

**Order on Generation Tariff**  
**for**  
**Uttarakhand Jal Vidyut Nigam**  
**Limited**  
**for**  
**FY 2010-11**

**April 05, 2010**

**Uttarakhand Electricity Regulatory Commission**

**1<sup>st</sup> Floor of Institution of Engineers (I) Building**

**Near ISBT Majra, Dehradun - 248002**



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**Before**  
**UTTARAKHAND ELECTRICITY REGULATORY COMMISSION**

**Petitions No.: 15/2009 to 24/2009**

**In the Matter of:**

Petitions filed by Uttarakhand Jal Vidyut Nigam Limited (UJVNL) for determination of Generation Tariff for FY 2010-11 for its ten large hydro generating stations. .

**AND**

**In the Matter of:**

Uttarakhand Jal Vidyut Nigam Limited.

Ujjwal, Maharani Bagh, G.M.S. Road, Dehradun

..... **Petitioner**

**Coram**

**Shri V. J. Talwar**

**Chairman**

**Shri Anand Kumar**

**Member**

**Date of Order: April 05, 2010**

Section 64(1) read with section 61 and 62 of the Electricity Act, 2003 (hereinafter referred to as "Act") requires generating companies and the licensees to file an application for determination of tariff before the appropriate Commission in such manner and along with such fee as may be

specified by the appropriate Commission through regulations. In compliance with above provisions of the Act and Regulation 56(4) of UERC (Conduct of Business) Regulations, 2004, Uttarakhand Jal Vidyut Nigam Ltd. (hereinafter referred to as 'UJVNL' or "Generating Company" or "Petitioner") filed separate Petitions for ten large hydro generating stations owned by it (Petition Nos. 15/2009 to 24/2009 and hereinafter referred to as the "Petitions") on November 24, 2009 for 9 old generating stations and on November 30, 2009 for Maneri Bhali-II generating station. Through above Petitions, UJVNL made available detailed calculations of Annual Fixed Charges (AFC) for different generating stations for FY 2010-11. These above Petitions were admitted by the Commission on December 9, 2009 and with it commenced the process of Tariff determination.

However, before proceeding with the Tariff determination exercise, the Commission would like to explain that it has been its practice to detail the procedure and explain the principles adopted by it in the tariff determination process. Therefore, in the present Order also, in accordance with past practice, the Commission has elaborated the procedure and principles followed by it in determining the generation tariff for UJVNL. Further, for the sake of convenience, this Order has been organised in the following six Chapters:

Chapter 1 - Background and Procedural History

Chapter 2 - Petitioner's Submissions and Proposals

Chapter 3 - Stakeholders' Responses and Petitioner's Comments

Chapter 4 - Commission's Approach

Chapter 5 - Commission's Analysis, Scrutiny and Conclusion

Chapter 6 - Performance Improvement Measures

## 1. Background and Procedural History

In accordance with Regulation 56(4) of the UERC (Conduct of Business) Regulations, 2004, the Commission had directed UJVNL vide letter no. 1551/UERC/ARR/Tariff/2010-11 dated November 23, 2009 to submit the Petitions for determination of tariff of ten large hydro generating stations latest by November 30, 2009. These ten hydro generating stations are Dhakrani, Dhalipur, Chibro, Khodri, Kulhal, Ramganga, Chilla, Maneri Bhali-I, Maneri Bhali-II and Khatima. Electricity generated at these stations is supplied to Uttarakhand Power Corporation Ltd. (UPCL), the sole distribution licensee in the State and Himachal Pradesh State Electricity Board (HPSEB), which, as per an old scheme, has share in five of these stations viz. Dhakrani (25%), Dhalipur (25%), Chibro (25%), Khodri (25%) and Kulhal (20%). As mentioned earlier, in compliance with above direction of the Commission and Regulations of the Commission, UJVNL filed the Petitions for determination of tariff for above mentioned generating stations for FY 2010-11 on November 24, 2009 (for nine old Generating stations) and on November 30, 2009 (for Maneri Bhali-II), which, through a common order, were admitted by the Commission on December 9, 2009. Through its above Admittance Order dated December 9, 2009, to provide transparency to the process of tariff determination and give all stakeholders an opportunity to submit their objections/suggestions/comments on the proposals of the Generating Company, the Commission also directed UJVNL to publish the salient points of its proposals in the leading newspapers. The salient points of the proposal were published by the Petitioner in the following newspapers:

**Table 1.1: Publication of Notice**

S.No.	Newspaper Name	Date of publication
1.	Amar Ujala	December 11, 2009
2.	Hindustan Times	December 12, 2009

Through above notice, stakeholders were requested to submit their objections/suggestions/comments latest by December 31, 2009 (copy of the notice is enclosed at **Annexure 1**).

The Commission on its own initiative also sent the copies of salient points of tariff proposals to members of the State Advisory Committee, the State Government and also made available the

details of the proposals submitted by the Petitioner in the Commission's office and on the Commission's website.

The Commission received 2 objections/suggestions/comments in writing on the Petition filed by UJVNL for FY 2010-11. The list of stakeholders who have submitted their objections/suggestions/comments in writing is enclosed at **Annexure-2**.

For direct interaction with all stakeholders and public at large the Commission also conducted public hearings on the proposals filed by the Petitioner at the following places in the State of Uttarakhand.

**Table 1.2: Schedule of Hearings**

S.No.	Place	Date
1.	Uttarkashi	11.01.2010
2.	Sitarganj	22.01.2010
3.	Pithoragarh	23.01.2010
4.	Dehradun	14.02.2010

The list of participants who attended the Public Hearing is enclosed at **Annexure-3**.

The objections/suggestions/comments, as received from the stakeholders through mail as well as during the course of public hearing were sent to the Petitioner for its response. All the issues as raised by the stakeholders and Petitioner's response on the same are detailed in Chapter 3 of this Order. In this context, it is also to underline that while finalizing the Tariff Order, the Commission has, as far as possible, tried to address the issues raised by the stakeholders.

Meanwhile, based on preliminary scrutiny of the Petitions, the Commission identified certain data gaps in the Petition and vide its letter No. 1756/UERC/UJVNL- ARR/2010-11/09 dated December 31, 2009 sought following additional information/clarifications from the Petitioner:

- Explanation for variation in the figures of asset capitalisation for FY 2007-08 for all generating stations as submitted in previous Petition and submitted now in the current Petition.
- Impact on account of changes in provisionally trued up expenses for FY 2007-08 and FY 2008-09.

- Detailed note on the Insurance charges as proposed for FY 2010-11 and the necessary supporting documents in this regard.
- Reason for considering the interest rate as 11.75% p.a. based on SBI PLR, while working out the interest expenses for FY 2010-11.
- Details of actual Operation & Maintenance expenses for first six months of FY 2009-10 and estimates for the remaining six months (October – March 2010) for FY 2009-10.

In response to above letter, some information was submitted by the Petitioner vide letter No. 23/tariff/UERC/LHP dated January 13, 2010. So as to have better clarity on data filed by the Petitioner and to remove inconsistency in the data, a Technical Validation Session (TVS) was also held with the Petitioner's officers on January 19, 2010, in which the issues raised in letter dated December 31, 2009 were again discussed. Based on these discussions, the Commission vide its letter No. 1918/UERC/UJVNL ARR-(2010-11)/09-10 dated January 20, 2010 sought some more information from the Petitioner. Most of the information as sought by the Commission was submitted by the Petitioner vide letter no. 38/tariff/UERC/LHP dated February 04, 2010 and letter no. 881/UERC/2009-10/U-6 dated March 08, 2010.

## 2. Petitioner's Submissions and Proposals

This Chapter gives a brief summary of the UJVNL submissions for the determination of tariff for 10 nos. large hydro generating stations for the FY 2010-11. The contents of this Chapter are based on original submissions of the Petitioner and do not incorporate changes in information and data as submitted subsequently by the Petitioner. Additional submissions made by UJVNL have been considered by the Commission only under Chapter 5 i.e., "Commission's Analysis, Scrutiny and Conclusions" while deciding final tariffs for different generating stations of UJVNL.

### 2.1 Generation

#### 2.1.1 Installed Capacity

The total installed capacity of the 10 nos. generating stations of UJVNL is 1252.15 MW. Though HPSEB also has its share in 5 of these generating stations, most of this capacity is allocated to UPCL as per details given below:

**Table 2.1: Installed Capacity and Firm Capacity Allocation to UPCL**

Station	Capacity	UPCL's Capacity Allocation		HPSEB's Capacity Allocation	
	MW	%	MW	%	MW
Dhakrani	33.75	75%	25.31	25%	8.44
Dhalipur	51.00	75%	38.25	25%	12.75
Chibro	240.00	75%	180.00	25%	60.00
Khodri	120.00	75%	90.00	25%	30.00
Kulhal	30.00	80%	24.00	20%	6.00
Ramganga	198.00	100%	198.00	-	-
Chilla	144.00	100%	144.00	-	-
M Bhali I	90.00	100%	90.00	-	-
Khatima	41.40	100%	41.40	-	-
M Bhali II	304.00	100%	304.00	-	-
<b>Total (MW)</b>	<b>1252.15</b>		<b>1134.96</b>		<b>117.19</b>

#### 2.1.2 Capacity Index

UJVNL has projected the capacity index on normative basis considering the norms for storage hydro stations and run of the river stations with pondage and has not sought any deviation in the normative capacity index as stipulated in the Regulations. The capacity index as submitted by UJVNL for FY 2010-11 for all generating stations has been provided in the following Table:

**Table 2.2: Normative Capacity Index proposed by the Petitioner (%)**

Name of the Generating Station	Capacity	Normative Capacity Index (%)
	MW	FY 2010-11
Dhakrani	33.75	90%
Dhalipur	51.00	90%
Chibro	240.00	85%
Khodri	120.00	85%
Kulhal	30.00	90%
Ramganga	198.00	85%
Chilla	144.00	90%
M Bhali I	90.00	85%
Khatima	41.40	90%
M Bhali II	304.00	85%

### 2.1.3 Projected Gross Generation

The station-wise expected gross generation during FY 2010-11 as submitted by the Petitioner are given in the Table below:

**Table 2.3: Projected Generation proposed by the Petitioner (MU)**

Name of the Generating Station	Expected generation (MU)
Dhakrani	156.88
Dhalipur	192.00
Chibro	750.00
Khodri	345.00
Kulhal	153.91
Ramganga	311.00
Chilla	671.29
Maneri Bhali I	395.00
Khatima	194.05
Maneri Bhali II	1566.10
<b>Total</b>	<b>4735.23</b>

This expected generation has been treated as Primary Energy by the Petitioner for computation of Saleable Primary Energy and its rate as per Regulations.

### 2.1.4 Auxiliary Energy Consumption and Transformation Losses

The Petitioner has submitted that it has computed transformation losses and auxiliary consumption in accordance with Regulation 13(1), 13(2) and 13(4) of the UERC (Terms and Condition for Determination of Hydro Generation Tariff) Regulations, 2004. Accordingly, it has considered auxiliary consumption of 0.2% for surface HEP stations with rotating exciters, 0.5% for surface HEP stations with static excitation system and 0.7% for underground HEP stations with static excitation system, during FY 2010-11.

The station-wise Auxiliary Consumption and Transformation Losses for FY 2010-11 is given in the Table below:

**Table 2.4: Auxiliary Consumption and Transformation Losses for FY 2010**

Name of the Generating Station	Aux. Consumption		Transformation Loss	
	%	MU	%	MU
Dhakrani	0.20%	0.31	0.50%	0.78
Dhalipur	0.20%	0.38	0.50%	0.96
Chibro	0.70%	5.25	0.50%	3.75
Khodri	0.50%	1.73	0.50%	1.73
Kulhal	0.20%	0.31	0.50%	0.77
Ramganga	0.20%	0.62	0.50%	1.56
Chilla	0.50%	3.36	0.50%	3.36
Maneri Bhali I	0.20%	0.79	0.50%	1.98
Khatima	0.20%	0.39	0.50%	0.97
Maneri Bhali II	0.50%	7.83	0.50%	7.83
<b>Total</b>		<b>20.97</b>		<b>23.69</b>

### 2.1.5 Total Saleable Units

After deducting from the expected gross generation, the above mentioned figures of Auxiliary Consumption and Transformation Losses, the Petitioner has computed total saleable units to be 4,690.59 MU for FY 2010-11 as shown in the following Table:

**Table 2.5: Gross Primary Energy and Saleable Primary Energy FY 2010-11**

Name of the Generating Station	Gross Primary Energy	Auxiliary consumption		Transformation Loss		Saleable Primary energy
	MU	%	MU	%	MU	MU
Dhakrani	156.88	0.20%	0.31	0.50%	0.78	155.78
Dhalipur	192.00	0.20%	0.38	0.50%	0.96	190.66
Chibro	750.00	0.70%	5.25	0.50%	3.75	741.00
Khodri	345.00	0.50%	1.73	0.50%	1.73	341.55
Kulhal	153.91	0.20%	0.31	0.50%	0.77	152.83
Ramganga	311.00	0.20%	0.62	0.50%	1.56	308.82
Chilla	671.29	0.50%	3.36	0.50%	3.36	664.58
M Bhali I	395.00	0.20%	0.79	0.50%	1.98	392.24
Khatima	194.05	0.20%	0.39	0.50%	0.97	192.69
M Bhali II	1566.10	0.50%	7.83	0.50%	7.83	1550.44
<b>Total</b>	<b>4735.23</b>		<b>20.97</b>		<b>23.69</b>	<b>4690.59</b>

## 2.2 Capital Cost and Additional Capitalisation

### 2.2.1 Capital Cost

The Petitioner has submitted that there has been limited transfer of historical data from



Uttar Pradesh Jal Vidyut Nigam Limited (UPJVNL) to UJVNL and despite repeated requests and follow-up, complete technical details are yet to be received. Certain essential documents such as the Detailed Project Reports (DPR), Central Electricity Authority (CEA) clearances or Project Completion Reports have also not been provided. The Petitioner, therefore, is not in a position to provide details regarding the break-up of original costs of fixed assets as approved by a competent authority on COD (i.e., Date of Commercial Operation). The Petitioner has indicated that the Transfer Scheme for UJVNL has not yet been finalised, however, it expects a decision from the Government of India (GoI) shortly.

The Petitioner has further submitted that GoU had notified the provisional transfer scheme vide its notification dated March 7, 2008 and the value of opening Gross Fixed Assets (GFA) for 9 old stations (i.e. excluding MB-II) as notified by GoU and the amount adopted by the Commission in its Tariff Order dated March 18, 2008 was Rs. 503.96 Crore. It has been further submitted that the Commission has provisionally considered an amount of Rs. 2.21 Crore paid by Government of Uttarakhand attributable to MB-I HEP in compliance with the Hon'ble High Court Order dated May 14, 2007 and accordingly, the opening value of GFA as considered by the Commission in its Order dated October 21, 2009 amounts to Rs. 506.17 Crore for the nine stations.

The Petitioner submitted that the value of opening GFA of Rs. 506.17 Crore as approved by the Commission in its Order dated October 21, 2009 for 9 Large Hydro Power Stations (LHPs) transferred to UJVNL is acceptable to it pending finalisation and notification of the Transfer Scheme. The Capital costs of these projects alongwith that of MB-II, as claimed by the Petitioner, are given in the Table below:

**Table 2.6: Original Capital Cost claimed by the Petitioner (Rs. Crore)**

Name of the Generating Station	Approved by the Commission	Proposed
Dhakrani	12.40	12.40
Dhalipur	20.37	20.37
Chibro	87.89	87.89
Khodri	73.97	73.97
Kulhal	17.51	17.51
Ramganga	50.02	50.02
Chilla	124.89	124.89
Maneri Bhali I	111.93	111.93
Khatima	7.19	7.19
Maneri Bhali II	1741.72	1973.15
<b>Total</b>	<b>2247.89</b>	<b>2479.32</b>

As regards the capital cost for Maneri Bhali-II, the Petitioner has submitted that the capital cost along with the additional capitalization should be considered as Rs. 1973.15 Crore up to March 31, 2009. It has been further submitted that the additional capital expenditure accrued/incurred during the FY 2009-10 (up to September 30, 2009) on MB-II HEP amounts to Rs. 3.77 Crore. Hence, the total capital cost incurred/accrued up to September 30, 2009 amounts to Rs. 1976.92 Crore. UJVNL submitted that the variation of capital cost of Rs.1976.92 Crore vis-à-vis capital cost as reflected in the Chartered Accountant (C.A.) certificate dated November 27, 2009 showing the value as Rs.1932.41 Crore, is on account of payment of DRB (Dispute Resolution Board) award amounting to Rs. 44.51 Crore.

### **2.2.2 Additional Capitalisation**

UJVNL has submitted that the Provisional Balance Sheet of FY 2007-08 has been revised and the additional capitalisation for FY 2007-08 has been claimed accordingly. For FY 2008-09, UJVNL submitted that it has considered the actual additional capitalisation based on the provisional balance sheet for FY 2008-09. As regards the additional capitalisation for FY 2009-10, UJVNL submitted that it has considered the actual additional capitalisation for the period from April to September 2009 in accordance with the philosophy adopted by the Commission in its previous Orders. Accordingly, UJVNL has not considered the additional capitalisation projected for the period from October 2009 to March 2010.

As regards the additional capitalisation, UJVNL submitted that in order to ensure the efficiency and safety as well as continuous operation of the plants, the additional capitalisation was required to be incurred and requested the Commission to allow the same. UJVNL further referred to the Regulation 16(2) of the Tariff Regulations, 2004, which explicitly permit additional works/service, which may become necessary for efficient and successful operation of the plant.

As regards the allocation of additional capitalisation, UJVNL submitted that for the present filing it has adopted the same methodology for allocating additional capitalisation as was followed in earlier Petitions. UJVNL submitted that accounts are maintained centrally for the various HEPs and in certain instances one-to-one correlation of the accounting divisions is not possible with individual stations. UJVNL has allocated additional capital expenses incurred by accounting divisions for more than one station on the basis of the following:

- **Head Office/ Corporate Office:** 80% of the additional capital expenses have been apportioned on 9 LHPs which further have been allocated to each LHP on the basis of the installed capacity.
- **General Manager Office/ DGM/ Civil Division:** Allocated on LHPs within the control of the concerned GM/DGM which further has been allocated to each LHP on the basis of the installed capacity.

UJVNL has projected the plant-wise additional capital expenditure and asset addition in FY 2007-08, FY 2008-09 and FY 2009-10 (from April 1, 2009 to September 30, 2009) on actual basis as per its provisional accounts, which is given in the Table below:

**Table 2.7: Additional Capitalisation claimed by the Petitioner (Rs. Crore)**

Name of the Generating Station	Opening as on 01.04.2007		FY 2007-08		FY 2008-09		FY 2009-10 (upto 30/09/2009)
	Approved	Claimed	Approved	Claimed	Approved	Claimed	Claimed
Dhakrani	0.26	0.26	0.06	0.08	0.05	0.12	0.02
Dhalipur	0.40	0.40	0.08	0.12	0.07	0.19	0.03
Chibro	3.15	3.15	0.53	1.83	0.32	0.70	0.26
Khodri	1.45	1.45	0.98	0.22	0.57	3.52	0.13
Kulhal	0.24	0.24	0.04	0.07	0.04	0.11	0.02
Ramganga	1.62	1.62	0.43	0.31	0.11	0.25	0.10
Chilla	10.15	10.15	0.34	0.09	0.03	1.85	0.20
MB-I	1.05	1.05	0.09	0.04	0.13	0.37	0.06
Khatima	0.37	0.37	0.27	0.25	0.04	0.14	0.02
<b>Total</b>	<b>18.69</b>	<b>18.69</b>	<b>2.82</b>	<b>3.01</b>	<b>1.36</b>	<b>7.25</b>	<b>0.85</b>

UJVNL submitted that Detailed Project Report (DPR) for Renovation, Modernisation and Up-gradation (RMU) works in total amounting to Rs. 78.50 Crore was approved by Central Electricity Authority (CEA) for Chilla, Chibro and Khodri Power Houses under Accelerated Power Development Programme (APDP) scheme of Government of India. An amount of Rs. 39.25 Crore (90% in form of Grant- Rs. 35.33 Crore and 10% i.e. Rs. 3.92 Crore as loan) being 50% of the approved cost for RMU works were released during FY 2002-03 and FY 2003-04.

As regards the additional capitalisation for Maneri Bhali-II, UJVNL submitted that the additional capital capitalisation incurred during FY 2009-10 (i.e. from April 1, 2009 to September 30, 2009) on Maneri Bhali-II HEP is Rs. 3.77 Crore. UJVNL further submitted that it has not claimed the provisional additional capitalisation for the period from October 1, 2009 to March 31, 2010 and for FY 2010-11.

## 2.3 Interest on Loans

UJVNL has submitted that in accordance with the Tariff Regulations, interest on normative debt has been considered for nine HEPs on the value of additional capitalisation only. The rate of interest for such debt has been considered on the basis of the prevalent Prime Lending Rate (PLR) of State Bank of India which is 11.75% p.a. and considering loan repayment period of 10 years.

As regards the interest claim for Maneri Bhali-II, the Petitioner has submitted that the interest on Power Finance Corporation (PFC) loan (Rs. 1200 Crore), GoU loan utilized (Rs. 90.00 Crore) and additional PFC loan Utilized (Rs. 42.61 Crore) amounting to a total interest of Rs. 134.12 Crore have been computed based on loan repayment schedule. The station-wise interest on loan considered by the Petitioner is given in the following Table:

**Table 2.8: Interest on Loan (Rs. Crore)**

Name of the Generating Station	FY 2009-10 (Approved)		FY 2010-11 (Proposed)					
	Closing Loan	Interest	Opening Loan	Additions	Repayments	Closing Loan	Rate of Interest (%)	Interest
Dhakrani	0.23	0.02	0.25	0.00	0.02	0.22	11.75%	0.03
Dhalipur	0.34	0.04	0.37	0.00	0.04	0.34	11.75%	0.04
Chibro	3.37	0.28	3.46	0.00	0.32	3.14	11.75%	0.38
Khodri	3.17	0.21	2.93	0.00	0.29	2.64	11.75%	0.35
Kulhal	0.20	0.02	0.22	0.00	0.02	0.20	11.75%	0.03
Ramganga	0.96	0.14	1.07	0.00	0.11	0.97	11.75%	0.13
Chilla	6.07	0.66	6.37	0.00	0.59	5.78	11.75%	0.81
M Bhali I	0.71	0.24	0.77	0.00	0.08	0.69	11.75%	0.09
Khatima	0.37	0.05	0.40	0.00	0.04	0.36	11.75%	0.05
Maneri Bhali II								
PFC Loan	990.00	120.42	1020.00	0.00	120.00	900.00	11.33%	115.57
GoU Loan	0.00	0.00	90.00	0.00	9.00	81.00	9.50%	7.70
PFC additional loan	0.00	0.00	42.61	0.00	4.26	38.35	11.33%	4.83
Normative Loans	0.00	0.00	51.23	0.00	5.12	46.11	11.75%	6.02
<b>Total</b>	<b>1005.42</b>	<b>122.08</b>	<b>1219.68</b>	<b>0.00</b>	<b>139.89</b>	<b>1079.80</b>		<b>136.03</b>

## 2.4 Return on Equity (RoE)

For nine HEPs, UJVNL has submitted that it has claimed Return on Equity (RoE) on the opening GFA assuming a normative debt-equity ratio of 70:30 in accordance with the Tariff Regulations, 2004.

As regards the claim of RoE for Maneri Bhali-II, the Petitioner submitted that the equity for

Maneri Bhali-II LHP has been considered as Rs. 593.08 Crore. Accordingly, UJVNL claimed RoE of Rs. 83.03 Crore for FY 2010-11 for Maneri Bhali-II.

UJVNL has claimed RoE considering rate of return as 14% for all the stations as shown in the Table below:

**Table 2.9: Return on Equity (Rs. Crore)**

Name of the Generating Stations	FY 2009-10 (Approved)		FY 2010-11 (Claimed)	
	Equity	RoE	Equity	RoE
Dhakrani	3.83	0.54	3.87	0.54
Dhalipur	6.28	0.88	6.33	0.89
Chibro	27.39	3.83	28.15	3.94
Khodri	23.03	3.23	23.79	3.33
Kulhal	5.34	0.75	5.38	0.75
Ramganga	15.65	2.19	15.69	2.20
Chilla	40.53	5.68	41.15	5.76
Maneri Bhali - I	33.30	4.66	34.03	4.76
Khatima	2.36	0.33	2.39	0.33
Maneri Bhali – II	200.33	28.05	593.08	83.03
<b>Total</b>	<b>358.04</b>	<b>50.13</b>	<b>753.86</b>	<b>105.54</b>

## 2.5 Depreciation and Advance Against Depreciation

As regards the depreciation for nine HEPs, UJVNL has submitted that it has computed the depreciation expense for FY 2010-11 based on the rates as considered by the Commission in the Tariff Order dated October 21, 2009. The Petitioner has submitted that since the sub-classification of assets category is not available with it, hence it has considered the depreciation rate as considered in the Order dated October 21, 2009. The rate of depreciation on opening GFA has been considered at an average rate of 2.38% and the rate of depreciation on additional capitalisation has been considered at an average rate of 2.66%.

As regards the depreciation and advance against depreciation for Maneri Bhali-II, UJVNL submitted that depreciation expense has been computed based on the asset classification and the applicable depreciation rates for these asset categories. UJVNL has further submitted that the rates have been considered based on the schedule provided as Appendix-I to the Tariff Regulations, 2004. Accordingly, UJVNL has projected an amount of Rs. 49.93 Crore as depreciation at a weighted average rate of 2.53% and Rs. 88.45 Crore as the Advance Against Depreciation (AAD) for Maneri Bhali-II.

Based on these principles, the station-wise depreciation considered by the Petitioner is given in the Table below:

**Table 2.10: Depreciation (Rs. Crore)**

Name of Generating Station	FY 2009-10 (Approved)		FY 2010-11 (Claimed)	
	Opening GFA	Dep. for the year	Opening GFA	Dep. for the Year
Dhakrani	12.77	0.01	12.89	0.01
Dhalipur	20.92	0.01	21.11	0.02
Chibro	91.89	0.11	93.83	0.16
Khodri	76.98	1.84	79.30	1.90
Kulhal	17.82	0.23	17.95	0.01
Ramganga	52.18	3.25	52.30	0.06
Chilla	135.41	0.06	137.17	3.23
M Bhali-I	113.20	2.70	113.44	2.70
Khatima	7.87	0.02	7.97	0.02
Maneri Bhali-II	1741.72	44.54	1976.91	49.93
<b>Total</b>	<b>2270.76</b>	<b>52.77</b>	<b>2512.87</b>	<b>58.04</b>

## 2.6 Operation and Maintenance (O&M) Expenses

UJVNL submitted that O&M expenses for FY 2010-11 have been projected over the approved O&M expenses for FY 2009-10 considering escalation factor of 6.51% as approved by the Commission in accordance with the UERC (Terms and Conditions for the Escalation Factor), Regulations, 2008.

UJVNL submitted that in addition to above, following expenses should also be considered as part of O&M expenses:

### a) **Regulatory Fee:**

UJVNL submitted that as the Tariff filing fee for Petition of each Generating station is Rs. 10 Lakh, accordingly, the Commission should allow Rs. 10 Lakh per Petition as part of O&M expenses on account of the said fees;

### b) **Insurance:**

UJVNL submitted that the actual insurance expenses incurred during FY 2009-10 are Rs. 3.48 Crore and assumed that similar policy would be availed in FY 2010-11. Accordingly, the amount allocable to nine HEPs on account of insurance of works out to Rs. 0.96 Crore for FY 2010-11.

### c) **Cost of Concessional Supply of Electricity to Employees residing in Colonies:**

It has been submitted by the Petitioner that the Commission had approved a total of Rs. 1.12 Crore as cost of electricity consumption in colonies in its earlier Tariff Order dated October 21, 2009 for FY 2009-10 for all 9 nos. LHPs.

UJVNL requested to consider the same approved cost as consumption in colonies for FY 2010-11 as well.

**d) Cost of Concessional Supplies to Past & Present Employees of UJVNL residing in areas outside the Colonies:**

UJVNL submitted that the Commission in its earlier Tariff Order dated October 21, 2009 had approved Rs. 0.36 Crore on account of the cost towards such supplies on the basis of the prevalent demand tariff rate of Rs. 2.30/kWh in accordance with the rate under category RTS-1.

Accordingly, UJVNL submitted that the additional cost of Rs. 0.36 Crore may be considered and approved for FY 2010-11 also.

**e) Terminal benefit:**

UJVNL submitted that the Commission, in its Tariff Order dated October 21, 2009 has disallowed the amount of Rs. 2.05 Crore against the difference of amount collected from employee contribution to GPF Trust and the actual payouts of the Trust considering the fund available and cash flow (i.e., inflow and outflow) of GPF Trust. UJVNL further submitted that the Commission in said Tariff Order dated October 21, 2009 has also mentioned that UJVNL would not be entitled to claim financing of shortfalls during the transitional period till the available funds are exhausted. Accordingly, UJVNL submitted that it has not claimed the terminal benefit on estimation basis.

**f) Impact of Arrears of Pay Revision:**

As regards the arrears of Pay Revision, UJVNL submitted that an amount of Rs. 52.08 Crore has been estimated to be payable towards arrears of Pay Revision w.e.f. January 1, 2006 to March 31, 2009, which has been considered by the Commission in its Tariff Order dated October 21, 2009. UJVNL further submitted that in accordance to GoU Order on VI Pay Commission, 40% of the arrears have been considered to be payable by

the end of FY 2009-10, 30% during FY 2010-11 and the balance to be payable during FY 2011-12.

As regards O&M expenses for Maneri Bhali-II, UJVNL submitted that it has considered O&M expenses of Rs. 32.05 Crore for Maneri Bhali-II LHP for FY 2009-10 as considered by it in its previous Petition and considered average escalation factor of 6.51% in accordance with the UERC (Terms and Conditions for the Escalation Factor), Regulations, 2008 for computing the O&M expenses for FY 2010-11. UJVNL has further considered additional O&M expenses on the additional capitalisation of Rs. 3.77 Crore incurred during the period from April 1, 2009 to September 30, 2009 at rate of 1.5% of the additional capitalisation during FY 2009-10. UJVNL has projected the total O&M expenditure of Rs. 34.19 Crore for FY 2010-11 for Maneri Bhali-II LHP.

The summary of the O&M expenses as submitted by UJVNL for FY 2010-11 against those approved by the Commission for FY 2009-10 are shown in the Table below:

**Table 2.11: O&M Charges (Rs. Crore)**

Name of the Generating Station	Approved O&M exp. For FY 09-10	O&M exp. For FY 2010-11	Colony Consumption	Regulatory Expenses	Insurance	Cost of supplies to Past & present employees	Arrears of Pay revision	Total
Dhakrani	6.90	7.35	0.06	0.10	0.03	0.01	0.64	8.19
Dhalipur	10.25	10.92	0.06	0.10	0.05	0.02	0.97	12.12
Chibro	24.24	25.82	0.19	0.10	0.24	0.09	2.41	28.85
Khodri	13.13	13.98	0.13	0.10	0.12	0.05	1.37	15.76
Kulhal	6.13	6.53	0.06	0.10	0.03	0.01	0.57	7.30
Ramganga	12.59	13.41	0.17	0.10	0.20	0.08	1.61	15.57
Chilla	17.44	18.58	0.17	0.10	0.14	0.05	1.77	20.81
M Bhali-I	19.78	21.07	0.16	0.10	0.09	0.03	1.40	22.85
Khatima	8.12	8.65	0.10	0.10	0.04	0.02	0.78	9.69
M Bhali-II	32.30	34.14		0.05 (@ 1.5% of Additional Cap. Exp. from 01.04.09 to 30.09.09)				34.19

## 2.7 Interest on Working Capital

UJVNL has stated that it has claimed interest on working capital in accordance with the provisions of UERC (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2004 and projected the working capital for each of the generating stations considering the following components of working capital:

- O&M expenses at one month of projected expenses;



- Maintenance spares at 1% of project cost, along with a 6% annual escalation in value;
- Receivables at two months of revenue from sale of electricity

UJVNL has claimed interest on working capital at 11.75% per annum on the basis of the PLR of the State Bank of India (SBI) as on November 16, 2009 in accordance with relaxed regulations adopted by the Commission in the Order dated October 21, 2009.

**Table 2.12: Interest on Working Capital (Rs. Crore)**

Station	FY 2009-10 (Approved)					FY 2010-11 (Proposed)				
	1 month O&M expenses	1% Maintenance Spares	2 months receivables	Total Working Capital	Interest @ 12.25%	1 month O&M expenses	1% Maintenance Spares	2 months receivables	Total Working Capital	Interest @ 11.75%
Dhakrani	0.66	0.21	1.47	2.34	0.29	0.68	0.23	1.51	2.42	0.28
Dhalipur	0.98	0.35	2.19	3.52	0.43	1.01	0.35	2.25	3.61	0.42
Chibro	2.34	1.53	5.57	9.44	1.16	2.40	1.66	5.75	9.81	1.15
Khodri	1.28	1.28	3.56	6.12	0.75	1.31	1.50	3.68	6.50	0.76
Kulhal	0.59	0.30	1.39	2.28	0.28	0.61	0.32	1.39	2.32	0.27
Ramganga	1.27	0.87	3.04	5.19	0.64	1.30	0.93	3.09	5.32	0.62
Chilla	1.69	2.24	5.16	9.08	1.11	1.73	2.40	5.29	9.42	1.11
Maneri Bhali I	1.83	1.91	5.11	8.85	1.08	1.90	2.02	5.25	9.17	1.08
Khatima	0.78	0.13	1.69	2.60	0.32	0.81	0.23	1.74	2.78	0.33
Maneri Bhali II	2.53	19.57	51.23	73.33	8.99	2.85	4.85	66.40	74.11	8.71
<b>Total</b>	<b>13.95</b>	<b>28.39</b>	<b>80.41</b>	<b>122.75</b>	<b>15.05</b>	<b>14.60</b>	<b>14.49</b>	<b>96.35</b>	<b>125.46</b>	<b>14.73</b>

## 2.8 Abstract of Tariff of UJVNL Generating Stations for FY 2010-11

On the basis of projected expenses for the FY 2010-11, the Petitioner has claimed total Annual Fixed Charges (AFC) of Rs. 578.11 Crore for FY 2010-11, for its 10 nos. large hydro generating stations. The station-wise break-up of AFC for FY 2010-11 and per unit tariff as proposed by the Petitioner is given in the Table below.

**Table 2.13: Annual Fixed Charges proposed by the Petitioner for FY 2010-11**

Station	Interest on Loan (Rs. Crore)	Depreciation i/c AAD (Rs. Crore)	O&M Expenses (Rs. Crore)	Interest on Working Capital (Rs. Crore)	Return on Equity (Rs. Crore)	Total AFC (Rs. Crore)	Total Saleable Units (MU)	Per Unit Tariff (Rs/kWh )
	a	b	c	d	e	f=a+b+c+d+e	g	h= (f *10)/ g
Dhakrani	0.03	0.01	8.19	0.28	0.54	9.05	155.78	0.58
Dhalipur	0.04	0.02	12.12	0.42	0.89	13.49	190.66	0.71
Chibro	0.38	0.16	28.85	1.15	3.94	34.48	741.00	0.47
Khodri	0.35	1.90	15.76	0.76	3.33	22.10	341.55	0.65
Kulhal	0.03	0.01	7.30	0.27	0.75	8.36	152.83	0.55
Ramganga	0.13	0.06	15.57	0.62	2.20	18.58	308.82	0.60
Chilla	0.81	3.23	20.81	1.11	5.76	31.72	664.58	0.48
M Bhali - I	0.09	2.70	22.85	1.08	4.76	31.48	392.24	0.80
Khatima	0.05	0.02	9.69	0.33	0.33	10.42	192.69	0.54
M Bhali - II	134.11	138.38	34.19	8.71	83.03	398.42	1550.44	2.57
<b>Total</b>	<b>136.03</b>	<b>146.49</b>	<b>175.33</b>	<b>14.73</b>	<b>105.54</b>	<b>578.11</b>	<b>4690.59</b>	<b>1.23</b>

### **3. Stakeholders' Objections/Suggestions/Comments on the Petitioner's Proposal and Petitioner's Reply**

The Commission has received 2 suggestions/ objections on the proposals of UJVNL. Details of stakeholders who have submitted their Objections/Suggestions/Comments in writing are given at **Annexure-2** and the respondents who have raised the issues in the public hearings are enclosed at **Annexure-3**. In addition, Shri Rajiv Agarwal, Consumer Advocate appointed by Commission also gave his response on the Petition filed by UJVNL during the hearing. The Commission has obtained replies from UJVNL on the Objections/Suggestions/Comments received from stakeholders. The issues raised by the stakeholders are summarised below. The Commission has considered the Objections/Suggestions/Comments of stakeholders and reply of the Petitioner while deciding the tariffs for different generating station of UJVNL, in the later Chapters of this Order.

#### **3.1 Approach to be adopted while determining ARR**

##### **3.1.1 Stakeholders' objections/suggestions/comments**

Industries Association of Uttarakhand (IAoU) has referred to the following important provisions of the Tariff Regulations, 2004 for hydro generating stations of size more than 25 MW:

- In case of multi-purpose hydro electric projects, with irrigation, flood control and power components, the capital cost chargeable to power components only should be considered for determination of tariff;
- Structuring of debt including its tenure should be encouraged with a view of reducing the tariff;
- Performance norms of operations together with incentives and disincentives should be evolved along with appropriate arrangements for sharing the gains of efficient operations with the consumers. The operating parameters in tariff should be at normative levels only to encourage better operating performance;
- Renovation and Modernisation should be encouraged for achieving higher efficiency levels. A Multi Year Tariff framework should be encouraged which should cover

capital investment necessary for Renovation and Modernisation. The Commission should assess the capital cost required for achieving pre-determined efficiency gains or for sustenance of high level of performance.

Based on above, it has been submitted by IAoU that UJVNL is not showing any commercial discipline and, accordingly, not acting in the public interest. IAoU further submitted that Utilities are not working within the cost approved by the Commission in its Tariff Orders and they approach the Commission at the end of the year for approval of the actual cost, which are always different from the cost approved by the Commission.

### **3.1.2 *Petitioner's Reply***

The Petitioner has submitted that it is striving for strict commercial discipline in all the areas and making continuous efforts to strengthen the weak areas.

## **3.2 Annual Fixed Cost for Maneri Bhali II**

### **3.2.1 *Stakeholders' objections/suggestions/comments***

IAoU has submitted that there is a variance in AFC for Maneri Bhali-II projected by UJVNL in the present Petition and approved by the Commission in Order dated December 30, 2009. The Commission has approved AFC of Rs. 307.78 Crore for MB-II, in its Order dated December 30, 2009. However, UJVNL has projected AFC of Rs. 398.43 Crore for FY 2010-11. IAoU submitted that there seems to be no further logic in accepting any change from the stand taken by the Commission, in its Order dated December 30, 2009 and requested the Commission to approve AFC for MB-II considering principles adopted in approving AFC in the Order dated December 30, 2009.

### **3.2.2 *Petitioner's Reply***

The Petitioner has submitted that the Petition for determination of tariff for FY 2010-11, for Maneri Bhali-II generating station, had been filed on November 30, 2009 in which the AFC of Rs. 398.43 Crore has been claimed. UJVNL further submitted that in the said Petition actual capital cost of the project up to September 30, 2009 of Rs. 1976.92 Crore has been considered. Since, the Tariff Order for Maneri Bhali-II was issued on December 30, 2009, after the filing of the tariff Petition for FY 2010-11, therefore, the directives/instructions of the Commission mentioned in the Tariff Order dated December 30, 2009 could not be incorporated in the Petition. UJVNL further added that it has

already initiated the necessary action to ensure compliance of the directives of the Commission issued in the Order dated 30<sup>th</sup> December 2009 and the same would be submitted to the Commission within the stipulated timeframe.

### **3.3 Design Energy**

#### **3.3.1 Stakeholders' objections/suggestions/comments**

IAoU submitted that the approach adopted in earlier Tariff Orders for estimating the saleable primary energy needs to be revisited. IAoU submitted that the Commission has considered the lower of 15 years average annual generation and the plant-wise design energy mutually agreed between UPJVNL and UPPCL as gross energy available and, accordingly, considered the same after deducting the normative auxiliary consumption and transformation losses for computing the primary energy rate.

IAoU submitted that the above analogy should not hold good for future years as the same was acceptable as far as sufficient data was not available and keeping in account the pleading of UJVNL that the plants were not kept in good conditions and, therefore, the design energy could not be achieved in previous years. IAoU further submitted that UJVNL is now claiming that they have moved a long distance in setting right their generating stations by taking appropriate steps and there is substantial improvement in availability. IAoU requested the Commission to revisit the design energy and allow the benefits of better generation to be passed on to the consumers in accordance with the provisions of Tariff Policy of Government of India in respect of operating norms, which stipulates that operating norms should be at normative levels only and not at lower of normative and actual.

#### **3.3.2 Petitioner's reply**

The Petitioner submitted that the operational nine large hydel generating stations are very old and therefore it is difficult to achieve the design energy as envisaged in the Detailed Project Reports (DPRs). However, if systematic and comprehensive Renovation & Modernisation work is carried out, the efficiency of these old machines would increase and lead to life enhancement with increased generation. UJVNL further submitted that due to the tunnel discharge limitation, capacities of Chibro and Khodri generating stations are restricted to 185 MW and 83 MW instead of

240 MW and 120 MW respectively. Moreover, consultancy work has already been awarded to M/s Lahmeyer International GmbH, Germany to conduct necessary investigation and submit DPR for Renovation & Modernisation of five generating stations of Yamuna valley (i.e. Chibro, Khodri, Dhakrani, Dhalipur and Kulhal). Lahmeyer has submitted the draft DPRs and UJVNL has provided the comments on the draft DPRs. The final DPRs are expected to be submitted by the consultant by March 2010, subsequent to which tendering process shall be initiated. Accordingly, UJVNL submitted that average generation of last 15 years may kindly be considered instead of Design Energy till completion of the RMU of all the generating stations.

### **3.4 Interest on Working Capital**

#### **3.4.1 Stakeholders' objections/suggestions/comments**

All India Consumers Council (AICC) submitted that amount of interest being paid by UJVNL on working capital is very high.

#### **3.4.2 Petitioner's Reply**

The Petitioner submitted that the interest on working capital has been computed in accordance with UERC (Terms and Conditions for determination of Hydro Generation Tariff) Regulations, 2004 and claimed accordingly in the Petitions.

## **4. Commission's Approach**

### **4.1 General**

To provide clarity and better understanding, the Commission, in its past various Tariff Orders, had been detailing the approach adopted by it in determining various components of the ARR as well as Primary and Secondary Energy Rates. Continuing with the above practice, the Commission is once again detailing the various principles and practices adopted by it in determining the ARR as well as Tariffs in this Tariff Order. However, before detailing its approach for the Tariff Order for the FY 2010-11, the Commission would like to indicate that through this Tariff Order it shall also be dealing with AFC requirement of Maneri Bhali-II generating station, which hitherto was dealt with in separate Orders. However, since Maneri Bhali -II is a new generating station and the issues linked with it are slightly different from the issues linked with the old generating stations of UJVNL, the Commission has therefore tried to do the scrutiny and analysis of MB-II Petition separately as far as possible.

### **4.2 Statutory Requirements**

Section 64 of the Act requires the generating companies and the licensees to file an application for determination of tariff under section 62 in such manner and accompanied by such fee as may be specified through Regulations by the appropriate Commission. Section 61 of the Act further requires appropriate Commission to specify the terms and conditions for determination of tariff in accordance with the provisions of the Act. The Act also provides that while framing regulations the Commission shall be guided by, among other things, the principles & methodologies specified by the Central Commission, the National Electricity Policy and the Tariff Policy.

In the light of above provisions of the Act, the Commission has specified the Uttarakhand Electricity Regulatory Commission (Terms & Conditions for Determination of Hydro Generation Tariff) Regulations, 2004 (hereinafter referred as Tariff Regulations, 2004), on May 14, 2004, which were valid for a period of 5 years i.e. upto 13<sup>th</sup> May 2009. The Commission has already initiated the process of revising above Regulations in view of changes taking place in the power sector and also to make them consistent with the new Regulations specified by the CERC. However, the same may

take some time as framing of Regulations is a long drawn consultative process. The Commission had, accordingly, extended the applicability of the above Regulations first upto December 31, 2009 vide Order dated June 17, 2009 and thereafter upto June 30, 2010 vide Order dated December 29, 2009. For the purposes of this Tariff Order, therefore, the Commission shall be guided by the above Regulations only, i.e. UERC (Terms & Conditions for Determination of Hydro Generation Tariff) Regulations, 2004, subject to relaxations granted by the Commission in the Tariff Orders dated December 16, 2004 (read with Commission's Order dated March 14, 2007), July 12, 2006, March 18, 2008 and October 21, 2009, for various valid reasons as recorded in the above Tariff Orders. The Commission proposes to continue with the same approach, unless it comes across convincing reasons for doing otherwise.

While nine of the total ten medium and large generating plants have been in operation for quite some time, their transfer from Uttar Pradesh State Electricity Board (UPSEB) to Uttar Pradesh Jal Vidyut Nigam Ltd. (UPJVNL) first and then from UPJVNL to the Petitioner threw up issues like capital cost of assets of these stations, Petitioner's investment in these assets, etc. Different claims and views pertaining to such issues were considered in depth and decided by the Commission in its previous Tariff Orders, spelling out the rationale behind these findings. There is, therefore, no need for the Commission to revisit such issues in the present proceedings, unless some new facts are now brought out in these proceedings.

By and large, under the existing Regulations, the Commission had been following the cost plus approach subject to specified operational norms wherein expenses are allowed to be recovered through tariff subject to prudence check by the Commission. The Commission shall follow the same approach for this Tariff Order also.

### **4.3 True Up of past years data**

UERC (Terms and Conditions for Truing Up of Tariff) Regulations, 2008 provides that-

*" (1) The Commission shall undertake a review of actual levels of expenses, revenues and operational parameters in a financial year vis-à-vis the approved levels in the relevant Tariff Order for that financial year either on a Petition moved by the concerned licensee/generating company or suo-moto. While doing so, the Commission after considering the reasons for these variations may permit carrying forward of financial impact of the same to the extent approved by the Commission to the*



*following year(s). This exercise shall be called truing up exercise.*

*(2) Truing up exercise for a financial year shall normally be carried out alongwith Tariff determination exercise(s) taken up after the close of that financial year.*

*(3) Truing up can be done either based on provisional or audited data and can also be taken up for one or more items separately as deemed necessary by the Commission. No further true up shall normally be done after a truing up exercise based on audited data has been carried out."*

In the present filing, though the Petitioner has revised the data relating to additional capitalisation from the FY 2007-08 onwards based on revised provisional balance sheets for the financial years 2007-08 and 2008-09 and nine months actual figures for the FY 2009-10, it has also submitted that the above figures are still provisional and may undergo changes in accordance with the observations of the internal as well as CAG auditors. The Petitioner has accordingly requested the Commission to take up the truing up exercise only after final figures as per audited result become available. In view of the specific request filed by the Petitioner, the Commission is not carrying out the truing up exercise for the past years based on provisional figures.

#### **4.4 Disposal of Petitions through single order**

For the past many Tariff Orders, the Commission had been directing UJVNL to get the transfer scheme finalized and also to maintain separate accounts for all its generating stations so that tariffs for each of the generating stations could be determined in isolation of each other. However, due to non-availability of separate historical data related to opening values of gross fixed assets etc. (due to non-finalization of transfer scheme), for each of the generating stations and structure inherited by it (detailed in the previous Tariff Orders), wherein certain functions for more than one generating stations are being performed by one single office/headquarter, the Petitioner has been requesting the Commission to allow it to apportion the common expenses based on certain assumptions. Since no immediate solution to above problem is available, the Commission had been, for practical considerations, allowing the Petitioner to allocate the common expenses in certain proportions. The above practice, as adopted by the Petitioner, however, requires the Petitions to be dealt with simultaneously and for better clarity to be disposed of through single Order. The Commission has, accordingly, been disposing off these Petitions through single Order, which is being done in this Order as well.

#### **4.5 Primary Energy and Saleable Primary Energy**

Due to non-availability of reliable information on the Design Energy for nine old generating stations (i.e. except Maneri Bhali-II), the Commission had to consider the lower of 15 years' average annual generation or the plant-wise Design Energy (as mutually agreed between UPJVNL and UPPCL) as the projected primary energy generation of these generating stations for the tariff purposes. In absence of any new discloser of facts, the Commission is adopting the same approach for fixing the projected Primary Energy from these plants. Further, in line with the past practice, in this Tariff Order also, the Saleable Primary Energy has been derived by deducting the normative auxiliary consumption and transformation losses from the above projected primary energy. However, as the Commission is in the process of framing new Regulations it is open to any new suggestions in this regard and rather welcomes it.

As regard computation of secondary energy the Commission will go by the stand taken by it in Para 5.3.9 of Order dated 16.12.2004, relevant portion of which is reproduced 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. ..."*

From above, it is amply clear that the Petitioner can reap the benefits of Secondary Energy only in case it is able to generate energy more than the Original Design Energy. To provide necessary clarity on the issue the Commission would like to quote from its Tariff Order dated October 21, 2009:

*"Further, since the Petitioner is allowed to recover its entire AFC at a projected generation, which is lower than the Original Design Energy in some of these plants, the Petitioner recovers additional Primary Energy Charges in excess of the approved AFC when the actual generation exceeds this projected level. This situation continues till the generation reaches the Original Design Energy level. As per Regulations, the Primary Energy is reckoned upto the level of Original Design and, accordingly, the charges recovered would be considered as Primary Energy Charges upto the Original Design Energy. However, since the Primary Energy Charges actually recovered at the approved Primary Energy Rates may be higher than approved AFC in the aforesaid circumstances, the excess*

*AFC recovered through Primary Energy Charges needs to be adjusted/refunded to the concerned beneficiary."*

Further, as regards the Design Energy and Saleable Primary Energy for MB-II, the Commission has considered the values as approved in Tariff Order dated December 30, 2009 on determination of final tariff for MB-II.

#### **4.6 Capitalisation of new assets**

As regards the capital expenditure and additional capitalisation, Regulation 16(2) of the Tariff Regulations, 2004 stipulates as under:

*"16 (2) ...the capital expenditure of the following nature actually incurred after the cut off date may be admitted by the Commission subject to prudence check:*

*...*

*(iv) Any additional works/service which has become necessary for efficient and successful operation of plant but not included in the original capital cost."*

Thus for tariff purposes, the Tariff Regulations, 2004 recognise only the additional capital expenditure actually incurred. The Commission in relaxation to this stipulation had considered projected capitalizations in previous Tariff Orders for other Utilities. However, it was noticed that the approach of accepting and taking into account projections for commissioning and capitalisation of new assets was being misused and there was a wide gap between the value of assets projected to be capitalized and the value actually capitalized.

The Commission in Para 4.2 of its Order dated July 12, 2006 on ARR and Transmission Tariff Determination of PTCUL for FY 2006-07 has dealt with this issue and considered the actual asset capitalisation and not the projected asset capitalisation. The relevant extract of the said Order is given below:

*"For determining capital related expenditure, in the last tariff Order the Commission had accepted and taken into account Petitioner's projections for commissioning and capitalisation of new assets. It has been noticed that this approach is being misused and there is wide gap between the value of assets projected to be capitalized and the value actually capitalized. Over-projection on this account results in inflating capital related costs and in turn the current tariffs. Therefore, the Commission is*

*accepting only the capital cost of assets actually commissioned and capitalised and ignoring the value of assets projected for capitalisation. Further, additions in value of capital assets, if any, will be taken into account in the next tariff determination exercise with such truing up of related costs as may be warranted by facts of each such case."*

The Commission is of the view that the over-projection on this account results in inflating of capital costs and therefore related expenses, which in turn inflates the tariffs to be determined for these generating stations. To avoid this, the Commission, in line with the approach taken by it in the Tariff Order dated October 21, 2009, is accepting only the capital cost of assets actually commissioned and capitalized till September, 2009 during FY 2009-10, and accordingly, considering the figures of actual capitalisation as provided by UJVNL for the period from April to September 2009. Difference in capital additions, if any, based on audited results shall be trued up by the Commission along with the tariff determination exercise for the next year.

#### **4.7 Depreciation and Advance against Depreciation**

The Commission has been considering the claims of depreciation and advance against depreciation in accordance with the Tariff Regulations, 2004. Regulation 23 of the above Tariff Regulations, 2004, provides that depreciation shall be allowed only upto 90% of the asset cost, which is also the normal practice. The Commission is, accordingly, providing depreciation on opening GFA for Maneri Bhali-I, Maneri Bhali-II, Khodri and Chilla generating stations and not providing depreciation on opening GFA for Khatima, Kulhal, Dhakrani, Dhalipur, Ramganga and Chibro generating stations where the accumulated depreciation upto March 31, 2010 has already reached 90% of the opening GFA. However, in addition to depreciation on opening GFA of the above referred four plants, the Commission has also allowed depreciation on approved additional capitalization for all the plants.

As regards the depreciation for MB-II, the Commission has considered the depreciation rates as approved in its Tariff Order dated December 30, 2009 for determination of final tariff for MB-II.

#### **4.8 Return on Equity**

As regards the RoE on opening GFA, the Commission, in its Tariff Order dated March 18, 2008 stipulated as under:

*“Further, with regard to equity corresponding to opening GFA of UJVNL, GoU vide its letter No. 70/AS(E)/I/2008-04(3)/22/08 dated March 7, 2008 addressed to the Commission has recommended that RoE to UJVNL may be awarded/allowed on the equity of Rs 151.19 Crore being 30% of Gross Fixed Assets of Rs 503.96 Crore. It has also been mentioned that a formal notification in this regard will be issued later. This recommendation is as per decision taken in the meeting held between Government, UJVNL and the Commission on February 01, 2008 in the Commission’s office, where it was also agreed that the Government would reduce the cess to absorb the resulting impact of this allowance.*

*As the recommendation of GoU is in accordance with the Paras 24 and 26 of above referred Order of the Hon’ble ATE, the Commission in the present exercise has considered RoE on the equity of Rs 151.19 Crore being 30% of GFA of Rs 503.96 Crore as assessed by the Commission. The allowance is, however, provisional subject to adjustment as and when Final Transfer Scheme is notified. The Commission has also provisionally considered impact of 10 paise/unit towards allowing return on this equity and tax thereon to be absorbed in cess applicable for purchase of power by UPCL from these stations, in anticipation of issuance of notification in this regard by the Government.”*

Accordingly, for the purpose of computing RoE on opening equity of Rs. 151.19 Crore, the Commission has considered the same approach as was considered in its Tariff Order dated March 18, 2008. In addition, the Commission has also allowed the RoE @ 14% on the equity portion of the additional capitalisation as incurred by UJVNL on the existing generating stations, considering a normative debt-equity of 70:30, where financing details are not available and on actual basis in other cases subject to a cap of 30% as specified in the Tariff Regulations.

For approving the RoE for MB-II generating station, the Commission has considered the opening equity as approved in its Tariff Order dated December 30, 2009 for determination of final tariff for MB-II.

#### **4.9 Operation & Maintenance Expenses**

It has been the philosophy of the Commission to allow all genuine O&M expenses as are required for maintaining the plants in healthy condition. The Commission has, accordingly, been considerate all through in allowing UJVNL O&M expenses by resetting the base year and reviewing and revising the escalation rates.

In order to capture the impact of Sixth Pay Commission's recommendations, the Commission in the last Tariff Order dated October 21, 2009 had further relaxed the norm and approved the O&M expenses separately for Employee, A&G and R&M expenses, after the prudence check considering the fact that actual O&M expenses for FY 2007-08 and FY 2008-09 were more than the approved levels.

In accordance with the above approach in the present tariff exercise also, the Commission for FY 2010-11 has first estimated the Employee, A&G and R&M expenses separately. The detailed methodology of the same has been explained in Chapter 5 of the Order.

As regards O&M expenses for MB-II generating station, the Commission had allowed the O&M expenses for the base year i.e. FY 2007-08, @ 1.5% of the Capital Cost which was subject to escalation at the rates determined in accordance with UERC (Terms and Conditions for Determining Escalation Factor) Regulations, 2008 for determining the O&M cost for the tariff year. For the present Tariff Order, since the FY 2009-10 is still not over, the Commission has considered the same escalation factor of 6.51% as was considered for the FY 2009-10 by the Commission in its Tariff Order dated October 21, 2009.

However, all along, the Commission has been cautious not to allow UJVNL to be inefficient in any manner. In the Tariff Order dated 21<sup>st</sup> October 2009, the Commission has, accordingly, directed UJVNL to conduct a performance benchmarking study. The relevant extract from this Order is reproduced below:

*"For further improvement in efficiency of these plants, the Petitioner is directed to conduct a benchmarking study of its plants with other efficient utilities like NHPC, to see further scope of improvement in technical losses and manpower rationalisation. Based on this study the Petitioner should submit a report on its action plan for implementation of efficiency improvement and manpower rationalisation measures giving target dates for completion of each milestone of proposed plan within 6 months of issuance of this Order."*

Till date, no action taken report has been submitted by UJVNL. The Commission is, however, hopeful that UJVNL will conduct such a benchmarking study and submit the report to the Commission within the timelines specified by the Commission in the Tariff Order. The above report, as and when submitted by UJVNL, would go a long way in helping the Commission to draft

better Regulations for hydro generating stations within the State of Uttarakhand.

#### **4.10 Pending Dispute with UPCL**

In its submissions for the FY 2010-11, UJVNL has indicated that it is having some billing related problems with the Uttarakhand Power Corporation Limited, and requested the Commission to provide specific formats for billing, clearly depicting all components of tariff especially Capacity Charges, Capacity Index Incentive and the Deemed Generation Charges. In this context, the Commission would like to remind UJVNL that in the very first meeting of the Coordination Forum dated 29.07.2009, the Forum had agreed to constitute a group consisting of Shri S. K. Gupta, GM (Commercial) UPCL, Shri R. K. Jain, DGM, SLDC and Shri C.P. Madan, DGM, UJVNL to look into and recommend to the Forum the procedure and methodology to be followed for calculation/verification of daily capacity index, deemed generation, capacity charge and incentive as per the Commission's Regulations. It was also agreed that the above group would submit a report to the Commission before the next meeting of the Co-ordination Forum. However, even after repeated directions to finalise the methodology, the above group has not been able to give any report to the Commission and is still deliberating on the different issues linked with the calculation/verification of daily capacity index, deemed generation, capacity charge and incentive. As the group consists of responsible members from both the aggrieved parties i.e. UPCL & UJVNL as well as SLDC, which, under the provisions of the Act and Regulations framed by the Commission, is entrusted with the responsibility of preparing energy accounts, the Commission expects that the group would be able to resolve the issue amicably in the near future.

## 5. Commission's Analysis, Scrutiny and Conclusions

### 5.1 Physical Parameters

#### 5.1.1 Energy Generation and Saleable Primary Energy

##### A. Old Nine Large Generating Stations

For FY 2010-11, the Petitioner has assessed the saleable primary energy, for its old nine Large Hydro Generating Stations, by deducting the revised normative auxiliary consumption and transformation losses, as approved by the Commission in the previous Tariff Order dated October 21, 2009, from the primary energy as approved by the Commission in the same Order. The Petitioner has, accordingly, assessed the Saleable Primary Energy of 3140.15 MUs for FY 2010-11 for the above generating stations. Since the approach of the Petitioner is in line with the approach of the Commission in the previous Tariff Orders, the Commission approves the same.

**Table 5.1: Primary Energy and Saleable Primary Energy for FY 2010-11**

Name of the Generating Station	Primary Energy	Auxiliary Consumption		Transformation Losses		Saleable Primary Energy
	MU	%	MU	%	MU	MU
Dhakrani	156.88	0.20%	0.31	0.50%	0.78	155.78
Dhalipur	192.00	0.20%	0.38	0.50%	0.96	190.66
Chibro	750.00	0.70%	5.25	0.50%	3.75	741.00
Khodri	345.00	0.50%	1.73	0.50%	1.73	341.55
Kulhal	153.91	0.20%	0.31	0.50%	0.77	152.83
Ramganga	311.00	0.20%	0.62	0.50%	1.56	308.82
Chilla	671.29	0.50%	3.36	0.50%	3.36	664.58
M Bhali I	395.00	0.20%	0.79	0.50%	1.98	392.24
Khatima	194.05	0.20%	0.39	0.50%	0.97	192.69
<b>Total</b>	<b>3169.13</b>		<b>13.14</b>		<b>15.85</b>	<b>3140.15</b>

The Commission would, however, like to clarify that the Saleable Primary Energy, as approved in the above Table, is for the purpose of computing the primary energy rate for recovery of AFC and not for ascertaining the quantum of secondary energy generated by a particular generating station.

For the sake of further clarity on the above issue, the Commission would like to quote para 5.3.9 of its Order dated 12<sup>th</sup> December, 2004, which reads as under:



*“... 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 UJVNL 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...”*

## **B. Maneri Bhali II**

As regards Maneri Bhali-II generating station, the Petitioner has determined the Saleable Primary Energy as 1550.44 MUs considering the Design Energy of 1566.10 MUs and auxiliary consumption and transformation loss as 7.83 MUs each. The same is in line with Saleable Primary Energy as determined by the Commission in its Order dated December 30, 2009, in the matter of determination of final tariff for Maneri Bhali-II Large Hydro Power Project. The Commission, accordingly, approves the same.

### **5.2 Financial Parameters**

#### **5.2.1 Capital Cost**

## **A. Old Nine Large Generating Stations**

Pending finalization of Transfer Scheme, the Petitioner has accepted the provisional capital cost (as on January 14, 2000) for its nine generating stations as approved by the Commission in the Tariff Order dated December 16, 2004. The Petitioner had, however, in its Petition for the FY 2009-10, requested the Commission to consider an amount of Rs. 2.21 Crore paid by GoU attributable to Maneri Bhali-I generating station in accordance with the Hon'ble High Court Order dated May 14, 2007, as part of the opening GFA, which was allowed by the Commission in the Tariff Order dated October 21, 2009. Accordingly, the approved opening GFAs for the nine generating stations considered by the Commission for the FY 2010-11 is as below:

**Table 5.2: Approved Capital Cost (Rs. Crore)**

Name of the Generating Station	Claimed	Approved
Dhakrani	12.40	12.40
Dhalipur	20.37	20.37
Chibro	87.89	87.89
Khodri	73.97	73.97
Kulhal	17.51	17.51
Ramganga	50.02	50.02
Chilla	124.89	124.89
Maneri Bhali I	111.93	111.93
Khatima	7.19	7.19
<b>Total</b>	<b>506.17</b>	<b>506.17</b>

**B. Maneri Bhali-II**

As regards the capital cost for MB-II on the Commercial Operation Date (CoD), the Commission observes that there has been no material change in the factual position after the issuance of order dated December 30, 2009, in the matter of determination of final tariffs for the Maneri Bhali-II generating station. The Commission, accordingly, finds no justification to alter the Capital Cost for MB-II, as already approved by it in the above order. However, to provide the necessary background the Commission would like to quote the relevant paras of Order dated December 30, 2009.

*“29. The Commission had already advanced the reasons for considering the capital cost including IDC of Rs. 1741.72 Crore in its Order dated 28.11.2008. Thus, based on the above discussions there seems no reason material enough for the Commission to alter the capital cost already approved by the Commission till the Board of UJVNL approves the capital cost of the project and the report of independent audit is available before the Commission. The Commission would then scrutinize the Capital Cost and reasons for any increase in the same for prudence check. Without such a check, the cost and financing of the incremental cost arising due to cost/time over runs cannot be passed on to consumers in tariff.*

*30. Thus, based on the above, the total capital cost as on CoD approved by the Commission is Rs. 1,741.72 Crore against the Petitioner’s claim of Rs. 1,950.27 Crore. As the project cost still remains provisional, the tariff determined now cannot be final tariff and is again provisional subject to the adjustments on final determination based on finally approved capital cost.”*

The Commission has accordingly considered the already approved capital cost of Rs. 1741.72 Crore as on CoD, for working out the AFC for MB-II for FY 2010-11.

**Table 5.3: Approved Capital Cost & Financing for MB-II (Rs. Crore)**

<b>Name of the Generating Station</b>	<b>Claimed</b>	<b>Approved</b>
Maneri Bhali II	1950.27	1741.72
Financing		
Loan		
PFC Loan	1200.00	1200.00
GoU Loan	0.00	0.00
AG& SP Withdrawal	69.87	0.00
<b>Total Loans</b>	<b>1269.87</b>	<b>1200.00</b>
Equity	638.63	541.72
Other (unpaid liability)	41.77	0.00
<b>Total Loan &amp; Equity</b>	<b>1950.27</b>	<b>1741.72</b>

## 5.2.2 Additional Capitalisation

### A. Old Nine Large Generating Stations

On the opening GFA of Rs. 506.17 Crore on January 14, 2000, as approved by the Commission in the previous Tariff Order dated October 21, 2009, UJVNL has claimed additional capitalisation of Rs 28.94 Crore up to FY 2008-09 and Rs. 0.85 Crore for the period from April to September 2009 during FY 2009-10.

As regards the additional capitalisation for FY 2007-08 and FY 2008-09, the Commission observed variations between the additional capitalisations claimed by UJVNL in the current Petitions vis-à-vis information made available by it in the previous Petitions for the FY 2009-10. The Commission, accordingly, asked UJVNL to explain the difference in numbers and also to submit the impact of the same on capex related expenses and on AFC for past years. In response to the same, it was submitted by UJVNL that variation in the figures of additional capitalization is due to revision of Provisional Accounts. In context of the second part of the query, UJVNL submitted that the revised figures are based on the revised Provisional Accounts for FY 2007-08 and FY 2008-09, which may further undergo changes as per internal and statutory auditors' observations. Since the figures are still provisional UJVNL requested the Commission to take up the final truing up for FY 2007-08 and FY 2008-09 on finalisation of the Balance Sheet for FY 2007-08 and FY 2008-09. UJVNL also submitted that it has not captured the impact of additional capitalization on the capex related expenses and AFC for FY 2007-08 and FY 2008-09.

The Commission, accordingly, while accepting the revised additional capitalisation details as provided by UJVNL for FY 2007-08 and FY 2008-09 for working out the AFC for the FY 2010-11, has not carried out the impact analysis of additional capitalization on capex related expenses and AFC for the FY 2007-08, 2008-09, and 2009-10, in absence of audited results, as is also requested by the Petitioner.

Based on the submissions made by the Petitioner, the year-wise revised additional capitalisation as considered by the Commission is summarized in the Table below:

**Table 5.4: Additional Capitalisation as considered by the Commission (Rs. Crore)**

Year	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Dhakrani	0.02	0.04	0.08	0.03	0.04	0.05	0.08	0.12	0.02
Dhalipur	0.03	0.06	0.12	0.04	0.06	0.08	0.12	0.19	0.03
Chibro	0.15	0.50	0.61	0.28	0.27	1.34	1.83	0.70	0.26
Khodri	0.07	0.17	0.48	0.22	0.29	0.23	0.22	3.52	0.13
Kulhal	0.02	0.04	0.07	0.02	0.04	0.05	0.07	0.11	0.02
Ramganga	0.05	0.13	0.51	0.40	0.25	0.27	0.31	0.25	0.10
Chilla	0.04	1.18	2.10	2.58	2.33	1.92	0.09	1.85	0.20
M Bhali I	0.02	0.06	0.25	0.08	0.12	0.51	0.04	0.37	0.06
Khatima	0.01	0.03	0.10	0.11	0.08	0.05	0.25	0.14	0.02
<b>Total</b>	<b>0.41</b>	<b>2.21</b>	<b>4.33</b>	<b>3.75</b>	<b>3.49</b>	<b>4.50</b>	<b>3.00</b>	<b>7.25</b>	<b>0.85</b>

## B. Maneri Bhali-II

### Maneri Bhali-II

As regards the additional capitalisation for MB-II from CoD till September 2009, the Commission has relied on the principle adopted in the Tariff Order for final tariff for MB-II dated December 30, 2009, which is reproduced below:

*“At present, unless the actual capital cost of the project as on CoD is determined by the Commission, it would not be feasible to examine the prudence of the expenditure booked under additional capitalisation by the Petitioner. Hence, for the present exercise the Commission is not considering any amount under this head and is deferring the matter till such time the actual capital cost of the project is approved by the Commission based on prudence check of the cost ascertained by the audit as envisaged earlier and approval of the cost by the Board of UJVNL. The additional capital expenditure incurred by the Petitioner would be trued up by the Commission after prudence check only at that stage.”*

Accordingly, in line with the approach adopted by the Commission in the Tariff Order for

determination of final tariff for MB-II dated December 30, 2009, the Commission has not considered any additional capitalisation while working out the AFC for FY 2010-11 for MB-II.

### 5.2.3 Depreciation

#### A. Old Nine Large Generating Stations

UJVNL has submitted that while computing the depreciation it has considered 90% of the opening GFA as the permissible limit. Accordingly, for the plants where accumulated depreciation on the approved opening GFA has already reached 90%, such as Khatima, Dhakrani, Dhalipur, Ramganga, Kulhal and Chibro, UJVNL has not claimed any depreciation. UJVNL has claimed depreciation on the opening GFA only for the remaining three plants i.e. Khodri, Chilla and Maneri Bhali-I. In addition to the above UJVNL has also claimed depreciation on additional capitalization for all the plants. In absence of category-wise asset classification, the Petitioner has claimed depreciation against opening GFA of these three generating station at a weighted average rate of 2.38% and that against additional capitalization for all the plants at weighted average rate of 2.66%, in accordance with the approach of the Commission in the past Tariff Orders. In its Tariff Order dated 21.10.2009, the Commission has directed the Petitioner to prepare Fixed Asset Register and maintain asset-wise classification for claiming depreciation in the future years. In this regard, the Petitioner submitted that the Fixed Asset Register is already being maintained by it, however, the asset-wise classification of Opening Gross Fixed Asset is not available as Transfer Scheme has not been finalised. In view of the above submission, **the Commission directs the Petitioner to claim depreciation in future filings based on the rates for various categories of assets as specified in the Tariff Regulations instead of claiming depreciation on weighted average rate for all the 10 large generating stations.** The Commission, accordingly, approves the same, however, as per the calculations of the Commission the depreciation on additional capitalization works out to Rs. 0.79 Crs. as against the demand of the Petitioner of Rs. 0.71 Crore.

The summary of depreciation as claimed by the Petitioner and that approved by the Commission for FY 2010-11 is shown in the Table below:

**Table 5.5: Depreciation for FY 2010-11 (Rs. Crore)**

Particulars	On Opening GFA		On Additional Capitalisation		Total depreciation	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Dhakrani	0.00	0.00	0.01	0.01	0.01	0.01
Dhalipur	0.00	0.00	0.02	0.02	0.02	0.02
Chibro	0.00	0.00	0.16	0.16	0.16	0.16
Khodri	1.76	1.76	0.14	0.14	1.90	1.90
Kulhal	0.00	0.00	0.01	0.01	0.01	0.01
Ramganga	0.00	0.00	0.06	0.06	0.06	0.06
Chilla	2.97	2.97	0.26	0.33	3.23	3.30
M Bhalli-I	2.66	2.66	0.04	0.04	2.70	2.70
Khatima	0.00	0.00	0.02	0.02	0.02	0.02
<b>Total</b>	<b>7.40</b>	<b>7.40</b>	<b>0.71</b>	<b>0.79</b>	<b>8.11</b>	<b>8.19</b>

## **B. Maneri Bhali-II**

As regards the depreciation for MB-II for FY 2010-11, the Commission has relied on the principle adopted in the Tariff Order for final tariff for MB-II dated December 30, 2009 which stipulates as under:

*“44. The Commission provisionally accepts the categorization of assets submitted by the Petitioner pending final approval of the capital cost and hence, the weighted average rate of depreciation claimed by it. Applying the claimed depreciation rates, the depreciation works out to Rs. 44.54 Crore for 2009-10.*

*45. Advance Against Depreciation has been worked out on the basis of the repayment schedule of the Financial Institution for the loan considered and according to the Regulations. Thus, the total depreciation including Advance Against Depreciation allowable for 2009-10 works out to Rs. 120.00 Crore...”*

In line with the above approach, the Commission has computed the depreciation and Advance Against Depreciation for FY 2010-11 for MB-II on the approved GFA of Rs. 1741.71 Crore. The total depreciation including Advance Against Depreciation for MB-II for FY 2010-11 accordingly works out to Rs. 120.00 Crore as given in the Table below:

**Table 5.6: Advance Against Depreciation for FY 2010-11 (Rs. in Crore)**

Sl. No.	Particulars	Claimed for FY 2010-11	Approved for FY 2010-11
a.	Depreciation	49.93	44.54
b.	Loan repayment during year	138.38	120.00
c.	1/10th of Loan	142.50	120.00
d.	Amount Admissible under AAD [Minimum of (b) and (c)]	138.38	120.00
e.	Advance Against Depreciation (AAD) [only if +ve] {(d) - (a)}	88.45	75.46
f.	Cumulative Depreciation	-	135.69
g.	Cumulative Repayment	-	300.00
h.	AAD restricted to {(g) - (f)}	-	75.46
i.	Allowable AAD (lower of e or h)		75.46

#### 5.2.4 Return on Equity

##### A. Old Nine Large Generating Stations

Regulation 18(1) of UERC (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2004 stipulates as under:

*"In case of all generating stations, debt-equity ratio as on the date of commercial operation shall be 70:30 for determination of tariff. Where equity employed is more than 30%, the amount of equity for determination of tariff shall be limited to 30% and the balance amount shall be considered as the normative loan.*

*Provided that in case actual equity employed is less than 30%, the actual debt and equity shall be considered for determination of tariff".*

In accordance with the above provisions of the Regulation, pending finalisation of the Transfer Scheme of UJVNL, the Commission has allowed RoE on provisional value of opening equity of Rs. 151.19 Crore in accordance with the directions of the Hon'ble Appellate Tribunal for Electricity, as detailed in the Order dated March 14, 2007. As regard RoE of Additional Capitalisation the Commission has considered a normative equity of 30% where financing is not available and on actual basis in other cases subject to a cap of 30% as specified in the Regulations. Further, for estimating the ROE on equity portion of opening GFA as well as additional capitalization the Commission has considered the allowable return @14% post tax in accordance with Tariff Regulations, 2004.

Further, as regard finalization of Transfer Scheme, the Commission in its Tariff Order dated October 21, 2009, had directed the Petitioner to submit a report on the status of Transfer Scheme and steps being taken by it to help the process. The above direction of the Commission is reproduced below:

*“The Petitioner is, therefore, directed to approach the State Government for early finalization of the transfer scheme and to provide them all necessary details/assistance in this regard. The Petitioner is directed to submit a report on steps taken by it and the status of transfer scheme within 3 months of the issuance of this Tariff Order.”*

With regard to the above direction, the Petitioner has submitted that it has already approached the Government for early finalization of the Transfer Scheme. It also submitted the steps taken by it, which are as under:

Particulars	Reference
Government of India notification and formation of UJVNL	Central Government. Order no. 42/7/2000 dated 5/11/2001
UPSEB took loan from LIC for MB-II	Loan agreement between UPSEB and LIC
Auditor General Uttar Pradesh (AGUP) observation on diversion of loan by UPSEB for other works and not for MB-II	AGUP communication dated 7/6/2002
Proposed offer of division of assets and liabilities received from UPJVNL through Additional. Secretary, GoU	Letter dated 22/11/2003
Revised offer from UPJVNL	Letter dated April 2005
GoI notification regarding allocation of part liability of LIC loan to UJVNL	GoI order no. S.O. 1228 dated 2/9/2005
LIC concern to UJVNL regarding overdue amount	Letter dated 15/12/2005
UJVNL request to LIC to provide copy of the loan agreement and details of loan disbursement	Letter dated 21/2/2006
LIC provided the details of loan disbursement	Letter dated 22/2/2006
UJVNL placed an agenda on the GoI order regarding allocation of LIC loan and details of loan disbursement obtained from LIC to the Board of Directors	Meeting held on 21/3/2006
UJVNL requested GoU to provide letter received from Director, MoP, GoI in December 2006	Letter dated 10/12/2007
Visit by UJVNL officers to UPJVNL for finalisation of transfer scheme and requested for various documents	February 2008
The desired information is still awaited.	
Request from LIC for clearance of loan	Letter dated 19/4/2008
GoU requested MoP, GoI for revision of its Order No. S.O. 1228 dated 2/9/2005	GoU Letter dated 1/1/2008
UJVNL request to GoU to take up the matter again with MoP	Letter dated 8/5/2008
Reminder from LIC to UJVNL for clearance of over-due amounting to Rs. 352.59 Crore	Letter dated 19/6/2008



Particulars	Reference
LIC expressed its concern to UPRUVN and request for release of Mortgage of Assets on one time settlement of LIC loan	Letter dated 19/6/2008
UPRUVN request UJVNL to provide current valuation of assets transferred to UJVNL from UPJVNL	Letter dated 21/6/2008
Matter pertaining to LIC loan and division of assets and liabilities put up before the Board of Directors	12/8/2008
Obtaining the legal opinion based on the directives of the Board in the meeting held on 12/8/2008	16/11/2008
Power Secretary, GoU request to Secretary, MoP, GoI for waiver of LIC loan liability	
MD, UJVNL sent a summary of legal opinion sought as per the directives of Board to Secretary (Energy), GoU	Letter dated 4/8/2009

From the submissions made by the Petitioner, the Commission observes that all through the calendar year 2008, the Petitioner had been rigorously pursuing the case for finalization of Transfer Scheme; however, the same zeal is not visible during the calendar year 2009 as not many efforts have been made by it during this period. **The Commission, accordingly, directs the Petitioner to make all out efforts in the FY 2010-11 so as to ensure finalization of Transfer Scheme within the next financial year itself.**

Since the Transfer Scheme has not been finalized as yet, the Commission is provisionally allowing a return on normative equity @ 14% post tax in accordance with the provisions of the Tariff Regulations. The summary of the Return on Equity approved for 9 LHPs for FY 2010-11 is shown in the Table below:

**Table 5.7: Equity and Return on Equity for Nine Old LHPs for FY 2010-11 (Rs. Crore)**

Name of the Generating Station	Transferred Asset		Additional Capitalization		Total RoE
			FY 2010-11		
	Normative Equity	RoE	Opening Equity	RoE	
Dhakrani	3.72	0.52	0.15	0.02	0.54
Dhalipur	6.11	0.86	0.22	0.03	0.89
Chibro	26.37	3.69	1.60	0.22	3.91
Khodri	22.19	3.11	1.53	0.21	3.32
Kulhal	5.25	0.74	0.13	0.02	0.75
Ramganga	15.01	2.10	0.68	0.10	2.20
Chilla	37.47	5.25	3.59	0.50	5.75
Maneri Bhali I	32.92	4.61	0.45	0.06	4.67
Khatima	2.16	0.30	0.24	0.03	0.33
<b>Total</b>	<b>151.19</b>	<b>21.17</b>	<b>8.59</b>	<b>1.20</b>	<b>22.37</b>

**B. Maneri Bhali-II**

As there has been no change in the factual position after the issuance of order dated December 30, 2009 in the matter of determination of final tariffs for MB-II generating Station, for the purposes of calculating RoE for MB-II, the Commission has relied on the approach taken by it in the above order dated December 30, 2009. The relevant extract of the above order is quoted below:

*“48. The Commission has approved the equity of Rs. 541.72 Crore in Table 2 above. Out of this, Rs. 341.39 Crore has come from PDF. The Commission in its Order dated 28.11.2008 had not allowed any return on funds provided by GoU out of money recovered from consumers by way of PDF for reasons spelt out in the said Order. At present also there seems no reason to revisit this issue and the Commission is, therefore, not allowing any return on equity utilized for creation of assets funded out of PDF.*

*49. Thus, only balance equity of Rs. 200.33 Crore qualifies for earning return. The Commission is allowing return @ 14% post tax as stipulated in the Regulations, which works out to Rs. 28.05 Crore for 2009-10.”*

Accordingly, for computing the RoE for MB-II for FY 2010-11, the Commission has considered the equity of Rs. 200.33 Crore. The Commission has further considered the allowable return @14% post tax in accordance with Tariff Regulations, 2004, which works out to Rs. 28.05 Crore for FY 2010-11.

**5.2.5 Income Tax**

In this regard, Regulation 7 stipulates that:

*“(1) Tax on the income streams of the generating company from its core business shall be computed as an expense and shall be recovered from the beneficiaries.”*

Further, Regulation 10 stipulates that the recovery of income tax shall be done directly by the generating company from the beneficiaries without making any application before the Commission.

As the Regulations provides for the recovery of income tax directly by the generating company from the beneficiaries without making any application, the Commission has not considered the Income Tax while determining the tariff of these generating stations for FY 2010-11.

UJVNL, shall accordingly raise bills for the purposes of claiming its income tax liability from its beneficiaries including HPSEB, in addition to the tariff approved by the Commission.

#### **5.2.6 Interest on Loans**

##### **A. Old Nine Large Generating Stations**

The Petitioner has claimed interest on normative debt equivalent to 70% of additional capitalisation amount. The Petitioner has further considered interest rate of 11.75% (prevalent SBI Prime Lending Rate) and repayment period of 10 years for working out the interest charges on the above normative debt.

On financing of assets, Regulation 18(1) of the UERC (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2004 stipulates as follows:

*"In case of all generating stations, debt-equity ratio as on the date of commercial operation shall be 70:30 for determination of tariff. Where equity employed is more than 30%, the amount of equity for determination of tariff shall be limited to 30% and the balance amount shall be considered as the normative loan.*

*Provided that in case actual equity employed is less than 30%, the actual debt and equity shall be considered for determination of tariff."*

Regulation 18(2) of the UERC (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2004 stipulates as follows:

*"The debt and equity amounts arrived at in accordance with sub-regulation (1) shall be used for calculating interest on loan, return on equity, Advance Against Depreciation and Foreign Exchange Rate Variation."*

Accordingly, for interest computation, the Commission has determined the normative loan on the additional capitalization. Further, for calculating the interest expense the Commission has considered an interest rate of 11% and repayment period of 10 years on the normative loan.

As regards the APDP loan, the Commission has considered the repayment period and interest rates as per the terms and conditions of the agreement.

In accordance with the decision of the Government of Uttarakhand, vide their letter no.

90/1/2005-06/77/2003 dated 29.06.07 and order of the Hon'ble High Court dated 14.05.07, the Commission had provisionally considered an amount of Rs. 2.21 Crore on the date of Commissioning of MB-I in its previous order dated October 21, 2009. The Commission had treated the above amount as loan advanced to UJVNL by the Government with terms similar to other new loans given by the Government to UJVNL. The Commission had, accordingly, considered an interest rate of 9% per annum and repayment period of 10 years for the purposes of above normative loan. Based on above considerations, the Commission has calculated the interest expense for the FY 2010-11 as Rs. 1.74 Crore against the Petitioner's demand of Rs. 1.91 Crore.

**Table 5.8: Interest on Loan for Nine Old LHPs for 2010-11 (Rs. Crore)**

Name of the Generating Station	Claimed	Opening Loan	Repayments	Closing Loan	Rate of Interest	Interest
		0.23	0.03	0.19	11.00%	0.02
Dhalipur	0.04	0.34	0.05	0.29	11.00%	0.03
Chibro	0.38	3.37	0.40	2.97	11.00%	0.35
Khodri	0.35	3.17	0.36	2.81	11.00%	0.33
Kulhal	0.03	0.20	0.03	0.17	11.00%	0.02
Ramganga	0.13	0.96	0.16	0.80	11.00%	0.10
Chilla	0.81	6.07	0.82	5.25	11.00%	0.63
M Bhali I	0.09	2.31	0.33	1.98	11.00%	0.21
Khatima	0.05	0.37	0.05	0.32	11.00%	0.04
<b>Total</b>	<b>1.91</b>	<b>17.02</b>	<b>2.23</b>	<b>14.78</b>		<b>1.74</b>

The difference in the interest expenses claimed by the Petitioner and approved by the Commission is mainly on account of higher interest rate of 11.75% considered by the Petitioner as against 11% allowed by the Commission.

## **B. Maneri Bhali-II**

As regards the interest expenses for MB-II, the Commission has relied on the principle adopted by it in the Order dated December 30, 2009 in the matter of determination of final tariff for MB-II, which is reproduced below:

*"Initially, the repayments of PFC loan of Rs. 1200 Crore were to commence from 15.07.2008. PFC sanctioned an additional loan of Rs. 135 Crore to UJVNL, which has been utilized to meet additional cost not allowed by the Commission, the same is therefore, not being considered. The repayment of PFC loan has actually started from 15.10.2008. Accordingly, the Commission has considered two repayments of Rs. 30 Crore each in 2008-09 making the opening loan for 2009-10 as Rs. 1140 Crore.*

*The Petitioner has shown the actual interest paid to PFC of Rs. 6.33 Crore for 2007-08 and estimated it to be Rs. 133.36 Crore for 2008-09. For 2009-10, the Commission has provisionally worked out the weighted average rate of 11.26% on the loan from PFC based on quarterly interest paid to PFC for quarter ending 15.04.2009. Variation in interest liability, if any, due to change in interest rates shall be trued up subsequently. Thus, considering the repayments as envisaged in the PFC's schedule, the interest works out to Rs. 120.42 Crore for 2009-10..."*

Accordingly, the Commission has computed the interest expenses for FY 2010-11 for MB-II considering the principles enumerated in the Tariff Order for final tariff for MB-II dated December 30, 2009. The summary of the interest expenses for FY 2010-11 as approved by the Commission is shown in the Table below:

**Table 5.9: Interest on Loan for Maneri Bhali-II (Rs. Crore)**

Particulars	Amount
Loan from PFC as on 01.04.2010	1,020.00
Weighted average rate of interest	11.26%
Loan as on 15.04.2010	990.00
Loan as on 15.07.2010	960.00
Loan as on 15.10.2010	930.00
Loan as on 15.01.2011	900.00
Interest from 01.04.2010 to 14.07.2010	32.19
Interest from 15.07.2010 to 14.10.2010	27.24
Interest from 15.10.2010 to 14.01.2011	26.39
Interest from 15.01.2011 to 31.03.2011	21.10
<b>Total Interest for FY 2010-11</b>	<b>106.91</b>

The Commission has provisionally allowed interest on loan from PFC at the weighted average rate of 11.26% based on the rate considered by it for FY 2009-10 in the Order dated December 30, 2009. Variation in interest liability, if any, due to change in interest rates shall be trued up subsequently.

### **5.3 Operation & Maintenance (O&M) Expenses for Old Nine Medium and Large Generating Stations**

For estimating the O&M expenses for the FY 2010-11, the Petitioner has considered the approved value of O&M expenses (i.e. direct and indirect expenses) for each plant as approved by the Commission in the last Tariff Order dated October 21, 2009 and escalated them by the same escalation factor of 6.51% as approved by the Commission for the FY 09-10.

In addition to above, the Petitioner has also claimed the following expenses:

- Cost of electricity consumption in colonies and barrages;
- Regulatory fee and insurance charges;
- Cost for concessional supply to past and present employees of UJVNL residing outside the colonies
- Impact of arrears due to revision of Pay and Allowances in accordance with the recommendation of Sixth Pay Commission

The Petitioner has submitted that it had estimated a total arrear burden of Rs. 52.08 Crore (approx.) for the period w.e.f. 1<sup>st</sup> January 2006 to 31<sup>st</sup> March 2009 which has also been allowed by the Commission in the previous Tariff Order. In accordance with the GoU order on Sixth Pay Commission, the Petitioner has further apportioned the arrears in the ratio of 40%, 30% and 30% for the FY 2009-10, 2010-11 and 2011-12 respectively. In accordance to above, the arrear burden for the FY 2010-11 comes to Rs. 11.52 Crores, which is attributable to 9 large hydro generating stations of UJVNL.

Before going into the process of estimating the O&M expenses for the FY 2010-11, the Commission would like to underline that in absence of complete data for the FY 2009-10, it has considered the same escalation factor of 6.51%, as was considered for the FY 2009-10. The Commission shall, however, re-determine the actual escalation factor for the FY 2010-11 at the time of truing up the expenses for the FY 2010-11 when actual data till March 2010 shall become available.

#### ***5.3.1 Apportionment of O&M expenses on 9 old Large and Medium Stations***

In the last Tariff Order dated October 21, 2009, the Commission had directed the Petitioner to maintain separate records of O&M expenses for each plant and to allocate only the common/indirect expenses. The Commission had further directed the Petitioner to submit the probable alternatives for rationally allocating the common/indirect expenses in the present context as well as considering future scenarios within a period of 3 months along with actual data, if any.

In this regard, UJVNL has submitted that except for Dhakrani, Dhalipur and Kulhal Power Station separate accounts are being maintained for each plant and only common/indirect expenses

are being apportioned to plants on rational basis for which the details have already been submitted in the earlier filings. UJVNL further submitted that additional capitalisation for tools and plant items are being accounted for in the books of accounts of relevant generating station for which expenditure has been incurred. As regards the Dhakrani, Dhalipur and Kulhal Power Stations, UJVNL submitted that historically they have been treated as one accounting unit and in the absence of details pertaining to provisional opening balances as on November 09, 2001 and due to non-finalisation of Transfer Scheme, segregation of accounting unit in respect to these three plants is still not possible.

### ***5.3.2 Utilisation of Expenses approved by the Commission***

As regards utilisation of O&M expenses vis-a-vis the approved value, the Commission had directed the Petitioner in the last Tariff Order to ensure that the direct O&M expenses as approved by the Commission are actually utilised in maintaining the plants in healthy conditions. The Commission had also indicated that it would consider truing up of these expenses only to the extent they are actually utilised in each plant and subject, of course, to prudence check. The Commission reiterates that it shall go by the above philosophy while carrying out the true up exercise for the FY 2009-10 and, accordingly, advises UJVNL to ensure that the O&M expenses as allowed by the Commission are actually utilized on the maintenance and upkeep of these plants.

### ***5.3.3 Employee Cost***

Based on the actual salary details for the period from April to December 2009 provided by the Petitioner, the Commission estimated the employee expenses for the FY 2010-11 by considering annual increments and estimated DA rates of 35% for first 3 months and 45% for balance 9 months in FY 2010-11. Terminal benefits have been considered in the same proportion of Basic Salary and DA as was for the period from April to December 2009. As regard other allowances the actual figures for the nine month period of FY 2009-10, have been annualised and, thereafter, escalated at the rate of 6.51% to arrive at the estimated figures for the FY 2010-11. The Commission has accordingly, estimated the employee expenses for FY 2010-11 for UJVNL as Rs. 119.05 Crore, which on allocation to nine LHPs on the proportion approved by the Commission in previous Tariff Order works out to Rs. 82.31 Crore.

In addition to the above, the Commission has also considered the impact of past arrears due

to implementation of Sixth Pay Commission's recommendation in FY 2010-11 as 30% of the arrears for the period January 2006 to March 2009 which works out to Rs. 11.52 Crore attributable to 9 large HEPs for FY 2010-11. The Commission would carry out the truing up of actual employee expenses including the arrears subject to prudence check in the next year's tariff exercise. The plant-wise breakup is given below:

**Table 5.10: Details of Employee Costs approved for Nine Old LHPs for FY 2010-11**

Name of the Generating Station	Employee Expenses	30% of Pay Commission's Arrears	Total Employee Expenses	Direct Employee Expenses	Indirect Employee Expenses
Dhakrani	4.57	0.64	<b>5.21</b>	3.67	1.54
Dhalipur	6.90	0.97	<b>7.87</b>	5.52	2.35
Chibro	17.25	2.41	<b>19.66</b>	9.52	10.14
Khodri	9.82	1.37	<b>11.20</b>	6.48	4.72
Kulhal	4.06	0.57	<b>4.63</b>	3.26	1.37
Ramganga	11.52	1.61	<b>13.14</b>	8.01	5.13
Chilla	12.67	1.77	<b>14.44</b>	10.28	4.16
M Bhali I	9.97	1.40	<b>11.36</b>	8.85	2.51
Khatima	5.55	0.78	<b>6.33</b>	5.03	1.30
<b>Total</b>	<b>82.31</b>	<b>11.52</b>	<b>93.83</b>	<b>60.62</b>	<b>33.21</b>

#### 5.3.4 Repairs and Maintenance Expenses

As regards the Repairs & Maintenance (R&M) Expenses, the Commission in the last Tariff Order dated October 21, 2009 had directed the Petitioner to correct the booking of capital related expenses as under:

*"...the Commission directs UJVNL to carry out an independent audit of all the R&M expenses for the period from FY 2001-02 onwards and submit a report within six months from the date of this Order. The Commission further directs UJVNL to have accounting of R&M expenses station-wise so that truing up of R&M expenses may be done on the basis of audit report on actual R&M expenses of revenue nature for each station.*

In this regard, UJVNL has submitted that in accordance to the above directive of the Commission it has appointed M/s Mohit Goyal & Company, Chartered Accountants through a tender process to conduct independent audit for R&M expenses for the period from FY 2001-02 onwards and the Firm has already commenced its work. Taking note of the steps taken by the Petitioner, **the Commission directs UJVNL to submit the report of the auditor at the earliest and within the stipulated timeframe.**



Accordingly, for the purposes this Tariff Order, the Commission has estimated the R&M expenses by considering the already approved R&M expenses for the FY 2009-10 and escalating them by the escalation factor of 6.51%. The Commission has further apportioned the R&M expenses into direct and indirect expenses in the same proportion as in the Tariff Order dated October 21, 2009 for FY 2009-10. The plant-wise R&M expense so approved are given in the following Table:

**Table 5.11: Approved R&M Expenses for Nine Old LHPs for FY 2010-11 (Rs. Crore)**

Plant	Direct R&M Expenses	Indirect R&M Expenses	Total R&M Expenses
Dhakrani	1.93	0.59	2.51
Dhalipur	2.78	0.84	3.62
Chibro	4.82	2.39	7.21
Khodri	2.06	1.57	3.62
Kulhal	1.71	0.52	2.24
Ramganga	0.45	0.52	0.97
Chilla	4.51	0.63	5.13
M Bhali I	10.12	0.48	10.60
Khatima	2.65	0.23	2.89
<b>Total</b>	<b>31.03</b>	<b>7.76</b>	<b>38.79</b>

### 5.3.5 Administrative & General Expenses

For estimating the A&G expenses for the FY 2010-11, the Commission has escalated the already approved A&G expenses for the FY 2009-10 by the escalation factor of 6.51%. The plant-wise break-up for direct and indirect expenses is provided in the following Table:

**Table 5.12: Approved A&G Expenses for Nine Old LHPs for FY 2010-11 (Rs. Crore)**

Plant	FY 2010-11		
	Direct A&G Expenses	Indirect A&G Expenses	Total A&G Expenses
Dhakrani	0.14	0.20	0.34
Dhalipur	0.21	0.30	0.51
Chibro	0.33	1.31	1.64
Khodri	0.07	0.65	0.72
Kulhal	0.13	0.17	0.30
Ramganga	0.12	1.00	1.12
Chilla	0.23	0.76	0.99
M Bhali I	0.19	0.48	0.67
Khatima	0.07	0.22	0.30
<b>Total</b>	<b>1.50</b>	<b>5.09</b>	<b>6.59</b>

Insurance and regulatory fee have been separately allowed as additional expenses. As regards the Regulatory fee for filing of the Petition, since the tariff filing fees for each generating station is Rs. 10 Lakh, the Commission approves an amount of Rs. 90 Lakh towards the Regulatory

expenses for FY 2010-11.

As regards the insurance charges for FY 2010-11, the Petitioner has claimed the expenses of Rs. 0.96 Crore considering the actual for FY 2009-10. UJVNL claimed the insurance charges under various policies as Fire & Allied Perils for Large Hydro Power plants, Loss of complete Revenue due to reduction in turnover/output and increased cost of working, Financial Liabilities relating to Director's and Officers' Omission, Public Liability, Workman's Compensation, Legal Liability under the Workman's Compensation Act, 1923 and Indian Fatal Accidents Act, 1855. UJVNL considered the actual expenses towards insurance charges of Rs. 0.96 Crore of FY 2009-10 for projection purposes for FY 2010-11. Subsequently, the Commission obtained the details of the copy of receipts of premiums paid for insurance policies and also the basis of allocation of same to nine LHPs. The Commission observes that the actual insurance charges for FY 2009-10 are in order and, accordingly, approves insurance charges of Rs. 0.96 Crore for FY 2010-11, as also claimed by the Petitioner.

#### **5.3.6 Cost of consumption in colonies/dams/barrages etc.**

In the Tariff Order dated October 21, 2009 for the FY 2009-10, the Commission had directed UJVNL to meter all inter-connection points so as to correctly measure the auxiliary consumption, transformation losses and consumption in colonies and barrages as below:

*"...The Commission, therefore, directs UJVNL to have proper metering at all interconnection points within three months from the date of issuance of this Order so as to have correct accounting of energy. Further, UJVNL should submit the status report on the installation of meters within one month of the time stipulated for completion of metering."*

#### **Para 5.5.1**

In relation to above, it has been submitted by UJVNL that all inter-connection points for metering have been identified and procurement of the requisite meters has been initiated and also provided the present status of meters. Subsequently, UJVNL also submitted the energy account statements for FY 2008-09, for its different generating stations, summary details of which are as given below:

**Table 5.13: Details of consumption in colonies/dams/barrages etc. (Energy in MU)**

S.No.	DESCRIPTION	Dhakrani	Dhaliopur	Kulhal	Chibro	Khodri	Chilla	MB-II	Khatima	MB-I	Ramganga	Total UJVNL
1	Generation	146.52	224.44	143.69	837.69	379.97	776.51	1044.29	140.92	403.80	325.48	4423.31
2	Net Import	140.84	0.52	0.01	0.95	1424.69	12.59	374.45	97.59	34.21	92.24	2178.09
3	Export	269.10	220.65	139.65	825.28	1797.15	781.76	1405.99	233.22	427.34	404.20	6504.34
4	Auxiliary Consumption of Power Station through UAT & SAT	1.81	0.49	0.43	1.36	0.87	1.30	3.41	0.30	1.27	1.34	12.57
5	Colony Consumption and other unmeter supply	15.69	0.54	0.00	0.00	0.00	2.84	3.90	1.89	6.54	10.97	42.37
a	Private/ domestic consumers	0.13	0.00	0.00	0.00	0.00	0.02	0.10	0.01	0.07	0.82	1.16
b	ID consumers	1.39	0.00	0.00	0.00	0.00	0.01	0.48	0.00	0.44	1.54	3.85
c	Industrial consumers	0.27	0.00	0.00	0.00	0.00	0.01	0.03	0.01	0.00	1.75	2.05
d	Commercial consumers	0.93	0.00	0.00	0.00	0.00	0.04	0.20	0.01	0.00	0.57	1.74
e	Colony Cons. With Street light & unmeter water supply	10.98	0.54	0.00	0.00	0.00	2.58	1.28	1.86	2.26	6.30	25.80
f	Consumption at Dam/ Barrage	1.18	0.00	0.00	0.00	0.00	0.19	0.12	0.00	0.00	0.00	1.50
g	Water Supply	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.82
h	contractors	0.00	0.00	0.00	0.00	0.00	0.00	1.53	0.00	0.00	0.00	1.53
i	sub stations aux.	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.16
j	Other HEP (MB-II)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.76	0.00	3.76
6	Transformation & line losses	0.76	3.27	3.62	12.00	6.65	3.20	5.45	3.10	2.87	1.20	42.11
7	% Transformation & line losses	0.264%	1.455%	2.517%	1.431%	0.369%	0.405%	0.384%	1.299%	0.654%	0.288%	0.638%

From the above Table it may be seen that although % losses (lines and transformers) have been low, the consumptions shown in some colonies has increased drastically from previous year. The total electricity consumption in colonies including consumption by Irrigation Colonies excluding that in MB-II is about 29.27 MU against 20.11 MU in previous year's Order for 9 old stations. **The Commission directs UJVNL to reconcile the data and submit a report thereon within 3 months of this Order.** Pending further reconciliation of data, the Commission provisionally approves the total electricity consumed in colonies, dams and barrages of UJVNL as 29.27 MUs for 09 old generating stations for the FY 2010-11, as per the submissions made by UJVNL. The colony consumption in case of MB-II generating station is included in the normative O&M expenses allowed to it and further, since the Petitioner has also not claimed any expense in this regard, hence, there seems no need to provide for this expense separately. The cost of supply of such electricity consumption has further been computed by the Commission in accordance with the philosophy adopted in the previous Tariff Orders i.e. at Primary energy rate for each station rather

than retail supply rate. From the submissions made by UJVNL it also becomes evident that in respect of Dhakrani, Kulhal, Chibro and Khodri generating stations, for the purposes of electricity consumption in common colonies, dams and barrages etc., the bulk of electricity is being supplied by Dhakrani generating station only. Accordingly, in absence of any other rational basis, while estimating the cost of energy consumed in colonies of different generating stations, the Commission has apportioned the cost of energy consumption at Dhakrani of Rs. 0.79 Crore on 13.54 MUs on the Dhakrani, Kulhal, Chibro and Khodri generating stations in proportion to the installed capacity of these generating stations. Based on the above, the total cost of electricity consumed in colonies, dams and barrages for different generating stations has been calculated as Rs. 1.77 Crore. The same is depicted in the Table given below:

**Table 5.14: Cost of Colony Consumption for Nine Old LHPs 2010-11**

Name of the Generating Station	Installed Capacity (MW)	Colony Consumption Approved (MU)	Primary Energy Rate (Rs./Unit)	Cost of colony consumption for FY 2010-11 (Rs. Crore)
Dhakrani	33.75	13.55	0.59	0.06
Dhalipur	51.00	0.54	0.71	0.04
Chibro	240.00	0.00	0.47	0.45
Khodri	120.00	0.00	0.65	0.23
Kulhal	30.00	0.00	0.55	0.06
Ramganga	198.00	7.84	0.62	0.48
Chilla	144.00	2.78	0.48	0.13
M Bhali I	90.00	2.70	0.81	0.22
Khatima	41.40	1.86	0.54	0.10
<b>Total</b>	<b>948.15</b>	<b>29.27</b>	<b>-</b>	<b>1.77</b>

In addition to the above, UJVNL also considered the cost of concessional supplies to past and present employees residing in areas outside the colonies as approved by the Commission in its Tariff Order dated October 21, 2009 considering the monthly consumption of such employees/pensioners, based on the average monthly consumption of 86.20 units/consumer/month of the Domestic-RTS (1) category of the consumers of UPCL. For projecting the cost, the Petitioner has considered the rate at the demand tariff rates of Rs. 2.15/kWh stated to be in accordance with the rates specified in RTS-1 category of UPCL. Further, electricity duty of Rs. 0.15/kWh has also been added to this cost. The Commission has considered the prevalent tariff with energy charge of Rs. 2.20/kWh & fixed charges of Rs. 20/connection/month in accordance with the existing rates specified in RTS-1 category of UPCL and also added electricity duty of Rs. 0.15/kWh. Accordingly, the cost of such supplies works out to Rs. 0.38 Crore for FY 2010-11. This

has been apportioned to the 9 old plants based on their capacities.

Based on the above, the Commission has, determined the O&M expenses for FY 2010-11 of Rs. 143.21 Crore which includes colony consumption, Insurance charges, cost of concessional supply to UJVNL past and present employees residing outside the colonies, impact of arrears and Regulatory Fee.

O&M expenses as proposed by the Petitioner and as approved by the Commission for FY 2010-11 for the nine generating stations are summarised in the Table below:

**Table 5.15: O&M Expenses for Nine Old LHPs for FY 2010-11 (Rs. Crore)**

Name of the Generating Station	Claimed	Employee Expenses	A&G expenses	R&M expenses	Regulatory Fees	Insurance	Cost of Colony Consumption	Cost of concessional supply	Total O&M expenses
Dhakrani	8.19	5.21	0.34	2.51	0.10	0.03	0.06	0.01	8.27
Dhalipur	12.12	7.87	0.51	3.62	0.10	0.05	0.04	0.02	12.21
Chibro	28.85	19.66	1.64	7.21	0.10	0.24	0.45	0.10	29.40
Khodri	15.76	11.20	0.72	3.62	0.10	0.12	0.23	0.05	16.02
Kulhal	7.30	4.63	0.30	2.24	0.10	0.03	0.06	0.01	7.36
Ramganga	15.57	13.14	1.12	0.97	0.10	0.20	0.48	0.08	16.08
Chilla	20.81	14.44	0.99	5.13	0.10	0.14	0.13	0.06	20.99
M Bhali I	22.85	11.36	0.67	10.60	0.10	0.09	0.22	0.04	23.08
Khatima	9.69	6.33	0.30	2.89	0.10	0.04	0.10	0.02	9.78
<b>Total</b>	<b>141.13</b>	<b>93.83</b>	<b>6.59</b>	<b>38.79</b>	<b>0.90</b>	<b>0.96</b>	<b>1.77</b>	<b>0.38</b>	<b>143.21</b>

#### 5.4 O&M Expenses for MB-II

For estimating the O&M expenses for FY 2010-11 for MB-II, the Commission has considered the principles as laid down by it in the Tariff Order for determination of final tariff for MB-II dated December 30, 2009, which provides as under:

*“51. The Regulations provide that in case of the hydro electric generating stations declared under commercial operation on or after 1.4.2004, the base operation and maintenance expenses shall be fixed at 1.5% of the actual capital cost, as admitted by the Commission, in the year of commissioning. The Commission has admitted the capital cost of the station as Rs. 1741.72 Crore. For working out the O&M expenses for subsequent years, it would be necessary to compute the annual escalation factors for inflationary increases for which the Commission has notified separate Regulations. The escalation*

*rates have been considered as per the provisions specified in Uttarakhand Electricity Regulatory Commission (Terms and Conditions for Determining Escalation Factor) Regulations, 2007.*

*52. On the basis of the above Regulations, the Commission has considered the actual escalation factors of 8.97% for FY 2008-09. An average of escalation factors for previous five years of 6.51% based on the Wholesale Price Index (WPI) and Consumer Price Index (CPI) has been considered for FY 2009-10.*

*53. Thus, applying the escalation rates worked out above on the base O&M expenses for 2007-08, the approved O&M expenses for 2009-10 work out to Rs. 30.32 Crore. Since the Commission has not considered any additional capitalisation, no O&M expense on the same has been considered."*

Accordingly, for computing O&M expenses for MB-II for FY 2010-11, the Commission has considered the approved O&M expenses for FY 2009-10 i.e., Rs. 30.32 Crore as the base expenses and escalated them by the escalation factor of 6.51%. Accordingly, for MB-II generating station the Commission has approved the O&M expenses of Rs. 32.30 Crore for FY 2010-11.

## **5.5 Interest on Working Capital**

### **A. Old Nine Medium and Large Generating Stations**

The Petitioner has claimed that it has projected the working capital for each plant in accordance with the provisions of the Regulations. The components of working capital as per the Regulations are as follows:

- O&M expense at one month of projected expenses;
- Maintenance spares @ 1% of project cost escalated @ 6% per annum from the date of commercial operation (in case of UJVNL's stations transferred from UPJVNL, historical cost shall be the cost as on the date of unbundling of UPSEB to be escalated @ 6% p.a. thereafter); and
- Receivables at two months of revenue from sale of electricity.

#### **5.5.1 One Month O&M Expenses**

The annual O&M expenses admitted by the Commission are Rs. 143.21 Crore for FY 2010-11. Based on above approved O&M expenses, one month's O&M expenses work out to be Rs. 11.93

Crore for FY 2010-11. The same have been considered by the Commission for working out the working capital requirement.

### 5.5.2 Maintenance Spares

The Commission has considered the maintenance spares in accordance with Tariff Regulations of the Commission. For old assets, the Commission has considered maintenance spares @ 1% of the historical cost transferred from UJVNL as on January 14, 2000 and escalated @ 6% per annum thereafter. For assets capitalised during subsequent years, maintenance spares have been considered @ 1% of the additional capitalisation and escalating by 6% per annum. The value of maintenance spares, thus, works out as Rs. 9.43 Crore for FY 2010-11.

### 5.5.3 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 include O&M expenses, depreciation, interest on loan, return on equity and interest on working capital. The Commission has approved the receivables for two months based on the approved AFC of Rs. 181.57 Crore for FY 2010-11.

Total working capital allowed by the Commission under the three components discussed above, accordingly, works out to Rs. 51.63 Crore for FY 2010-11.

As regards the interest on working capital, Regulation 27(2) of the UERC (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2004 stipulates:

*"Rate of interest on working capital shall be the short-term Prime Lending Rate of State Bank of India as on 1.4.2004 or on 1<sup>st</sup> April of the year in which the generating unit/station is declared under commercial operation, whichever is later. The interest on working capital shall be payable on normative basis notwithstanding that the generating company has not taken working capital loan from any outside agency."*

In the last Tariff Order dated October 21, 2009, accommodating the request of the Petitioner, while estimating the interest on working capital, the Commission had considered the prevailing PLR, so as to effectively capture the existing market conditions. Accordingly, in the present Tariff Order also, the Commission has considered prevailing SBI PLR of 11.75% for working out the

interest on working capital in accordance with the approach adopted in the last Tariff Order dated October 21, 2009. The Commission has, thus, allowed Rs. 6.07 Crore as interest on working capital for the FY 2010-11.

The plant-wise details of working capital and interest thereon for FY 2010-11 are given hereunder:

**Table 5.16: Interest on Working Capital for Nine Old LHPs for FY 2010-11 (Rs. Crore)**

Name of the Generating Station	Approved (FY 2010-11)				Interest on working Capital FY 2010-11	
	1 month O&M Expenses	1% Maintenance Spares	2 months Receivables	Total Working Capital	UJVNL	Approved
Dhakrani	0.69	0.23	1.52	2.44	0.28	0.29
Dhalipur	1.02	0.37	2.26	3.66	0.42	0.43
Chibro	2.45	1.65	5.83	9.93	1.15	1.17
Khodri	1.34	1.39	3.72	6.44	0.76	0.76
Kulhal	0.61	0.32	1.40	2.34	0.27	0.27
Ramganga	1.34	0.92	3.18	5.44	0.62	0.64
Chilla	1.75	2.39	5.30	9.44	1.11	1.11
M Bhali I	1.92	2.02	5.29	9.24	1.08	1.09
Khatima	0.81	0.14	1.75	2.70	0.33	0.32
<b>Total</b>	<b>11.93</b>	<b>9.43</b>	<b>30.26</b>	<b>51.63</b>	<b>6.02</b>	<b>6.07</b>

#### **B. Maneri Bhali-II**

As regards the interest on working capital for MB-II, the Commission has computed the same based on the Tariff Regulations, 2004, and considering the prevalent PLR of SBI of 11.75% p.a. The summary of the interest on working capital for MB-II for FY 2010-11 is shown in the Table below:

**Table 5.17: Interest on Working Capital for MB-II for FY 2010-11 (Rs. Crore)**

Name of the Generating Station	Approved (FY 2010-11)				Interest on working Capital	
	1 month O&M Expenses	1% Maintenance Spares	2 months Receivables	Total Working Capital	UJVNL	Approved
MB-II	2.69	20.74	49.30	72.74	8.71	8.55

### **5.6 Annual Fixed Charges and Primary Energy Rate for FY 10-11 for Nine LHPs**

Based on the above analysis for all the heads of expenses of AFC, the Commission has approved a sum of Rs. 181.57 Crore for FY 2010-11 as the Total Annual Fixed Charges (AFC) of the Petitioner attributable to its two beneficiaries. The Commission has allocated the net AFC among



the two beneficiaries of the Petitioner viz., UPCL and HPSEB on their capacity allocation in each of the shared plants and 100% on UPCL for other plants. Accordingly, out of the total AFC of Rs. 181.57 Crore, Rs. 159.87 Crore is attributable to UPCL and balance Rs. 21.70 Crore is attributable to HPSEB.

The summary of Annual Fixed Charge for FY 2010-11 is given in Table below:

**Table 5.18: Annual Fixed Charges for Nine Old LHPs for FY 2010-11 (Rs. Crore)**

Name of the Generating Station	Depreciation	Interest on Loan	Interest on Working Capital	O&M Expenses	RoE	Total Annual Fixed Costs	AFC attributable to UPCL	AFC attributable to HPSEB
a	b	c	d	E	f	g=b+c+d+e+f	h	i
Dhakrani	0.01	0.02	0.29	8.27	0.54	9.14	6.85	2.28
Dhalipur	0.02	0.03	0.43	12.21	0.89	13.59	10.19	3.40
Chibro	0.16	0.35	1.17	29.40	3.91	35.00	26.25	8.75
Khodri	1.90	0.33	0.76	16.02	3.32	22.33	16.75	5.58
Kulhal	0.01	0.02	0.27	7.36	0.75	8.43	6.74	1.69
Ramganga	0.06	0.10	0.64	16.08	2.20	19.07	19.07	0.00
Chilla	3.30	0.63	1.11	20.99	5.75	31.78	31.78	0.00
M Bhali I	2.70	0.21	1.09	23.08	4.67	31.75	31.75	0.00
Khatima	0.02	0.04	0.32	9.78	0.33	10.49	10.49	0.00
<b>Total</b>	<b>8.19</b>	<b>1.74</b>	<b>6.07</b>	<b>143.21</b>	<b>22.37</b>	<b>181.57</b>	<b>159.87</b>	<b>21.70</b>

Based on the station-wise approved Annual Fixed Charges (AFC) and Saleable Primary Energy, Primary Energy Rates have been worked out for each of these nine generating stations. The summary of Annual Fixed Charges and Primary Energy Rates for FY 2010-11 is given in Table below:

**Table 5.19: Approved AFC and Primary Energy Rate for FY 2010-11 for UPCL and HPSEB**

Name of the Generating Station	Saleable Primary Energy (MU)	AFC attributable to UPCL (Rs. Crore)	Saleable Primary Energy attributable to UPCL (MU)	Primary Energy Rate for UPCL (P/u)	AFC attributable to HPSEB (Rs. Crore)	Saleable Primary Energy attributable to HPSEB (MU)	Primary Energy Rate for HPSEB (p/u)
Dhakrani	155.78	6.85	116.83	58.66	2.28	38.94	58.66
Dhalipur	190.66	10.19	142.99	71.26	3.40	47.66	71.26
Chibro	741.00	26.25	555.75	47.23	8.75	185.25	47.23
Khodri	341.55	16.75	256.16	65.39	5.58	85.39	65.39
Kulhal	152.83	6.74	122.27	55.13	1.69	30.57	55.13
Ramganga	308.82	19.07	308.82	61.75	0.00	-	-
Chilla	664.58	31.78	664.58	47.82	0.00	-	-
M Bhali I	392.24	31.75	392.24	80.94	0.00	-	-
Khatima	192.69	10.49	192.69	54.43	0.00	-	-
<b>Total</b>	<b>3140.15</b>	<b>159.87</b>	<b>2752.33</b>	<b>58.09</b>	<b>21.70</b>	<b>387.81</b>	<b>55.95</b>

The Commission hereby approves the Primary Energy Rates as mentioned in Table 5.19 for supply to UPCL from the above nine generating stations for FY 2010-11, i.e., with effect from April 01, 2010. The Pooled Average Cost of generation payable by HPSEB shall be Paise 55.95/kWh with

total AFC of Rs. 21.70 Crore. These rates will continue to be the approved rates for sales to UPCL and HPSEB till revised by the Commission.

In case, the recovery from the Primary Energy Charges from UPCL is less than its AFC, the difference between AFC and Primary Energy Charges shall be recoverable as Capacity Charges/Deemed Generation Charges subject to provisions of Regulations. In accordance with the provisions of Regulations, the Secondary Energy Rate shall be equal to the Primary Energy Rate and shall be applicable when the Saleable Primary Energy exceeds the Original Design Energy.

## 5.7 Annual Fixed Charges and Primary Energy Rate for FY 2010-11 for MB-II

Based on different cost elements of AFC for MB-II as detailed above, the Commission approves total AFC of Rs. 295.80 Crore for MB-II, against the Petitioner's claim of Rs. 398.43 Crore for FY 2010-11. The details are given in the Table below:

**Table 5.20: Annual Fixed Charges for MB-II for FY 2010-11 (Rs. Crore)**

S. No.	Particulars	Claimed	Approved
1	Interest on Loan	134.11	106.91
2	Depreciation	49.93	44.54
3	Advance Against Depreciation	88.45	75.46
4	Return on Equity	83.03	28.05
5	O&M Expenses incl. Insurance Charges	34.19	32.30
6	Interest on Working Capital	8.71	8.55
7	<b>Gross Annual Fixed Charges</b>	<b>398.43</b>	<b>295.80</b>
8	Less: Other Income	-	-
9	<b>Net Annual Fixed Charges (7-8)</b>	<b>398.43</b>	<b>295.80</b>

The AFC for MB-II would be recovered through Primary Energy Charges and balance through Capacity Charges, subject to the condition that the generating station achieves the normative capacity index.

The Primary Energy Rate for computation of Primary Energy Charge shall be based on lowest variable charges of the central sector thermal power generating station in Northern Region which the Commission has considered as 96.91 paise/kWh for FY 2010-11. The balance recovery of Annual Fixed Charges will be through Capacity Charges in accordance with the Regulations 12, 20 and 28 and NOTE given in Regulation 12, which stipulates that:

*"There shall be pro rata recovery of capacity charges in case the generating station achieves capacity index below the prescribed normative levels. At zero capacity index no capacity charges shall be payable to the generating station."*

The AFC for FY 2010-11 shall be deemed to be recoverable in 12 equal monthly instalments subject to achievement of normative capacity index for each month. Pro-rata recovery of monthly capacity charges for monthly capacity index being less than normative level shall be done subject to adjustment at the year end on the basis of annual capacity index.

In accordance with the provisions of Regulations, the secondary energy rate shall be equal to the primary energy rate and shall be applicable when the Saleable Primary Energy exceeds the Original Design Energy. In addition to this, the Petitioner is also entitled to recover incentive on achieving Capacity Index higher than normative levels in accordance with the provisions of the Regulations.

The tariffs approved in this order shall continue to apply till further orders of the Commission.

## 6. Performance Improvement Measures

On the filings of UJVNL for the FY 2009-10, stakeholders had raised the issue of improving the performance of the nine plants of the Petitioner which had become more than 25 years old. The Commission had, observed in the last Tariff Order that there is a definite scope for improvement in generation capacities of these generating stations as the same have got reduced due to wear & tear and ageing of these plants. The Commission believes that with planned RMU, their reduced capacities could at least be raised upto their original design values. The Commission had, accordingly, directed UJVNL as below:

*"The Commission, therefore, directs the Petitioner to make comprehensive RMU schemes for efficiency improvement and life extension of these plants and submit the DPRs for the same to the Commission within a period of six months giving roadmap for implementation of these schemes."*

### Chapter 6

For the comfort of UJVNL, the Commission had further clarified that expenditure incurred on approved RMU works would form part of the capital cost of the project and would be suitably considered while working out the AFC for the relevant year based on the actual capital expenditure incurred.

As regard funding for these RMU works, the Commission had suggested that the Petitioner should utilise the funding available from financial institutions approved by Ministry of Power under its schemes for RMU of Hydro Plants. The Petitioner further had the option to approach other financial institutions in case the funding from such schemes and Petitioner's internal resources was not sufficient to meet the requirements of funds for these works.

Since UJVNL books of accounts had no debt from the past, the Commission had also suggested UJVNL to utilize the depreciation allowed to it against various plants for the purposes of carrying out the RMU works. In this context, the Commission had directed UJVNL as below:

*"The Commission hereby directs the Petitioner to credit this depreciation amount along-with all future deprecation allowed on these plants in a separate interest bearing bank account to be called Depreciation Reserve Fund (DRF), which should be utilised for RMU works of these plants."*

### Chapter 6

The Commission had also pointed out to another source for funding these activities as well

as for making new investments, i.e. RoE & incentive allowed to the Petitioner. Since these are free reserves with the company, the Petitioner can easily make use of these funds for any purpose including re-investments, working capital management etc. The Commission had further estimated total RoE allowed to the Petitioner from FY 2004-05 onwards and upto FY 2008-09 as Rs. 86.26 Crore. The same would become Rs. 128.60 Crore by the end of FY 2010-11, which is a considerable amount and if utilized prudently can yield further good returns for the Petitioner in future.

In response to the above directions of the Commission, the Petitioner has submitted that it has already initiated a comprehensive exercise towards RMU for its existing generating stations. The Petitioner submitted the following regarding its RMU programme:

- Contract for Feasibility study and Detail Project Report (DPR) preparation for RMU of Chibro, Khodri, Dhakrani, Dhalipur, Kulhal and MB-I generating stations has already been awarded to M/s Lahmeyer International GmbH Germany and the Inception Study (Phase-I) has been completed. Under Phase-II, Socio-Economic Reports and Environmental Reports have been submitted by the firm. Draft DPRs for Chibro, Khodri, Dhakrani, Dhalipur, Kulhal and Tiloth generating stations have been submitted by the firm and interim comments on draft DPRs have been sent to the firm.
- Under the proposed RMU programme for Chilla power station, DPR for RMU has already been prepared by SNC Lavalin. Amending Agreement No. 2 for revised scope and Supplementary Agreement for Phase-2 (i.e., for implementation) is under execution.
- Revised DPR for Ramganaga power station has been prepared by site engineers and review of the same is under progress.
- DPR for RMU of Khatima power stations has been approved by the Board of Directors in February 2008 and the preparation of the Tender Document for E&M works is in progress.

The Commission has noted the efforts made by the Petitioner in this regard and suggests UJVNL to prepare a time schedule so as to complete these activities in a time bound manner.

For further improvement in efficiency of these plants in the Tariff Order dated October 21, 2009 the Commission had directed the Petitioner to conduct a benchmarking study of its plants with other efficient utilities like NHPC, to explore further scope of improvement in technical losses and

manpower rationalisation. The Petitioner was further directed to submit an action taken report for implementation of efficiency improvement and manpower rationalisation measures giving target dates for completion of each milestone of proposed plan within 6 months of issuance of the Order dated October 21, 2009.

The Commission has so far not heard anything from the Petitioner in this regard. The Commission is, however, hopeful that UJVNL would conduct such a study in its own commercial interest and submit a report to the Commission within the timelines specified in the previous order.

Finally, before parting with the order the Commission would like to place on record that UJVNL has done a commendable work not only in making timely submission but also in improving the quality of its submission to a great extent. This has, however, further raised the expectations of the Commission from UJVNL. The Commission, accordingly, exhorts UJVNL to file compliance on some of the pending directions of the Commission as given in the last Tariff Order dated October 21, 2009 within one month of the time specified in that Order.

**(Anand Kumar)**  
**Member**

**(V.J. Talwar)**  
**Chairman**

## 7. Annexures

### 7.1 Annexure 1: Public Notice

UTTARAKHAND JAL VIDYUT NIGAM LIMITED													
H.Q. "UJJWAL", Maharani Bagh, GMS Road, Dehradun - 248006													
PUBLIC NOTICE													
Inviting Comments on Petition filed by UJVNL for FY 2010-11 for Determination of Generation Tariff for 10) LHP's													
1. Uttarakhand Jal Vidyut Nigam Limited (UJVNL), a Government owned company, generating power for supply to consumers in the State, has filed tariff proposals for the financial year 2010-11 for its ten large generating station (LHP's) before Hon'ble Uttarakhand Electricity Regulatory Commission (Commission). UJVNL is hereby published the gist of proposal made along with the existing rates in the State as tabulated below:													
Station	Installed Capacity (MW)	Year of Commissioning	Particulars	Operation & Maintenance Expenses (Rs. Cr.)	Interest on working Capital (Rs. Cr.)	Interest on loan Capital (Rs. Cr.)	Return on Equity (Rs. Cr.)	Depreciation (Rs. Cr.)	Annual Fixed Charges (Rs. Cr.)	Impact of trueing up for past years (Rs. Cr.)	Net Annual Fixed Charges (Rs. Cr.)	Saleable Energy (MUs)	Primary Energy Rate (p/u)
Dhakrani	33.75	1965-70	Approved for 2009-10	7.95	0.29	0.02	0.54	0.01	8.81	0.29	9.10	155.78	58.42
			Projected for 2010-11	8.19	0.28	0.03	0.54	0.01	9.06	0.00	9.06	155.78	58.13
Dhalipur	51.00	1965-70	Approved for 2009-10	11.76	0.43	0.04	0.88	0.01	13.12	0.54	13.66	190.66	71.65
			Projected for 2010-11	12.12	0.42	0.04	0.89	0.02	13.49	0.00	13.49	190.66	70.74
Chibro	240.00	1974-76	Approved for 2009-10	28.03	1.16	0.28	3.83	0.11	33.40	(2.52)	30.89	741.00	41.69
			Projected for 2010-11	28.85	1.15	0.38	3.94	0.16	34.48	0.00	34.48	741.00	46.54
Khodri	120.00	1983-84	Approved for 2009-10	15.34	0.75	0.21	3.22	1.84	21.36	0.29	21.65	341.55	63.39
			Projected for 2010-11	15.76	0.76	0.35	3.33	1.90	22.10	0.00	22.10	341.55	64.70
Kulhal	30.00	1974-76	Approved for 2009-10	7.09	0.28	0.02	0.75	0.23	8.36	0.56	8.92	152.83	58.37
			Projected for 2010-11	7.30	0.27	0.03	0.75	0.01	8.36	0.00	8.36	152.83	54.70
Ramganga	198.00	1976-78	Approved for 2009-10	15.24	0.64	0.14	2.19	0.06	18.27	(1.82)	16.46	308.82	53.28
			Projected for 2010-11	15.27	0.62	0.13	2.20	0.06	18.57	0.00	18.57	308.82	60.12
Chilla	144.00	1980-81	Approved for 2009-10	20.24	1.11	0.66	5.67	3.25	30.94	0.30	31.24	664.58	47.01
			Projected for 2010-11	20.81	1.11	0.81	5.76	3.23	31.71	0.00	31.71	664.58	47.72
Tiloth	90.00	1984-85	Approved for 2009-10	22.01	1.08	0.24	4.66	2.70	30.69	3.32	34.01	392.24	86.71
			Projected for 2010-11	22.85	1.08	0.09	4.76	2.70	31.48	0.00	31.48	392.24	80.26
Khatima	41.40	1955-56	Approved for 2009-10	9.41	0.32	0.05	0.33	0.02	10.12	0.37	10.49	192.69	54.44
			Projected for 2010-11	9.69	0.33	0.05	0.33	0.02	10.42	0.00	10.42	192.69	54.08
Maneri Bhal-II	304.00	2008-09	Provisional tariff										
			Approved for 2008-09	27.17	8.31	131.19	28.05	87.93	282.65		282.65	1550.44	182.30
Total			Projected for 2010-11	34.19	8.71	134.11	83.03	138.38	398.43	0.00	398.43	1550.44	256.98
			Approved for 2009-10	164.24	14.37	132.85	50.12	96.16	457.74	1.33	459.07	4690.59	97.87
Total			Projected for 2010-11	175.33	14.73	136.02	105.53	146.49	578.10	0.00	578.10	4690.59	123.25
2. The Annual Fixed Charges (AFC) and the corresponding tariff has been proposed for energy to be sold to UPCL as well as supply to HPSEB. In case the claim of UJVNL is accepted by the Commission, additional hike of 5.18% in consumer tariff shall be required over and above the hike proposed by UPCL and PTCUL.													
3. Detailed proposals as submitted by UJVNL can be seen free of cost on any working day at the Commission's office at Institution of Engineers (I) Building, 1st Floor, Near ISBT, Majra, Dehradun or at the office of Uttarakhand Jal Vidyut Nigam Ltd., "UJJWAL", Maharani Bagh, GMS Road, Dehradun. Relevant extracts can also be obtained from the above mentioned office of UJVNL.													
4. The proposals filed by the UJVNL are also available at the website of the Commission (www.uerc.in) and at the UJVNL's website (www.uttaranchaljalvidyut.com).													
5. Responses/suggestions, if any are sought from all consumers and other stakeholders on the above proposals. Responses may be sent the Secretary, Uttarakhand Electricity Regulatory Commission either in person, or by post or through e-mail to uttaranchalerc@rediffmail.com as a statement of objections or comments with copies of documents and evidence in support thereof so as to reach the Secretary, UERC by 31.12.2009.													
पत्र सं० : 836/उजवनि/वि०/वि०/वि०													
दिनांक : 10.12.2009													
Managing Director													
"Avoid Wasteful use of Electricity"													

## 7.2 Annexure 2: List of Respondents

Sl. No.	Name	Designation	Organization	Address
1.	Shri Pankaj Gupta	President	Industries Association of Uttarakhand	Mohabewala Industrial Area, Dehradun – 248110
2.	Shri K.G. Behl, Brig. (Retd.)	President	All India Consumers Council (AICC)	Uttaranchal, 8-A, Nemi Road, Dehradun – 248001



**7.3 Annexure 3: List of Participants in Public Hearings****List of Participants in Hearing at Uttarkashi on 11.01.2010**

SL. No.	Name	Designation	Organization	Address
1.	Shri Madan Singh Rana			Vill.- Bansga, Post- Sald, Uttarkashi
2.	Dr. B.S. Rana			Dr. Rana Bhawan, Tiloth, Uttarkashi
3.	Shri Lakhi Ram Singh Sajwan			Gram Virpur, Dunda, Uttarkashi
4.	Shri Harish Semwal	Member	Jila Panchayat, Baragadi	Uttarkashi
5.	Shri Bachan Singh	Member	Jila Panchayat, Dang, Baragadi	Uttarkashi
6.	Shri Surat Singh Rawat		Amar Ujala	Uttarkashi
7.	Shri Suresh Chauhan		Ex. Pramukh, Bhatwari	Uttarkashi
8.	Shri Kamal Singh Rawat		Jila Panchayat, Bada	Uttarkashi
9.	Shri Dinesh Semwal			Barahat Semwal Bhawan, Near Parshuram Mandir, Uttarkashi
10.	Shri Rajendra Panwar			Hotel Vijayraj, Gangotri Highway, Uttarkashi
11.	Shri Vijay Bahadur Singh			Hotel Gautam Park, Joshiyara, Uttarkashi
12.	Shri Balbir Singh Makhloga			Village- Gangari, Nougari, Uttarkashi
13.	Shri Sukesh Nautiyal			Village- Bheteyena, P.O. Dhauntry, Uttarkashi
14.	Shri Jitendra Rawat		Zee News	Uttarkashi
15.	Shri Ramesh Semwal			Badahat, Uttarkashi
16.	Shri Gopal Rawat	Hon'ble MLA Gangotri		Purani Kutchery Road, Uttarkashi
17.	Ms. Swaraj Vidwan	President	BJP (District Level)	Kaleshwar Marg, Joshiyara, Uttarkashi

**List of Participants in Hearing at Sitarganj on 22.01.10**

<b>SL. No.</b>	<b>Name</b>	<b>Designation</b>	<b>Organization</b>	<b>Address</b>
1.	Shri Suresh Kumar	Vice-President (Works)	M/s. La-opala RGLN	ESIP, Sitarganj, Distt.- Udham Singh Nagar
2.	Shri Bhola Trivedi		M/s. Narendra Plastics	Unit Plot No A-195, Phase 1, EIDCO SIDCUL Industrial Park, Jail Camp Road, Sitarganj, Udham Singh Nagar, Uttarakhand 262405
3.	Shri Pukhraj Kushwaha		M/s. Khatima Fibers	UPSIDC Industrial Area, Khatima- 262308
4.	Shri Manjeet Singh		PSB Papers Ltd.	Beria Road, Bazpur - 262401, Uttarakhand
5.	Shri V.V. Joshi	Assistant General Manager	Tata Motors Ltd.	Plot No. 1, Sector 11, IIE, SIDCUL, Pant Nagar, Udham Singh Nagar
6.	Shri R.K. Singh	Sr. Manager	M/s. Tata Motors Ltd.	Plot No. 1, Sector 11, IIE, SIDCUL, Pant Nagar, Udham Singh Nagar

**List of Participants in Hearing at Pithoragarh on 23.01.10**

SL. No.	Name	Designation	Organization	Address
1.	Shri Dhan Singh Mehta		Laxmi Narayan Utthan Samiti, Gangolihat	Vill.-Bhandari Gaon, P.O.-Kothera, Gangolihat, Pithoragarh
2.	Shri Ishwar Rautela	Secretary	Uttara Gharat Vikas Samiti, Pithoragarh	Vill.- Bhandari Gaon, P.O.-Kothera, Gangolihat, Pithoragarh
3.	Smt.. Manju Devi			Vill.- Lindyuda, Sinola, Pithoragh
4.	Shri D.P. Khanka			Khanka Cottage, Takana Khet, Pithoragarh
5.	Smt. Mohni Devi			Vill.- Kedar Puneri Ward, Distt.-Pithoragarh
6.	Smt. Jivanti Devi			Vill.- Kidar Puneri, Distt.-Pithoragarh
7.	Smt. Devki Devi			Vill.- Kidar Puneri, Distt.-Pithoragarh
8.	Smt. Kaushalya Devi			Vill.- Kidar Puneri, Distt.-Pithoragarh
9.	Shri Jitendra Singh Mahra	Ward Member	Siltham,	Siltham, Pithoragarh
10.	Shri Trilok Singh Mahar	Ward Member	Kumon	Kumon, Pithoragarh
11.	Shri Rajendra Singh Baseda	Ward Member	Khadkot	Khadkot, Pithoragarh
12.	Shri Jeevan Lal	Ward Member	Bajethi	Bajethi, Pithoragarh
13.	Shri Chandrashekhar Makholiya			Rai, Pithoragarh
14.	Shri K.C. Pant			New Sera, Pithoragarh
15.	Shri Jitu			Jakhni, Pithoragarh
16.	Shri Madan Mohan Bhatt			Rai, Pithoragarh
17.	Shri Nirmal Singh			Naya Bazar, Pithoragarh
18.	Shri G.S. Bhadri			Pithoragarh
19.	Shri Umesh Singh Rana			Link Road, Near Milan Tent House, Pithoragarh
20.	Shri Rizwan Ansari			C/o Mohd. Sazid, New Colony, Linthwa, Pithoragarh
21.	Shri Bhupal Singh			Ward No.- 7, Lunthyuda, Pithoragarh
22.	Shri Rajendra Singh Bisht			Maharishi Vidya Mandir, City Branch – Kumor, Pithoragarh

**List of Participants in Hearing at Dehradun on 14.02.2010**

SL. No.	Name	Designation	Organization	Address
1.	Shri Pankaj Gupta	President	Industries Association of Uttarakhand	C/o Satya Industries, Mohabewala Industrial Area, Dehradun
2.	Shri Rajiv Agarwal	Consumer Advocate & Sr. Vice-president,	Industries Association of Uttarakhand	32- Inder Road, Dalanwala, Dehradun
3.	Shri V.V. Joshi	Assistant General Manager	M/s. Tata Motors Ltd.	Plot No. 1, Sector 11, IIE, SIDCUL, Pant Nagar, Udham Singh Nagar
4.	Shri R.K. Singh	Sr. Manager	M/s. Tata Motors Ltd.	Plot No. 1, Sector 11, IIE, SIDCUL, Pant Nagar, Udham Singh Nagar
5.	Shri Ashok Goswami	Manager	Jeewani Mai Trust	Haridwar Road, Rishikesh
6.	Shri Khursheed A. Siddiqui			37- Preet Enclave, Majra, Dehradun
7.	Shri Arvind Jain			6 - Ramleela Bazar, Dehradun
8.	Shri Amar S. Dhunta	General Secretary	RTI Club Uttarakhand	827/1, Sirmaur Marg, Rajendra Nagar, Dehradun
9.	Shri Arun Kumar	President	Resident Welfare Association	Lane No. 13, 14 Mohit Nagar, 331/13- Mohit Nagar, Dehradun
10.	Shri Katar Singh	President	Bhartiya Kissan Club	Vill. Sultanpur Sabatwali, Post-Jhabrera, Distt.- Haridwar
11.	Shri Vijay Pal Singh			S/o Shri Kishan Singh, Village & Post - Sherpur Khelmau, Distt-Haridwar
12.	Shri Harindra Kumar Garg	Regional Chairman (Garhwal)	Industries Association of Uttarakhand	C/o Cello Industries, Plot No. 3, Sector No. 3, SIDCUL, Haridwar
13.	Shri Rakesh Kr. Tyagi	GM (Operation)	Creative Industries	Plot - 5/5A, Sector 3, SIDCUL, IIE, Haridwar
14.	Shri Lokesh Lohia			Sector VII, Plot No. 98, SIDCUL-Haridwar
15.	Shri Naval Duseja	AGM (Finance & Accounts)	Flex Foods Limited	Lal Tappar Industrial Area, P.O. Resham Majri, Haridwar Road, Dehradun 248140
16.	Shri Kashiram			E-29, Yamuna Colony, Dehradun
17.	Shri B.S. Bisht			21, Mohanpur, Premnagar, Dehradun
18.	Shri R.N. Mathur	President	Mussoorie Hotel Association	Prince Hotel, Library, Mussoorie
19.	Shri Narendra Pal Singh	President	Consumer Care Consultancy	17, Ganga Nagar, Rishikesh

**List of Participants in Hearing at Dehradun on 14.02.2010**

<b>SL. No.</b>	<b>Name</b>	<b>Designation</b>	<b>Organization</b>	<b>Address</b>
20.	Shri Khairati Lal Sharma			633- Ramnagar, Roorkee, Distt.- Haridwar
21.	Shri Ajay Bhargara	Secretary	Mussoorie Hotel Association	Hotel Surya Kiran, Mall Road, Mussoorie
22.	Shri Sanjay Agarwal			Hotel Mall Palace, The Mall, Opp. Ropeways, Mussoorie
23.	Shri Gulshan Rai		Shri Ganesh Roller Flour Mills	Mohabbewala Industrial Area, Dehradun
24.	Shri Ram Kumar	Vice President	Mussoorie Hotel Association	Hotel Vishnu Palace, Gandhi Chowk, Mussoorie
25.	Shri Gulshan Kakkar	Working President	Prantiya Industries Association	Mohabbewala Industrial Area, Dehradun
26.	Shri Mayank Garg		Himgiri Packers & Joint Secretary (PIA)	121- Kanwali Road, Dehradun
27.	Shri Himanshu Bahuguna		Rashtriya Sahara	Patel Nagar, Dehradun
28.	Shri Anil Marwah	State General Secretary	Prantiya Industries Association	222/5, Gandhi Gram, Dehradun - 248001
29.	Shri R.K. Sal		Prantiya Industries Association	123, Saharanpur Road, Patel Nagar, Dehradun
30.	Shri Jagdish Kuliya			Shisham Jhari, P.O. Muni Ki Reti, Distt.- Tehri Garhwal
31.	Shri Vishnu Mitra			36, Panchsheel Park, P.O. New Forest, Dehradun 248006.
32.	Shri Shailendra Singh			Lane No. 3, House No. 4, Dashmesh Vihar, Raipur Road, Dehradun