Sources of Finance for proposed Capital Expenditure

For financing the proposed capital outlay, the details of sources of funds given by the Petitioner have been shown in Table 2.16. The Petitioner has stated that all new loans except loans from REC and NABARD will be received through State Government. It has also enclosed copies of sanction letters in respect of REC loan of Rs. 139.42 Crores (dated 14.02.2003) and in respect of GoU loans for financial year 2002-03.

Table 2.16: Financing of Capital Outlay for 2003-04 (Rs Crores)

S. No.	Particulars	2003-04
1	Loans from financial institutions	
	1.1 REC	53.58
	1.2 NABARD	101.89
2	Loan from Government	108.90
3	Grants	
	3.1 APDRP	162.00
	3.2 PMGY	8.10
	3.3 Capital Subsidy by state government for Private Tube wells and pump sets	3.25
	Total	***437.72***

2.5.6.3 Investments Capitalised

Regarding capitalisation of CWIP, the Petitioner has stated that:

- It is a continuing process as the expenditure incurred as capital works is initially charged to CWIP and on completion of works the entire expenditure is transferred to Fixed Assets in Use by corresponding credit to CWIP.
- For transfer of expenditure from CWIP to Fixed Assets, it is necessary that the work is completed and the asset is able to be put into use.
- Only such portion of interest accrued on loans, which have been taken and utilised during the course of construction activities of the work concerned, has been considered to be included in capital cost of the same. The Petitioner has, however, not provided supporting details for the expenditure incurred and status of works for capitalisation.

2.5.7 Interest and Financing Costs

- The summary of the interest and finance costs claimed by the Petitioner is shown in Table 2.17.

Table 2.17: Interest and Finance Charges (Rs. Crores)

S. No	Description	2001-02			2002-03			2003-04		
		Loan	Rate (%)	Interest	Loan	Rate (%)	Interest	Loan	Rate (%)	Interest
A	**Liabilities due at the time of transfer**									
1	*Loans due to UP Government*	123.90	*12.50*	*15.49*	*123.90*	*12.5*	*15.49*	*123.90*	*12.5*	*15.49*
2	*REC (Old Loans)*	*238.25*	*10.11*	*24.08*	*238.25*	*10.11*	*24.08*	*238.25*	*10.11*	*24.08*
3	*UP Power Sector Employees Trust*	*127.10*	*9.50*	*12.07*	*127.10*	*9.50*	*12.07*	*127.10*	*8.5*	*10.80*
B	**Financial Institutions**									
4	*REC*				*27.89*	*9.75*	*--*	*81.47*	*9.75*	*5.33*
5	*IDBI*	*8.90*	*12.50*	*1.11*	*8.90*	*12.50*	*1.11*	*8.90*	*12.50*	*1.11*
6	*HDFC*	*0.20*	*12.50*	*0.03*	*0.20*	*12.50*	*0.03*	*0.20*	*12.50*	*0.03*
7	*PFC*	*3.40*	*12.50*	*0.43*	*3.40*	*12.50*	*0.43*	*3.40*	*12.50*	*0.43*
8	*CBI*	*10.00*	*12.50*	*1.25*	*10.00*	*12.50*	*1.25*	*10.00*	*12.50*	*1.35*
9	*NABARD*							*101.89*	*9.50*	*4.82*
C	**Amount due to CPSUs**	587.50	8.50	49.94	587.50	8.50	49.94	587.50	8.50	49.94
D	**Uttaranchal Government loans**	28.13	12.50	0.77	115.02	12	6.32	217.52	11.50	19.29
	Total	***1127.38***		***105.17***	***1242.16***		***110.72***	***1500.13***	**--**	***132.67***

The estimation of interest has been done by the Petitioner on the basis of the following:

- outstanding loans and the applicable interest rates after taking into consideration special discount/rebate for the timely payment of interest and principal instalments.
- the interest rates adopted are same at which loans were availed by UPPCL/UPCL
- the rates of Government loans have been taken where no details of interest rates are available
- For the loans availed during the year, interests have been calculated for the corresponding period and amortised loan amount only.

The Petitioner has submitted that according to Ahluwalia committee report, the rate of interest on old CPSU dues has been fixed at 8.5% per annum. As per Draft transfer scheme, the liability of CPSUs, estimated at Rs 587.50 Crores, was transferred from UPPCL and, accordingly, the Petitioner has claimed as sum of Rs. 49.94 Crores for this. A copy of tripartite agreement signed on March 20, 2003 between GoI, RBI and GoU for one time settlemen t of CPSU dues has been provided by the Petitioner.

2.5.8 Depreciation

With regard to depreciation, the Petitioner has submitted that in the absence of categorisation of assets transferred from UPPCL to UPCL, it is not possible to determine the amount of depreciation. The gross value of assets taken over from UPPCL as per the draft transfer scheme is Rs. 817.6 crores as on November 9, 2001. The field units of UPCL have already finalized the accounts based on their respective Trial Balances and categorised the assets worth Rs 478.86 Crores as on November 9, 2001. The following basis has been adopted for providing depreciation:

- For depreciation for 2001-02, a sum of Rs. 14.77 crores of depreciation has been worked out strictly as per norms prescribed by GoI for the period from November 9, 2001 to March 31, 2002.
- Depreciation for the whole year has been determined as (Value of assets as per draft transfer scheme x Depreciation worked out as per accounts x 365) / (Value of assets as

per accounts of field units x Number of days, between November 9, 2001 and March 31, 2002, for which accounts have been prepared)

= (817.8 x 14.77 x 365) / (478.86 x 143)

= Rs. 64.47 crores

The calculation of depreciation by the above method is a deviation from the generally accepted principles for the same.

- The depreciation for 2002-03 and 2003-04 has been calculated in a similar way.

The details of fixed assets and the amount of depreciation given by Petitioner is shown in Table 2.18.

Table 2.18: Details of Fixed Assets and Depreciation (Rs. Crores)

Depreciation	2001-02	2002-03	2003-04
Opening Gross Block of Fixed Assets	817.60	850.80	10.63.30
Additions during the year	33.20	212.50	425.72
Closing Gross Block of Fixed Assets	*850.80*	*1063.30*	*1490.02*
Opening Written down cost of Fixed Assets	537.30	506.13	651.66
Assets written off during the years	64.37	66.97	83.70
Closing Balance of written down cost	*545.28*	*651.66*	*994.68*
Opening accumulated depreciation	280.30	344.67	411.67
Depreciation for the Year	64.37	66.97	83.70
Closing Accumulated Depreciation	***344.67***	***411.64***	***495.34***

2.5.9 Total Revenue Expenditure

With the above discussed revenue expenditure and some other components, total revenue expenditure for financial year 2003-04 with sale to other States and without sale to Other States has been proposed to be Rs. 1054.6 Crore and Rs. 824.92 Crores respectively. A summary of the revenue expenditure given by the Petitioner for the years 2001-02, 2002-03 and 2003-04 is given in Table 2.19.

Table 2.19: Total Revenue Expenditure (Rs. Crore)

Sl. No.	Data	With Sale to other States			Without sale to other States		
		2001-02	2002-03	2003-04	2001-02	2002-03	2003-04
1	Expenditure incurred on:						
(i)	Cost for Purchase of energy	323.75	502.58	572.91	317.95	326.78	389.80
(ii)	Expenses on wages, salaries, other allowances	90.28	100.00	114.78	90.28	100.00	114.78
(iii)	A&G expenses	5.23	8.03	10.61	5.23	8.03	10.61
(iv)	R&M expenses	14.79	32.42	37.42	14.79	32.42	37.42
(v)	Rents, rates & Taxes, other than taxes on income	0.51	0.53	0.64	0.51	0.53	0.64
(vi)	Interest on loans	105.17	110.72	132.67	105.17	110.72	132.67
(vii)	Interest on debenture issued by the licensee	-	-	-	-	-	-
(viii)	Interest paid on security deposit	0.63	0.65	0.67	0.63	0.65	0.67
(ix)	Legal charges	0.10	0.15	0.15	0.10	0.15	0.15
(x)	Bad debts	30.64	31.58	32.76	30.64	31.58	32.76
(xi)	Auditors' fees	0.05	0.05	0.07	0.05	0.05	0.07
(xii)	Regulatory Commission Fee and Expenses	-	1.87	3.11	-	1.87	3.11
(xiii)	Depreciation	64.37	66.97	83.70	64.37	66.97	83.70
(xiv)	Rebate allowed to Consumers	11.20	12.29	15.40	11.20	12.29	15.40
(xv)	Contribution to provide fund, staff pension and gratuity	15.50	24.17	49.71	15.50	24.17	49.71
(xvi)	Expenses on apprentice and other training schemes	0.90	1.20	1.50	0.90	1.20	1.50
(xvii)	Bonus paid to the employees of the undertaking	-	-	-	-	-	-
(xviii)	State Govt. Levy on Extra State Sale of Power	2.26	56.56	46.57			
	Total expenditure before capitalisation	***665.38***	***949.77***	***1102.77***	***657.32***	***717.41***	***873.09***
2	Less the amount of Establishment, Administration & Interest Capitalized	-3.72	-17.23	-48.17	-3.72	-17.23	-48.17
	Total "expenditure" (after captialisation)	***661.66***	***932.54***	***1054.60***	***653.60***	***700.18***	***824.92***

2.5.10 Capital Base

The Capital Base claimed by the Petitioner is presented in Table 2.20. For determination of Capital Base, the Petitioner has stated that:

- It has used the formal proposal submitted by UPPCL on March 22, 2003 as the basis.
- The opening balances of various components such as stores, cash & bank balances, consumer security deposit and consumer contribution are taken as per Draft Transfer scheme and normal increase based on actual operation is further provided there on.

Table 2.20: Capital Base (Rs. Crore)

Ref.	Data Required	2001-02	2002-03	2003-04
1 (a)	Original cost of fixed asset	850.80	1063.30	1490.02
(b)	Cost of intangible assets	-	-	-
(c)	The original cost of works in progress	42.69	57.81	68.81
(d)	The amount of investment compulsorily made under para-IV of the Sixth Schedule	-	-	-
(e)	An amount on account of working capital equal to the sum of :			
(e) i	Average cost of stores (1/12th of the sum of the stores materials and suppliers including fuel in hand at the end of each month of the year)	54.50	56.28	62.50
(e) ii	Average cash and bank balance (1/12th of the sum of cash and bank balance whether credit or debit and call and short term deposits at the end of each month of the year)	26.25	29.76	32.75
(f)	Avarage of Revenue Arrears (1/12th of the out standings at the end of each month)	778.48	791.32	800.87
	Sum of above	*1752.72*	*1998.47*	*2354.95*
	Less			
2 i)	The amounts written off or set aside on account of depreciation of fixed assets.	344.67	411.64	495.34
ii)	The amount of any loan or subvention from the State Government	177.82	371.85	647.69
ii.a)	The amount of any loans borrowed from organizations or institutions approved by the State Government.	975.35	1003.24	1158.71
ii-b)	The amount of any debenture issued by the licensee.	-	-	-
iii)	The amounts deposited in cash with the licensee by consumers, by way of security.	21.60	22.26	23.05
iv)	The amount standing to the credit of Tariff and Dividends Control Reserve at the beginning of the year of account.	-	-	-
v)	The amount standing to the credit of the Development Reserve at the close of the year.	-	-	-
vi)	The amount carried forward (at the beginning of the year of account) in the accounts of the Licensee for distribution to the consumers.	-	-	-
vii)	Consumer contribution	51.15	56.70	62.50
	Sum of above	*1570.59*	*1865.69*	*2387.30*
	Net Capital Base (1 – 2)	***182.13***	***132.78***	***67.65***

2.5.11 *Reasonable Return*

The reasonable return has been calculated by the Petitioner as shown in the Table 2.21.

Table 2.21: Reasonable Return (Rs. Crores)

S. No.	Description	2001-02	2002-03	2003-04
1	Reserve Bank of India (RBI) Percentage	8%	8%	8%
2	Reasonable return on capital base after 31st March 1999			
3	Reasonable return on capital base thereafter (@ 16%)	29.14	21.24	10.84
4	Income from investments, other than those investment compulsory made under Para iv of Sixth schedule			
5	Government loans at 0.5%			
6	Other approved loans at 0.5%	4.88	5.02	5.79
7	Debentures at 0.5%			
8	Development reserve at 0.5%			
9	Such other amount as may be allowed by the Central Government			
	Total reasonable return	***34.02***	***26.26***	***16.63***

2.5.12 *Non tariff Income*

Income in the form of meter rent, delayed payment surcharge from consumers, interest income on investments and revenue from trading have been shown under this head by the Petitioner as depicted in Table 2.22.

Table 2.22 : Non-Tariff Income (Rs. Cro res)

Sl. No.	Details	2001-02	2002-03	2003-04
1	Miscellaneous Revenue From Consumers			
	(i) Meter Rent	5.11	5.50	5.72
	(ii) Maintenance Charges of Public Lighting	-	0.01	0.01
	(iii) Service Connection Charges	-	-	-
	(iv) Fuse Charges	0.04	0.05	0.05
	(v) Delayed Payment Surcharge	14.80	15.25	16.40
	(vi) Disconnection / Reconnection Charges	3.46	1.96	2.02
	(vii) Load Reduction Charges	-	0.04	0.02
	(viii) Interest on Investment	-	-	-
	SUB TOTAL (1)	*23.41*	*22.81*	*24.22*
2	Income from Trading			
	(i) Sale of Tenders	0.23	0.33	0.36
	(ii) Rent of Buildings	0.03	0.04	0.06
	(iii) Interest on Investment	1.84	4.63	5.00
	(iv) Wheeling Charges from HPSEB	0.03	0.07	0.07
	SUB TOTAL (2)	*2.13*	*5.07*	*5.49*
	Total Non-tariff Income	***25.54***	***27.88***	***29.71***

2.5.13 Estimation of Revenue at current tariff

The Petitioner has provided details of revenues in the financial years 2001-02, 2002-03 and the expected revenue at current tariffs for the year 2003-04 as shown in Table 2.23.

Table 2.23: Revenue details given by the Petitioner

Sl. No	Category	2001-02			2002-03			2003-04		
		Sale of Electricity (MU)	Average Rate (Paise)	Revenue (Rs. in Crores)	Sale of Electricity (MU)	Average Rate (Paise)	Revenue (Rs. in Crores)	Sale of Electricity (MU)	Average Rate (Paise)	Revenue (Rs. in Crores)
1	Domestic *	995.605	190.337	189.50	1072.112	191.15	204.936	1179.323	192.32	226.81
2	Commercial	253.939	404.664	102.76	270.924	413.39	111.996	289.889	412.40	119.56
3	Public Lamps	26.560	168.298	4.47	23.208	244.57	5.676	24.136	244.55	5.90
4	Public Institutions									
5	Irrigation									
	(a) PTW / World Bank Tubewells	229.693	38.268	8.79	281.765	31.64	8.916	301.489	31.72	9.56
	(b) STW / World Bank Tubewells	81.053	140.525	11.39	75.193	172.99	13.008	78.001	173.10	13.50
	(c) Pumped Canals	11.109	251.148	2.79	9.709	297.86	2.892	10.000	297.90	2.98
6	Public Water Works	153.971	311.098	47.90	159.070	327.70	52.128	171.796	327.80	56.31
7	Industrial									
	(a) L.T.	92.417	385.535	35.63	87.985	406.43	35.760	93.264	405.85	37.85
	(b) H.T.	383.498	461.776	177.09	448.696	381.13	171.012	480.105	380.60	182.73
8	Railway Traction									
9	Supply in Bulk									
	Sub Total	*2227.845*		*580.32*	*2428.662*		*606.324*	*2628.003*		*655.190*
10	Out of State	36.052	248.530	8.96	978.645	247.57	242.283	1083.896	240.15	260.30
	TOTAL	***2263.897***	***260.295***	***589.28***	***3407.307***	***249.06***	***848.607***	***3711.899***	***246.66***	***915.49***

**Includes Public Institutions*

The Petitioner has assessed Revenue from sale of energy on the basis of the following:

- For financial year 2002-03, category-wise revenue has been assessed by taking data from CS-4 statements submitted by its field units for the period April 2002 to January 2003 as base and then updating data proportionately for 12 months.
- For financial year 2003-04, after assessing the Consumers, Connected Load and Energy Consumption for each category, the through rate at the end of financial year 2002-03 in

respect of individual categories was applied except for minor variation due to increase in average consumption per consumer for which marginal increase for higher slabs was considered. As brought out earlier in the absence of sub-categorywise data as per the existing tariff schedule, the revenue estimations done by through rates lack reliability.

- The revenue from sale of electricity to other states has been assessed on the basis of prevailing rates and the rates finalised with Power Trading Corporation (PTC).
- Extra revenue generated through such trading of surplus power out of CPSU allocations if passed on to the State Government after retaining 15% as service charge. Since this amount is paid to State Government, the Petitioner states that it is not available with UPCL for being apportioned as revenue for determination of tariff.

2.5.14 Aggregate Revenue Requirement and Revenue Gap

As per the data filed by the Petitioner, the Revenue gap for 2003-04 on average basis considering Sale within Uttaranchal is Rs. 156.65 crores and Rs. 126.03 Crores with sale to other States, which is summarized in Table 2.24 alongwith filed figures of gap for financial years 2001-02 and 2002-03.

Table 2.24: Aggregate Revenue Requirement and Revenue Gap (Rs. Crore)

Sl. No.	Item	2001-02		2002-03		2003-04	
		With Sale of Power to other States	Sale within Uttaranchal	With Sale of Power to other States	Sale within Uttaranchal	With Sale of Power to other States	Sale within Uttaranchal
1	Total Revenue Exp.	661.660	653.600	932.540	700.180	1054.600	824.920
2	Reasonable Return	34.020	34.020	26.260	26.260	16.630	16.630
3	*Total Revenue Requirement*	*695.680*	*687.620*	*958.800*	*726.440*	*1071.230*	*841.550*
4	Revenue from Sale of Electricity at existing Tariff	589.280	580.320	848.607	606.324	915.490	655.190
5	Other Income	25.540	25.540	27.880	27.880	29.710	29.710
6	*Total Aggregate Income*	*614.820*	*605.860*	*876.487*	*634.204*	*945.200*	*684.900*
7	Net Additional Income Required	80.860	81.760	82.313	92.236	126.030	156.650
8	Percentage of Increase over existing Tariff (%)	13.72%	14.09%	9.70%	15.21%	13.77%	23.91%

2.6 The Tariff Proposal

For meeting the average expenditure in years 2003-04 and 04-05, the Petitioner has proposed that on average basis a net revenue requirement of Rs. 975.74 Crores is to be raised through tariffs with sales to other States taken into consideration and Rs 744.56 Crores without taking sales to other States leaving a gap of Rs. 1.02 Crore. The summary of proposed tariff realization is given in Table 2.25. Since the Commission is examining the ARR proposal for 2003-04 only, the average expenditure shown in this Table would need to be seen with reference to the expenditure proposed in 2003-04 i.e. Rs. 1071.23 Crore and Rs. 841.55 Crore only. Further, the Petitioner has first proposed certain items in this Table such as 4(i), 4(ii), 4(iii) and 4(iv) as expenses in the ARR totalling to Rs. 89.43 Crore, which have now been deducted from the ARR in this Table for calculation of net revenue requirement.

Table 2.25: Summary of Proposed Tariff Revenue (Rs. Crores)

Sl.No.	Particulars	With sale to other States	Without sale to other States
1	Average yearly Expenditure for 2003-04 and 2004-05	1121.49	908.30
2(i)	Less : other Income	(30.30)	(30.30)
(ii)	Less : Service Charges 15% of margin on Sale / Banking	--	(17.99)
3	Net Revenue Requirement	1091.19	860.01
4(i)	Less: Government subversion as indicated by GoU	(25.00)	(25.00)
(ii)	Less : Interest on CPSUs old due to be transferred from UPPCL which GoU has indicated to own	(49.94)	(49.94)
(iii)	Less: Interest on GOUP loans to be transferred from UPPCL which the GOU has indicated to own	(15.49)	(15.49)
(iv)	Less : Liability toward pension and gratuity which GoU has indicated to own	(24.00)	(24.00)
5	Net Revenue Requirement	976.76	745.58
6	Revenue Realization as per proposed tariff	975.74	744.56
	Gap	***1.02***	***1.02***

The Petitioner has proposed a completely new tariff structure with certain modifications in the provisions of exisiting rate schedule and with 10 retail tariff schedules (RTS).

2.7 Submissions on Efforts made for Efficiency Improvement

2.7.1 T&D Losses

Regarding efficiency improvement in energy consumption, the Petitioner has stated that it has duly incorporated constant reductions in line losses as 3.66% & 1.21% during 2002-03 and 2003-04 respectively, which is a result of its concerted efforts to reduce losses

2.7.2 Collection Efficiency

The Petitioner has provided the information for collection (including collection of previous arrears) for the financial year 2002 and April 2002 to January 2003 as shown in the Table 2.26. The figures given in this Table indicate that collection efficiency has reduced in the year 2002-03 in comparison to that in year 2001-02.

Table 2.26: Statement of Percentage Realisation

S. No.	Category	2001-02			2002-03 (Upto January 2003)		
		Assessment (Rs Lakhs)	Realization (Rs Lakhs)	% Realization	Assessment (Rs Lakhs)	Realisation (Rs Lakhs)	% Realisation
1	Domestic	19661.50	18056.92	92%	17949.37	15233.66	85%
2	Commercial	10577.71	9855.90	93%	9687.50	8399.61	87%
3	Small & Medium	3767.25	3371.31	89%	3170.79	2625.89	83%
4	Large & Heavy	18975.01	16535.07	87%	15463.66	14380.08	93%
5	PTW	951.64	763.73	80%	872.83	415.22	48%
6	Other	8.82	27.52	312%	25.17	9.78	39%
7	*Total Non Government*	*53941.93*	*48610.45*	*90%*	*47169.32*	*41064.24*	*87%*
8	STW	623.61	338.86	54%	684.36	278.77	41%
9	Water Works	9877.25	406.31	04%	8601.04	537.74	6%
10	Other Government	1415.70	189.18	13%	1496.90	129.99	9%
11	*Total Government*	*11916.56*	*934.35*	*8%*	*10782.30*	*946.50*	*9%*
12	***Grand Total***	***65858.49***	***49544.80***	***75%***	***57951.62***	***42010.74***	***72%***

2.7.3 Measures taken for Efficiency Improvement

2.7.3.1 Measures for Technical Loss Reduction

The Petitioner has proposed to carry out various system improvement works, which will help in reduction of losses on completion. The Petitioner has stated that details of these works are included in investment plan.

2.7.3.2 *Steps taken for Commercial loss reduction*

For reducing commercial losses, the Petitioner has stated that it is taking / has taken following steps:

- Regular checking of consumer installations by staff and officers of the Petitioner is being got done, which has reduced tampering of meters and malpractices.
- Detailed analysis of revenue information to maximize revenue with optimum efforts
- Adoption of certain approaches like concentrating on divisions with highest arrears in industrial and commercial categories
- Formation of pilot groups to resolve disputes and increase realizations
- A drive has been initiated to replace all electromechanical meters by pilfer proof Electronic Meters with cubical at commercial and industrial establishments.
- All new connections are being released with pilfer proof meters.
- A proposal for notifying stringent Anti Theft legislation has been submitted to GoU.

3. Response to the Proposals

On admission of Petitioner's ARR and the tariff Petition, their highlights were published in the newspapers given in Table 1.3 (copy of Public Notice attached as Annexure 2).

The Commission invited stakeholders' response on the Petition filed by the Petitioner, and has received 135 representations. The Commission has considered all the one hundred thirty five responses received. Details of persons and organizations who have filed these responses are given in Annexure 4.

The Commission held public hearing (Public Notice for hearings, attached as Annexure 3, was published in newspapers shown in Table 3.1) on the Petitioner's proposals as shown in Table 3.2. List of participants in the Public Hearing is enclosed as Annexure 5.

Table 3.1: List of newspapers for public notice

S No	Name of News Paper	Date of Publication
1.	Amar Ujala	16-07-2003
2.	Dainik Jagran	17-07-2003
3.	Uttar Ujala	18-07-2003
4.	Badri Vishal	19-07-2003
5.	Doon Darpan	20-07-2003

Table 3.2: Schedule of hearing

Place	Date
Rudrapur	22nd July 2003
Almora	24th July 2003
Muni ki reti	28th July 2003
Dehradun	31st July 2003

Many of the issues raised in these objections are common and, therefore, they have been clubbed together. The raised by the stakeholders, are being discussed.

3.1 Information in the ARR

It has been pointed out that the Petitioner has submitted incomplete document and lot of information was yet to be received. As the ARR provides for furnishing of complete information it is liable to be rejected under Regualtion 24 of the UERC (Conduct of Business) Regulations, 2002. Even the Electricity Act, 2003, (section 64) reiterates that the ARR can be rejected for incomplete information. The stakeholder has also objected to liberal use of abbreviations in the ARR filed by the Petitioner.

3.1.1 Petitioner's Submission

In light of the stakeholders' lack of reference to a specific area where incomplete information has been provided, the licensee is unable to comment on this.

3.1.2 Commission's View

The Commission agrees that there are significant information gaps in the petition filed by the licensee. The licensee has not furnished detailed and correct information on assets, depreciation, work in progress, etc. Furthermore, the licensee has not-furnished even the provisional accounts of FY 2003. Moreover requisite information as regards to unmetered consumption, category wise consumption and revenue is lacking. Keeping in view that this was the first filing by the licensee, and the sa me is already unacceptably delayed, the Commission has entertained this somewhat incomplete petition and expects the licensee to improve both the quality and the content of such petitions in future.

3.2 Rate revision of departmental employees

Some respondent have questioned the Regulatory Commission's jurisdiction on the revision of tariffs for Departmental Employees as these benefits of concessional rates are part of the service conditions. Some objectors have also claimed that the employees of UJVNL were also entitled to get electricity at LMV –10 tariffs as envisaged in the transfer scheme. Increase in the tariff for LMV –10 category was also opposed.

Some respondents stated that tariffs for employees of the licensee is highly subsidized and wanted that the cost of this subsidy should not be passed on to the consumers. The respondents also suggested that the facility of concessional power to Departmental employees and pensioners should be allowed only at one connection and the same should not be passed on to be utilized by tenants and in case of its misuse action should be taken against such employees or pensioners.

Respondents also suggested that the instructions already exist to provide the facility of concessional electricity charges to the employees only at their place of posting. In case of misuse of facility, very stringent actions including withdrawing the facility of concessional charge forever may be taken.

Objections have also been received from some employees unions of UJVNL and also from the company itself seeking similar facility.

3.2.1 Petitioner's Submission

As per the conditions of their absorption in Uttaranchal Power Corporation Limited, the terms and conditions of the taken over employees would not be less favorable than the service condition of the U.P. Power Corporation Limited. Since these employees were enjoying all the facilities at par with the UPPCL, the State Government was of the opinion that the same tariff, which is applicable in UPPCL, may also be applied to the Departmental Employees and Pensioners of the licensee. Thus the proposed Tariff is as per terms of their absorption in UPCL without taking the cost factor into consideration.

In this context it is worth consideration that through its very first tariff enforced by the UPPCL with effect from 09-08-2000 the facility of concessional rate as per rate schedule LMV-10 was allowed only to the employees & Pensioners of U.P.Power Corporation thereby depriving the employees of U.P. Rajya Vidyut Utpadan Nigam Limited & U.P. Jal Vidyut Nigam Limited of such facilities.

Since the Rate schedule as were enforced by the UPPCL on 09-08-2000 are applicable in UPCL, the field officers were advised to withdraw the facility of concessional rate of electricity to the employees and pensioners of UJVNL. In case UJVNL considers it essential to allow its employees and pensioners to continue the facility of availing concessional rate they may do so by reimbursement of extra charge payable by them on this account.

3.2.2 Commission's View

This matter has been dealt with elsewhere in the order. What facility or perquisites an employer gives to his employees is a matter to be decided between them but the cost of the same has to be borne by the employer and not by any third party.

3.3 Rural Supply

Some of the stakeholders pointed out that for rural electrification and supply to unmetered category, supply should be made from local micro hydel power stations and the financial burden should not be passed on to other consumers. The supply on rural feeders should not be treated at par with urban supply, keeping in view of the voltage or power outages leading to poor quality of supply. Hence lower tariff should apply for rural consumers. Some petitioner had also pointed out that there should not be any unmetered supply in the State of Uttaranchal.

3.3.1 Petitioner's submission

In Uttaranchal there is no distinction between urban or rural supply in the proposed rate schedule. Fixed charges per month have been proposed for those consumers who are still getting un-metered supply. As regards metered supply, the rural consumers get better electricity supply as their service lines are not overloaded given the lesser number of consumers connected in rural areas.

The licensee would also like to indicate that the rates of charge for domestic consumers (irrespective of their being urban or rural) and for tube wells for irrigation purposes are cross subsidized. It is also of the belief that no further categorization in Rural and Urban consumers appears necessary, though at the same time the Technical as well as Commercial losses on Rural Feeders are excessive in comparison to Urban Feeders.

The licensee intends to meter all its consumers by March 31, 2005.

3.3.2 Commission's View

The Electricity Act, 2003 provides in section 14 that:

"Provided also that where a person intends to generate and distribute electricity in a rural area to be notified by the State Government, such person shall not require any licensee for such generation and distribution of electricity, but he shall comply with the measures which may be specified by the Authority under section 53."

As a result tariffs prescribed in this order will also not apply to such production and distribution of electricity through such decentralized generation systems.

As the power supply available in the state is for 24 hours the Commission would not differentiate between rural and urban supply. The State has enough capacity to supply power to all the consumers for 24 hours a day. Hence similar levels of quality of supply can be maintained across the state.

The Commission completely agrees with the view that there should not be any unmetered supply in the state. The unmetered supply replicates inefficiency in the system, which needs to be eliminated. The Commission is of the view that the licensee has to meter all consumers within a period of two years as envisaged in The Electricity Act, 2003.

3.4 Agricultural Supply

Some respondents pointed out that the agricultural tariffs are already on a higher side as compared to neighboring states. Hence there should not be any increase in agricultural tariffs and the tariffs should be lower.

The tube wells having connected load in excess of 25 BHP should be charged at Agricultural tariffs and not Small and Medium Industrial rates. Similarly, if a rice mill is attached to a tube well connection the entire tariff should be charged at agricultural rate.

Some respondents also pleaded that there should be half yearly bill for Agricultural consumers instead of monthly bill so that the farmers can link their payments to their agricultural produce.

Some of the stakeholders pointed out that PTW consumer should be unmetered as it involves additional expenditure for the licensee to meter these consumers and take monthly meter readings.

State Government raised that water works giving drinking water supply may be given the rates of PTW.

3.4.1 Petitioner's submission

No Response

3.4.2 Commission's View

The Commission's view on the issues related to tariff setting of different consumer categories have been dealt later in this order.

The Commission is aware that there are operational difficulties in providing special facility of half yearly frequency of electricity bill payments to agricultural consumers. Nevertheless the licensee should examine this suggestion and give his proposals in the next ARR.

For allowing PTW tariff to drinking water sector (Water Works) the Commission is of the view that this will lead to introduction of cross-subsidy which is against the existing provisions of the Electricity Act, 2003.

As pointed out above, the Commission would like to see 100% metering of all the consumer categories with provisions of explicit subsidy wherever required. The one time cost of metering will in the long run be much lower than the cost of unaccounted energy.

3.5 Standards of Service & Efficiency Gains

Some of the respondents had categorically stated that the consumers should not be penalized for inefficiency of the licensee. The losses projected by the licensee are higher compared to other neighboring states. One of the stakeholder pointed out that the T & D losses figure as stated by the licensee is totally incorrect. The T & D losses as stated in "Statistics at glance" published in March 2002 is different than that projected by the licensee.

Some of the respondent pointed out that there should be a proper loss study and the line losses should be determined category-wise and should not be same for all categories. Other respondent felt that every transformer should be fitted with electronic meter for energy audit.

3.5.1 Petitioner's submission

It is an admitted fact that the losses are on higher side and efforts to reduce the same are on, results would take time to manifest.

The main reason for such losses, apart from the theft of electricity, is un-metered supply to certain category of consumers due to which proper accounting of energy is not possible. The continuing usage of electromechanical meters also hamper accurate metering. Some investment plans are being implemented for getting the excessive losses under control, but these would be effective only in the long run.

The figures for the financial year 2001-02 submitted by the licensee in the ARR/Tariff application are based on the actual data as reported by the field units. The applicants have compared the figures reported by the licensee with the statistics at a Glance for the financial year 2000-01, according to which the line losses in Uttaranchal alone were worked out to 28.09% only. In fact such information submitted by the licensee did not accounted for the Transmission losses as there was no point that received supply from CPSUs in the territory of Uttaranchal. Thus, the 28.09% losses reported are only indicative of distribution losses which are calculated on the basis of supply received at secondary sub-stations only.

Moreover, during 2000-01 the power system was under the control of UPPCL due to which supply was made for restricted hours only, but during 2001-02 the supply in Uttaranchal was regulated by the current licensee. Thus, in most of areas supply was provided for 24 hours, due to which the percentage of loss particularly in respect of un-metered consumers was on higher side.

3.5.2 Commission's View

The commission fully shares stakeholders concern on high T&D losses. These are occurring due to both technical and commercial reasons. The technical losses are the losses that require upgrading the system.

But commercial losses, which are mainly due to thefts, unmetered supply and negligence in billing and collection can be controlled within specific period through better supervision and by streamlining their billing and collection procedures.

The stakeholders are correct in pointing out the need for effective energy audit to determine and check these losses. This will also help in determining the customer category wise cost of supply as envisaged in Electricity Act 2003 and in reducing the cross subsidies in turn.

3.6 Sub-stations as profit centers

One of the respondents during the hearing at Almora pointed out that the licensee should look at each 33 kV substations as a profit center and increase the number of collection centers for each of these substations.

3.6.1 Petitioner's submission

The licensee proposes to bill consumers 33 kV sub stations-wise. The bills will be generated on 33 kV sub stations. The number of Collection centers will be increased. Talks with SBI and PNB are going on and number of collection centers will be increased.

3.6.2 Commission's View

The Commission would like to have a detailed strategy paper along with proper road map for bringing about efficiency in the system.

3.7 Power purchase costs

Some of the respondent pleaded that the Commission should make its own assessment of the power purchase price of generating stations as the prices proposed by the licensee are exaggerated. The tariffs are high in view of hydro potential of Uttaranchal. Moreover, when Uttaranchal was a part of Uttar Pradesh, UPJVNL power was purchased at 36 paisa/kWh by UPPCL. What are the reasons that have led to an increase in power purchase price to 60.5 paisa / kWh from UJVNL? The Commission should determine cost of power from UJVNL and the rate of 60.5 paisa/kWh as proposed should be ignored.

Some of the respondent also indicated that 12% free power from Tanakpur Power House was available free of cost in the undivided UPPCL. What is the reason for the licensee to attribute a cost for the purchase of this power?

Some of the respondent pointed out that sale to other state in such high proportion is unjust as the collection efficiency from these states is low, hence causing losses to Uttaranchal.

Some of the respondent pointed out that the Merit order should be followed while determining the power purchase costs.

3.7.1 Petitioner's submission

The proposed power purchase cost is determined based on the power purchased from the following plants –

3.7.1.1 Power purchased from main power stations of UJVNL

The hydroelectric power from these power stations of UJVNL is not being purchased @ 36 paise per kWh but at a new rate of paise 60.5 per unit. The Government of Uttaranchal had fixed this rate by an order dated 14th June 2002 for one year and later on extended by order dated 11th Nov 2002. Since this rate was determined on the directions of the Government of Uttaranchal, therefore the Regulatory Commission should allow this power purchase rate in determining the power purchase cost for the licensee.

3.7.1.2 Power purchased from Small/Micro hydro electric Power stations

The power purchased from Micro Hydel Power Station and Golgi Power House is at the rate of 170 paise per kwh as per the agreement between the erstwhile U.P. State Electricity Board

(UPSEB) and the Small Hydro Electric Power Corporation Limited. This agreement is in force even after unbundling of erstwhile UPSEB.

The rate of 250 paise per unit was determined on the basis of Power Purchase Agreement entered in between the independent Power Producer (IPP) and the Licensee as per Practice Directions issued by the U.P. Electricity Regulatory Commission.

This power from CPSU's is obtained at higher rates as there are fixed and variable charges to be incurred in drawing from such stations. Transmission charges attributed to the PGCIL network also need to be paid for these stations.

Considering the cost incurred on establishment and general expenses, repair and maintenance, depreciation and interest and the technical and commercial losses in the system, the cost at the consumer end works out to more than Rs. 3.25 per kWh. Thus the rate of paise 36 per kWh proposed for Retail tariff is quite imaginary and not based on facts.

Except for the rate of electricity being purchased from Main Plants of UJVNL, the rates of other plants are based on actual at which the power is being purchased which is fixed as per the directions of the Central Electricity Authority (CEA) and, therefore, it is not correct that the cost of power purchase has been exaggerated.

The applicant has pointed out that the licensee has re-purchased the power available from Tanakpur Power House of NHPC at pooled rate of electricity while the 12% share in generation is available free of cost to Uttaranchal. The free share is available to the State and not to the Licensee. The State Government has sold such power to the UPCL at Pooled Rate of Power Station of Central Power Sector Undertaking (CPSUs).

Out of the revenue realized by selling the power to other states, 85% of the difference of sale price over the pooled rate of CPSUs is passed on to the Government of Uttaranchal and 15% is retained by the UPCL which is passed on to its consumers while fixing the Retail Tariff. It is, therefore, not correct that the UPCL is suffering any loss in out of state sale of power. In fact, substantial amount is earned on such sale, lion share of which is passed on to the State Government as its levy on such Sale of Power.

As regards realization against the sale of power to other States, hundred percent of the sold amount is realized as the sale is processed through PTC for which payment is received as per terms of the deal.

3.7.2 Commission's View

The commission agrees with the view that Merit order should be followed in determining the power purchase costs for the consumers of the state and the least cost power should be supplied to local customers. The commission has dealt with the issues related to Power purchase cost later in this order.

3.8 Employee Costs

The respondent pointed out that the projection of Contribution to Provident Fund, staff pension and gratuity by the licensee are wholly imaginary and has no real foundation.

3.8.1 Petitioner's submission

The increase in Employee Cost was duly explained in the Notes on the Assumptions and Methodology adapted for determination of ARR and has been assessed at 6%.

However, the increase which the applicants have pointed out pertains to the payment of Terminal benefits for which a provision of Rs. 16.50 Crores was made during the financial year 2001-02 being calculated @ 19.08% on the amount of Pay and Dearness Allowance only.

Since the Staff of the erstwhile UPSEB, remained on Deputation with the UPCL, the actual liability was passed on to the U.P Power Sector Employees Trust. During the financial year 2002-03 the staff remained on deputation with the UPCL upto 31-12-2002 and thus for 9 months covering the period from April, 2002 to December 31, 2002, the normal contribution @ 19.08% towards terminal benefit was shown. But after absorption of the staff in the service of UPCL with effect from January 1,2003 the liability of Pensioners for past period was also shown as payable by the UPCL as the Government of Uttaranchal vide its Order No. 630/3/2002. dated 02.03.2002 expressed its inability to bear this liability and directions were given to meet such liability by the UPCL itself.

During 2003-04 the liability of Pensioners was taken for the complete 12 months and, therefore the amount was enhanced from Rs. 24.17 Crores in 2002-03 to Rs. 49.71 Crores in 2003-04. In 2004-05 the increase was due to extra payment of anticipated in Relief to Pensioners, which is at the equal percentage of Dearness Allowance, and also due to increase in number of Pensioners on account of mass retirement in 2003-04 & 2004-05.

3.8.2 Commission's View

The Commission has looked into each element of the employee costs carefully and has discussed these issues separately in the later part of the Order.

3.9 Reasonable Return

Most of the stakeholders asked the Commission not to allow any reasonable return be allowed to the licensee with a view to promote industries.

3.9.1 Petitioner's submission

The Reasonable Return on capital base is permissible under VIth Schedule of the electricity (Supply) Act, 1948. Since the Licensee is supposed to get some return for doing the business it was considered essential to provide reasonable return to the Licensee, which is permissible under rules. The licensee has already proposed a cut in the energy charges for the industries.

3.9.2 Commission's View

According to VIth Schedule of the Electricity (Supply) Act, 1948, a reasonable return on capital base is permissible to the licensee.

3.10 Tariff design

The respondent suggested that the tariff design for all categories should be at the average cost of supply. The cross subsidy should be reduced and timeframe for its removal should be specified.

3.10.1 Petitioner's submission

The licensee intends to charge the tariffs based on average cost of supply (COS).

Based on the concept of COS, licensee plans to propose the revision of Public Water Works applicable for Jal Sansthan and Jal Nigam to recover the actual cost of supply at consumers end.

The Industrial Tariff comes within the cross subsidizing category and therefore, the rate is definitely above the average cost of energy. The difference over the cost price is to be utilized for subsidizing the Private Tube well / Pumping Sets and Domestic Light, Fan & Power consumers.

The applicants contention that in the proposed Tariff the various categories of consumers who were already paying higher are still being required to pay on the higher side while those who are getting supply of energy at subsidized rate are continuing to do so is not based on facts. In the proposed rate schedules, the increase in subsidizing consumers is very nominal while the subsidized consumers would face relatively higher increases, thereby bringing ensuring that the concept of cross subsidization is eliminated in phases. The reduction of rate of energy charge in respect of Industrial consumers is an indicative of the fact that the licensee is marching towards this goal of eliminating the subsidy but it will not be possible in one go.

3.10.2 Commission's View

The commission fully agrees with the stakeholder's contention that tariffs should be charged at the average cost of supply (COS) for all category of consumers.

Currently, the subsidizing categories have a higher tariff than their COS while subsidised category that is agricultural consumers etc. that have a lower tariff than their respective COS. To avoid tariff shocks cross subsidies have to be removed over a period of time. The Commission in this Tariff Order has tried to rationalize the tariff for all category of consumers and have reduced the cross subsidy.

3.11 Fixed charges & Minimum charges

Some of the respondents raised concerns about the justification for levy of Fixed Charges and its utilization. They also suggested that there should not be any increase in fixed charge but the Commission might levy minimum charges.

However, some stakeholders have also objected to the minimum charges proposed for commercial category by the licensee in view of lower energy cost in the state. They requested the Commission not to consider the increase proposed by the licensee. They also stated that there should not be any minimum charges for seasonal industries and the minimum charges for Industrial consumers should be decreased.

There is no rationale for increase of Monthly Fixed Charge. Excessive manpower of the licensee is adding to the fixed charges.

3.11.1 Petitioner's submission

The expenses which are supposed to be recovered by the licensee are also categorized under fixed and variable charge and, therefore, efforts are made to recover the fixed costs incurred by the licensee through the retail tariff as fixed charge and accordingly the rates were proposed to be revised.

The applicant has further stated that prior to take over of the Undertakings from the U.P. Power Corporation Limited by Uttaranchal Power Corporation Limited no monthly fixed charges were levying. The contention of the applicant is not based on facts as fixed monthly charges were introduced by the UPPCL itself. The practice has continued with certain modifications.

The concept of minimum charges has been kept to ensure the collection of minimum amount of revenue for maintaining the stability of the system. It is particularly essential for Industrial and commercial customers with high demand loads as their consumption pattern can hit the power system adversely.

The applicant has suggested against enhancing the Rate of Minimum Charge under category RTS-2 applicable for Commercial Light, Fan and Power consumers. The present rate of minimum charge per month is Rs. 190 per kW for connection upto 5 kW and above 5 kW to 10 kW the minimum charge is Rs. 220 per kW. For above 10 kW the rate is Rs. 250 per kW per month. The proposed minimum charges has been fixed, keeping into consideration less than 50 units consumption in a whole month, which is based on 6% load factor. If this very nominal factor is not achieved, it will be loss proposition for the licensee. Hence it is expected that the consumer will at least achieve a 6% load factor.

For industrial customers, the minimum charge should be increased to a load factor of 11.4% instead of existing load factor of 6 to 7%. The proposed minimum charge for industrial consumers having connected load upto 25 BHP is Rs. 250 per BHP. Since the present rate is Rs. 245 per BHP for Urban consumers and there is no distinction maintained in urban and rural supply, the proposed rate of Rs. 250 against the present rate of Rs. 245 per BHP is quite reasonable.

3.11.2 Commission's View

The Commission has looked into all the costs rationally while determining the tariff of FY 2004.

3.12 Tariff for Domestic Category

Most of the respondent suggested that the domestic tariffs should be reduced.

3.12.1 Petitioners submission

The proposed rate of energy charge is still subsidized as it ranges from Rs. 1.80 per kWh to Rs. 2.50 per kWh accordingly to the consumption level. No minimum charge has been proposed for Domestic Consumers, as their consumption pattern may not be as per the contracted load.

3.12.2 Commission's View

Cross subsidies across different categories have to be eliminated over a period of time. The Commission has dealt with tariffs in the later part of the Order.

3.13 Commercial Tariffs

Some respondents suggested to the Commission that the energy and demand charges of the Commercial category should be less, in view of the abundant power available in the state. Other respondents pointed out that the Charitable Institutions / Public Institutions should not be merged with Commercial category as proposed by the licensee.

Representation was also made that the differentiation between Government hospitals and private hospitals are unjustified. Lawyers are to be billed on Domestic tariff as per Supreme Court order, but the licensee levies Commercial rate.

3.13.1 Petitioner's submission

As the power availability position in Uttaranchal is good, the industrial consumers are allowed to avail power round the clock. In a two part tariff system, by running plants even in peak hours the consumers are in a position to get the Fixed / Demand Charges distribution over higher consumption of energy and thus the benefit of lower through rate is automatically passed on to them. Some reductions in the rate of energy charge have been proposed for industrial as well as Commercial Light, Fan and Power Consumers, but the relief is not as much as proposed by the applicant.

3.13.2 *Commission's View*

The Commission would like to eliminate cross subsidy and would like to rationalize the tariffs across all categories. The benefits of abundant power available in the state should definitely first go to the consumers within the state including industries. The Commission has taken a view on tariffs in the later part of the Order.

3.14 Tariffs for Defense establishments

The stakeholders suggested that the defense establishment should be given a concessional power. There should be a separate tariff for Military establishment as the maintenance and all activities are performed separately. They should be given a separate licensee status.

3.14.1 *Petitioner's submission*

The letter of the commander Works Engineer (Hills) Dehradun Cantonment is not in response to the proposed ARR/Tariff Petition filed by the licensee. In fact it relates to a separate issue under which the defense authorities want the rationalization of tariff for the Defense Services Establishments situated in Uttaranchal. Similar facility has stated to be granted by the State of Delhi and Haryana in support of which the copies of notifications issued by these State were stated to be enclosed with the application but no such copies have been provided to the licensee. The Honorable Commission may provide the copies of the notification stated to have been enclosed by the applicant along with his letter under reply so that detailed comments may be offered after examining each and every point in details.

3.14.2 *Commission's View*

The Defense establishments mostly fall in the category of bulk consumers. They are themselves responsible for the maintenance of the distribution network. Hence there is a case for the treatment of these establishments separately. The Commission has taken a view on the tariff for defense establishments in the later part of the Order.

3.15 Tariffs for Educational Institutions

Some of the stakeholders pointed out that any hike in tariff in educational institutions as proposed by the licensee will affect annual budget of the organization, which in turn will affect the educational, training and research activity conducted by these institutes.

3.15.1 Petitioner's submission

In the existing tariff schedule, educational institutions are covered under Rate Schedule LMV-4, which is applicable to Light, Fan and power Consumers of Public Institutions. In fact under this schedule the rates of fixed charge were kept on a connection wise basis as most of the consumers falling under this category were having contracted/connected load varying from 2 kW to 10 kW. But subsequently, it was found that for Public Institutions with considerable load, the fixed charge per connection are not properly distributed and therefore, it has been proposed in the new tariff to levy fixed charge per kW of connected load so that consumers having bulk load are properly billed for their fixed costs also. However no substantial increase has been proposed in the energy charge, which has been proposed at Rs. 3.00 per kWh against the existing rate of Rs. 2.90 per kWh. Thus increase in energy charge in approx. 3 years is very negligible.

Earlier no minimum charge was kept in the Rate Schedule applicable for public Institutions, but keeping in view that the electricity is utilized by these institutions for commercial purpose alike other commercial consumers, the concept of minimum charge has been proposed to be introduced which is based on very negligible load factor of 11%.

In respect of Rate of Charge applicable to Public Institutions care has been taken to recover the actual cost that the licensee is supposed to incur and therefore no scope for cross subsidy has been provided in the proposed rates.

3.15.2 Commission's View

The Commission has dealt with this issue in the later part of the Order.

3.16 Tariffs for Hotel Industry

Some of the respondents belonging to the hotel industry pointed out that the hotels are given Industrial status by the Government but the licensee has been taken as a Commercial Tariff in the proposal. Hotel industry should be considered as an industry and there should not be any minimum charges. As this industry is seasonal, therefore the tariff should also reflect seasonality. The tariffs for Hotel and Restaurants should be at par with Domestic category. Hotels having A.C. Rooms/ facilities may be given a higher tariff compared to others in similar business.

During winters the consumers in Hill areas use more electricity. Seasonal subsidy should be provided to these consumers. One of the petitioners having a hotel in Almora mentioned that his total bill during peak season is Rs. 56000 and the off seasonal is Rs. 40000 indicating that there is no difference between peak season and off-season. Hence he pleaded that the fixed charges should not be charged during off seasons.

3.16.1 Petitioner's submission

If the commission agrees, licensee proposes to provide the facility of operating at 30% of contracted load to hotels and restaurants alike the industrial tariff (RTS – 6) provided they get MDI meters installed at their premises. These meters are required to determine the fixed and minimum charges on reduced load during the off-season period.

3.16.2 Commission's View

The Commission recognizes the seasonal nature of hotel Industries in the hilly areas. Taking cognizance of this fact, the Commission has dealt with this issue in the tariff in the later part of the Order.

3.17 Industrial Tariffs

Some of the stakeholders representing the industrial association debated on the definition of the independent feeder. They have also contested the levy of 15% surcharge on the independent feeder.

The respondents pleaded that there should not be any peak hour charges for industrial category. The penalty during peak hours / restricted hours should not be provisioned in Tariff. The peak hour violation rules should be diluted and rebate should be allowed for drawing power during lean hours. The respondents also requested the Commission to provide for Concessional tariff for night supply.

During the hearing process some of the industrial consumers suggested that Time of day (TOD) tariff should be implemented and there should not be any differentiation between continuous and non-continuous supply as in the case of UP.

Some of the respondents also suggested that system-loading charges should be waived off in case of new connection. The respondents also pointed out that restriction of consumer applying for a new connection of 500 kVA and above should be removed. Consumers having load more than 3000 kVA should be supplied from 33kV HT lines instead of the proposal of the licensee.

Respondents also pointed out that the load factor rebate should be provided to consumers who have disputed dues and decision is pending in the court. Respondents also recommended that the billable demand should be based on the actual recorded demand and the ceiling of 75% of the contracted load as in the existing tariff should be abolished. Respondents also pointed out that the disputed dues under sub-judice should not be used as an alibi for not increasing the contracted load.

Respondents representing various industrial bodies reiterated that the Industrial tariff should be lower than UP so as to make them competitive and viable. They also suggested that the demand charges should not be applicable for Industries up to the sanctioned load. The energy charges should be at par with other hill states. The withdrawal of high consumption rebate for steel rolling mills as proposed by UPCL should be disallowed. It is unjust, not to provide the steel industries a sanctioned load of less than 600 kVA per tonne, hence requires revision.

A separate tariff for Paper mills irrespective of voltage supplied, continuous and non-continuous category. The electricity tariffs should promote paper industry in the state. Some respondents have also asked the commission to abolish the synchronization charges for Captive power plants.

One of the petitioner indicated that the tariff of the Small and Medium Industries should be rationalized and should be a single part tariff. One of the respondents has raised the issue of rebate to be available for new industries located in the hill stations.

3.17.1 Petitioner's submission

The independent feeder in the proposed retail tariff schedule RTS 6 has been defined as the feeder that supplies power to only one independent industrial consumer emanating from 400/220/132 KV Sub Station. In Uttar Pradesh a power line giving power connection to more than one industrial consumer having similar nature of industries has also been interpreted as independent feeder. The same definition was also followed in Uttaranchal previously. But on instruction of Electricity Regulatory Supply Code, 2002 that was enforced by the U. P. Electricity Regulatory Commission in Uttar Pradesh with effect from July 1, 2002, the term independent feeder was defined in the same spirit as by Uttaranchal. The independent feeder given in the above-mentioned supply Code is defined as – "Independent Feeder means a feeder constructed at the cost of a consumer and supplying the electricity to only that consumer."

The applicant has also objected on levy of 15% extra on Demand & Energy charges for those consumers who draw power through an independent feeder on the ground that such independent feeder is constructed at the cost of consumer as Deposit Work. The same remains the property of the Licensee and no refund is given to the consumer when such connection is surrendered. It is proposed that no such extra surcharge will be imposed in case the consumer, for whom an independent feeder has been constructed, does not require the feeder to be fully dedicated to him alone and leaves the right to licensee for determining its utilization in providing supply to other consumers. The proposal was based on the fact that the supply to such "independent feeder" consumers emanates from 400/220/132 KV sub-station due to which they receive more regular supply as compared to customers supplied by independent feeders from the secondary 66/33 KV Sub-stations. As supply to industries is maintained round the clock in Uttaranchal, the levy of extra charge was confined to those consumers only who want to retain their right of having such feeder to be dedicated to them alone.

As power availability position in Uttaranchal is very smooth the industrial consumers are allowed to avail power round the clock. In two part tariff by running plants even in peak hours the consumers are in a position to get the Fixed/ Demand Charges distribution over higher consumption of energy and thus the benefit of lower through rate is automatically passed on to them. Some reductions in the rate of energy charge have been proposed for industrial as well as Commercial Light, Fan and Power Consumers, but the relief is not as much as proposed by the applicant.

Uttaranchal being an URJA PRADESH the applicant has pointed out not to make any distinction in the industries using power during restricted hours or in the normal hours. But usage of power during restricted hours overloads the system; therefore it is necessary to discourage industries to use power at this time by charging them at a higher rate. Therefore some of the States are introducing the Time of the Day (TOD) Tariff for industries which provides charging of the power used in restricted hours at a very higher rate and at the same time allowing some rebate on the power utilized during night hours when the system is lightly loaded. Since it will require some changes in Metering Arrangement, the introduction of TOD Tariff may not be possible for some time to implement. Whenever TOD Tariff will be applied, the industries utilizing power in night-hours will get necessary rebate on such consumption. The concept of Time of Day (TOD) Tariff in though has been approved for Industrial Consumers in U.P. but for obvious reasons of not having sufficient system to get it applied the same is deferred for the time being in U.P. too.

Also as the state is having a favorable mix of generation whereby the Hydel Generation is available in Peak hours of the demand, licensee is able to meet the excessive demand in restricted hours. Hence the demand of applicant to provide concessional tariff for night supply cannot be entertained.

The System Loading Charge is a charge which was levied to share the burden of the extra cost involved in providing new loads to the consumers. Being a capital received it does not directly reflect over the Tariff and therefore this aspect is not covered with ARR/Tariff Applications.

Provision has been made for providing new industrial connection for load exceeding 1000 KVA at 33 Kilo volts. So far connections upto 300 KVA are given on 11 KV. In case load beyond 1000 KVA is released on 11 KV Feeders, the 33 KV sub-stations are over loaded resulting thereby the supply is frequently interrupted. This is in the interest of industry because the uninterrupted supply is available to the consumers all time. As the concept of providing higher load on higher voltage is applicable for new consumers only and therefore, the existing consumers will not be affected by this provision.

The applicants have asserted that in case a consumer who has opted to operate in restricted hours, if found using electricity in such restricted hours beyond permissible limits, his entire consumption may not be charged at higher rate. Such application of Tariff is only possible when TOD Tariff is put into application. Till such time the proposed action is only feasible.

The Rebate for improved load Factor is linked with higher consumption and therefore it has been considered essential that such rebate may only be allowed to those consumers against whom no dues are outstanding. Otherwise the very purpose of allowing such rebate may be defeated. In fact good power rebate is an incentive to the industry to pay their dues regularly and promptly.

The licensee is not supposed to implement different tariff according to the nature of the Industry and therefore, it is not acceptable that separate tariff be fixed for different industries.

The rates of steel produced by the industries in the state are comparable to the industries in the U.P, which constitutes the main competitor to our steel industry. In fact, the position of supply and availability of energy is much better in Uttaranchal when compared with U.P. and, therefore, these are now in better position to complete their counter part in U.P. The concept of fixing minimum load for per Ton of capacity of furnace was adopted after getting detailed study by the I.I.T., Kanpur in 1988. At the time the Demand Charges were very much on higher side & therefore the capacity concept was very much relevant for the consumers as Demand Charges were payable on contracted load. Since the Demand Charges are now payable based on Actual Demand it puts no substantial burden on the consumer and therefore, the present concept of fixing the furnace capacity is proposed to continue.

In respect of the consumers having their own captive generation plants and are synchronized with the licensee's system, the Licensee is required to maintain the regularity of the supply even when consumer is not drawing any power from the grid. Therefore a synchronizing charge equivalent to 10% of minimum charge, worked out on captive generation capacity as per rate schedule HV-2, is presently charged. As they seldom draw power from the licensee, therefore an additional charge @ 15% on demand and energy Charge on the power supplied to them is also proposed as licensee has to make adequate arrangements to meet their requirements in emergency.

As regards two part tariff correction of the proposed schedule RTS-6, it is universally accepted principle that the licensee should also recover the cost of fixed charges uniformly and therefore the concept of two part tariff is being applied by all the Licensees, consequent to the application of Availability Based Tariff in respect of CPSUs. The application of Two Part Tariff has become unavoidable while fixing the Retail Tariff.

In his application, the President of M/s. Uttaranchal Steel Manufacture Association has raised the dispute of allowing 33.33% Rebate which was available to the new industries located in Hills for 5 years or up to 31st March, 2002 whichever was earlier. However, the U.P. Power Corporation Limited with the approval of the U.P. Electricity Regulatory Commission withdrew this rebate w.e.f August 9, 2000 i.e. the date from which the new tariff was made applicable. Since it is an old issue, which is not directly concerned with the ARR and Tariff Petition, filed by the licensee before the UERC on May 14, 2003 and therefore it would not be proper to furnish any comment as the matter is sub-judice.

3.17.2 Commission's View

All these issues, which are substantive, have been considered and dealt with elsewhere in the order.

3.18 Security Deposits

The industrial consumers pointed out that additional Security Deposits should not be charged. Some of the respondents suggested the commission to revise the time period for which the security deposit is taken. Interest on security deposit is 3% per annum, which is minimal as compared to the prevailing market rates.

3.18.1 Pre payment meter should be installed instead of security deposits

3.18.1.1 Petitioner's submission:

As per billing cycle the electricity dues are equal to at least two months of charges accumulated against the consumers, therefore utility charges security deposits equivalent to two months dues. The same practice is prevalent in most of the electricity undertakings. Thus the Security amount may not be reduced.

As regards rate of interest, during the period the amount is accumulated against the consumer, the Licensee claims no extra charges. Therefore the token payment of interest @ 3% P.A. is an incentive to the consumer for depositing Security amount otherwise no interest is in fact over due in the intervening period of consumption of electricity and its payment is actually due.

The fixation of Security amount is not within the scope of Tariff Fixation and therefore, no comments are offered. In case the concept of prepaid meter is adopted, the Security amount will not be required to be deposited.

3.18.1.2 Commission's View

The Commission recognizes Petitioner's need for taking such security as supplies are being made on credit to all categories of consumers. At the same time these securities should not become a source of profit for the Petitioner. Appropriate treatment has been given to this issue elsewhere in the order.

3.19 Mode of Billing

Some of the respondents from Haldwani requested the Commission for restoration of system of computerized billing instead system of spot billing being enforced in the town. They also queried whether it is the responsibility of the consumer to prepare the bill as is in the case of spot billing. It was also pleaded that the electricity bill should be explicit about the charges levied on the consumer.

3.19.1 Petitioner's submission

The Spot billing system in Haldwani was enforced on the growing demand of the consumers as it reduces the chances of wrong billing and provide ample opportunity to the consumers to make their payment regularly, it may therefore be not possible to restore the old system of computerized billing for want of adequate staff for taking meter readings, etc.

3.19.2 Commission's View

The basic responsibility for preparation and distribution of bills for the electricity sold is that of the Petitioner. Any innovation in the billing system should not change this basic fact and shift this responsibility to consumers. The Commission recognizes the fact that there would be some consumers who are not in a position to go to the Petitioner's office and get the electricity bills made. This could be on account of their working hours, old age, illness and for many other reasons. Therefore the Petitioner's billing arrangement must provide for an arrangement for meter reading and billing of such consumers. **The Petitioner is hereby directed to review and suitably revise its Spot Billing Scheme an incorporate and appropriate arrangement for preparation and issue of bills to such consumers.**

3.20 Standards of Performance

Some of the respondents pointed out that the standards and performance norms should be laid down by UERC in its first order. It should be included into "perspective plan" and made public within a time frame fixed by UERC. The licensee should improve on the quality of supply within the timeframe available. Any interruption should be informed earlier. There should also not be any roastering in the State of Uttaranchal.

3.20.1 Petitioner's submission

No comment.

3.20.2 Commission's View

Petitioner is to submit his detailed Distribution and Supply Code to the Commission for approval. These issues will be taken in account at the time of examination of this code.

3.21 Other Issues

Overhead expenses should be reduced for the licensee. Huge bad debt has been shown and there is no real basis for estimating such debt. It was also petitioned that the tariff to be determined by the Commission be levied retrospectively from Aug'02.

3.21.1 Petitioners submission

No licensee can achieve cent percent realization of Retail Revenue and as per past records; the overall realization is not beyond 80% of the year of assessment. Even as per Financial Restructuring plan which was approved by the World Bank, the realization to the end of 2006-07 was assessed to be less than 95% of the yearly assessment. Thus, the difference of assessment over the realized amount is bound to become bad debts against which a nominal amount @ 5% was proposed as a provision for Bad & Doubtful Debts which an electricity undertaking which is operation at hills in small villages & Tokes the unrealized revenue may be even more & therefore, the amount so proposed was quite justified.

As per provisions of the Reforms Act, 1999 the proposed tariff after seeking the approval of the Electricity Regulatory Commission will be applicable from the date after 7 days of its publication in newspapers. Thus, the retrospective application of the proposed tariff as proposed by the applicants would not be proposed tariff as proposed by the applicants would not be proper.

3.21.2 Commission's View

The Petitioner is advised against taking such a strong pessimistic position and take inspiration from the impressive results achieved in some progressive States.

4. Commission's Approach

This chapter deals with certain important regulatory issues that have bearing on the process of tariff setting for the year 2003-04. While some of the issues have arisen from the public objections filed by consumers, others have come up during analysis process for determining the Aggregate Revenue Requirement (ARR) for the Petitioner. The Commission would like to detail its approach towards these issues in a transparent manner hereunder:

4.1 Aggregate Revenue Requirement (ARR) Considered

The Petitioner has submitted the Aggregate Revenue Requirement for the financial years i.e. 2003-04 and 2004-05 and has requested the Commission to determine the retail tariff for two financial years, 2003-5 based on the average ARR for these two years.

Sub-section 4(a) of section 24 of the Adaptation Order states that the "licensee shall provide to the Commission at such time and in such manner as may be provided by the regulations, full details of its calculation for the ensuing financial year of the expected revenue from charges which it believes to have been permitted to recover and thereafter it shall also furnish such further information as the Commission may reasonably require to assess the licensee's calculation."

Regulation 125(1) of the Conduct of Business Regulations, issued by the Commission, provide that "Subject to the provisions of the Act, each year, during the period between 15th December to 31st December or otherwise as may be directed by the Commission, each licensee shall file with the Commission, in the format as may be specified by the Commission, statements containing calculation for the ensuing financial year of the expected aggregate revenue for charges under its currently approved tariff and the expected cost of providing services."

Sub-section (6) of section 24 of the Adaptation Order states that the Commission may "determine whether the tariff charged by the licensee is required to be modified, and if so, require the licensee to modify the tariff or any part thereof with immediate effect."

The above requirements under the Adaptation Order and the Conduct of Business Regulations leave no room for any doubt that the Petitioner is required to file the Aggregate Revenue Requirement for the ensuing year for examination by the Commission annually and that filing of the ARR and its scrutiny need not necessarily result in revision of the Tariff that the Petitioner is charging. Hence, the two are not inseparably linked. Periodicity of tariff revision is now laid down in section 62(4) of the Electricity Act, 2003.

There are also several issues related to the availability of basic information for computing the Aggregate Revenue Requirement for financial year 2004-05. The loss levels indicated by the Petitioner are not reflective of the actual system loss levels given the extent of unmetered supply and the absence of any energy audit system. Investment details have not been provided by the Petitioner. Further, there are issues related to the determining the availability of power and related costs for financial year 2004-05. Therefore, the Commission has examined the Annual Revenue Requirement of the Petitioner only for the financial year 2003-04 and requires the Petitioner to file the ARR for financial year 2004-05 afresh at the time indicated in the Conduct of Business Regulations.

4.2 Unmetered supply

At present, about 12% consumers of the Petitioner's total consumer base are unmetered. The unmetered category largely consists of private tubewell consumers, public lamps, departmental employees, state tubewells and domestic unmetered consumers. Since a large number of consumers have no meter, their bills are raised on the basis of flat rate and this affects the estimation of true demand as well as the computation of losses in the system. This unmetered supply results in:

- Estimation of consumption in unmetered categories on the basis of normative consumption with consequent uncertainties on the actual T&D loss level of the licensee
- The absence of a firm basis for estimation of the cost of supply and average tariffs for such categories

For the purposes of determining correctly the quantity of power required to be purchased by the Petitioner, the Commission has determined the un-metered consumption based on norms being followed in the undivided UP State for some time which are in line with norms followed in many other States. This has also thrown up a more realistic picture of the actual losses of the Petitioner which are indeed a cause for concern.

Section 55(1) of the Electricity Act, 2003 requires 100% metering of all consumers within a time frame of 2 years. The Commission has, therefore, directed the Petitioner to meter such connections and present in metering plan to the Commission as has been ela borated in Chapter 5.

To give strength to the Petitioner's efforts of converting un-metered supply to metered supply the Commission is putting in place an arrangement under which, after allowing sufficient time to the Petitioner and the consumers to meter their supplies, the fixed charge for un-metered consumers would periodically increase.

4.3 Loss reduction targets

The Commission notes with concern that the estimates presented by the licensee for unmetered category consumption are extremely high as an increase in the hours of supply is not an absolute basis for assuming a linear increase in consumption especially in categories such as PTW. The actual system loss levels are significantly higher than indicated by the Petitioner and are in the region of 46.17%. The Commission is concerned at this level of losses in the system particularly when all six circles in the state are currently covered by APDRP programme aimed at removing the inadequacies of the distribution network. Implementation of this programme should be helpful in reducing the losses but reduction in commercial losses, which are primarily due to pilferage, depends largely on the will and efficiency of the Petitioner. The nominal loss reduction target for the year proposed by the Petitioner unfortunately does not reflect any serious concern on this account. It may be recalled here that in the MoU signed between Government of India and State Government the loss reduction was stipulated to come down to 20% by 31.03.2004. The Commission is seriously concerned at huge mismatch between this figure and the ground reality and is, therefore, not able to go along with the extremely soft targets for loss reduction presented by the Petitioner.

The Commission has, therefore, stipulated a more realistic loss reduction target.

4.4 Tariff Structure

The tariffs currently being charged in the State comprise of fixed charges and variable energy charge. For certain categories of consumers a minimum charge is also prescribed. This makes the tariff structure complicated and in this context we need to examine the necessity for retaining some of these features of the current tariff structure.

4.4.1 Fixed Charges and Minimum Charges

Fixed charges are levied on all categories of consumers irrespective of their energy consumption and are payable over and above the energy consumption charges. The objective of recovering a part of the electricity dues by imposition of fixed charges is to ensure certain fixed revenue for the utility to enable it to meet its fixed expenses. The need for an assured revenue stream that would ensure the utility's ability to meet the fixed component of its expenses should arise when there is any real danger of the total energy sales dropping or fluctuating sharply. Such drop in sales could occur on account of non-availability of power, large scale shifting of consumers to other energy sources or the consumers' requirement of energy decreasing for some other reason. The State being endowed with sufficient power at attractive rates, there appears no reasonable possibility of the consumers opting for some other energy source or the power not being available for sale. Similarly, the possibility of total requirement of the consumers in the State declining is also quite unreal. In other words, by imposition of fixed charges the utility is being only insured against non-existent dangers.

In view of what has been stated above, the only purpose that the fixed charges would seem to serve is that of window dressing the tariff and conveying an unclear picture of the actual charge payable by the consumer.

One major drawback of these fixed charges is that they encourage under-reporting of load if these charges are linked with the sanctioned load of the consumers and are in addition to the energy consumption charges. It, therefore, encourages many unscrupulous consumers to keep their sanctioned load lower than actual. This is clearly visible in the load profile of the consumers in the State. As per the information provided by the Petitioner out of 676293 domestic consumers in the State as many as 527038 have sanctioned load of 1 kW only, suggesting strongly that in large number of cases the actual load has been deliberately under-stated. The cumulative effect of such large-scale under-statement of the real load on the distribution system can be extremely damaging. Major mismatch between the distribution network capacity and the actual demand results in frequent breakdowns in the distribution system. For this reason one needs to encourage the consumers to declare their correct load and not to suppress it, which they tend to do, if load linked fixed charges are levied over and above the energy consumption charges.

In addition to fixed and the energy charges minimum charges are payable mainly by the industrial and commercial consumers in the State. These charges ensure that the total bill payable by a consumer does not go below a stipulated level and, thus, ensures certain minimum revenue for the utility. To that extent it only duplicates what fixed charges strive to do. One advantage of a properly designed minimum charge is that it is subsumed in a total bill of the consumer, unlike the fixed charge which is payable over and above the energy consumption charge. As a result there is no in built incentive for deliberate understating of load by the consumer.

For reason discussed above, the Commission feels that given the situation prevailing in the State, recovery of costs partly through fixed charges is uncalled for, particularly since it involves compromising on objectives like transparency and openness and of making the distribution system consumer friendly, and could lead to severe mismatch in the distribution network capacity and the load that it is required to serve.

Unfortunately, consumer category-wise billing details made available to the Commission are insufficient. The Commission feels handicapped in making a correct assessment of the revenues from industrial consumers. Moreover, some categories of industrial consumers could have a consumption pattern not conducive to removal of fixed charges. The Commission is, therefore, doing away with fixed charges for all metered consumers other than industrial consumers in the first place. The consumers, other than industrial consumers, will now be paying only the per unit energy charge based on the actual consumption recorded in their meters. To ensure certain minimum revenue for the Petitioner, these consumers are required to pay a minimum charge, if their actual recorded consumption falls below a stipulated level. For industrial consumers the existing two-part tariff will continue for the time being with the provision of minimum charges. When detailed data for this category is made available by the Petitioner, the Commission would like to adopt similar approach for this category as well. Till such time, the Commission intends to allow levy of fixed / demand charges as well as the minimum from such consumers.

4.4.2 Tariff Reflecting Cost of Supply

Section 61 of the Electricity Act, 2003 requires that the Commission, while determining the tariffs, shall be guided by the principles listed therein. One of the important considerations mentioned in the section is that the tariff should progressively reflect the cost of supply. The Commission intends to move towards tariff reflecting the cost of supply so that the present distortions in the tariff structure may be gradually eliminated. However, given the present data asymmetry and information gaps in the filing, in this Order, the Commission has used the average cost of supply of the Petitioner, as the yardstick for determination of tariffs for all consumer categories. The Commission has, therefore, tried to bring the tariffs for different categories of consumers as near as possible to the average cost of supply. While doing so the Commission has taken care to avoid tariff shocks to any particular category of consumers and has opted for a gradual and steady move in that direction.

4.4.3 Discriminatory Tariff

Section 62 (3) of The Electricity Act, 2003 reads as follows:

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

In light of the above provision of law, the Commission while fixing consumer tariffs has refrained from discriminating between consumers except for specified categories and based on grounds permitted above. As a result, special tariffs for Public Institutions and Departmental Employees in Petitioner's current tariff schedule cannot be retained. **The Petitioner is hereby directed to ensure that commitments made to its employees in the past are fully met with by evolving appropriate mechanism for compensating the employees to the extent required.** Same should apply to UJVNL also, who have intervened on behalf of their staff on this issue.

4.4.4 Miscellaneous Charges

In addition to fixed charges and energy charges the Petitioner is presently levying a number of other miscellaneous charges on the consumers. In determining the tariff, the Commission is taking into account all acceptable expenses. Therefore, while examining these miscellaneous charges, the Commission has not allowed any cost, which is already reflected in the tariff and allowing any extra charge for it would have resulted in the consumer being charged twice for the same cost.

4.5 Division of Assets and Liabilities between UPPCL and UPCL

In the submissions made by the Petitioner, reference has repeatedly been made to non-finalization of division of assets and liabilities between UPPCL and UPCL. In this context, figures have often been quoted from a transfer scheme said to be under negotiation between the two Corporations. The principles for division of assets and liabilities between these two Corporations have been unambiguously laid down in the Government of India's Order No. 42/7/2000-R&R dated 5th November 2001 issued in exercise of powers under section 63 (4) of the Re-Organization Act. This being an Order passed in exercise of statutory authority vested with Government of India, the Commission is not inclined to accept any deviation from it unless the same has been agreed to by all the parties including the two State Governments and ratified under law. The Commission has, therefore, not accepted values of assets and certain liabilities picked up at random from the so called new Transfer Scheme.

Similarly, certain liabilities have been legally taken over by UP Government at the time of unbundling of UPSEB. Since these liabilities were not placed with UPPCL, any subsequent division of liabilities between UPPCL and UPCL should not result in UP Government's liabilities devolving on UPCL. The Commission is, therefore, not accepting any such liability claimed by the Petitioner unless the same is substantiated by a proper Government Order or agreement spelling out the reasons for and the manner in which such liability has been transferred from UP Government to UPCL.

4.6 Investments

Capital Investments planned by the Petitioner have a strong bearing on future tariffs. It is for this reason that all investment plans excepting those of small investments, need to be appraised and approved by the Commission. The Petitioner has projected in the ARR ambitious investments both under APDRP programme as well as through commercial loans. These planned investments have not been got appraised and approved from the Commission. The Commission is, therefore, not inclined to recognize and allow expenditure pertaining to such un-approved capital investments with the following exceptions:

- Projects under APDRP programme
- Projects under PMGY programme

- Projects on which work had started before 31.03.2002
- Projects having outlay not exceeding Rs. 2.5 Crores

4.7 Power Development Fund

The State has the unique advantage of immense potential for hydro generation. Of the estimated potential of 15000 MW only about 1000 MW has been developed so far. If the twin advantages of sufficient availability and low cost of power that the State has inherited is to be passed on to future generations it is essential that the hydro potential of the State is fully exploited. This involves huge investments. To ensure availability of sufficient funds for such investments the Commission has utilized part of the surplus in the licensee's ARR for creating a special dedicated fund to be used for leveraging investments in hydro generation projects and in related evacuation and transmission systems. For this the Commission in exercise of its powers under section 86 (2) has separately advised the State Government to levy a Cess on the hydro power being currently produced and used in the State and with that establish a special fund for promotion of investments in new hydro generation units. In view of this recommendation the Commission is including a charge of 43 paise/unit over and above the adhoc provisional purchase rate of 37 paise/unit for power purchase from UJVNL, allowed by the Commission in absence of proper scrutiny and approval of their tariff.

4.8 Transitional Contingency Reserve

In spite of Commission's best efforts to fill up the information gaps which existed in the original filing of the Petitioner, uncertainties with regard to certain items due to non-finalisation of division of assets and liabilities between UPPCL and UPCL still exist. Further, the claims of the Petitioner for certain items such as investments and capitalisation details have either not been substantiated with supporting documents or are without the approval of the Commission. As and when these uncertainties are cleared/deficiencies are removed, the Commission may, subject to analysis of prudence, allow the expenses for meeting such liabilities. However, the Commission is not in favour of having frequent tariff revisions or giving a tariff shock to consumers by first lowering the rates without taking into account any such liability and then suddenly imposing a heavy burden of these liabilities when they materialise. The Commission has, therefore, made a provision of Transitional Contingency Reserve to meet the liabilities due to such uncertainties. This is only a temporary reserve for the current year and shall not be required in subsequent years.

5. Analysis of Aggregate Revenue Requirement

5.1 Introduction

Section 24 (4)(a) of the Uttaranchal (Uttar Pradesh Electricity Reforms Act) Adaptation & Modification Order, 2001 (herein after referred to as "Adaptation Order") requires the licensee to provide to the Commission full details of its calculation in the manner specified by the Commission for ensuing financial year of the expected revenue from charges which it believes to have been permitted to recover.

Regulation 125(1) of the Uttaranchal Electricity Regulatory Commission (Conduct of Business) Regulations, 2002 (hereinafter referred to as "Conduct of Business Regulations") stipulates during the period between 15th December to 31st December year, or otherwise as may be directed by the Commission, to be the period for submission of the above calculation. Regulation 125 (2) of those Regulations elaborates on the details to be submitted with such calculation for the ensuing year which include the following:

(a) Consumer categorywise demand forecast and its derivation

(b) Calculation of expected revenue at the current tariff

(c) Calculation of estimated costs for providing services

(d) Licensee's proposal to deal with the difference between expected revenues and costs

Further, section 24(4)(a) of the Order and regulation 125(3) of the Regulations empower the Commission to seek such further information as it may reasonably require to assess licensee's calculation.

In this Chapter the Commission has analysed and discussed the proposals given by the Petitioner for approval of its expected revenue from charges for the financial year 2003-04 after considering submissions by various stakeholders in this regard. Before discussing the individual proposals made by the Petitioner in this regard, the Commission outlines here the process of determination of expected revenue and cost of services and the general methodology followed by the Commission in determining these revenues and expenses.

5.2 The Process of Aggregate Revenue Requirement (ARR) Determination

The calculation of expected revenue from charges and the cost of providing services at the forecast level of sales is usually submitted by the licensee as Aggregate Revenue Requirement (ARR) for the ensuing year. Typically, the ARR submitted by the licensee consists of the following major elements:

(a) Expenses (E):

- Power purchase expenses
- Employee cost
- Administrative and General (A&G) expenses
- Repair & Maintenance (R&M) expenses
- Interest expenses
- Depreciation

(b) Reasonable Return (RR) on Capital Base (CB)

(c) Taxes (T) on income

(d) Non-tariff income (NTI)

The Commission is required to determine the ARR, after considering submissions by all stakeholders, of the licensee to enable it to recover its prudently incurred expenses including taxes on income in addition to the reasonable return on approved capital base. The ARR of the licensee is, thus, calculated as follows:

ARR = RR+E+T - NTI

Where, ARR= Total ARR of the licensee for ensuing year.

CB = Capital Base

RR = CB x RoR+0.5% of Loans = Reasonable return

RoR = Allowed rate of return on Capital Base.

E = Total annual expenses, &

T = Annual taxes

NTI = Non-tariff Income

5.3 General approach and Methodology followed by the Commission

For determination of the ARR of the Petitioner, for financial year 2003-04, the Commission has carefully analysed the submissions made by the Petitioner in support of the proposal for various components of the ARR and the response on the Petition from various stakeholders. The detailed analysis of each of these components has been provided in the subsequent sections. The Commission has considered the trading activity as a separate business; accordingly, the Commission has deliberated only on the proposal of the Petitioner for sale within Uttaranchal only. The treatment of revenue from trading has been discussed later in this Chapter.

In considering the ARR the Commission has been guided by the following broad principles:

- The approach on various issues spelt out in Chapter 4 has been followed for taking a view on individual issues.
- The actual data available for the financial year 2002-03 has been used to validate expenses forecast for financial year 2003-04.
- The Petitioner has to reduce inefficiencies in its operation and to optimize efficient use of resources.
- In situations where adequate data was not available, the Commission has made reasonable assumptions.

5.4 Sales forecast for financial year 2003-04

5.4.1 Petitioner's submission

The Petitioner has submitted that it has estimated growth in energy consumption on increase in number of consumers and the connected load keeping in view its own investment plan and the improved power supply position in the State. It has stated that although growth rates for the financial year 2002-03 over 2001-02 were not encouraging, still in the estimation a positive view was taken so that the return on new investment can be ensured.

5.4.1.1 Assessment of category-wise sales

In response to Commission's queries, the Petitioner has added the following justifications to his original submission for assessment of sales in the following categories:

5.4.1.1.1. *Domestic (RTS-1)*

The Petitioner has stated that the increase in this category has been proposed to be higher than that in the previous year keeping in view the programme of electrification of 1400 villages during the financial year 2003-04 and the programme launched for providing Kutir Jyoti connections to weaker sections of the society. The Petitioner has stated that under Kutir Jyoti programme, no service connection charges are borne by consumers but they are supposed to pay consumption charges at normal rates as the supply is metered.

5.4.1.1.2. *Commercial (RTS-2)*

The basis for growth in number of consumers has been stated to be the normal increase alongwith the new connections expected in villages and tokes to be electrified during 2003-04.

5.4.1.1.3. *Public Lamps (RTS-3)*

The Petitioner states that no increase in the number of connections in towns/villages has been proposed except for a few disconnected connections which are proposed to be electrified by the local bodies.

The reason for increase in connected load and the consumption is stated to be increase in number of lamps rather than number of connections.

5.4.1.1.4. *Private Tubewells (PTW) / Pumpsets (PS) (RTS-5)*

The reason given by the Petitioner for increase in number of PTW/PS connections is the implementation of the programme of energisation of 500 new PTW/PS connections for which an assistance of Rs. 3.25 crores has been assured to be provided as Capital Grant by the Government of Uttaranchal.

The reason for higher increase in consumption has been given to be improved utilisation factor consequent upon round the clock availability of power in the State.

5.4.1.1.5. *Industrial (RTS-6)*

The Petitioner has stated that new large and heavy industries are coming to Uttaranchal, which are less in number but the corresponding increase in load and consumption is high. The other reason given for high growth in consumption is the round the clock availability of power due to which single shift industries have started operating in two shifts.

5.4.1.1.6. *Public Water Works (RTS-7)*

For increase in number of connections the Petitioner states that since Public Water System is lifeline in Uttaranchal, new connections are required to be provided for providing water facility to inhabitants. The corresponding increase in connected load and consumption coupled with round the clock availability of power has been stated to be the reason for proposed growth in connected load and consumption.

5.4.1.1.7. *State Tubewells/Pumped Canals (RTS-8)*

The Petitioner states that since no new scheme for installation of new State Tubewells/Pumped Canals has been launched by the State Government, growth in number of consumers, connected load and consumption has been estimated on the basis of normal use of the existing installations.

5.4.1.1.8. *Bulk Sale to Nepal*

The Petitioner has stated that Nepal is being supplied power from 33/11 kV feeders from Lohiahead, Dharchula and Pithoragarh under the bilateral arrangement of power exchange between the Government of India (GoI) and the Government of Nepal (GoN) and, thus, any disconnection of supply is not possible. The drawl of power from Nepal has, however, been stated to be declining over the years because of commissioning of its own HEPS by Nepal.

5.4.1.2 ***Consumption pattern of unmetered supply***

The Petitioner has submitted that the norms for unmetered supply fixed by UPPCL, vide its Circular No. 2649/CUR/L-1 dated July 20, 2001, were based on the hours during which the supply of electricity is provided on Rural Schedules with restricted hour of supply. The Petitioner has claimed that the norms taken by it for unmetered supply are based on 20 to 24 hours supply treating that there will be no scheduled roastering. The Petitioner has provided the details of energy consumption for the year 2002-03 in respect of un-metered supply, which are shown in Table 5.1.

Table 5.1: Consumption details of unmetered supply in 2002-03 given by the Petitioner

S.No.	Category	Connected Load (MW)	Energy Consumption (MU)	Monthly Consumption (Units/kW/Month)
1	Domestic	268.832	258.89	80
2	Commercial	24.469	29.85	102*
3	Private Tube Wells/PS	66.001	178.58	225
4	Public Lamps	2.518	11.87	393

**Corrected for calculation error against the submitted figure of 90*

Subsequently, the Petitioner also submitted the reports of its selected field units where meters were installed on these connections for collecting sample data and has claimed that as per these reports the consumption in PTW category is around 200 units/BHP/month.

5.4.2 Commission's view

5.4.2.1 On Petitioner's submission

In its Petition dated 14th May 2003, the Petitioner had stated that the sales forecast for financial year 2003-04 are based on an econometric model. However, the Petitioner failed to submit to the Commission the model with the relevant details and stated that the calculations have been done manually. Further, the Petitioner has also admitted that although estimated growth rates for the financial year 2002-03 over 2001-02 were not encouraging, still in the estimation a positive view was taken so that the return on new investment be ensured. This admission by the Petitioner coupled with its inability to produce a substantive and scientific methodology for making sales forecast does not make a convincing ground for the Commission to believe that the sales estimation by the Petitioner is realistic. The Commission believes that sales estimation should have been based on the past trend and adjustments to reflect the effect of known and measurable changes with respect to number of consumers, the connected load and the energy consumption and not on the basis of ensuring minimum return on investments. The known and measurable changes would include Petitioner's plan for expansion of capacity, change in operating conditions and consumers' price elasticity of demand. The Petitioner has also not been able to substantiate the linkages between the proposed investments and its impact on sales with supporting data from the field.

The justifications given by the Petitioner for higher growth in category-wise sales are mainly based on the availability of round the clock supply. Here, the Commission would like to mention that as per reports reaching the Commission, this claim is not in accordance with the ground reality and frequent interruptions in power supply commonly occur. **The Commission, therefore, directs the petitioner to maintain division-wise data on both scheduled and unscheduled interruptions and submit a report on the same alongwith next ARR filing.**

The other justification for increase in number of domestic and commercial consumers due to proposed electrification of 1400 villages and tokes in financial year 2003-04 also seems to be not in consonance with Petitioner's own proposal of only Rs. 100 Crores for rural electrification during 2003-04 as this investment would lead to electrification of about 670 villages only (at an average cost of Rs. 15 lakhs / village). Moreover, looking at past pace of electrification of villages this target seems to be unrealistic.

5.4.2.2 *On methodology for assessment*

The Commission is of the view that the energy consumption in financial years 2001-02 and 2002-03 were very different from previous years because availability of power improved dramatically on separation of the State from UP resulting in increased consumption during the year 2001-02 and 2002-03. Such growth rate cannot be sustained in future. On one hand, the growth rates in energy consumption observed during these two years are abnormal and not representative and would, therefore, not suffice for correct forecast. A long term trend of growth for past 4-5 years would have discontinuity immediately before these two years. Since the consumption of electricity is dependent on the number of consumers, their connected load and average number of hours of use, it would be appropriate to forecast sales based on growth rates of number of consumers and their connected load. The impact of average number of hours of use is captured by specific consumption (consumption / consumer / annum). While number of consumers and their connected load would not be impacted by the discontinuity talked above, the specific consumption does. The Commission, taking note of this, has adopted a two-step approach to consumption estimation. First, the number of consumers and connected load for 2003-04 has been estimated by applying trend growth rates for the past years on the base-year 2002-03 and adjusting it for the other factors. In the second step, to determine the energy requirement for each consumer category for financial year 2003-04, the trend growth rates for average specific consumption before 2001-02 are used together with the forecast number of consumers determined from the first step taking specific consumption of 2002-03 as the base.

The Commission has also done the sales forecast based on the above methodology on monthly basis to better reflect the influence of seasonality and more accurately forecast the power purchase requirement. For this purpose, the Commission used the monthly sales data for financial year 2002-03 submitted by the Petitioner as additional information.

The Commission has felt the severe handicap of data inadequacy with respect to category and sub-categorywise billing details as per the existing tariff schedule. **The Commission, therefore, directs the Petitioner to start maintaining billing data for consumer categories/sub-categories/slabs strictly as per the tariff schedule approved in this Order particularly information**

on number of consumers, connected load and sales, including slab-wise details, in the next filing and make suitable changes in its internal data collection formats accordingly. However, for the purpose of making reasonable estimates of sales the Commission has made certain assumptions wherever adequate data was not available.

5.4.2.3 *Estimation of unmetered consumption in Domestic, Irrigation and other LT categories*

The Commission does not subscribe to the Petitioner's contention that it would not be correct to follow the norms of UPPCL, circulated vide their letter no. 2649/CUR/L-1 dated 20th July 2000, for assessment of unmetered consumption as the same are based on restricted hours of supply and the supply position in Uttaranchal is much better without any scheduled roastering.

The Commission also does not consider the reports from a few field divisions stating average consumption of PTW is around 200 units/BHP/month as the basis to depart from the norm of 68.38 units/BHP/month. The Commission considers that this is not an appropriate basis for departure from norms, since all the private tube wells are located in the plain areas, which have a similar cropping pattern and irrigation requirements as that of Uttar Pradesh and that UPERC has also been adopting the same norms, based on proper study done by Tyagi Committee, for estimating agricultural consumption year after year. In absence of any new objective study in this regard, these departmental reports cannot be taken as basis for energy estimation because firstly, the reports submitted are for only a small sample which may not be a representative sample of the whole population. Secondly, huge increase in consumption in these departmental reports does not indicate necessity of more irrigation requirement but points towards wasteful and unauthorized use of electricity due to absence of any metering equipment.

The Petitioner's contention regarding consumption in PTW category of around 200 units/BHP/month, when translated into the number of working hours, works out to a tubewell running for around 9 hours per day for all 365 days, against an accepted norm of 3 hours daily for this purpose. Further, Petitioner's own data on growth in number of consumers, connected load and consumption in PTW category does not substantiate this assertion. The growth rates shown in by the Petitioner for these three are 1.3%, 1.5% and 22.7% respectively for the financial year 2002-03. This high growth rate of 22.7% in consumption is not commensurate with the growth in number of consumers and connected load, which indicates high level of overbooking of energy in this category. This also vindicates that, in the absence of any metering arrangement, the estimates of unmetered energy consumption shown by the Petitioner in Table 5.1 are not realistic.

In this connection the norms for estimating the consumption of unmetered TWs adopted in some other States are given in Table 5.2.

Table 5.2: Agricultural Consumption Norms in Other States

States	Norms (Hours / Annum)
Uttar Pradesh	1100
Andhra Pradesh	1440
Rajasthan	1379
Punjab	1700
Haryana	1452
Tamilnadu	1409
Madhya Pradesh	1379
Uttaranchal (as proposed)	3264

The Commission, therefore, directs the Petitioner to have a proper scientific study conducted before the next filing to provide a scientific and reliable assessment of category-wise unmetered consumption and, more importantly, come up before 31st December 2003 with a plan for metering these consumers and for monitoring their consumption regularly.

In the absence of any satisfactory justification given by the Petitioner, for estimating unmetered consumption for financial year 2003-04, the Commission has considered the following:

- Considered the monthly CS – 3 statements for financial year 2002-03 filed by the petitioner
- Accepted the Petitioner's filings of the proportion of unmetered consumers and residential societies in the domestic category and the unmetered consumption in the commercial category.
- Adopted the same load factor for unmetered domestic and commercial as that of the metered category, since both are receiving 24 hours supply.
- The consumption of Private tube wells is estimated assuming a specific consumption of 68.38 units per BHP per month as per Tyagi Committee Report, which implies tube well utilization rate of 1100 hours per kW per year.
- Public Lamp consumption is calculated on the basis of 12 hours use for urban areas and 10 hours use for rural areas.

- State Tube-wells consumption is based on the estimate of 3562 units per pump per month as followed by UPERC. This estimate of specific consumption is based on the following assumptions:
  - 85% of the pump sets are working on an average.
  - Average rating of the pump sets of 18.73 BHP.
  - Average usage of pump sets of 10 hours per day.

Considering the above, the Commission has restated the overall sales to 2021.6 MUs for financial year 2002-03 against the Petitioner's actual figure of 2465.3 MUs.

5.4.2.4 Sales for 2003-04 considered by the Commission

Commission reviewed all the submissions of the Petitioner. After detailed analysis, the Commission has considered sales of 2139 MUs against the forecast of 2628 MUs proposed by the Petitioner with a reduction of about 489 MUs. The reduction is mainly from lower sales forecast for Domestic Category and correction of unmetered consumption as per the norms adopted by the Commission. The category-wise sales for 2003-04 proposed by the Petitioner and considered by the Commission are presented in Table 5.3. In this Table, under the Petitioner's proposal the consumptions of Public Institutions, Departmental Employees and temporary supply to domestic categories have been clubbed with Domestic category. Similarly, the temporary supply to commercial category has been clubbed with commercial.

Table 5.3: Sales forecast (MU)

Sl. No.	Category	Proposed by Petitioner	Considered by Commission
1	Domestic	1,179.32	974.09
2	Commercial	289.89	236.20
3	Public Lamps	24.14	27.61
4	Irrigation	389.49	145.48
a	*PTW*	*301.49*	*103.33*
b	*STW*	*78.00*	*30.17*
c	*Pump Canals*	*10.00*	*11.98*
5	PWW	171.80	165.20
6	Industrial	573.37	588.42
a	*LT*	*93.26*	*87.80*
b	*HT*	*480.11*	*500.62*
7	Temporary Supply	-	0.19
8	Bulk	-	1.41
	Total	***2,628.00***	***2,138.60***

5.5 Transmission and Distribution Losses

5.5.1 Petitioner's submission

5.5.1.1 Proposed reduction in losses

The Petitioner has indicated that the loss levels in financial year 2002-03 were 35.33% which would reduce to 34.12% in the financial year 2003-04. This loss level is based on sales as determined by the Petitioner and the quantum of power purchase for the State. The sales data is based partly on data available from metered sales and partly on certain assumptions regarding the consumption in un-metered categories of consumers. As discussed in the preceding section on sales forecast, these assumptions indicate an unacceptably high consumption in the un-metered categories.

5.5.1.2 Measures for capturing T&D losses

The Petitioner has stated that it has taken/is taking following steps to correctly capture the data on losses:

- Documentation of sub-transmission and distribution network for loss evaluation
- Graphical mapping of consumers for:
  - Identification of consumers and unauthorised connections and related distribution transformers/feeders for monitoring load profile and energy accounting
  - Re-verification of metering arrangement of consumers
  - Load flow studies to evaluate phase-wise load profile for correcting imbalances
- Energy Accounting of input and billed energy to identify loss areas for taking corrective actions and to introduce accountability of officers and staff
- 100% consumer metering
- Regular meter reading and bill distribution to ensure its reliability, accuracy and timely completion

5.5.1.3 Measures for technical loss reduction

The Petitioner has stated that it has planned following activities for reduction in technical loss:

- Activities under APDRP

    - Strengthening of 33/11 kV feeders
    - Augmentation of 33/11 kV sub-stations
    - Bifurcation of 11 kV feeders and redistribution of loads
    - Augmentation of existing distribution transformers (DTRs)
    - Installation of LT Capacitors at DTRs
- Activities outside APDRP
    - Provision for additional bays for new 33 kV lines covered under APDRP at existing 132/33 kV substations
    - Construction of new 132/33 kV substations with more than 20 MVA load and long 33 kV feeders

5.5.1.4 Status of metering

The Petitioner has submitted that it has metering arrangement for all the 33/11 kV feeders. It has also stated that out of 704 number of 11 kV feeders 690 feeders have electronic meters installed and electronic metering for rest 14 feeders shall be completed by September 2003. It has stated that in the second phase all Distribution Transformers are proposed to be metered and a decision has been taken that no new connection shall be given / released without proper metering.

The following status of consumer metering has been conveyed by the Petitioner:

Table 5.4: Status of consumer metering

S.No.	Category of Consumers	Total number of Consumers*	Meters Installed	Remaining Requirement
1	Domestic	748750	668128	80622
2	Commercial	89605	88129	1476
3	Industrial	8140	8140	-
4	Agricultural	17324	600	16724
5	Street Light and Others	1372	572	800
	Total	***865191***	***765569***	***99622***

**Same as in Feb. 03 CS-3 Form*

5.5.1.5 Programme of metering unmetered consumers

The Petitioner has conveyed the following programme for metering of unmetered consumers:

- The Petitioner has targeted to achieve 100% metering, including the replacement of all electro mechanical meters by electronic meters, by the end of 2004-05 with an outlay of Rs. 73.47 Crore under APDRP works worth Rs. 361.52 Crore. The details of this outlay are presented in Table 5.5.

Table 5.5: Outlay for 100% metering/electronic metering (Rs. Crore)

S.No.	Name of the Circle	Project cost	Outlay for metering
1	EDC, Rudrapur	118.82	16.03
2	EUDC, Dehradun	37.87	9.97
3	EDC, Roorkee	87.02	17.91
4	EDC, Srinagar	63.00	10.91
5	EDC, Ranikhet	21.04	7.37
6	EDC(R), Dehradun	33.76	11.28
	Total	***361.52***	***73.47***

- It has invited tenders for purchase of 4,00,000 numbers of single phase and 19,000 numbers of three phase electronic energy meters and the same are in the process of finalization.
- 20,000 numbers of single phase and 14,500 numbers of three phase meters have recently been received, which are being installed.

5.5.2 Commission's view

5.5.2.1 On loss estimation

Based on the Commission's analysis as discussed in the preceding section, the loss level derived from the restated sales and the power purchase for the State for financial year 2002-03 is 46.17% in the transmission and distribution segments. This level of losses is unacceptably high and has remained hidden thus far on account of the inaccurate representation of the quantum of consumption in the un-metered connections in the PTW, domestic and commercial categories. It must be again clarified by the Commission that this loss level is not based on proper study of the Transmission and Distribution system. This is largely because of the re-statement of the sales to some of the un-metered categories to the level estimated by the Commission, while maintaining the Petitioner's overall power purchase at the level proposed. The element of estimation would gradually be eliminated by metering such consumption in a phased manner and the loss estimates would be further refined. In order to estimate the T&D losses correctly, proper and regular energy audit is absolutely essential. Energy audit of the system would not only give the actual losses in the system as a whole but also would indicate the geographical locations of the feeders on which losses are abnormally high. **The Commission, therefore, directs the Petitioner to conduct complete energy audit upto 11 kV level for the entire system and upto LT level on at least one 11 kV feeder in each Circle and submit a report thereon alongwith next ARR filing**. The 11 kV feeder(s) so chosen should be the one(s) with highest loss level in the Circle.

5.5.2.2 On metering of unmetered connections

With the advent of Electricity Act, 2003, unmetered supply has no more remained as an option for either the supplier or the consumer. Section 55(1) of this Act requires the licensee to meter its entire consumer with a period of two years from the date of its enactment i.e. 10th June 2003. Further, as discussed above the estimates of unmetered consumption are only estimates and there is no check on overuse/wastage of electricity. This often leads to pilferage of electricity which goes unnoticed.

Unmetered consumption is, therefore, one of the most critical areas about which the Commission is very much concerned. The Commission unreservedly feels that the Petitioner should focus on metering all consumption within the State to understand the exact nature of energy losses and to take corrective actions for reducing them. **The Commission, therefore, directs the Petitioner to energise new connections only with meters and to complete metering of all unmetered connections of Domestic, Commercial and Public Lighting categories in urban areas and those of Departmental Employees, State Tubewells, Public Institutions and Government bodies in all areas within 31st December 2003. The Commission also directs the Petitioner to furnish a plan by 31st December 2003 for metering rest of the categories by the end of March 2005 giving targets/milestones for critical activities.**

5.5.2.3 On loss reduction target

Over the restated overall loss level of 46.17% (sum of Technical loss and Commercial loss due to pilferage), the Commission factored a nominal technical loss reduction of 1% in the financial year 2003-04 despite massive investments under the Accelerated Power Development and Reform Programme (APDRP) of the GoI. These investments in the replacement and augmentation activities on lines, substations and transformers in all the Circles of the State are expected to lead to higher technical loss reduction after the gestation period of individual works, but those slotted for completion during this year would yield the results in this year only. As such the Commission considers the target of 1% technical loss reduction to be achievable. The reduction in technical loss will be manifest through a reduction in the power purchase requirement of the Petitioner. Thus, for the purpose of computing the power purchase requirement for the year 2003-04, the Commission has adopted a reduction of 1% in technical losses making the overall loss level of 45.17%. Based on energy consumption of 2138.60 MU and a loss target of 45.17%, the power purchase requirement of the Petitioner for the financial year 2003-04 would be 3900.42 MU against the Petitioner's proposal of 3989.14 MUs as shown in Table 5.6.

In addition to the above technical loss reduction, the Commission has set a target of 3% increase in sales at the determined level of power purchase through reduction in commercial losses. This makes the overall loss reduction target as 4% and target loss level as 42.17% as shown in Table 5.6. In case the Petitioner is able to achieve a loss reduction of more than 4%, the Commission may allow sharing of the additional revenue due to loss reduction in excess of the target. The Commission expects similar levels of loss reductions for next four years also making a total loss reduction of about 20% in a span of 5 years. The Petitioner should accordingly gear up its machinery for meeting this long term target of 20% reduction in technical and commercial losses. It would not be out of place to recall here that the MoU signed between the Government of India and the State Government envisages reaching this level of losses as early as March 31, 2004. **The Petitioner is, therefore, directed to come up with a concrete plan for reduction of technical and commercial losses over the next five years indicating milestones for critical activities, in the form of targets and their date of completion, within 3 months of issuance of this Order**.

Table 5.6: Power Purchase Requirement and Loss Reduction Targets

Particulars	Proposed by Petitioner	Considered by Commission
Loss level in 2002-03 (%)	35.33%	46.17%
Loss reduction (%)	1.21%	1.00%
Sales in 2003-04 (MU)	2628.00	2138.60
Loss level in 2003-04 (%)	34.12%	45.17%
Power Purchase in 2003-04 (MU)	3989.14	3900.42
Additional sales by commercial loss reduction (%)	-	3.00%
Additional sales by commercial loss reduction (MU)	-	117.01
Total sales with efficiency improvement for 2003-04 (MU)	2628.00	2255.62
Target loss level (%)	34.12%	42.17%

5.6 Power Purchase Cost

5.6.1 Petitioner's submission

The Petitioner, who is both the transmission and distribution supply licensee for the State of Uttaranchal, has indicated that it would be purchasing 3989.104 MU at a loss level of 34.12% to service sales of 2628 MU in the State of Uttaranchal. The projected cost for this power purchase is Rs. 389.80 Crores which includes the cost of UJVNL plants, CGS plants, other sources and transmission charges to PGCIL. A major assumption in the Petitioner's cost calculations is the costing of energy dispatched from the CGS at pooled prices. Further, the pooled cost of energy purchased from different sources has been calculated taking all purchased units into account without taking any benefit of lower merit order cost for power requirement within the State.

The Petitioner had initially provided only aggregate information on the availability of energy from its sources for the year – namely Uttaranchal Jal Vidyut Nigam (UJVNL), CGS stations and IPPs. On subsequent queries from the Commission, the Petitioner produced certain information that quoted the availability from UJVNL sources to be 2984.50 MU.

The Petitioner's has, through a separate submission, submitted that purchase from IPPs should be allowed at a price of 250 paise/unit ahead of merit order in line with the Policy of

Government for promoting small hydro power stations and the agreements already signed by the Petitioner in this behalf.

5.6.2 Commission's View

The Commission has followed the following process for the calculation of power purchase costs for the Petitioner:

- ascertaining the availability of energy with the generating stations supplying to the Petitioner
- determining the fixed and variable charges for these stations
- apportioning the availability to State's requirement and surplus for trading
- determining cost of power purchase for State's requirement on merit order

5.6.2.1 Availability of Power

The Commission has adopted the following methodology/assumptions for ascertaining availability from various sources:

- for UJVNL, the availability figures as made available to it directly by UJVNL, which indicate that the State generating company is in a position to supply 3070 MU on an annual basis, i.e. about 107 MU more than that forecast by the Petitioner for sales within the State
- for NTPC stations, the Plant Load Factors pertaining to the financial year 2002-03 would be an indication of the extent of availability from these stations
- for availability from NHPC stations, a five year average availability from these stations has been computed
- the Station-wise allocation for Uttaranchal from the Central Generating Stations (CGS) in the Northern Region as was released by the Ministry of Power, Government of India in July 2003 (downloaded from NRLDC website)

5.6.2.1.1. *Availability from State Generating Stations (SGS)*

The UJVNL has provided the Commission with required information regarding the various stations, their capacities, maintenance schedules and the sharing agreement terms and conditions with Himachal Pradesh for 5 plants in the Yamuna Valley. The Commission has accepted their projections indicating the month wise availability for UPCL from their large and medium hydel projects (Table 5.7) vide their submission through letter No. 280/GM(Com)/UJVN/R-1 dated 7th July 2003.

Table 5.7 : Monthly availability from UJVNL (MU)

Month	Availability
Apr-03	212.58
May-03	275.29
Jun-03	362.09
Jul-03	329.04
Aug-03	332.94
Sep-03	335.36
Oct-03	288.63
Nov-03	212.94
Dec-03	191.47
Jan-04	169.91
Feb-04	161.26
Mar-04	198.53
TOTAL	***3070.03***

5.6.2.1.2. *Availability from CGS*

Given the vagaries associated with estimation of hydel availability, the Commission has assessed the availability from the NHPC stations for the year 2003-04 (Table 5.8) at the average availability for the previous 5 years. The State's share for NHPC stations is determined as per the above referred July 2003 document downloaded from NRLDC website. The availability from Tanakpur includes the 12% free share for the State of Uttaranchal.

Table 5.8: Availability from NHPC Stations

Station	Plant Capacity (MW)	Average Availability (MU)	State Share	Availability to State for 2003-04 (MU)
Salal	690	3100	1.21%	37.32
Tanakpur	120	430	15.89%	68.02
Chamera	540	2164	3.53%	75.85
Uri	480	2169	3.48%	74.95
TOTAL	***1830***	***7864***		***256.14***

The Commission has assessed the availability of NTPC stations (Table 5.9) at the PLF achieved by these stations in financial year 2002-03.

Table 5.9: Availability from NTPC Stations

Station	Plant Capacity (MW)	State Share (Allocated & Unallocated)	Capacity Allocated to State (MW)	Availability to State for 2003-04 (MU)
Singrauli	2000	4.82%	96.3	730.23
Auriya	652	3.84%	25.0	151.24
Rihand	1000	3.93%	39.3	283.04
Anta	413	3.79%	15.7	102.77
Dadri Gas	817	3.41%	27.9	172.93
Unchahar I	420	8.57%	36.0	241.97
Unchahar II	420	3.60%	15.1	102.62
TOTAL	***5722***		***255.3***	***1784.80***

The latest allocation of CGS shares indicates an allotment of NAPP to the State. The earlier allocation from RAPP has been cancelled. The availability from Nuclear Power Corporation (NPC) Stations has been shown in Table 5.10.

Table 5.10: Availability from NPC Stations

Station	Plant Capacity (MW)	State Share (Allocated & Unallocated)	Capacity Allocated to State (MW)	Availability to State for 2003-04 (MU)
NAPP	440	3.70%	16.3	114.84
RAPP	220	0.00%	0	0
TOTAL	***660***		***16.3***	***114.84***

5.6.2.1.3. Availability from other stations

The availability from small hydel stations is taken as provided by UJNVL (Table 5.11) as indicated from their letter no. 280/GM(Com)/UJVN/R-1 dated 7th July 2003. The proposal in Petitioner's filing on availability from IPPs has been accepted by the Commission.

Table 5.11: Availability from Other Sources (MU)

Source	Proposed	Approved
Microhydel	45.00	46.07
IPPs	26.00	26.00
TOTAL	***71.00***	***72.07***

5.6.2.1.4. *Banking Arrangement with Punjab*

The Petitioner has signed a Memorandum of Understanding (MoU) with Punjab State Electricity Board (PSEB) for banking surplus CGS availability during certain months and withdrawing from Punjab in seasons when it is in a deficit situation. As per the terms of the MoU, UPCL will provide Punjab with an average of 2.4 MU per day from May to August, 1.2 MU in September while drawing 2.0 MU during the month of November to March on first charge basis. Subject to technical feasibility, UPCL will take back the banked power from PSEB, plus 5% extra, during the deficit months. Settlement for any unbalanced amount will take place at the end of March. Given the diversity in the load patterns between Punjab and Uttaranchal, both the States are in a position to benefit from this arrangement. As such, the Commission has taken the impact of banked energy as per the terms of this MoU. As this arrangement affects overall power purchase costs, **the Petitioner is directed to submit the details of such banking arrangement, before entering into an agreement for the same, to ensure optimum cost of power purchase**.

5.6.2.1.5. *Total Availability*

Based on the above a summary of the total availability of power has been presented in Table 5.12

Table 5.12: Total Availability from Various Sources for 2003-04 (MU)

Source	Proposed	Approved	Reason for difference
UJVNL	2963.00	3070.03	Information available from UJVNL
CGS Stations	2039.00	2155.79	
NHPC		*256.14*	*No data provided*
NTPC		*1784.80*	*No data provided*
NPC		*114.84*	*No data provided*
Others	71.00	72.07	Information available from UJVNL
TOTAL	***5073.00***	***5297.88***	

5.6.2.2 ***Fixed and Variable Costs of various Sources***

5.6.2.2.1. *Cost of power from UJVNL*

The Petitioner is currently purchasing power from UJVNL at a rate of 55 paise/unit and paying a royalty of 5.5 paise/unit making this total cost as 60.5 paise/unit. This tentative price has been determined by the State Government in their Order No. 429/uk&Åtk/2002 dated 22.02.2002.

While communicating this rate the Government categorically directed UJVNL that based on it a proposal may immediately be submitted to the Regulatory Commission for approval. UP Electricity Regulatory Commission (UPERC) continued to exercise jurisdiction in the State till setting up of the present Commission on 05.09.2002. But no approval of this rate has been sought either by UJVNL or by the petitioner till date. In absence of any examination of the basis for determining this rate serious questions arise about appropriateness of this apparently adhoc rate even if one was to overlook the illegality of rates determined and adopted unilaterally without Commission's approval. In this context, one needs to go into the manner in which such rates were determined before division of the UP State.

A power purchase agreement was signed between UP Jal Vidyut Nigam Ltd. (UPJVNL) and UP Power Corporation Ltd. (UPCL) on 18th December 2000 which laid down comprehensively the methodology to be followed for determining the power purchase rates for generating stations of UPJVNL. Two relevant features of this agreement are:

a) The agreement is effective for three years beginning 01.04.2001 and is extendable further with mutual consent.

b) The Agreement provides that:

"In case any of the parties to this Agreement is restructured and/or its generation, transmission and distribution activities are taken over by the Other Organisation(s), Agency (ies), partly or wholly, the Agreement shall be binding mutatis mutandis upon the successor Organisation (s)/ Agency (ies), and guaranteed by the State Government shall continue to remain valid with respect to the obligations of the successor Organisation(s)/Agency (ies). In such situation this Agreement shall be suitably reviewed and modified as mutually agreed between the parties and shall be binding on all concerned."

After the above agreement came into force on 01.04.2001 business of UPPCL was divided between it and UPCL and that of UPJVNL between it and UJVNL. This division became effective from 09.11.2001. As stated above UPCL and UJVNL both being successor entities, the above agreement was binding on both the parties subject of course to such review and modification as may be mutually agreed to between them. No such revision on the basis of mutual agreement has been made. In absence of any mutually agreed modification, the original agreement continues to bind the two parties. In other words the price of power to be purchased by the petitioner from

UJVNL is to be determined strictly in terms of this agreement and not unilaterally or through third party intervention.

The above agreement was binding on all successor entities and it would, therefore, be worthwhile to see how the same has been dealt with by the present UPPCL and UPJVNL who are also successor entities to the original signatories. Going through the tariff orders of UPERC one finds that the above agreement has been followed without any difficulty in UP and the rates of power purchased by UPPCL from UPJVNL have been determined in accordance with this agreement and the same have been submitted to and approved by the Regulatory Commission, year after year.

As stated earlier the agreement could be mutually reviewed and modified. It is not clear from the Petitioner's submission or from the Government Order dated 22.02.2002 what kinds of difficulty were faced by successor entities on account of this agreement necessitating its abandonment particularly when the decision to discard a legally valid agreement does not seem to have been taken with mutual consent and nor has the State Government in its above order mentioned the existence of or fate of this agreement. The fact that there is no mutual agreement on this issue is borne out clearly from the letter no. 550/UPCL/DF-22 written by the Petitioner to UJVNL as recently as on 17.07.2003 which amongst other things says that:

"You are aware that Power Purchase Agreement between UP Jal Vidyut Nigam and Uttar Pradesh Power Corporation Ltd. was executed on 18.12.2000 which was effective from 01.04.2001 to 31.03.2004. This agreement was applicable to the successors and assigns of UP Jal Vidyut Nigam and Uttar Pradesh Power Corporation Ltd. As this agreement is already in force, the efficacy of signing another agreement may also please be communicated."

It would, therefore, appear that the above agreement has not been modified mutually and, therefore, continues to bind both the successor bodies of UPPCL and UPJVNL. In practice, an enhanced power purchase rate is being paid by the Petitioner which is not the rate determined in terms of this agreement or scrutinized and approved by the Regulatory Commission. The effect of this violation of this agreement, of the Government Order dated 22.02.2002 and indeed of the provisions of The Electricity Regulatory Commissions Act, 1998 and The Adaptation Order, 2001 and now of The Electricity Act, 2003 is in the shape of UPCL paying higher than warranted price for power purchased from UJVNL pushing up in turn the consumer tariff. However, there is no indication that this higher rate fixed by the Government has been contested by the Petitioner

The above agreement is still being observed in UP and the power purchase price fixed as per the terms of this agreement and regularly approved by UPERC in recent years is given in Table 5.13.

Table 5.13: Rate of Power Purchase in UP

Power Purchased from	2000-01	2001-02	2002-03	2003-04
UPJVNL	35 paise/unit	37 paise/unit	53* paise/unit	31 paise/unit

**A higher rate was fixed due to reduced generation on account of drought.*

While fixing the rate of 30 paise/unit for the 2003-04 UPERC in its tariff order date 10th June 2003 has observed that

"However during the course of cost computation, the Commission has observed the following discrepancies in the PPA, which have been corrected by the Commission:

- *It was observed in the PPA that financing cost of Pension and PF liabilities had been considered as an expense by UPJVNL. As per the Transfer Scheme implemented in January 2001, these liabilities have already been taken over by Government of Uttar Pradesh and therefore the financing cost is being borne by GoUP. It is therefore not appropriate to allow this expense to be recovered by UPJVNL.*
- *In this regard, the Commission would once again like to highlight that UPPCL should be careful in negotiating PPAs with suppliers. The Commission believes that such discrepancies, as observed in this PPA, could be avoided by following a more rigorous approach with respect to PPA, wherein there should be adequate clauses to ensure that if some liability is taken away from the generator after the date of signing of PPA, the same would be reflected in the costing as well.*
- *UPJVNL has claimed an annual increase of 10% in its O&M expenses from the level determined for FY 2001-02. Such rate of inflation appears very high to the commission. The Commission has therefore approved rate of inflation only to the extent allowed by Commission in other instances for FY 2003-04. The rate of inflation considered by the commission is 3.5% per annum.*
- *Return on equity had been considered at 12% per annum for UPJVNL for FY 2003-04. However given that the Commission has approved a rate of return of 16% for UPRVUNL and that UPJVNL plants had met target generation last year and are projected to generate more this year, the Commission has allowed a return of 16% provided that the target generation is achieved.*

Based on above UPERC approved a total cost of Rs. 53.2 Crore for purchasing 1735 MU which works out to a rate of 31 paise/unit.

It would appear from above that the rate of 60.5 paise/unit that the petitioner is currently paying is neither in accordance with the terms of an existing agreement nor in accordance with the provisions of The Electricity Regulatory Commission Act, 1998, Uttaranchal (Uttar Pradesh Electricity Reforms Act) Adaptation and Modification Order, 2001 or for that matter of The Electricity Act, 2003. Apart from this in terms of value this rate of 60.5 paise/unit is substantially higher than the rates determined for UPJVNL in accordance with terms of the same agreement. For the current year the proposed rate of 60.5 paise/unit is almost 100% higher than the rate being paid on the same basis of calculation in UP.

The Commission had asked UJVNL to provide details of this rate of 60.5 paise/unit and an affidavit in response has been filed on behalf of UJVNL on 11.08.2003. This affidavit does not give any break up or justification for this rate and merely traces the history and also dwells upon the activities that the Corporation has undertaken which are not really relevant to the issue. It does however mention CERC's Order no. L-7/25(1)/2000-CERC, published in Gazette of India on 26.03.2002 and goes on to say that as per section 86(4) of The Electricity Act, 2003 this Commission is to be "guided by the said policies". The order of CERC referred to in the affidavit is really not an order but are regulations framed by CERC in exercise of powers conferred on it under section 28 of The Electricity Regulatory Commission Act, 1998. The relevant extract of this section is reproduced below:

"The Central Commission shall determine by regulations the terms and conditions for fixation of tariff order clauses (a), (b) and (c) of section 13 ……………."

Section 13 deals with functions of CERC which have been listed therein. In this section, powers of CERC with respect to generating companies is limited to regulating tariff of such companies that are owned or controlled by the Central Government or of companies having a composite scheme of generation and sale of electricity in more than one State.

The above regulations of CERC adopted under section 28 are relevant to CERC's own functioning which is with respect to Central Generating Stations and not for State Generating Units. As far as section 86 (4) of The Electricity Act, 2003 is concerned, it requires the State Commission to be guided by the National Electricity Policy, National Electricity Plan and Tariff Policy publish under section 3 of the Act, and this section does not even mention of the regulations adopted by CERC for its own functioning. These regulations are not part of the National Electricity Policy, National Electricity Plan and the Tariff Policy, which are yet to be issued by the Central Government under section 3 and same are still under formulation. The Commission therefore rejects the contention that CERC's regulations formulated under section 28 of The Electricity Regulatory Commission Act, 1998 and notified on 26.03.2001 lay down any binding principles for determining tariffs of State Generating Units. Notwithstanding this obvious position even if these regulation were binding on the State Units the issue would be of relevance and consideration when these rates are submitted to the Commission for approval.

It is, therefore, clear that the rate of 60.5 paise/unit proposed by the Petitioner for power purchased from UJVNL have no basis and can not be allowed. Such a rate is to be determined in terms of the agreement in the original form or as may be mutually modified and, thereafter, the same has to be examined and approved by this Commission. Pending such revision and approval the Commission is allowing payment for such energy on adhoc basis at the rates prevailing on the date of division of UPJVNL and UPPCL. This is rate as approved by UPERC for the financial year 2001-02 is 37 paise/unit. It may be recalled that this rate is substantially higher than the rate UPERC has approved for UPJVNL for the current year, which is 31 paise/unit. **The Petitioner is hereby directed to work out an updated rate of power to be purchased from UJVNL and submit the same for Commission's approval by 31.12.2003.** As and when the Commission has scrutinized and approved this rate the same will replace the adhoc rate of 37 paise/unit being allowed in this order.

The Commission also directs the Petitioner to approach the Commission for approval of any new Power Purchase Agreement as per the prescribed procedure.

5.6.2.2.2. Power Development Cess/Tax/Royalty

In exercise of power conferred to it under section 86(2) of the Electricity Act, 2003 and section 10(f) of the Adaptation Order, the Commission has advised the Government to impose a power development cess of about 33 paise per unit on generation/sale for investments in the hydro power projects in the State to exploit the hydro potential available within the State. It is also understood that the Government is contemplating charging royalty to the extent of 10 paise per unit. This will take up the cost of power purchase by the Petitioner from UJVNL to 80 paise per unit. The Commission, therefore, approves an overall cost of 80 paise per unit for power purchase by the Petitioner from UJVNL. However, till such time the Government issues the notification in this regard, the Petitioner, will pay to UJVNL at an ad-hoc rate of 37 paise per unit and remaining 43 paise per unit shall be kept by the Petitioner in a separate account meant for this purpose. **The Petitioner shall not transfer money from this account without prior approval of the Commission.** After notification of this cess/royalty by the Government, this fund shall be transferred to the Government.

5.6.2.2.3. Cost of power from Central Generating Stations

The Commission recognizes that for stations which fall within the jurisdiction of CERC, the tariffs, as and when determined by CERC, would apply. If required, the Commission may consider any cost implications for these stations at CERC determined tariffs in the next filing. However, for the purposes of current Petition, the Commission has adopted the following approach.

NHPC

The Commission has accepted the primary energy rate of 59.69 paise/unit on the basis of the least variable charges of thermal stations for financial year 2002-03 as indicated by NHPC in their bill calculations. The primary energy rate has an impact only on the merit order process as the distribution between primary charges and capacity charges has no effect on the average payment per unit made by the Petitioner to NHPC stations. Development surcharge, claimed in the bills from NHPC, is also allowed in other charges.

NTPC

The Commission has adopted the fixed and variable costs for the Singrauli Super-thermal power station as allowed in the CERC's order dated 23rd July 2003. For the other thermal stations, since new notifications from CERC are awaited, the Commission has decided to allow fixed and variable costs based on the average of the recent monthly bills that have been raised by the generator with the Petitioner. The fixed charges determined are a function of the fixed costs for the station and the State's share of the allocation from the station. For the variable charges, the Commission has allowed the variable charges specified in the bills and the average FPA over the previous four month period. Other charges including water cess charges, advance tax payments and generation losses specified in the bills have also been considered.

NPC

The Commission has permitted the recovery of tariff as determined in the past month bills for NAPP. The bills indicate a single part variable tariff and the Commission has adopted the same in its power purchase cost calculations for financial year 2003-04.

Other Sources

The Government of Uttaranchal has notified a tariff for small and medium hydel plants at 170 paise / unit and 250 paise / unit for IPPs, which the Commission has also considered.

Regarding the Petitioner's contention that purchase from IPPs should be allowed at a price of 250 paise / unit ahead of merit order, the Commission feels that it has no hesitation to allow power purchase from IPPs as long as the purchase is economic and fits into the merit order.

5.6.2.2.4. Summary of Power Purchase Price for various sources

Based on the above, a summary of the total cost of power has been presented in Table 5.14.

Table 5.14: Cost of Power from various sources

Source	Fixed Charges (Rs. Crores)	Variable Charges (Paise/unit)	Other Charges (Rs. Crores)
UJVNL	-	80.00	-
CGS - NHPC			
Salal	0.00#	59.69*	0.12
Tanakpur	0.68#	140.55	0.10
Chamera	4.46#	59.69*	0.42
Uri	14.27#	59.69*	1.02
CGS – NTPC			
Singrauli	17.56	67.98	1.16
Auriya	6.92	112.84	0.21
Rihand	19.62	68.30	0.48
Anta	4.24	104.81	0.13
Dadri Gas	8.20	123.08	0.23
Unchahar I	20.20	104.30	0.33
Unchahar II	6.63	103.74	0.13
NPC			
NAPP	0.00	257.72	-
Others Microhydel	0.00	170.00	-
IPPs	0.00	250.00	-
TOTAL	***102.77***	**-**	***4.32***

#Capacity charge

****Primary Energy Charge (includes Secondary Charge, wherever applicable)***

5.6.2.3 Transmission Charges

The Petitioner is required to pay the Powergrid Corporation of India Limited (PGCIL) for the usage of transmission network for evacuation of its quota of power from CGS for meeting the requirements of the state and for trading purposes. The charges for the Petitioner have been approved based on the average of past monthly bills from the PGCIL and are indicated in Table 5.15.

Table 5.15: PGCIL Charges (Rs. Crore)

Transmission charges	Proposed	Approved
Fixed Charges		32.44
ULDC Charges		1.93
TOTAL	***35.32***	***34.37***

5.6.2.4 Merit Order Dispatch

The next stage involved in the determination of power purchase costs is the operation of a monthly merit order on available stations, accurately capturing both the seasonal nature of sales and the seasonal disparity in availability especially for hydel stations that would result in a cost optimization process that would be based on the relevant cost. This process allows a far more accurate determination of the optimal costs involved in power purchase than the usage of a yearly merit order process. Based on the above monthly merit order, the Commission has apportioned the total availability between requirement for the State and surplus available for trading. This apportionment is shown in Table 5.16. Ideally, the merit order procedure is to be followed by the State Load Dispatch Center on an instantaneous basis to allow the identification and dispatch of the least cost source of power.

5.6.2.5 Implications of Availability Based Tariff (ABT)

Given the applicability of the ABT regime, the Commission emphasizes that the Petitioner should create and enforce suitable mechanisms to ensure a strict adherence to the merit order process based on the declared day ahead availability schedule of the generating stations and its own determination of the scheduled requirement of energy to be supplied to consumers as there are significant financial implications of deviations from the availability schedule. **The Petitioner is directed to submit a Report, giving justifications with supporting data/details, alongwith next**

filing to assure the Commission of its observance of the merit order process for dispatching from different stations and the management of schedules to avoid UI charges.

Table 5.16: Availability Apportionment based on Merit Order (MU)

Source	Total Availability	Required for Sale within State	Available surplus
UJVNL	3070	2983	87
NHPC	256	205	51
Salal	*37*	*37*	*0*
Tanakpur	*17*	*17*	*0*
Tanakpur Free Power	*51*	*0*	*51*
Chamera	*76*	*76*	*0*
Uri	*75*	*75*	*0*
NTPC	1785	713	1072
Singrauli	*730*	*558*	*172*
Auriya	*151*	*5*	*146*
Rihand	*283*	*94*	*189*
Anta	*103*	*9*	*94*
Dadri Gas	*173*	*0*	*173*
Unchahar I	*242*	*29*	*213*
Unchahar II	*103*	*17*	*86*
NPC	115	0	115
NAPP	*115*	*0*	*115*
Others	72	0	72
Micro hydel	*46*	*0*	*46*
IPPs	*26*	*0*	*26*
TOTAL	***5298***	***3900***	***1398***

The Commission also recognizes that the actual off take from a generating station and the associated costs for a Petitioner might be different from that determined in the merit order above. The Commission would take a view on these differences as filed by the Petitioner based on a scrutiny of whether sound economic principles or other tenable requirements have been followed in the actual dispatch adopted by the Petitioner.

5.6.2.6 *Determination of Relevant Costs for Consumers in the State*

The Commission has determined that over 75% of the State's requirements for power are serviceable from the State generating stations on the observance of the monthly merit order schedule. It is also aware that the trading arrangements made by the Petitioner are primarily sourced from the CGS. In view of the current terms, wherein 85% of the income accruing from trading goes to the State treasury and only 15% is allowed to be considered as income for the Petitioner for reducing the tariffs by a small extent, the Commission is of the opinion that the consumers of the State should not be unduly over burdened with the levy of the entire fixed charges of CGS when the benefit of alternate usage of these sources is not made available to them in full.

The Commission has calculated the proportion of fixed charges of CGS applicable to the consumers in the State based on the extent of usage of such sources for serving the energy requirements within the State. The residual charges for the CGS need to be identified with the trading function being carried out by the Petitioner and should be considered as a cost under that head. A similar argument would apply towards the segregation of costs associated with PGCIL. Other Costs including the development surcharge for NHPC stations, tax payments, water cess and generation loss for NTPC stations have also been allocated between the portion chargeable to state consumers and that to the trading business. This allocation of total fixed charges is shown in Table 5.17.

Table 5.17: Fixed Charges Segregation (Rs. Crores)

Stations	Total Fixed Charges	Allocation to State	Allocation to trading
UJVNL	0.00	0.00	0.00
NHPC	19.41*	19.41	0.00
Salal	-	-	*0.00*
Tanakpur	*0.68*	*0.68*	*0.00*
Chamera	*4.46*	*4.46*	*0.00*
Uri	*14.27*	*14.27*	*0.00*
NTPC	83.37	31.13	52.23
Singrauli	*17.56*	*17.56*	*0.00*
Auriya	*6.92*	*0.58*	*6.34*
Rihand	*19.62*	*8.18*	*11.45*
Anta	*4.24*	*0.35*	*3.89*
Dadri Gas	*8.20*	-	*8.20*
Unchahar I	*20.20*	*3.37*	*16.84*
Unchahar II	*6.63*	*1.10*	*5.52*
NPC	-	-	0.00
NAPP	-	-	*0.00*
Others	0	0	
Micro hydel	*0*	-	*0.00*
IPPs	*0*	-	*0.00*
SUB TOTAL:	102.77	50.54	52.23
Transmission Charges	34.37	14.15	20.22
TOTAL	***137.15***	***64.69***	***72.46***

***Capacity Charge**

5.6.2.7 *Summary of Power Purchase Cost*

The summary of total power purchase cost for power requirement within the State is shown in Table 5.18.

Table 5.18: Total Power Purchase Cost Breakup

Source of Power	Fixed Cost (Rs. Crores)	VC/unit (Paise/unit)	Load Dispatch (MU)	Variable Cost (Rs. Crores)	Other Charges (Rs. Crores)	Total Cost (Rs. Crores)	Avg Cost (Rs./unit)
UJVNL	0	80.00$	2983	239	0.00	239	0.80
NHPC	19.41	67.83	205	13.89	1.65	34.95	1.71
Salal	*0.00#*	*59.69**	*37.32*	*2.53*	*0.12*	*2.65*	*0.71*
Tanakpur	*0.68#*	*59.69**	*16.65*	*1.13*	*0.10*	*1.90*	*1.14*
Tanakpur Free Power	*0.00#*	*140.61**	*0.00*	*0.00*	*0.00*	*0.00*	
Chamera	*4.46#*	*59.69**	*75.85*	*5.15*	*0.42*	*10.02*	*1.32*
Uri	*14.27#*	*59.69**	*74.95*	*5.08*	*1.02*	*20.37*	*2.72*
NTPC	31.13	71.15	713	50.67	1.12	82.93	1.16
Singrauli	*17.56*	*67.98*	*558.39*	*37.96*	*0.89*	*56.38*	*1.01*
Auriya	*0.58*	*112.84*	*5.20*	*0.59*	*0.01*	*1.17*	*2.25*
Rihand	*8.18*	*68.30*	*93.91*	*6.41*	*0.16*	*14.75*	*1.57*
Anta	*0.35*	*104.81*	*8.56*	*0.90*	*0.01*	*1.26*	*1.47*
Dadri Gas	*0.00*	*123.08*	*0.00*	*0.00*	*0.00*	*0.00*	
Unchahar I	*3.37*	*104.30*	*29.38*	*3.06*	*0.04*	*6.47*	*2.20*
Unchahar II	*1.10*	*103.74*	*17.10*	*1.77*	*0.02*	*2.90*	*1.70*
NPC	0.00	257.72	0	0.00	0	0.00	0.00
NAPP	*0*	*257.72*	*0*	*0*	*0*	*0*	*0*
Others	0.00	170.00	0	0.00	0	0.00	0.00
Micro hydel	*0*	*170.00*	*0*	*0*	*0*	*0*	*0*
Transmission Charges (PGCIL)	14.15	-	-	-	-	14.15	0.00
TOTAL	***64.69***	***0.78***	***3900***	***303.21***	***2.78***	***370.68***	***0.95***

$Inclusive of a cess/tax/royalty of 43 paise/unit
#Capacity charge
****Primary Energy Charge (includes Secondary Charge, wherever applicable)***

5.7 Employee cost

The Petitioner has estimated the employee costs for financial year 2002-03 at Rs. 124.17 Crore including Rs. 24.17 Crore as contribution towards pension and gratuity. The Petitioner has projected the financial year 2003-04 employee costs at Rs. 164.49 Crore including 49.71 crores as contribution towards pension and gratuity. The Petitioner has considered an increase of 6% in the base employee cost after increasing the base cost proportionately according to the engagement of the new employees against the sanctioned strength.

For the financial year 2003-04, the Petitioner had based its working on the claimed employee strength of 6809 against the Government approved sanctioned strength of 6521. In spite of repeated requests, the current status of the number of employees serving in UPCL and the status of recruitment programme was not furnished. The Commission has, therefore, based its working on the number of employees actually working in the year 2002-03 which was 6303. The Petitioner has projected increase of 506 employees over the actual strength of financial year 2002-03. This huge increase in employee strength is almost entirely in staff and the number of officers is projected to go up by a mere 10. The Commission strongly advises the Petitioner to review its manpower requirement and exercise caution in any fresh recruitment. This is all the more important in view of the fact that the Petitioner's employee cost is already high and increasing it further will have serious consequences on the consumer tariff in future. The Commission is of the view that a professional staffing study should be got done to determine the right number and the optimum mix of Petitioner's manpower requirement. Pending such study the Petitioner may go slow on fresh recruitment and limit it to the bare minimum. The Petitioner should also explore options like outsourcing which has emerged as a cost effective alternative to recruitment of additional staff.

For want of Petitioner's accounts for 2002-03 or details of the projected employee costs, the Commission had to base its examination on the information reflected in the Monthly Trial Balance (MTB) for 2002-03. As per this information the actual employee cost for the financial year 2002-03 is Rs. 94.52 Crore including retirement benefit contributions of only about Rs. 6.60 Crores. The Commission has considered this as the base figure for expenses other than employer's contribution for pension and gratuity. This contribution should be Rs. 14.18 Crore, which is about Rs 8 crores higher than the amount shown in the consolidated MTBs. The employer's contribution towards pension and gratuity has been assessed at the rate of 19.08% of the wages including DA as projected by the Petitioner.

For financial year 2003-04, the Commission has accepted the Petitioner's projection of 6% escalation in each element of employee cost and used this rate to work out a more realistic figure for the year. The Petitioner has projected Rs 49.71 crores towards contribution to provident fund, staff pension and gratuity for financial year 2003-04, which includes the employer's current contribution of Rs. 19.08 Crore as well as past liabilities of Rs. 30.63 Crore, devolution of which on the Petitioner is still not clearly spelt out. The uncertainty on this account only increases when we take into account the fact that Government of UP had already taken over all the past liabilities of pension and gratuity at the time of unbundling of UPSEB, i.e. as on 14.01.2000. All liability towards PF on the date of unbundling i.e. 14.01.2000 has also been assumed by the UP Government. The Petitioner has not been able to show how these past liabilities assumed by the UP Government have devolved on it. The Commission is, therefore, unable to accept Petitioner's claim on past liabilities for want of substantiation and is not recognizing any expenditure on this account during the current year. The Commission, as a matter of abundant caution, is separately providing for a transitional contingency reserve from which such expenditure may be allowed by it should such liability, in full or part; actually devolve on the Petitioner on final transfer of assets and liabilities from UPPCL. The Commission would take a view on servicing cost of past pension, PF and gratuity liabilities after finalisation of division of assets and liabilities between UPPCL and UPCL. The employee cost as projected by the Petitioner and as allowed by the Commission is given in Table 5.19.

Table 5.19: Employee costs (Rs. Crores)

Item	2002-03		2003-04	
	Proposed	**As per MTB**	**Proposed**	**Approved**
Basic Salaries		49.59		52.56
Overtime		-		-
Dearness Allowance		24.72		26.21
Other allowances		4.44		4.71
Bonus / Ex-gratia		3.54		3.75
Medical expenses re-imbursement		0.30		0.32
Leave travel assistance		0.03		0.03
Interim Relief		0.01		0.01
Earned leave encashment		4.79		5.07
Leave Salary contribution		0.00		0.01
Payment under workmen's compensation Act		0.31		0.32
Staff welfare expenses		0.19		0.20
Employee cost	**100**	**87.92**	**114.78**	**93.20**
Employers Contribution for Pension & Gratuity	24.17	6.60	49.71	15.03
Employee Costs before capitalization	**124.17**	**94.52**	**164.49**	**108.22**
Less : Capitalised		-		-
Employee cost charged to operation	***124.17***	***94.52***	***164.49***	***108.22***

5.8 Repairs & Maintenance Expenses

The Petitioner has estimated the repairs & maintenance expenses for financial year 2002-03 at Rs. 32.42 Crore and projected them at Rs. 37.42 Crore for financial year 2003-04. Repairs & Maintenance expenses have been projected by the Petitioner as per norms which have been stated to be 1.5% of opening balance of gross fixed assets for transmission works and 2.5% of opening balance of gross fixed assets for distribution works. Since, the classification of the assets was not available on the basis of Transmission and Distribution Assets; hence, the Petitioner had distributed the total GFA in the proportion of 30% and 70% into Transmission and Distribution assets respectively. The Commission has accepted these norms given by the Petitioner and applied them for estimating these expenses for the financial year 2003-04. Given the value of Gross Fixed Assets as Rs. 507.34 Crore accepted by the Commission elsewhere in this order, the estimated expenditure on this account for the year works out to Rs. 11.16 Crore and not Rs. 37.42 projected in the ARR as planned by the Petitioner. Against this figure based on Petitioner's own norms, the actual expenditure on R&M during the financial year 2002-03 was actually Rs. 17.18 Crore as per the MTBs. The Commission has, therefore, decided to allow the same level of expenditure under this head even though the norms give a lower figure of only Rs. 11.16 Crore.

Significant investments are proposed in the form of APDRP projects for strengthening the sub-transmission system. Implementation of these projects should result in substantial strengthening of the distribution system, which in turn should result in reduced requirement of R&M expenditure in future. The Commission does hope that this would get reflected in Petitioner's future ARRs.

Table 5.20: Repair and Maintenance (R&M) Expenses (Rs. Crore)

Item	2002-03		2003-04	
	Proposed	As per MTB	Proposed	Approved
Plant & Machinery	17.29	6.16	19.12	6.16
Buildings	2.58	1.23	3.28	1.23
Civil works	1.35	0.08	2.85	0.08
Hydraulic works		0.00		0.00
Lines, cables, netw orks, etc	10.29	8.71	10.92	8.71
Vehicles		0.99		0.99
Furniture & Fixture	0.27	0.01	0.30	0.01
Office Equipment	0.61	0.01	0.75	0.01
Material cost variance		-		-
Others	0.03	-	0.20	-
Total R&M cost	***32.42***	***17.18***	***37.42***	***17.18***

5.9 Administrative & General Expenses

The Petitioner has estimated Rs. 11.83 Crore as the Administrative & General Expenses for financial year 2002-03 and projected Rs. 16.08 Crore for financial year 2003-04. The Petitioner has explained that actual expenses for 2002-03 have been taken as the base and increase of 10% per annum during each of the ensuing years has been made on it. At the same time few new items have been incorporated in the list of expenses which have been introduced due to establishment of the Corporate office and also due to computerization and other specialized activities.

The Commission is of the view that 10% compound increase annually on these expenses is high particularly keeping in view the inflation rate in the country. In any organization these expenses need to be kept under close scrutiny and strict check. The Commission has accepted the figures of these expenses for financial year 2002-03 as Rs. 9.38 Crore which is the figure reflected in the MTB and taken it as the base for estimating these expenses for the financial year 2003-04. The Commission is of the view that the annual compound increase of 3% only should be allowed in A&G expenses, except the License Fees which is based on the actual total sales revenue earned during the last year in financial year 2003-04 keeping in view the rate of inflation. Based on this the Commission has allowed an expenditure of Rs. 10.84 Crore.

Table 5.21: Administrative and General (A&G) Expenses (Rs. Crores)

Item	2002-03		2003-04	
	Proposed	**As per MTB**	**Proposed**	**Approved**
Rent, Rates & Taxes	0.53	0.16	0.64	0.16
Insurance	0.06	0.05	0.07	0.05
Telephone, Postage &Telegrams, Telex charges	0.62	0.73	0.68	0.75
Legal charges	0.15	0.11	0.15	0.11
Audit fees	0.05	0.01	0.07	0.01
Consultancy charges	0.85	0.51	1.42	0.53
Technical fees		-		-
Other Professional charges.	0.03	0.06	0.03	0.06
Honorarium		0.00		0.00
Conveyance and traveling	1.88	1.74	2.88	1.80
Other expenses	6.32	4.14	7.67	4.26
Material related expenses		-		-
License Fees	1.87	1.87	3.11	3.11
Total A&G Charges	***11.83***	***9.38***	***16.08***	***10.84***

5.10 Other Expenses

This element comprises mainly of two items, viz. delayed payment surcharge on power purchase bills and rebates to consumers.

For financial year 2003-04, the Petitioner has projected an expenditure of Rs. 15.40 Crore towards rebates to consumers. The Commission is glad to note that there is no liability for payment of delayed payment surcharge to the generators.

The Commission finds that consumers already enjoy sufficiently long credit for the supplies made to them. Petitioner has intimated the Commission that even for consumers being billed on monthly basis the time lag between the first day of supply and actual payment is about two months, resulting in interest free credit for an average period of 45 days for the entire billed amount. For consumers being billed once in two months the interest free credit period works out to around two months. This existing arrangement itself is quite generous and no further concessions seem called for. Allowing consumers rebate for timely payment and booking the cost of it on tariff through expenses incurred, gives no real advantage to consumers and is only an exercise of smart packaging. The Commission has therefore decided to do away with the system of rebate for timely payment of the bills by consumers.

Other expenses for financial year 2003-04 as proposed by the Petitioner and as approved by the Commission are given in Table 5.22.

Table 5.22: Other Expenses (Rs. Crores)

Item	2002-03		2003-04	
	Proposed	**As per MTB**	**Proposed**	**Approved**
Delayed payment surcharges - Power purchase	-	-	-	-
Rebate to consumers	12.29	17.90	15.40	-
Other Expenses	***12.29***	***17.90***	***15.40***	**-**

5.11 Capital Investment

The Petitioner has estimated capital works to be executed during financial year 2003-04 of Rs. 437.72 Crore.

Section 10(e) of the Adaptation Order stipulates that the Commission scrutinizes and approves Petitioner’s investments. The rationale behind this requirement is that since the cost of today's investments will get reflected in the future tariffs the Commission should ensure that such investment are made prudently and in the most cost effective way and keeping in view Petitioner's capacity to absorb the cost of such investments. Initially this responsibility, upon formation of Uttaranchal, rested with the UP Electricity Regulatory Commission and since September 5, 2002 it lies with this Commission. Para 11 of the Distribution and Retail Supply License also reflects this concern and requires the Petitioner to obtain Commission's approval on all major investments that the Petitioner proposes to make.

The Petitioner has not obtained Commission's prior approval for any of the projects that it proposes to implement or may be implementing. On the contrary even after repeated inquiries on behalf of the Commission the Petitioner has neither filed details of such projects nor has it obtained UPERC's or this Commission's approval to such investment in complete violation of law and conditions of license issued to it by the Commission. The Commission does not propose to do anything that rewards and encourages such adventurism on Petitioner's part and does not propose to recognize for computing the Petitioner's costs all such investments excepting those listed below:

- Projects on which work had started before 31.3.02
- Projects taken up under APDRP and PMGY schemes
- Projects having total cost of less than 2.5 Crore each

5.11.1 Village Electrification

Uttaranchal and Himachal Pradesh are both hill States and endowed with huge hydro potential. Himachal Pradesh had achieved hundred percent village electrification quite some time back and as per the latest census report it is one of the three States of the country having more than 90% household electrification. In contrast, Uttaranchal still has as many as 2801 un-electrified villages. It is ironical that while the State being surplus in power is selling its surplus power to other States, large sections of its own population continue to be deprived of basic amenity like electricity. As per the information furnished by UPCL, of the 2801 Villages remaining to be electrified 923 are to be electrified by UREDA through non-conventional energy sources and the balance 1878 villages by UPCL through the grid. Further, the pace of electrification of these balance 1878 villages by UPCL depends on:-

a) Availability of funds for this purpose

b) UPCL's capacity to take up and complete this work

c) UPCL's capacity to bear and absorb the financial burden of such investments

It is a well-recognized fact that electrification of a village involves investments without commensurate returns to the licensee. Returns to the Society and to the Economy are, however, immense. In recognition of this, the financial burden of investments for village Electrification Works was shifted from utilities to the Central and State Government. This was done through the following programmes:-

a) Prime Minister's Gramodyog Yojna (PMGY).

b) Minimum Needs Programme (MNP).

In addition to above Government funding, funds are also available as loan at zero percent interest from Rural Electrification Corporation (REC) under a scheme recently launched. Funds under PMGY come to the State by way of 90% grant and 10% long-term loans but allocations are limited. Funds under MNP are presently coming by way of interest bearing long-term loans. Funds from REC are available as interest free loans and are payable over 13 years period including three years' moratorium.

Looking at non-viable nature of investments in village electrification, commercial loans under MNP or any other programme are not considered suitable financing options for such investments. For UPCL to be able to take up this programme in a big way funds have to be raised in a manner that does not put un-reasonable financial burden of servicing these loans on the Corporation. This can be done by suitably mixing PMGY with interest free loans available from REC so that the depreciation accruing on the assets created through these investments could generate enough internal funds in Company to enable it to service the loans (i.e. 10% loan component under PMGY and 100% of REC). Such mixing and appropriate depreciation of these assets can successfully negate the burden of servicing these loans on the utility making them what can be called Zero Cost loans for the utility. Detailed cash flows based on special rates of depreciation are given in Table 5.23.

Table 5.23: Cash flows for Village Electrification Package (Rs. Crores)

(PMGY 13 Cr + REC 87 Cr. = 100 Cr. Investment)

Year	Balance PMGY Principal	PMGY outflow	REC outflow	Annual outflow	Accumu lated Outflow	Depreciation	Accumulated Depreciation	Net Accumulated Surplus
	1.300			0.000	0.000	0.000	0.000	0.000
1	1.268	0.174	2.610	2.784	2.784	3.000	3.000	0.216
2	1.235	0.177	0.000	0.177	2.961	3.000	6.000	3.039
3	1.203	0.173	0.000	0.173	3.134	3.000	9.000	5.866
4	1.170	0.169	8.439	8.608	11.743	3.000	12.000	0.257
5	1.138	0.166	8.439	8.605	20.347	8.667	20.667	0.319
6	1.073	0.193	8.439	8.632	28.979	8.667	29.333	0.354
7	1.008	0.185	8.439	8.624	37.603	8.667	38.000	0.397
8	0.942	0.178	8.439	8.617	46.220	8.667	46.667	0.447
9	0.877	0.170	8.439	8.609	54.829	8.667	55.333	0.504
10	0.812	0.163	8.439	8.602	63.431	8.667	64.000	0.569
11	0.747	0.155	8.439	8.594	72.025	8.667	72.667	0.641
12	0.682	0.148	8.439	8.587	80.612	8.667	81.333	0.721
13	0.617	0.140	8.439	9.197	89.809	8.667	90.000	0.191
	Total	***2.192***	***87.000***	***89.809***		***90.000***		

Depreciation permitted for 13 years

Investment required (Rs. Cr.) = 100

Depreciation for first 4 years @ 3%

Depreciation for 5 to 13 years @ 8.66%

The calculations shown in the table are for Rs. 100 crores investment for Rural Electrification made through a mix of 13% (i.e. Rs. 13 crores) under PMGY and 87% (i.e. Rs. 87 crores) from REC. These proportions have been chosen so that entire repayment principal & interest for these gets serviced through depreciation on these assets. This in turn makes the entire investment cost neutral to the utility. The model assumes regular loan and interest payments on the funds upto 13 years, by which time REC loan gets repaid. In the 13th year it is assumed that balance principal of Rs. 0.617 crores towards 10% PMGY loan (i.e. 10% of 13 crores = 1.3 crores) shall also be paid alongwith regular payment for 13th year. This would clear PMGY loan also in the 13th year. The depreciation of 3% p.a. has been provided for the first four years, while the balance deprecation [i.e. 90-(3x4)=78%] @ 8.67% p.a. has been provided from 5th to 13th year.

The Commission is aware that depreciation on investments pertaining to village electrification works allowed under Central notification is different from the rates of depreciation indicated in the preceding para. However, in view of importance and urgency of this programme, the Commission is consciously making a deviation from the Central norms and adopting the above rates for depreciation for works executed in connection with electrification of balance unidentified villages in the State.

With the above Zero Cost package, ideally electrification of all remaining villages should be taken up and completed at the earliest. However there are other constraints, which have to be taken into account. These are:

a) Generous assistance available under PMGY is an essential ingredient of this package. Availability of funds under this programme being limited, the size of the package will have to be determined based on the funds that can actually be raised under this particular programme.

b) The benefit of Zero interest rates on REC loans is subject to the project being completed within the stipulated period. This will depend on the Petitioner's organizational capacity to take-up and complete these works in time.

The Petitioner is, therefore, directed to leverage the PMGY assistance in the manner indicated above and determine the targets of village electrification programme in consultation with Government of Uttaranchal keeping in mind the overall target adopted for completion of this task and present a compliance report within 3 months. Taking up this work through other commercial loans would place unavoidable burden on the Petitioner, which will not be recognized in determining tariffs in future.

5.12 Capitalisation

In its projection for financial year 2003-04, UPCL has projected a capitalisation of Rs. 426.72 Crore. However, even after repeated requests the Petitioner has not provided any details of different capital expenditure projects or their schedule for capitalization or any completion certificates for such projects. Even for capitalisation claimed to have been done during financial year 2002-03, the Petitioner has not furnished any information on major works undertaken or their works completion certificates. In absence of these details the Commission is not in a position to recognise their capitalisation. The Commission, therefore, has no option other than not allowing asset related expenses on such works for financial year 2003-04. The Commission is, however, open to review this position in future should the Petitioner furnish all requisite details on such projects.

5.13 Depreciation

The Petitioner has claimed an expenditure of Rs. 83.70 Crore towards depreciation for financial year 2003-04. The projected depreciation is at an average rate of 7.87% on its gross block for financial year 2003-04 and has been worked out proportionately based on the depreciation worked for part of the financial year 2001-02. For working out the depreciation the value assumed for Gross Fixed Assets (GFA) is Rs. 1,063.30 Crore compared to Rs. 507.34 Crore as per the provisional accounts for financial year 2001-02. This steep increase in the total GFA is mainly on account of assuming value of fixed assets transferred from UPPCL as Rs. 817.60 Crore instead of Rs. 478.86 Crore as per the Petitioner's provisional accounts for financial year 2001-02. Another increase of Rs. 212.50 Crore is on account of capitalization claimed for financial year 2002-03, which has been discussed above. The new value of GFA transferred from UPPCL is being assumed by the Petitioner as Rs. 817.60 Crore on the basis of a draft transfer scheme being negotiated between the UPPCL and UPCL. The scheme is yet to be accepted by the Petitioner's Board of Directors or that of the UPPCL. The two state governments concerned are yet to examine and approve the proposed transfer scheme, which pushes up the value of fixed assets transferred to Uttaranchal to Rs. 817.60 Crore from the earlier figure of Rs. 478.86 Crore only. It may be recalled that when no agreement could be reached on division of assets in Power sector between the two States, Government of India on Uttaranchal Government's request passed an order u/s 63 (4) of the Uttar Pradesh Reorganization Act, 2000 on 5.11.01 announcing the basis for division of assets and liabilities between UPPCL & UPCL and between UPJVNL & UJVNL. It has been ascertained by the Commission that the state government have so far not taken any decision to challenge the above order of GoI or deviate from it. The Commission is therefore of the view that it will be premature to recognize the substantially higher values stipulated in the draft Transfer scheme referred to by the Petitioner when neither the two licensees nor the two state governments have examined it what to talk of accepting it. If and as and when the two Petitioners accept this draft scheme and the two Governments agree to it the Petitioner is directed to obtain Commission's approval on it before implementing it, as it has serious implications for future consumer tariffs.

Keeping in view the facts discussed above, the Commission has accepted Rs. 507.34 Crore only as opening value of GFA for financial year 2003-04 based on the Petitioner's Balance Sheet for financial year 2001-02 On this value, the Commission approves depreciation for financial year 2003-04 of Rs. 39.93 Crore at the rate of 7.87% proposed by the Petitioner.

For want of category wise details of assets for this year, the Commission has allowed depreciation rate claimed by the Petitioner. Depreciation has to be calculated for each asset by applying the relevant rate and only till the permissible value of 90%. For this, details including the age and depreciated value of each such asset are required to be furnished. The Petitioner must immediately prepare and maintain proper Fixed Asset Register and should invariably submit complete details of its Fixed Assets and the calculations for the depreciation claimed on them.

5.14 Provision for Bad & Doubtful Debts

The Petitioner has claimed Rs. 32.76 Crore as expense towards bad debts. The Petitioner does not at present have any policy for identifying and writing off bad debts. The Petitioner has also not written off any such debts so far. The Commission is of the view that before bad debts can be written off they have to be properly identified based on a transparent policy that the Petitioner's Board of Directors may lay down for this purpose. In absence of any such policy for identification of bad debts, it will be premature to provide for this proposed expenditure of Rs. 32.76 Crore during the current year. The Commission has therefore not allowed this expenditure. The Commission advises the Petitioner to scrutinize its unrealized dues which are more than one year's sales revenue and formulate a clear and transparent policy for writing off bad debts.

5.15 Interest & Financing cost

The Petitioner had submitted a requirement of Rs. 132.67 Crore under the head interest and financing charges (excluding interest on Consumers Security Deposit). This consists of interest claimed on certain liabilities said to be arising out of the transfer scheme that amount to Rs. 50.37 Crore (inclusive of interest due to Government of UP, old REC loans and GPF trust liabilities), interest of Rs. 13.07 Crore for fresh loans from financial institutions and Rs. 49.94 Crore on account of past CPSU liabilities. Another sum of Rs. 19.29 Crore has been proposed as interest due on loans from the Government of Uttaranchal.

Government of UP loan of Rs. 123.90 Crore liability has been assumed by the Petitioner based on the draft transfer scheme being negotiated, and interest payable on that has been estimated as Rs. 15.49 Crore. The value of this loan in the original petition was shown as only Rs. 67.70 Crore raising questions on the accuracy of this estimation. Petitioner's MTBs show that this assumed liability has not been serviced at all in financial year 2002-03.As has been stated earlier the draft transfer scheme is still to be finally negotiated by the parties concerned and accepted by them.

In absence of clarity on the total quantum of this loan and on the nature and extent of its liability on the Petitioner, the Commission is unable to accept this as a valid item of expenditure this year.

A sum of Rs. 24.08 Crores has been claimed by way of interest on old loans of REC. These loans have been re-scheduled in such a way that no interest or principle is payable during the initial 16 months ending on date April 2004. Payment of interest liability will begin only in the month of May 2004. Since financial year 2003-04 does not involve payment of this interest amount, the Commission is unable to accept this amount of Rs. 24.08 Crore and therefore has disallowed it.

Another amount of Rs. 127.10 Crore is shown as payable to UP Power Sector Employees Trust (GPF Accumulation) and interest payment of Rs. 10.80 Crore has been claimed on the same. In the original ARR petition this figure was shown as Rs. 79.40 Crore. Petitioners MTBs for financial year 2002-03 do not indicate any payment towards this liability. While the Petitioner is claiming an increase in this liability, the factual position is that the UP Government has recently taken over all PF liability upto the date of unbundling of UPSEB i.e. 14.01.2000. The Petitioner has not been able to show how exactly have these liabilities, already taken over by UP Government, devolved on it.

The Petitioner has also shown an amount of Rs. 587.50 Crore due to CPSU's on which the interest burden is shown as Rs. 49.94 Crore. However, according to the Tripartite Agreement (Securitization Agreement) entered into between GoI, GoU and the RBI, this liability was to be taken over by the GoU by issuing tax free Bonds carrying an interest rate of 8.5%. However, it is not clear as to who will service the interest burden accruing from the Bonds. Further, no Bonds have been issued as yet. Hence, till such time this arrangement is clearly spelt out the Commission does not see the Petitioner incurring any expenditure on this account and, therefore, has not allowed it.

Interest of Rs. 13.07 Crore has been claimed against loans that the Petitioner proposes to take from Financial Institutions like REC, IDBI, PFC, CBI and NABARD on their consolidated loan amount of Rs. 205.86 Crore (Opening Balance as on 01.04.2002 was Rs. 22.50 Crore and addition made subsequently were to the tune of Rs. 183.36 Crore). However, as per accounts for financial year 2001-02 and MTBs of financial year 2002-03 no disbursement from these FIs were shown as received by the Petitioner during these years and no interest payments have been shown as made to them. In case of new loans, for fresh investments the Commission has already spelt out its position in absence of their proper scrutiny and approval, as already above. Loans for such unrecognized investments can not be allowed for working out the Petitioner's costs.

Rs. 19.29 Crore has been shown as interest liability on new loans of Rs. 217.52 Crore from Uttaranchal Government. These loans are presumably again for new investments. The Commission has already spelt out its position on such investments, which have not been properly scrutinized and approved. The Commission is, therefore, recognizing the interest liability only on loans under APDRP and PMGY schemes which are sanctioned after due scrutiny and appraisal. The interest liability on such loan has been worked out at Rs. 5.5 Crore and the same has been allowed by the Commission.

The Commission has, thus, approved an expenditure of Rs. 5.50 Crore only for financial year 2003-04 against an actual expenditure of Rs. 0.29 lacs incurred in financial year 2002-03 as per the figures in the MTBs for financial year 2002-03, which was also towards Consumer Security Deposits and Petitioner's claim of Rs. 132.67 Crore.

5.16 Interest on working capital

The Petitioner has not proposed any interest on working capital in its petition. The Commission recognizes that interest on working capital is an implicit part of the return allowable on capital base through inclusion of the average cash & bank and stores balances in the capital base on which the Petitioner is allowed a return of 16%. The tariffs approved by the Commission in this ARR would yield a revenue of Rs 542.89 Crore to the Petitioner in financial year 2003-04. With the approved collection efficiency of current dues of 90%, the expected shortfall in collection would be Rs. 54.30 Crore over the assessed revenue in financial year 2003-04. This shortfall in collection of current dues should be fully recoverable, though with some delay. To cover this period the Petitioner will be required to raise money by way of working capital. The Commission, therefore, recognized the need for additional working capital arising out of shortfalls in collection of current dues and assumed collection efficiency of at least 90%. If the Petitioner is required to raise higher working capital due to his inability to collect 90% of the current dues the cost of such additional working capital will have to be borne by him. The Commission, therefore, allows interest on shortfall in collection of current dues upto 10% which works out to a total of Rs. 54.30 Crore. Estimated interest works out to Rs 6.24 Crore.

5.17 Interest on Consumer Security Deposits

For financial year 2003-04, the Petitioner has projected an interest of Rs. 0.67 Crore on consumers' security deposits at a rate of 3%.

According to section 47(3) of the Electricity Act, 2003, the distribution licensee is required to pay interest equivalent to the bank rate or more, as may be specified by the State Commission, on any security kept by it from the consumers. Keeping in view this provision, the Commission directs that the Petitioner should pay to the consumers interest on such deposits at same rates as are payable by the State Bank of India for fixed deposits of similar duration. However, for calculating the impact on Petitioner's expenses for the current year the average interest rate on such deposits has been assumed to be 6%. Commission has accordingly allowed an expenditure of Rs. 3.51 Crore on this account.

5.18 Capital Base and Reasonable Return

5.18.1 Petitioner's submission

The Petitioner has calculated the Capital Base for financial year 2003-04 at Rs. 67.66 Crore. The Capital Base determined by the Petitioner includes Rs. 800 Crore towards average of revenue arrears. The Petitioner has computed the reasonable return to be allowed as part of the Annual Revenue Requirement for financial year 2003-04 at Rs. 16.63 Crore.

5.18.2 Commission's view

The Commission has approved the following terms for inclusion in the Capital Base computation

5.18.2.1 Original Cost of Fixed Assets

The Petitioner has proposed a sum of Rs. 1490.02 Crore based on its computation of transfer scheme assets and capitalization schedule for investments. The Commission has approved an OCFA of Rs. 507.34 Crore based on the closing balance for financial year 2001-02 as indicated in the provisional balance sheet provided by the licensee. Given that the Petitioner has not provided any conclusive evidence of capitalized works since financial year 2001-02, therefore, no such works have been considered for inclusion. Consumer contributions to the extent of Rs. 103.60 Crore are taken based on the provisional balance sheet and additions as indicated from MTB for financial year 2002-03.

5.18.2.2 *Capital Works in Progress (CWIP)*

The closing balance from the provisional balance sheet of financial year 2001-02 indicates a CWIP of Rs. 91.90 Crore. The Commission has allowed investments only on account of APDRP and PMGY schemes to the extent of Rs. 103.46 Crore in financial year 2002-03 and Rs. 209.59 Crore in financial year 2003-04 into CWIP. Neither expense capitalization nor IDC has been allowed currently. The approved CWIP for financial year 2003-04 consequently works out to Rs. 404.95 Crore.

5.18.2.3 *Working Capital Requirements*

The Commission has decided to allow working capital to the Petitioner under the heads of cash and stores requirement to the extent as provided in the Sixth Schedule of the Electricity (Supply) Act, 1948. The working capital allowance on account of cash and stores works out to Rs. 86.42 Crore.

5.18.2.4 *Accumulated Depreciation*

The Petitioner has filed for Rs. 495.34 Crore under accumulated depreciation based on its computation of the yet to be notified transfer scheme and capitalization of investments. The Commission has allowed Rs. 275.84 Crore on account of the accumulated depreciation of assets based on the information provided in the provisional balance sheet of financial year 2001-02 and the non capitalization of assets over the past two years.

5.18.2.5 *Loans from government and approved institutions*

The Petitioner has indicated a figure of Rs. 1806.4 Crore under this head. The Commission has allowed only those loans approved under the interest and finance charges section. This includes loans sourced from the Government of Uttaranchal as per the provisional balance sheet of financial year 2001-02, loans taken for PMGY and APDRP investments and existing REC loans. This amounts to Rs. 272.40 Crores for financial year 2003-04.

5.18.2.6 *Consumer Security Deposits*

The Petitioner has filed for Rs. 23.05 Crore as the security deposit in financial year 2003-04. The Commission has considered a security deposit of Rs. 58.54 Crore for financial year 2003-04 that is based on the Rs. 50.08 Crore indicated in the provisional balance sheet for financial year 2001-02.

5.18.2.7 *Grants*

The Sixth Schedule of the Electricity (Supply) Act, 1948 does not provide for the exclusion of grants from the negative side of the Capital Base. The Commission is of the opinion that the Petitioner is not entitled to earn a return on the grants allowed to it from the Central and State Governments under various investment schemes such as the APDRP and PMGY. The Commission, therefore, has included this head under the negative side of the Capital Base. The grants considered are on account of for computation purposes amount to Rs. 279.53 Crore that consist of the grant portion of the investments approved for financial years 2002-03 and 2003-04.

5.18.2.8 *Capital Base Computation*

Based on the items considered above, the Commission has assessed the Capital Base at Rs. 8.8 Crore for financial year 2003-04. The Commission does not agree with the Petitioner's incorporation of Rs. 800 Crore for revenue arrears in the Capital Base which is a deviation from the methodology prescribed for Capital Base determination under Sixth Schedule of the Electricity (Supply) Act, 1948. Both receivables and current liabilities are not considered in the computation of capital base. The inclusion of the receivables on the positive side of the Capital Base without inclusion of corresponding liabilities on the negative side results in unwarranted excessive returns to the licensee. The Capital Base determined by the Commission based on the approach given above is Rs. 8.80 Crore as depicted in Table 5.24.

Table 5.24: Capital base determination for 2003-04 (Rs. Crore)

Item	Proposed	Approved
GFA	1490.02	507.34
Intangible Assets	-	-
Less: Consumer Contribution	62.5	103.60
Capital work-in-progress	68.81	404.95
Investment made out of contingency reserve	-	-
Average of Revenue Arrears	800.87	-
Cash & Stores	95.25	86.42
Sub-total (A)	*2392.45*	*895.11*
Accumulated Depreciation	495.34	275.84
Loan advanced by the Board	-	-
Loan borrowed from organisations or institutions approved by the State Govt.	1806.4	272.40
Debentures issued by the licensee	-	-
Consumers' security deposit	23.05	58.54
APDRP and RE grants	-	279.53
Sub-total (B)	*2324.79*	*886.31*
Capital base = A – B	***67.66***	***8.80***

5.19 Reasonable Return

The reasonable return of 16% allowed to the Petitioner on the Capital Base works out to Rs. 1.25 Crore. Return of 0.5% on loans from the Government and other approved sources works out to Rs. 1.35 Crore. The total reasonable return to the Petitioner works out to Rs. 2.77 Crore as shown in Table 5.25.

Table 5.25: Reasonable Return for 2003-04 (Rs. Crore)

Item	Proposed	Approved
On capital base (Particulars to be given as on 31.3.95 & thereafter annually)	10.84	1.41
Income from investments (other than those under XVIII(i)(d) and out contingency		
0.5% of loan advanced by the Board		
0.5% of borrowings from organisations or institutions approved by the State Govt.	5.79	1.36
0.5% of amount realised by the issue of debenture by the licensee		
0.5% of accumulations in Development Reserve		
Any other amount allowed by the Central Govt.		
Reasonable Return	***16.63***	***2.77***

5.20 Transitional Contingency Reserve

As already discussed in Chapter 4 on Commission's Approach, the Commission has approved a lump sum provision of Rs. 188.77 Crore as a Transitional Contingency Reserve for meeting unforeseen liabilities.

A total sum of Rs. 188.77 Crore will be set aside during the year in a separate account and the same will be termed as Transitional Contingency Reserve. This would comprise of at least Rs. 80 Crores of old arrears to be realised in the year out of past receivables and the balance of surplus of revenue over expenses allowed for the year. **The Petitioner shall not transfer money from this account without prior approval of the Commission.** As and when any contingent liability, other than those already covered in the Order under various heads of expenses, arises, the Petitioner shall discharge the liability, to the extent permitted by the Commission, from this reserve after getting approval from the Commission. **A monthly Status Report of this Transitional Contingency Reserve will be sent to the Commission.**

5.21 Non-Tariff Income

Non-tariff income includes delayed payment surcharge, miscellaneous charges from customer, meter rents, income from investments in form of Fixed Deposits, income in form of staff welfare activities, other miscellaneous receipts as well as income from trading activities. It is projected that the Petitioner will earn Rs. 50.73 Crore from under this head during financial year 2003-04 as shown in Table 5.26.

5.21.1 Delayed payment surcharge

The delayed payment surcharge (DPS) has been reduced from 2% being charged till previous years to 1.5% from this year. 2% p.m. was considered very higher as compared to the prevalent bank rates. The delayed payment surcharge has been calculated keeping in view an interest of 1.5% per month as envisaged in the tariff schedule on the uncollected amount. The delayed payment surcharge is estimated to be Rs. 5.07 Crore.

5.21.2 Meter rent

The meter rent estimated for financial year 2003-04 is Rs. 3.40 Crore after taking into account the growth in new consumers. Other miscellaneous charges are estimated to be Rs. 0.29 Crore after taking into account the growth in consumers.

5.21.3 Income from fixed deposits

The Petitioner has a huge amount of Rs. 460.79 Crore in form of Fixed Deposits in the Bank. In financial year 2002-03 itself the Petitioner as per the monthly trial balance has deposited additional Rs. 201.61 Crore over and above the financial year 2001-02 level of Rs. 259.09 Crore. The total income in form of interest on these deposits works out to Rs. 25.34 Crore.

5.21.4 Income from trading

The Petitioner has signed a Memorandum of Understanding with the Power trading Corporation to trade 150 MW of power round the clock and 100 MW of power 20 hours a day for a period of one year. This is to trade the excess power after meeting the State requirement from the Government share of Central Generating Stations. The Petitioner receives 15% of the margin from the entire transaction.

The total income from sale of surplus power to PTC works out to be Rs. 320.22 Crore while the cost of power works out to be Rs. 228.45 Crore. Hence, the income from this activity is Rs. 91.77 Crore. The Petitioner's share of this income is estimated to be Rs. 13.77 Crore based on the 15% handling charges allowed.

Table 5.26: Non-Tariff Income for 2003-04 (Rs. Crore)

Item	2003-04	
	Proposed	Approved
Miscellaneous income from consumers		
Meter Rent	5.72	3.40
Misc. Charges from Consumer	2.10	0.29
DPS	16.40	5.07
Sub-total	*24.22*	*8.76*
Other Miscellaneous Charges		
Income from Investments	5.00	25.34
Income from Staff Welfare Activities	-	0.05
Income from Misc. receipts	0.49	2.81
Sub-total	*5.49*	*28.20*
Trading		
Interstate Sale Handling Charge	17.99	13.77
TOTAL	***47.70***	***50.73***

5.22 Summary of Approved ARR

The Petitioner has applied for a revenue requirement of Rs 793.75 Crore for financial year 2003-04. Based on the Commission's analysis and approval, the Commission has assessed the Aggregate Revenue Requirement at Rs 702.92 Crore for financial year 2003-04 as shown in Table 5.27.

Table 5.27: Aggregate Revenue Requirement for 2003-04 (Rs. Crore)

Item	2003-04	
	Proposed	Approved
Power purchase cost	389.80	370.68
Employee Costs	164.49	108.22
A&G Costs	16.08	10.84
Repair & Maintenance expenses	37.42	17.18
Interest & Finance Charges	133.34	9.01
Provision for Bad & Doubtful Assets	32.76	-
Depreciation for the year	83.70	39.93
Interest on Working Capital Loan	-	6.24
Rebate allowed to consumers	15.40	-
Less: Expenses Capitalised	48.17	-
Reasonable Return	16.63	2.77
Total Expenses	***841.45***	***564.88***
Provision for transitional contingency reserve	**-**	***188.77***
Total expenses after provision	**-**	***753.65***
Less: Non-Tariff Income		
(i) Miscellaneous Revenue from Consumers	*24.22*	*8.76*
(ii) Other Miscellaneous Charges	*5.49*	*28.20*
(ii) Revenue from trading	*17.99*	*13.77*
Net Aggregate Revenue Requirement	***793.75***	***702.92***

The Petitioner has shown its total annual expenses in its ARR to be Rs. 841.45 Crore for Financial Year 2003-04. The Petitioner itself in its tariff proposal has withdrawn claim with respect to some of its expenses as were claimed earlier in its ARR. Details of these expenses are given in Table 5.28.

Table 5.28: Expenses withdrawn by Petitioner (Rs. Crore)

Expenses	Amount
Interest on CPSU's old dues to be transferred from UPPCL which GoU has indicated to own	49.94
Interest on CPSU's old dues to be transferred from UPPCL which GoU has indicated to own	15.49
Liability towards pension and gratuity which GoU has indicated to own	24.00
Total	***89.43***

Thus, the projected expenditure stood revised at Rs. 752.02 crores. Against this the Commission has allowed total expenditure of Rs. 564.88 Crore. Main expenses disallowed by the Commission are given in Table 5.29.

Table 5.29: Major Expenses Disallowed (Rs. Crore)

Expenses	Proposed	Approved	Difference	Reason
Power Purchase	389.80	370.68	19.12	Petitioner has projected power purchase at pooled cost for 3989 MUs without merit order, while the Commission determined cost of power purchase for the State on merit order for 3900 MUs. Further, the cost of purchase from UJVNL was taken as 60.5 p/u by Petitioner, the Commission has taken it to be 80 paise (including cess of 43 p/u)
Employee Cost *	140.49	108.22	32.27	The Petitioner has projected these expenses by increasing the employee strengths by 506 which was not allowed by the Commission because the petitioner has not given the present status of recruitment against these posts.
Repairs & Maintenance expenses	37.42	17.18	20.24	In accordance with the norms of the Petitioner, the Repairs & Maintenance expenses worked out to Rs. 11.16 crores. Hence, the Commission has approved the expenditure at the last year's level, i.e. Rs. 17.18 crores.
A & G costs	16.08	10.84	5.24	The Petitioner had projected an annual increase of 10% which was very high. The Commission has allowed an increase of 3% considering inflationary trends.
Interest & Finance Charges*	67.91	9.01	58.90	The Commission has not allowed interest on any new loans except APDRP and PMGY as projected investments are still to be examined and approved. Further, the licensee could not substantiate their payments and the actual payment in FY 03 as per the MTB was only Rs. 0.29 Crore.
Provision for Bad & doubtful Debts	32.76	0.00	32.76	The Petitioner has been asked to formulate a clear and transparent policy for identifying and writing off bad debts, before any expenditure on this account can be allowed.
Depreciation	83.70	39.93	43.77	The Commission has recognized the GFA given in the Petitioner's account for the year 2001-02 and has not accepted upward revision of the same which is still to be finally agreed to between the two Corporation and the two State Government.
Rebate allowed to consumers	15.40	0.00	15.40	The Commission has decided to do away with these rebates.
Reasonable Return	16.63	2.77	13.86	The Commission has calculated the Capital Base of the petitioner in accordance with Schedule VI and allowed the return thereon.
Less: Capitalisation	-48.17	0.00	-48.17	In absence of details of project completion status, the Commission did not allow any capitalisation.
Interest on WC	0.00	6.24	-6.24	The Commission has recognised the need of WC on account of shortfall in collection by 10%.
Total	***752.02***	***564.87***	***187.15***	

**The expenses proposed have been adjusted for the expenses withdrawn by the Petitioner shown in Table 5.28.*

5.23 Revenue at existing Tariff

The revenue at the prevailing tariffs for the financial year 2003-04 is provided in Table 5.30.

Table 5.30 : Revenue at current tariff for 2003-04 (Rs. Crore)

Item	2003-04	
	Proposed by Petitioner	Estimated by Commission
Domestic	226.81	212.84
Non Domestic	119.56	101.12
Public Lamps	5.90	5.84
Private Tube Wells	9.56	9.05
Small & Medium Industries	37.85	35.68
Public Water Works	56.31	46.26
Temporary supply	-	0.01
State Tubewells	13.50	9.56
Large Industries	182.73	190.80
Lift Irrigation	2.98	3.57
Bulk Supply	-	0.30
Revenue in excess of tariff revenue due to Minimum Charges	-*	27.78
Sub-total	***655.20***	***642.83***
Revenue from commercial loss reduction	-	35.17
Revenue due to collection of past arrears	-	80.00
Total Revenue from sale of Electricity	***655.20***	***758.00***

**Included above*

5.24 Net Revenue Gap/Surplus

The calculation of the Net Revenue Gap/Surplus in financial year 2003-04 is presented in Table 5.31.

Table 5.31: Revenue Gap/Surplus at current tariff (Rs. Crore)

Item	2003-04	
	Proposed by Petitioner	**Estimated by Commission**
Net Revenue Requirement	793.75	702.92
Income from Sale of Electricity at Existing tariff	655.19	758.00
Net Revenue Gap /(Surplus)	***138.56***	***(55.08)***

The surplus has, thus, been estimated at Rs. 55.08 Crore at existing Tariff by the Commission.

6. Tariff Analysis and Design

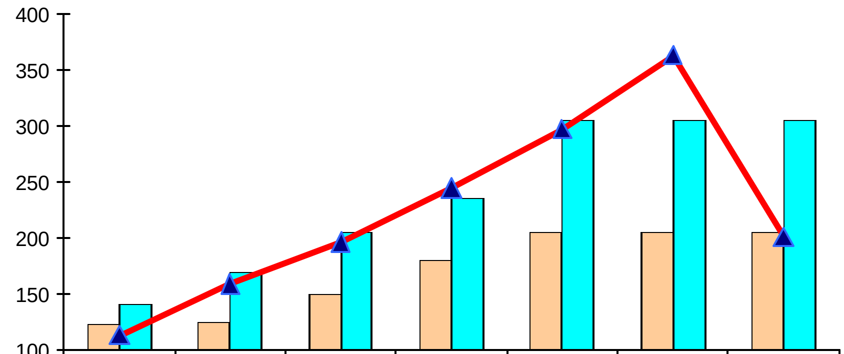
This Chapter discusses the tariff trends in the past years, the approach taken by the Commission in determining tariffs for different categories of consumers, comparison of existing tariff, those proposed by the Petitioner and those finally approved by the Commission. The rate schedule for various categories of customers as determined by Commission is given in Annexure 1.

6.1 Tariff History

An examination of the tariffs prevalent in the last decade indicates a persistent and widening gap between the retail tariffs and the cost of supply and the significant variations across categories. It would, therefore, seem that tariffs were not structured to recover the total costs and the emphasis was on engineering tariffs to achieve certain social objectives. While the actual achievement of these social objectives is still debatable, these tariffs did encourage wasteful consumption in the subsidized segments; proliferation of unfocussed subsidy and had an adverse impact on some of the subsidizing consumers and on the financial health of the erstwhile SEBs.

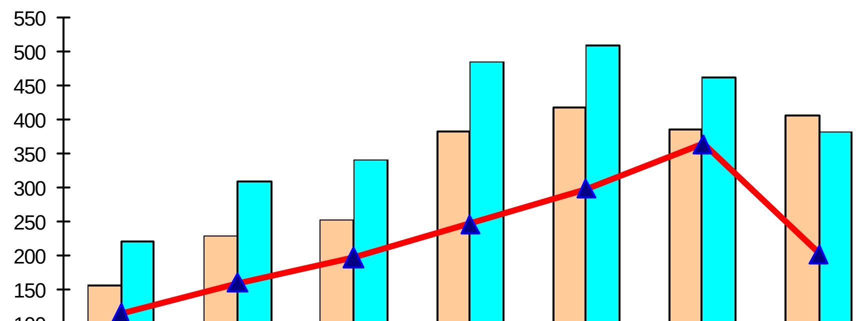
In the year 1992 almost all the categories excepting Agriculture and the lower consumption segments in the domestic sector reflected at least full recovery of cost. But over the years due to non existence of regulatory mechanism industrial and commercial tariffs were raised disproportionately to subsidize other categories. However launching of Power Sector Reforms in the country tried to check and correct the distortions. As a part of these efforts, Uttar Pradesh Electricity Regulatory Commission (UPERC) was established in 1999 and has since tried to introduce rationality in the working of the Power Sector to bring about overall improvement in the same. A comparison of the cost coverage of various categories of consumers over the part decade is given in below.

Chart 6.1: Cost coverage of Domestic Consumers



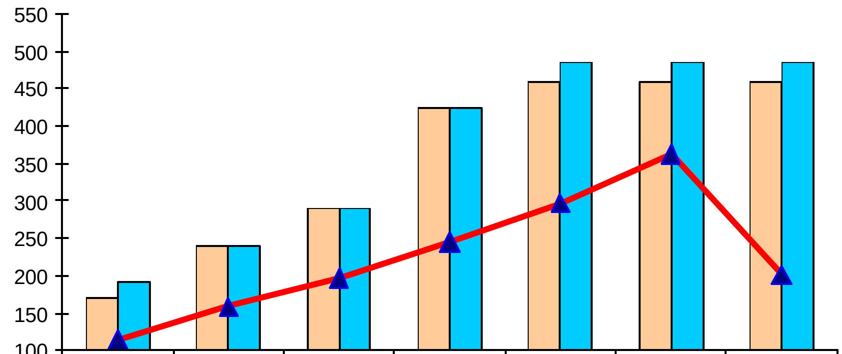
	FY92	FY94	FY97	FY99	FY00	FY02	FY03
Metered (100 units) (p/kWh)	123	125	150	180	205	205	205
Metered (300 units) (p/kWh)	141	170	205	235	305	305	305
Average Cost of Supply (p/kWh)	114	159	197	245	297	363	201

Chart 6.2: Cost coverage of Industrial Consumers



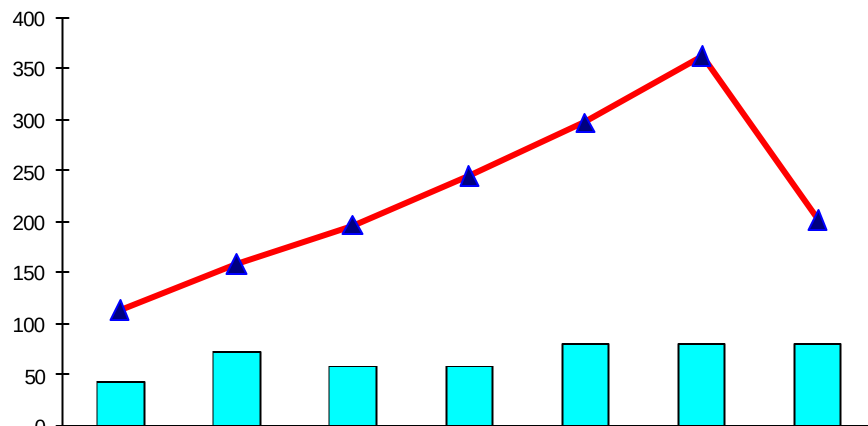
	FY92	FY94	FY97	FY99	FY00	FY02	FY03
Industries-Small and Medium	155	228	251	383	418	386	406
Industries - Large and Heavy	221	308	340	483	508	462	381
Average Cost of Supply (p/kWh)	114	159	197	245	297	363	201

Chart 6.3: Cost coverage of Commercial Consumers



	FY92	FY94	FY97	FY99	FY00	FY02	FY03
Metered (100 units) (p/kWh)	171	240	290	425	460	460	460
Metered (200 units) (p/kWh)	192	240	290	425	485	485	485
Average Cost of Supply (p/kWh)	114	159	197	245	297	363	201

Chart 6.4: Cost coverage of Agricultural Consumers prevailing at present.

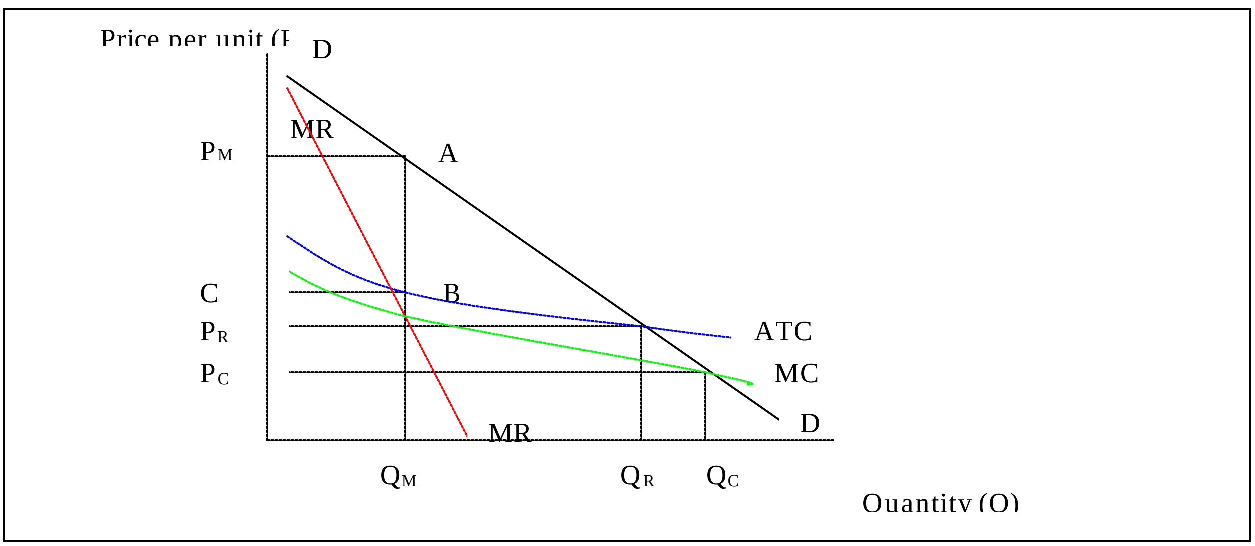


	FY92	FY94	FY97	FY99	FY00	FY02	FY03
Agriculture	44	73	58	58	80	80	80
Average Cost of Supply (p/kWh)	114	159	197	245	297	363	201

6.2 Role of the Regulator

A competitive market operates in the economically efficient manner to determine the price and quality of goods and services. While generation and supply have historically proved to be sensitive to the influence of market forces, the transmission and distribution business has functioned primarily in the form of a natural monopoly. While this is set to change with the provisions for open access, the same will take time and meanwhile it is debatable whether this element of the electricity sector would ever be fully exposed to competition. The rationale for regulatory intervention in a natural monopoly business (the transmission and distribution utility business) is to simulate the effect of competitive market forces on the incumbent to ensure that consumers are not overcharged for the services used and that certain basic quality standards are maintained by the utility, while allowing the utility to recover its prudently incurred costs. The regulator also restricts the possibility of the utility earning super normal profits and ensures that flow of resources and investments occur in an economically optimal and efficient manner. Tariff Design is among the more potent instruments in the hands of the regulator that provide determining influences of the quantity and nature of demand and supply of electricity.

While the role of the regulator is critical in a natural monopoly such as a network, the role of the regulator is equally important under evolved market based forms of operation where the primary responsibility of the regulator is to facilitate the action of competitive forces and ensure quality of service.



MR (Marginal Revenue) – The change in revenue associated with a unit change in output
MC (Marginal Cost) – The change in cost associated with a unit change in production
ATC (Average Total Cost) – The total production costs incurred divided by the total units produced

DD – Average Revenue Curve

6.2.1 *Monopoly Scenario*

The role of the regulator comes out clearly from the above figure indicating the price quantity continuum for a natural monopoly. The marginal cost is lesser than the total average cost. In the absence of a regulator, a natural monopoly tends to produce goods and services till such time as the marginal revenue exceeds or equals the marginal cost. Beyond that the monopoly would incur a loss on each additional good produced. Therefore, a producer in an unregulated monopoly environment would typically halt production where the marginal revenue would equal the marginal cost of producing each good. Thus, the point of operation would indicate the producer charging a price PM for supplying a quantity QM. This would lead to economic profit for the firm represented by the region PMABC.

6.2.2 *Marginal Cost Scenario*

The regulator acts by setting the price levels much lower than Pm. If the new point of operation is (Pc, Qc), where the marginal cost curve intersects the demand(revenue) curve, then the firm makes a loss given that the price it charges per unit is lower than the average total cost incurred per unit. However, the operative assumption here is that the declining marginal cost curve has not reached its point of inflexion.

6.2.3 *Average Total Cost Scenario, A Suitable Approach*

Regulatory intervention results in setting the operation point at (PR,QR), where the price is set equal to the average total cost that ensures that the firm does not make a net loss though it still incurs a loss on the units in excess of QM. Thus the regulator ensures that the firm is unable to capitalize on its monopoly status by charging excessively from its customers but is allowed to recover its total average costs including normal returns through tariffs.

6.3 Tariff Principles Adopted

There are several well established approaches to tariff regulation. These include the rate of return (cost plus) approach, the targeted incentive approach and the broad based rate making approaches. The latter two are forms of performance based ratemaking approaches.

The rate of return or a cost plus approach towards determining tariffs allows the licensee to recover all prudently incurred expenditure (including power purchase costs) and a regulated return from its consumers. The rate of return approach lays the onus on proving the prudence of costs incurred on the licensee. (The Averch-Johnson problem arises, i.e. it leaves scope for unproductive investment or gold plating of investment.). For e.g., if the licensee intends to undertake certain investment programs, the recovery of the cost of those investments can occur only if it is able to sufficiently satisfy the regulating agency on usefulness of such investments and prudence in determining costs.

This system is however, currently characterized by issues related to information asymmetry between the licensee and the regulator and a lack of incentives on the part of the licensee towards an economic alignment of costs both in the short term (skimping on expenditure) and in the long term (the gold plating effect)

ARR = RR+E+T - NTI

Where, ARR= Total ARR of the licensee for ensuing year.

CB = Capital Base

RR = CB x RoR+0.5% of Loans = Reasonable return

RoR = Allowed rate of return on Capital Base.

E = Total annual expenses, &

T = Annual taxes

NTI = Non-tariff Income

Performance based ratemaking (PBR) approaches use the principle of incentives and penalties to regulate the working of the licensee and elicit certain behavior in the form of lowering costs, improving services and encouraging required investments.

The targeted incentive approach to PBR focuses only on particular aspects of a utility's business. The need for targeted incentives results from the absence of customer choice with regard to distribution companies and from the potentially unwanted outcomes that the cost-cutting incentives of PBR or traditional regulation create. The sharing ratio may be symmetrical or asymmetrical in the case of a reward or a penalty.

P	=	**S*(CB – CAA)**
Where		
P	=	Reward / penalty to firm
CB	=	Baseline estimate of some cost or performance variable
CAA	=	Adjusted actual cost or performance
S	=	Sharing ratio between shareholders and rate payers

While the targeted incentive system allows the utility to retain a proportion of the monetary benefit / losses of its activities on select parameters and thereby creates an incentive for achieving such objectives, care should be taken in determining the parameters for such a rate making approach to avoid distortionary pressures on the normal business operations of the licensee. Baseline determination is also a contentious issue for any form of performance based ratemaking.

The other form of performance-based ratemaking is the broad based approach that covers approaches such as price cap and its variants. This form of regulation prevalent in the UK determines the revenue that a licensee can recover over the extent of defined time period based on a study of costs incurred in a base year, inflationary pressures during the control period and required efficiency improvements. This effectively decouples the revenue earned by a licensee from its actual costs for the duration of the control period. The licensee therefore has an incentive to reduce costs to the extent possible while remaining in a set of quality constraints imposed by a regulatory body. The profit earned during its operations in the control period is typically shared with the consumer at the end of the control period.

$$P_{i,t} = P_{i,t-1} * (1 + RPI - X_i) +/- Z_i$$

where $P = \sum p_i q_i$

$P_{i,t}$	=	price in period t
$P_{i,t-1}$	=	initial price level
RPI	=	rate of inflation in period t-1
X_{t-1}	=	allowance for rate of change in productivity
Z_i	=	allowance for costs passed through directly

The advantage of such a system is that it replicates the market mechanism as closely as possible with the licensee having every incentive to ensure efficiency in costs. The issues include determining an appropriate allowance for productivity improvements and ensuring that service standards are not compromised.

The Commission has largely followed the cost plus approach after suitably incorporation desirable performance norms and standards towards tariff regulation and has analyzed the revenue requirement for the licensee based on the terms laid out in the Electricity Supply Act 1948 and the principles as defined in the Electricity Act 2003. The Sixth Schedule of the Electricity Supply Act is designed on the rate of return approach and pending finalization of the national tariff policy and thereunder the Commission's own approach towards tariff philosophy, the Commission has followed the proviso of Section 61 of the Electricity Act 2003 that state the principles to be followed in the tariff determination exercise. Alternate modes of regulation such as performance based ratemaking could be considered at a later date depending on the stipulations of the national tariff policy and the availability of adequate information to allow the setting of appropriate benchmarks.

6.4 Key Issues in Tariff Determination

The total annual revenue requirement determined in Chapter 5 section of this order is to be met through the revenue from tariff that is set for all the categories of consumers and through non-tariff income. The Commission has adopted the following goals in this process.

- Recovery of licensee's prudent costs through determining cost of supply;
- Minimizing the gap between the consumer tariff and cost of supply;

- Effective targeting for subsidy allocation to the lifeline categories of consumers;
- Simplifying the slab structure;
- Reducing Cross subsidy burden reduction for the subsidizing consumer segments;
- Rationalization and Simplification of the existing tariff structure ;
- Providing functional incentives and penalties.

6.4.1 Determining Cost of supply

Section 61 (g) of the Electricity Act, 2003 states that the Commission should ensure that tariff progressively reflects the cost of supply of electricity and also reduces and eliminates cross-subsidies within a specified period. The phrase "Cost of supply" can be interpreted in more than one way. "Cost to supply" can relate to category wise cost to supply that factors in the characteristics of a particular consumer class such as the load factor, voltage–wise, extent of technical and commercial losses, the requirements during the system peak, etc. or it could mean a pooled average cost of supply across all categories that imputes the same cost to all categories of consumers.

Another relevant issue is the basis for computation of cost to supply i.e. should it be on an embedded (average) cost basis or on marginal cost basis. The marginal approach focuses on identifying the incremental cost that would be incurred in supplying a set of consumers and thereby delivers efficient pricing signals. The embedded approach determines the cost to serve based on the historical costs incurred by the licensee in servicing consumers.

The Commission has been constrained to adopt average cost of supply based on historical or embedded costs that are prudently incurred by the licensee in its operations. The Commission has also attempted to rationalize the prevailing cross-subsidies on this basis. The Commission could attempt tariff rationalization based on ascertaining the cost to serve on category wise basis in future.

6.4.2 Effective Targeting of Cross subsidies

The Commission has attempted to ensure that the cross subsidy made available is effectively targeted to the classes deserving the most. The Commission has defined the lifeline category for domestic consumers on the basis of consumption of 50 units or less per month on a contracted load upto 1 kW. It has also shifted away from the telescopic model of slab rates to non-telescopic model of slabs to prevent uncalled for sops to better off consumer segments.

6.4.3 Simplification of the slab structure

The slab structures that are determined should ideally address two issues:

a) Economic support for lifeline consumers and

b) Encourage efficient consumption of electricity.

The Commission has attempted to rationalize the existing tariff slabs so as to ensure that similarly placed consumers in any tariff category pay similar tariffs and the tariff structure ensures an efficient consumption of electricity through the levy of non telescopic charges. This has resulted in considerable simplification of the slab structures.

6.4.4 Cross subsidy reduction

An analysis of the current tariff structure and comparison with the average cost to serve indicates the extent of cross subsidy that is prevalent in the sector among various categories of consumers which is an inheritance from earlier systems. The Commission has decided to ensure that tariff structure approved for the ensuing year would reduce the disparity in the system substantially by suitably adjusting the tariffs for subsidized and the subsidizing consumers. The Commission is conscious of the unintended possible fallout of acute tariff shock to any category of consumers and particularly of such shock to the subsidized consumer. Hence, the Commission has opted to reduce cross subsidy gradually and in a phased manner.

6.4.5 Tariff rationalization measures

6.4.5.1 Fixed charge, variable charges and minimum charge

The existing tariff structure comprises of a combination of fixed, energy and minimum charges across categories. As discussed in Chapter 4, The Commission recognizes the need for certain fixed revenue for the licensee to meet its fixed costs and thereby the need for all categories/sub-categories of consumers to be charged either in the form of the minimum charge or the fixed charge. While fixed charges are determined on the basis of contracted load or number of connections, minimum charges are determined on the energy consumption by a class of consumers based on factors such as average connected load and load factors. Recovery of fixed costs through these two mechanisms introduces further complexities as it creates certain distortionary pressures on misrepresentation of consumption patterns. The Commission has kept these factors in mind while deciding on the nature of charges that need to be levied on each class of consumers.

The Commission has decided to withdraw the fixed charges from all the categories except Industry. The Commission has decided to introduce minimum charges for the categories where fixed charges have been discontinued. The minimum charge is offset with energy consumption and does not place any additional burden on the consumer. Thus the Commission has decided to have only two part tariff either fixed charge or the minimum charge in addition to Energy charge. However it has taken a different view with respect to industrial consumers where consumption load factor appears incompatible with accepted norms of the industry. **Hence, the Commission for the present has decided to retain both fixed and minimum charges for industrial consumers and directs licensee to monitor the consumption and the demand of the industry more effectively**.

6.4.5.2 Rate Schedule rationalization

The existing tariff structure comprises of ten categories in the Low & Medium Voltage (LMV) segment and three in the High Voltage (HV) segment with numerous sub categorizations and exemptions in each segment. The end result is that the billing system fails to capture this level of differentiation and a complicated tariff structure that is confusing to consumers and unmanageable for the licensee. There is an urgent need to rationalize the existing segments in various categories and create a simple, easy to comprehend, and logical tariff structure. The Commission has studied the licensee's proposal for re-categorization of slabs and has accepted the spirit for tariff re-categorisation. The Commission has merged or suitably redefined certain existing categories.

6.4.5.3 System Loading Charge

At the time of sanction of a new connection one of the charges levied on the applicant is what is being termed as the System Loading Charge. The rationale for levy of this charge that is normally given is that sanction of every new connection increases the load on the transmission and distribution network necessitating up-gradation and reinforcement of the same. Such strengthening of the network could be done through up gradation and installation of new substations or transformers, conductors and other related equipment. Any such investment results in creation of additional assets for the licensee. The cost of creating such additional assets to the licensee is also recovered through depreciation and interest / return on capital.

Recently a petition has been received from the licensee requesting for permitting reduction in these charges. The Commission has taken up this petition on record and shall take a view in the matter after considering the related issues and the submissions made in this regard.

6.4.5.4 Surcharge on the Independent Feeders

Certain categories of industrial consumers are given supply directly from the licensee's substation through independent feeders. Independent feeders have been installed or erected entirely at the cost of consumers but are deemed to be property of the licensee. In accounting terms this would mean that without making any investment the licensee is deriving income from these assets by way of depreciation and reasonable return on capital. From the consumers perspective he is paying to the licensee all the permissible charges and also enabling to derive income on the consumers' investment by claiming depreciation and interest return on capital pertaining to such investment. Giving consumers supply through these independent feeders does not in any way add to the licensee's cost of supply. In fact the cost of such supply should actually be lower due to lesser losses. Levying on the consumer additional charges for Supply, the cost of which is actually lower does not seem logical.

One argument presented in this connection is that a consumer drawing his supply through independent feeders gets better quality of supply and should therefore be charged for it. The flaw in this argument is that the tariffs chargeable from different consumers are based on the average cost of supply to the licensee and not on the quality of supply to the consumer. If quality of supply was to be made the basis for determining the consumer charges, it would only be logical that the rates of such consumers whose quality of supply is poor should be reduced. Such an approach would be contrary to the letter and spirit of law and would result in huge problems by way of disputes over the actual quality of supply that a consumer receives and therefore on the charges that he should be asked to pay. The Commission is not inclined to accept this justification for this surcharge currently being levied. The Commission, therefore, in absence of any justification for levying this surcharge, is disallowing the same. No such surcharge will be recovered from consumers drawing their supply through independent feeders if the cost of such independent feeders has been met by them.

6.4.5.5 Miscellaneous Charges

The Commission has approved the Schedule of Miscellaneous Charges as Proposed by the Petitioner and included in the Rate Schedule given as Annexure 1.

6.4.6 Incentives & disincentives

6.4.6.1 Unmetered Supply

The recovery of costs from unmetered consumers assumes increased importance in absence on categorical norms for calculating their consumption. The Electricity Act, 2003 requires that no unmetered supply is to be made after June 2005. Keeping in mind this requirement and the need for recovering licensee's cost, the Commission has decided to gradually and steadily increase the fixed charges for unmetered consumers.

6.4.6.2 Time of Day (ToD) tariff

6.4.6.2.1. Concept of ToD metering

The Commission has examined the load flow curves as made available by the SLDC that indicate a predominant evening system peak throughout the year. The increase in demand from consumers has to be met by procurement from generating stations higher up in the merit order resulting in a non-linear increase in the power purchase cost.

This increase in input costs can be handled either through command and control mechanisms such as demand side management techniques that restrict demand at the time of peak load through the use of reactive elements, improved power factor devices and a plain curtailment of load. Alternatively, a market system may be allowed to operate resulting in consumers using system resources at the peak load but being required to pay higher tariffs. The converse also would hold and consumer demand during certain lean periods could be encouraged through lower tariffs. A market driven consumption discipline is always preferable to generalized restrictions on demand through regulating use or indeed load shedding.

The load requirement of consumers in Uttaranchal, as depicted in the daily load curves submitted by the Petitioner, varies at different times of the day. At any time of the day, the system as a whole experiences a load, which is arithmetical sum of individual loads of all the consumers at that time. But the system peak load during the day is not equal to the sum of individual peak of each of the consumers but is less than this sum. This is so because the individual peaks occur at different points of time, and hence cannot be added directly. This phenomenon is called diversity in usage and is measured by diversity factor as follows:

$$DiversityFactor = \frac{SumOfIndividualMaximumDemands}{SimultaneousMaximumDemand}$$

Simultaneous maximum demand refers to the system peak demand. Hence, the Diversity Factor cannot be less than one. Lesser is Diversity Factor, closer in time the individual maximum demands are and vice versa. Thus, Diversity Factor indicates the co-incidence of individual peak demands and the system peak demand.

It is known that by controlling the price of electricity, it is possible to motivate individual consumers to either reduce/increase or shift their consumption from one point of time to another during the day. It is desirable from the system point of view to reduce peak demand and encourage consumption/enhance load during off peak hours. This can be done by the following methods:

- Providing incentives to consumers for shifting their consumption to off-peak hours
- Building in a dis-incentives to consumers for consumption during peak hours, and
- A combination of the above two.

The above methods require differential tariffs for different time slots of peak and off-peak hours. This concept of having time differentiated tariffs is called ToD Tariff and the related metering capable of recording such time differentiated consumptions is called ToD metering.

In other words, the objective of ToD metering is to shift the time of peak demand, thereby flattening the load curve and making the diversity factor closer to unity.

The advantage of reducing the peak demand through ToD metering, as a tool for Demand Side Management, is that it allows the utility to reduce its generation/power purchase requirement from the costlier stations, which reduces the overall cost of supply. Another advantage, which the utility has, is that the load factor of the system improves due to shifting of some peak load to off peak hours and leads to flattening of load curve. Improved load factor causes the Plant Load Factor of the generating stations to improve, thus reducing the generation cost. The consumers ultimately get benefited by availing power at lower rates during off-peak hours and also by reduction in supply costs of the utility. The incidence of load shedding is also reduced due to reduction in the peak load.

6.4.6.2.2. Commission's view

Some of the stakeholders including the petitioner have recommended the introduction of Time of Day (ToD) metering.

Due to aforesaid reasons the Commission feels a need to incentivise off-peak consumption, while dis-incentivising peak hour consumption for bulk consumers, so that such consumers are motivated to shift from peak to off-peak hours.

Following issues are relevant for introduction of ToD metering:

- Meters with facility to provide time differentiated consumption data is a pre-requisite
- Mechanism by the licensee for ensuring supply to consumers who opt to shift to off-peak hours
- The time slots of hours for which differential tariff is to be given
- Tariff differential for these slots
- Intending consumers to make commitment so that load shedding is accordingly matched

The Government of Uttaranchal's recently announced Industrial Policy states that there is in the State no restriction on supply of power. The Commission is, therefore, of the view that Time of Day tariffs need to be introduced immediately so that consumption during peak periods is avoided or paid for at a premium while consumption during off-peak hours could be encouraged through properly designed discounts. To this effect, the Commission directs the licensee to meter (having provision for ToD and to be read through MRI) all HT industry consumers (above 100BHP) with time of day meters from the date of installation of TOD meters or by 1st January 2004 whichever is earlier.

In the first phase the Commission approves levy of Time of Day tariffs from the date of installation of ToD meters or by 1st January 2004 whichever is earlier on HT Industries (above 100BHP) which consist of 200 odd consumers.

The Commission, therefore, **directs the Petitioner to maintain a time-differentiated hourly data for consumers with ToD metering facility and submit it, alongwith its analysis, to the Commission by 31st March 2004 to facilitate further fine-tuning of ToD rates.**

Given the current categorization by the Petitioner on restrictions during peak hours, the Commission does not have requisite data to design tariff for Industry on the basis of cost to service the category at different time of the Day across the year. In the absence of any such data, for Time of Day tariff regime the Commission has decided to have Time of Day Tariff as follows.

During peak hours from 0800hrs to 1000 hrs and 1700 hrs to 2200 hrs the energy charge shall be 12.5% higher than normal hours (0600 hrs to 0800 and 1000 hrs to 1700 hrs) and during non-peak hour consumption from 2200 hrs to 0600 hrs the energy charges shall be 5% lower than normal hours (0600 hrs to 0800 and 1000 hrs to 1700 hrs). Such measures would aid the Petitioner in arriving at the optimal flat load curve that would reduce the overall cost of energy.

The Petitioner is directed to gear its systems up and create all requisite conditions to operationalize the levy of time of day tariffs. **The Petitioner is also directed to maintain data on average power factor, kWh, kVAh and kVARh consumption for consumers already having electronic meters installed and for others as soon as electronic meter gets installed and present the same to the Commission with next filing.**

6.4.7 Other issues

6.4.7.1 Railways

There is no consumption in the railway category in High Voltage (HV) in the state of Uttaranchal. The Commission will take a view on the tariff applicable to this class of consumers as and when such a need arises.

6.5 Tariff Design

6.5.1 RTS -1: Domestic Light, Fan and Power

6.5.1.1 Consumer profile

This category of consumers include residential premises for light, fan, power and other domestic purposes including residential colonies / townships, residential multi-storied buildings where energy is exclusively used for such purpose. It also includes Janta Service Connections and Kutir Jyoti Connections.

6.5.1.2 Commission's view

6.5.1.2.1. *On categorisation*

The Commission is aware that the Cantonment Board Areas receive power at a single point from the utility, while the distribution, supply and maintenance of network is done solely by defense establishment. The use of electricity in Cantonments is largely for domestic purpose. Presently such supply is being billed under Commercial category. The Commission has accepted the Petitioner's proposal to remove Cantonment Board Area from the commercial category and treat them at par with housing societies that take bulk supply.

The Commission has decided to rationalize the existing energy slabs into two categories, the lifeline and other category. The life-line consumer has been defined as a consumer with a connected load of upto 1 kW and with a consumption of 50 units a month. The basis for arriving at the consumption cut off is an assumption on the usage of two bulbs and a fan for 10 hours and 8 hours respectively implying a consumption of 50 units per month. The Commission has also identified a category of consumers 'Below Poverty Line' including 'Kutir Jyoti' beneficiary and approves a concessional tariff for them. All other consumers would be charged on a flat par unit rate. This mechanism would ensure that the subsidy allocation is correctly targeted at the segments that deserve it.

6.5.1.2.2. *On tariff structure*

The Commission has also decided to do away with fixed charges for domestic consumers which were added to the energy consumption charges and introduce minimum charges which get subsumed in the energy consumption charges. The Commission has, except for the unmetered category and the lifeline consumers, brought all other domestic consumers closer to the average cost of supply.

A comparison of the tariff existing, proposed by the licensee and that approved by the Commission is given in Table 6.1.

Table 6.1: Tariff for Domestic Category

Category	Approved			Existing		Proposed	
	Fixed Charges	Energy Charges	Minimum Charges	Fixed Charges	Energy Charges	Fixed Charges	Energy Charges
	Rs./month /conn.	Rs./ kWh	Rs./month /conn.	Rs./month /conn.	Rs./ kWh	Rs./month /conn.	Rs./month /conn.
1) Domestic Metered							
1.1) Below Poverty Line including Kutir Jyoti having load upto 1 kW (consumption upto 30 units	NIL	Rs. 1.50	Rs 30	NA	NA	NA	NA
1.2) (a) Upto 1 KW (consumption upto 50 units)	NIL	Rs. 1.80	Rs 30	NA	NA	NA	NA
1.2) (b) Remaining	NIL	Rs. 2.10	Rs 30 (upto 1kW) Rs. 150 (above1kW single phase) Rs 300 (3phase)	Rs. 25 (upto 1kW) Rs.50(above1kW single phase) Rs150 (3phase)	first 100 units - Rs. 1.80 per kWh Next 200 units - Rs. 2.25 per kWh Remaining units Rs.2.80 per kWh	Rs. 35 (upto 1kW) Rs.65(above1kW single phase) Rs175(3phase)	first 50 units - Rs. 1.80 per kWh Next 250 units - Rs. 2.25 per kWh Remaining units Rs 2.80 /kWh
2)Domestic Unmetered	Rs. 62	NIL	NIL	Rs. 62	NIL	Rs.105 (upto 1kW) Rs. 210(1kW to 2kW)	NIL
3)Single Point Bulk Supply							
3.1) Housing Societies	Nil	Rs. 2.05	Rs. 30 per kW of contracted load	Rs. 25 (upto 1kW) Rs.50(above1kW single phase) Rs150 (3phase)	Rs. 2.50 per kWh	Rs. 20 per kW per month	Rs. 2.50
3.2) Cantonment Boards/Townships	NIL	Rs. 2.05		Rs. 160	Rs. 2.90 per kWh	Rs. 60 per kW per month	Rs. 3.00

6.5.2 RTS 2: Non- domestic

6.5.2.1 Consumer Profile

This schedule includes Hospitals, Educational Institutions, Charitable Institutions and other Non- Domestic Commercial consumers.

6.5.2.2 Commission's view

6.5.2.2.1. On categorisation

The Petitioner has proposed different tariffs for similar consumption by Non Domestic/Commercial category of consumers based on ownership of such establishments. Difference in ownership of establishments by itself does not lead to different cost in providing the service which in turn could justify different tariffs. Moreover The Electricity Act 2003 in section 62(3) clearly prohibits the Commission from showing undue preference to any consumer and recognizes discrimination between consumers only on grounds mentioned therein. The Commission has therefore done away with preferential tariff for Public Institutions. The Commission has however placed Hospitals, Educational institutions and Charitable institutions in a separate sub category within the Non Domestic category and allowed a different tariff for them.

The licensee has proposed introduction of Residential Townships/complexes above 500kW as a separate subcategory in the Non Domestic Commercial category. The commission believes that when Single Point Bulk Supply subcategory exists in domestic category, there is little rationale for its inclusion here.

6.5.2.2.2. On tariff structure

On lines similar to the domestic category, the Commission has also done away with the fixed charges in this category and retained minimum charges for such consumers.

The Commission has also done away with the different slabs in this category and has proposed a single slab for the entire category. A comparison of existing and as proposed by the licensee is given in Table 6.2.

Table 6.2: Tariff for Non-domestic Category

Category	Approved			Existing			Proposed		
	Fixed Charges	**Energy Charges**	**Minimum Charges**	**Fixed Charges**	**Energy Charges**	**Minimum Charges**	**Fixed Charges**	**Energy Charges**	**Minimum Charges**
	Rs./month /conn.	Rs./ kWh	Rs./month /conn.	Rs./month /conn.	Rs./ kWh	Rs./month /conn.	Rs./month	Rs./ kWh	Rs./month /conn.
1) Education Institutions, Hospitals & Charitable institutions.	NIL	Rs. 3.00	Rs. 200 per kW	Rs. 30 (For Non Govt. Rs 35) upto 1 kW	0-100 units - Rs. 1.90 (For Non Govt. 0-100 units - Rs. 4.25)	upto 5 kW - 190 per kW 5 to 10 kW - 220 per kW > 10 kW - Rs 250 per kW TVM - Rs. 440 per kW (only For Non Govt. consumers)	Rs. 60 / kW (For Non Govt. Rs. 75 / kW)	Rs. 3.00 (For Non Govt. Rs.4.00))	upto 10 kW - Rs. 250 per kW > 10 kW - Rs 300 per kW
				Rs. 60 (For Non Govt. Rs. 75) Above 1kW and single phase	100 to 300 units - Rs. 2.50 (For Non Govt. > 100 units - Rs. 4.50)				
				Rs. 160 (For Non Govt. Rs. 225) 3 phase	> 300 units - Rs. 2.90 per kWh				
2) Non Domestic Commercial users									
Upto 1 kW	NIL	Rs. 3.50	Rs. 150	Rs. 30 (For Non Govt. Rs 35) upto 1 kW	0-100 units - Rs. 1.90 (For Non Govt 0-100 units - Rs. 4.25)	Rs. 190 per kW (only For Non Govt. consumers)	Rs. 60 / kW (For Non Govt Rs. 75 / kW) For Residential Complexes /Townships- Rs.35/kW	Rs. 3.00 (For Non Govt Rs.4.00) For Res. Complex / Township Rs.2.50 per kWh	Rs. 250 per kW
Above 1kW			Rs. 200 per kW	Rs. 60 (For Non Govt. Rs. 75)Above 1kW and single phase	100 to 300 units - Rs. 2.50(For Non Govt > 100 units - Rs. 4.50)	upto 5 kW – Rs.190 per kW 5 to 10 kW – Rs.220 per kW > 10 kW - Rs 250 per kW TVM - Rs. 440 per kW (only For Non Govt. consumers)			upto 10 kW - Rs. 250 per kW > 10 kW - Rs 300 per kW
				Rs. 160 (For Non Govt. Rs. 225) 3 phase	> 300 units - Rs. 2.90 per kWh				
3) Non Domestic Unmetered	Rs. 95	NIL	NIL	Rs. 95	NIL	NIL	Rs. 130 (upto 1 kW)	NIL	NIL
							Rs. 260 (1 kW-2kw)		

The Commission has attempted significant rationalization and reduced these tariffs to levels closer to the average cost to serve.

6.5.3 RTS 3: Public Lamps

6.5.3.1 Consumer Profile

This schedule shall apply to public lamps including street lighting system, traffic control signals, lighting of public parks, etc. The street lighting of Harijan Basties and villages are also covered by this Rate Schedule.

6.5.3.2 Commission's view

The Commission has categorized the supply to public lamps based on the wattage of the lamp only. The Commission recognizes that these consumers should be asked to pay based on actual consumption and not on any adhoc basis.

A comparison of tariff for this category is given in Table 6.3.

Table 6.3: Tariff for Public Lamps

Category	**Approved**			**Existing**		**Proposed**	
	Fixed Charges	Energy Charges	Minimum Charges	Fixed Charges	Energy Charges	Fixed Charges	Energy Charges
	Rs./month	Rs./ kWh	Rs./month	Rs./month	Rs./ kWh	Rs./month	Rs./ kWh
Maintenance Charge	Rs. 10 per light point			Rs. 7 per light point		Rs. 10 per light point	
Metered	NIL	Rs. 2.50	NIL	NIL	Rs. 2.90	Rs. 60 / kW	Rs. 2.50
Unmetered							
	Rs. 100 per 100 W Lamp			Rs.55 - Rs. 65 per conn. (upto 100W)		Rs. 650 per kW For Gram Panchayat	
	For every 50W or part thereof increase over and above 100 W Lamp additional Rs 50/- per month	NIL	NIL	Rs.140-Rs. 170 per conn.(100W -250W)	NIL	Rs. 750 per kW For Nagar Palika	NIL
				Rs. 280 – Rs.325 per conn.(250W – 500W)		Rs. 800 per kW For Nagar Nigam	

6.5.4 RTS - 4: Private tube wells/pump sets

6.5.4.1 Consumer profile

This schedule shall apply to all power consumers getting supply for private tube-wells / pumping sets for irrigation purposes and for incidental agricultural processes confined to chaff cutter, thrasher, cane crusher and rice huller only.

6.5.4.2 Commission's view

All private tubewells are presently being given un-metered supply and therefore the metered rate given in the tariff schedule is of no consequence. In view of the prohibition on un-metered supply after June 2005 in The Electricity Act, 2003 the Commission would like the licensee to focus on metering the agricultural supply.

Table 6.4 gives the tariff for metered and unmetered supply to Private Tube Wells.

Table 6.4: Tariff for Private Tubewells/Pumpsets

Category	Approved			Existing			Proposed		
	Fixed Charges	**Energy Charges**	**Min. Charges**	**Fixed Charges**	**Energy Charges**	**Min. Charges**	**Fixed Charges**	**Energy Charges**	**Min. Charges**
	Rs./BHP	Rs./ kWh	Rs./ BHP	Rs./BHP	Rs./ kWh	Rs./ BHP	Rs./BHP	Rs./ kWh	Rs./ BHP
Metered		Rs. 0.70	Rs. 50		Rs. 0.70(For Urban Rs.2.90)	Rs. 50(For Urban Rs. 90)	Rs. 20	Rs. 1.50	Rs. 80
Unmetered									
Upto 10 HP	Rs. 55 per BHP (plus Rs. 20 for lighting load not more than 2 lamps)			Rs. 55 per BHP (plus Rs. 20 for 2X60watt lamps)			Rs.70 per BHP (plus Rs. 20 for 2 no. 60 watt lamps)		
Above 10 BHP	Rs. 60 per BHP (plus Rs. 20 for lighting load of not more than 2 lamps)			Rs. 60 per BHP (plus Rs. 20 for 2X60watt lamps)					

6.5.5 RTS -5: Government Irrigation system

6.5.5.1 Consumer profile

a) This schedule shall apply to supply of power for State Tubewells, World Bank Tubewells, Pumped Canals and Lift irrigation schemes having a load upto 100BHP

b) Laghu Dal Nahar having load above 100BHP.

c) Medium and Large pumped canals having load more than 75kW (100BHP). The contracted demand shall be expressed in whole numbers only.

d) Irrigation system owned and operated by any Government department.

6.5.5.2 Commission's view

The Commission has also merged all Government owned irrigation systems like lift irrigation systems and State tube wells into one category called Governmental Irrigation system. There has been no increase in the unmetered rates, the Commission finds no justification for un-metered supply to Government Irrigation Systems and has already directed the licensee to meter all supplies in chapter 5.

The category wise comparison of approved rates with the existing and proposed is as given in Table 6.5.

Table 6.5: Tariff for Government Irrigation Systems

Category	Approved			Existing			Proposed		
	Fixed Charges Rs./BHP	Energy Charges	Minimum Charges per month	Demand/ Fixed Charges Rs./BHP	Energy Charges Rs./ kWh	Minimum Charges per month	Demand/ Fixed Charges Rs./BHP	Energy Charges Rs./ kWh	Minimum Charges per month
1) Govt. irrigation system upto 100 BHP including Laghu Dal Nahar 1.1) Metered 1.2)Unmetered	NIL	Rs. 2.50 per KWh	Rs. 300 per kW	Rs. 100 per conn.	Rs. 1.00	NIL	Rs. 100	Rs. 2.50	NIL
upto 100 BHP	Rs. 350			Rs. 350			Rs. 650		
Above 100 BHP	Rs. 500			Rs. 490			Rs. 975		
2) Govt. irrigation system above 100BHP	Nil	Rs. 2.15 per kVAh	Rs.250 per kVA	Rs. 120 per kVA	Rs. 2.50 per kWh	Rs. 160 per kVA	Rs. 170 per kVA	Rs. 2.15 per kVAh	Rs. 220 per kVA

6.5.6 RTS -6: Public water works

6.5.6.1 Consumer profile

This Schedule shall apply to Public Water Works, Sewage Treatment Plants and Sewage Pumping Stations functioning under Jal Sansthan, Jal Nigam or other local bodies.

6.5.6.2 Commission's view

The energy charges of these consumers are kept at the level of average cost of supply. The category wise comparison of existing tariff, proposed tariff and approved tariff is as shown in Table 6.6.

Table 6.6: Tariff for Public Water Works

Category	Approved			Existing			Proposed		
	Fixed Charges	Energy Charges	Minimum Charge	Fixed Charges	Energy Charges	Minimum Charge	Fixed Charges	Energy Charges	Minimum Charge
Public Water works	Rs./kW	Rs./ kWh	Rs./kW	Rs./kW	Rs./ kWh	Rs./kW	Rs./kW	Rs./ kWh	Rs./kW
	Nil	Rs. 2.25	Rs.400	Nil	Rs. 2.80	Rs.485	Rs.35	Rs. 3.00	Rs.550

6.5.7 RTS 7: LT & HT INDUSTRY

6.5.7.1 Consumer Profile

This schedule shall apply to all consumers of electrical energy for industrial and /or processing or agro- industrial purposes, power loom as well as to Arc/Induction Furnaces, Rolling/Re-rolling Mills, Mini Steel Plants and to other power consumers not covered under any other Rate Schedule. The Vegetable, Fruits, Floriculture & Mushroom integrated units farming, Processing, storing and Packaging shall also be covered under this Rate schedule. The contracted load shall be expressed in whole number only.

6.5.7.2 Commission's view

The Commission was severely handicapped due to non-availability of data for Industrial consumers at different voltages of supply. The Commission expects the licensee to furnish full information on the existing pattern of supply to industrial consumers at different voltages with their next ARR. Meanwhile, the Commission has divided the industrial consumers into only two categories namely consumers getting LT supply and those getting HT supply. Substantial part of the charges from industrial consumers gets recovered by way of fixed charge. Absence of detailed data on industrial consumption and the need to study the effects of removal of fixed charges on industrial consumers has resulted in the Commission deciding to retain fixed charges, minimum charges and energy charges for the industrial category. The tariff approved for this category of consumers is given in Table 6.7.

Table 6.7: Tariff for LT & HT Industry Category

Category	Approved			Existing			Proposed		
	Fixed Charges	Energy Charges	Minimum Charges	Fixed Charges	Energy Charges	Minimum Charges	Fixed Charges	Energy Charges	Minimum Charges
	Rs./BHP	Rs/kWh	Rs. Per kW	Rs./BHP	Rs./ kVAh	Rs. Per kW	Rs./BHP	Rs./ kVAh	Rs. Per kW
1) LT Industries upto 100BHP	Rs. 45	Rs. 2.45 / kWh	Rs. 300 Per BHP	Rs. 30 (upto 25 BHP)	Rs. 3.65 per kWh (upto 25 BHP)	Rs.162 to 245 per BHP(upto 25BHP); Rs.215 per BHP to 405 per kVA (above 25BHP& upto 100 BHP)	Rs. 30 (upto 25 BHP)	Rs. 3.60per kWh(upto 25 BHP)	Rs.250 per BHP (upto 25 BHP) to Rs.350 per BHP to Rs. 400 per kVA (above 25BHP& upto 100 BHP)
				Rs. 45 per BHP Rs. 90 per kVA of Billable Demand (above25BHP & upto 100 BHP)	Rs.3.85 per kWh (above25BHP & upto 100 BHP)		Rs. 50/BHP (without TVM) Rs. 90 per kVA of Billable Demand (above25BHP & upto 100 BHP)	Rs. 3.65 per kWh (above 25BHP & upto 100 BHP)	
2)HT Industries above 100BHP	Rs. 125 per kVA	Rs. 1.90 per kVAh	Rs. 350 per kVA	Rs. 170 per kVA (11 kV); Rs.162 per kVA (11kV-66kV); Rs.157per kVA (66kV-132kV); Rs.153 per kVA (above 132kV)	Rs. 3.35per kVAh (11 kV); Rs.3.17 per kVAh (11kV -66kV); Rs.3.08per kVAh (66kV - 132kV); Rs.2.99 per kVAh (above 132kV)	Rs.378 per kVA , Rs.425 per kVA	Rs. 170 per kVA (11 kV); Rs.162 per kVA (11kV-66kV); Rs.157per kVA (66kV-132kV); Rs.153 per kVA (above 132kV)	Rs. 3.15per kVAh (11 kV); Rs.3.00 per kVAh (11kV - 66kV); Rs.2.95per kVAh (66kV - 132kV); Rs.2.85 per kVAh (above 132kV)	Rs.375 per kVA , Rs.425 per kVA

6.5.8 RTS -8: temporary supply

6.5.8.1 Consumer profile

(a) Temporary Supply For Illumination & Public Address Needs

This schedule shall apply to temporary supply of light & fan up to 10 KW, public address system and illumination loads during functions, ceremonies and festivities, temporary shops not exceeding three months.

(b) Temporary Supply for Other Purposes

This schedule shall apply to temporary supplies of light, fan and power loads for the purposes other than mentioned at (a).

This schedule shall apply for power taken for construction purposes including civil work by all consumers including Government Departments. Power for construction purposes for any work / project shall be considered from the date of taking first connection for the construction work till completion of the work / project.

6.5.8.2 Commission's view

The Commission has simplified the rate schedule for this category by approving fixed rate per day for connections upto 15kW and reduction of the rate in case of temporary shops during festivals / melas.

6.6 Un-metered Connections

6.6.1.1 Commission's view

Section 55of The Electricity Act, 2003 reads as follows:

"No licensee shall supply electricity, after the expiry of two years from the appointed date, except through installation of a correct meter in accordance with the regulations to be made in this behalf by the authority……."

In the light of the above provision of law that no unmetered supply is to be made or recognized after June 2005. Keeping in mind this requirement and the need for recovering licensee's cost, the Commission has proposed to gradually and steadily increase the fixed charges for unmetered consumers.

The Commission has approved fixed charges for the unmetered connections in all the categories in the rural areas to be increased by 25% after every six months. The same holds good for such connections in urban areas also except that the increase in fixed charges in this case is 20% higher than the said rate of 25%. **The Commission has already directed the Petitioner to prudently conduct metering of such connections under specific metering plan.**

6.7 Rural Standalone Generation & Distribution System:

Part IV section 14 of The Electricity Act, 2003 reads as follows:

"where a person intends to generate and distribute electricity in a rural area to be notified by the State Government, such person shall not require any licence for such generation and distribution of electricity, but he shall comply with the measures which may be specified by the Authority under section53:"

Section 53 of The Electricity Act, 2003 spells out the Provision relating to safety and electricity supply. Such measures to fulfill the Provision laid in the said section shall be specified by Central Electricity Authority in consultation with the State Government.

In the light of the above provision of law, the tariff for the Petitioner approved by the Commission for the year 2003-04 shall not be applicable to such rural standalone generation and distribution systems.

6.8 Rate schedule

The detailed rate schedule is enclosed in Annexure 1.

6.9 Revenue at Approved Tariff

The revenue at the prevailing and approved tariffs for the FY 04 is provided in Table 6.8.

Table 6.8: Revenue at Current and Approved Tariff

Category	Revenue at Current Tariff (Rs. Cr.)	Revenue at Approved Tariff (Rs. Cr.)
RTS 1: Domestic	212.84	187.82
RTS 2: Non Domestic	101.12	78.93
RTS 3: Public Lamps	5.84	5.10
RTS 4: Private Tube Wells	9.05	9.05
RTS 5: Government Irrigation System	13.14	12.42
RTS 6: Public Water Works	46.26	37.17
RTS 7: Industries	226.48	161.69
RTS 8: Temporary supply	0.01	0.01
Fixed and Energy Charges from Retail Supply	*614.75*	*492.19*
Bulk	0.30	0.30
Revenue from Minimum Charges	27.78	22.24
Total Revenue	***642.83***	***514.73***
Revenue due to reduction in commercial losses	35.17	28.16
Revenue due to collection of old arrears	-	80.00
Total Revenue with efficiency improvement	***678.00***	***622.89***

The Commission hence estimates the total revenue from the approved tariff for FY 2004 would be Rs. 622.89 crores.

6.10 Net Revenue Gap / (Surplus) at the Approved Tariffs

The calculation of the Net Revenue Gap / (Surplus) in financial year 2003-04 at approved tariffs is presented in Table below.

Revenue Gap/Surplus at approved tariff (Rs. Crore)

Item	Approved
Net Revenue Requirement	702.92
Revenue	
Income from Sale of Electricity at Approved tariff	622.89
Additional Revenue	
Due to excess amount already realised by the Petitioner	80.03
Net Revenue Gap /(Surplus)	***NIL***

The total cross subsidy available at the existing tariff was Rs. 124.87 crores, which has been reduced to Rs. 35.52 crores in the approved tariff.

The assured revenue through minimum charges at approved tariff is Rs. 204.08 Crore against the total fixed cost of Rs. 145 Crore, excluding the fixed component of the power purchase from CGS stations and depreciation. It may be mentioned here that with the earlier tariffs the assured revenue to the Petitioner using a mix of fixed and minimum charges was Rs. 191.76 Crore.

7. Directives

The Commission has identified several areas where the Petitioner needs to make substantial efforts for improvement. The Commission is, therefore, issuing these directives to the Petitioner under the provisions of Para 4.1 of the Distribution & Retail Supply license. The Petitioner is required to line up its resources to attain these directives on a priority basis. The Commission would require the Petitioner to submit quarterly compliance on the progress made in implementation of these directives. These directives are grouped under the following heads.

7.1 Metering and Energy Audit

As per the requirement of the provisions of the Electricity Act, 2003 the Petitioner cannot supply energy without an energy meters after June, 2005. The Petitioner should submit a metering plan encompassing the time period and source of funding of energy meters to the Commission by 31st December 2003. The Petitioner should also make a plan for replacement of defective meters in the urban areas and submit the same to the Commission. The metering plan should be devised in such a way that installation is not done in a scattered manner but feeder wise so as to know the impact of such measure.

The Commission directs the Petitioner to energise new connections only with meter and to complete metering of all unmetered connections of Domestic, Commercial and Public Lighting categories in urban areas and those of Departmental Employees, State Tubewells, Public Institutions and Government bodies in all areas within 31st December 2003.

All consumers presently covered under the HV -2 should be provided with meters with capability to record time of the day consumption during the period specified in the rate schedule. This work should be completed within a period of three months so as to implement the ToD tariff from 01.01.2004.

The Commission directs the Petitioner to maintain a time-differentiated hourly data for consumers with ToD metering facility and submit it, alongwith its analysis, to the Commission by 31st March 2004 to facilitate further fine-tuning of ToD rates.

As per the information available about 95% of 11 kV feeders are provided with meters and metering for rest is proposed by petitioner to be completed by 30.09.2003. Although metering has been done at 11 kV level, the meters need to be read regularly and the readings should be used to measure the quantity of energy supplied to individual division. In view of this, the Petitioner is directed that the metering data of all incoming and outgoing feeders at all 33 kV substations shall be maintained so as conduct energy audit

7.2 Meter Reading & Billing

Timely meter reading, billing and collection of bills from consumers will go a long way in improving the cash flows of the Petitioner. The present system needs to be reviewed to streamline the process so as to minimize the time between the reading and collection. This will reduce the working capital requirement of the Petitioner to a great extent. The Petitioner should get a study done of the present system of meter reading, billing, dispatch of bills and collection of bills and find ways for streamlining the same. A report on above should be furnished to the Commission by 31.12.2003.

7.3 Efficiency Improvement

In order to estimate the correct position of technical and commercial losses within the area of supply, a proper scientific study should be conducted, if necessary through some expert agency capable of doing such work. A plan of the same should be submitted to the Commission before undertaking the study.

The Petitioner is required to propose a detailed multi year loss reduction plan to the Commission by 31.12.2003. Loss reduction can be achieved firstly by improvement in the efficiency and then by prudent investment to augment the network. The Petitioner should formulate the loss reduction plan in such a manner to balance between the efficiency improvement and Investments.

The Petitioner should undertake a feeder wise identification of consumers by 31.3.2004 for 33/11 kV substations in each distribution division of the Petitioner and the same should be updated in billing agents database.

7.4 Receivables Management

At the time of segregation of Uttaranchal Power Corporation Limited a sizeable amount of receivables was inherited. The Petitioner should carry out a quality analysis of its receivables against the sale of power and the amount outstanding against each consumer as on 31/3/2003. A breakup of these receivables in disputed amounts, terminated connections etc. and of arrears against all Governmental bodies department wise should be made available to the Commission by 31.12.2003.

The Petitioner is being directed to prepare a list of consumers quarterly in each circle having arrears above Rs. 1 lakh in case of domestic, Rs. 2 lakh in case of non domestic and Rs. 5 lakh in case of industries and the same should be made available to by the Commission, whenever required.

The Petitioner has not adopted any clear cut Policy for identification and treatment of irrecoverable dues. The Commission, therefore, directs the Petitioner to formulate clear and transparent policy by 31.3.2004 for identification and treatment of irrecoverable amount in their books and take steps to write them off.

7.5 Account Keeping

The Commission is concerned that the Petitioner's accounts are not up to date and are slipping behind time by two years of the Company's coming into being. Such slippages in maintenance of accounts are not acceptable. The Petitioner needs to streamline its accounting system and ensure that the accounts of the corporate office are regularly reconciled with those of the units and are maintained up to date and are also audited regularly. Accounts kept centrally at the head office should tally with accounts kept at the divisional offices at all times. Petitioner is being directed to gear up their present system of maintaining accounts to ensure that they are always correct and up to date.

7.6 Sales Forecast

Inadequacy of data comes in the way of estimation of accurate demand, which is necessary for any planning and estimation. Present method of estimation using a CAGR method does not reflect the true demand of electricity. The Petitioner should ideally estimate demand tariff category wise and also for different times of day separately for large industries. Social economic variables, relative energy prices, industrial growth, rate of urbanization should be used to capture their impact on demand. Poor forecasting would eventually cost the Petitioner dearly. The accuracy of demand is must in case of availability based tariff for power purchase. The Petitioner would need to accurately estimate the demand and accordingly plan for drawl schedule for every 15-minute interval. Failure to comply this pre-determined schedule on account of inaccurate demand estimation would invite penal charges resulting in high purchase cost. Keeping these factors in mind the Petitioner is required to prepare a plan giving methodology for load forecasting for short term (i.e. day ahead) and long term i.e. for future years and submit to the Commission by 31st December 2003.

7.7 Power Purchase

The Petitioner should finalize the power purchase price for each Generating Station with UJVNL and submit the power purchase agreement for approval of the Commission latest by 31st December 2003.

Petitioner should also review the Power Purchase agreements with Central Generating Stations. The Petitioner should also submit the power purchase agreements already signed with IPPs, if any, to the Commission.

The Petitioner should make a plan to ensure merit order purchase of electricity from all generating stations. The impact of implementation of ABT in the State needs to be ascertained. Details on the energy drawn at system peak frequency from all sources of generation along with the quantum of incentives/penalties paid should be made available to the Commission on monthly basis.

7.8 Investment Plan

Before commencement of each year the Petitioner must draw a well-defined investment plan taking into account the targeted objectives for the year in areas like energy sales, efficiency improvements and cost reduction. These investments plans should invariably be submitted to the Commission for scrutiny and approval well before commencement of the year.

7.9 Cost of Supply

The estimation of the cost of service to different class of consumers is the first step in the process of tariff rationalization and rational allocation of the cost to each category. At present the Petitioner does not maintain the information with regard to the above. This year due to non-availability of information the Commission has set the tariff on the basis of average cost of supply. The Petitioner should undertake measures to identify and compute the category-wise cost to serve the consumers at different voltages of supply. At the time of next filing the Commission expects the Petitioner to submit the cost to serve category-wise at different voltages.

7.10 Quality of Supply

The Petitioner has to improve the existing quality of supply with regard to hours of supply, distribution transformer failure rates, interruption frequency and duration, consumer service quality, metering and billing procedures, complaint handling mechanisms etc for both rural and urban areas. The information flow and handling procedure at the level of substations and division should be developed so that the top management may take corrective action. In order to achieve this the petitioner should augment its present MIS system and also set up consumer care centers at each division and monitor the progress of it regularly. A comprehensive report on type of complaint received in such centers should be sent to the Commission quarterly. The Petitioner should provide the Commission a comprehensive plan to reduce such complaint over a multi-year time frame.

The Petitioner should maintain data on voltage-regulation at different points in the transmission and distribution network and take appropriate steps to provide reactive power compensation for voltage regulation. The Petitioner should submit a report on the same by 31.12.2003, which should indicate the requirement of capacitors and actual status of capacitors in system as well as data on reactive power drawl / injection in the Northern Grid at low / high voltage conditions.

7.11 Rural Electrification

Rural electrification is rightly a priority subject as more than 25% of the villages have no electricity. It was also proposed by the State Government in the MoU signed with Central Government that the State would endeavor to reach 100% electrification by 2007. The Commission has allowed a special rate of depreciation on village electrification works, which results in zero cost to the Petitioner with proper mixing of assistance available under PMGY and interest free loans from REC. The Petitioner should take up electrification of remaining villages under this financing mix or any other financing arrangement, which does not put any financial burden on the Petitioner on account of the capital expenditure, incurred. Since the cost implication for the Petitioner, of village electrification works taken up under the mix suggested above, is nil the annual size of this programme should be determined on the basis of availability of funds under PMGY and RECs scheme and Petitioner's own capacity to take up an d complete such works.

7.12 Database Management

Complete information is the prime requirement for the effective management. Electricity tariff rationalization become difficult if complete information is not made available to the Commission. The information provided by the Petitioner during the tariff filing is not up to the mark and incomplete and even misleading. For instance data on type and number of consumers sub-category-wise, sale at different slabs and to different sub-category of consumers, revenue from minimum charges, demand charges, penalty etc. were not provided by the Petitioner. The Commission directs the Petitioner that detailed formats for collecting this information tariff category wise should be prepared for the next filing. The formats sh ould got be approved by the Commission before collecting the information.

7.13 Compliance with the Conditions of the License

As per the condition of the license following are the tasks where Petitioner has to take action in a specified time frame given herein. Strict adherence to the same is expected.

Table 7.1: Actions to be taken by Petitioner under terms of Licence

S.No.	Para	Requirement	Period
1.	8.2	To submit accounting statements and auditor report for financial year 2002-03.	30.09.2003
2.	8.2	Interim profit and loss statement for each year	Not more than 3 months
3.	13	Payment of license fees	By 10th April each year
4.	18, 20, 23	Submission of distribution code including standard of performance and code of practice on payment of bills	30.11.2003
5.	19	Submission of distribution system planning and security standard	30.11.2003
6.	23	Procedure for complaint handling and consumer rights statement	15.09.2003
7.	24	General terms and condition of supply	30.11.2003

7.14 Other Directives given in the Order

The Commission would like to have a detailed strategy paper along with proper road map for bringing about efficiency in the system. (para 3.6.2)

The Petitioner is hereby directed to review and suitably revise its Spot Billing Scheme and incorporate and appropriate arrangement for preparation and issue of bills to such consumers. (para 3.19.2)

The Petitioner is hereby directed to ensure that commitments made to its employees in the past are fully met with by evolving appropriate mechanism for compensating the employees to the extent required. (para 4.4.3)

The Commission, therefore, directs the petitioner to maintain division-wise data on both scheduled and unscheduled interruptions and submit a report on the same alongwith next ARR filing. (para 5.4.2.1)

The Commission, therefore, directs the Petitioner to start maintaining billing data for consumer categories/sub-categories/slabs strictly as per the tariff schedule approved in this Order particularly information on number of consumers, connected load and sales, including slab-wise details, in the next filing and make suitable changes in its internal data collection formats accordingly. (para 5.4.2.2)

The Commission, therefore, directs the Petitioner to have a proper scientific study conducted before the next filing to provide a scientific and reliable assessment of category-wise unmetered consumption and, more importantly, come up before 31st December 2003 with a plan for metering these consumers and for monitoring their consumption regularly. (para 5.4.2.3)

The Commission, therefore, directs the Petitioner to conduct complete energy audit upto 11 kV level for the entire system and upto LT level on at least one 11 kV feeder in each Circle and submit a report thereon alongwith next ARR filing. (para 5.5.2.1)

The Commission, therefore, directs the Petitioner to energise new connections only with meter and to complete metering of all unmetered connections of Domestic, Commercial and Public Lighting categories in urban areas and those of Departmental Employees, State Tubewells, Public Institutions and Government bodies in all areas within 31st December 2003. The Commission also directs the Petitioner to furnish a plan by 31st December 2003 for metering rest of the categories by the end of March 2005 giving targets/milestones for critical activities. (para 5.5.2.2)

The Petitioner is, therefore, directed to come up with a concrete plan for reduction of technical and commercial losses over the next five years indicating milestones for critical activities, in the form of targets and their date of completion, within 3 months of issuance of this Order. (5.5.2.3)

The Petitioner is directed to submit the details of such banking arrangement, before entering into an agreement for the same, to ensure optimum cost of power purchase. (para 5.6.2.1.4)

The Petitioner is hereby directed to work out and updated rate of power to be purchased from UJVNL and submit the same for Commission's approval by 31.12.2003. (para 5.6.2.2.1)

The Commission also directs the Petitioner to approach the Commission for approval of any new Power Purchase Agreement as per the prescribed procedure. (para 5.6.2.2.1)

The Petitioner is directed to submit a Report, giving justifications with supporting data / details, alongwith next filing to assure the Commission of its observance of the merit order process for dispatching from different stations and the management of schedules to avoid UI charges. (para 5.6.2.5)

The Petitioner is, therefore, directed to leverage the PMGY assistance in the manner indicated above and determine the targets of village electrification programme in consultation with Government of Uttaranchal keeping in mind the overall target adopted for completion of this task and present a compliance report within 3 months. (para 5.11)

A monthly Status Report of the Transitional Contingency Reserve will be sent to the Commission. (para 5.20)

Hence, the Commission for the present has decided to retain both fixed and minimum charges for industrial consumers and directs licensee to monitor the consumption and the demand of the industry more effectively. (para 6.4.5.1)

The Petitioner is also directed to maintain data on average power factor, kWh, kVAh and kVARh consumption for consumers already having electronic meters installed and for others as soon as electronic meter gets installed and present the same to the Commission with next filing. (para 6.4.6.2.2)

8. Impact of the Order

8.1 Prevailing Position

One out come of creation of separate State of Uttaranchal was the fortuitous placement of the hydro generation assets with the new State resulting in sharp decline in the cost of power generation for the State. For the undivided UP State, tariffs were determined by UPERC for the financial year 2001-02 and the same were prevailing when the responsibility for transmission, distribution and sale of electricity in the State was taken over by UPCL on 09.11.2001. UPERC had approved retail tariff for the undivided State based on average power purchase price of Rs. 1.52 per unit. These rates continued and some marginal changes on the same were made in the tariffs determined by the Petitioner itself and enforced w.e.f. 01.01.2002. These are the tariffs currently being charged from the consumers. While determining the average power purchase of Rs. 1.52 per unit for the undivided UP, UPERC had approved a purchase rate of 37 paise/unit for the power purchased from the hydro generating stations of this region, which were then belonging to UPJVNL and were transferred to UJVNL on 09.11.2001. Major requirement of the State is being met from power purchased from UJVNL and small quantity is purchased from the Central Generation Stations at a higher price. Reduction in power purchase cost resulted in large saving in the licensee's expenses creating in turn substantial surpluses right from the financial year 2001-02. These surpluses continued as the licensee did not get his tariffs approved from the Regulatory Commission even though the law clearly requires that no tariff other than that approved by the Regulator will be charged. There was no regulatory vacuum as prior to establishment of this Commission. UPERC had jurisdiction over the State as per the Reorganisation Act.

It will be worthwhile to see what these surpluses were like and what was happening to them. The savings in cost of power purchased for the year 2002-03 has been worked out on the basis of the average cost of purchase for the power used in the State which comes to Rs. 0.62 per unit and the same works out to Rs. 338.02 crore. For the year 2003-04, the estimated saving without Commission's intervention would have been Rs. 351.00 crore This saving in the sector was distributed amongst stakeholders other than the consumer, barring some nominal amounts. The year-wise position of the same is given in Table 8.1.

Table 8.1: Savings in the Sector (Rs. Crore)

Financial Year	UJVNL	UPCL	State Government by way of royalty	Total
2002-03	52.49	269.49	16.04	338.02
2003-04	55.30	278.80	16.90	351.00

In addition higher trading profits were generated by booking the entire fixed cost of CGS on consumption within the State. This was shared between the Petitioner and the State Government. The year wise position is given in Table 8.2.

Table 8.2: Proportionate Fixed Charges of CGS(Rs. Crore)

Financial Year	Fixed Charges of CGS#
2002-03	81.14
2003-04	74.00

** Estimated on the basis of non-intervention by the Commission*
#allocated to consumers of Uttaranchal instead of allocating on the traded quantity

Through this tariff order the Commission has re-distributed this estimated surplus for the year 2003-04 in the manner shown in Table 8.3.

Table 8.3: Redistribution of Surplus by the Commission (Rs. Crore)

Estimated Saving	State Government through proposed royalty/ duty	Proposed Power Development Fund	Consumers through lower tariff	Reserve for unforeseen expenses
351.00	30.00	100.00	135.00	86.00

8.2 Impact of this Order

This section enumerates how the tariffs prescribed in this order impacts different stakeholders.

8.2.1 Uttaranchal Jal Vidyut Nigam Ltd.

- Surplus revenue of about Rs. 55 Crores accruing during the whole year on account of the enhanced rate of 55 paise/unit will not be available. However, an amount of about Rs. 100.00 Crore will be available for investments in new projects from the proposed Power Development Fund.

8.2.2 Uttaranchal Power Corporation Ltd.

- The undivided surplus of Rs. 278.80 crore that would have remained with the Petitioner will not be available now. After meeting all the allowed expenses, a sum of Rs. 188.77 Crore would still be available for transfer to a special reserve created by the Commission to meet unforeseen liabilities arising out of division of assets and liabilities between UPPCL and the Petitioner.

- Capital investments on village electrification works will not cost the Petitioner anything on account of special depreciation rates allowed by the Commission on such works with a proper mix of PMGY assistance and zero interest loan from REC prescribed in this order.
- Against a total fixed cost of Rs. 145 Crore excluding the fixed component of CGS and depreciation, the Petitioner is assured a minimum revenue of Rs. 204 Crore against a sum of Rs. 192 Crore in the existing tariff.

8.2.3 State Government

- Revenue of about Rs. 30 Crore would accrue through the proposed levy of royalty/ tax.Profit from trading could reduce on account of proportionate distribution of the fixed cost of Central Generating Stations and merit order purchase.
- State Government's subvention of Rs. 25 crore indicated by the Petitioner has not been used resulting in corresponding saving.
- Electricity charges for State Tubewells would go down by Rs 2.02 crore on account of reduced tariff.
- Indirect saving on account of reduced electricity charges of Rs. 0.74 crore for Street Lighting and Rs. 9.09 crore for Water Works.
- Over and above the budgetary provisions, a sum of about Rs. 100 crore will become available for leveraging fresh investment in Hydro Generation projects in the State.

8.2.4 Consumers

8.2.4.1 Domestic Consumers

- There will be no fixed charges payable over and above the energy consumption charge
- Uniform tariff of Rs. 2.10 per unit will be payable on consumption basis.
- Small consumers consuming less than 50 units will pay at even cheaper rates.

8.2.4.2 Agricultural Consumers

- There will be no change in per unit rate of 70 paise payable by metered consumers.

8.2.4.3 *Commercial Consumers*

- No fixed charge will be payable over and above the energy consumption charges.
- Hospitals, Educational Educations and Charitable Organizations will pay a lower rate of Rs. 3.00 / unit.
- Other commercial consumers will also pay a lower rate but the same is Rs.3.50 / unit.

8.2.4.4 *Industrial Consumers*

- Consumers on LT supply will now pay a lower rate of Rs. 2.45 / unit in addition to the fixed charge which has not been changed.
- Consumers on HT supply will now pay a lower rate of Rs. 1.90 / kVAh plus lower fixed charges. The tariff for this category is now same as in Himachal Pradesh.
- No System Loading Charge will be payable.
- No 15% Surcharge will be payable by consumers being supplied on Independent Feeders.
- Time of the day metering will come into effect from 01.01.2004.
- There will be no restriction on consumption during peak hours.

8.2.4.5 *Un-metered Consumers*

- All unmetered connections in urban areas, state tubewells, streetlights and departmental employees will be compulsorily converted into metered connections by 31.12.2003. Other un-metered consumers are required to get meters installed by 31.12.2003.

Thereafter the fixed rate for un-metered supply will increase every six months beginning from 01.01.2004.

The Commission having deliberated on the Petition and also the subsequent submissions by the petitioner in the course of above proceedings, and having considered the responses received from the stakeholders, has in exercise of powers vested under the Uttaranchal (Uttar Pradesh Electricity Reforms Act 1999) Adaptation and Modification Order, 2001, and the Electricity Act, 2003, passes this Order signed, dated and issued on 8th Day of September 2003. The Petitioner shall take immediate steps to implement the Order in its area of supply after giving seven days public notice, so as to make the revised tariffs applicable latest by September 20, 2003.

(Divakar Dev)
Chairman

9. Annexures

9.1 Annexure 1: Rate Schedule for the year 2003-04

RTS-1: DOMESTIC

1. Applicability

This schedule shall apply to:

a) Residential premises for light, fan, power and other domestic purposes including residential colonies / townships, residential multi-storied buildings where energy is exclusively used for such purpose.

b) Janata Service Connections and Kutir Jyoti Connections.

(In case some portion of the above mentioned premises at a & b, having contracted load above 2 KW and using electricity for business then the entire energy consumed shall be charged under the appropriate rate schedule unless such load is segregated and separately metered)

2. Character of Service

a) Alternating Current 50 Hz., single phase, 230 Volts (with permissible variations) upto a load of 4 kW.

b) Alternating Current 50 Hz, three phase, 4 wire, 400 Volts or above (with permissible variations) for loads above 4 kW depending upon the availability of voltage of supply.

3. Notes

a) Supply to new connections of more than 150 kVA (127.5 kW) and upto 3,000 kVA (2550 kW) shall not be released at a voltage less than 11kV, loads above 3000 kVA (2550kW) and upto 10,000 kVA (8500 kW) shall not be released below the supply voltage of 33 kV and loads above 10,000 kVA (8500 kW) shall not be released below supply voltage of 132 kV.

b) All new connections shall be given with meter.

c) All new connections above 10 kW shall be released with Electronic Meters having Demand Indicator. Consumers having motive loads of above 5 BHP shall install Shunt Capacitor of appropriate rating and BIS specification.

4. Point of Supply

Energy will be supplied to a consumer at a single point.

5. Rate of Charge

(A) Un-Metered Supply (Domestic)

Description	Period	Fixed Charges
For consumers getting un-metered supply	Upto 31/12/03 1/1/04 - 30/6/04 1/7/04 – 31/12/04 1/1/05 – 10/6/05	Rs. 62/connection/month Rs. 75/connection/month Rs. 100/connection/month Rs. 120/connection/month

Note: With effect from the 01.01.04, consumers in the urban area covered under rate schedule of unmetered supply shall pay 20% higher than the above rates.

(B) Metered Supply

Description	Fixed Charges	Energy Charges
1) Domestic Metered		
1.1) Life line consumers		
Below Poverty Line including Kutir Jyoti having load upto 1kW and consumption upto 30 units per month	NIL	Rs. 1.50 / kWh
1.2) Other domestic consumers 1.2.1) Upto 1 kW and consumption upto 50 units per month	NIL	Rs. 1.80 / kWh
1.2.2) Remaining	NIL	Rs. 2.10 / kWh
2) Single Point Bulk Supply		
2.1) Housing Societies	NIL	Rs. 2.05 / kWh
2.2) Cantonment Board / Townships	NIL	Rs. 2.05 / kWh

6. Minimum Charges for Metered Supply only

Category	Minimum Charges
Consumers with contracted load upto 1 kW including life line consumers indicated at (5) (1.1) & (1.2)	Rs. 30 per connection per month.
Consumers with contracted load more than 1 kW and upto 4 kW ; single phase indicated at (5) (1.2.2)	Rs. 150 per connection per month.
Consumers with contracted load more than 4 kW ; 3 phase indicated at (5) (1.2.2)	Rs. 300 per connection per month.
Single Point Bulk Supply indicated at (5)(2)	Rs. 30 per kW of contracted load per month

7. Billing in Case of Defective Meters

In case of defective meters, the energy consumption shall be assessed and billed at an average consumption of past 3 billing cycles when the meter was correctly reading or @ 144 units per kW per month on the contracted load whichever may be higher. For this purpose the contracted load of less than 0.5 kW shall be treated as 1kW. This charge shall be levied till the Meter is repaired / replaced and the billing is restored on the actual consumption basis.

8. Surcharge

If the bill is not paid by the due date specified therein, a late payment surcharge shall be charged @ 1.5 % per month on the unpaid amount of the bill for the period (number of days) by which the payment is delayed beyond the due date specified in the bill without prejudice to the right of the UPCL to disconnect the supply.

9. Rounding off:

All bills will be rounded off to the nearest rupee.

10. Note

Apart from the above and those included in the schedule of miscellaneous charges, no other charges shall be charged from the consumer unless approved by the Commission.

RTS-2: Non-Domestic

1. Applicability

a) Educational Institutions, Hospitals and Charitable Institutions.

b) Other Non Domestic / Commercial Users

2. Character of Service

a) Alternating Current 50 Hz, single phase, 230 Volts (with permissible variations) upto a load of 4 kW.

b) Alternating Current 50 Hz, three phase, 4 wire, 400 Volts or above (with permissible variations) for loads above 4 kW depending upon the availability of voltage of supply.

3. Notes

a) Supply to new connections of more than 150 kVA(127.5 kW) and upto 3,000 kVA (2550 kW) shall not be released at a voltage less than 11 kV , loads above 3000 kVA (2550 kW) and upto 10,000 kVA (8500 kW) shall not be released below the supply voltage of 33 kV and loads above 10,000 kVA (8500 kW) shall not be released below supply voltage of 132 kV

b) All new connections shall be given with electronic meter.

c) All new connections above 10 kW shall be released with Electronic Trivector Meters having Demand Indicator. Consumers having motive loads above 5 BHP shall install Shunt Capacitor of appropriate rating and BIS specification.

d) The consumers having contracted load above 10 kW having Electronic Trivector Meters installed at their premises can have connected load in excess of their contracted load.

4. Point of Supply

Energy will be supplied to a Customer at a single point.

5. Rate of Charge

(A) Un-Metered Supply (Non Domestic)

Description	Period	Fixed Charges
For consumers getting un-metered supply	Upto 31/12/03 1/1/04 - 30/6/04 1/7/04 – 31/12/04 1/1/05 – 10/6/05	Rs. 95 /connection/month Rs. 115/connection/month Rs. 150/connection/month Rs. 185/connection/month

Note: With effect from the 01.01.04, consumers in the urban area covered under rate schedule of unmetered supply shall pay 20% higher than the above rates.

(B) Metered Supply

Description	Fixed charges	Energy charges
A) Educational Institutions, Hospitals and Charitable Institutions.	Nil	Rs. 3.00 per kWh
B) Other Non Domestic / Commercial	Nil	Rs. 3.50 per kWh

6. Minimum Charges for (Metered Supply only):

A) Educational Institutions, Hospitals and charitable institutions.

Rs. 200 / kW or part thereof of the contracted load per month

B) Other Non Domestic / Commercial Users

Rs. 150 for contracted load upto 1kW.

Rs. 200/kW or part thereof per month for contracted load above 1kW.

7. Billing in Case of Defective Meters

In case of defective meter, the energy consumption shall be assessed and billed at an average consumption of past 3 billing cycles when the meter was correctly reading or @ 216 units per kW per month on the contracted load whichever may be higher. For this purpose the contracted load of less than 0.5 kW shall be treated as 1kW. This charge shall be levied till the Meter is repaired / replaced and the billing is restored on the actual consumption basis.

8. Rebates / Surcharge

a) If the bill is not paid by the due date specified therein, a late payment surcharge shall be charged @ 1.5% per month on the unpaid amount of the bill for the period (number of days) by which the payment is delayed beyond the due date specified in the bill without prejudice to the right of the UPCL to disconnect the supply.

b) If the supply is given at voltage of above 400 volts and upto 11 kV or above 11 kV, then a rebate of 5% or 7.5% respectively will be admissible on Rate of Charge. The rebate shall be subject to the condition that the net amount payable after allowing the rebate shall not be less than the amount of minimum charge.

9. Installation of Shunt Capacitors

a) No new connection of motive power loads above 5 BHP and / or of welding transformers above 1 kVA shall be given, unless shunt capacitors having I.S.I specifications and of appropriate ratings are installed.

b) In respect of the consumers without Electronic Tri Vector Meters, who have not installed shunt capacitors of appropriate ratings and specifications, a surcharge of 5% of the amount of the bill as computed under item (5) and (8) above shall be levied. In addition, the Licensee will have the right to take any other suitable action including disconnection of service.

c) For consumers with Electronic Tri Vector Meters, a surcharge of 5% of the amount of the bill as computed under item (5) and (8) above will be levied for having power factor below 0.85 & a surcharge of 10% will be levied on the amount of the bill for having power factor below 0.80

d) No rebate for taking a supply at High Tension shall be allowed on the amount of above surcharge. Further, the said surcharge will not be levied during the period of disconnection on account of any reason whatsoever.

e) It is the responsibility of the consumer to maintain the capacitors in good and functional conditions and in the event of them being burnt / damaged, he shall inform the concerned Executive Engineer concerned of licensee immediately in writing through registered post and also to get the defect rectified within a maximum period of one month from the date of the capacitor becoming defective.

f) In case if it is found that the capacitor is not in good and functional condition or is of inadequate capacity or has not been repaired / replaced within one month, a surcharge of 5% will be levied on the amount of the bill as computed under item 5 and 8 from the month the capacitor becoming defective or from the month of inspection, whichever is earlier. The surcharge will be levied till the defect in all respects is rectified and will include installation of shunt capacitors of adequate capacity. The licensee will also have the right to take any other suitable action, including disconnection of supply, if shunt capacitor of appropriate rating is not maintained in functional conditions.

g) The surcharge shall not be counted towards computation of minimum charge.

10. Rounding off

All bills will be rounded off to the nearest rupee.

11. Note

Apart from the above and those included in the schedule of miscellaneous charges, no other charges shall be charged from the consumer unless approved by the Commission.

RTS -3: Public Lamps

1. Applicability

This schedule shall apply to public lamps including street lighting system, traffic control signals, lighting of public parks, etc. The street lighting of Harijan Basties and villages are also covered by this Rate Schedule.

2. Character of Service

a) Alternating Current, 50 Hz, single phase, 2 wire, 230 Volts (with permissible variations).

b) All new connections shall be given with electronic meter.

3. Rate of Charge

(A) Unmetered Supply

Fixed monthly charge of Rs.100/- per 100 W Lamp. For every 50 W or part thereof increase over and above 100 W Lamp additional Rs.50/- per month shall be charged.

(B) Metered Supply

Fixed Charges	Energy Charge
NIL	Rs. 2.50 / kWh.

4. Maintenance Charge

In addition to the "Rate of Charge" mentioned above, a sum of Rs. 10/- per light point per month shall be charged for operation and maintenance of street lights covering only labour charges where all material required will be supplied by the local bodies. However, the local bodies will have the option to operate and maintain the public lamps themselves and in such case no maintenance charge will be charged.

5. Provisions of Street Light Systems

Initially the UPCL, at its own cost, will provide on streets on which distribution mains already exist, a separate single phase, 2 wire system for street lights. In case the maintenance charge, as mentioned above, is being charged then the labour involved in the subsequent replacement or renewals of lamps shall be provided by the UPCL but all the materials shall be provided by the local bodies.

The cost involved in extension of street light mains (including cost of sub-stations if any) in areas where distribution mains of the UPCL have not been laid, will be paid for by the local bodies.

6. Verification

The number of light points including that of traffic signals together with their wattage will be verified jointly by the representative of UPCL and Town / Area Municipal Board / Corporation, once in a year. However, additions will be intimated by the Town Area / Municipal Board / Corporation on monthly basis. The UPCL will carry out the checking of such statements to satisfy themselves of the correctness of the same. The monthly bills shall be issued on the basis of verified connected load and number of points at the beginning of year and additions, if any, during the months as intimated above. The difference detected during joint verification in the following year should be reconciled and supplementary bills, if any, shall be issued.

Further, if the authorized representative of concerned local body does not participate in the work of verification of the connected load and the light points then a notice will be sent by concerned Executive Engineer in writing to such local bodies for deputing representative on specific date (s) failing which the verification of the connected load and light points shall be done by the representative of UPCL, which shall be final and binding upon such local body.

7. Surcharge for Late Payment

If the bill is not paid by the due date specified therein, a late payment surcharge shall be charged @ 1.5% per month on the unpaid amount of the bill for the period (number of days) by which the payment is delayed beyond the due date specified in the bill without prejudice to the right of the UPCL to disconnect the supply.

8. Rounding off

All bills will be rounded off to the nearest rupee.

9. Note

Apart from the above and those included in the schedule of miscellaneous charges, no other charges shall be charged from the consumer unless approved by the Commission.

RTS-4: Private Tube Wells/ Pumping Sets

1. Applicability

This schedule shall apply to all power consumers getting supply for private tube-wells / pumping sets for irrigation purposes and for incidental agricultural processes confined to chaff cutter, thrasher, cane crusher and rice huller only.

2. Character of Service

Alternating current, 3 phase, 4 wire, 50 Hz, 400 Volts (with permissible variations).

3. Note

a) All new connections shall be given with electronic meter.

b) All new connection above 25 BHP shall be given with Electronic Tri Vector Meters with Demand indicator

c) All New Connections above 5 BHP shall install Shunt Capacitor of appropriate rating and BIS specification

4. Point of Supply

Energy will be supplied to the consumer at a single point

5. Rate of charge

(A) Un-metered Supply

Period	Rate (Rs./BHP/month)	
	For pumps upto 10 BHP	For pumps above 10 BHP
Upto 31/12/03	55	60
From 1/1/04 to 30/06/04	70	75
From 1/7/04 to 31/12/04	85	95
From 1/1/05 to 10/06/05	105	120

Note: With effect from the 01.01.04, consumers in the urban area covered under rate schedule of unmetered supply shall pay 20% higher than the above rates.

PLUS

Rs. 20/- per connection per month for lighting load of not more than two lamps for un metered consumers.

(B) Metered Supply

Fixed Charges per month	Energy Charges
Nil	70 Paise per kWh

6. Minimum Charge for Metered supply only

Rs 50 / BHP or part thereof of the contracted load per month.

7. Surcharge for Late Payment

The electricity charges shall be payable monthly by the due date as specified by the licensee. If the electricity charges are not paid in due time, a late payment surcharge @ 1.5% per month shall be charged on the unpaid amount for the period (number of days) payment is delayed beyond the date specified above without prejudice to the right of the UPCL to disconnect the supply.

8. Rounding off

All bills will be rounded off to the nearest rupee.

9. Note

Apart from the above and those included in the schedule of miscellaneous charges, no other charges shall be charged from the consumer unless approved by the Commission.

RTS -5: Government Irrigation Systems

1. Applicability

This schedule shall apply to:

a) Supply of power for State Tubewells, World Bank Tubewells, Pumped Canals and Lift irrigation schemes having a load upto 100 BHP.

b) Laghu Dal Nahar having load above 100 BHP.

c) Medium and Large pumped canals having load more than 75 kW (100 BHP). The contracted demand shall be expressed in whole numbers only.

d) Irrigation system owned and operated by any Government department.

2. Character of Service

a) Alternating current, 3 phase, 4 wire, 50 Hz, 400 Volts (with permissible variations).

b) Alternating current, 3 phase, 4 wire, 50 Hz, 132 kV (with permissible variations) or below subject to availability

3. Notes

a) Supply to new connections of more than 150 kVA (127.5 kW) and upto 3,000 kVA (2550 kW) shall not be released at a voltage less than 11 kV, loads above 3000 kVA (2550 kW) and upto 10,000 kVA (8500 kW) shall not be released below the supply voltage of 33 kV and loads above 10,000 kVA (8500 kW) shall not be released below supply voltage of 132 kV.

b) All new connections shall be given with electronic meter.

c) All new connection above 25 BHP shall be given with Electronic Tri Vector Meters with Demand indicator.

d) Connections above 5 BHP shall install Shunt Capacitor of appropriate rating and BIS specification.

4. Point of Supply

Energy will be supplied to the consumer at a single point. The power to the Lift Irrigation Works shall also be supplied ordinarily at a single point for the entire process. The power may, however, be supplied on the request of the consumer, subject to technical feasibility, at more points than one, but in such a case, metering and billing will be done for each point separately.

5. Rate of charge

(A) Un-Metered Supply

There will be no un-metered supply. However, in case of existing connection where unmetered is given the fixed rate of charge shall be as follows till such time meters are installed:

Period	Rate per BHP per month	
	Govt. Irrigation system as per applicability upto 100 BHP Including Laghu Dal Nahar	
	Upto 100BHP	Laghu Dal Nahar(Above 100BHP)
Upto 31/12/03	350	500
From 1/1/04 to 30/06/04	450	600
From 1/7/04 to 31/12/04	550	770
From 1/1/05 to 10/06/05	6855	960

Note: With effect from the 01.01.04, consumers in the urban area covered under rate schedule of unmetered supply shall pay 20% higher than the above rates.

(B) Metered Supply

Description	Fixed Charges Rs./Month	Energy Charges Rs.
Govt. Irrigation system as per applicability upto 100 BHP including Laghu Dal Nahar	Nil	Rs.2.50/kWh
Govt. Irrigation system as per applicability above 100 BHP	Nil	Rs. 2.15 per kVAh

6. Minimum Charge for Metered connections

a) Govt. Irrigation system as per applicability upto 100 BHP including Laghu Dal Nahar

Rs. 300/- per kW or part thereof of the contracted load per month

b) Govt. Irrigation system as per applicability above 100 BHP

Rs. 250/- per kVA or part thereof of the contracted demand per month

7. Rebates/Surcharge

a) Surcharge for late payment

If the bill is not paid by the due date specified therein, a late payment surcharge shall be levied @ 1.5 % per month proportionately for the number of days for which the payment is delayed beyond the due date specified in the bill and levied on the unpaid amount of the bill. This surcharge is without prejudice to the right of the Licensee to disconnect the supply.

b) Rebate Govt. Irrigation system upto 100 BHP

If the supply is given at voltage above 400 volts and upto 11 kV, a rebate of 5% would be admissible on the "Rate of Charge". Similarly, supply above 11 kV shall be eligible for rebate of 7.5% on the "Rate of Charge" (5)

c) Rebate / Surcharge for Govt. Irrigation system above 100 BHP

i. If supply is given at 400 V an additional charge of 7.5% on the amount calculated on the Rate of charge (5) of the metered category.

ii. If the supply is given at voltage above 11kV and upto 66 KV, a rebate of 5% on Rate of Charge and for voltage above 66 KV, a rebate of 7.5% will be admissible on Rate of Charge (5) of the metered category.

8. Installation of Shunt Capacitors

a) No new connection shall be given unless shunt capacitors of appropriate ratings are installed. The consumer shall install shunt capacitors manufactured by the standard manufacturers conforming to BIS specifications.

b) In respect of the connections having motive power loads above 5 BHP, where shunt capacitors of appropriate ratings, manufactured by the standard manufacturers and conforming to BIS specifications, could not be provided by the consumer, a surcharge of 5% on the amount of Bill, as computed under the Item 5 & 7 above shall be charged.

c) It will be obligatory on the part of consumer to maintain the capacitor(s) in healthy conditions and in the event of it becoming defective / damaged, the consumer shall have to inform the concerned Executive Engineer of the UPCL immediately in writing and also to get the defect rectified within a maximum period of one month from the date the capacitor(s) had gone defective / damaged.

d) In case if it is found that the capacitor(s) is not in a good and healthy condition or is of inadequate capacity or has not been got repaired / replaced within one month, a surcharge of 5% on the amount of bill, as computed under 5 & 7 above, shall be charged for the period beyond one month from the month the capacitor(s) has gone defective / damaged or from the date of inspection / checking, whichever is earlier, till the defect in all respect involving installation of shunt capacitor(s) of adequate capacity, is rectified and reported to concerned Executive Engineer of UPCL. Over and above, UPCL will have the right to take any other suitable action including disconnection of supply, if even after the payment of the said surcharge, the shunt capacitor(s) of appropriate rating is not maintained in healthy conditions for continuously six months.

9. Determination of Demand for connections above 100 BHP

Demand measurement shall be made by suitable kilovolt ampere indicator at the point of supply. In the absence of suitable demand indicator, the demand as assessed by the Licensee shall be final and binding. If, however, the number of circuits is more than one, demand and energy measurement will be done on the principle of current transformer summation metering.

10. Other Conditions

a) Net additional load hereinafter shall mean to total additional load connected during the quarter less the load of failed and abandoned tubewells accounted for during that quarter.

b) The connected load as on March 31 of the preceding year will be worked out on the basis of 'Net additional load' reported by the Executive Engineers of the Tube Well Divisions on the quarterly basis. The monthly bills for the three months of the first quarter will be issued on the connected load worked out as such at the above rates.

c) The connected load as on June 30, will be worked out by adding the 'Net additional load' connected during the first quarter and the connected load as on March 31 of the preceding year (worked out as in foregoing paragraph (a) above). The monthly bills for the three months of the second quarter will be issued on the connected load worked out as on June 30, at the above rates.

d) Similarly, the connected load on September 30 and December 31, will be worked out and the bills for each of the three months of the third and fourth quarter will be issued at the above rates on the connected load worked out as above as on September 30 and December 31.

e) The Executive Engineer, Tube Well Division will submit to the Executive Engineer concerned of UPCL, a monthly as well as a quarterly statement of BHP connected and kWh consumed during the preceding month / quarter. UPCL, shall carry out check of such statements periodically to satisfy themselves of correctness of the same.

11. Rounding off

All bills will be rounded off to the nearest rupee.

12. Note

Apart from the above and those included in the schedule of miscellaneous charges, no other charges shall be charged from the consumer unless approved by the Commission.

RTS-6: Public Water Works

1. Applicability

This Schedule shall apply to Public Water Works, Sewage Treatment Plants and Sewage Pumping Stations functioning under Jal Sansthan, Jal Nigam or other local bodies.

2. Character of Service

a) Alternating Current 50 cycles, single phase, 230volts (with permissible variations) upto a load of 4 kW.

b) Alternating Current 50 cycles, three phase, 4 wire, 400 Volts or above (with permissible variations) depending upon the availability of voltage of supply for loads above 4kW.

3. Notes

a) Supply to new connections of more than 150 kVA (127.5 kW) and upto 3,000 kVA (2550 kW) shall not be released at a voltage less than 11 kV, loads above 3000 kVA (2550 kW) and upto 10,000 kVA (8500 kW) shall not be released below the supply voltage of 33kV and loads above 10,000 kVA (8500 kW) shall not be released below supply voltage of 132 kV.

b) All new connections shall be given with electronic meter.

c) Connections above 5 BHP shall install Shunt Capacitor of appropriate rating and BIS specification

d) All new connections above 10 kW shall be released with Electronic Tri-Vector Meters having Demand Indicator. Consumers having motive loads shall install Shunt Capacitor of appropriate rating and BIS specification.

4. Point of Supply

Energy will be supplied at a single point.

5. Rate of Charge

Fixed Charges	Energy Charges
Nil	Rs. 2.25 per kWh

6. Surcharge/Rebate

a) If the bill is not paid by the due date specified therein a late payment surcharge hall be charged @ 1.5% per month on the unpaid amount of the bill for the period (number of days) by which payment is delayed beyond the due date specified in the bill without prejudice to the right of the UPCL, to disconnect the supply.

b) If the supply is given at voltage above 400 volts and upto 11 kV, a rebate of 5% would be admissible on the "Rate of Charge". Similarly, supply above 11kV shall be eligible for rebate of 7.5% on the "Rate of Charge".

7. Minimum Charge

Rs. 400/- per kW or part thereof of the contracted load per month.

8. Installation of Shunt Capacitors

a) No new connection of motive power loads above 5 BHP shall be given unless shunt capacitors of appropriate ratings are installed to the entire satisfaction of UPCL. The consumer shall install shunt capacitors manufactured by the standard manufacturers conforming to BIS specifications.

b) In respect of the connections having motive power loads above 5 BHP, where shunt capacitors of appropriate ratings, manufactured by the standard manufacturers and conforming to BIS specifications, could not be provided by the consumer, a surcharge of 5% on the amount of bill, as computed under the Item (5) & (6) above shall be charged.

c) It will be obligatory on the part of consumer to maintain the capacitor(s) in healthy conditions and in the event of it becoming defective / damaged, the consumer shall have to inform the concerned Executive Engineer of the UPCL immediately in writing and also to get the defect rectified within a maximum period of one month from the date the capacitor(s) had gone defective / damaged.

d) In case if it is found that the capacitor(s) is not in a good and healthy condition or is of inadequate capacity or has not been got repaired / replaced within one month, a surcharge of 5% on the amount of bill, as computed under the (5) & (6) above, shall be charged for the period beyond one month from the month the capacitor(s) has gone defective / damaged or from the date of inspection / checking, whichever is earlier, till the defect in all respect involving installation of shunt capacitor(s) of adequate capacity, is rectified and reported to concerned Executive Engineer of UPCL. Over and above, UPCL will have the right to take any other suitable action including disconnection of supply, if even after the payment of the said surcharge, the shunt capacitor(s) of appropriate rating is not maintained in healthy conditions for continuously six months.

9. Rounding off

All bills will be rounded off to the nearest rupee.

10. Note

Apart from the above and those included in the schedule of miscellaneous charges, no other charges shall be charged from the consumer unless approved by the Commission.

RTS -7: LT & HT Industry

1. Applicability

This schedule shall apply to:

a) All consumers of electrical energy for industrial and /or processing or agro- industrial purposes, power loom as well as to Arc/Induction Furnaces, Rolling/Re-rolling Mills, Mini Steel Plants and to other power consumers not covered under any other Rate Schedule

b) The Vegetable, Fruits, Floriculture & Mushroom integrated units farming, Processing, storing and Packaging shall also be covered under this Rate schedule.

c) The contracted load shall be expressed in whole number only.

2. Character of Service

a) Alternating Current, 50 Hz, single phase, 230 Volts (with permissible variation) for load less than 5kW.

b) Alternating Currents, 3 phase, 3 or 4 wire, 50 Hz, 400 Volts (with permissible variation) and above depending upon the availability of voltage of supply.

c) Alternating Current, 3 phase, 3 wire, 50 Hz, 11 kV and above voltages (with permissible variation) depending upon the availability of the voltage of supply and sanctioned/contracted load.

3. Notes

a) Supply to the new connections of more than 100 kVA (85 kW) shall not be released at a voltage less than 11 kV and loads above 3,000 kVA (2550 kW) and upto 10,000 kVA (8500 kW) below the supply voltage of 33 kV. Load above 10,000 kVA (8,500 kW) shall not be given below supply voltage of 132 kV. The supply voltage shall however be decided by UPCL depending upon availability of voltage of supply and technical feasibility.

b) All new connections shall be connected with MCB (Miniature Circuit Breaker) or Circuit Breaker / Switch Gear of appropriate rating and BIS Specification.

c) The supply to In duction and Arc Furnaces shall be made available only after ensuring that the loads sanctioned are corresponding to the load requirements of tonnage of furnaces. The minimum load of 1 Tonne furnace shall in no case be less than 600 kVA and all loads will be determined on this basis. No supply will be given for loads below this norm.

4. Point of Supply

Energy will be supplied to the consumer at a single point for the entire premises. The power may, however, be supplied on the request of the consumer, subject to technical feasibility, at more than one point, but in such a case, metering and billing will be done for the each point separately.

5. Rate of Charge

Rate of charge, gives the fixed / demand and energy charges at which the consumer shall be billed for his consumption during the billing period applicable to the category.

Description	Energy Charge	Fixed/ Demand Charge/ month	Minimum Charge/ month
5(A) LT Industry having contracted load upto 100 BHP/75kW/88kVA	Rs 2.45 per kWh	Rs 45 Per BHP of contracted load	Rs 300 per BHP or part thereof of the contracted load
5(B) HT Industry having contracted load above 100 BHP/75kW/88kVA	Rs. 1.90 per kVAh	Rs. 125 per kVA of the billable demand	Rs. 350 per kVA or part thereof of contracted load

Note: For computation of Demand charges, in case of consumer without MDI then KVA is contracted Demand / Load & in case of consumer with MDI then KVA is Billable Demand.

6. Billable Demand

a) The Billable demand as mentioned in 5(B) of Rate of charge above for the month shall be the actual maximum demand or 75 % of the contracted load whichever is higher.

b) However, in respect of seasonal industries during off season period, the billable demand in the Off Season period shall be actual demand not more than 30% of the contracted load. In case actual demand exceeds 30% of the contracted demand in any month of the Off Season period then the billable demand for the particular month shall be as per 6(a) mentioned above shall be considered for billing.

7. Other Provisions

a) No new connection shall be given without installation of electronic meter.

b) No new connection above 25 BHP will be given without installation of Electronic Tri-vector Meter (TVM). For existing consumers above 25 BHP, Licensee will ensure that Electronic TVM is installed expeditiously.

c) LT industry consumer having load upto 100 BHP having installed Electronic Tri-vector meter they will be charged for fixed rates by converting contracted load in kVA to BHP. The conversion rate for 1 kVA = 1.136 BHP.

d) In case where demand is recorded in kilowatt (kW), the demand charge shall be computed assuming power factor as 0.85.

8. Seasonal Industries

Where a consumer having load in excess of 25 BHP and has Electronic Tri Vector Meter and avails supply of energy for manufacturing sugar, ice, rice mill and cold storage or such other industries or processes as may be specified by Licensee with approval of the Commission from time to time, principally during certain seasons or limited period in the year, and his plant is regularly closed down during certain months of the financial year, he may be levied for the months during which the plant is shut down (which period shall be referred to as off-season period) as follows.

a) The tariff for Season period same as “Rate of Charge” (5) & (10) as given in this schedule.

b) The tariff for “Off-Season” period shall be same as the tariff for “Season” period given above except the billable demand in the “Off Season” months shall be the actual demand not more than 30% of the contracted load. In case actual demand exceeds 30% of the contracted demand in any month of the “Off Season” period then the billable demand for the particular month shall be as per 6(a) mentioned above shall be considered for billing.

9. Terms and Conditions for Seasonal Industries

a) The period of operation should be at least 4 (four) continuous months in a financial year and should not be more than 9 months in a financial year.

b) The existing consumers who are desirous of availing the seasonal benefits shall intimate the duration of their season to the concerned Executive Engineer of Licensee by registered post.

The concerned Executive Engineer of Licensee, in turn, shall issue the formal order immediately.

c) Any prospective consumer, classified as seasonal consumer, desirous of availing the seasonal benefit, shall specifically declare his season at the time of submission of declaration / execution of agreement and that his load be classified as seasonal load.

d) The seasonal period once notified cannot be reduced during the year. The off-season tariff is not applicable to composite units having seasonal and other categories of loads.

e) Any seasonal consumer, who after declaring the period of season, consumes power for his main plant during the off season period, shall not be entitled to the above benefit during that particular year. This will be without prejudice to any other action that Licensee may take.

f) Industries in addition to the existing declared seasonal industries i.e. sugar, ice, rice mill and cold storage shall be notified by Licensee only after prior approval of the Commission.

g) During off-season period, the maximum allowable demand will be 30% of the contracted load and the consumers whose demand exceeds 30% of the contracted load in any month of the Off Season will be denied the benefit of seasonal industries during that season.

10. Surcharge/ Rebate

a) If the maximum demand / load of a consumer in any month exceeds the contracted demand / load, such excess demand / load shall be levied twice the normal rate as applicable.

b) For LT Industry having contracted load upto 100 BHP / 75 kW / 88 kVA - If the supply is given at voltage above 400 volts and upto 11 kV, a rebate of 5% would be admissible on the "Rate of Charge"(5). Similarly, supply above 11kV shall be eligible for rebate of 7.5% on the Rate of Charge (5).

c) For HT Industry having contracted load above 100 BHP / 75 kW / 88 kVA – In case the supply is given at 400Volts, the consumer shall be required to pay an extra charge of 10% on the bill amount calculated at the Rate of Charge (5).

d) If receiving supply above 66 kV and upto 132 kV, shall receive a rebate of 2.5% on the Rate of charge (5).

e) If receiving supply above 132 kV, shall receive a rebate of 5% on the Rate of charge (5).

f) If the bill is not paid by the due date specified therein, a late payment surcharge shall be levied @ 1.5% per month proportionately for the number of days for which the payment is delayed beyond the due date specified in the bill and levied on the unpaid amount of the bill. This surcharge is without prejudice to the right of the Licensee to disconnect the supply.

g) The above rebate shall be subject to the condition that the net amount payable after allowing the above rebate (s) shall not be less than the amount of minimum charge.

11. Factory Lighting

The electrical energy supplied under this schedule shall also be utilised in the factory premises for lights, fans, coolers, etc. which shall mean and include all energy consumed for factory lighting in the offices, the main factory building, stores, time keeper's office, canteen, staff club, library, creche, dispensary, staff welfare centres, compound lighting, etc.

12. Installation of Shunt Capacitors

a) No new connection of motive power loads and / or of welding transformers above 1 kVA shall be given, unless shunt capacitors having I.S.I specifications and of appropriate ratings are installed, as specified.

b) In respect of the consumer having motive power loads and welding transformer, who have not installed shunt capacitors of appropriate ratings and duly marked by ISI specification at there installations, a surcharge of 5% of the amount of the bill, as computed under (5)&(10) above, shall be charged per month or part thereof.

c) It is the responsibility of the consumer to maintain the capacitors in good and functional conditions and in the event of them being burnt / damaged, he shall inform the concerned Executive Engineer concerned of licensee immediately in writing through registered post and also to get the defect rectified within a maximum period of one month from the date of the capacitor becoming defective.

d) In case if it is found that the capacitor is not in good and functional condition or is of inadequate capacity or has not been repaired / replaced within one month, a surcharge of 5% will be levied on the amount of the bill as computed under (5) and (10) from the month the capacitor becoming defective or from the month of inspection, whichever is earlier. The surcharge will be levied till the defect in all respects is rectified and will include installation of shunt capacitors of adequate capacity. The licensee will also have the right to take any other suitable action, including disconnection of supply, if shunt capacitor of appropriate rating is not maintained in functional conditions.

e) No rebate for taking a supply at High Tension shall be allowed on the amount of above surcharge. Further, the said surcharge will not be levied during the period of disconnection on account of any reason whatsoever.

f) The surcharge shall not be counted towards computation of minimum charge.

13. Restriction in usage

At any point after notification of the Tariff Order 2003-04, in case imposition of restriction towards the usage of electricity by the industry during certain hours in the day is affected by the Commission then the following rates and charges shall start to be applicable.

a) For consumers opting for supply during restricted hours (Continuous) - 20% increase in the Energy charge as given in Rate of charge (5).The new applicable energy charge shall be Rs. 2.95 / kWh for the LT industry (upto 100BHP) and Rs.2.30/kVAh for the HT industry (above 100BHP). Demand charge and other charges remain same as per (5) & (10) given above.

b) For consumers not opting for supply during restricted hours (Non continuous) - Energy charge, Demand charge and other charges as per (5) & (10) given above.

c) Peak Hour Violation Penalty shall be introduced. Consumers who do not opt for supply during Peak hours/Restricted hours (Non Continuous supply) shall not be allowed to use power in excess of 15% of their contracted demand/ load. Any violation detected shall attract a penalty of Rs. 50 per KVA per day of the contracted demand/ load, for the number of days of such violation. For the month of default, the consumer shall be billed at the rates specified above in 12(a) (for consumers opting for supply during restricted hours (Continuous)).

14. Time of Day Tariff

a) From the date of installation of TOD meters or 1st January 2004 whichever is earlier, Time of Day Metering shall be imposed for the HT industry (above 100 BHP). After this date rates as given in the above (5), (10) and (13) shall not be applicable. The following rates shall start to be applicable

b) TOD Rate of Charge

Demand Charges (Rs./KVA)	125		
Time of Day	2200 – 0600 HRS	0600 – 0800 HRS 1000 – 1700 HRS	1700 – 2200 HRS 0800- 1000 HRS
Energy Charges (Rs./KVAH)	1.80	1.90	2.15

15. Other provisions

a) Meter reading of all HT consumers shall be made by Meter Reading Instrument (MRI) and bills shall be raised accordingly as per TOD rate of charge 14(b).

b) The licensee shall keep the records of Monthly MRI report for each HT consumer and shall also make it available to the consumer.

c) Seasonal Industries: The tariff for season period will be same as the tariff for ToD Rate of Charge. For off-season period the same energy charges shall be levied but demand charges shall be not more than 30% of the contracted demand. Conditions of the seasonal industries shall remain same.

16. Rounding off

All bills will be rounded off to the nearest rupee.

17. Note

Apart from the above and those included in the schedule of miscellaneous charges, no other charges shall be charged from the consumer unless approved by the Commission.

RTS - 8: Temporary Supply

(A) Temporary Supply for Illumination & Public Address Needs

1. Applicability

This schedule shall apply to temporary supply of light & fan up to 10 kW, public address system and illumination loads during functions, ceremonies and festivities, temporary shops not exceeding three months.

2. Character of Service

A.C. 50 Cycles, single phase or three phase, 230 / 400 Volts only (with permissible variations) as per requirement of the load.

3. Rate of Charge (separately for Each Point of Supply)

Description	Fixed Charges
(1) For Illumination / public address/ ceremonies for load up to 15 kW	Rs. 750 per day
(2) Temporary shops set up during festivals / melas and having load upto 2 kW	Rs. 40 per day
(3) Other Temporary shops/ Jhuggi /Jhopris for load upto 1 kW	
3.1) Rural	Rs. 75/- per month /connection
3.2) Urban	Rs. 150 per month /connection

The amount of Fixed Service Charge as specified in 3 above, shall be taken in advance.

(B) Temporary Supply for Other Purposes

1. Applicability

a) This schedule shall apply to temporary supplies of light, fan and power loads for the purposes other than mentioned at (A).

b) This schedule shall also apply for power taken for construction purposes including civil work by all consumers including Government Departments. Power for construction purposes for any work / project shall be considered from the date of taking first connection for the construction work till completion of the work / project.

2. Character of Service

a) A.C. 50 Hz, single phase / three phase, on any voltage depending upon requirement and the availability of voltage of supply (with permissible variations).

b) No connection shall be given without electronic meter.

3. Rate of Charge

The rate of charge will be corresponding net rate of charge in appropriate schedule plus 25%. The appropriate rate schedule for the temporary supplies for cane crusher upto 15BHP given for maximum period of four (4) months will be RTS-7.

4. Minimum charge

The minimum charge as applicable will be the corresponding rate in the appropriate schedule plus 25%.

5. Surcharge for Late Payment

In the event of any bill, of whatever nature it may be, not being paid by the due date specified therein, a late payment surcharge shall be charged @ 2% per month proportionately for the number of days for which the payment is delayed on the unpaid amount of the bill beyond the due date specified in the bill. This surcharge is without prejudice to the right of the UPCL to disconnect the supply.

6. Rounding off

All bills will be rounded off to the nearest rupee.

7. Note

Apart from the above and those included in the schedule of miscellaneous charges, no other charges shall be charged from the consumer.

Schedule of Miscellaneous Charges

Sl. No	NATURE OF CHARGES	UNIT	RATES (RS.)
1	**Checking and Testing of Meters**		
	a. Single Phase Meters	Per Meter	35.00
	b. Three Phase Meters	Per Meter	40.00
	c. Recording Type Watt-hour Meters	Per Meter	170.00
	d. Maximum Demand Indicator	Per Meter	335.00
	e. Tri-vector Meters	Per Meter	1000.00
	f. Ammeters and Volt Meters	Per Meter	65.00
	g. Special Meters	Per Meter	335.00
	h. Initial Testing of Meters	Per Meter	NIL
2	**Subsequent testing and installation other than initial testing**	Per Meter	80.00
3	**Hire of Meters per month**:		
	a. Single Phase Meters, 2 Wire Meter (5-20) Amp. Electromechanical	Per Meter	10.00
	b. Single Phase 2 Wire Meters (5-20) Amp. Electronic	Per Meter	15.00
	c. 3 Phase 3 or 4 Wire Meters (10-20) Amp. Electromechanical	Per Meter	25.00
	d. 3 Phase or 4 Wire Meters above 20 Amp. -Electromechanical Meter	Per Meter	25.00
	e. 3 Phase, 3 or 4 Wire Meter (10—60) Amp. -Electronic Meter	Per Meter	35.00
	f. 3 Phase, 3 or 4 Wire CT/PT connected Meters g. 3 Phase, 3 or 4 Wire CT/PT connected Static Electronic Meter h. Tri-vector Meters, 3 Phase, 3 wire or 4 Wires along with associated equipments:	Per Meter Per Meter	150.00 275.00
	i) L.T	Per Meter	600.00
	ii) 11 kV	Per Meter	600.00
	iii) 33 k V	Per Meter	600.00
	iv) 132 k V	Per Meter	600.00
	v) 220 k V	Per Meter	600.00
	h. Time Switch for night supply	Per Meter	25.00
4	**Disconnection and Reconnection of supply for any reason, whatsoever, (for any disconnection or reconnection) the charge will be 50%**		
	a. Consumer having load above 100 BHP/75 kW	Per Job	400.00
	b. Power consumers upto 100 BHP/75 kW	Per Job	300.00
	c. All other categories of consumers	Per Job	200.00
5	**Replacement of Meters**		
	a. By higher capacity Meter	Per Job	25.00
	b. Installation of Meter and its subsequent removal in case of Temporary Connections	Per Job	50.00
	c. Changing of position of Meter Board at the consumer's request	Per Job	75.00
6	Ser vice of Wireman :		
	a. Replacement of Fuse	Per Job	20.00
	b. Inserting and Removal of Fuse in respect of night loads.	Per Job	15.00
	c. Hiring of services by the consumer during temporary supply or otherwise.	Per wireman/Day of 6hours	50.00
	d. If inspector is obstructed/prevented by the consumer deliberately or otherwise	Per Trip	150.00
7	Resealing of Meters on account of any reason in addition to other charges payable in terms of other provision of charging of penalties, etc	Per Meter	55.00
8	Checking of Capacitors (other than initial checking) on consumer's request:		
	a. At 400 V / 230 V	Per Job	100.00
	b. At 11 kV and above	Per Job	200.00

9.2 Annexure 2: Public Notice for Response on the Petition

UTTARANCHAL ELECTRICITY REGULATORY COMMISSION

80, VASANT VIHAR, PHASE-I, DEHRADUN - 248006

E-mail : uerc@indiatimes.com, secretaryuerc@indiatimes.com

05 June. 2003
Amar Ujala

PUBLIC NOTICE

INVITATION FOR RESPONSE ON

PETITION FILED BY U.P.C.L. FOR APPROVAL OF A.R.R. AND ELECTRICITY TARIFF FOR 2003-04

1. Uttaranchal Electricity Regulatory Commission (Commission) is a statutory body constituted under section 3 of Uttaranchal (U.P. Electricity Reforms Act) Adaptation and Modification Order, 2001 with primary responsibility of determining the tariff for electricity and promoting competition, efficiency and economy in the activities of the electricity industry.
2. Under section 24 of the Order, Uttaranchal Power Corporation Limited (UPCL) has filed a petition before the Commission for approval of the Annual Revenue Requirement (ARR) & Tariff Proposal for the Financial Year 2003-04 and has made the following prayer :
   a) to approve the ARR and tariff proposal for the FY 2003-04
   b) to pass such other orders as the Commission may deem fit
3. Salient features of the petition are given below :-

Income & Expenditure Estimate for the F.Y. 2003-04 given in the ARR

(Rs. in crores)

Sl. No.	HEAD	As on 14.05.03	As on 15.02.03
A	**EXPENDITURE**		
1.	Purchase of energy		
	in MU	3989.10	3851.12
	at per unit average rate of	0.98	0.93
	Total Cost	389.8	360.02
2.	Establishment	176.6	159.75
3.	Repairs & maintenance	37.42	33.42
4.	Interest	133.34	80.88
5.	Depreciation	83.7	33.26
6.	Misc. expenses	36.73	31.18
	Less: Amt. Capitalised	-48.17	-------
	Total expenditure	809.42	698.51
	Return on Capital	16.63	12.5
	Total Revenue Requirement (I)	826.05	711.01

(Rs. In crores)

Sl. No.	HEAD	As on 14.05.03	As on 15.02.03
B	**INCOME**		
1.	Sales		
	in MU	2628.003	2541.74
	at per unit average rate of	2.43	2.62
	Total Amount	639.79	665.76
2.	Other Income (Excluding Income from Trading)	29.71	22.52
3.	Govt. Subsidy	----	25
	Total Revenue Realisation (II)	669.5	713.28
	Net additional revenue required (I-II)	156.55	-2.27
	Technical & Commercial Loss (%)		
	F.Y. 2001-02 (Actual)	38.99	N.A.
	F.Y. 2002-03 (Estimated)	35.33	35
	F.Y.2003-04 (Projected)	34.12	34

SUMMARY OF TARIFF PROPOSAL

S. No.	Categories of Consumers	EXISTING TARIFF			PROPOSED TARIFF		
		Fixed Charges (Rs./Month)	Energy Charges (Rs./Unit)	Minimum Charges (Rs./month)	Fixed Charges (Rs./Month)	Energy Charges (Rs./Unit)	Minimum Charges (Rs./month
1.	**Domestic Light & Fan** i) Unmetered (Loads upto 2 KW) ii) Metered Category	62 25 to 150	NIL 1.80 to 2.80	NIL NIL	105.00 to 210.00 35.00 to 175.00	NIL 1.80 to 2.80	NIL NIL
2.	**Commercial Light & Fan** i) Unmetered Supply (Loads upto 2 KW) ii) Metered Supply a) Other than Govt. b) Govt. Establishments	95 35- 225 30 -160	NIL 4.25 to 4.50 1.90 to 2.90	NIL 190-440/kW NIL	130.00 to 260.00 35-75/Kw 60.00/Kw	NIL 2.50 to 4.00 3.00	NIL 300/kW 250/kW
3.	**Public Lighting** i) Unmetered Supply ii) Metered Supply **Maintenance Charges per Light point**	55- 325 NIL 7.00	NIL 2.90/KWh	NIL NIL	650 - 800/Kw 60.00/Kw 10.00	NIL 2.50	NIL NIL
4.	**Private Tubewells** i) Unmetered Supply ii) Metered Supply Addtl. Charges /Connection for 2 lamps	55 - 60/BHP NIL 20.00	NIL 0.70 - 2.90/Kwh	NIL 50-90/BHP	70/BHP 20/BHP 20.00	NIL 1.50	NIL 80/BHP
5.	**Industries**	30-45/BHP 60-170/kVA	3.65-4.35/kWH 2.63-3.35/kVAh	162-300/BHP 315-425/kVA	30-50/BHP 90-170/kVA	3.6-3.65/kWh 2.6-3.15/kVAh	250-350/BHP 375-425/kVA
6.	**World Bank Tubewell/State Tubewell/Pump Canal** (i) Unmetered Supply (ii) Metered Supply	350-490/BHP 100/Tubewell	NIL 1.00/kWh	NIL NIL	650 - 975/BHP 100/BHP - 170/kVA	NIL 2.15/kVAh - 2.50/kWh	NIL 220/kVA
7.	**Public Water Works**	NIL	2.80 / kW	485/kW	35 / kW	3 / kWh	550/kW
8.	**Temporary Supply** a) For illumination & public address needs b) For Shops & Jhuggis for a load 1 kw for a maximum, period of. 180 days	150 75-150 per. connection	75/day-750+270 per day NIL	Corresponding rate in the Schedule + 25% NIL	150/connection 155 Per connection	75/day- 750+270 per day NIL	Corresponding rate in the Schedule + 25% NIL
9.	Railway Traction	135/kVA	3.95/kWh	585/kVA	165-180kVA	3.45-3.75/kVAh	600/kVA
10.	**Departmental employees & pensioners** (i) Unmetered Supply (ii) Metered Supply Charges for Air Conditioner	45-325 45-325 180/A.C.	NIL NIL	NIL NIL	50-250 50-250 200/A.C.	165-735/month 1.35-2.35/kWh	NIL NIL

** ***In addition to these charges rebate / surcharge and other additional charges would be allowed /levied on different categories of consumers as provided in the Tariff Schedule. Besides, Miscellaneous Charges involving checking and testing of meters, hire charges, disconnection and reconnection of supply, replacement of meters, etc. have been provided in the Tariff Schedule.***

- In accordance with the provisions of the Uttaranchal Electricity Regulatory Commission (Conduct of Business) Regulations, 2002 notified by the Commission, the Commission hereby seeks response from the consumers and stakeholders on the above petition. Responses may be sent to the Secretary of the Commission at the above office address by 10th July 2003. The responses may be submitted personally or by post/e-mail.
- The Commission would also hold public hearings with the select group of responding stakeholders subsequently. The date and place of the hearing shall be communicated separately.
- The Commission shall scrutinize the petition and seek further clarifications from the petitioner, if required. By way of an Order, the Commission shall approve the ARR and the Tariff. The Order on the petition shall be issued after taking into account the suggestions received from various stakeholders.
- Detailed proposals as submitted by Uttaranchal Power Corporation Limited can be seen free of cost on any working day at the offices of General Manager (Distribution), Garhwal Zone, UPCL, 120-Haridwar Road, Dehradun/General Manager (Distribution), Hill Zone, UPCL, Kathgodam, Haldwani and at Corporation's head office situated at Urja Bhawan, Kanwali Road, Dehradun or in the Commission's office. Relevant extracts of the same can also be obtained from either two sources.
- The petition filed by the petitioner is also available at the website of the Commission (http/www.uerc.org). The Corporation has also been directed to put their proposals on their website.

Secretary

Ref.No.: 89/UERC/ARR/ Dt. 04.06.2003

9.3 Annexure 3: Public Notice for Public Hearings

वर्ष 2003–04 के लिए प्रस्तावित विद्युत दरें

प्रदेश में बिजली की विक्रय दरें, पुनरीक्षित करने का जो प्रस्ताव विद्युत नियामक आयोग के स्वीकृतार्थ प्रस्तुत किया गया है, उस पर प्रतिक्रियायें सुनने के लिए आयोग के अध्यक्ष निम्न कार्यक्रम के अनुसार सार्वजनिक सुनवाई करेंगे।

दिनांक एवं समय	सार्वजनिक सुनवाई का स्थान	
1. 22 जुलाई, 2003, प्रातः 11 बजे	रुद्रपुर	: विकास भवन, नैनीताल रोड।
2. 24 जुलाई, 2003, प्रातः 11 बजे	अल्मोड़ा	: होटल शिखर, माल रोड।
3. 28 जुलाई, 2003, प्रातः 11 बजे	मुनि की रेती	: अतिथिगृह, गढ़वाल मण्डल विकास निगम।
4. 31 जुलाई, 2003, प्रातः 11 बजे	देहरादून	: इण्डियन मैडिकल एसोसिएशन हॉल, किशन नगर चौक, चकराता रोड।

2. प्रस्तावित ए.आर.आर, एवं विक्रय दरें विभिन्न समाचार–पत्रों में पहले ही प्रकाशित की जा चुकी हैं और उत्तरांचल पावर कारपोरेशन लि. के स्थानीय कार्यालयों में भी उपलब्ध है। किसी भी उपभोक्ता को इन दरों के सम्बन्ध में यदि कोई प्रतिक्रिया या कोई सुझाव देना हो तो वह उनको आयोग के समक्ष रखने के लिए आमंत्रित है।

3. अतः यदि आप इस सम्बन्ध में कोई विचार या सुझाव आयोग के विचारार्थ प्रस्तुत करना चाहते हैं तो उपरोक्त स्थानों में से सुविधानुसार किसी भी स्थान पर प्रस्तुत होकर अपने सुझाव आयोग को प्रस्तुत करने की कृपा करें।

सचिव, उत्तरांचल विद्युत नियामक आयोग,
80, वसन्त विहार, फेज–1, देहरादून, दूरभाष : 2763441

9.4 Annexure 4: List of respondents

List of respondents on the Petition filed by UPCL for approval of Annual Revenue Requirement for Financial Year 2003-04

SL. No.	Name	Designation	Organization	Address
1	O.P. Gupta	Ex-Audit Officer (Com)		69 Rajeshwar Nagar I (Dhoran) PO-Gujrada Man Singh Dehradun District - Dehradun
2	N.K. Jain	Superintending Engineer		P-IV/16, Yamuna Colony Dehradun District - Dehradun
3	K. Talwar			
4	Manmohan Kansal	President	Dakpathar Vyapar Mandal	Dakpathar Dehradun District - Dehradun
5	S.D. Mishra	M. President	Uttarakhand Vidyut Karmchari Morcha Sangthan	Uttarakhand Vidyut Karmchari Morcha Sangthan Srinagar Dehradun
6	V.D. Chamoli	G. Secretary	Hydro Electric Empline Union	E-43, Yamuna Colony Dehradun Dehradun
7	Anil Goyal	State G. Secretary	Prantiya Udyog Vyapar Pratinidhi Mandal, Uttaranchal	13 Gandhi Road Dehradun District - Dehradun
8	Mahendra S. Bisht	Executive Director	K.M.O.U. Ltd. Kathgodam	Kapil Bhawan Kathgodam Haldwani District - Nainital
9	Keshvdutt Pandey	District President	Uttarakhand Janwadi Party	Parishram Kuti Kusumkhera Haldwani District - Nainital
10	P.S. Roy	Dean	Indian Institute of Remote Sensing	Deptt. of Space, Govt. of India Kalidas Road, P.B.No. 135, Dehradun District - Dehradun
11	Devendra K. Agrawal	MD	Kashi Vishwanath Steels Ltd.	Narain Nagar, Bazpur Road Kashipur District - U.S. Nagar
12	A.K. Verma	IDSE, SE	Commander Wks. Engr. (Hils)	Commander Wks. Engr. (Hils) Mall Road, Dehradun Cantt District - Dehradun
13	R.K. Sharma	Sr. G. Manager (Elect.)	Century Pulp & Paper	Ghanshyamdham PO - Lalkua Lalkua District - Nainital

SL. No.	Name	Designation	Organization	Address
14	L.N. Mandhana	GM (Comm.)	Ace Glass Containers Ltd.	Rishikesh PO- Virbhadra Rishikesh District - Dehradun
15	Sunil Bhalla	Associate Vice President (W)	BIRLA Yamaha Ltd.	Village Lal Tappar PO- Resham Majri Grant Dehradun District - Dehradun
16	Pradeep K. Vishnoi			Khalsa Street Kashipur U.S. Nagar
17	Abhishek Goyal	City President	Uttaranchal Pradesh Yuva Agrawal Mahasabha	50, Arhat Bazar Dehradun District – Dehradun
18	Nitin Verma			Kashipur District - U.S. Nagar
19	Bhimsen			Kashipur District - U.S. Nagar
20			Bindal Iron Industries	4 Km, Jaspur Road Kashipur District - U.S. Nagar
21	Avinash Chandra	Conservator	Vidyut Pensoners Parishad Uttar Pradesh	Lata Kunj Govind Nagar, Moradabad District – Moradabad
22	Dinesh Sah	President	Nainital Hotel & Restaurant Association	Nainital Hotel & Restaurant Association Nainital District - Nainital
23	S.M. Mukharjee			M-32, Harilok Abhasiya Yojana PO- Jwalapur Haridwar District - Haridwar
24			Salora International Ltd.	5 Km Stone, Moradabad Road, Kashipur District - U.S. Nagar
25	Rajnish Goyal	Director	Shri Ram Garments & Accessoried (P) Ltd.	Ramnagar Road Kashipur District - U.S. Nagar
26	R.M. Seth	E. Engineer		5 Km Stone, Moradabad Road, Kashipur District - U.S. Nagar
27		MD	Essaa Zip Fastners (P) Ltd.	A-4, Industrial Estate Bazpur Road Kashipur District - U.S. Nagar
28		MD	Zebra Zippers (P) Ltd.	Ramnagar Road Kashipur District - U.S. Nagar
29	S.S. Jindal	Vice President	Shivangee Crafts Ltd.	5 Km Stone, Ramnagar Road Kashipur District - U.S. Nagar

SL. No.	Name	Designation	Organization	Address
30	Joga Singh	Sr. E. Engineer	Golden Tractors Workshop	Katoratal road, Kashipur District - U.S. Nagar
31	Shiv Kumar	MD	Lalkuan Stone Crushers (P) Ltd.	Rampur Road Rudrapur District - U.S. Nagar
32			M/S Pushkar Steels (P) Ltd.	Jasodharpur Industrial Area Kotdwar District - Pauri
33	Sanjay		M/S Kotdwar Steels Ltd.	Jasodharpur Industrial Area Kotdwar District - Pauri
34			M/S Rana Castings (P) Ltd.	Jasodharpur Industrial Area Kotdwar District - Pauri
35			M/S Poddar Steels (P) Ltd.	Jasodharpur Industrial Area Kotdwar District - Pauri
36			M/S H.R.J. Steels (P) Ltd.	Jasodharpur Industrial Area Kotdwar District - Pauri
37			M/S Amrit Versha Udhyog (P) Ltd.	Jasodharpur Industrial Area Kotdwar District - Pauri
38			M/S Bhagshree Steels & Alloys Ltd.	Jasodharpur Industrial Area Kotdwar District - Pauri
39			M/S Aruna Steel (P) Ltd.	Jasodharpur Industrial Area Kotdwar District - Pauri
40			M/S Kukreti Steels (P) Ltd.	Jasodharpur Industrial Area Kotdwar District - Pauri
41			M/S Sant Steels Ltd.	Jasodharpur Industrial Area Kotdwar District - Pauri
42			M/S Sidhbali Steels (P) Ltd.	Jasodharpur Industrial Area Kotdwar District - Pauri
43	Anil Kansal	President	M/S Uttaranchal Steel Manufacturers Association	C/o Shree Sidhbali Steels Ltd. Kandali Road Kotdwar District - Pauri

SL. No.	Name	Designation	Organization	Address
44	R.N. Gupta	Rtd. Sr. A.E.	U.P.C.L.	150, Laxmi Nagar Gajraula District - J.P. Nagar
45		President	Akhil Bhartiya Kshatriya Mahasabha	Prabhu Sadan, Girital Road Kashipur District - U.S. Nagar
46		Gram Pradhan	Gram Panchayat Buksora	Gram Panchayat Buksora Vikas Khand Jaspur Buksora District - U.S. Nagar
47		BDC Member		Village Kunda Kashipur Kunda District - U.S. Nagar
48	Pramod Singh Tomar		Thakur Krishi Farm	Village Gopipura PO- Hempur (RTC) Kashipur District - U.S. Nagar
49	Dhirendra Singh Chauhan			Kashipur District - U.S. Nagar
50	Bhupendra Singh Saran	Block President	Bhartiya Kisan Union	Village Buksora PO - Kunda Kashipur District - U.S. Nagar
51	Bijendra Singh		UPSTC Katai Mill	Room No. 5/3 Kashipur Kashipur District - U.S. Nagar
52	Vijay Chauhan			Avas Vikas Colony Near Shiv Mandir Kashipur District - U.S. Nagar
53	Jenendra Pandey			C/O N. Negi Anand Vihar, Giri Tal Kashipur District - U.S. Nagar
54	Parveen Kumar			293 Shiv Nagar Kashipur Kashipur District - U.S. Nagar
55	Virendra			Kashipur Kashipur District - U.S. Nagar
56	Sayed Ahmad	General Secretary	Uttaranchal Power Engineers Association	Dehradun District - Dehradun
57	D.P. Sharma	President	Vidyut Pensoners Parishad Uttaranchal	84/1 Vasant Vihar Dehradun District - Dehradun
58	R.C. Rastogi	CMD	Khatima Fibres Ltd.	404-405 Vikas Deep Building District Centre Laxmi Nagar Delhi

SL. No.	Name	Designation	Organization	Address
59	Jay Bhawan Agrawal	Management Consultant		Murli Bhawan Rama Mandir Road Ramnagar District - Nainital
60	Sudhir Singh Tomar			258 Kanoon Goyan Street Kashipur District - U.S. Nagar
61	Mewalal			Bazpur Road Kashipur District - U.S. Nagar
62	Santlal			Jhareda Gaon Kaladhungi District - Nainital
63	Jaswant			Ramnnagar Road Kashipur District - U.S. Nagar
64	Ashok Kumar			Kashipur Road Ramnagar District - Nainital
65	Randhir Singh Tomar			258 Kanoon Goyan Street Kashipur District - U.S. Nagar
66	Ramlal			Kashipur Road Ramnagar District - Nainital
67	Anil Jain			Bazpur Road Kashipur District - U.S. Nagar
68	Trilokisharan Agrawal	President	Shivalikpuram Kalyan Samiti	32-Shivalikpuram GMS Road Dehradun District - Dehradun
69	Jitendra Kumar	President	Kumaun Garhwal Chamber of Commerce & Industry	Industrial Estate Bazpur Road Kashipur District - U.S. Nagar
70	Bridg. K.G. Behl	President	All India Consumers Council (AICC), Uttaranchal	8-A, Nemi Road Dehradun District - Dehradun
71			Bharat Hardware Store	Park Road Kashipur District - U.S. Nagar
72			Agrawal Steel Traders	Maheshpura Road Pank Park Kashipur District - U.S. Nagar
73			Pongia Hardware	Bazpur Road Kashipur District - U.S. Nagar
74			Sanitary House	Opp. Radhey Shyam Bldg. Station Road Kashipur District - U.S. Nagar

SL. No.	Name	Designation	Organization	Address
75			Bishambher Saran Vinod Kumar	Iron Merchants & Cement Stockist Railway Road Kashipur District - U.S. Nagar
76	Vinod Kumar Agrawal	President	Loha Vyapar Mandal	Kashipur District - U.S. Nagar
77	Jitendra Kumar	Authorised Representative	10 Industries	7th Km Moradabad Road Kashipur District - U.S. Nagar
78	Vinay Shankar Agrawal	President	Uttaranchal Pradesh Udyog Vyapar Pratinidhi Mandal	Mata Mandir Road Kashipur District - U.S. Nagar
79	Pankaj Gupta	President	Indian Industries Association	C/O Satya Industries Mohabewala Industrial Area Dehradun District - Dehradun
80		Gram Pradhan		Village Nevi Vikas Khand Kalsi Dehradun District - Dehradun
81	Ram Kumar Agrawal	President	Sahia Udyog Vyapar Mandal	Sahia Dehradun District - Dehradun
82	K.R. Kashyap	General Secretary	Uttaranchal Bijli Karmchari Sangh	21, Block-III Idgah Dehradun District - Dehradun
83		Secretary	Himalayan Chember of Commerce & Industry	Chuphal Bhawan Kusumkhera, PO - Haripurnayak Haldwani District - Nainital
84	Asad Wasi	Secretary	PHDC Chamber of Commerce	PHD House, Opp. Asian Games Village New Delhi
85	Vinod			Uttaranchal
86			Galwalia Ispat Udyog (P) Ltd.	Narain Nagar, Bazpur Road Kashipur District - U.S. Nagar
87	Jaspal Singh			Village Hinli PO - Darau Kichha District - U.S. Nagar
88	Arora			Kashipur District – U.S. Nagar
89	Praveen Gupta			Patel Nagar Kashipur District - U.S. Nagar
90	Arvind			Kashipur District - U.S. Nagar
91	Bhimsen			Kashipur District - U.S. Nagar

SL. No.	Name	Designation	Organization	Address
92	Pradeep Jain			Delhi
93	Ajay Kumar Agrawal			Delhi
94	R.S. Yadav	Jt. General Manager	India Glycols Ltd.	Kashipur District- U.S. Nagar
95	Sanjay Kumar Jain	President	Vyapar Mandal, Chakrata	Chakrata District - Dehradun
96	S.N. Shivpuri	Works Manager	Citurgia Biochemicals Ltd.	Dehradun
97		Dy. General Manager	Khurpia Krishi Farm	Khurpia Krishi Farm Kicha, District - U.S. Nagar
98	U.C. Tewari & Mr. D. L. Ojha	Manager / Sr. Executive	Honda Siel Power Products, Kashipur	U.S. Nagar
99	Tika Singh Saini	President	Sanyukta Kisan Sangharsha Samiti, Kashipur	Kashipur District – U.S. Nagar
100	D.S. Rawat		Khatima Polyplex, Khatima	Khatima District – U.S. Nagar
101	O.P. Agarwal			Rudrapur District – U.S. Nagar
102	P.D. Agarwal	President	Uttaranchal Rice Mills Association	Rudrapur District – U.S. Nagar
103	Ashok Bansal		Rudrapur Solvent	Rudrapur District – U.S. Nagar
104	K.S. Cheema	Secretary	Bhartiya Kisan Union	Kashipur District – U.S. Nagar
105	S.L. Shah	Vice President	Devbhumi Vyapar Mandal	Almora District – Almora
106	Sardar Inder Singh		Janta Stores	Almora District – Almora
107	Bansi Lal Kakkar			Lala Bazar, Almora District – Almora
108	Kaushal Saxena	Journalist & Writer		Haveli House, Almora District – Almora
109	J.S. Bisht		Hotel Shikhar	Almora District – Almora
110	Vinod Agrawal		Hotel Shyam	Almora District – Almora
111	Jagmohan Agarwal		Hotel Sagar & Suman Royal Resort	Kausani District – Almora
112	Girish Shah			Eton House, Rotorary Club, Nainital District - Nainital
113	Sanjay Agrawal		I.I.A.	Rishikesh District – Dehradun
114	Jagdish Kuliyal			Sheesham Jhari, Muni Ki Reti, District – Tehri Garhwal
115	Brigd. Ramesh Bhatia	President	Seema Dental College and Hospital	Rishikesh District – Dehradun
116	Sukhdev Singh			Chidderwala, Rishikesh District – Dehradun
117	J.D. Sharma	Secretary	Vyapar Mandal	Rishikesh District – Dehradun

SL. No.	Name	Designation	Organization	Address
118	R.K. Jain	Councilor / Jt. Secretary	Nagar Palika / Vyapar Mandal	Rishikesh District – Dehradun
119		GM(Commercial)	Uttaranchal Jal Vidyut Nigam Limited	UJJVAL, GMS Road, Dehradun
120			Indian Medical Association	Dehradun District – Dehradun
121	R.K. Agrawal	Director	Miniature Bulb Industires (P) Ltd.	Dehradun District – Dehradun
122	R.N.S. Rawat		Doon Rubber Industries Association	Dehradun District – Dehradun
123	S.K. Mittal	D.G.M.	HMT Ltd.	Ranibagh, Haldwani District – Nainital
124	Maj. S. Debnath	Major	MES	Dehradun District – Dehradun
125	S.K. Jain	Retd. CE	UPSEB	Vasant Vihar, Dehradun District - Dehradun
126	S.K. Gupta		Uttaranchal Industries Association	Dehradun District – Dehradun
127	M.M. Tayal		Doon Consumer Association	Dehradun District – Dehradun
128	S.P. Kochhar		Member of Hotel Association	Dehradun District – Dehradun
129	R.N. Mathur	Secy. General	Uttaranchal Hotel Association, Prince Hotel	Mussoorie District – Dehradun
130	A.P. Amoli		Uttaranchal Urja Kamgar Sangthan	18 E.C. Road, Dehradun District – Dehradun
131			Kumaon Tourism Forum	
132	B.D. Kandpal			Chaukhutia, Almora District – Almora
133	Er. G.L. Khandelwal	SE (Retd.)		Roorkee District - Haridwar
134	A.B. Giri	CMD	Uttaranchal Jal Vidyut Nigam Ltd.	UJJVAL, G.M.S. Road Dehradun
135	Secretary	Peyjal (Drinking Water)	Government of Uttaranchal	Government of Uttaranchal, Dehradun

9.5 Annexure 5: List of participants in public hearings

List of participants in public hearings on the Petition filed by UPCL for approval of Annual Revenue Requirement for Financial Year 2003-04

Hearing at Rudrapur, Udham Singh Nagar

SL. No.	Name	Designation	Organization	Address
1	Kulwant Singh			Kashipur
2	Bachhan Singh Rajbhumi Yadav			Fulsunga, Rudrapur
3	Ray Singh Panwar	State President	Bhartiya Kisan Morcha	Village Govindpur, Gularbhoj
4	Rajhu Tandon	Sr. Manager	Lalkuan Stone Crushers (P) Ltd.	Goraparaw, Haldwani
5	V.S. Solanki A.K. Dubey		Kesar Enterprises Ltd.	Nainital
6	Suresh Agrawal	Gen. Secretary	Uttaranchal Chawal Udyog Association	U.S. Nagar
7	Vipin Kumar			Rudrapur
8	Kuldeep Singh			Village Dhakia Kalan, Kashipur
9	Darbara Singh			Rudrapur
10	Subhash Gumbar	Gram Pradhan		Gadarpur
11	Manohar Prakash	Gram Pradhan		Dhapur Vijayan
12	Deepak Arora			Delhi
13	B. Singh			
14	M.C. Bansal	Advocate	G.K. Chamber of Commerce	Kashipur
15	O.P. A ja			Rudrapur
16	Manish Kumar	President	Rice Mill Association	Kashipur
17	Ujjwal Singh			Tiliyapur, Shaktifarm
18	Satnam Singh			Kashipur
19	Surendra Singh			Malsagirdhar, Lalpur, Kicha
20	Gider Singh			Kashipur
21	Ram Kumar	S.P. Salwal		Rudrapur
22	Hem Chandra Pandey			EDD Rudrapur
23	Safir Ahmad & Inder Jeet Singh			Rudrapur
24	Bhagwan Das O.P. Arora		Ankit Industries	Rudrapur
25	Iqbal Ahmad			Rudrapur
26	Sanjay Juneja			Rudra pur
27	Balwant Arora	President	Vyapar Mandal	Rudrapur
28	U.C. Tewari & Mr. D. L. Ojha	Manager / Sr. Executive	Honda Siel Power Products, Kashipur	U.S. Nagar
29	Tika Singh Saini	President	Sanyukta Kisan Sangharsha Samiti, Kashipur	Kashipur District – U.S. Nagar
30	D.S. Rawat		Khatima Polyplex, Khatima	Khatima District – U.S. Nagar

31	O.P. Agarwal			Rudrapur District – U.S. Nagar
32	P.D. Agarwal	President	Uttaranchal Rice Mills Association	Rudrapur District – U.S. Nagar
33	Ashok Bansal		Rudrapur Solvent	Rudrapur District – U.S. Nagar
34	K.S. Cheema	Secretary	Bhartiya Kisan Union	Kashipur District – U.S. Nagar
35	R.C. Rastogi	President	Khatima Fibres Ltd.	Khatima Fibres Ltd. Khatima
36	Jai Bhawan Agrawal		Kashi Vishwanath Steels Ltd.	Kashi Vishwanath Steels Ltd. Kashipur
37	R.M. Seth			Kashipur
38	Jitendra Kumar		Kumaon Garhwal Chambers of Commerce	Kashipur
39	S.L. Goyal & M.P. Srivastav		Century Pulp & Paper	Century Pulp & Paper, Lalkuan

Hearing at Almora

SL. No.	Name	Designation	Organization	Address
1	S.L. Shah	Vice President	Devbhumi Vyapar Mandal	Almora District – Almora
2	Sardar Inder Singh		Janta Stores	Almora District – Almora
3	Bansi Lal Kakkar			Lala Bazar, Almora District – Almora
4	Kaushal Saxena	Journalist & Writer		Haveli House, Almora District – Almora
5	J.S. Bisht		Hotel Shikhar	Almora District – Almora
6	Vinod Agrawal		Hotel Shyam	Almora District – Almora
7	Jagmohan Agarwal		Hotel Sagar & Suman Royal Resort	Kausani District – Almora
8	Dinesh Shah	President	Nainital Hotel's & Restaurant Association	Nainital
9	Girish Shah			Eton House, Rotorary Club, Nainital District - Nainital

Hearing at Muni-ki-Reti

SL. No.	Name	Designation	Organization	Address
1	Sanjay Agrawal			I.I.A. Rishikesh
2	M.N. Gahtari		UJVNL	Dehradun
3	Rahul Gupta		Seema Dental College and Hospital	Rishikesh Distt- Dehradun
4	Ram Chandra			Chhiderwala
5	S.S. Chopra	Asstt. Manager		Veerbhadra, Rishikesh
6	Jagdish Kuliyal			Sheesham Jhari, Rishikesh
7	Brigd. Ramesh Bhatia	President	Seema Dental College	Rishikesh
8	Sukhdev Singh			Chidderwala, Rishikesh
9	Jai Dutt Sharma	Secretary	Vyapar Mandal	Rishikesh
10	R.K. Jain	J. Secretary	Vyapar Mandal	Subhash Nagar Palika, Rishikesh

Hearing at Dehradun

SL. No.	Name	Designation	Organization	Address
1	Pawan Kumar			Kotdwar,
2	Lt. Col. V.K. Mallani			151/6,Rajpur Road, Dehradun
3	V.D. Chamoli		UPCL	Dehradun
4	Man Mohan Kansal		Dakpathar Vipar Mandal	Dakpathar, Dehradun
5	R.N.Sharma	President	Vidyut Pensioner Parishad	84/1, Vasant Vihar
6	D.P. Sharma	Retd. CE	Vidyut Pensioner Parishad	84/1, Vasant Vihar
7	Saied Ahmad	General Secretary	Uttaranchal Power Engineers Association	Dehradun
8	Rajendra Agarwal	Ex. Gram Pradhan	Sahia Vipar Mandal	Shahia, Dehradun
9	K.R. Kashyap			Dehradun
10	S.C. Saxena			35/1, E.C. Road,
11	Vishwa Mitra			36, Panchsheel Park, Chakrata Road
12	T.C. Singhal	Retd. SE	UPSEB	
13	D.C. Uniyal			4, Kalidas Road, Dehradun
14	Anil Goyal	State President	Prantiya Udyog Viaphar Mandal	13, Gandhi Road, Dehradun
15	M.L. Sharma			320/2 Rajendra Nagar, Dehradun
16	G.N. Kothiyal	J.E.	Uttaranchal Power Association	Dehradun
17	Asad Wasi		PHD Chamber of Commerce,	PHD House , New Delhi
18	R.C. Rastogi	Chairman	PHD Chamber of Commerce,	PHD House , New Delhi
19	S. Bhalla			Birla Yamaha ltd.
20	Pankaj Gupta		Indian Industries Association	Indian Industries Association, Dehradun
21	Rajiv Kumar Agrawal		The Miniature Bulb Pvt. Ltd.	The Miniature Bulb Pvt. Ltd. Dehradun
22	R.N.S. Rawat		Doon Rubber Industries	Doon Rubber Industries, Dehradun
23	S.K. Mittal	Dy. General Manager	HMT Ltd.	Ranibagh, Nainital
24	Maj. S. Debnath	Major	MES	Dehradun
25	Brigd. K.G. Behl	President	All India Consumers Council (AICC), Uttaranchal	8-A, Nemi Road Dehradun District - Dehradun
26	R. M. Seth		All India Consumers Council (AICC), Uttaranchal	Dehradun
27	S.K. Jain	Retd. CE	UPSEB	Vasant Vihar, Dehradun
28	S.K. Gupta		UIA	Dehradun
29	Anil Marwah		UIA	Dehradun
30	M.N. Tayal		Doon Consumer Forum	Dehradun
31	S.P. Kochhar		Hotel Association	Dehradun
32	R.N. Mathur		Prince Hotel	Dehradun
33	A.P. Amoli		Uttaranchal Urja Kamgar Sangthan	18 E.C. Road, Dehradun