

Order on Generation Tariff

for

Nine Plants

of

Uttaranchal Jal Vidyut Nigam Ltd.

16th December 2004

UTTARANCHAL ELECTRICITY REGULATORY COMMISSION

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Before

UTTARANCHAL ELECTRICITY REGULATORY COMMISSION

Petition No.: 04 of 2004

In the Matter of:

Determination of tariffs for electricity generated in nine hydro generating stations of Uttaranchal Jal Vidyut Nigam Ltd. (UJVNL), a Government owned company in the State.

AND

In the Matter of:

Subsequent Petition number 4 of 2004 (Application Nos. 25/2004 to 33/2004) filed by UJVNL on 15.09.2004 for determination of tariffs of nine generating stations.

Coram

Sh. Divakar Dev

Chairman

Date of Order: 16th December 2004

These proceedings for determination of tariff of Uttaranchal Jal Vidyut Nigam Ltd. (hereinafter referred to as "UJVNL" or "Petitioner")'s nine generating stations were started by the Commission in exercise of its powers under section 86(1)(a) of the Electricity Act, 2003 read with Regulation 24 of Uttaranchal Electricity Regulatory Commission (Conduct of Business) Regulations, 2002 read with Regulation 10 of Uttaranchal Electricity Regulatory Commission (Conduct of Business) Regulations, 2004. While starting these *suo-moto* proceedings, the Commission allowed UJVNL yet another opportunity for filing their proposals with respect to tariffs of these generating stations. UJVNL whose failure to file the tariff proposals had necessitated Commission's *suo-moto* action, finally responded and filed nine petitions (hereinafter referred to as "Petition" or "Petitions") for determination of generation tariffs of their nine generating stations. Many of the issues to be addressed in these proceedings and in UJVNL's above petitions being common, the Commission while admitting UJVNL's petitions on 11-10-2004 directed that they may all be clubbed together and taken up for consideration in these proceedings. The Commission having considered the submissions made by UJVNL and the responses/objections received from various stakeholders is passing this final order in the *suo-moto* proceedings and also finally disposing off the nine petitions filed by UJVNL on 15.09.2004. For sake of convenience, this order is divided into 5 Chapters.

1. Background and Procedural History

1.1 Background

1.1.1 Position in the undivided Uttar Pradesh

Before the creation of Uttaranchal State, the generation of electricity from hydro and thermal generating stations in the State of Uttar Pradesh was done by Uttar Pradesh Jal Vidyut Nigam Ltd. (UPJVNL) and Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd. (UPRVUNL) respectively, both being wholly owned Government companies. The erstwhile UP State Electricity Board (UPSEB) had been unbundled under the UP Electricity Reforms Act, 1999. Under this Act, UP Government notified a Provisional Transfer Scheme on 14.01.2000 and, thereafter, the Final Transfer Scheme on 25.01.2001, under which the assets and liabilities of UP State Electricity Board, which had been vested in the UP Government, were in turn transferred to UPJVNL along with UPRVUNL and Uttar Pradesh Power Corporation Limited (UPPCL) w.e.f. 14.01.2000. The values of hydro generation assets and related liabilities so transferred to UPJVNL under the Final Transfer Scheme are as given in the Table 1.1 below:

Table 1.1: Assets and Liabilities Transferred to UPJVNL

| Assets (Rs. crore) | | Liabilities (Rs. crore) | |
|--------------------------------|---------------|--------------------------------|---------------|
| Gross Fixed Assets | 943.38 | Equity | 372.18 |
| Less: Accumulated Depreciation | (463.91) | Loans | 403.18 |
| Net Fixed Assets | 479.46 | PF Trust | 55.08 |
| Works-in-Process | 352.59 | Current Liabilities | 73.65 |
| Current Assets | 72.04 | | |
| Total | 904.10 | | 904.10 |

The total installed capacity of Hydro generating stations in undivided UP was about 1520 MW comprising of thirteen medium/large generating stations, thirteen small and twenty eight micro hydro generating stations. Out of these nine large/medium, nine small, and 23 micro-hydel generating stations are said to have been transferred to UJVNL, the balance remaining with UP.

Transmission, distribution and supply of electricity was being done by UPPCL, another wholly owned Government Company, which was the sole purchaser of entire electricity produced by UPJVNL and UPRVUNL. The Uttar Pradesh Electricity Regulatory Commission (UPERC) approved the rates of power purchased by UPPCL from these sources along with its retail tariffs.

Prior to transfer of these units to Uttaranchal, UPERC approved the power purchase cost to be paid by UPPCL to UPJVNL in 2000-2001 as 35 paisa/unit. In the year 2000-01, an agreement for purchase of the entire power produced by UPJVNL at a derived average price of 37.2 paisa/unit was signed with UPPCL. This agreement was for three years (2001-02 to 2003-04) and was binding on successor entities of the two signatories. This agreement and the pooled rate of 37.2 paisa/unit derived therefrom, was approved by UPERC in their tariff order for the year 2001-02.

1.1.2 Position after Creation of Uttaranchal State

The State of Uttaranchal came into existence on 9th November 2000 in accordance with the provisions of Uttar Pradesh Re-organization Act, 2000 (Re-organization Act) enacted by the Parliament on 25.8.2000. Section 63 of this Act spelt out the principles for division of assets, rights and liability between the two states of Uttaranchal and Uttar Pradesh.

The Government of Uttaranchal registered a company on 12.02.2001 by the name of Uttaranchal Jal Vidyut Nigam Limited (UJVNL) in accordance with sub-section (4) of section 63 of the Re-organization Act. Government of India, in exercise of its powers under section 63 of the Uttar Pradesh Re-Organization Act, 2000 issued an order on November 5, 2001 transferring certain assets, rights and liabilities from UPJVNL to UJVNL. Amongst other things, this order laid down that:

“

(a) Assets

- (i) *Fixed assets (land and buildings, installed plants and machinery, transmission and distribution systems, etc.) of Uttar Pradesh Power Corporation Limited and Uttar Pradesh Jal Vidyut Nigam Limited situated in Uttaranchal, shall be transferred to Uttaranchal Power Corporation Ltd. and Uttaranchal Jal Vidyut Nigam Ltd., as the case may be. Fixed assets situated in the Successor State of Uttar Pradesh will remain with Uttar Pradesh Power Corporation Limited and Uttar Pradesh Jal Vidyut Nigam Limited.*
- (ii) *Movable assets and stores of the field units shall be transferred on the basis of location. Stores, furniture and vehicles of the Head Officers shall be apportioned according to the year of purchase in the ratio of consumption of power in the case of Uttar Pradesh Power Corporation Limited and in the ratio of hydro power capacity in the case of Uttar Pradesh Jal Vidyut Nigam*

Limited, except the project/scheme-specific stores which shall be allocated to the concerned Corporation to whom the project/scheme related liabilities are being transferred.

(b) Liabilities

- (i) Project/Asset specific liabilities of the Uttar Pradesh Power Corporation Limited, and Uttar Pradesh Jal Vidyut Nigam Ltd shall be passed on to the Uttaranchal Power Corporation Limited and Uttaranchal Jal Vidyut Nigam Limited, as the case may be, where such project/asset has been transferred to Uttaranchal Power Corporation Limited and Uttaranchal Jal Vidyut Nigam Limited as the case may be.
- (ii) The liabilities of the Uttar Pradesh Power Corporation Limited and Uttar Pradesh Jal Vidyut Nigam Limited which cannot be assigned under sub-clause (i) to any project/asset, shall be apportioned between Uttar Pradesh Power Corporation Limited and Uttaranchal Power Corporation Limited, and between Uttar Pradesh Jal Vidyut Nigam Limited and Uttaranchal Jal Vidyut Nigam Limited in the ratio of consumption of power.

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3. Arrangement regarding Power

In exercise of the powers conferred under section 64 of the Uttar Pradesh Re-organisation Act, 2000 the Central Government hereby orders that the State of 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 Uttar Pradesh Jal Vidyut Nigam Ltd, existing as on date of this transfer, after meeting the consumption requirements of Uttaranchal.”

1.2 Power Generation in Uttaranchal

As stated earlier, the generating stations transferred to UJVNL from erstwhile UPJVNL included nine large/medium, nine small and 23 micro-hydel stations. The details of these generating stations are given in the Table 1.2 below.

At present, the total capacity for power generation in Uttaranchal is 1131.48 MW, of this 1004.76 MW is of UJVNL’s generating stations, 4.50 MW is of an Independent Power Producer and balance 120 MW is of National Hydroelectric Power Corporation Ltd.

1.3 Prevailing Tariff

As stated earlier, at the time of transfer of these generating stations to Uttaranchal, the

pooled rate of power purchase approved by UPERC was 37.2 p/unit. Notwithstanding this, UJVNL raised this rate to 55 p/unit w.e.f 09.11.2001 without bothering to obtain regulatory approval. A petition for fixing the retail tariff for the State Uttaranchal was filed by UPCL before this Commission on 14.05.2003. The Commission while considering this petition found UJVNL's action of increasing the approved rate of power purchase on its own to be without authority and in violation of law and, therefore, did not allow the same. Instead, it ordered continuance of the rate of 37 paise/unit, already approved by UPERC, as adhoc rate and directed that the updated rate for such purchases may be worked out and submitted for Commission's approval. Further, it was stated that the updated rate, as approved by the Commission, will replace the above adhoc rate of 37 p/unit. No such updated rate has so far been submitted before the Commission for approval and presently power continues to be purchased from UJVNL at this adhoc rate of 37 p/unit.

Table 1.2: Details of Stations Transferred to Uttaranchal

| Sl. No. | Category | Region | Year of Commissioning | No. | Capacity (MW) | Aggregate Capacity (MW) |
|----------|----------------------------------|-------------------|-----------------------|-----------|--|-------------------------|
| 1 | Large Hydro Project | | | 4 | 100 MW and above | 702.00 |
| | a) Chhibro | Yamuna Stage-II | 1974-76 | 1 | 4X60 | 240.00 |
| | b) Chilla | Garhwal-Rishikesh | 1980-81 | 1 | 4x36 | 144.00 |
| | c) Ranganga | | 1975-76 | 1 | 3x66 | 198.00 |
| | d) Khodri | Yamuna Stage-II | 1983-84 | 1 | 4x30 | 120.00 |
| 2 | Medium Hydro Projects (5) | | | 5 | More than 25MW and up to 100 MW | 246.15 |
| | a) Maneri- Bhali | Stage-I | 1984-85 | 1 | 3x30 | 90.00 |
| | b) Dhakrani | Yamuna Stage-I | 1965-70 | 1 | 3x11.25 | 33.75 |
| | c) Dhalipur | Yamuna Stage-I | 1965-70 | 1 | 3x17 | 51.00 |
| | d) Kulhal | Yamuna Stage-IV | 1974-76 | 1 | 3x10 | 30.00 |
| | e) Khatima | | 1955-56 | 1 | 3x13.8 | 41.40 |
| 3 | Small Hydro Projects | | | 9 | More than 1 MW and upto 25 MW | 47.55 |
| 4 | Micro Hydel Projects | | | 23 | Below 1 MW | 8.58 |
| | Total | | | 41 | | 1004.28 |

1.4 Present Proceedings

The Electricity Act, 2003 came into force on 10.06.2003, and clause (a) of sub-section (1) of section 62 requires this Commission to determine the tariff for supply of electricity by a generating company to a distribution licensee. Further, clause (a) of sub-section (1) of section 86 again requires this Commission to determine tariff for generation within the State. To facilitate filing of its

proposals in this regard, the Commission sent to UJVNL some formats as early as 23.01.2004. On 14.05.2004, the Commission notified Uttaranchal Electricity Regulatory Commission (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2004 (hereinafter referred to as “Regulations”) spelling out the principles for determination of the tariff of generating stations. Notwithstanding all this and though sufficient time had elapsed since these provisions came into effect, the Petitioner did not file any application for determination of tariffs for any of its generating stations.

The Commission, having waited for about 15 months, decided to take *suo-moto* action and started these proceedings for determining tariffs for the Petitioner’s generating stations in the State. The Commission passed an order to this effect on 31.08.2004, giving the Petitioner yet another opportunity to file its costs and proposals for Commission’s consideration. Thereupon, on 15.09.2004, the Petitioner finally filed nine Petitions pertaining to its hydro generating stations namely Dhakrani, Dhalipur, Chibro, Khodri, Kulhal, Ramganga, Chilla, Maneri Bhali-I (Tiloth) and Khatima. While admitting these Petitions, the Commission directed that they might be taken up for consideration along with the *suo-moto* proceedings already initiated by the Commission on 31.08.2004. Thereafter, Public Notices were issued inviting responses to the proposals from various stakeholders.

Information vital for proper determination of Petitioner’s costs and, therefore, required to be filed as per the formats sent to the Petitioner on 23.01.2004 had not been furnished even with these Petitions. This was, therefore, requested for once again in Commission’s letter dated 18.09.2004 but was still not furnished. The Commission, therefore, resorted to its powers under section 94 of the Electricity Act, 2003 and summoned following information:

- (i) Audited statement of accounts for FY 2002-03
- (ii) Provisional statement of accounts for FY 2003-04
- (iii) Cash flow statements from 01.04.2004 to 31.08.2004
- (iv) Station-wise actual Operation & Maintenance expenses for 5 years (1998-99 to 2002-03)
- (v) Station-wise values of gross fixed assets, category wise breakup of the same and accumulated depreciation as given in the Transfer Scheme notified by UP Government under the UP Reforms Act and updated position of the same.

Thereupon all the above information, barring the following was submitted:

- (i) Audited statement of accounts for FY 2002-03 (The reason given is that the accounts have not yet been audited).
- (ii) Break-up of GFA (The reason given is that the Transfer Scheme notified by UP Government under UP Electricity Reforms Act does not contain the break-up of plant-wise or category-wise assets and accumulated depreciation thereon.

The Commission sought further information at different stages, some of which has been filed by the Petitioner.

1.5 Stakeholders' Participation

Petitioner's proposals were notified for information of all stakeholders and a total of 12 responses were received in writing by the prescribed date i.e. 01.11.2004. Another 8 responses including that of Uttaranchal Power Corporation Limited (UPCL), the distribution licensee, were received after the prescribed date but before the public hearing held by the Commission on 18.11.2004 (List attached as Annexure I). In the public hearing, a total of 17 persons presented their views on these proposals (List attached as Annexure II). All the responses that were received in writing or made orally before the Commission were sent to the Petitioner for comments.

Again after the above said hearing UJVNL, the Petitioner, vide its letter dated 1.12.2004, sought an opportunity for personal hearing by the Commission. The Commission accepted its request and fixed a hearing on 6.12.2004 for personally hearing the Petitioner. At the same time, the licensee, UPCL, who is the sole buyer of UJVNL's existing generation, was also given an opportunity to be heard. The hearing was attended by Sri S. Ratnam, Director Finance, Sri S.P. Singh, Director (Operations), Sri R. Sandhu, Executive Director and Sri Ajay Garg, DGM, all from UJVNL. From UPCL side, Sri A.K. Agarwal, General Manager (Commercial) and Sri P. Kushwaha General Manager (Distribution) were present.

During the hearing, Sri Ratnam, who was representing the Petitioner, only reiterated their position on some of the claims like return on equity, R&M Expenditure and Design Energy made in the Petitions and gave the same in writing also. The Commission also gave an opportunity to UPCL, but they had nothing to add to what they had submitted earlier in writing.

Petitioner's proposals were also discussed in the Advisory Committee's meeting held on 29.11.2004.

2. Petitioner's Submissions and Proposals

2.1 Petitioner's Submissions

2.1.1 Common to all stations

In the Petition filed by UJVNL, number of submissions have been made to support the contention that, UJVNL be treated differently from other hydro generating stations whose tariff is determined in accordance with the regulations issued by the Central Electricity Regulatory Commission, which are the basis for the Regulations issued by this Commission and applicable on the Petitioner. In this context, it has been pleaded with respect to all generating stations covered by these Petitions that:

- (i) There has been limited transfer of data and information from the UPSEB/ UPJVNL to the Petitioner and, therefore, the Petitioner is not in a position to provide details prescribed by the Regulations for periods prior to March 2002.
- (ii) Documents such as the Detailed Project Reports, CEA clearances or Project Completion Reports having not been transferred from UPJVNL, the Petitioner is unable to provide the cost of these projects or station-wise design energy initially fixed. However, the design energy of the various plants as stipulated in the Power Purchase Agreement (PPA) entered into between UPJVNL and UPPCL on December 18, 2000 has been provided.
- (iii) Even the above design energy is significantly higher than the generation scheduled by the Petitioner for the tariff year (2004-05) for following reasons:
 - a. The hydrology trends in FY 2004-05 (tariff year) have not been encouraging and in Yamuna basin, in particular, there has been severe reduction in discharge.
 - b. Restrictions placed by Irrigation Department on discharge capacity of tunnels and power channels.
 - c. Restriction on drawl of water by Irrigation Department.
 - d. Silting up of Upper Ganga Canal.
- (iv) Details regarding O&M expenses have been historically maintained at one plant for a number of plants in the respective basins. Considering the difficulties in identifying expenses relating to each individual plant, the Petitioner has allocated these expenses for the purpose of this filing.

- (v) These plants were in a state of neglect and no meaningful repair and maintenance had been undertaken in the past. Their O&M expenses have, therefore, been projected not as per the Regulations but on their requirements assessed by the Petitioner. Further;
- a. These plants being old require heavy expenditure on repair and maintenance. For the tariff year a provision of Rs. 8.58 crore has been made for the repair of runners and underwater part, turbine vanes and casings;
 - b. Expenditure of Rs. 12 crore towards repair and maintenance of the power channel between Dakpatthar and Dhalipur, has been claimed as the power channel lining has been completely eroded which poses a risk for public safety;
 - c. The Petitioner has been compelled to initiate the process of recruitment of 91 Assistant Engineers and 146 Junior Engineers due to shortage of officers in certain key operating levels. The Petitioner has claimed additional expenditure of Rs. 5 crore on this account;
 - d. The Government of Uttaranchal has directed the Petitioner to engage the services of a specialized force, "Rajya Raksha Vahini" and of the "Uttaranchal Poorva Sainik Udyam Limited";
 - e. There is need to provide for the employee terminal liabilities that were hitherto not provided for. The key costs on this account are:
 - GPF Liabilities
 - Employee trust funding requirements
 - Leave encashment
 - Insurance (Group Accident Insurance Scheme)

The Petitioner has stated that the corpus estimated at approximately Rs. 86 crore is still lying with UP Power Sector Employees Trust. Therefore, interest burden on Rs. 86 crore @ 8% amounts to Rs. 6.88 crore, and extra burden towards payment of non-refundable loans and final settlement of retired employees estimated at Rs. 70 lacs per month, aggregating to Rs. 15.28 crore is required on this account. The Petitioner has apportioned this amount to individual units, based on number of employees covered under GPF.
 - f. The Petitioner has been directed by the State Government to include in its tariff proposal salaries including facilities (coal/uniforms/gumboots) and establishment costs of Rs. 14.1 crore on account of Irrigation Department personnel;

- g. Regulatory fees to the tune of Rs.1 crore per annum;
 - h. In spite of Government of Uttaranchal direction to UPCL to take over the distribution function in Yamuna, Rishikesh and Srinagar colonies occupied by employees of various departments and organizations including UPCL, Irrigation Department, Forest Department, the Petitioner continues distribution of electricity to these colonies in absence of any alternative arrangements.;
 - i. An additional expense of Rs. 3.45 crore towards repair of office buildings and roads at the plants, basin headquarters and head office has been claimed for the tariff year;
- (vi) The Petitioner has assumed all equity beyond 30% of the project's capital costs to attract the same rate as debt which has been claimed to be as per the Regulations. The rate of interest for such assumed debt has been claimed at 10.25%, which is the short-term PLR for State Bank of India.
- (vii) Consumption of barrages/colonies/dams/lighting of power channels based on actual energy measurement data has been claimed as auxiliary consumption though the same is not in accordance with the Regulations.

2.1.2 Specific Submissions

In addition to above common points, following plant specific submissions have been made by the Petitioner:

- (i) Full generation capacity at Ramganga cannot be exploited due to restrictions imposed by the Uttar Pradesh Irrigation Department on drawl of water.
- (ii) The water level in the Ramganga reservoir is the lowest in history and would require substantial time for replenishment.
- (iii) The Maneri Bhali station has to be shut down during monsoons on account of silt containing sharp quartz particles that erode the underwater parts at a time when record generation could be achieved.
- (iv) Generation at Khodri also depends on the operation of Chibro. Due to restrictions imposed on account of limitations of civil structures, Head Race Tunnels (HRT 1, HRT 2) and the Ichari dam regulations, generation in Chibro and Khodri cannot exceed 180 MW and 80 MW respectively.
- (v) The Khatima generating station is almost 50 years old and much of the equipment and

water conductor system have outlived their useful life. In particular, the underwater parts have been eroded badly. The plant also has a problem of silt accumulation resulting in low efficiency.

- (vi) Ingress of trash in the power channel is affecting generation in most of the power plants during monsoon. Upstream of Dakpatthar and Asan barrages there has been considerable siltation and the pondage capacity has reduced considerably.

For the reasons enumerated above the Petitioner has claimed that the reliability and efficiency of its plants is low and, therefore, the normative capacity index (for recovery of full fixed charges), as specified in the Regulations, should not be kept at par with the relatively new stations of Central Power Sector Undertakings, and should be suitably adjusted.

2.2 Petitioner's Proposals

Specific propositions made in the Petitions are enumerated hereafter:

2.2.1 Design Energy and the Projected Generation

The originally fixed design energy of these plants is not available, therefore, the design energy as per the PPA entered into between UPJVNL & UPPCL on December 18, 2000 has been furnished. However, for tariff computation, projected generation of these stations, based on the actual generations till August 2004 and estimates for the remaining months of 2004-05, be treated as the design energy of these plants.

The design energy as per the PPA and projected generation for each of the nine stations for the tariff year as proposed by the Petitioner are given in Table 2.1 below:

Table 2.1: Design Energy and Projected Generation in (MUs)

| Plant | Design Energy as per PPA | Actual Generation in April - August 2004 | Projected generation from September 2004-March 2005 | Projected generation for Tariff Year 2004-05 |
|--------------|--------------------------|--|---|--|
| Dhakrani | 169.00 | 65.27 | 56.00 | 121.27 |
| Dhalipur | 192.00 | 64.18 | 84.00 | 179.52 |
| Chibro | 750.00 | 321.22 | 340.00 | 661.22 |
| Khodri | 345.00 | 151.97 | 159.00 | 310.97 |
| Kulhal | 164.00 | 64.18 | 54.00 | 118.18 |
| Ramganga | 311.00 | 53.86 | 161.00 | 214.86 |
| Chilla | 725.00 | 354.53 | 340.00 | 694.53 |
| M Bhali I | 395.00 | 186.06 | 277.00 | 463.06 |
| Khatima | 208.00 | 80.17 | 93.00 | 173.17 |
| Total | 3259.00 | 1341.44 | 1564.00 | 2936.78 |

Generation of five stations viz. Chibro, Khodri, Dhakrani, Dhalipur, Kulhal in the Yamuna Valley is shared between Himachal Pradesh (25% for 4 and 20% for Kulhal) and Uttaranchal (75% for 4 and 80% for Kulhal), the two beneficiaries.

2.2.2 Capital Cost

The Petitioner has divided the Gross Fixed Assets of Rs. 608.21 crore as on 31.3.2002 plant-wise on some age-cum capacity based weighted average factor. To this addition of Rs. 11.65 crore made in FY 2002-03 and FY 2003-04 have been added to arrive at the updated value of fixed assets as on 31.03.04. The plant-wise values of Gross Fixed assets value of Rs. 619.86 crore so claimed by the Petitioner is given in Table 2.2 below:

Table 2.2 : Proposed Capital Cost (Rs. crore)

| Name of the Plant | Total Asset Block |
|-------------------|-------------------|
| Dhakrani | 17.59 |
| Dhalipur | 26.13 |
| Chibro | 148.51 |
| Khodri | 95.64 |
| Kulhal | 17.80 |
| Ramganga | 124.43 |
| Chilla | 104.08 |
| M Bhali 1 | 71.66 |
| Khatima | 14.00 |
| Total | 619.86 |

2.2.3 Additional Capitalisation

The Petitioner has proposed further addition in the gross fixed assets value of Rs. 6.93 crore during the tariff year 2004-05. The plant-wise breakup of these proposed additions is as given in Table 2.3 given below:

Table 2.3 : Proposed Additional Capitalization (Rs. crore)

| Name of the Plant | Additional Capitalization |
|-------------------|---------------------------|
| Dhakrani | 0.10 |
| Dhalipur | 0.04 |
| Chibro | 2.99 |
| Khodri | 1.95 |
| Kulhal | 0.04 |
| Ramganga | 0.11 |
| Chilla | 1.49 |
| M Bhali 1 | 0.17 |
| Khatima | 0.05 |
| Total | 6.93 |

2.2.4 Interest on loans

The Petitioner has claimed 70% of the Capital Cost as normative loan bearing interest at 10.25% per annum. On this repayment had been assumed from the date of CoD equal to depreciation claimed and on balance normative loan Rs. 4.58 crore has been claimed as interest. The plant-wise interest cost so claimed by the Petitioner is as given in Table 2.5 given below.

2.2.5 Return on Equity

The Petitioner has claimed 30% of the entire capital cost as equity on which return @ 14% per annum has been sought. The amount so claimed by the Petitioner works out to Rs. 26.44 crore. The plant-wise return on equity claimed by the Petitioner is as given in Table 2.5 below.

2.2.6 Depreciation

Since the accounting data inherited by it categorises assets in fewer categories than specified in the Regulations, the Petitioner has estimated the weighted average rate of depreciation for the plants based on the asset-wise age-wise classification of Gross Fixed Assets as on 31.03.2002 and used the same for computing the depreciation cost for 2004-05 by showing additions in different categories in the intervening period. Based on this, the Petitioner has claimed Rs. 15.42 crore towards depreciation. Plant-wise breakup of depreciation claimed is given in Table 2.5 below.

2.2.7 Operation and Maintenance (O&M) expenses

The Petitioner has claimed that since these plants are old and require heavy expenditure on repair and maintenance, the O&M expenditure of previous years cannot be used to estimate the expenses in the tariff year. Departing from the Regulations, the Petitioner has claimed Rs. 146.69 crore towards O&M expenses for the tariff year 2004-2005. The plant-wise and component-wise O&M expenses so claimed by the Petitioner are given in Table 2.4 below.

2.2.8 Interest on Working Capital

The Petitioner has assumed the cost of working capital financing at 10.25% per annum, which is in line with the current cost of financing of working capital for the utility. The Petitioner has claimed Rs. 7.89 crore towards interest on working capital. Plant-wise position of interest on working capital claimed by the Petitioner is given in the Table 2.5 given below:

Table 2.4: Proposed O&M Expenses (Rs. crore)

| Plant | Consumption of Stores & Spares | R& M Expenses | Employee Costs | A&G Expenses | Total |
|----------------|---|--------------------------|-----------------------|-------------------------|---------------|
| Dhakrani | 0.03 | 10.80 | 5.81 | 0.43 | 17.07 |
| Dhalipur | 0.02 | 8.57 | 6.23 | 0.48 | 15.30 |
| Chibro | 0.03 | 9.59 | 18.91 | 1.83 | 30.36 |
| Khodri | 0.03 | 4.61 | 10.31 | 1.14 | 16.09 |
| Kulhal | 0.01 | 2.33 | 4.06 | 0.36 | 6.76 |
| Ramganga | 0.07 | 3.51 | 9.04 | 1.33 | 13.95 |
| Chilla | 0.22 | 7.19 | 11.56 | 1.27 | 20.24 |
| Maneri Bhali-I | 0.02 | 8.65 | 9.98 | 0.87 | 19.52 |
| Khatima | 0.12 | 3.05 | 3.84 | 0.39 | 7.40 |
| Total | 0.55 | 58.30 | 79.74 | 8.10 | 146.69 |

2.2.9 Tax on Income

The Petitioner has claimed Rs. 17.34 crore towards Tax on income for the tariff year 2004-2005. The plant-wise Tax on income claimed by the Petitioner is presented in Table 2.5 below.

2.2.10 Annual Fixed Charges (AFC)

Based on the above claims, the Petitioner has claimed Rs. 218.35 crore as the Fixed Annual Charge for the tariff year 2004-2005. Plant-wise breakup of the same is given in Table 2.5 below.

Since part of UJVNL's generation is supplied to Himachal Pradesh, plant-wise breakup of the Annual Fixed Charges for the tariff year 2004-05 allocated to UPCL by the Petitioner is given in Table 2.5 below.

2.2.11 Tariff

The Petitioner has calculated the per unit rates payable by UPCL by dividing the Annual Fixed Charges it has attributed to UPCL by energy proposed to be sold to it. The same has then been divided into the primary energy rate and rate of capacity charges. The rates so proposed by the Petitioner for each of its plants are given in the Table 2.5 given below:

Table 2.5 : Proposed AFC and Tariff

| Plant | Interest on Loan (Rs. crore) | Return of Equity (Rs. crore) Depreciation for FY 05 (Rs. crore) | | O & M Expenses (Rs. crore) | Interest on Working Capital (Rs. crore) | Tax on income for the Year (Rs. Cr.) | Annual Fixed Charges (Rs. crore) | Total Saleable units (MU) | Saleable units to UPCL (MU) | Annual Fixed Charges allocated to UPCL (Rs. crore) | Average per unit tariff (Rs./kWh) | Rate of Primary Energy (Rs./kWh) | Rate of Capacity Charge (Rs./kWh) | Annual Capacity Charge (Rs. crore) |
|--------------|---------------------------------|--|--------------|-------------------------------|--|---|-------------------------------------|---------------------------|--------------------------------|--|--------------------------------------|-------------------------------------|--------------------------------------|---------------------------------------|
| a | b | c | d | e | f | $g=r^*(b+c)/$ $(1-r)$ $r=0.3588$ | $h=Sum$ $(b:g)$ | i | j | $k=h*j/i$ | $l=k/j$ | m | n | $o=n*j$ |
| Dhakrani | 0.03 | 0.75 | 0.29 | 17.08 | 0.60 | 0.43 | 19.18 | 118.99 | 89.25 | 14.69 | 1.65 | 0.69 | 0.96 | 8.49 |
| Dhalipur | 0.01 | 1.10 | 0.42 | 15.30 | 0.63 | 0.62 | 18.09 | 177.11 | 132.83 | 14.00 | 1.05 | 0.69 | 0.36 | 4.77 |
| Chibro | 0.26 | 6.39 | 3.93 | 30.37 | 1.81 | 3.72 | 46.47 | 645.23 | 483.93 | 37.45 | 0.77 | 0.69 | 0.08 | 3.83 |
| Khodri | 1.83 | 4.12 | 2.50 | 16.09 | 0.91 | 3.33 | 28.76 | 303.77 | 227.82 | 23.89 | 1.05 | 0.69 | 0.36 | 8.06 |
| Kulhal | 0.01 | 0.75 | 0.46 | 6.76 | 0.30 | 0.42 | 8.71 | 115.51 | 92.41 | 7.21 | 0.78 | 0.69 | 0.09 | 0.79 |
| Ramganga | 0.02 | 5.25 | 3.23 | 13.94 | 1.17 | 2.95 | 26.57 | 209.47 | 209.47 | 26.57 | 1.27 | 0.69 | 0.58 | 12.01 |
| Chilla | 1.02 | 4.45 | 2.72 | 20.24 | 1.14 | 3.06 | 32.62 | 689.68 | 689.68 | 32.62 | 0.47 | 0.47 | 0.00 | 0.00 |
| MBhali 1 | 1.40 | 3.03 | 1.87 | 19.52 | 0.86 | 2.48 | 29.15 | 455.94 | 455.94 | 29.15 | 0.64 | 0.64 | 0.00 | 0.00 |
| Khatima | 0.00 | 0.59 | 0.00 | 7.40 | 0.46 | 0.33 | 8.79 | 170.85 | 170.85 | 8.79 | 0.51 | 0.51 | 0.00 | 0.00 |
| Total | 4.58 | 26.43 | 15.42 | 146.69 | 7.89 | 17.34 | 218.35 | 2886.55 | 2552.18 | 194.37 | | | | 37.95 |

3. Responses from Stakeholders

Issues raised by various stakeholders during these proceedings and Petitioner's responses to the same are enumerated hereafter. Many issues are common and have been raised by more than one respondent. Such issues have been clubbed and have been dealt with subject-wise and not respondent-wise.

3.1 Power Purchase Agreement (PPA) between Generating Company and Licensee

3.1.1 Response from stakeholders

UPCL has stated that after unbundling of erstwhile UPSEB, the pooled rate of power for purchase by Uttar Pradesh Power Corporation Limited (UPPCL) from Uttar Pradesh Jal Vidyut Nigam Ltd (UPJVNL) was determined for each hydro plant on the basis of duly approved data taking into account previous years' actual of each generating station and this worked out to 35 Paise per unit. Plant-wise details of expenses and generation were taken into account for working out the selling rate and were also published in Annual Financial Statement of UPPCL for FY 2000-01. The UP Electricity Regulatory Commission in the first ARR filed by UPPCL accepted this rate and further directed the parties to finalize a PPA, which was signed on 18.12.2000 between UPJVNL and UPPCL. This PPA was based on the following major items:

- (i) Installed Capacity of each plant decided on the basis of Transfer Scheme.
- (ii) Accumulated Depreciation taken as per the Transfer Scheme upto 90% of the Gross Fixed Assets.
- (iii) Design Energy on the basis of last 15 years of actual generation of each plant.
- (iv) Interest on Loan as per Transfer Scheme including working capital.
- (v) O&M Expenses @1.5% of capital cost @ 4 crore per MW, escalated thereafter.
- (vi) Return on Equity was provided as per the capital structure.

The above PPA was approved by UPERC and remained in operation even after separation of UJVNL and UPCL from UPJVNL and UPPCL respectively as per clause 19 of the agreement. Similarly, the period of the agreement which expired on 31.03.2004 was extendable/reviewable by mutual agreement as per clause 1.01. However, it was stipulated that if UPCL continues to get power from UJVNL's hydro power generating stations even after expiry of this agreement without further renewal or formal extension thereof, then all the provisions of this agreement shall continue

to operate till this agreement is formally renewed/ extended or replaced. Since no such action was taken at the level of any party, there is sufficient ground to hold that this agreement has continued on year-to-year basis. Hence, it was incumbent upon UJVNL to file the tariff proposal as per the provisions of the agreement and the procedure laid down in Annexure-I of the agreement.

Other stakeholders have pointed out that the Petitioner should have taken initiative for execution of the fresh PPA. Since the Regulations were notified, it was duty of UJVNL to submit a draft agreement based on the principles laid down in the Regulations for execution of the fresh PPA but no such initiative was taken.

3.1.2 Petitioner's Response

The Power Purchase Agreement dated 18.10.2000 executed between UPJVNL and UPPCL has admittedly come to an end on 31.3.2004. UJVNL, by various letters/communications, expressed its unambiguous intention that the said Agreement will not be extended and that a fresh PPA will have to be executed on mutually agreed terms. Hence, UPCL's reference/reliance on the terms and conditions of the said Agreement, which has ceased to exist, is wholly unfounded and without merit.

A perusal of the relevant clauses of the said agreement read with the letters/communications of UJVNL disclosing its unambiguous intention of not extending the period of the said agreement is conclusive of the fact that the said agreement has come to an end as on 31.3.2004. The allegation of UPCL that no initiative was taken by UJVNL for execution of a fresh PPA is both unfounded and contrary to record. Since this issue is presently subjudice, UPCL is advised not to make any further comment/response.

3.2 Pathri and Mohammadpur not included in the tariff proposal. Further, the proposals are neither based on the provisions of the PPA nor on the principles of the Regulations

3.2.1 Response from Stakeholders

The Petitioner while submitting the tariff proposal has not incorporated the details of costs in respect of the two power stations namely Pathri (20.8 MW) and Mohammadpur (9.3 MW) having combined capacity of 29.7 MW. In fact the rate of electricity generated from these stations was covered in the PPA dated 18.12.2000 signed between UPJVNL and UPPCL.

UJVNL has submitted two sets of tariff petition, the previous proposal was submitted on December 31, 2003 when the existing PPA dated 18.12.2002 entered between UPJVNL and UPPCL was in force. The latest tariff proposal has been filed after the Regulations have been notified. UJVNL while computing the fixed charge in the said proposals has not followed provisions of the PPA nor the principles laid down in the Regulations have been complied with. On comparison of the two proposals, serious inconsistencies have been noticed in terms of the proposed rates which have been varied drastically. The weighted average tariff has gone up even from earlier proposal of 68 p/u to 76 p/u in the present proposal.

3.2.2 *Petitioner's Response*

The Petitioner has stated that the Tariff Proposal is substantially in terms of the Regulations published and notified by the Commission in this regard. At the time of submitting the previous proposal of UJVNL on 31st December 2003, the Regulations had not been published or notified. Once the Regulations have been notified, UJVNL can only submit its proposal in terms thereof. The allegations of variation in the figures in the circumstances are wholly misplaced.

3.3 *Projected Generation*

3.3.1 *Response from Stakeholders*

The energy proposed for sale is quite low in comparison to the existing level of generation. With the increased expenditure and fixed costs, per unit cost on low projected generation is increased significantly. The low level of projected generation could not be justified in view of the following:

- (i) Apart from July 2004 the average rainfall has been by and large adequate and normal.
- (ii) Early heavy snowfall in the Himalayan hills will ensure availability of water throughout during rest of the year.

3.3.2 *Petitioner's Response*

The Petitioner has submitted that the projects transferred to the UJVNL have been in poor state of maintenance. Further, their performance suffers on account of a number of factors such as their age, disrepair and poor levels of maintenance, constraints built in during construction and upon commissioning, restrictions placed by Irrigation Department on discharge capacity of tunnels

and power channels, restriction on drawl of water by Irrigation Department, silting up of Upper Ganga Canal etc. The hydrology trends in FY 05 are also not encouraging and in the Yamuna basin in particular there is a severe reduction in discharge. The benefit of early snowfall in the hills will only be partially available during the current financial year, if at all. Further, the filings were made based on the hydrology trends at the time of the filings. As such, the issues related to hydrology cannot be completely predicted and the indicated availability only constitutes the best estimates based on information available.

3.4 Delay in filing of the tariff petition

3.4.1 Response from Stakeholders

It appears from the tariff proposal that UJVNL is not acting in the interest of the public and denying the advantage of low cost hydropower generation to the consumers of Uttaranchal. It is not clear why UJVNL had not filed the tariff proposal in the prescribed time on its own especially when the costs were higher than the current tariff that is being realized by Uttaranchal Jal Vidyut Nigam Limited. Only after *suo-moto* proceedings initiated by the Commission and final opportunity given to Uttaranchal Jal Vidyut Nigam Limited, it has come into action.

3.4.2 Petitioner's Response

The Petitioner has stated that he was making all preparations to file for tariffs as required by the Regulations of the Commission. It is incorrect to presume that the Commission's order forced UJVNL to prepare and file for the tariffs, since the voluminous task could not have been accomplished in a period of 15 days.

3.5 Rates Proposed by UJVNL

3.5.1 Response from Stakeholders

The proposed increase in rates is unjust and will adversely impact the retail tariffs in the State. These tariffs that are based on hydro generation are not comparable with the tariff of similar plants in other States and should not be increased.

3.5.2 Petitioner's Response

The Petitioner is currently selling power to UPCL at 80 paise per unit (as per Commission's

Tariff Order dated 08.09.2003) of which only 37 paise per unit is passed on to UJVNL and the remainder 43 paise per unit is towards the power development fund and cess/royalty. This 37 paise per unit is an adhoc rate that was determined by the Commission in the tariff order, it does not reflect UJVNL's actual cost of generation.

UJVNL has made a comparative analysis of its proposed tariffs with those of HPSEB and those of the Central Generating Stations in the region.

Table 3.1 : Tariffs of other stations

| Station(s) | Rate (Rs./unit) |
|-------------------|------------------------|
| HPSEB Giri Bata | 0.78 |
| HPSEB Bhabha | 0.78 |
| NHPC - Salal | 0.68 |
| NHPC - Bairasul | 0.85 |
| NHPC - Tanakpur | 1.28 |
| NHPC - Uri | 2.82 |
| NHPC Chamera 1 | 1.55 |
| NHPC Chamera - II | 2.37 |
| Nathpha Jhakri | 2.60 |
| UJVNL (average) | 0.76 |

As evident from the above Table, in spite of the transition costs involved for UJVNL and the poor hydrology conditions prevailing, the rates proposed by UJVNL are considerably less than those prevailing for most plants of NHPC and HPSEB, with which the rates for UJVNL stations can be reasonably compared.

3.6 Computation of O&M Expenses

3.6.1 Responses from Stakeholders

UJVNL is required to provide actual O&M expenses for the period from 1998-99 to 2002-03 as specified in the Regulations. In the erstwhile UPSEB time, there was a system of compiling information of O&M expenses of each power station at the level of Chief Engineer (O&M). Thus, there should be no difficulty in providing such information. Hence, the O&M expense should be computed based on the principle provided in the Regulations for calculation of O&M expense for plants more than 5 years of age.

3.6.2 Petitioner's Response

The proposal for O&M Expenses is substantially in terms of the Regulations. The same has been explained in the Tariff Proposal and does not, as such, require any further response. UJVNL wishes to reiterate that in the absence of past data, budgeted O&M expenses have been considered. Since the inherited plants are old and require heavy expenditure on repair and maintenance, O&M expenditure in the past few years cannot be used to estimate expenses in the Tariff Year.

3.7 GPF Liability

3.7.1 Response from Stakeholders

Since the division between UP and Uttaranchal in reference to UJVNL's assets has not been finalized, the GPF liability should not be taken up by UJVNL at this stage.

3.7.2 Petitioner's Response

The O&M cost allowances would also need to provide for the employee terminal liabilities that were hitherto not provided for. Contribution towards GPF was regularly deducted from salary and deposited with UP Power Sector Employees Trust (UPPSET), Lucknow up to the period 31.3.03. Since April 2003, the UJVNL Employees Trust has retained GPF contribution and all payments have been made by the Trust with effect from 1.4.04. The corpus estimated at Rs. 86 crore approximately is lying with UPPSET. In the meeting of the Trust held on 09.08.2004, Government of Uttaranchal (GoU) directed that till the corpus is arranged/built up, UJVNL will have to bear the financial burden. Thus, the interest burden on Rs. 86 crore @ 8% amounts to Rs. 6.88 crore and every month extra burden towards payment of non refundable loans and final settlement of retired employees is Rs. 70 lacs per month, aggregating to Rs. 8.40 crore for the year.

Hence, total financial implication is Rs. 15.28 crore per year. This has been apportioned to units based on number of employees covered under GPF.

3.8 Availing Services of Rajya Rakhsa Vahini and Poorv Sainik Udyam Limited

3.8.1 Response from Stakeholders

It is unjustified to load the cost of complying with the Government Directives on the consumers. UJVNL should approach GoU for support, if required, for complying with GoU's

directives like availing services of Rajya Raksha Vahini and Poorv Sainik Udyam Limited impacting the finances of UJVNL instead of increasing the generation tariff.

3.8.2 *Petitioner's Response*

To ensure adequate security of the power plants of UJVNL, the Government of Uttaranchal has proposed UJVNL to engage the services of a specialized force, "Rajya Raksha Vahini". While the move to enhance the security of the plants is welcome and necessary, additional expenses have to be incurred on this account. The Hon'ble Commission while determining the tariffs should admit the same. Further, UJVNL has recently received directions vide letter no. 158 – XVII(1) – 9(17) / 2004 dated July 4, 2004 to utilise the services of the Uttaranchal Poorva Sainik Udyam Limited. Based on these directions, the costs incurred will be substantially higher than the amount provided in the Budgets based on competitive bidding.

3.9 *Repair and Maintenance(R&M) of the Power Channel between Dakpatthar and Dhalipur*

3.9.1 *Response from Stakeholders*

UJVNL is claiming expenditure on repair and maintenance taking the plea that the plants are in a very poor condition because of disrepair and poor maintenance in the past. This expenditure is not a routine feature and, therefore, should not be considered under routine R&M Expenditure for tariff determination.

3.9.2 *Petitioner's Response*

The Petitioner would incur expenses to the tune of Rs. 12 crore towards repair and maintenance of the power channel between Dakpatthar and Dhalipur, since the power channel lining has been completely eroded which poses a risk for public safety. This cost would need to be provided for. It would also result in the closure of the channel during the period of repair.

3.10 *Costs towards Irrigation Department*

3.10.1 *Response from Stakeholders*

Salaries and other related costs of Irrigation Department Personnel should not be included in the O&M Cost.

3.10.2 Petitioner's Response

The Government called for a meeting on July 28, 2004 on the issue of providing electricity facilities for Irrigation Department personnel posted at UJVNL's hydroelectric power plants in operation, at par with UJVNL employees. The Government has also directed that the salary and establishment costs on account of such Irrigation Department personnel should be included in the tariff application. Besides coal/uniforms/gumboots are to be provided for such personnel by UJVNL. The overall outlay on account of salaries and facilities (coal/uniforms/gumboots) is about Rs. 14.1 crore, which was not payable earlier.

3.11 Use of power development fund

3.11.1 Response from Stakeholders

Power Development Fund/Cess should be used for meeting abnormal repair and maintenance expenditure.

3.11.2 Petitioner's Response

The utilization of the power development fund and the cess for meeting such expenses is outside the purview of the utility.

3.12 Calculation of Working Capital & Capital Cost of Projects

3.12.1 Response from Stakeholders

O&M Expenses have been projected at a very high level that affects the working capital requirement. As far as the maintenance spares are concerned, they are linked to the project cost which has been taken at very high level by UJVNL. UJVNL has not followed the Regulations, which say that in case of UJVNL's stations transferred from UPJVNL, historical cost shall be the cost as on the date of unbundling of UPSEB. There is no proper justification for the asset value of Rs. 608.21 crore assumed by UJVNL.

3.12.2 Petitioner's Response

The Petitioner has made the filing based on the Regulations dated 14.05.04. The calculation of working capital is as per the Regulations. As per the Tariff Regulations, stores and spares form a component of the working capital.

The Regulations require information to be furnished on the historical costs for each of the projects and the financing plan as per the schedule specified in the Tariff Regulations. It is not possible to furnish this information in the manner specified by the Hon'ble Commission since the details regarding the break-up of original costs of fixed assets and those approved by a competent authority on CoD have not been provided to UJVNL by UPJVNL.

3.13 Return on Equity

3.13.1 Response from Stakeholders

The scheme of transfer of assets from UPJVNL has not been finalized, still UJVNL has finalized the provisional Balance Sheets for the financial year 2002-03 and 2003-04 according to which the equity is shown as Rs. 5 crore. Hence, as per the Regulations, UJVNL is only authorised to claim return on equity on the same amount. However, as per the explanation on equity given in the Regulations investment out of internal resources that too created out of free reserves of the existing generating station, if any, could also be reckoned as paid up capital for the purpose of computing equity, provided such internal resources were actually utilized for meeting the capital expenditure of the generating station and formed part of the financial package.

In this context, it is worth mentioning that all the power stations were constructed during the tenure of erstwhile UPSEB and as per the capital structure creation of all the assets was loan based. Mostly loans were taken from the State Government. However, at the time of unbundling of erstwhile UPSEB, the Government of UP (GoUP) had written off most of these loans to compensate for losses and receivables shown in the books of erstwhile UPSEB. Out of the balance amount of loan, a small portion was, however, retained as equity and shown as investment in UPJVNL by GoUP. Rest of the loan liability of different financial institutions was transferred as loan liability to UPJVNL. UJVNL is, therefore, at most bound to share such loan liability lying in the books of UPJVNL. However, instead of showing loan liability in the account, UJVNL has created a capital reserve and simultaneously claimed return on it.

3.13.2 Petitioner's Response

The Petitioner has stated that the equity base of UJVNL has been determined in accordance with relevant Regulation. The equity of Rs. 5 crore shown in the provisional balance sheet of UJVNL is merely the cash contribution of the UJVNL at the time of incorporation and does not

represent equity base of UJVNL for the purposes of regulatory accounting. Furthermore, the equity component admitted for the purposes of the present Tariff Proposal is consistent with and can be traced to the amounts disclosed under the Transfer Scheme. The Transfer Scheme being a legislative action surely cannot be reopened and/or disputed in these proceedings. Hence, this issue, to the extent it is covered under the Transfer Scheme, stands resolved.

3.14 Tax on Income

3.14.1 Response from Stakeholders

The tax on income is at 35.88% and comprises Return on Equity and interest on normative debt outstanding. Since these have been escalated so high the tax has also increased. Also, the calculations for arriving at the tax payable are wrong. If the tax is at 35.88%, then on an income of Rs. 0.78 crore for Dhakrani plant, the tax should be Rs. 0.28 crore and not Rs. 0.43 crore.

3.14.2 Petitioner's Response

The Petitioner has calculated the tax on income as per the Regulations dated 14.05.04. The Regulations provide for a 16% return on equity, net of taxes. The calculation of tax for Dhakrani of Rs. 0.28 crore have been done taking into account a 16% return on equity gross of taxes. However, if the tax were to be computed as per the Regulations, i.e., while taking into consideration a 16% return on equity net of taxes the tax for the plants would be calculated as follows:

$$\text{Tax Applicable for the Year} = \{[\text{Income} / (1 - \text{Tax Rate})] - \text{Income}\}$$

3.15 Calculation of Interest on Normative Debt, Return on Equity and Depreciation

3.15.1 Response from Stakeholders

In the absence of a reliable figure for the capital cost, it is not possible to calculate the Interest on Normative Debt, Return on Equity and the Depreciation costs of UJVNL's generating stations. Another important question is whether these projects were funded through grants from UP Government or through loans extended. The Balance Sheet of UJVNL shows only Rs. 5 crore as equity, hence the return on equity should be calculated on this Rs. 5 crore only.

3.15.2 Petitioner's Response

The historical capital costs of the projects have been derived on the basis of UJVNL's Balance

Sheet for FY 02. The funding mechanism (grant or loan) used to finance these projects in the erstwhile UPSEB is not known to UJVNL. While UJVNL's Balance sheet shows Rs. 5 crore as the paid up equity, it also includes capital reserves (net owned funds). This too is a form of equity and should, thus, be considered while calculating the return on equity.

However, since the Regulations require the adoption of 70:30 debt-equity ratio, the financing plan assumed for tariff calculations has been based on normative debt equity ratio of 70:30, pending resolution on the review petition filed before the Hon'ble Commission (dated 14.06.04) on review of the matter. The normative loan used for computing interest chargeable for the year takes into account normative repayments to the tune of the accumulated depreciation, upto 90% of the asset value. Thus, the repayments have been considered to be equal to the depreciation cost in that year. Interest on normative debt has been calculated at 10.25% per annum (PLR of SBI) on an average of the opening and closing balance of the normative loan.

3.16 Sale of Power to Other States

3.16.1 Response from Stakeholders

UJVNL sells a significant portion of the energy generated to other States at comparatively lower rates than at which it sells to Uttaranchal. Hydropower is a relatively cheaper source of energy and Uttaranchal should take advantage of this.

3.16.2 Petitioner's Response

The Petitioner has submitted that there are only two beneficiaries of the energy generated by UJVNL. While, most of the energy generated by UJVNL (2594.90 MUs of the 2936.78 MUs generated) is sold to UPCL, the generation of five stations in the Yamuna Valley is shared between HPSEB and UPCL. This is because UJVNL is bound by the agreement between the governments of Himachal Pradesh and Uttar Pradesh that requires it to supply electricity to HPSEB from the plants in the Yamuna valley to the extent specified in the agreement. The agreement specifies that UJVNL will supply 25% of the electricity generated in Dhakrani, Dhalipur, Chibro and Khodri plants and 20% of the electricity generated in Kulhal plant to HPSEB at costs, i.e. excluding returns (excluding cost of servicing debt, return on equity and taxes). Hence, the electricity supplied to HPSEB is at a lower rate than that for UPCL.

3.17 Reduction in Design Energy

3.17.1 Response from Stakeholders

Design Energy is never calculated on actual basis but is based on rated capacity. Once the rated capacity is established it remains the same throughout the life of the project.

3.17.2 Petitioner's Response

The design energy of a plant is a function of the hydrology (level and flow of water availability). Hence, the design energy of a plant can differ from its name-plate/ rated capacity and does not remain the same throughout the life of the project.

As UJVNL has already mentioned in its filing to the Commission, there has been limited transfer of historical data from the erstwhile UPSEB and its successor entities to the entities formed in the state of Uttaranchal. Despite repeated requests, technical details and studies conducted over the years on projects transferred to UJVNL have not been passed on. Certain essential documents such as the Detailed Project Reports, CEA clearances or Project Completion Reports have also not been provided to UJVNL. UJVNL has, therefore, been unable to provide to the Commission, details about the design energy estimated at the time of construction of projects or as mentioned in the TEC for all projects.

3.18 Secondary Charges

3.18.1 Response from Stakeholders

Benefit of Secondary Charges should not be given to the Generating Company if it generates below the design energy.

3.18.2 Petitioner's Response

Secondary Energy Charges are based on the Regulations and, therefore, it is inappropriate for the objector to make this contention.

3.19 Electricity Facility to Irrigation Department Personnel

3.19.1 Response from Stakeholders

Irrigation Department personnel should be provided electricity facility at par with UJVNL

employees.

3.19.2 Petitioner's Response

The Petitioner has filed its application for determination of tariffs for FY 2004-05 before the Uttaranchal Electricity Regulatory Commission (UERC) on September 15, 2004 in compliance with UERC direction. One of the points made in the proposal was that additional expenses previously not provided for might now have to be incurred on account of provision of electricity facility for Irrigation Department personnel posted at UJVNL hydroelectric plants in operation, at par UJVNL employees, subject to respective decision of the State Government and the Commission.

The various issues involved with respect to Irrigation Department personnel working at the various hydropower sites of UJVNL have been discussed at State Government level and matters were referred again at the meeting held in the presence of Hon'ble Chief Minister on 3.11.04. It will be seen that further decision in the matter of providing electricity facility to Irrigation Department personnel can only be taken in the light of the decision/actions initiated by Government. It will also depend on the decision of the Commission with specific reference of the aforesaid matter.

3.20 Tariffs for Himanchal Pradesh

3.20.1 Response from Stakeholders

The Generation tariff to be determined in this tariff proceeding should be made binding on the Himanchal Pradesh as well.

3.20.2 Petitioner's Response

UPCL comments are self-contradictory. Although UPCL recognizes that the Hon'ble Commission may not have the jurisdiction to determine the tariff of the HP share of electricity, UPCL has suggested that a direction be issued to UJVNL for submitting a proposal for bulk supply tariff in entirety without excluding the portion of HP share. In any event, UJVNL has initiated appropriate proceedings under the provisions of the Electricity Act, 2003 for determination of tariff for the electricity that has to be sold to HP.

3.21 Response from Government of Uttaranchal

In addition to above responses, a letter has been received from the State Government on 08.12.2004 stating that;

- (i) The State Government is in the process of transferring on deputation Irrigation Department employees working on projects of UJVNL.
- (ii) Such employees will be entitled to facilities at par with UJVNL's employees in addition to supply of gumboots.
- (iii) In Government's view return to UJVNL should be allowed not only on its funds as reflected in the capital structure but based on the value of assets transferred from UP.

The Commission has considered the issues raised by consumers, stakeholders and the Petitioner and views of Government and members of the Advisory Committee while formulating the approach for determination of the generation tariff and during scrutiny and analysis of the proposals. All such issues have been dealt with at appropriate places in the Order.

4. Commission's Approach

4.1 Transparency

With a view to minimizing regulatory uncertainty and ensuring transparency in the tariff determination exercise undertaken by Regulatory Commissions, section 61 of the Electricity Act, 2003 requires each Commission to specify the terms and conditions for determination of tariff. Further, to ensure uniformity in approach of different Regulatory Commissions, the section also requires the Commissions to be guided by, amongst other things, the principles and methodologies specified by the Central Electricity Regulatory Commission (CERC) for determination of tariff for generating companies. Accordingly, this Commission in exercise of its powers under section 181 of the Electricity Act, 2003 and after following a comprehensive consultative process, specified the terms and conditions for determination of tariff for generating companies and notified detailed regulations on the subject called the Uttaranchal Electricity Regulatory Commission (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2004 (Regulations) on 14.05.2004.

These Regulations are based primarily on Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004, which have been suitably modified for meeting some State specific requirements. The Commission's approach to the issues that have to be addressed while determining the tariff for the Petitioner is, therefore, already defined in these Regulations, which have statutory authority and are, therefore, binding on all stakeholders. The Commission is required by law and proposes to follow these Regulations in tariff determination exercise undertaken for any generator. While the Commission has the authority to deviate from these Regulations in certain situations, this enabling provision is an exception to the rule and any such deviation from the notified Regulations is to be made in rare cases and when good and convincing reasons exist for doing so. This enabling provision has been made primarily to meet genuine unforeseen situations and is not to be used for circumventing such Regulations that are not found convenient to any individual stakeholder. In accordance with the above requirements of law and with a view to maintaining complete objectivity and transparency while determining these tariffs, the Commission proposes to abide by these Regulations and even when it is not possible to follow them in letter, the Commission proposes to follow them in their spirit.

Issues with respect to which deviations from Regulations have been sought in the Petition

are discussed in the following paragraphs along with the rationale behind the relevant Regulations, for their better understanding and appreciation with a view to evolving Commission's approach to these issues.

4.2 Energy Generation

The energy generated by a hydro plant obviously depends on:

- (i) Availability of water
- (ii) Availability and efficiency of machines etc.

Availability and efficiency of machines and equipments is within the control of the generating company and is indeed an indicator of the generating company's own capability and efficiency. The other factor i.e. availability of water is outside the generating company's control and varies considerably from year to year and indeed within the same year, particularly in non-storage type hydro generating stations. To ensure that the generating company is not penalised for fall in generation when availability of water goes down while ensuring that any fall in generation due to poor performance of the plant is not overlooked or rewarded, the Regulations provide for concepts like the Design Energy, Two Part Tariff, Primary Energy Charges, Capacity Charges, and Capacity Index. These concepts and their relevance to the Petitioner's plants are discussed below:

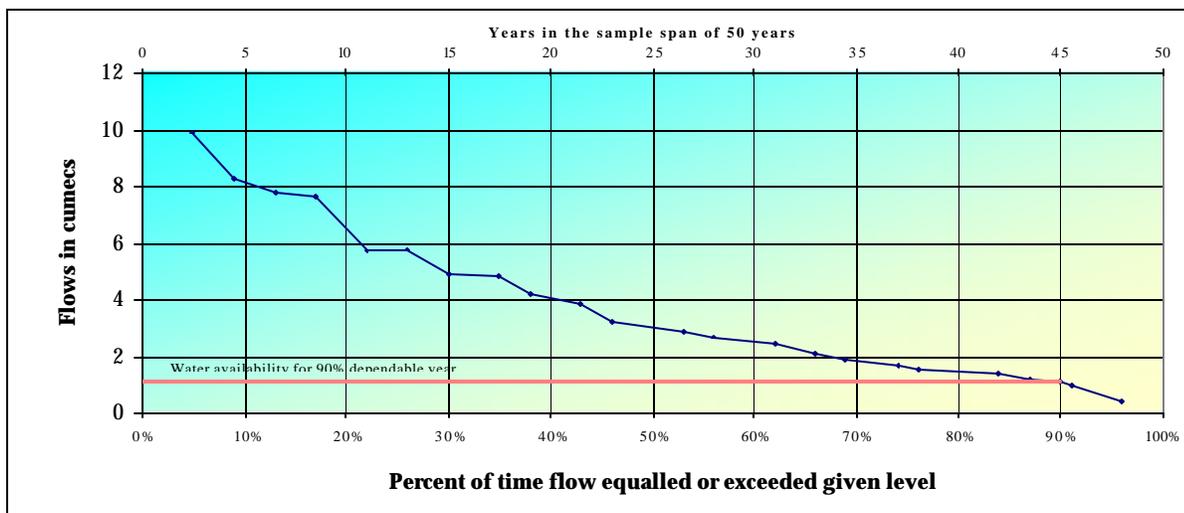
4.3 Design Energy

Design Energy of a generating station is defined as the energy that can be generated in a 90% dependable year with 95% of machines' capacity. For example, if a span of 50 consecutive years is taken into account, after excluding the 4 worst years, water availability in the 5th worst year (or 46th best year) is called the water availability in 90% dependable year. Electricity that can be generated at this availability of water with 95% capacity of machines is the Design Energy of the plant. This availability is usually derived from the flow duration curves as shown in Graph 4.1 below.

This definition ensures that in 50 consecutive years, for 46 years availability of water for the plant will be equal to or more than this quantity. Therefore, if the generating company maintains its machines and is able to ensure their availability to the extent of 95%, it should be able to generate energy equal to or more than the Design Energy for these 46 years and only in the remaining 4 years generation is likely to be less than the Design Energy. The concept of Design Energy, thus, adequately takes care of both factors responsible for generation i.e., variations in water availability,

which is out of control of the generating company and the machine efficiency & availability, which depends on the efficiency of the generating company.

**Graph 4.1 : Flow duration curve for determining Water Availability
(Annual flows arranged in descending order)**



Since fluctuations in water availability have already been factored in, no change in Design Energy from year to year is warranted due to variations in water availability, which is inherent and inevitable. For 90% of the time, if the actual generation is less than the Design Energy it would be on account of inefficiency or non-availability of machines. This could be on account of improper and inadequate maintenance or on account of degeneration over a period of time as is being claimed by the Petitioner for these generating stations. The Commission finds that the concept and definition of Design Energy itself are sound and logical and feels that the same need not be diluted or tampered with. If genuine problem exists on account of degeneration of machines in some generating plant, as has been claimed, the right thing to do is to review and revise such plant's capacity. For doing so, the Petitioner is free to approach the Commission alongwith all supporting data. The Commission will take a view on each such request after taking into account all relevant factors and such other inputs as may be relevant.

4.4 Primary and Secondary Energy

Energy generated upto the level of plant's Design Energy in a year is called Primary Energy and energy generated in excess of the Design Energy has been defined as Secondary Energy. As stated above as long as maintenance of the machines is ensured, in a span of 50 years, for as many

as 46 years water availability will be sufficient to enable generation which will be equal to, or more than the Design Energy. In other words, during this period for most of the time the plant would be generating not only the Design Energy but also some Secondary Energy. Secondary Energy charges are meant to reward the generator for higher generation. The Petition seeks lowering of Design Energy of these plants, and thereby the threshold level for computing Secondary Energy generation. Lowering the threshold level for computing Secondary Energy generation would result in first inflating and exaggerating generator's performance and then rewarding it through Secondary Energy charges and that too at inflated rates.

Downward revision of Design Energy for any plant should, therefore, not be done casually based on subjective reasoning, but for irrefutable and convincing reasons supported by hard facts.

4.5 Two-Part Tariff

The Regulations provide for two-part tariff for sale of electricity generated by hydro power stations. Under this structure, the approved Annual Fixed Charges (AFC) for a generating station are to be recovered through a combination of Primary Energy Charges and Capacity Charges. The formula for working the Capacity Charge is:

$$\text{Capacity Charge} = \text{Annual Fixed Charge} - \text{Primary Energy Charge}$$

In the above equation, Annual Fixed Charge of the company is constant for the tariff period but both the Primary Energy Charges as well as the Capacity Charges vary. Notable feature of this tariff structure is that generating company's Annual Fixed Cost gets fully recovered irrespective of any fall in energy generation on account of decreased availability of water. At the same time, to ensure that the generating company's inefficiencies are not rewarded in the process, payment of capacity charges is linked to the generator being in a position to generate energy to the extent water is actually available on day-to-day basis. Generator's ability to utilize the available water is measured through the Daily Capacity Index of the plant.

This approach by all accounts is sound and fair as it protects fully the generating company from any fall in production due to decreased water availability, a factor clearly beyond its control. The Commission, therefore, finds that Petitioner's concerns on account of reduced water availability projected for the year to be misplaced as the same have already been taken care of in the Two-Part Tariff structure laid down in the Regulations. The two-part tariff ensures full recovery of

Petitioner's Annual Fixed Cost, notwithstanding inevitable fluctuations in generation due to variations in availability of water.

4.6 Operation & Maintenance (O&M) Expenses

The Operation & Maintenance (O&M) expenses cover Employee Costs, Administrative & General Expenses and Repair & Maintenance Expenses. The Regulations require that O&M expenses be calculated on the basis of average of past five year's actual expenses. This average represents the O&M expenses for mid year of this 5 year period, which is then escalated for inflation @ 4% p.a. every year to arrive at the tariff year's admissible O&M expenses. In taking the average expenditure over a period of 5 years, variations in such expenses from year to year have been factored in and get evened out. To avoid distortions in this value, Regulation 26(1)(a) further stipulates that any abnormal level of expenditure should be excluded. Petitioner's claim of huge increase in this expenditure is to be tested in the context of this particular Regulation. These items of expenditure not being new, normally the average value of 5 years calculated as per this Regulation should take care of such expenses as long as they are incurred prudently and with due care and caution. The Commission will, therefore, admit any increase that is not in tune with the past trends only after proper scrutiny and validation.

4.7 Repair & Maintenance Expenses

An important element of O&M Expenses discussed above is expenditure on repair and maintenance of the plant. If on account of age or damage or any other reason, renovation or replacements of machines etc. becomes essential, the expenditure on the same would obviously have to be incurred and the same will be over and above the annual repair and maintenance expenses reflected in the average O&M expenses. Requirement of such renovation/replacements may be inevitable but will be sporadic and cannot be an annual feature to be reflected in the annual O&M expenses. Expenditure on such works is distinct from the annual repair and maintenance expenses. Distinction between routine annual maintenance works on one hand and periodic renovation, replacement and modernisation/up gradation on the other, is important and should be understood and maintained. Expenditure on renovation & modernisation works being heavy and of capital nature is not to be recovered in a single year but over the life of such assets. This expenditure is, therefore, required to be capitalized in accordance with the conditions stipulated in Regulation 16 dealing with additional capitalization. Abnormally high expenditure on repair and

maintenance projected in the Petition is to be distinguished from the normal annual repair & maintenance expenses and dealt with in accordance with this particular provision in the Regulations.

4.8 Return on Equity

When a company acquires an asset, the same is normally paid for partly from loans taken for this purpose and partly from company's own resources. While the actual mix may vary from project to project, the Regulations envisage funding through loans of at least 70% of the project cost. While working out any generating company's reasonable costs, expenditure incurred on payment of interest on the loans is to be allowed on actual basis. On company's own funds invested in acquiring the asset, the Regulations permit a return to the company at an attractive tax-free rate of 14%. The prerequisites for allowing such return are that the fund invested should be company's own funds and that they should have actually been invested in the asset in accordance with the approved financial package. Regulation 25 spells out what will constitute company's own funds which comprise of the paid up capital, free reserves and premium raised by the company while issuing shares. The provisions of this particular Regulation are transparent and logical. Petitioner's claimed return on equity will be examined in accordance with these provisions.

4.9 Fixed Assets

The Petitioner has claimed that past data pertaining to these plants is not available. These plants may have been vested in the Petitioner company recently but they have been in existence for many years and their ownership remained with UPSEB for major part of this period. In the year 2000, UPSEB was abolished in terms of UP Electricity Reforms Act, 1999. All assets and liabilities of UPSEB were taken over by the UP Government and after adjustments in the same all hydro generating plants, including the nine plants for which this Petition has been filed, were vested in UPJVNL along with corresponding liabilities as per the Transfer Scheme notified by the UP Government under the UP Electricity Reforms Act. The vesting of these assets and liabilities with UPJVNL took place on 14.01.2000. These values for each generating plant of UPJVNL were worked out and also recognized by UPERC while approving the agreement for sale of power generated by UPJVNL to UP Power Corporation Ltd. (UPPCL). In view of the Petitioner's difficulties in ascertaining the original value of these plants, instead of any other complex exercise, the Commission, proposes to take these values of fixed assets, which have already been approved by

Uttaranchal Electricity Regulatory Commission

UPERC, as the base values on 14.01.2000 and to update them by incorporating validated changes in the same.

4.10 Supply of free or concessional electricity

The present exercise is for determination of generation tariff of these 9 generating plants of the Petitioner and not for fixing the retail tariff rates of the distribution licensee. Notwithstanding this, request for fixing concessional tariffs for Petitioner's employees and extending the same to some Government employees has been made and emphasized upon. It may be recalled that Uttaranchal Power Corporation Ltd. (UPCL) is the sole distribution licensee in the State. The Commission in its Tariff Order dated 08.09.2003 determined UPCL's tariffs for retail sales to consumers. The issue of concessional/subsidised tariff for UJVNL's employees has already been dealt with in para 4.4.3 of the Tariff Order dated 08.09.2003 wherein, in view of sub-section (3) of section 62 of the Act, the Commission had held that:

"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."

Further, it may be recalled that section 55 of the Electricity Act, 2003, prohibits all licensees for supplying electricity without a correct meter after June 2005. In this connection, the Commission in the Tariff Order dated 08.09.2003 had directed the licensee that:

"..... to complete metering of all un-metered connections of Domestic, Commercial and Public lightning categories in urban areas and those of Departmental Employees, State Tube wells, Public Institutions and Government bodies in all areas within 31st December 2003....."

In addition to the distribution licensee, Uttaranchal Electricity Regulatory Commission (Conduct of Business) Regulations, 2004 recognise deemed distribution licensees and the relevant extract of the same is given below:

"Persons who supply electricity to the residential colonies as a part of their activity of maintaining such colonies for use and occupation of their employees and/or for use and occupation of persons

providing facilities and services to the employees, where such person procures electricity from any licensee or from any other source approved by the Commission and distributes the electricity within the residential colonies on no-profit motive basis.”

Above requirements of law and directions of the Commission are applicable and binding on both the regular as well as the deemed licensee and, therefore, have to be observed.

If the supply of electricity to employees is being made by the distribution licensee, the same has to be dealt with in accordance with the Commission's Tariff Order dated 08.09.2003 relevant extract of which has been reproduced above. The question of the Commission revisiting this issue will arise, if at all, when the licensee's retail tariff rates are being reviewed. If on the other hand, the supply to these employees is being done by the Petitioner as a deemed licensee, the terms and conditions for such supply have already been stipulated above and need no fresh decision in these proceedings.

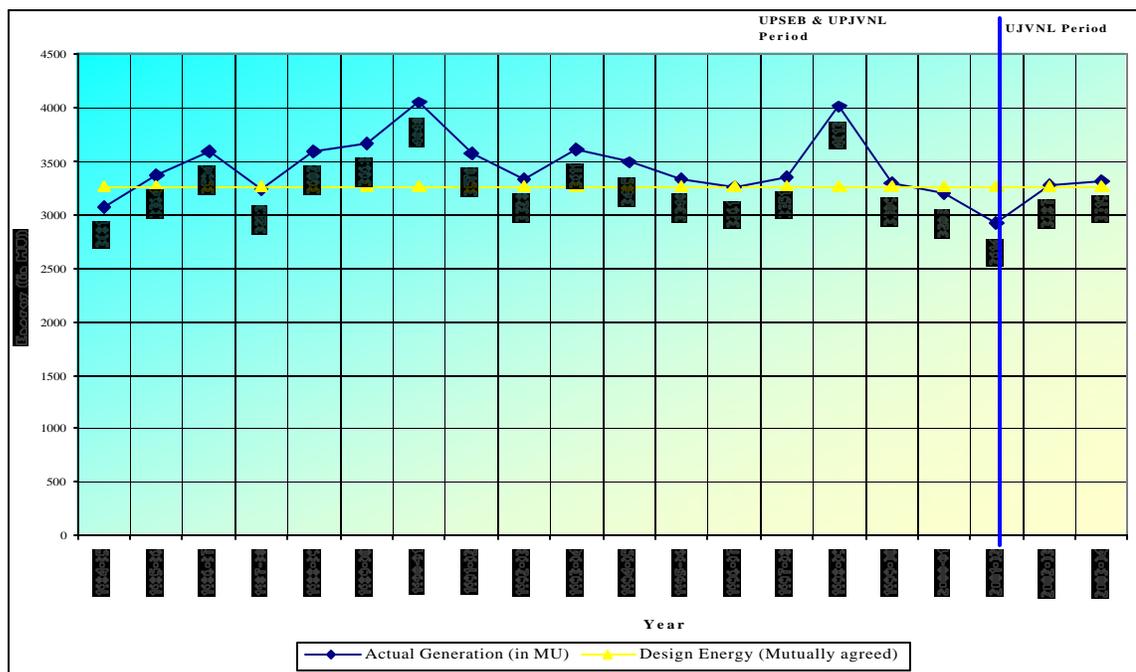
5. Analysis and Conclusions

5.1 Overview

Before coming to Petitioner's proposals with respect to each generating station and scrutinizing the expenditure relating to individual elements claimed in Petitioner's costs, it would be worthwhile to take an overall view of what has been proposed for the year 2004-05. Against the prevailing adhoc pooled selling rate of 37 p/unit in force since 01.04.2003, the proposal now is to increase the same to 76 p/unit, which represents an increase of about 105%. This steep rise in tariff has been proposed mainly on account of Petitioner's Operation & Maintenance (O&M) costs of nine plants pertaining to these Petitions increasing from Rs. 75.92 crore till as recently as 2003-04 to Rs. 146.69 crore in 2004-05. In spite of spending this additional amount of Rs. 70.77 crore over and above the previous year's level, the generation of electricity is projected to go down from 3318.89 MUs in 2003-04 to 2936.78 MUs in 2004-05. This is a drop of 382.11 MUs in one year, and that too after huge additional expenditure.

The Petitioner's justification for such steep increase in expenditure is based primarily on the premise that these plants, before coming to UJVNL, were neglected and were degenerating for want of proper maintenance and repairs first by UPSEB and thereafter by UPJVNL. It has been claimed that heavy expenditure has now to be incurred by the Petitioner to put these plants back on rail. Such a sweeping claim made to justify exceptionally high increase in expenditure needs to be properly validated in any cost determination exercise. The Commission, therefore, obtained and examined data pertaining to generation by each of these nine plants from the date of their commissioning. All these plants have now been operating for 20 years or more. Their total generation during these 20 years has fluctuated between 2914 MUs to 4048 MUs. Contrary to the claimed situation, the actual generation during last twenty years does not reveal any deteriorating trend over these 20 years. This position comes out unambiguously in Graph 5.1 given below.

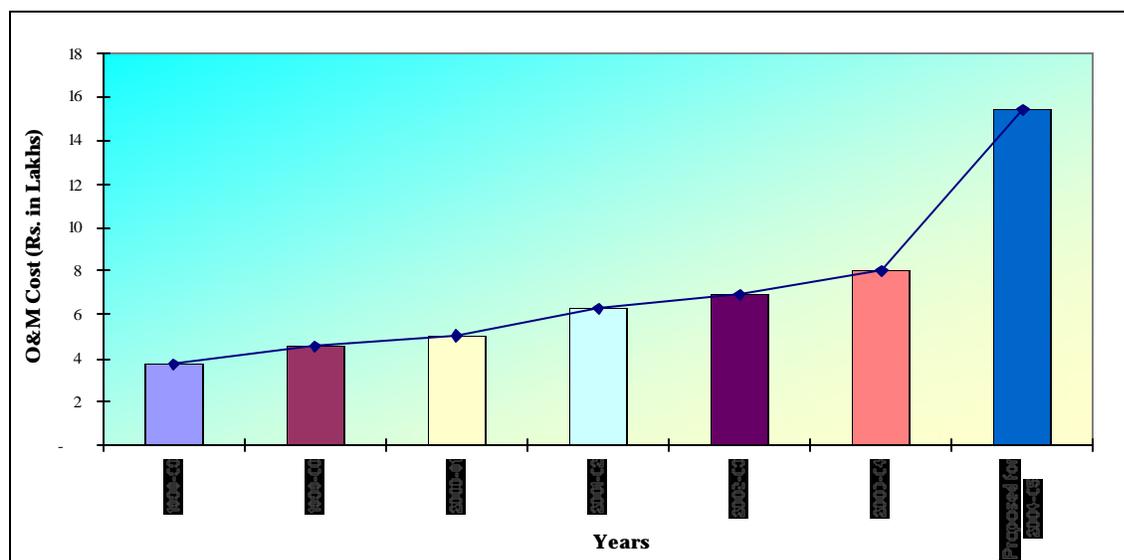
While there could be problems with individual plants, the generation figures for the group for 20 years indicated in Graph 5.1 do not suggest any serious problem with these plants on account of the alleged inefficiencies and neglect of UPSEB and UPJVNL. Petitioner has, however, projected huge investment on account of alleged degeneration of these plants which in view of the position given above calls for a closer look and scrutiny.

Graph 5.1: Actual Generation of UJVNL

As stated earlier, against a total O&M expenditure of Rs. 75.92 crore in 2003-04 the expenditure projected for the year 2004-05 is Rs. 146.69 crore i.e. an increase of Rs. 70.77 crore i.e. an increase of 93.22%. This increase is on account of mainly following elements:

- | | |
|--|--------------------------|
| (i) Increase in repair and maintenance expenditure | Rs. 28.86 crore (98.08%) |
| (ii) Increase in staff expenditure | Rs. 39.70 crore (99.15%) |
| (iii) Increase in administrative expenditure | Rs. 2.15 crore (36.12%) |

For better appreciation of the need for scrutiny of the proposed increase in expenditure, trends pertaining to O&M expenses of UJVNL for these 9 plants per MW capacity since 1998-99 are depicted in the Graph 5.2. Detailed examination of each of these elements and other parameters, which are pushing up the Petitioner's annual expenditure so dramatically, follows thereafter.

Graph 5.2: O&M Cost of UJVNL per MW Capacity (Rs. in Lac/MW)

5.2 Analysis of Physical Parameters

5.2.1 Energy Generation

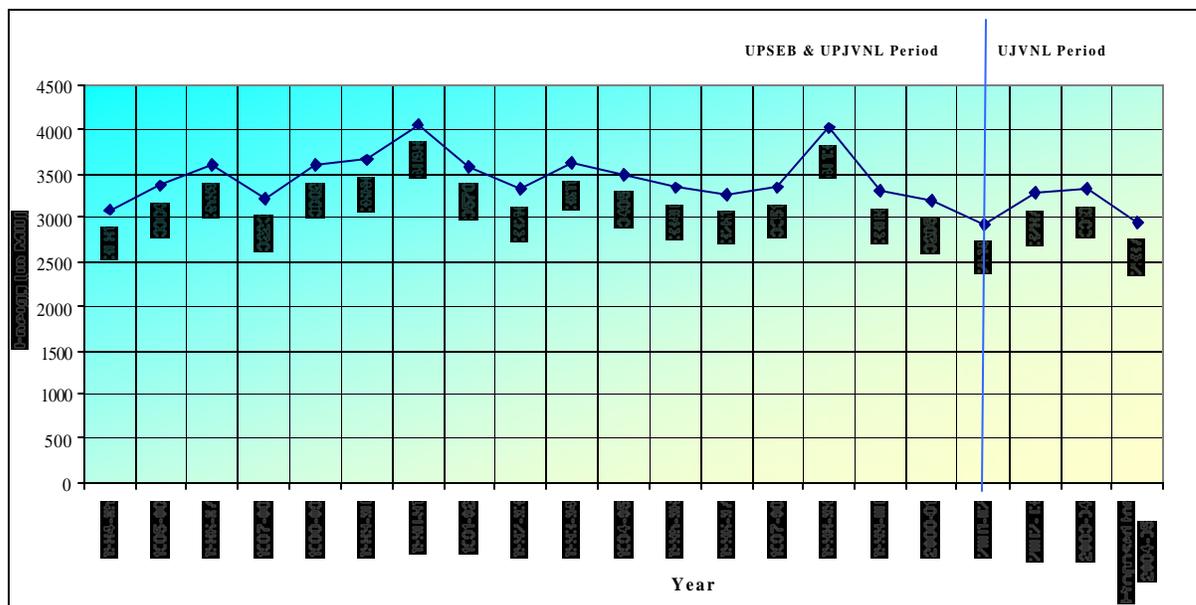
The Petitioner has contended that on account of these plants being old and reduced water availability, the actual generation of these plants in 2004-05 will be only 2936.78 MUs and the plant-wise break-up of the same is given in Table 5.1 below. From this projected generation the Petitioner has reduced 50.23 MUs for auxiliary consumption/transformation losses (43.03 & 7.20 MUs respectively) and projected total saleable energy of 2886.55 MUs as has been depicted in Table 5.1 below.

Table 5.1: Energy Generation and Saleable Energy proposed by the Petitioner (MUs)

| Plant | Energy Generated | Auxiliary Consumption | | Transformation loss | | Saleable Energy |
|----------------|------------------|-----------------------|-------|---------------------|-------|-----------------|
| | | Absolute | % | Absolute | % | |
| Dhakrani | 121.27 | 2.03 | 1.67% | 0.24 | 0.20% | 118.99 |
| Dhalipur | 179.52 | 2.05 | 1.14% | 0.36 | 0.20% | 177.11 |
| Chibro | 661.22 | 13.34 | 2.02% | 2.64 | 0.40% | 645.23 |
| Khodri | 310.97 | 6.58 | 2.12% | 0.62 | 0.20% | 303.77 |
| Kulhal | 118.18 | 2.44 | 2.06% | 0.24 | 0.20% | 115.51 |
| Ramganga | 214.86 | 4.96 | 2.31% | 0.43 | 0.20% | 209.47 |
| Chilla | 694.53 | 3.47 | 0.50% | 1.39 | 0.20% | 689.68 |
| Maneri Bhali-I | 463.06 | 6.19 | 1.34% | 0.93 | 0.20% | 455.94 |
| Khatima | 173.17 | 1.97 | 1.14% | 0.35 | 0.20% | 170.85 |
| Total | 2936.78 | 43.03 | | 7.20 | | 2886.55 |

It has been pointed out during the Public Hearing that while the Petitioner projects substantially lower generation, some advertisements recently issued by the Petitioner in the newspapers claim a totally different position. Total generation of 2936.78 MU projected by the Petitioner is the lowest generation of these plants in last 20 years (excepting the year 2001-02, when these plants were taken over by the Petitioner) as has been depicted in Graph 5.3. Projected generation figures determine the Primary Energy Rate and in turn the rate of Secondary Energy payable to the Petitioner by way of incentive, over and above the Petitioner's Annual Fixed Cost. The Commission, therefore, is hesitant in accepting these projections without due validation. As pointed out by UPCL, in the PPA signed between UPJVNL & UPPCL the average generation of the previous 15 years was adopted as the mutually agreed Design Energy of these plants. In view of extremely low generation projected by the Petitioner, an approach similar to what was adopted in the PPA would be fair. The Commission has accordingly tested Petitioner's projections against the actual generation of these plants during last 15 years.

Graph 5.3: Actual & Projected Generation of UJVNL



Against the Petitioner's projection of total generation of 2936.78 MUs in 2004-05, the average annual generation during last 15 years works out to 3447.18 MUs and is not very different from last year's actual generation of 3318.89 MUs. Plant-wise average annual generation over last 15 years is given in Table 5.2. As stated earlier, the Petitioner has projected lowest ever generation in these

plants, barring the year 2001-02, when these plants changed hands and has claimed the same to be the Design Energy of these plants. For computing the Primary Energy Rates for these plants, their average annual generation over 15 years presents a more reliable basis than the Petitioner's projections which are totally out of step both with last year's generation as well as with the average annual generation. Commission has, therefore, assumed this average annual generation as projected generation for 2004-05. Lower of this projected generation and the plant-wise Design Energy mutually agreed between UPJVNL & UPPCL, has been taken for the purpose of working out the Primary Energy Rate and the same is given in Table 5.2.

Table 5.2 : Energy Generation (MUs)

| Plant | Design Energy (Mutually agreed in PPA dated 18.12.2000) | Actual Generation for 2003-04 | Average of annual generation for preceding 15 years | Generation As proposed by the Petitioner | Approved Primary Energy Generation |
|----------------|--|--------------------------------------|--|---|---|
| Dhakrani | 169.00 | 160.31 | 156.88 | 121.27 | 156.88 |
| Dhalipur | 192.00 | 230.22 | 244.80 | 179.52 | 192.00 |
| Chibro | 750.00 | 824.38 | 893.63 | 661.22 | 750.00 |
| Khodri | 345.00 | 388.79 | 416.85 | 310.97 | 345.00 |
| Kulhal | 164.00 | 155.36 | 153.91 | 118.18 | 153.91 |
| Ramganga | 311.00 | 209.13 | 314.90 | 214.86 | 311.00 |
| Chilla | 725.00 | 688.90 | 671.29 | 694.53 | 671.29 |
| Maneri Bhali-I | 395.00 | 488.39 | 400.87 | 463.06 | 395.00 |
| Khatima | 208.00 | 173.41 | 194.05 | 173.17 | 194.05 |
| Total | 3259.00 | 3318.89 | 3447.18 | 2936.78 | 3169.13 |

In plants where the projected generation is equal to or less than the Design Energy, the entire generation would be that of Primary Energy. In plants in which this projected generation is higher than the Design Energy, Primary Energy generation will be only upto the Design Energy level and balance generation will be that of Secondary Energy, on which Petitioner will earn Secondary Energy Charges over and above his Annual Fixed Cost. Accordingly, the Petitioner's Primary Energy works out to 3169.13 MUs and balance 278.05 MUs would be Secondary Energy.

5.2.2 Auxiliary Consumption

The Petitioner has included in the auxiliary consumption of the generating station not only the consumption in auxiliary equipment of the plant but also in barrages, dams etc. as well as in colonies. The Petitioner has, thus, projected a total auxiliary consumption of 43.03 MUs and the station-wise figures for the same are given in Table 5.3 below.

The Petitioner has wrongly shown consumption of 28.38 MUs in colonies etc. as Auxiliary Consumption. Cost of this energy is actually the cost incurred by the Petitioner in operating certain related works and for providing a facility/perquisite to the employees and should, therefore, be shown as such. Camouflaging such expenditure in Auxiliary Consumption is neither permissible as per Regulations nor desirable. This cost has, therefore, been taken out from Auxiliary Consumption and has been dealt with as part of expenses later in this Order. The Commission has examined the balance claim of 14.65 MUs of Auxiliary Consumption in the following paragraphs.

Table 5.3: Proposed Auxiliary Consumption (MUs)

| Plants | Total Auxiliary Consumption proposed by the Petitioner | Colonies etc. | Balance Consumption |
|----------------|---|----------------------|----------------------------|
| Dhakrani | 2.03 | 1.43 | 0.60 |
| Dhalipur | 2.05 | 1.16 | 0.89 |
| Chibro | 13.34 | 10.05 | 3.29 |
| Khodri | 6.58 | 5.03 | 1.55 |
| Kulhal | 2.44 | 1.85 | 0.59 |
| Ramganga | 4.96 | *3.88 | *1.08 |
| Chilla | 3.47 | 0.00 | 3.47 |
| Maneri Bhali-I | 6.19 | 3.88 | 2.31 |
| Khatima | 1.97 | 1.11 | 0.86 |
| Total | 43.03 | 28.38 | 14.65 |

* Derived from the total figure of 4.96 MU after excluding 0.5% of auxiliary consumption.

The auxiliary consumption of hydro generation plants is to be computed in accordance with Regulation 13 based on the actual nature of the plant and not as has been done by the Petitioner. Auxiliary consumption calculated as per this Regulation for each of these nine plants is given in Table 5.4 below. For costing purposes, the Commission is allowing auxiliary consumption only as per Regulation 13 mentioned above. The aggregate value of this is 7.83 MUs and plant-wise breakup of the same is indicated in Table 5.4 below:

Table 5.4 : Auxiliary Consumption (MUs)

| Plant | Proposed | | Approved | |
|----------------|--------------|-----------------|-------------|-----------------|
| | Total | % of generation | Total | % of generation |
| Dhakrani | 0.60 | 0.5% | 0.31 | 0.2% |
| Dhalipur | 0.89 | 0.5% | 0.38 | 0.2% |
| Chibro | 3.29 | 0.5% | 3.00 | 0.4% |
| Khodri | 1.55 | 0.5% | 0.69 | 0.2% |
| Kulhal | 0.59 | 0.5% | 0.31 | 0.2% |
| Ramganga | 1.08 | 0.5% | 0.62 | 0.2% |
| Chilla | 3.47 | 0.5% | 1.34 | 0.2% |
| Maneri Bhali-I | 2.31 | 0.5% | 0.79 | 0.2% |
| Khatima | 0.86 | 0.5% | 0.39 | 0.2% |
| Total | 14.65 | | 7.83 | |

5.2.3 Transformation Losses

The Petitioner has claimed transformation loss of 7.20 MUs and station-wise position of the same is given in Table 5.5 below. The allowable rate of transformation losses has been defined in Regulation 14. Based on this rate, the admissible transformation loss actually works out to 15.86 MUs which is higher than that claimed by the Petitioner. For purposes of costing the Commission is allowing transformation loss at this higher figure of 15.86 MUs, and plant-wise break-up of the same is given in Table 5.5 below.

Table 5.5 : Transformation Losses (MUs)

| Plant | Proposed | | Approved | |
|----------------|-------------|-----------------|--------------|-----------------|
| | Total | % of generation | Total | % of generation |
| Dhakrani | 0.24 | 0.2% | 0.78 | 0.5% |
| Dhalipur | 0.36 | 0.2% | 0.96 | 0.5% |
| Chibro | 2.64 | 0.4% | 3.75 | 0.5% |
| Khodri | 0.62 | 0.2% | 1.73 | 0.5% |
| Kulhal | 0.24 | 0.2% | 0.77 | 0.5% |
| Ramganga | 0.43 | 0.2% | 1.56 | 0.5% |
| Chilla | 1.39 | 0.2% | 3.36 | 0.5% |
| Maneri Bhali-I | 0.93 | 0.2% | 1.98 | 0.5% |
| Khatima | 0.35 | 0.2% | 0.97 | 0.5% |
| Total | 7.20 | | 15.86 | |

5.2.4 Total Auxiliary Consumption and Transformation Losses

Based on the above discussion, against a total claim of 21.85 MUs, the Commission is approving 23.69 MUs as Auxiliary Consumption and Transformation Losses, which is presented in

Table 5.6 below:

Table 5.6: Total Auxiliary Consumption and Transformation Losses (MUs)

| Plant | Proposed | Approved |
|----------------|-----------------|-----------------|
| Dhakrani | 0.84 | 1.09 |
| Dhalipur | 1.25 | 1.34 |
| Chibro | 5.93 | 6.75 |
| Khodri | 2.17 | 2.42 |
| Kulhal | 0.83 | 1.08 |
| Ramganga | 1.51 | 2.18 |
| Chilla | 4.86 | 4.70 |
| Maneri Bhali-I | 3.24 | 2.77 |
| Khatima | 1.21 | 1.36 |
| Total | 21.85 | 23.69 |

5.2.5 Saleable Primary Energy

Based on the above figures of Primary Energy generation, Auxiliary Consumption and Transformation Losses, the total Saleable Primary Energy of these plants works out to 3145.44 MUs as shown in Table 5.7 below. Petitioner's approved Annual Fixed Cost distributed over this Saleable Primary Energy gives the Primary Energy rate. The actual energy sold will be paid for at this Primary Energy Rate. If for some reason the actual generation is less than this projected figure, the resultant shortfall in Petitioner's revenue will get made good from Capacity Charges payable under the two-part tariff as stipulated in the Regulations.

Table 5.7 : Approved Saleable Primary Energy (MUs)

| Plant | Primary Energy | Auxiliary Consumption & Transformation losses | Saleable Primary Energy |
|----------------|-----------------------|--|--------------------------------|
| Dhakrani | 156.88 | 1.09 | 155.78 |
| Dhalipur | 192.00 | 1.34 | 190.66 |
| Chibro | 750.00 | 6.75 | 743.25 |
| Khodri | 345.00 | 2.42 | 342.58 |
| Kulhal | 153.91 | 1.08 | 152.83 |
| Ramganga | 311.00 | 2.18 | 308.82 |
| Chilla | 671.29 | 4.70 | 666.59 |
| Maneri Bhali-I | 395.00 | 2.77 | 392.24 |
| Khatima | 194.05 | 1.36 | 192.69 |
| Total | 3169.13 | 23.69 | 3145.44 |

5.3 Analysis of Financial Parameters

5.3.1 Capital Cost

The Petitioner has claimed that the data relating to capital cost of these plants on the date of their commercial operation is not available. The Petitioner has, therefore, divided the total GFA value of Rs. 943 crore given in the Final Transfer Scheme between UJVNL and UPJVNL in the ratio of installed capacity of 2:1 and has thus taken provisional value of GFA for these and other assets as Rs. 676 crore as on 09.11.01, the date of transfer of assets from UPJVNL. This has been revised to Rs. 685 Crore on 31.03.02. Further, in absence of plant-wise breakup of this value, it has been apportioned between these nine plants and Petitioner's other plants on the basis of capacity and age of each plant. The values so proposed by the Petitioner for these nine plants are given in Table 5.8.

Table 5.8 : GFA of the stations as on 31.03.2002 as proposed by the Petitioner (Rs. crore)

| Plant | Value of GFA as on 31.03.2002 proposed by the Petitioner |
|----------------|---|
| Dhakrani | 17.22 |
| Dhalipur | 26.02 |
| Chibro | 146.19 |
| Khodri | 92.60 |
| Kulhal | 17.74 |
| Ramganga | 124.23 |
| Chilla | 98.72 |
| Maneri Bhali I | 71.53 |
| Khatima | 13.96 |
| Total | 608.21 |

The approach for division of GFA between UPJVNL and UJVNL on the basis of installed capacity is seriously flawed at least for following two reasons:

- (i) It is not in conformity with Government of India's order dated 05.11.2001, which stipulates that assets located in Uttaranchal shall stand transferred to Uttaranchal and hence book value of these assets only should have been transferred.
- (ii) Per MW cost of all the plants of UJVNL has been assumed to be the same. However,

these plants have been commissioned on different dates spread over a long period of time. Therefore, per MW capital cost would vary considerably from plant to plant and cannot be assumed to be uniform. To illustrate, Khara power station which has gone to UP was only 9 years old, while Khatima power station which has come to Uttaranchal was 45 years old in 2001. Assuming per MW costs of both these plants to be the same will severely distort this value for both these plants.

The basis for estimating capital costs of these plants proposed by the Petitioner is, therefore, seriously flawed and wrongly allocates higher GFA values to the comparatively older plants of Uttaranchal and hence cannot be accepted.

A better approach would be to go back to the date of unbundling of UPSEB. At the time of unbundling of UPSEB, the total GFA for all the stations of erstwhile UPJVNL was fixed at Rs. 927.42 Crore in the Provisional Transfer Scheme notified by UP Government. Plant-wise breakup of this value was subsequently worked out and given in the PPA dated 18.12.2000 signed for purchase of power by UPPCL from erstwhile UPJVNL, which was also approved by the UP Commission. This GFA value of Rs. 927.42 crore given in the Provisional Transfer Scheme dated 14.01.2000 was subsequently raised to Rs. 943.38 Crore in the Final Transfer Scheme notified on 25.01.2001. This value of GFA is also shown in UPJVNL's Balance Sheet for 2000-01. To incorporate this marginal increase in total value in the Final Transfer Scheme, for want of a better alternative, the breakup of the provisional value of Rs. 927.42 crore already approved by UPERC can be increased proportionately. This approach presents a fairer and more realistic picture for these nine stations. Further, since this increase is of only a small amount of about Rs. 16 crore, its impact in any case would only be marginal.

Regulation 16(2) requires that in case of existing generating stations, the project cost first admitted by the Appropriate Commission shall be the basis for determination of tariff. GFA of Rs. 927.42 crore (revised Rs. 943 crore) approved by UPERC is, therefore, the capital cost of all stations of erstwhile UPJVNL as on the date of unbundling of UPSEB i.e. 14.01.2000. Plant-wise breakup of this has been worked out as indicated above. With duly validated changes, this value can be updated to any date and the same would be the admissible capital cost of these plants on that date. The value of GFA for these nine stations worked out as per the Provisional and the Final Transfer Schemes is given in Table 5.9 below:

Table 5.9: GFA of the stations as on 14.01.2000 (Rs. crore)

| Plant | GFA based on Rs. 927.42 crore | GFA based on Rs. 943.38 crore |
|----------------|--------------------------------------|--------------------------------------|
| Dhakrani | 12.19 | 12.40 |
| Dhalipur | 20.03 | 20.37 |
| Chibro | 86.40 | 87.89 |
| Khodri | 72.72 | 73.97 |
| Kulhal | 17.21 | 17.51 |
| Ramganga | 49.17 | 50.02 |
| Chilla | 122.78 | 124.89 |
| Maneri Bhali I | 107.86 | 109.72 |
| Khatima | 7.07 | 7.19 |
| Total | 495.43 | 503.96 |

5.3.2 Additional Capitalization

Against GFA of 503.96 on 14.01.2000 worked out above, the value claimed by the Petitioner on 31.03.2002 is Rs. 608.21 Crore. Another Rs. 11.65 crore has been claimed by way of capitalization after 31.03.2002. Plant-wise break-up of this is given in Table 5.10 below.

Table 5.10: Additional Capitalization claimed after 31.03.2002 (Rs. crore)

| Name of the Plant | Additional capitalization claimed by the Petitioner |
|--------------------------|--|
| Dhakrani | 0.38 |
| Dhalipur | 0.11 |
| Chibro | 2.32 |
| Khodri | 3.05 |
| Kulhal | 0.06 |
| Ramganga | 0.20 |
| Chilla | 5.36 |
| Maneri Bhali I | 0.13 |
| Khatima | 0.04 |
| Total | 11.65 |

As stated earlier, total GFA of these plants as on 14.01.2000 having been arrived at, changes in the same can be allowed only after due validation. The Petitioner was, therefore, specifically asked to furnish details pertaining to additional capitalisation claimed till 31.03.2004, but has not done so. In absence of proper scrutiny of these claims, Commission is not allowing any additions on account of capitalisation in GFA values of these nine plants after 14.01.2000.

5.3.3 Depreciation

Depreciation of an asset is calculated on its actual cost to the company and is allowed as an

expense and enables the company to repay loans that might have been taken to finance its acquisition. Assets, which have been paid for by a third party, do not involve any loan repayments and depreciation is, therefore, not allowable on such assets. In this connection, section 43 of the Income Tax Act is being reproduced below:

“Actual Cost means the actual cost of the assets to the assessee, reduced by that portion of the cost, thereof, if any, as has been met directly or indirectly by any other person or authority.”

It may be recalled that assets of these generating stations have been vested in the Petitioner Company through an Act of Parliament without the Petitioner having to pay cost of these assets. Accordingly, as spelt out unambiguously in section 43 of the Income Tax Act, no depreciation is permissible to the Petitioner Company on these assets. Commission sees no reason for adopting a different approach for cost determination.

While no depreciation is admissible as seen above, prudence demands that the company builds up some reserve for replacement of these assets as and when they wear off. The Commission is directing the Petitioner company to create a fund for this purpose, which may be called “Renovation & Modernisation Fund (RMF) “and to open a separate bank account for this. This fund should be used only for leveraging investments required for replacement, renovation and modernization of existing assets, and should not be used up in Petitioner’s operations or put to any other use. Since this Fund has been created without any contribution from the Petitioner, any investment in fixed assets from this Fund shall not be eligible for return or normative interest. The Commission as a special case is allowing depreciation on these assets, which normally is not permissible, on the condition that this entire amount is credited to the bank account for RMF fund. Any interest earned on this account shall be credited to RMF only. It would be advisable for the Petitioner to credit to this fund the depreciation already taken by it prior to the tariff year so that adequate funds are available to it for Renovation and Modernization of these plants on which so much concern has rightly been shown.

The Petitioner has claimed that breakup of its assets in categories prescribed by Regulations, is not being maintained. Assets have, therefore, been categorised as per the break-up available with the Petitioner. Based on this assumed classification and item-wise asset lives specified by Regulations, weighted average depreciation rate of 2.65% has been worked out for GFA as on 31.03.2002. Based on this classification and additional capitalization till 2003-04, the Petitioner has

calculated the plant-wise depreciation for the tariff year as given in Table 5.11 below:

Table 5.11: Proposed Depreciation (Rs. crore)

| Plant | Depreciation for FY 05 |
|--------------|-------------------------------|
| Dhakrani | 0.29 |
| Dhalipur | 0.42 |
| Chibro | 3.93 |
| Khodri | 2.50 |
| Kulhal | 0.46 |
| Ramganga | 3.23 |
| Chilla | 2.72 |
| M Bhali 1 | 1.87 |
| Khatima | 0.00 |
| Total | 15.42 |

While this is not a correct or a precise way of calculating depreciation, in absence of requisite details, the Commission is provisionally permitting this approach to classification of assets proposed by the Petitioner for calculating the weighted average rate of depreciation, but only for this year. The Petitioner is hereby directed to get its assets properly categorised so that similar situation does not arise again in future.

While computing this weighted average depreciation rate of 2.65%, the Petitioner has depreciated these assets up to 100% of their cost. Regulation 26 clearly prescribes that depreciation shall be allowed only upto 90% of the asset cost. The Commission has, therefore, carried out this correction. After carrying out the above correction, the permissible rate of depreciation works out to 2.38% and not 2.65% as claimed in the Petition.

For working out the Accumulated Depreciation, approach similar to the one adopted for capital cost is required. This is to fall back on the figures given at the time of unbundling of UPSEB, supplemented by the PPA signed between UPJVNL & UPPCL on 18.12.2000. Plant-wise break up of accumulated depreciation given in this PPA and approved by UPERC has been increased proportionately to account for the revised figure given in the Final Transfer Scheme and work out the plant-wise figures as on 14.01.2000. For subsequent period till 31.03.2003, the depreciation allowed in the PPA has been taken. It has been noticed that in some cases accumulated depreciation has exceeded 90% of the asset's cost, but the same is not being disturbed here. However, for the current year depreciation is being allowed only upto 90% of the value of any asset. With this correction in the rate of depreciation, the total depreciation for the tariff year works out to Rs. 8.95 crore.

Accumulated depreciation upto 31.03.2004 and depreciation for the tariff year, as allowed by the Commission is given in the following Table 5.12.

Table 5.12 : Depreciation of the stations as approved by the Commission (Rs. crore)

| Plant | Accumulated Depreciation as on 14.01.2000 | | Depreciation for | | | | Accumulated Depreciation as on 31.03. 2004 | | Depreciation allowed for the tariff year |
|----------------|---|--------------------------------------|------------------|--------------|--------------|--------------|--|--------|--|
| | As per Provisional Transfer Scheme | Derived as per Final Transfer Scheme | 2000-01 | 2001-02 | 2002-03 | 2003-04 | In Rs. crore | % | |
| Dhakrani | 10.01 | 10.96 | 0.41 | 0.41 | 0.41 | 0.00 | 12.19 | 98.32% | 0.00 |
| Dhalipur | 16.60 | 18.18 | 0.68 | 0.68 | 0.68 | 0.00 | 20.22 | 99.23% | 0.00 |
| Chibro | 62.29 | 68.21 | 2.94 | 2.94 | 2.94 | 2.06 | 79.10 | 90.00% | 0.00 |
| Khodri | 34.71 | 38.01 | 2.47 | 2.47 | 2.47 | 1.76 | 47.18 | 63.78% | 1.76 |
| Kulhal | 10.29 | 11.27 | 0.59 | 0.58 | 0.58 | 0.42 | 13.44 | 76.74% | 0.42 |
| Ramganga | 33.93 | 37.16 | 1.67 | 1.67 | 1.67 | 1.19 | 43.36 | 86.69% | 1.19 |
| Chilla | 54.29 | 59.45 | 4.17 | 4.17 | 4.17 | 2.97 | 74.93 | 60.00% | 2.97 |
| Maneri Bhali I | 42.43 | 46.46 | 3.67 | 3.67 | 3.67 | 2.61 | 60.09 | 54.76% | 2.61 |
| Khatima | 5.68 | 6.22 | 0.24 | 0.24 | 0.24 | 0.00 | 6.94 | 96.50% | 0.00 |
| Total | 270.23 | 295.92 | 16.84 | 16.83 | 16.83 | 11.01 | 357.44 | | 8.95 |

5.3.4 O&M Expenses

Operation and Maintenance (O&M) expenses are the annual expenses that a generator incurs in operating the plant. The main elements of O&M expenses are:

- (i) Consumption of Stores & Spares
- (ii) Repair & Maintenance Expenses
- (iii) Employee Costs
- (iv) Administrative & General Expenses

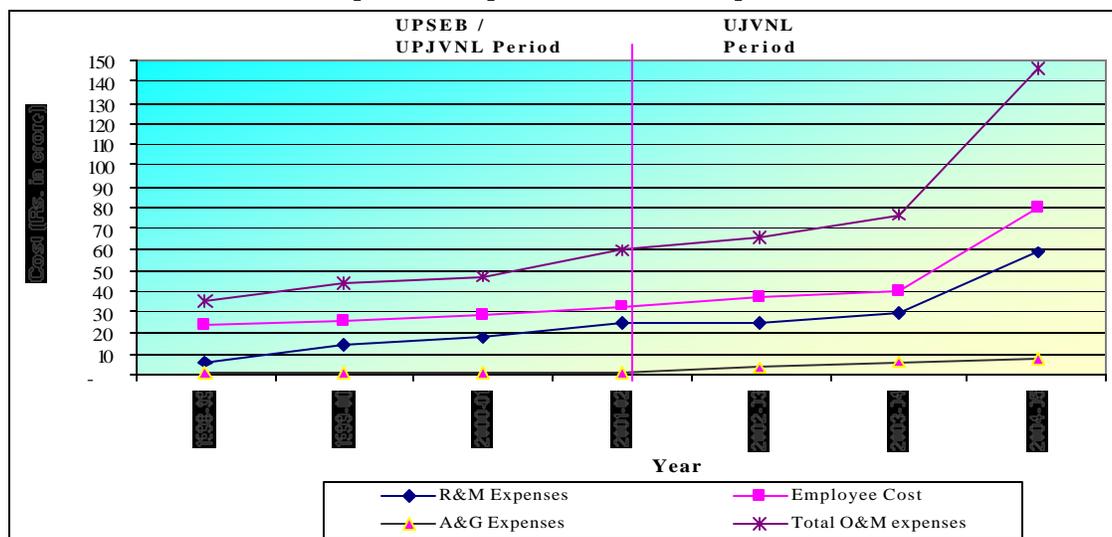
Once a plant has been in operation for few years, these expenses by their very nature stabilise needing only annual escalation. Accordingly, Regulation 26 stipulates that O&M expenses for plants in operation for more than 5 years has to be based on the actual expenses for the 5 year period 1998-99 to 2002-03.

The average of these expenses, excluding abnormal expenses, represents mid year expenses which is 2000-01. These are then to be escalated at compound rate of 4% p.a. to arrive at the allowable O&M expenses for the tariff year. The position of O&M expenses in previous years, and based on those expenses that can be allowed under the Regulations are given in Table 5.13.below:

Table 5.13: O&M Expenses under Regulations (Rs. crore)

| Plant | Actual O&M Expenses | | | | | | 2004 05 | |
|--------------|---------------------|--------------|--------------|--------------|--------------|--------------|------------------------|--------------------|
| | 1998-99 | 1999-00 | 2000-01 | 2001-02 | 2002-03 | 2003-04 | Proposed by Petitioner | As per Regulations |
| Dhakrani | 2.19 | 4.36 | 2.67 | 3.66 | 3.46 | 4.23 | 17.08 | 3.82 |
| Dhalipur | 3.41 | 6.27 | 3.86 | 5.68 | 5.36 | 6.55 | 15.30 | 5.75 |
| Chibro | 7.82 | 7.39 | 9.49 | 11.86 | 13.19 | 18.60 | 30.37 | 11.64 |
| Khodri | 2.03 | 2.18 | 2.86 | 3.66 | 7.10 | 8.18 | 16.09 | 4.17 |
| Kulhal | 1.96 | 3.61 | 2.22 | 3.27 | 3.08 | 3.77 | 6.76 | 3.31 |
| Ramganga | 5.19 | 5.85 | 6.31 | 6.53 | 7.57 | 8.90 | 13.94 | 7.36 |
| Chilla | 5.91 | 5.41 | 8.00 | 11.50 | 11.80 | 11.83 | 20.24 | 9.97 |
| M Bhali I | 3.98 | 4.97 | 8.31 | 9.44 | 10.42 | 10.25 | 19.51 | 8.69 |
| Khatima | 2.79 | 3.04 | 3.71 | 3.65 | 3.81 | 3.61 | 7.40 | 3.98 |
| Total | 35.28 | 43.08 | 47.43 | 59.25 | 65.79 | 75.92 | 146.69 | 58.69 |

It has been stated that these plants were in a state of utter neglect before being transferred to the Petitioner, who has to now incur heavy expenditure on their repairs. Petitioner has, therefore, contended that O&M expenses for the tariff year should not be based on previous five years of expenditure levels as required by the Regulations, but on the basis of the projections given in the Petition. In other words, the tariff year's O&M expenses should be allowed based solely on Petitioner's judgment, ignoring their levels and trends in the previous years. This actually amounts to allowing these expenses as claimed in the Petition without any scrutiny and validation. This contention is seriously flawed and cannot be accepted. Such an approach makes a mockery of the whole tariff determination exercise and Commission cannot be a party to it. The Commission is indeed dismayed at the casualness and flippancy inherent in this suggestion.

Graph 5.4: Component-wise O&M Expenses

The historical trend of these expenses and those proposed by Petitioner for tariff year is presented in Graph 5.4 above. While the actual expenses for the years that these plants were with UP have gone up gradually, there is spurt in the same after their transfer to UJVNL and the trend continues unabated. Intriguingly, this jump in expenditure does not seem to have resulted in any worthwhile step up of the output of these plants. Notwithstanding all this, the Commission can at the best allow limited relaxation in the laid down Regulations to the extent that for working out the base, actual expenses for only past three years are considered against five years provided the Regulations. During these three years, these plants were managed by the Petitioner, barring few months in 2001-02, and presumably would not have suffered the neglect alleged for earlier periods and should, therefore, reflect a fairly realistic position. The figures of O&M expenses claimed in the Petition and those admissible after making the above relaxation are given in Table 5.14 below:

Table 5.14: O&M Expenses under Relaxed Regulations (Rs. crore)

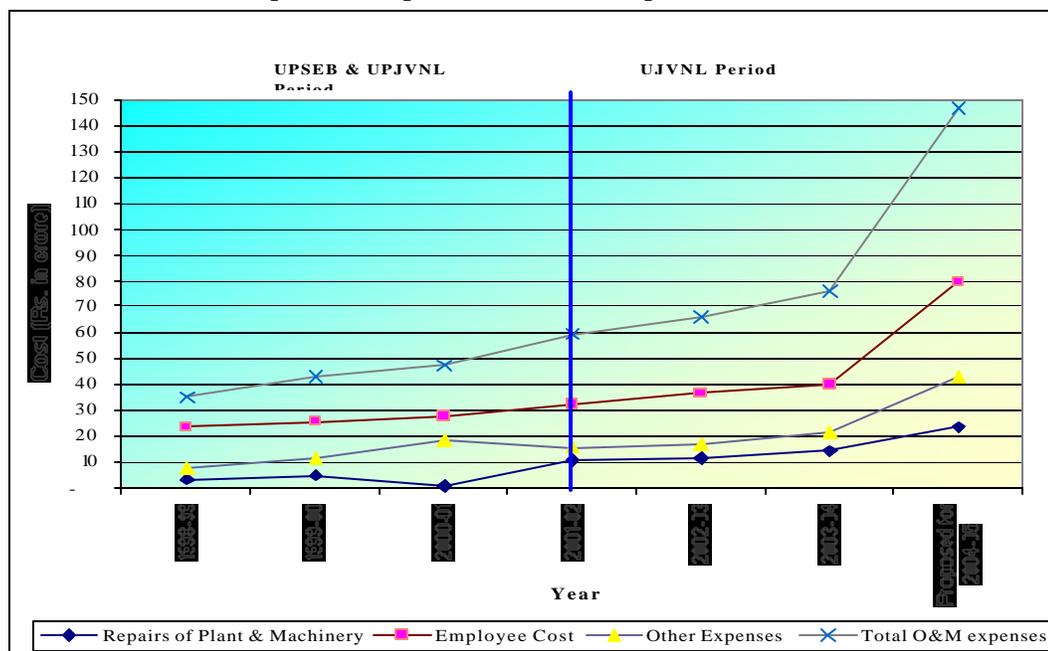
| Plant | Actual O&M expenses | | | Average for 3 years | 2004-05 | |
|--------------|---------------------|--------------|--------------|---------------------|---------------|---------------------------|
| | 2001-02 | 2002-03 | 2003-04 | | Proposed | Under relaxed Regulations |
| Dhakrani | 3.66 | 3.46 | 4.23 | 3.78 | 17.08 | 4.09 |
| Dhalipur | 5.68 | 5.36 | 6.55 | 5.86 | 15.30 | 6.34 |
| Chibro | 11.86 | 13.19 | 18.60 | 14.55 | 30.37 | 15.74 |
| Khodri | 3.66 | 7.10 | 8.18 | 6.32 | 16.09 | 6.83 |
| Kulhal | 3.27 | 3.08 | 3.77 | 3.37 | 6.76 | 3.65 |
| Ramganga | 6.53 | 7.57 | 8.90 | 7.67 | 13.94 | 8.29 |
| Chilla | 11.50 | 11.80 | 11.83 | 11.71 | 20.24 | 12.66 |
| M Bhali I | 9.44 | 10.42 | 10.25 | 10.04 | 19.51 | 10.86 |
| Khatima | 3.65 | 3.81 | 3.61 | 3.69 | 7.40 | 3.99 |
| Total | 59.25 | 65.79 | 75.92 | 66.99 | 146.69 | 72.45 |

It will be seen from the above Table that the total O&M expenses that can be allowed on historical basis, even after relaxing the norms stipulated in the Regulations and excluding figures for UP period, are less than half of what has been projected by the Petitioner. Breakup of this cost, therefore, needs to be gone into to identify specific items with respect to which Petitioner's projections are so much at variance. This is shown in the Table 5.15 below:

Table 5.15: Component-wise break-up of O&M expenses under Relaxed Regulations (Rs. crore)

| Sl. No. | Item | Actual Expenditure | | | Average for 3 years | 2004-05 | |
|---------|--------------------------|--------------------|--------------|--------------|---------------------|---------------|--------------------------------------|
| | | 2001-02 | 2002-03 | 2003-04 | | Proposed | Admissible under relaxed Regulations |
| 1 | Stores & Spares | 0.65 | 0.70 | 0.49 | 0.62 | 0.55 | 0.67 |
| 2 | Repair & Maintenance | 24.96 | 24.59 | 29.43 | 26.33 | 58.29 | 28.47 |
| 3 | Administration & General | 0.95 | 3.57 | 5.95 | 3.49 | 8.10 | 3.77 |
| 4 | Employees Cost | 32.54 | 36.94 | 40.04 | 36.51 | 79.74 | 39.49 |
| 5 | Others | 0.14 | 0.00 | 0.00 | 0.05 | 0.00 | 0.05 |
| | Total | 59.25 | 65.79 | 75.92 | 66.99 | 146.69 | 72.45 |

While the main justification for such steep rise in O&M expenses given by the Petitioner is neglected maintenance in UP days, the increase over last year's level in Repair and Maintenance head only is of Rs. 28.86 crore whereas increase in employee cost for the same period is as much as Rs. 39.70 crore. These generating stations having been in existence for more than twenty years, it is expected that their staff and other expenses would have stabilised long time back requiring in turn only annual increment in the same. This expectation is totally belied in the Petitioner's projections and abnormally high increases have been claimed even with respect to items like Employee cost and Administration, which are independent of the state of maintenance of individual plants. This position comes out clearly in Graph 5.5 below. Reasonability of abnormally high expenditure claimed by the Petitioner under individual heads is examined in the following paragraphs.

Graph 5.5: Component-wise O&M expenses (Rs. crore)

5.3.4.1 Stores & Spares

The Petitioner has projected expenditure of Rs. 0.55 crore under this head which is less than Rs. 0.67 crore allowable as per relaxed Regulations. The Commission is accordingly allowing expenditure of Rs. 0.67 crore under this head.

5.3.4.2 Repair & Maintenance (R&M) Expenses

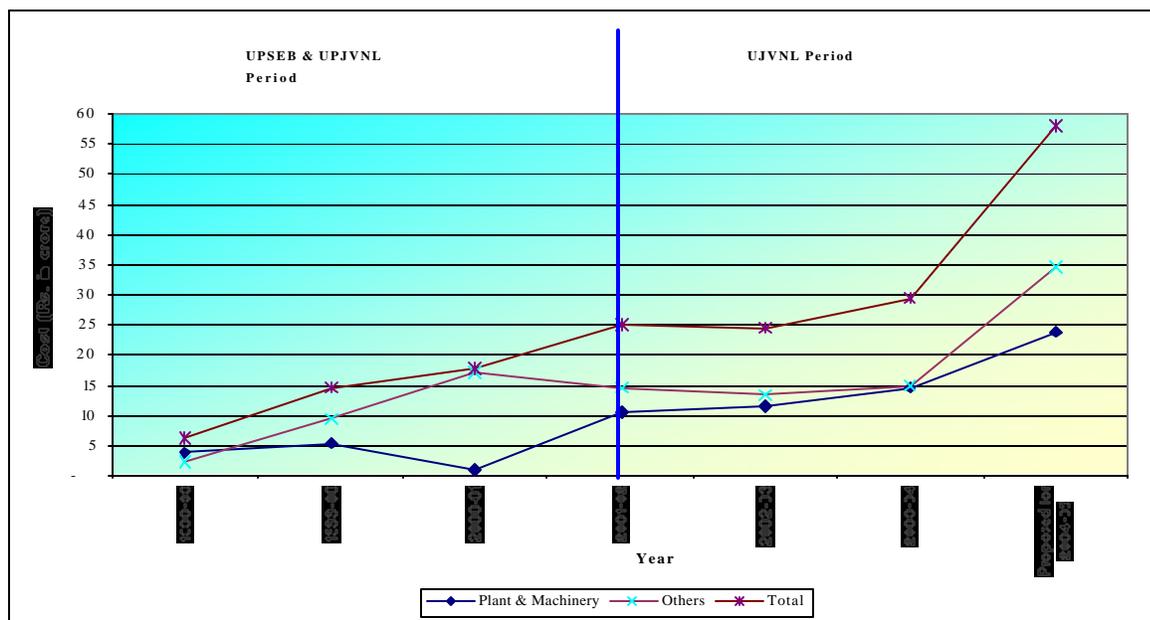
The breakup of R&M expenses for last 6 years, allowable as per Regulations, proposed by the Petitioner and those approved by the Commission with relaxed Regulations is presented in the following Table 5.16.

Table 5.16: Approved R&M Expenses (Rs. crore)

| Component | 1998-99 | 1999-00 | 2000-01 | 2001-02 | 2002-03 | 2003-04 | 2004-05 | | |
|--------------------------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------------|----------------------------|
| | | | | | | | Proposed | As per Regulations | After relaxing Regulations |
| Plant & Machinery | 3.77 | 5.23 | 0.80 | 10.56 | 11.36 | 14.68 | 23.74 | 7.42 | 13.19 |
| Building | 1.41 | 9.10 | 16.91 | 4.67 | 2.16 | 2.10 | 9.06 | 8.01 | 3.22 |
| Major Civil Works | 0.23 | 0.01 | 0.06 | 5.70 | 10.82 | 11.98 | 17.37 | 3.94 | 10.27 |
| Vehicles | 0.13 | 0.09 | 0.00 | 0.00 | 0.00 | 0.24 | 0.40 | 0.05 | 0.09 |
| Furniture & Fixtures | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Office Equipment & Other Items | 0.52 | 0.03 | 0.00 | 4.03 | 0.25 | 0.43 | 7.72 | 1.13 | 1.70 |
| Total | 6.06 | 14.46 | 17.77 | 24.96 | 24.59 | 29.43 | 58.29 | 20.55 | 28.47 |

Major part of the R&M expenses of Rs. 29.43 crore last year, was under the heads Plant & Machinery, Buildings and Major Civil Works. Expenditure of this order under Repair & Maintenance head suggests that at least part of it could be of capital nature. In order to work out and segregate the cost of such capital works, the Petitioner was asked to provide details of works undertaken, but the same has not been done. For the tariff year, the Petitioner has projected further increase of Rs. 28.86 crore over last year's level, but of this, increase in expenditure on Plant & Machinery is merely Rs. 9 crore as is depicted in Graph 5.6 below:

Graph 5.6: Repair & Maintenance Expenses (Rs. crore)



It is appreciated that some of these plants would be in need of repairs/renovation. Expenditure on such works is occasional in character and largely of capital nature and is, therefore, to be treated as additional capitalisation permissible under the Regulations. Booking entire expenditure on such works in one-year amounts to its recovery in a single year and wrongly overloads the current tariffs. This distinction between annual Repair & Maintenance and Renovation & Modernisation works was recognised even in the PPA signed between UPJVNL & UPPCL on 18.12.2000. The relevant portion of this PPA is reproduced below:

“No renovation or capital addition in the Hydro Power Generating Station in excess of O&M expenditure shall be carried out without prior consent of UPPCL subject to subsequent approval of UPERC.”

This distinction between annual Repair & Maintenance and Renovation & Modernisation, which the Petitioner is overlooking, has been made categorically in UPJVNL's Annual Report for 2000-01. This Report talks of such works for Chibro, Khodri and Chilla plants being taken up based on clearances received from CEA and to be financed from PFC loans. For other stations, the Report envisages such expenditure during 2002-07 after completing RLA studies. In short, such expenditure has been recognised to be different from that on annual repair & maintenance works and has been taken up based on properly prepared projects and out of loans raised for this purpose.

The Petitioner should adopt a similar approach and separate the works pertaining to Renovation & Modernization from the routine Repair & Maintenance works, and submit the same for Commission's scrutiny and approval after proper financial tie up. On their validation the Commission shall recognise such expenditure as additional capitalisation as per terms of the Regulations. Thereupon, annual costs on such capital investments incurred by way of interest and depreciation etc. should be claimed and the same will be allowed subject to prudence check. Commission is treating the difference of Rs. 29.81 between the expenses claimed under this head and those allowable even after relaxing the Regulations, as expenditure on new capital works. Recovery of their cost is to be done over life of such assets through interest and depreciation accruable after capitalisation. In the meantime, the Commission is allowing interest during construction for such works of Rs. 1.53 crore based on the above capital cost of Rs. 29.81 or say 30 crore. Adjustments in this amount based, on actual expenditure will be made in the next year's tariff. This has been elaborated under Interest on Loans section later in this Order.

5.3.4.3 Administration & General(A&G) Expenses

Against a total claim of Rs. 8.10 crore as A&G expenses by the Petitioner, the allowable expenditure on the basis of past 3 years' figures works out to Rs. 3.77 crore. The Petitioner has claimed additional expenditure on supplying gum boots to some staff without even quantifying the amount. By its very nature expenditure on this item is not likely to be substantial. Breakup of A&G expenditure during 2003-04 shows that ample room exists to cut down wasteful expenditure and absorb such marginal expenses. Expenditure on litigation alone is about 500% period of last year's level. The Commission has not scrutinised individual items and has worked out an overall amount for expenditure under this head on normative basis. The Petitioner should suitably allocate this amount and meet genuine requirements like supply of gumboots involving modest expenditure,

and simultaneously cut down wasteful expenditure. The Commission is allowing following additional expenditure on two items as projected in the Petition for reasons given below:

- (i) Liability for insurance payments is on actual basis, the proposed expenditure of Rs. 1.78 crore under the insurance head is being allowed, increasing thereby the allowable cost under this head by Rs. 1.14 crore.
- (ii) The Regulatory Fees was not a part of Petitioner's Administrative expenses in previous years. The Commission has, therefore, allowed this additional expenditure of Rs. 1.00 crore as claimed in the Petition.

With the above additions, the total approved A&G Expenses work out to Rs. 5.91 crore.

5.3.4.4 Employee Costs

Against Rs. 79.74 Crore claimed as employee cost during the tariff year, the normative value of employee cost on the basis of last three years' figures works out to only Rs. 39.49 crore. Details of past, current and projected levels of expenditure under different heads of this cost are given in Table 5.17 below.

Table 5.17: Employee Costs (Rs. crore)

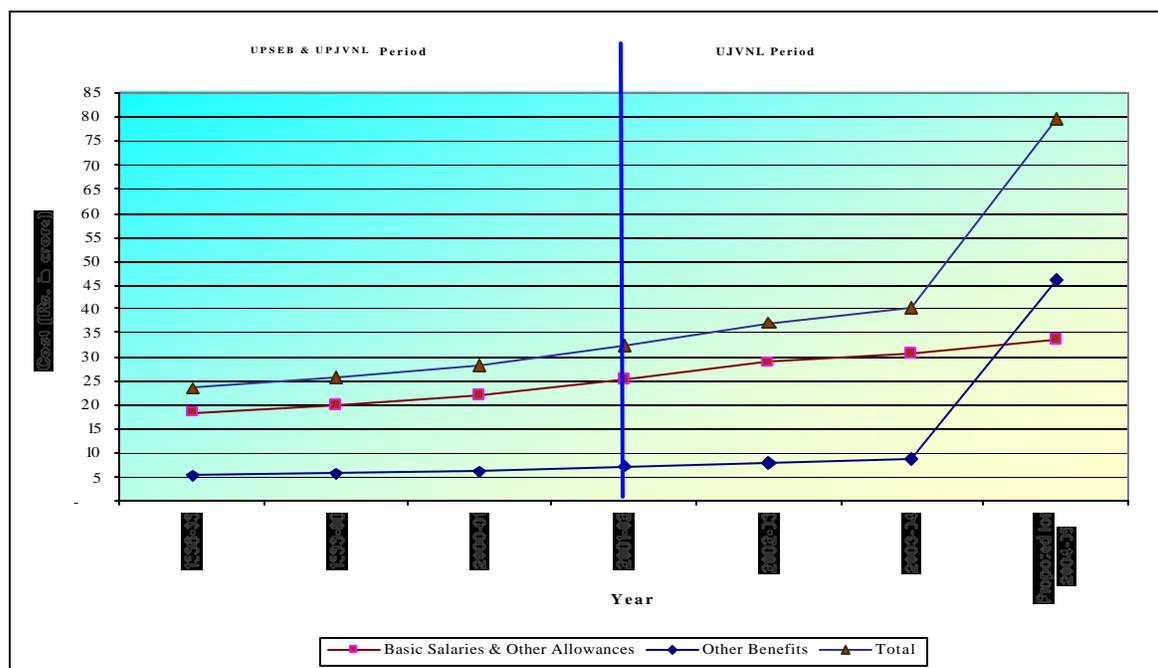
| Sl. No. | Particulars | Actuals for 2003-04 | Projected in the Petition for 2004-05 | As per Regulations | As per relaxed Regulations | Approved by the Commission |
|---------|--|---------------------|---------------------------------------|--------------------|----------------------------|----------------------------|
| 1 | Basic Salaries | 18.43 | 18.01 | 16.01 | 18.31 | 18.01 |
| 2 | Dearness Allowance | 9.79 | 11.44 | 8.31 | 9.54 | 11.44 |
| 3 | Other Allowances | 2.17 | 3.64 | 1.72 | 2.01 | 3.64 |
| 4 | Bonus | 0.21 | 0.50 | 0.65 | 0.63 | 0.50 |
| 5 | Medical Allowance | 0.38 | 0.00 | 0.17 | 0.24 | 0.00 |
| 6 | Staff Welfare expenses | 0.06 | 3.12 | 0.03 | 0.04 | 0.04 |
| 7 | Other Expenses (Details not specified) | 4.01 | 19.28 | 3.66 | 4.13 | 4.13 |
| 8 | Employee Benefits | 0.00 | 15.28 | 0.00 | 0.00 | 0.00 |
| 9 | Terminal Benefits | 4.99 | 8.48 | 3.93 | 4.59 | 5.62 |
| 10 | Colonies Consumption | 0.00 | 0.00 | 0.00 | 0.00 | 0.99 |
| | Total | 40.04 | 79.74 | 34.48 | 39.49 | 44.37 |

As discussed below

In the above Table, expenditure on items 1 to 5 relates to Basic salary, Dearness Allowance, Other allowances, Medical allowance and Bonus payable to the staff. The aggregate expenditure under these heads even as per the relaxed regulations works out to Rs 30.73 crore against Rs. 33.59 crore claimed in the Petition. Recognising that the Petitioner does not have much maneuverability on these expenses, the Commission is accepting Petitioner's own projections under these five heads namely Basic Salary, Dearness Allowance, Other Allowances, Medical Allowance and Bonus. Therefore, these expenses do not require any further discussion.

Expenses projected by the Petitioner under items 6 to 9 of the above Table together account for huge increase of Rs. 37.10 crore over the expenditure level of the previous year as has been shown in Graph 5.7 below. Merits of these are discussed below individually.

Graph 5.7: Employee Cost (Rs. crore)



5.3.4.4.1. Staff Welfare Expenses

Under this head the actual expenditure last year was only Rs. 0.06 crore. Against this the Petitioner has projected expenditure of Rs. 3.12 crore for the tariff year representing an increase of 5100%. No details of this proposed expenditure or reasons for such huge rise in the same have been given. In absence of proper justification, the Commission is not accepting the projections given in

the Petition and is allowing expenditure under this head as per the relaxed Regulations which works out to Rs. 0.04 crore.

5.3.4.4.2. Other expenses

The formats given to the Petitioner clearly stipulated that elements of expenditure under this head should be specified. The Petitioner has not done that. The total expenditure booked under this head during 2003-04 was Rs. 4.01 crore against which the expenditure proposed for 2004-05 is as much as Rs. 19.28 crore of which Rs. 14.10 crore is for payment of salaries of employees of the irrigation department. Petitioner has claimed that the State Government has ordered it to pay salaries and wages of Government employees of the irrigation department working on projects pertaining to these generating stations, but no Government order to this effect has been filed. Hydro generating stations do require works like construction and maintenance of dams, channels etc. This would normally be done in one of the following alternative ways:

- (i) The generating company taking on its rolls employees with requisite expertise and its skills and meeting their costs, or
- (ii) The generating company outsourcing this work and entrusting it to an outside agency through a proper transparent contract.

An arrangement for outsourcing such works was agreed to between the erstwhile UPSEB and the Irrigation Department of UP Government as indicated in UPSEB's letter no. dk; @plng@ch&7 jk0fo0i0@86&2@67 d0cl0@84 Qjoh 1986. As per this arrangement, payment for these functions was to be made to the Irrigation Department @ 1 paise/unit of electricity produced, subject to escalation @ 5% p.a. Payments made to irrigation department under this arrangement are included in the Repair & Maintenance expenses of these plants. Petitioner's accounts also show that payments to the Irrigation Department continue to be made under the Repair & maintenance head. Clear declarations to this effect have been made in the annual accounts/reports of both UPJVNL as well as of UJVNL.

If the existing arrangement needs to be reviewed and modified, the Petitioner and the irrigation department are free to do so but the same should be done in an open and transparent manner. Interestingly, even the staff whose salaries are being claimed in this Petition is yet to be identified and transferred to the Petitioner company and then to its different facilities. In this connection, reference has been made to a meeting held on 28.07.2004 and chaired by the Additional

Chief Secretary, Uttaranchal Government. Minutes of meeting referred to by the Petitioner are enclosed as Annexure III. Para 6 of the minutes brings out clearly that the staff of the irrigation department working on Petitioner's project is still to be identified. Similarly, para 7 shows that far from the State Government directing the Petitioner to pay these salaries, Petitioner itself has offered to do so in the said meeting. Since Commission's Regulations had been notified in May 2004, the Petitioner while making the above offer was fully aware of the expenditure permissible under the Regulations and would have identified savings for absorbing any additional cost on this account.

Commission finds this claim, based on a still to be implemented offer made by the Petitioner itself to be premature and without sufficient details and justification. If the two concerned parties want to review the existing arrangement, they should do it in its entirety covering all aspects of the existing and the proposed arrangement and formalise it.

5.3.4.4.3 Employee Benefits

There is no expenditure recorded under this head in the previous years. However, an expenditure of Rs. 15.28 crore has been projected under this head. While this heading is misleading the proposed expenditure relates to payment of provident fund and related claims to retiring employees by the provident fund trust managed by the Petitioner. This claim comprises of payment of Rs. 8.40 crore towards terminal benefits and Rs. 6.88 crore as interest on Rs. 86 crore of UJVNL's share of the corpus of UPPSET still to be transferred.

During the UPSEB days, deductions on account of provident fund etc. were not regularly credited to the provident fund and diverted to meet the Board's expenses on other accounts. This resulted in UPSEB owing a sum of Rs. 1634.49 crore to the PF trust. On unbundling of UPSEB, UP Government took over all assets and liabilities of the erstwhile UPSEB. This particular liability of Rs. 1634.49 crore towards PF trust as on 14.01.2000 was taken over in entirety by the UP Government vide their Order no. 1555@ih&1@2003&24&114 ih@2002&V#01 h0 dated 16.07.2003, a copy of which is at Annexure IV of this order. Some of the employees of erstwhile UPSEB having been transferred first to UPJVNL and then to UJVNL, the above amount of Rs. 1634.49 crore taken over by UP Government includes share of such employees whose provident fund deductions were diverted elsewhere. UP Government having issued bonds for the entire missing amount, proportionate share of the same needs to be got transferred to the Petitioner from UPJVNL. The State Government who is also the sole owner of the Petitioner company should use its good offices

and have the matter sorted out. Alternatively, as has been done by UP Government, liability on this account should be taken over by the State Government.

Commission recognises that getting this money transferred from UP trust who have already been compensated by UP Government could take some time. In the meantime, the Petitioner will have to make such payments. For this interim period cost of money so paid is, therefore, being allowed as expense. Based on the projected payment of Rs 70 lacs/month interest cost on this amount works out to Rs. 0.43 crore and is being provided under the head Interest on Loans later in this Order. The Petitioner is directed to sort out this issue with the UP trust and State Government without further delay.

5.3.4.4.4. Terminal Benefits

Against actual expenditure of Rs. 4.99 crore during 2003-04 the expenditure projected for the year 2004-05 is Rs. 8.48 crore while the expenditure allowable as per the relaxed Regulations works out to Rs. 4.59 crore. This expenditure is claimed on account of Petitioner's current contribution towards terminal benefits of its employees. As per actuarial valuation done at the time of unbundling of UPSEB, the Petitioner is required to contribute @ 19.08% of the basic salary and dearness allowance of its employees towards current contribution to employee's terminal benefits. On this basis, the Commission has allowed Rs. 5.62 crore as current contribution towards this liability.

5.3.4.4.5. Claims not quantified

The Petitioner without quantifying it has claimed increased expenditure for compliance of Government's directions said to have been issued for engaging services of "Rajya Raksha Vahini" for security of these plants. Similarly, increased expenditure for compliance of Government's directions pertaining to utilisation of services of Uttaranchal Poorva Sainik Udyam Ltd. has also been claimed, again without quantifying. Expenditure on security of these plants is not new and the same would have been incurred since the very beginning. The expenditure thus incurred is already reflected in the historical expenses of these plants. If for some reason, including any advice from the State Government, the Petitioner wants to replace the existing security arrangement with a new one, the decision for the same has to be taken by the management of the company but in a cost effective way. Substituting one agency with another should not entail any substantial additional expenditure, and perhaps for this reason no additional specific amount has been claimed in the

Petition. As far as Government's directions for engaging Ex-servicemen is concerned, Chief Secretary, Uttaranchal Government order dated 04.08.2004 does not compel the company to obtain services of ex-servicemen through Uttaranchal Poorva Sainik Udyam Ltd. against its own judgment. The order merely says that services of certain categories of ex-servicemen are being offered by the said organisation on contract basis and if any department or organisation decides to utilise these services, there is no need to invite tenders as the rates for the same have been approved in the said order. Since the option of utilising services offered by this organisation is that of the Petitioner, the above order of the State Government does not impose any burden on the Petitioner and is not expected to result in meaningful additional expenditure.

5.3.4.4.6. Cost of supply to colonies

In addition to the elements of O&M expenses discussed above, the Commission has considered and provided for cost of supply of free/concessional power to Petitioner's employees. The issue of continuing, modifying or discontinuing the perquisite of supplying free or concessional power to the employees is to be decided by the company's management keeping in view provisions of the Electricity Act, 2003 pertaining to unmetered supply and this Commission's direction given in the Order dated 08.09.2003 passed on the tariff petition of UPCL in which the Petitioner had intervened as a party. Relevant extract of the same is given below;

“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.”

Any expenditure incurred on this account has to be transparently provided for in the Employee Cost of the Petitioner and not to be camouflaged as Auxiliary Consumption as has been done in the Petition. Since the cost of such supply to employees is presently not reflected in the Employee Cost projected in the Petition, the Commission has considered this cost over and above the Employee Cost discussed and approved above.

The total quantum of electricity supplied for consumption in colonies is clubbed together

with consumption in dams, barrages etc and plant-wise position of the same is shown in the Table 5.18 below:

Table 5.18: Cost of consumption in colonies etc.

| S. No. | Plant | Consumption (MU) | Primary Energy Rate (paisa/unit) | Cost of consumption (Rs. crore) |
|---------------|----------------|-------------------------|---|--|
| 1 | Dhakrani | 1.43 | 37.19 | 0.05 |
| 2 | Dhalipur | 1.16 | 32.42 | 0.04 |
| 3 | Chibro | 10.05 | 25.15 | 0.25 |
| 4 | Khodri | 5.03 | 31.10 | 0.16 |
| 5 | Kulhal | 1.85 | 29.03 | 0.05 |
| 6 | Ramganga | 3.88 | 34.48 | 0.13 |
| 7 | Chilla | 5.08 | 25.95 | 0.13 |
| 8 | Maneri Bhali-I | 3.88 | 38.69 | 0.15 |
| 9 | Khatima | 1.11 | 23.21 | 0.03 |
| | Total | 33.47 | | 0.99 |

The Petitioner has not projected any consumption at Chilla. The Commission has, therefore, provided for proportionate consumption of 5.08 MU in Chilla. This consumption is for colonies as well as in Petitioner's barrages dams etc. and is currently at a total of 33.47 MUs. The Petitioner is directed to segregate from this, consumption in dams, barrages etc. and consumption in staff colonies. The Commission recognises this consumption in colonies, barrages etc. and freezes the same at this level. The cost of this supply is to be calculated at Primary Energy Rate and constitutes a part of the sales revenue for working out the capacity charge. At the current Primary Energy Rates, the cost of this supply works out to about Rs. 1 crore. The Commission is accordingly allowing extra cost of Rs. 1 crore for such supply to colonies, barrages etc. for the tariff year. How and in what manner this is to be used to meet expectations of employees is to be decided by the company's management and the Commission does not propose to involve itself with it.

5.3.4.5 Total O&M expenses

Table 5.19 given below shows the O&M expenses proposed by the Petitioner and those approved by the Commission.

Table 5.19: Total O&M Expenses (Rs. crore)

| Plants | Approved by the Commission | | | | | | Proposed by Petitioner |
|----------------|--------------------------------|----------------|----------------|--------------|----------------|--------------|------------------------|
| | Consumption of Stores & Spares | R & M Expenses | Employee Costs | A&G Expenses | Other Expenses | Total | |
| Dhakrani | 0.03 | 1.75 | 3.09 | 0.29 | 0.00 | 5.16 | 17.08 |
| Dhalipur | 0.04 | 2.71 | 2.54 | 0.38 | 0.00 | 5.67 | 15.30 |
| Chibro | 0.07 | 6.00 | 10.37 | 1.36 | 0.01 | 17.81 | 30.37 |
| Khodri | 0.02 | 1.61 | 6.01 | 0.70 | 0.00 | 8.34 | 16.09 |
| Kulhal | 0.03 | 1.56 | 1.98 | 0.27 | 0.00 | 3.84 | 6.76 |
| Ramganga | 0.08 | 1.30 | 6.45 | 1.07 | 0.02 | 8.92 | 13.94 |
| Chilla | 0.18 | 6.70 | 5.88 | 0.88 | 0.01 | 13.65 | 20.24 |
| Maneri Bhali-I | 0.06 | 5.76 | 5.43 | 0.61 | 0.00 | 11.86 | 19.51 |
| Khatima | 0.17 | 1.08 | 2.63 | 0.35 | 0.00 | 4.23 | 7.40 |
| Total | 0.67 | 28.47 | 44.37 | 5.91 | 0.05 | 79.48 | 146.69 |

5.3.5 Return on Equity

The Petitioner has claimed return on total equity investment of Rs. 626.79 crore which is the value of assets of these generating stations on 31.03.2005, as worked out by the Petitioner. Treating this entire amount as Petitioner's investment in these assets, the Petitioner has claimed 14% tax free return on 30% of this amount which works out to Rs. 26.44 crore. The balance 70% of the asset value has been treated as normative loan and a total interest of Rs. 4.57 crore has been claimed on assumed unpaid portion of the same. Thus, a total return of Rs. 31.01 crore has been claimed as return on Petitioner's equity in these assets. State Government in their letter to the Commission received on 08.12.2004 has endorsed the Petitioner's claim.

The method of computing return on Petitioner's equity invested in the company's assets is provided in Regulation 25. The same is reproduced below:

“Return on equity shall be computed on the equity base determined in accordance with Regulation 18 and shall be @14% per annum.

Provided that equity invested in any foreign currency shall be allowed a return on equity up to the prescribed limit in the same currency and the payment on this account shall be made in Indian Rupees based on the exchange rate prevailing on the due date of billing.

Explanation:: The premium raised by the generating company while issuing share capital and investment of internal resources created out of free reserve of the existing generating station, if any, for the funding of the project, shall also be reckoned as paid up capital for the purpose of computing return on equity, provided such share capital, premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station and forms part of the approved financial package.”

Before coming to the Petitioner’s claim, one needs to understand the purpose behind allowing such return. Normally, funding of an asset is done through a mix of company’s own funds and loans taken from financial institutions. Recognising interest payable on such loans as an element of cost ensures servicing of the loan component. The question that remained was that of compensating the investor for his own funds invested in the asset. For this, the Regulation provides that, subject to the conditions given therein, return on such investments made by the generating company would be admissible at 14%. For allowing this attractive return, the necessary conditions are;

- (i) The funds invested in the asset should be company’s own funds.
- (ii) The funds should have actually been invested in creating/acquiring the asset.

Therefore, before admitting the claimed return on equity one has to satisfy oneself that the claimed investment has actually been made by the Petitioner. It is a well recognised fact that company’s own funds are its paid-up capital including premium on shares, if any, and the undistributed profits retained in the company. While the above Regulation strives to generously compensate the genuine investor, the same cannot be misused for making unearned profits. While Government as owner of the Petitioner company can afford to be indulgent and endorse the Petitioner’s claim, the Commission has to examine it objectively in terms of the Regulations quoted above, and in a manner which is logical and fair not only to the Petitioner but also to other stakeholders. The Commission has to remember that the view that the Commission takes on Petitioner’s claim, could become a precedent for similar claims from other utilities. In this context, it may be recalled that Uttaranchal being a special category State, Plan Assistance for number of investments in the Power sector is being received in form of 90% grant and 10% loan. As per Accounting Standards issued by Institute of Chartered Accountants of India on Accounting for

Government Grants, the value of the assets created out of such plan assistance is to be reduced to the extent of the grant portion, unless the recipient declares the grant portion as income. If the Petitioner is allowed return on such non-existent investments, Utilities receiving such grant assistance are likely to claim similar treatment of their grant portions.

Coming to facts of the Petitioner's case, it is not disputed that the paid up capital of the Petitioner company which was incorporated on 12.02.2001 is only Rs. 5 crore. During first year of its operation, i.e. 2001-02, the company incurred a loss of Rs. 3.65 crore. Hence, question of the company having with it any retained profits that year does not arise. These assets, whose value the Petitioner is estimating as Rs. 608 crore, were transferred from UPJVNL in terms of Uttar Pradesh Re-organization Act, 2000 and Government of India's statutory order dated 05.11.2001 issued in exercise of powers under the said Act. On the date of transfer, there were no liabilities pertaining to these assets and, therefore, no such liability was vested in the Petitioner.

Petitioner's claim of return on equity has to be dealt with keeping in mind the above facts. These generating stations having been commissioned more than 20 years before the Petitioner company was registered, question of Petitioner having invested in creation of these assets simply does not arise. That being so, Petitioner's investment in these assets could have been made only at the time of their transfer from UPJVNL on 09.11.2001. As stated earlier, on that date the Petitioner company's own funds comprised of only the paid up capital of Rs. 5 crore. Even this modest amount does not seem to have been paid by the Petitioner for acquiring these assets. In other words;

- (i) On the date of transfer of these assets UJVNL's own funds were merely Rs. 5 crore.
- (ii) No amount whatsoever was paid by UJVNL for acquiring these assets.

To balance its accounts, in the balance sheet for the year 2001 -02, the Petitioner has created a capital reserve on the liabilities side. It is now being argued that this capital reserve created to balance the value of these assets vested in the company should be treated as company's own funds invested for acquiring these assets. This argument cannot be accepted for the simple reason that creation of this capital reserve became necessary only on these assets getting transferred to UJVNL, which is quite different from UJVNL earning profits, creating reserves and then investing them in acquiring assets. This sequence of events cannot be reversed for supporting an illusionary belief

that the Petitioner had own funds in this non-existent reserve and has utilised them in acquiring these assets.

Any amount of accounting jugglery or semantic acrobatics cannot change the basic fact that on the date of transfer of these assets UJVNL's own funds were only Rs. 5 crore and that UJVNL has not invested even a single paisa in acquiring these assets. Accepting such unfounded claims and allowing the Petitioner return on imaginary investments would amount to giving undue benefit to the Petitioner company at the cost of other stakeholders and would be an unhealthy precedent for future.

For reasons given above, the Commission finding no merit in the Petitioner's claimed return on its non-existent investment of equity in these assets disallows the same. Since the claim itself is rejected there is no need to go into the issue whether equity should be restricted to 30% or allowed upto 100% as claimed.

While not allowing any undue benefit to the generating company, the Commission has taken care that consumers also do not get any undue benefit. While Petitioner's funds have clearly not been invested in these assets, their funding would have been done out of Public Funds. Any legitimate expectation of return on such investment can at the best be that of the Government as custodian of Public Funds and the Government is being handsomely compensated through a dedicated Cess of 33 paise/unit on generation of these stations, increase in the royalty rates by 4.5 p/unit to 10 p/unit and also increase in electricity duty of 6 to 16 p/unit which in turn are passed on to consumers.

In spite of the fact that the Petitioner is a company wholly owned by the State Government, Petitioner's identity, funds and assets are undisputedly distinct from those of Government and this distinction cannot be overlooked, notwithstanding any contrary pretensions.

5.3.6 Interest on Loans

The Petitioner has not claimed any interest on outstanding loans. However, it has claimed interest on normative loans worked out as balance outstanding out of equity in excess of 30% by assuming the entire cost of assets as equity and the same has been dealt with and disallowed in the preceding para.

As stated earlier, for want of details the Commission has treated Rs. 29.81 crore, the excess

expenditure over the allowable level under Repair and Maintenance head to be of a capital nature. These works, if already undertaken would come in the category of Works in Progress, details of which the Petitioner has not furnished even after the Commission has asked for them. In absence of such details it is not known whether these works have even been started. However, to ensure that these works do not get delayed for want of funds, the Commission is taking a generous view and assuming that these works have already been started and will be completed during the tariff year. Accordingly, interest during construction on investment of Rs. 29.81 crore is being allowed pending capitalization of such investments. Adjustments based on actual expenditure will be made in this amount while determining the next tariff. The interest cost on this account works out to Rs. 1.53 crore.

Further, as discussed before, the Commission has allowed an interest of Rs. 0.43 crore towards financing of projected payments to retiring employees, which makes the total interest expenses allowed by the Commission as Rs. 1.96 crore.

5.3.7 Interest on Working Capital

The Petitioner has claimed that it has projected the working capital for each plant based on :

- (i) O&M expense at one month of projected expenses;
- (ii) Maintenance spares @ 1% of project cost escalated @ 6% per annum from the date of commercial operation
- (iii) Receivables at two months of revenue from sale of electricity.

Cost of financing has been taken as 10.25%, the short term prime lending rate of SBI as on 01.04.2004.

Petitioner's claims are examined hereafter:

5.3.7.1 One month O&M expenses

The annual O&M expenses admitted by the Commission are Rs. 79.48 crore. Based on this one month's O&M expense, which works out to Rs. 6.62 crore, has been allowed by the Commission. Plant-wise position of the same is presented in Table 5.21 below.

5.3.7.2 Maintenance spares

For calculating its working capital requirement, the Petitioner has claimed the value of spares to be maintained at all times as Rs. 31.24 crore. This value of spares proposed to be maintained is higher than even the total expenditure on repairs and maintenance of plant and machinery of Rs. 14.68 crore in 2003-04 and even the projected expenditure of Rs. 23.74 crore for 2004-05. Similarly, the total consumption of stores and spares during 2003-04 was of Rs. 0.49 crore only. Even for the year 2004-05, total consumption of stores is projected at only Rs. 0.55 crore. Obviously, requirement of maintenance of spares worth Rs. 31.24 crore all the time projected by the Petitioner is totally out of tune with expenditure on related items and, therefore, does not make sense.

Regulation 27 clearly states that maintenance spares shall be taken as 1% of the historical cost escalated @ 6% and in case of UJVNL stations transferred from UPJVNL, historical cost has been defined as the cost as on the date of unbundling of UPSEB. Based on this Regulation, working capital required for maintenance spares for all the nine plants comes to only Rs. 6.74 crore. This has been tested against the total inventory, including spares, maintained by the Petitioner during recent years which is given in Table 5.20 below:

Table 5.20: Inventory Position of Petitioner (Rs. crore)

| Particulars | As on 31.03.2002 | As on 31.03.2003 | As on 31.03.2004 |
|--------------------------------------|------------------|------------------|------------------|
| Total stock, stores & spares in hand | 1.22 | 1.88 | 5.73 |

Even if the entire inventory consisted only of maintenance spares, the amount of Rs. 6.74 Crore admissible as per Regulations presents a more realistic figure, which is also not out of tune with the actual figures discussed above. Thus, the Commission approves Rs. 6.74 crore as maintenance spares and their plant-wise values are given in Table 5.21 below.

5.3.7.3 Receivables

Regulations envisage receivables equivalent to two months of fixed charges for sale of electricity as an allowable component of working capital. Annual Fixed Charges (AFC) for the Petitioner includes O&M expenses, depreciation, interest on loan, return on equity and interest on working capital. The Petitioner has claimed an AFC of Rs. 218.35 crore and on this has worked out the receivables for 2 months of Rs. 33.50 crore. Against this, the Commission has approved an AFC of Rs. 93.35 crore in Table 5.23 below and on this the receivables for two months work out to Rs.

15.56 crore. Plant-wise position of the same is given in Table 5.21 below:

Table 5.21: Working Capital Requirement (Rs. crore)

| Plant | Proposed | | | | Approved | | | |
|----------------|----------------------|-----------------------|----------------------|-----------------------|----------------------|-----------------------|----------------------|-----------------------|
| | 1 month O&M Expenses | 1% Maintenance Spares | 2 months Receivables | Total Working Capital | 1 month O&M Expenses | 1% Maintenance Spares | 2 months Receivables | Total Working Capital |
| Dhakrani | 1.42 | 1.35 | 3.12 | 5.89 | 0.43 | 0.17 | 0.97 | 1.56 |
| Dhalipur | 1.27 | 2.01 | 2.91 | 6.19 | 0.47 | 0.27 | 1.03 | 1.78 |
| Chibro | 2.53 | 8.05 | 7.13 | 17.71 | 1.48 | 1.18 | 3.12 | 5.77 |
| Khodri | 1.34 | 3.25 | 4.24 | 8.83 | 0.69 | 0.99 | 1.78 | 3.46 |
| Kulhal | 0.56 | 1.02 | 1.38 | 2.96 | 0.32 | 0.23 | 0.74 | 1.29 |
| Ramganga | 1.16 | 6.36 | 3.94 | 11.46 | 0.74 | 0.67 | 1.77 | 3.19 |
| Chilla | 1.69 | 4.47 | 4.93 | 11.09 | 1.14 | 1.67 | 2.88 | 5.69 |
| Maneri Bhali-I | 1.63 | 2.30 | 4.45 | 8.38 | 0.99 | 1.47 | 2.53 | 4.99 |
| Khatima | 0.62 | 2.43 | 1.41 | 4.46 | 0.35 | 0.10 | 0.75 | 1.19 |
| Total | 12.22 | 31.24 | 33.50 | 76.97 | 6.62 | 6.74 | 15.56 | 28.92 |

5.3.7.4 Total Working Capital and Interest Thereon

Total working capital allowed by the Commission under the three components discussed above works out to Rs. 28.92 Crore against Petitioner's claim of Rs. 76.97 crore.

The Commission has, thus, allowed Rs. 2.96 crore as interest on working capital against Rs.7.89 crore claimed by the Petitioner @ 10.25%.

The plant-wise details of working capital and interest thereon as claimed by the Petitioner and allowed by the Commission is given hereunder in Table 5.22.

Table 5.22 : Interest on Working Capital (Rs. crore)

| Plant | Total Working Capital | | Interest on Working Capital | |
|----------------|---------------------------|----------------------------|-----------------------------|----------------------------|
| | Claimed by the Petitioner | Approved by the Commission | Claimed by the Petitioner | Approved by the Commission |
| Dhakrani | 5.89 | 1.56 | 0.61 | 0.16 |
| Dhalipur | 6.19 | 1.78 | 0.63 | 0.18 |
| Chibro | 17.71 | 5.77 | 1.81 | 0.59 |
| Khodri | 8.83 | 3.46 | 0.91 | 0.36 |
| Kulhal | 2.96 | 1.29 | 0.30 | 0.13 |
| Ramganga | 11.46 | 3.19 | 1.17 | 0.33 |
| Chilla | 11.09 | 5.69 | 1.14 | 0.58 |
| Maneri Bhali-I | 8.38 | 4.99 | 0.86 | 0.51 |
| Khatima | 4.46 | 1.19 | 0.46 | 0.12 |
| Total | 76.97 | 28.92 | 7.89 | 2.96 |

5.3.8 Taxes on income

The Petitioner has included Taxes on Income in the AFC, while Regulations do not specify Taxes as a component of AFC. The taxes on income have to be recovered directly by the generating company from the beneficiaries according to the relevant provisions of the Generation Tariff Regulations. As such, the Commission has not included taxes on income in the AFC calculation.

5.3.9 Primary Energy Rates

Based on the above analysis the Commission has allowed a sum of Rs. 93.35 crore as the Total Annual Fixed Cost of the Petitioner. Plant wise and component wise break up of this is given in Table 5.23 below. As stated earlier in this order for working out the Primary Energy rates for these plants Commission has considered the Design Energy mutually agreed to between UPJVNL and UPPCL as well as the Annual Average generation of these plants for last 15 years and lesser of these two values has been taken as the projected Primary Energy generation for these plants, from which figures of saleable Primary Energy have been worked out and are also given in Table 5.23 below. Secondary Energy will be computed only when the actual generation exceeds Design Energy. As provided in Regulation 20(1), recovery from Primary Energy Charges shall in no case exceed the Annual Fixed Cost. Based on these values of the annual fixed costs and saleable primary energy, primary energy rate has been worked out for each of these nine generating stations and the same is given in the last column of Table 5.23. The Commission hereby approves these rates as the primary energy rates for these nine generating stations with effect from 01.04.2004. These rates will continue to be the approved rates for sales to UPCL till revised by the Commission.

5.3.10 Tariff chargeable to UPCL

It has been pointed out in the Petition that part of electricity generated in these generating stations is required to be sold to Himachal Pradesh State Electricity Board (HPSEB). These proceedings are for determination of generation tariff under section 86 (1)(a) and for determination of tariff for supply to UPCL under section 62(1)(a) of the Electricity Act, 2003. The generation tariff has been determined for Petitioner's total generation in these nine generating stations. Of this generation, the part that is sold to UPCL will be on rates approved in this Order. Further, as per Regulation 20(2), for supply to UPCL, the capacity charges, if any, which is required to be paid by UPCL will be in proportion of its share in total saleable capacity of that particular generating station.

Table 5.23: Total Annual Fixed Charges and Primary Energy Rate

| Plant | Depreciation | Interest on loan | Interest on Working Capital | O&M expenses | RoE | Total Annual Fixed Costs | Saleable Primary Energy | Primary Energy Rate |
|--------------|--------------|------------------|-----------------------------|--------------|-------------|--------------------------|-------------------------|---------------------|
| | (Rs. Cr.) | (Rs. Cr.) | (Rs. Cr.) | (Rs. Cr.) | (Rs. Cr.) | (Rs. Cr.) | (MUs) | (p/u) |
| Dhakrani | 0.00 | 0.48 | 0.16 | 5.16 | 0.00 | 5.79 | 155.78 | 37.19 |
| Dhalipur | 0.00 | 0.32 | 0.18 | 5.67 | 0.00 | 6.18 | 190.66 | 32.42 |
| Chibro | 0.00 | 0.29 | 0.59 | 17.81 | 0.00 | 18.69 | 743.25 | 25.15 |
| Khodri | 1.76 | 0.21 | 0.36 | 8.34 | 0.00 | 10.66 | 342.58 | 31.10 |
| Kulhal | 0.42 | 0.05 | 0.13 | 3.84 | 0.00 | 4.44 | 152.83 | 29.03 |
| Ramganga | 1.19 | 0.20 | 0.33 | 8.92 | 0.00 | 10.65 | 308.82 | 34.48 |
| Chilla | 2.97 | 0.09 | 0.58 | 13.65 | 0.00 | 17.29 | 666.59 | 25.95 |
| M Bhali I | 2.61 | 0.19 | 0.51 | 11.86 | 0.00 | 15.17 | 392.24 | 38.69 |
| Khatima | 0.00 | 0.12 | 0.12 | 4.23 | 0.00 | 4.47 | 192.69 | 23.21 |
| Total | 8.95 | 1.95 | 2.96 | 79.48 | 0.00 | 93.35 | 3145.44 | |

5.3.11 Excess charges realised

Before parting with these petitions one issue needing to be addressed is that of excess recoveries made by the Petitioner so far. It may be recalled that the Petitioner had unauthorisedly increased the pooled selling rate of its power from 37.2 p/unit approved by UPERC to 55 p/unit w.e.f. 09.11.2001. This price was rolled back by the Commission to 37 p/unit, subject to actual determination, w.e.f. 01.04.2003. During the period 09.11.2001 to 31.03.2003, a total of 3735.23 MUs was sold to UPCL at a price of Rs. 55 p/unit. This resulted in the Petitioner realizing from UPCL a sum of Rs. 66.49 crore over and above what had been authorized by the Regulatory Commission. UPCL in turn passed this amount on to consumers. The adhoc rate of 37 p/unit permitted by the Commission pending determination of an updated rate has been charged from UPCL from 01.04.2003. After scrutiny the Commission has determined Petitioner's generation tariffs and these rates are to replace the adhoc rate of 37 p/unit w.e.f. 01.04.2003. Therefore, another sum of Rs. 20.30 crore has been realised by the Petitioner in excess of the authorized charge making the total excess recovery from UPCL as Rs. 86.78 crore. This is enumerated in Table below:

Table 5.24 : Calculation of Surplus Charged by UJVNL in excess of the allowable rate

| Plant | Units Billed to UPCL (in MU's) | Billed Rate (Paise / unit) | Allowable Rate (Paise / unit) | Excess Rate billed (Paise /unit) | Excess Amount Charges (Rs. crore) |
|----------------|--------------------------------|----------------------------|-------------------------------|----------------------------------|-----------------------------------|
| 2001-02 | 818.95 | 55.00 | 37.20 | 17.80 | 14.58 |
| 2002-03 | 2916.28 | 55.00 | 37.20 | 17.80 | 51.91 |
| 2003-04 | 2814.14 | -- | -- | 7.21 | 20.30 |
| Dhakrani | 100.05 | 37.00 | 37.19 | (0.19) | (0.02) |
| Dhalipur | 169.73 | 37.00 | 32.42 | 4.58 | 0.78 |
| Chibro | 616.02 | 37.00 | 25.15 | 11.85 | 7.30 |
| Khodri | 285.87 | 37.00 | 31.10 | 5.90 | 1.69 |
| Kulhal | 119.08 | 37.00 | 29.03 | 7.97 | 0.95 |
| Ramganga | 199.55 | 37.00 | 34.48 | 2.52 | 0.50 |
| Chilla | 688.32 | 37.00 | 25.95 | 11.05 | 7.60 |
| Maneri Bhali-I | 469.50 | 37.00 | 38.69 | (1.69) | (0.79) |
| Khatima | 166.01 | 37.00 | 23.21 | 13.79 | 2.29 |
| Total | | | | | 86.78 |

The issue of a utility charging tariffs higher than those approved by the Commission has recently been gone into by the Hon'ble Supreme Court in Civil Appeal Nos. 8360-8361 of 2003 (Arising out of Special Leave Petition(Civil) Nos. 10877-10878 of 2003) dated 17.10.2003. The Hon'ble Supreme Court has held that:

“.....the effect of Section 29, and the Regulations framed thereunder is that it is no longer open to a licensee or utility to unilaterally increase the tariff. The tariff can be enhanced only after approval of the Commission and charging of an enhanced tariff which has not been approved by the Commission will amount to commission of an offence. Therefore, the notice to enhance the charges given by TPC, which was subsequent to the enforcement of the Act, can have no legal effect”

Without prejudice to any other liability under the Act, the Commission does not propose to allow the Petitioner, benefits of such unilaterally enhanced tariff. Such excess realization should, therefore, be refundable with interest to UPCL and in turn to consumers as provided in section 62(6) of The Electricity Act, 2003. However, refund of this amount to about one million consumers in the State in proportion to what they had paid is a complex and time-consuming exercise. Further, as emphasised by the Petitioner substantial investments are required to be made in these generating stations for their Renovation & Modernisation and costs of such Renovation & Modernisation works will have to be recovered from consumers through future tariffs. Earlier in this Order, the

Commission has directed the Petitioner to establish a “Renovation & Modernisation Fund (RMF)” to which the depreciation amount allowed by the Commission is to be transferred. The Petitioner is further directed to transfer this entire excess amount of Rs. 86.78 crore to this Fund. It may be recalled that funds for leveraging fresh investments are being provided from the Power Development Fund (PDF) also. To avoid any overlapping and for proper co-ordination and balancing of flow of assistance from the PDF & RMF, management of & releases from RMF could be overseen by the High Powered Committee which is managing the PDF. Alternatively, this excess amount recovered from UPCL should be refunded to licensee along with interest over three years.

The *suo-moto* proceedings as well as the nine petitions subsequently filed by UJVNL stand disposed off accordingly.

(Divakar Dev)
Chairman

6. Annexures

6.1 Annexure I: List of Respondent

| SL. No. | Name | Designation | Organization | Address |
|---------|-----------------------|---------------------------|---|--|
| 1 | Prem Vinod Uniyal | Prantiya Mukhya Sanyojak, | Sichai Vibhag (Vidyut Tariff) Sangharsh Samiti, | P-III/ 6 Yamuna Colony, Dehradun |
| 2 | Man Mohan Kansal | President | Dakpathar Vyapar Mandal | Dakpathar, Dehradun |
| 3 | Ram Kumar, | Secretary | Mussoorie Hotels Association | Hotel Walnut Grove, Mussoorie |
| 4 | Anil Goyal, Prantiya | State General Secretary | Udhyog Vyapar Pratinidhi Mandal | 13, Gandhi Road, Dehradun |
| 5 | | Pramukh | Kshetra Panchayat Dunda | Dunda, Uttarkashi |
| 6 | Sachhidanand Kharkwal | | | Village-Balasour (Brahampuri), Kotdwar |
| 7 | | | M/s Shivangee Crafts Ltd. | 5th Km Stone) Ramnagar Road, Kashipur (U.S. Nagar) |
| 8 | Yogesh Kumar Jindal | President | Kumaun Garhwal Chamber of Commerce and Industry | Bazpur Road, Kashipur (U.S. Nagar) |
| 9 | Rakshit Jain | General Manager (Finance) | SIDCUL | Dehradun |
| 10 | Om Prakash Bhatt, | President | Uttaranchal Udhyog Pratinidhi Vyapar Mandal | Dunda, Uttarkashi |
| 11 | Pankaj Gupta, | President | Indian Industries Association, Uttaranchal | C/o Satya Industries, Mohabbewala, Industrial Area, Dehradun |
| 12 | Jai Bhagwan Agrawal | Management Consultant | | Murli Bhawan, Ram a Mandir Road, Ramnagar (Nainital) |
| 13 | B.M. Verma | Joint Managing Director | Uttaranchal Power Corporation Ltd., | Urja Bhawan, Kanwali Road, Dehradun |
| 14 | P.D. Gupta | State General Secretary | Sewanivrrat Rajkiya Pensioners Sangthan Uttaranchal | 6, Preet Vihar, Niranjapur, P.O. Majra, Dehradun |
| 15 | Ramesh Sal | State Vice President | Uttaranchal Industries Association | E-8, Govt. Industrial Area, Patel Nagar, Dehradun |
| 16 | Jagdish Gupta | Mukhya Sanyojak | Jan Kalyan Upbhokta Parishad | Haridwar |
| 17 | Ram Kumar | Secretary | Hotels & Restaurants Associations of Uttaranchal | Vishnu Palace Hotel, Mussoorie |
| 18 | V.D. Chamoli | Sr. General Secretary | Hydro Electric Employees Union, Khetravas Yamuna | Yamuna Bhawan, Dehradun |
| 19 | S.P. Kochar | Sr. Vice President | Hotels & Restaurants Association of Uttaranchal | 97-Rajpur Road, Dehradun |
| 20 | Vajyanti Kumai | Treasurer | Janhit Kalyan Samiti (Retd.) Mahila Prakosth | Veerpur Khurd (Nehru Gram), P.O.- Pashulok, Risikesh |

6.2 Annexure II : List of Participants in the Public Hearing held on 18.11.2004

| SL. No. | Name | Designation | Organization | Address |
|----------------|--------------------------------|-------------------------|---|--|
| 1 | R.S. Sehgal | | All India Consumers Council | Dehradun |
| 2 | R.N. Mathur | General Secretary | Hotels & Restaurants Association of Uttarakhand | Prince Hotel, Mussoorie |
| 3 | R.K. Agarwal | Sr. Vice President | Indian Industries Association | 13/1, Kanwali Road, Dehradun |
| 4 | Pankaj Gupta, | President | Indian Industries of Association Uttarakhand | C/o Satya Industries, Mohabbewala, Industrial Area, Dehradun |
| 5 | A.K. Agarwal, , | GM (Comm.) | Uttarakhand Power Corporation Limited | Urja Bhawan, Kanwali Road, Dehradun |
| 6 | Man Mohan Kansal | President | Dakpathar Vyapar Mandal | Dakpathar, Dehradun |
| 7 | Rakesh Bhatiya | Vice President | Kumaon Garhwal Chamber of Commerce and Industries | Bazpur Road, Kashipur |
| 8 | Gulsahan Rai | | Shri Ganesh Roller Flour Mills | Mohebewala, Dehradun |
| 9 | Ramesh Kumar Sal | Vice Chairman | UIA | Dehradun |
| 10 | Mahesh | General Secretary | All India Industries Association | Dehradun |
| 11 | J.B. Agarwal | Director | Kashi Vishwanath Steels Ltd. | Bazpur Road, Dehradun |
| 12 | Rajeev Gupta | Manager | Shivangee Crafts Ltd. | Ramnagar Road, Kashipur |
| 13 | Lakhi Ram Singh | | | Dunda, Uttarkashi |
| 14 | M.L. Uniyal & Jagat Singh Negi | | Irrigation Department | Yamuna Colony, Dehradun |
| 15 | Santosh Badoni | Section Officer | Deptt. of Tourism | Secretariat Uttarakhand, Dehradun |
| 16 | Anil Goyal | State General Secretary | Prantiya Udhog Vyapar, Pratinidhi Mandal | Dehradun |
| 17 | P.D. Gupta | General Secretary | Retired Government Pensioner Association | Dehradun |

6.3 Annexure III: minutes of Meeting held o 28.07.2004

Annexure - 5

जल विद्युत परियोजनाओं पर कार्यरत सिंचाई विभाग के कर्मचारियों के विद्युत टैरिफ प्रकरण से सम्बन्धित अपर मुख्य सचिव, की अध्यक्षता में दिनांक 28-7-04 को हुई बैठक का संक्षिप्त कार्यवृत्त

| 1-उपरिस्थिति | सिंचाई विभाग | शासन |
|--|---|--|
| उत्तरांचल जल विद्युत निगम | | |
| 1- श्री अमर बिहारी मिश्री अध्यक्ष एवं प्रबंध निदेशक देहरादून | 1-श्री सुरेश चन्द्र जोशी मुख्य अभियन्ता एवं विभागाध्यक्ष, सिंचाई। | 1-श्री एम.डी. सी. जोशी अपर सचिव, ऊर्जा, उत्तरांचल शासन। |
| 2- श्री एस.पी.ओ.सिंह, निदेशक (ऑपरेशन) देहरादून। | 2-श्री एम.पी.ओ.भारतरी मुख्य अभियन्ता। सिंचाई विभाग, देहरादून। | 2-श्री ए.एस.ओ. हयांकी, अपर सचिव, सिंचाई, उत्तरांचल शासन। |
| 3- श्री एस.पी.ओ. छाबड़ा, महाप्रबन्धक, देहरादून। | | |
| 4- श्री सन्धू अधिसारी निदेशक, देहरादून। | | |

2- यह अधिसूचना पत्राया गया कि इस प्रकरण से सम्बन्धित 11 कालोनियाँ हैं, उदाहरणार्थ कोठी, डाकघर, कुल्हाल, पीला, जोशियाबा, कुटेटीवेवी, चिन्चाली सौद व मनेरी आदि। उत्तरांचल जल विद्युत निगम लि० ने तीन अतिरिक्त कालोनियाँ फगस कालागढ़, पथरी व खटीमा भी बताई गईं जहाँ उ०प्र० सिंचाई विभाग के कर्मचारी हैं।

3- आवासों में मीटर लगाने/बदलने के प्रकरण पर समानता बरती जाए अर्थात् सिंचाई विभाग एवं उत्तरांचल जल विद्युत निगम लि० (उत्तरांचल पावर कारपोरेशन लि० आदि भी) से सम्बन्धित आवासों की में एक रूपता से मीटरिंग की जाय एवं इसमें नेवनाय न किया जाय। उत्तरांचल जल विद्युत निगम लि० ने तीन माह में मीटरिंग का कार्य पूरा कर लेने का स्पष्ट आश्वासन दिया।

4- उत्तरांचल जल विद्युत निगम लि० द्वारा विभिन्न कालोनियों में विद्युत वितरण का कार्य किया जा रहा है जो कदाचित निवमानुकूल नहीं है। पूर्व में इन कालोनियों को विद्युत वितरण का कार्य उत्तरांचल पावर कारपोरेशन लि० द्वारा प्राप्त करने के निर्णय शासन स्तर पर हुई बैठकों में हुए हैं, जिसकी अनुपालना लम्बित है। यह अपेक्षा की गई कि उत्तरांचल पावर कारपोरेशन लि० इन कालोनियों के लिए वितरण कार्य प्राप्त करें एवं उत्तरांचल जल विद्युत निगम लि० इस कार्य के हस्तान्तरण की व्यवस्था करावें।

5- उत्तरांचल पावर कारपोरेशन लि० तथा उत्तरांचल जल विद्युत निगम लि० के कर्मिकों को विशिष्ट छूट युक्त टैरिफ सुविधा के स्थान पर प्रतिपूर्ति से सम्बन्धित विद्युत निगमक आयोग के सुझावानुसार उत्तरांचल पावर कारपोरेशन लि० द्वारा गठित समिति, जिसमें उत्तरांचल जल विद्युत निगम लि० के प्रतिनिधि भी हैं, की रिपोर्ट सौदा प्राप्त कर अग्रतः कार्यवाही करने की अपेक्षा की गई।

6- अध्यक्ष एवं प्रबंध निदेशक, उत्तरांचल जल विद्युत निगम लि० ने सिंचाई विभाग में जल विद्युत परियोजनाओं में कार्यरत कर्मिकों की सूची सिंचाई विभाग से चाही गई ताकि उक्त बिन्दु-5 के अनुसार उत्तरांचल पावर कारपोरेशन लि०/उत्तरांचल जल विद्युत निगम के कर्मिकों को मिलने वाली सुविधा/प्रतिपूर्ति की व्यवस्था उत्तरांचल जल विद्युत निगम लि० द्वारा की जा सके उन्होंने यह स्पष्ट किया कि यह तभी सम्भव होगा जब सम्बन्धित व्यय को उत्तरांचल जल विद्युत निगम लि० के व्ययों में सम्मिलित करने को UREC मान्य करे। उत्तरांचल जल विद्युत निगम लि० से अपेक्षा की गई कि वे

Certified True Copy

(S. Khatim)
Secretary (Finance)
Uttaranchal Jal Vidyut Nigam Ltd.
Dehradun

- अपने टैरिफ प्रस्ताव (याचिका) में इन व्ययों को सम्मिलित करें और UJREC को प्रस्तुत करें।
- 7- अध्यक्ष एवं प्रबन्ध निदेशक, उत्तरांचल जल विद्युत निगम लि० ने यह भी अवगत कराया कि जल विद्युत परियोजनाओं में कार्यरत सिंचाई विभाग के कार्मिकों का वेतन भुगतान शासन कर रहा है जिसे उत्तरांचल जल विद्युत निगम लि० को अप्रत्यक्ष अनुदान के रूप में देखा जाना चाहिए। यह अपेक्षा की गई कि इस व्यय तथा ऐसे ही अन्य सभी व्ययों को उत्तरांचल जल विद्युत निगम लि० द्वारा अपने टैरिफ प्रस्ताव में सम्मिलित किया जाय।
- 8- मुख्य अभियन्ता सिंचाई, श्री भरतरी द्वारा सिंचाई विभाग के जल विद्युत परियोजनाओं में कार्यरत स्टाफ को मम्बूट आदि सुविधा दिये जाने का प्रकरण भी उठाया गया। उक्त बिन्दु 6 व 7 के परिपेक्ष्य में ही इन व्ययों को उत्तरांचल जल विद्युत निगम लि० द्वारा वहन करने की सहमति इन्हें भी टैरिफ में सम्मिलित होने के प्रतिबन्ध पर व्यक्त की गई। यह अपेक्षा की गई कि बिन्दु-7 के अनुसार ही इन व्ययों को भी टैरिफ प्रस्ताव में सम्मिलित किया जाय।
- उक्तानुसार सम्बन्धित बिन्दुओं पर उत्तरांचल पावर कारपोरेशन लि०/ उत्तरांचल जल विद्युत निगम लि०/सिंचाई विभाग द्वारा अग्रोत्तर कार्यवाही की जाने की अपेक्षा की गई। उत्तरांचल जल विद्युत निगम लि० व सिंचाई विभाग द्वारा बिन्दु 6, 7, व 8 के सम्बन्ध में शीघ्रता से अग्रोत्तर कार्यवाही आपसी सामंजस्य/समन्वय से करने की भी अपेक्षा की गई एवं यह उमीद की गई कि UJREC को उत्तरांचल जल विद्युत निगम लि० द्वारा प्रस्तुत किये जाने वाले टैरिफ प्रस्ताव में इन बिन्दुओं से सम्बन्धित निर्णयों/अपेक्षाओं के अनुसार समस्त व्ययों को सम्मिलित किया जाना उत्तरांचल जल विद्युत निगम व सिंचाई विभाग सुनिश्चित करेंगे।

1. एम० रामचन्द्रन
अपर मुख्य सचिव

पु०सं० :- 356 /1/2004-04(3)/-60/02, दिनांक : अगस्त : 18, 2004

प्रतिलिपि निम्नांकित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित :-

- 1- मिजी सचिव, अपर मुख्य सचिव एवं अवस्थापना विकास आयुक्त, को अपर मुख्य सचिव के उपयोगार्थ।
- 2- अध्यक्ष एवं प्रबन्ध निदेशक, उ०ज०वि०नि०लि०, देहरादून।
- 3- श्री सुरेश चन्द्र जोशी, मुख्य अभियन्ता एवं विभागाध्यक्ष, सिंचाई विभाग, उत्तरांचल, देहरादून।
- 4- श्री एम०पी० भरतरी, मुख्य अभियन्ता, सिंचाई विभाग, उत्तरांचल, देहरादून।
- 5- अपर सचिव, सिंचाई, उत्तरांचल शासन।
- 6- अध्यक्ष एवं प्रबन्ध निदेशक, उ०पा०का०लि०, देहरादून।

आज्ञा से

(श्री० एम०सी० जोशी)
अपर सचिव

Certified True Copy

(S. Ramesh)

Director (Finance)

Uttaranchal Jal Vidyut Nigam Ltd
Dehradun.

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6.4 Annexure IV: UP Government's letter dated 16.07.2003 taking over GPF liability of UPSEB

सं: 1555 / पी-1 / 2003-24-1145 / 2002-टी0सी0

सेवा में,
सुधीर कुमार श्रीवास्तव,
विशेष सचिव,
उत्तर प्रदेश सरकार।

सेवा में,
अध्यक्ष, राहु प्रबन्ध निदेशक,
उपरोक्त पावर कारपोरेशन लि.।
राजिता भवन, लखनऊ।

ऊर्जा अनुभाग-1

लखनऊ, दिनांक: 16 जुलाई, 2003

विषय: ऊर्जा क्षेत्र के तीनों निगमों के कार्मिकों के पूर्ववर्ती उपरोक्त राज्य विद्युत परिषद विघटन के दिनांक 14 जनवरी, 2000 तक के जीपीओएफओ की धनराशि के संबंधित दायित्वों का राज्य सरकार द्वारा वहन किया जाना।

महोदय,

उपरोक्त विषयक मुझे यह कहने का निर्देश हुआ है कि पूर्ववर्ती उपरोक्त राज्य विद्युत परिषद के विघटन के दिनांक 14 जनवरी, 2000 को गठित ऊर्जा क्षेत्र के तीनों निगमों यथा उपरोक्त पावर कारपोरेशन लि., उपरोक्त राज्य विद्युत उत्पादन निगम लि., उपरोक्त जल विद्युत निगम एवं कोस्को के कार्मिकों के जीपीओएफओ की धनराशि के दिनांक 14.1.2000 तक के संबंधित दायित्व रु० 1634.49 करोड़ (रु० एक हजार 63 हजार 449 सौ चौतीस करोड़ पन्नाधार लाख मात्र) का भुगतान राज्य सरकार द्वारा 20 वर्षीय श्राव्य के माध्यम से किये जाने की स्वीकृति श्री राज्यपाल महोदय प्रदान करते हैं।

2. इन बाण्डों के लागू होने का प्रभावी दिनांक जारी होने की तिथि रखा जायेगा। इन बाण्डों पर वर्षोन्वय कोषा सरकार द्वारा केन्द्रीय वित्त अधिनियम में जोरित प्राय की दरें लागू होंगी।

1. राज्य सरकार द्वारा प्रति वर्ष बाण्डों की कुल धनराशि के 5 प्रतिशत अर्थात् रु० 81,7245 करोड़ (रु० इक्यासी करोड़ अठत्तर लाख पैंतालिस हजार मात्र) एक-एक वर्ष के लिये आगामी ब्याज का भुगतान नकद किया जायेगा। किस्तों में भुगतान की दृष्टि में प्रथम किस्त के भुगतान तक की अवधि के लिये कुल प्रारम्भिक धनराशि एवं प्रस्तावित किस्तों की किस्तों के मध्य की अवधि के लिये प्रारम्भिक अवशेष धनराशि पर ब्याज की गणना की जायेगी। किरी भी एक वित्तीय वर्ष के लिये आगामी ब्याज का भुगतान उसी वर्ष में नकद कर दिया जायेगा।

-2-

4. उक्त बाण्ड ऊर्जा विभाग द्वारा जारी किये जायेंगे एवं उनका लेखा-जोखा भी ऊर्जा विभाग द्वारा रखा जायेगा। प्रस्तर 3 में वर्णित व्यवस्था के अनुसार इन बाण्डों के पुनर्गठन की समुचित व्यवस्था ऊर्जा विभाग द्वारा प्रति वर्ष आय-व्यय के अन्तर्गत करायी जायेगी।

5. ये आदेश वित्त विभाग के अराफ़ीय संख्या- यू0ओ 105/दस/ वित्त-ई-10/2003, दिनांक 03.07.2003 में प्राप्त उनकी सहमति से जारी किये जा रहे हैं। -

भवदीय,

(सुधीर कुमार श्रीवास्तव)
विशेष सचिव।

सं0 1666 (1)/पी-1-2003-24, तदविर्भाव

उपर्युक्त की प्रति निम्नलिखित को सूचनाार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित :-

1. अध्यक्ष सह प्रबन्ध निदेशक, उ0प्र0 जल विद्युत निगम लि0।
2. अध्यक्ष सह प्रबन्ध निदेशक, उ0प्र0 राज्य विद्युत उत्पादन निगम लि0।
3. प्रबन्ध निदेशक, कोरको, कामपुर।
4. वित्त (खय-नियंत्रण) अनुभाग-10
5. वित्त (आय-व्यय) अनुभाग-4
6. मार्ट फाइल।

आज्ञा से,

(सुधीर कुमार श्रीवास्तव)
विशेष सचिव।

6.5 List of Abbreviation

| Sl. No. | Abbreviation/Acronym | Meaning |
|---------|----------------------|--|
| 1. | AFC | Annual Fixed Charges |
| 2. | ARR | Annual Revenue Requirement |
| 3. | CEA | Central Electricity Authority |
| 4. | CERC | Central Electricity Regulatory Commission |
| 5. | CoD | Date of Commercial Operation |
| 6. | DGM | Deputy General Manager |
| 7. | FY | Financial Year |
| 8. | GoOU | Government of Uttaranchal |
| 9. | GoUP | Government of Uttar Pradesh |
| 10. | GPF | General Provident Fund |
| 11. | HP | Himachal Pradesh |
| 12. | HPSEB | Himachal Pradesh State Electricity Board |
| 13. | MU | Million Units |
| 14. | MW | Mega Watt |
| 15. | NHPC | National Hydroelectric Power Corporation Ltd. |
| 16. | O&M | Operation & Maintenance |
| 17. | p/u, p/unit | paisa/unit |
| 18. | PFC | Power Finance Corporation Limited |
| 19. | PLR | Prime Leading Rate |
| 20. | PPA | Power Purchase Agreement |
| 21. | R&M | Repair & Maintenance |
| 22. | Re-organisation Act | UP Re-organisation Act, 2000 UP Electricity Reforms Act, 1999 |
| 23. | RLA | Residual Life Assessment |
| 24. | RMF | Renovation & Modernization Fund |
| 25. | SBI | State Bank of India |
| 26. | Tariff Year | Financial Year 2004-05 |
| 27. | TEC | Techno Economic Clearance |
| 28. | UERC, Commission | Uttaranchal Electricity Regulatory Commission |
| 29. | UJVNL | Uttaranchal Jal Vidyut Nigam Ltd. |
| 30. | unit | kWh (kilowatt hour) |
| 31. | UP | Uttar Pradesh |
| 32. | UPCL | Uttaranchal Power Corporation Limited |
| 33. | UPERC | Uttar Pradesh Electricity Regulatory Commission |
| 34. | UPJVNL | Uttar Pradesh Jal Vidyut Nigam Ltd. |
| 35. | UPPCL | Uttar Pradesh Power Corporation Limited |
| 36. | UPPSET | Uttar Pradesh Power Sector Employees Trust |
| 37. | UPRVUNL | Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited |
| 38. | UPSEB | Uttar Pradesh State Electricity Board |