



COMMISSION'S ORDER

ON

**AGGREGATE REVENUE REQUIREMENT FOR
TRANSMISSION BUSINESS & SLDC FOR FY 2010-11 AND
TRANSMISSION TARIFF & SLDC CHARGES**

CASE NO: HERC/PRO - 2 OF 2010

April 16, 2010

Panchkula

HARYANA ELECTRICITY REGULATORY COMMISSION

Bay No. 33-36, SECTOR - 4, PANCHKULA - 134 112, HARYANA

www.herc.nic.in

CASE NO. HERC / PRO - 2 OF 2010

Date of Order: 16.04.2010

In the matter of applications filed by Haryana Vidyut Prasaran Nigam Limited (herein after referred to as HVPNL or petitioner) for approval of Aggregate Revenue Requirement (ARR) for Transmission business and operating cost of State Load Dispatch Centre (SLDC) for FY 2010 - 11 and determination of Transmission Tariff and SLDC Charges.

PRESENT:	Shri Bhaskar Chatterjee, Chairman Shri Rohtash Dahiya, Member
On behalf of HVPNL	Smt. Jyoti Arora, M.D Shri Niraj Gulati , Director Shri. D.P. Tiwari. FA/Hqr Shri Sanjeev Aggrawal, CAO
On behalf of HERC Staff	Shri Mahavir Singh, Secretary Shri Sanjay Varma, Director/Tariff Smt. Surbhi Jain, Joint Director Shri S. K. Goyal, Deputy Director Shri Gulshan Aggarwal, Deputy Director

ORDER

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1. PROCEDURAL ASPECTS OF THE ARR FILING

1.1 Background:

Haryana Vidyut Prasaran Nigam Ltd (HVPNL) is a state government owned company registered under the Indian Companies Act, 1956. It is engaged in the business of transmission in the state as well as operating the State Load Dispatch Centre at Siwah (Panipat). The Haryana Electricity Regulatory Commission (the Commission), in exercise of the powers vested under section 62 of the Electricity Act, 2003 and section 26 of the Haryana Electricity Reform Act, 1997 and all other provisions enabling it in this behalf, determines the Aggregate Revenue Requirement (ARR) for Transmission and State Load Dispatch Centre (SLDC) business of HVPNL for the Financial Year 2010 - 11.

1.2 Applicability of the Electricity Act, 2003 in Haryana:

The Electricity Act, 2003 (the Act), enacted in June 2003, repealed the Indian Electricity Act, 1910, the Electricity (Supply) Act, 1948 and the Electricity Regulatory Commissions Act, 1998. The Government of Haryana, in exercise of the powers conferred by clause (d) of section 172 of the EA - 2003, vide its notification no. 1/4/2003 -1 Power dated 8/09/2003 notified that all the provisions of the Act except Section 121 which has not been enforced by the Central Government vide notification no. S.O 699 (E) dated 10/6/2003 shall not apply in the State of Haryana for a period of six months from the appointed date i.e. 10/6/2003. Resultantly, EA 2003 came into force in the State of Haryana w.e.f. 10/12/2003.

Government of Haryana vides notification No. 1/10/2003-1/Power dated 9/12/2003 notified HVPNL to be Haryana State Transmission Utility (STU) for the purpose of the Act w.e.f. 10th December, 2003.

Section 31 (1) of the Act provides “the State Government shall establish a Centre to be known as State Load Dispatch Centre (SLDC) for the purpose of exercising the powers and discharging the functions under this Act”. while sub section 31(2) provides that the “State Load Dispatch Centre (SLDC) shall be operated by a Government company or any other authority or corporation established or constituted by or under any State Act, as may be notified by the State Government:

Provided that until a Government company or any authority or corporation is notified by the State Government, the State Transmission Utility (STU) shall operate the State Load Dispatch Centre.

Provided further that “no State Load Dispatch Centre shall engage in the business of trading in electricity”.

The Government of Haryana vide their notification No. 1/11/2003-1/Power, dated 9/12/2003 notified that the SLDC at Sewah (Panipat) established for the purpose under Section 31(1) of the Act is to be operated by the Haryana State Transmission Utility w.e.f 10th December 2003.

Further, Section 39 (1) of the Act provides that “the State Government may notify the Board or a Government company as the State Transmission Utility; provided that the State Transmission Utility shall not engage in the business of trading in electricity”. This provision was deferred for period of one year by the Government of India vide notification dated 9th June 2004. Resultantly HVPNL continued Transmission and Bulk Supply business till 9th June 2005.

Clause 21.2 of the transmission license states that if the report referred to in Clause 21.1 indicates a significant difference between its expected aggregate revenues and its expected cost of service, the Licensee shall also submit with its report an explanation of the measures it proposes to take, including any proposed tariff amendments, to eliminate the difference.

1.3 Procedure envisaged in the Act for Tariff Order

Section 64 of the Act lays down the procedure to be followed for issuance of tariff order. Sub-sections (1) & (3) of Section 64 of the Act provide as under:

Sub-section (1): “An application for determination of tariff under section 62 shall be made by a generating company or licensee in such manner and accompanied by such fee, as may be determined by regulations”.

Sub section (3): “The Appropriate Commission, shall within one hundred and twenty days from receipt of application under sub-section (1) and after considering all suggestions and objections received from the public:-

- (a) issue a tariff order accepting the application with such modifications or such conditions as may be specified in that order;
- (b) reject the application for reasons to be recorded in writing if such application is not in accordance with the provisions of this Act and the rules and regulations made there under or the provisions of any other law for the time being in force:

Provided that an applicant shall be given a reasonable opportunity of being heard before rejecting his application.”

1.4 HVPNL’s petition for FY 2010-11

HVPNL, vide Memo No.Ch- 101/SE/RAU /F-79/Vol-I dated 30th November, 2009, has filed its petition under section 62 of the Electricity Act, 2003 read with HERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2008 for the financial year 2010 -11 in respect of its Transmission and SLDC business. Subsequent to the filing the Commission conducted a preliminary analysis and admitted the petition. The Commission vide Memo No.

3684/HERC/T-53, dated 11/02/2010 and 3794/HERC, dated 25/02/2010 sought some additional information which were provided by the petitioner vide their Memo No. CH-44/SE/RAU/F-66/Vol II, dated 11/03/2010 and Ch.40/SE/RAU/F-79/Vol-1, dated 16th March 2010.

The transmission and SLDC charges are mostly to be recovered from the distribution licensees UHBVNL & DHBVNL and other long term / short term open access customers, if any. The transmission and SLDC charges for FY 2010-11 submitted for approval by the petitioner are presented in table 1.1.

Table 1.1 HVPNL proposal for Transmission Tariff & Charges

Monthly Transmission Charges (Rs. million)	UHBVNL	DHBVNL	Total
	442.25	424.92	867.17
Transmission Tariff for Short term Customers (Rs / kWh) on energy sales of 34,402 MUs	0.30		
SLDC Charges (Rs. million / month)	4.89	4.89	9.78

The Commission, in Chapters - 2&3 of this order, has dealt with HVPNL's proposal as presented in table 1.1 above.

Section 64 (1) of the Act provides that an application for determination of tariff under Section 62 is required to be made by a generating company or licensee in such manner and accompanied by such fee as may be determined by regulations. The Commission vide its notification (No. HERC / 20 / 2008 dated 19/12/2008 notified the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2008 notified in Haryana Government Gazette (Extra). Regulation 6(3) provides that "If the Commission is satisfied that the expected revenue of a transmission licensee differs significantly from the revenue it is permitted to recover, it may order the transmission licensee to file an application within the time specified by the

Commission to amend its tariffs appropriately failing which the Commission shall suo moto start the proceedings for determination of tariff". Further, Regulation 7(6) provides that "where the Commission has not approved the aggregate revenue requirement for the financial year in which the proposed tariff is to be implemented, the Aggregate Revenue Requirement should accompany the filing of proposed tariff for that financial year". The instant transmission tariff petition and SLDC charges are based on the expected revenue requirement for transmission and SLDC business of HVPNL for FY 2010-11. As the Commission has not previously approved the ARR for FY 2010-11, it will first consider the ARR and based on the same shall determine transmission tariff and SLDC charges for FY 2010-11.

Public Proceedings:

Section 64(2) of the Electricity Act 2003 provides that "every applicant shall publish the application, in such abridged form and manner as may be specified by the Appropriate Commission". Further, Section 64(3) provides that "the Appropriate Commission shall, within 120 days from the receipt of an application under sub section (1) and after considering all suggestions and objections received from the public- (a) issue a tariff order accepting the application with such modifications or such conditions as may be specified in that order; (b) reject the application for reasons to be recorded in writing if such application is not in accordance with the provisions of the Act and the rules and regulations made there under or the provisions of any other law for the time being in force. Provided that an applicant shall be given a reasonable opportunity of being heard before rejecting his application.

In accordance with section 64 of the Act, HVPNL published its petition in the abridged form in order to ensure public participation. The Public Notice was issued by the petitioner in Dainik Bhaskar (Hindi) & The Tribune (English) dated 8/12/2009 inviting objections/ suggestions/ comments from the stakeholders by 10/01/2010.

1.5 Salient features of the ARR

The salient features of the ARR's for Transmission business and SLDC as filed by HVPNL, on a projected basis for FY 2010-11, for consideration and approval of the Commission are discussed in the following paragraphs.

1.6 Salient features of the Transmission ARR

HVPNL has projected an Aggregate Revenue Requirement (ARR) for FY 2010-11 at Rs. 10406 millions consisting of total expenditure in respect of transmission business amounting to Rs.8989 millions, return on equity of Rs. 1529 millions (@ 15.5%) less non-tariff income of Rs. 112 millions, to be deducted to arrive at net aggregate revenue requirement.

As per HVPNL's ARR petition for FY 2010-11 there is an uncovered revenue gap of Rs. 3809.52 millions. The Licensee has proposed to bridge this revenue gap through suitable increase in transmission tariffs for which they have filed the tariff proposal under consideration. The proposed transmission tariff is a single part tariff based on the respective share of UHBVNL and DHBVNL to the total transformation capacity projected for FY 2010-11 at 16086 MVA (8204 MVA UHBVNL & 7882 MVA DHBVNL). HVPNL has proposed to charge Rs. 0.30 / unit to short term open access consumers as wheeling charge.

1.7 Salient features of SLDC ARR

The SLDC ARR for FY 2010-11 has been projected at Rs. 117.4 million; this includes an expenditure of Rs. 109.11 millions, return on equity of Rs.8.69 million less other income (fee etc.) of Rs.0.41 million. Recovery of the SLDC fees and charges for the financial year 2010-11 has been proposed on a monthly basis by dividing the total recoverable charges by 12. The proposed SLDC charges to be recovered on a monthly basis from UHBVNL and DHBVNL are Rs. 4.89 million each. Besides the long term power customers i.e. UHBVNL

and DHBVNL and long term open access customers (if any),HVPNL has proposed to recover SLDC charges in line with the Regulation on Open Access notified by the Central Electricity Regulatory Commission (CERC) as amended from time to time.

The Commission issued public notice inviting comments / objections by 1st February, 2010 which was later extended to 5/02/2010 on the application filed by the HVPNL for approval of ARR & tariff and charges for FY 2010-11 in 'The Times of India (English) Delhi & Chandigarh editions and 'Punjab Keshri' (Hindi) on 28/01/2010. All the documents relating to ARR filings were made available to the public on payment of a nominal fee so that interested person / organizations could examine and file their objections / comment on the ARR application of the Licensee.

The date of public hearing i.e. 16/02/2010 on the ARR application of HVPNL for FY 2010-11 was intimated to the public vide notice dated 28/01/2010 inserted in the newspapers as mentioned above. The public hearing was held as per schedule on 16/02/2010 at 3.30 P.M. in the conference hall of the Commission.

1.8 Interveners / Objectors

In response to the public notice inviting objections / suggestions from the stakeholders on the petition filed by HVPNL for determination of their annual ARR/Tariff & Charges for Transmission and SLDC business three consumers / organizations have filed their objections / suggestions namely:

1. Shri Sampat Singh, Flat No. 23, Sector – 3, Chandigarh
2. Shri Jagdish Jindal. General Secretary, Hisar Industries Association, 3 Industrial Development Colony, Hisar.
3. Shri B.K. Jain, General Manager Maintenance, Rico castings Limited, Gurgaon.

The Commission, vide Memo No. 3693/HERC dated 15/02/2010, forwarded a copy each of the above mentioned objections and sought the petitioner's view on the same.

As none of the objectors who had filed written objections / suggestions was present in the public hearing held on 16th February 2010 to make oral presentation, the Commission decided to take on record the written submission filed by them as well as response of HVPNL on the same during the hearing.

A brief synopsis of the objections raised and the Commission's view on the same is presented hereunder. The objections of all the aforesaid three parties being identical, the same has been dealt with under common head.

1. Non Compliance with Commission's Directives:

The objectors have raised the issue that the transmission licensee does not comply with the directives of the Commission. They desired to know as to how in the absence of compliance the Commission expects to regulate them and bring about financial and operating efficiency in the functioning of the transmission licensee. Hence HVPNL should be penalized for non-compliance of the Commission's directives and their ARR should be frozen at previous year's level with no return on equity allowed to them.

HVPNL's Reply:

On the issue of non-compliance of the Commission's directives HVPNL contended that the submissions of the objectors are not factually correct. The Para wise reply submitted by HVPNL is reproduced below:

Over Recovery of Transmission charges:

The objectors pointed out that the Commission had noted the deviation between the projected system peak for FY 2006-07 i.e. 0.4% which could not result in over-recovery of Rs. 401.61 million from UHBVNL and DHBVNL (based on

audited accounts) as it represents as high as 7.4% of the approved ARR for FY 2006-07. The Commission directed HVPNL, UHBVNL and DHBVNL to re-examine their relevant records and report back to the Commission about this discrepancy within 3 months of the order (Para 1.6, page 15).

To the above HVPNL in their reply submitted that the over recovery of Rs. 401.61 million from UHBVNL & DHBVNL is not on account of difference in the projected system peak and the actual, but is due to the recovery which was allowed by Commission vide their order dated 21.02.2007 which was over and above the ARR of FY 2006-07.

The Commission has considered the submissions of the objectors as well as HVPNL's reply thereto. The Commission will separately examine the submission of HVPNL that over recovery was not due to the difference in projected system peak (till FY 2006-07 tariff was based on co-incident system peak) but due to additional revenue recovery allowed by the Commission vide order dated 21/02/2007. **HVPNL, however, is advised to submit reply to the directives / queries from the Commission well within time. In case of any genuine difficulty they may seek extension of time for submitting the replies.**

Refund of Over – Recovery:

It has been submitted by the objectors that the licensee in their reply has stated that the directive of the Commission has been contested in the review petition filed by them. The licensee has stated that in FY 2006-07 it recovered Rs. 3109.04 million as against an ARR of Rs. 3112.79 million. Licensee should know that as per its audited accounts, the amount of wheeling charges recovered is shown as Rs. 3513.31 million which amounts to over recovery, Resultantly, the amount over recovered by HVPNL till date ought to be refunded to the consumers along with interest.

HVPNL's Reply:

To the above HVPNL replied that they have recovered less Transmission charges than the total amount allowed in the Tariff Order by the Commission i.e. Rs. 3109.04 million against Rs. 3112.79 million. The figure appearing in their audited account is inclusive of Rs. 404.27 million which has been recovered on account of Tariff Order dated 01.12.2006 read with order dated 21.02.2007 of HERC.

The Commission has noted the above details provided by the petitioner and will examine the same separately. Over recovery, if any, shall be dealt with in accordance with section 62(6) of the Electricity Act, 2003.

Capital Expenditure:

The objectors have raised the issue that the Commission directed HVPNL to take immediate steps to get approved all the 'unapproved' works included in their investment plan by September-2008 in close co-ordination with Discoms and also, ensure matching expansion of the sub-transmission and distribution/supply system by UHBVNL & DHBVNL so that the end-user of electricity in Haryana can be benefited by the massive investments planned by it (Para 2.16, Page 48).

Instead of taking approval for the works, as directed and as required HVPNL has stated that the directive has been contested in its review petition. The review petition does not take away the fact that the licenses wanted the Commission to approve works which had not been approved by its Board of Directors. Instead of complying with a simple directive it prefers to go in appeal.

HVPNL 's Reply:

The Capital Investment Plan of the licensee is being submitted and got approved from the Commission every year. The expansion in transmission system is planned in coordination with Discoms to ensure matching expansion of distribution/supply system. However, the transmission system planning, some

time requires modifications and additions as the transmission system within the State is not only planned with reference to Discoms or Long Term Open Access customers but have to coordinate with the Central Transmission System for inter-state evacuation of power under inter-state entitlements. The works are required to be carried out to keep pace with the requirement of Generators, Inter-state Transmission system expansion, IPPs, CPPs etc. The works which are modified or added due to the reasons mentioned above are being submitted to the Commission for approval.

The Commission has considered the reply submitted by the petitioner on the above issue and agrees with the same. However, HVPNL must ensure that all the Capital Expenditure submitted for approval of the Commission has the concurrence of the BoD and details of funding i.e. both equity and debt is provided along with techno – commercial justification for the same. Additionally, any mid – course deviation should be submitted for approval of the Commission along with proper justification. In order to have a medium/long term perspective, HVPNL should prepare a comprehensive business plan and submit the same for consideration of the Commission.

Transmission Losses:

It has been pointed out by the objectors that the Commission had noted with concern the aberrations in the transmission losses data vis-à-vis energy transmitted and directs HVPNL to examine the same and submit its analysis within three months of the issue of this order. HVPNL is further directed to critically analyse the relevant filings in future and reason out the inconsistency (ies) for appreciation of the Commission (Para 2.22, Page No. 45). Instead of trying to find out the reasons behind the increasing transmission losses, the licensee again prefers to go in appeal. If the causes of increasing transmission losses are not analyzed, how will any rectification take place. The licensee has proposed much higher capital investment in recent years without commensurate benefits. The investment can go into two areas; either expansion or up gradation.

Any of these decisions cannot be taken without knowing where the deficiencies are? It is therefore suggested that the licensee should take the directives in right spirit and try to comply with the same.

The objectors further mentioned that it is not clear that on what basis the Commission approves the investment plan of HVPNL. It is evident from the ARR filing and Capex filings that it has no techno-commercial studies, cost-benefit or pay back analysis. The Capex for new lines, sub-stations as well as augmentation is not backed up by any load flow study. Consequently, it seems that the Capex is proposed as well approved by the Commission is in a very arbitrary and ad hoc manner which is objectionable. They submitted that no Capex should be approved and undertaken unless the benefits are established or the need for the same in the form of 'load flow' is presented and deliberated upon.

In addition to the above the objectors submitted that the total Transmission Losses have shot up from 4.49% in FY 2007-08 to about 5.1% presently. This is despite burdening the consumer with higher and higher Capex i.e. in terms of depreciation and interest on loans. The increase is despite the fact that as compared to earlier years the availability of power within Haryana has increased manifolds as compared to inter-state or inter-regional power. The Commission approves transmission loss reduction trajectory/targets, and the same is not met by HVPNL. There are no penalty/disincentives to HVPNL as the burden passes on to the Discoms in terms of lesser Power availability and hence increased cost is recovered from the consumers as Fuel Surcharge Adjustment. The Commission should fix the responsibility for this and the loss should be borne by HVPNL and not passed on to be consumers.

HVPNL's Reply:

a)The transmission system planning is well defined in IEGC and Haryana Grid Code and the norms for planning defined therein are being followed. Scientific

method viz. adequate load flow studies are carried out for proper Transmission system planning. It may also be added that reduction in transmission losses is not even the criteria laid down in any code for transmission planning. The transmission losses are phenomena of physics and depend upon quality and directions of the loadings. The transmission licensee has no control over them. CERC and APTEL agree to the above and APTEL has upheld the views of HVPNL during Review Petition filed by HVPNL on this issue.

b)The Investment envisaged on the transmission infrastructure in the current five year plan is required to match with the generation and load growth. During the current five year plan, intra-state transmission system has been finalized matching with the following generation projects:

Sr. No.	Generation Projects	Total Capacity
1.	Deenbandhu Chhotu Ram Thermal Power Station, Yamuna Nagar	600 MW
2.	Rajiv Gandhi Thermal Power Station Khedar (Hisar)	1200 MW
3.	Indira Gandhi Thermal Power Project, Jhajjar	1500 MW (Haryana Share 750 MW)
4.	Mahatma Gandhi Thermal Power Project, Jhajjar (Case-II Power Purchase through bidding)	1320 MW
5.	Adani Power (Case-I Power Purchase through bidding)	1424 MW

Whenever a transmission scheme, formulated by HVPNL, involves interconnection with inter-state transmission system, the same is finalized after detailed deliberations by the Standing Committee of CEA for Transmission System Planning of Northern Region. For the development of inter-state transmission the proposals formulated are on the 400 KV level. Power Grid is constructing 400 kV substations at Sector-72 Gurgaon, Panchkula and Sonapat for evacuation of power being purchased by Haryana from Inter-state projects. The underlying transmission system from these substations is also being developed simultaneously, for which load flow studies are being carried out for planning of the transmission network and it is a continuous process. It was

submitted by the licensee that a copy of the load flow studies for the year- 2012 has already been provided to the Commission.

HVPNL, on the issue of percentage of transmission losses submitted that the figures indicated by the objectors are incorrect. The transmission losses of HVPNL system during different years are as under:

Sr. No.	Year	Percentage
1.	2006-07	2.35%
2.	2007-08	2.44%
3.	2008-09	2.57%
4.	2009-10	2.59% (up to November 2009)

The inter-state losses vary from 3.5% to 5.75% within a region. The inter-state system is being maintained by Central Transmission Utility and the STU has no control over that. In MYT order issued by CERC, as applicable to the CTU, there is no provision for restricting transmission losses up to any specific level.

The Commission has noted HVPNL's reply on the above issue. As far as Capital Expenditure is concerned it agrees with the objectors that all Capital Investments should necessarily be backed up with techno – commercial studies including load flow, cost – benefit analysis and payback period.

The Commission does not agree with HVPNL that the figures quoted by the objectors are out rightly incorrect. The objectors have clearly mentioned in their submission that they are referring to total transmission losses and not intra – state losses per.se. While HVPNL has preferred to dwell upon just the intra – state part of it. The Commission notes from the data provided by HVPNL for FY 2009-10 (up to November 2009) that the benchmark set by the Commission i.e. 2.1% for intra – state losses have not been achieved. The Commission by and large agrees that HVPNL has little control over inter – state losses. HVPNL should undertake a detail

analysis of energy / power transmission losses in the intra – state system and submit a report to the Commission.

Return on Equity (ROE):

The objectors have submitted that it is unfortunate that HVPNL is seeking a return on equity of 15.5% amounting to Rs. 1529 millions. Being a State Government owned company they are well aware that their distribution counterparts are on the brink of financial bankruptcy and the consumers are burdened with high tariff rates, still they claim return on equity. The Commission rightly did not allow any ROE to HVPNL in FY 2009-10 and the same should happen this year as well.

HVPNL's Reply:

The petitioner in their reply has submitted that Return on Equity has been claimed as per provisions in HERC (Terms & Conditions of determination of Transmission Tariff) Regulation 2008 Section 17, which provides that 'ROE shall be computed on the equity base determined in accordance with Regulation 14 @ 14% p.a. or as determined by the Commission from time to time. Further Government of India, Ministry of Power has also advised for ROE at-least 15.5% in the transmission sector, which has to undergo substantial expansion due to expansion in demand and generation capacity. The CERC (Terms & Conditions of Tariff) Regulation, 2009 provides as under:

“Return on Equity shall be computed on pre-tax basis at the base rate of 15.5% to be grossed up as per clause (3) of this regulation. Provided that in case of projects commissioned on or after 1st April 2009, an additional return of 0.5% shall be allowed if such projects are completed within the timeline specified in Appendix-II.”

In view of the above, ROE @ 15.5% has been proposed.

The Commission has noted the contention of the objectors as well as the reply submitted by HVPNL on the issue of ROE. The Commission has dealt with the issue while reckoning with ROE in the instant order.

Tariff Increase:

The objectors have submitted that the tariff increase sought by HVPNL is exorbitant. The existing recovery from both UHBVNL and DHBVNL amounts to Rs. 660 crore while the proposed amount is Rs. 1051 crore which is significantly higher. In the case of DHBVNL the increase sought is extremely high i.e. the existing recovery is Rs. 286 Crore while the proposed recovery is Rs. 515 Crore, i.e. Rs. 229 Crore increase or 80% increase over the previous year. Such transmission charges would not only burden the electricity consumers but hit the last nail in the coffin of open access customers, which the Electricity Act, 2003 and the policies framed under it attempt to encourage and promote.

HVPNL's Reply:

Against Rs. 6597.07 Million Transmission Cost allowed by Haryana Electricity Regulatory Commission for the year 2009-10 HVPNL has sought ARR for Rs. 10406 Million which is around 58% higher. This increase is on account of massive transmission system expansion required for up-coming generation projects within the State i.e.

Sr. No.	Generation Projects	Total Capacity
1.	Rajiv Gandhi Thermal Power Station Khedar (Hisar)	1200 MW
2.	Indira Gandhi Thermal Power Project, Jhajjar	1500 MW (Haryana Share 750 MW)
3.	Mahatma Gandhi Thermal Power Project, Jhajjar (Case-II Power Purchase through bidding)	1320 MW
4.	Adani Power (Case-I Power Purchase through bidding)	1424 MW

For such huge expansion of the transmission system, the tariff is bound to increase during construction period but will reduce after the above projects are commissioned.

The Commission agrees with the petitioner that Haryana is on the threshold of major generation capacity augmentation and hence commensurate evacuation / transmission system will also be required entailing substantial increase in expenditures. The Commission has examined each head of expenditure proposed by HVPNL and allowed only the justifiable amount. The details are presented separately in the instant order.

Transformation Capacity:

The objectors have pointed out that HVPNL has considered transformation capacity for FY 2010-11 as 16086 MVA (8204 MVA in the distribution circles of UHBVNL and 7882 MVA in the distribution circles of DHBVNL) without providing any basis or concurrence/projections from the Distribution licensees' viz. UHBVNL and DHBVNL. Unless, HVPNL is able to convince on its own or on the basis of some scientific study (Load Flow) conducted by them or the Discoms then only the projected transformation capacity and the associated cost should be considered by the Commission. It is high time that HVPNL formulates a medium to long term business plan and formulates strategies for augmentation of the transmission system instead of ad hoc decisions. If HVPNL has not got its business plan approved from the Commission then the ARR under consideration should be rejected without any change in the existing tariff and charges.

HVPNL's Reply:

On the above issue HVPNL has submitted that the addition and augmentation of substations and transmission lines is carried out on the basis of scientific load flow studies and keeping in view generation addition and load growth and provisions under planning criteria provided by the Commission in the Haryana

Grid Code. The Capital Investment Plan is submitted to the Commission and is got approved every year.

The Commission has examined the reply of HVPNL and agrees with the same. The Commission also notes that the Distribution companies i.e. UHBVNL and DHBVNL whose transmission tariff is based on the projected transformation capacity basis have not raised any objections to the transformation capacity for FY 2010-11 projected by HVPNL.

Earning from Short Term Open Access Customers:

The objectors have submitted that the licensee had shown earnings from open access charges of Rs. 39.95 million in FY 2007-08. As per ARR order of the Commission, 75% of the earnings are to be used to reduce SLDC charges paid by the long term consumers namely UHBVNL and DHBVNL. However, the accounts do not show any reduction in accordance with the HERC order. Going forward HVPNL has not provided any details of the earnings from the open access customers and the corresponding amount passed on to the Distribution companies. HVPNL must submit details and pass on 75% of the amount to the Discoms for reducing their costs.

HVPNL's Reply:

On the above issue HVPNL has replied that the order of Commission is followed in letter and spirit. 75% of entire open access charges received up to November 2009 has already been passed on to UHBVNL and DHBVNL.

The Commission accepts the submission of HVPNL and directs them to submit a list of open access customers in FY 2009-10, volume of transaction along with the revenue realized in each case by way of transmission and other open access charges.

Employees Cost:

HVPNL has projected additions of 1813 employees during FY 2008-09 which was revised to 672. It is unlikely that they will be able to recruit 1877 employee in FY 2009-10 in addition to additional 670 employees expected to be recruited in February and March-2009. HVPNL may provide a status report along with the financial impact that was considered in the ARR but did not materialize due to less recruitment which ought to be reduced from the ARR under consideration.

HVPNL's Reply:

On the above issue HVPNL replied that recruitment is done by the Government agencies i.e. H.P.S.C. /H.S.S.S.C and they have already sent the requirement of officers and staff to the concerned agencies. It is a time consuming process and the progress will be informed in due course.

The Commission has considered the reply of HVPNL on the issue of recruitment of employees and financial impact of the same. The Commission observes that the reply submitted by HVPNL does not address the issue raised by the objectors. However, the Commission, while reckoning with the allowable employees cost in FY 2010-11 has kept in mind the doubts raised by the objectors.

Working Capital:

On the issue of Working Capital the objectors have submitted that HVPNL's balance sheet as on 31.3.2008 shows that the licensee has negative working capital as the current assets are more than their current liabilities. Hence they should not be allowed any working capital interest.

HVPNL's Reply:

On the above issue the petitioner submitted that HERC vide its notification dated 19/12/2008 issued the regulations to be called as Haryana Electricity

Regulations, 2008. As per the regulations clause no. 20 (2), HERC shall allow working capital as sum of the following:-

1. Operation and Maintenance expenses for 1 month.
2. Maintenance spares @ 1% of the gross fixed assets of the transmission licensee as on 01/04/2008 or the date of commercial operation, whichever is later and escalated @ 4% per annum or as allowed by the Commission.
3. Receivables equivalent to 2 months of transmission charges calculated on 'target availability'.

HVPNL has made no deviation from the parameters adopted in the balance sheet and the working capital fund and interest there on demanded by HVPNL is in order.

The Commission has noted the above reply submitted by HVPNL and has dealt with the issue at the relevant paragraph in the instant order.

1.9 State Advisory Committee (SAC):

The Commission, in order to have the benefit of the views of SAC members, convened a meeting of the State Advisory Committee (constituted under Section 87 of the Electricity Act, 2003) on 22/03/2010. The members were briefed on the transmission / SLDC application of HVPNL for FY 2010-11. The SAC members expressed concern about the massive increase in the capital expenditure proposed by HVPNL for FY 2010-11 as well as the employees cost. After due deliberations, they opined that given the substantial increase in evacuation of power) requirement in the next two years and the impact of implementation of the recommendations of the Sixth Pay Commission, the substantial increase in capital expenditure requirement and employees cost is inevitable. Some concerns were also expressed about the completion of new evacuation / transmission lines envisaged for the new generation projects that are in the process of being commissioned. HVPNL, however, assured the SAC that all transmission projects will be commissioned well within time and a few of them ahead of the scheduled date. HVPNL also informed that they are executing a transmission project under Public Private Partnership (PPP) mode for which bids have been opened as well

as the grant under viability funding gap has been got approved from the Government of India. Haryana will be the first state in India to implement transmission project under PPP mode.

2. ANALYSIS OF THE ARR FILING AND COMMISSION'S

ORDER

The ARR for the Transmission business & SLDC cover the fixed annual cost including capital expenditure and operating expenditures. In this chapter, various elements of transmission and SLDC expenditures proposed by HVPNL including capital base, reasonable return, non-tariff income and incidence of taxation are analyzed and the Commission's order on each item is presented.

HVPNL's proposal refers to the ARR & Tariff application dated 30.11.2009; additional information provided vide Memo No. Ch.44/SE/RAU/F-66/Vol II, dated 11/03/2010 and Ch.40/SE/RAU/F-76/Vol-1 dated 16th March 2010, oral submissions made by HVPNL during the public hearing held on 18.2.2010 and subsequent discussions.

2.2 Operating and Maintenance Expenditure (O&M)

HVPNL has estimated its O&M related expenditure for FY 2010-11 at Rs. 3889.49 million in its ARR application submitted to the Commission. Employees' cost, administration and general expenses and repair and maintenance expenses are analyzed under this sub-head. The details of proposed O&M expenses sought for by HVPNL for FY 2010-11 vis-à-vis the corresponding amounts for FY 2009-10, as approved by the Commission and the corresponding expenditure in FY 2008-09 as per their audited accounts is presented in Table 2.1. for easy comparison.

Table 2.1 O&M expenses (Rs. million)

Particulars	HVPNL audited (FY 2008-09)	HERC Order FY (2009-10)	HVPNL Proposal (FY 2010-11)
Wages, salaries & related costs	3420.85	3407.73	3600.28
Repair & Maintenance Expenses	127.85	137.07	176.31
Administration & General Expenses	86.44	86.75	112.90
Total	3635.14	3631.55	3889.49

The Commission has considered the latest available audited accounts i.e. FY 2008-09 of HVPNL with appropriate adjustments / changes for calculating the allowable expenses as part of the ARR for FY 2010-11. The expenses that form part of the ARR are discussed in detail in the paragraphs below.

2.3 Employees' cost

Employees' cost includes cost incurred for the working employees as well as the retirees. The cost of working employees comprises of salary, dearness allowance and other allowances such as HRA, CCA, LTC, medical reimbursement, etc. In the case of retired employees and those retiring during the financial year under consideration, HVPNL has to discharge their liability towards pension, gratuity, and leave encashment benefit / payments applicable to them.

The employees' cost is an important constituent of the ARR and it is possible to project the same with fair degree of accuracy.

2.3.1 Salary, DP and DA

The expenditure on account of salary and DA has undergone a substantial increase in view of the implementation of the recommendations of the 6th pay Commission. The annual average basic salary per employee, grade pay and DA rate has been considered as proposed by the licensee. The approved expenditure on account of salary and dearness allowance works out to Rs.

1390.96 million for FY 2010-11 as compared to Rs. 1647 million proposed by HVPNL. The lower estimate is based on the revised projection of recruitment as filed by the licensee. In addition to this, the Commission approves Rs. 190.09 million as other allowances at the average cost per employee as proposed by the licensee.

2.3.2 Salary wages of employees through contractor

In view of the fact that only lower level non technical nature of work is likely to be outsourced, the Commission is of the view that the estimated cost of outsourcing is fairly high. The licensee was directed to submit data on number and nature of works outsourced, man hours input by contract workers and average cost per man hour for FY 2008-09 before September 30, 2009. **However, no information has been forthcoming from the licensee. The Commission therefore is constrained to restrict the cost on this account at the same level as allowed in the ARR for FY 2009-10 at Rs. 55.81 million. The Commission is open to revising this cost in case the licensee provides information for FY 2008-09 and FY 2009-10 to the Commission in accordance with the directive as given in the ARR order for FY 2009-10 before June 30th 2010.**

2.3.3 Terminal benefits

The Commission approves terminal benefits of Rs. 2048.33 million on accrual basis as proposed by the licensee. The Commission had advised that for future ARR's, the licensee may explore the possibility of actuarial valuation on an estimated basis from a certified actuary for the ensuing year in order to accurately project such expenses. **The licensee has neither responded to the suggestion nor provided any justification for not accepting the same. Thus they are directed to submit their response within a month.**

2.3.4 Employees' Cost Capitalised

The amount of employees' cost capitalized is related to the cost of the employees who are engaged in capital projects. The Commission is allowing capitalization of employees cost in the same ratio as per the audited accounts of the licensee for FY 2008-09. Resultantly, the employees cost capitalized works out to Rs. 304.34 million; the rate of capitalization being 17.19%.

2.3.5 Employee Cost of SLDC

The total employee cost for the transmission business for FY 2010-11 as worked out earlier includes the cost of employees engaged in SLDC activities as well. The licensee has proposed Rs. 38.59 million for FY 2010-11 as cost of SLDC employees, the same is being allowed by the Commission. **This amount is to be reduced from the total employee cost as estimated above in order to arrive at the employee cost for the transmission business.**

2.3.6 Arrears of Salary

The licensee in its review petition filed against the ARR and tariff order passed by the Commission for FY 2009-10 had requested for additional employee cost on account of revision of salary. The Commission had ordered that the truing up shall form part of the next ARR order. Consequently, the Commission allows the licensee to recover Rs. 946.23 million as additional expenditure in the ARR for

FY 2010-11 as proposed by it in its filing vide memo no. CH-30/ F76/ Vol II dt 22.9.2007 based on the audited accounts for HVPNL for FY 2008-09.

The employees' cost approved by the Commission is Rs. 3341.85 million. The computation of employee cost is presented in table 2.2.

Table 2.2 Employees' cost for FY 2010-11 (Rs. millions)

Particulars	HVPNL Proposal	HERC approval
Basic+DA	1647.00	1390.96
Other allowances	215.00	190.09
Contract employees	93.52	55.81
Terminal benefits	2048.33	2048.33
Total	4003.85	3685.19
Employee cost capitalised	364.00	304.34
Net Employee Cost Expended	3639.85	3380.85
SLDC Employee Cost	39.00	38.59
Transmission Employee Cost	3600.85	3342.26
Arrears of Salary		946.23

The licensee shall not divert any subscription received from employees towards provident fund to its business.

2.4 Repairs and Maintenance Expenses (R&M)

Repair and maintenance (R&M) expenditure is essential for the upkeep of the transmission system. The licensee has proposed to incur R&M expenses @ 0.49% of average GFA for FY 2010-11. The estimate being reasonable, the Commission allows the same percentage (0.49% of average GFA) as R&M expenses which works out to Rs. 182.16 Millions Out of this Rs. 18.31 million is allocated towards R&M of SLDC and Rs. 163.85 million is for Transmission system for FY 2010-11. As the approved capital expenditure is different from that proposed by the licensee, the resultant R&M cost is also different.

2.5 Administrative and General Expense (A&G)

The licensee has proposed A&G expenses for FY 2010-11 by escalating the audited expenses of FY 2008-09 by 5% p.a. except for training expenses which have been estimated at 1.5% of the employees cost. The training expenses are proposed to go up from Rs. 4.5 million in FY 2008-09 (Audited) to Rs. 27.92 million in FY 2010-11, an increase of more than 600 %. The projection is abnormally high in view of the fact that the expenses of Power Training Institute already form part of the ARR. A perusal of Commission's order on the ARR for FY 2009-10 shows a similar observation on the proposed training expenses...(Rs. 6.14 million in FY 2007-08 to Rs. 25.57 million in FY 2009-10, an increase of more than 400% which is excessive in our view). In spite of our observations the licensee is unable to improve its projections. Thus, **except for the abnormal hike in training expenses, the Commission approves A&G expenses as proposed by HVPNL amounting to Rs. 95.32 million net of capitalization and SLDC expenses at Rs. 5.98 million.**

2.6 Interest on Loans

2.6.1 Interest on borrowings for capital works

The Commission has restricted the additional investment on Capital works for FY 2010-11 to Rs. 17000 million based on the revised filings made by HVPNL. The licensee has also revised the Capital investment plan for FY 2009-10 from Rs. 19000 million (approved by the Commission) to Rs. 13874.41 millions against which the Commission estimates a probable expenditure of Rs. 11785.28 million. Keeping in view the capital expenditure approved by the Commission, the borrowings are estimated to Rs. 9697.18 million for FY 2009-10 and Rs.11773.50 million for FY 2010-11 respectively and interest is calculated accordingly.

The interest on borrowings related to generation business of IP Station and BBMB (Rs. 20.91 million) and SLDC business (Rs. 20.78 million) are excluded from interest for transmission business. The Commission has already allowed

funds for repayment of market committee loans in FY 2008-09 and therefore interest (Rs. 44.97 million) on these borrowings is also excluded. In case the licensee is able to get the interest accrued on this loan waived off as claimed by it in the public hearing, the same will be adjusted in the relevant ARR. **The licensee is directed to keep the Commission informed of the latest status on this issue.**

The total interest cost for transmission business is further reduced by amount of interest capitalized i.e. Rs. 1732.51 million as against Rs.1455.74 million projected by HVPNL. On the new capital works started during 2010-11, interest is capitalized for a period of six months only as the loans are assumed to be received evenly during the entire year. **The Commission allows Rs. 768.17 million as interest on borrowings for capital works for FY 2010-11 as worked out accordingly.**

2.6.2 Interest on working capital borrowings

In line with the orders of the Hon'ble Appellate Tribunal for Electricity, the Commission had been allowing working capital borrowings equivalent to 2 months ARR for the Transmission business till FY 2008-09. As per directions of the Hon'ble Appellate Tribunal for Electricity in case no. 24 of 2006 Para 29, this was to be done till the financial position of the licensee improved. Further, in accordance with the payment terms, HVPNL charges penal interest on payments delayed beyond one month of billing. **Therefore, keeping in view the improved financial position and payment terms and the fact that HVPNL is required to fund O&M expenses for one month from its internal sources; the Commission allows interest on working capital amounting to one month of ARR. The estimate is considered adequate in view of the fact that the ARR includes non cash expenses like depreciation also which are not required to be funded.** The Commission's order on the review petition filed by HVPNL against the ARR order for FY 2009-10, also further clarifies the position. Interest @ 12.25 % (being the prime lending rate of SBI as against 9% proposed by the licensee) on the allowed borrowings works out to Rs. 101.68 millions as against

Rs. 156.10 million proposed by the licensee for the Transmission business. Similarly, the allowed interest on working capital for the SLDC business works out to Rs. 1.16 million as against Rs. 1.76 million proposed by the licensee.

2.6.3 Other interest costs

For calculation of interest on pension bonds, the Commission has taken into account the profit on sale of land as shown in the audited balance sheet for FY 2008-09 in accordance with our order on the ARR for FY 2009-10. Consequently, the interest on pension bonds is allowed as Rs. 612.40 million as against Rs. 673 million proposed by HVPNL. Interest on PF bonds is allowed as proposed by HVPNL. The computations of interest expenses are presented in table 2.3 & 2.4 below.

Table 2.3 Transmission - Interest Cost for FY 2010-11 (Rs. Millions)

Particulars	HVPNL Proposal	HERC approval
Interest on Loans for Capital Expenditure		
Total interest on borrowings for Capex	3147.33	3147.33
Less interest on loan from Market Committee		44.97
Less interest on borrowings related to generation		20.91
Less interest on borrowings for disallowed capital works for FY 2009-10		234.41
Less interest on borrowings for disallowed capital works FY 2010-11		346.36
Gross Interest for Transmission Works	3147.33	2500.68
Less: Interest Cost Capitalized		1732.51
Interest cost net of capitalization (1)		768.17
Interest on Loans for Working Capital (2)	156.10	101.68
Interest on Pension bonds (3)	673.00	612.40
PF Bonds(4)	168.40	168.40

Table 2.4 SLDC - Interest Cost for FY 2010-11 (Rs. Millions)

Particulars	HVPNL (Proposal)	HERC (approval)
Interest on Loans for Capital Expenditure	20.78	20.78
Interest on Loans for Working Capital	1.76	1.16

2.7 Depreciation

HVPNL has estimated its depreciation amount as per CERC norms (notification issued in the year 2009) for FY 2010-11 at Rs. 1518.75 million. The Commission's estimate of GFA as on 1.4.2010 is lower; the rate of depreciation as per audited accounts for FY 2008-09 (3.07%) when applied yields a reduced depreciation amount of Rs. 877.80 million which is approved by the Commission. This is after excluding Rs. 22.19 million on account of depreciation on SLDC assets as proposed by HVPNL. It is observed that HVPNL has been projecting high volume of capital works without being able to provide adequate justification for the same. Resultantly, the high capital investment plan inflates the allowable depreciation. A perusal of audited accounts of HVPNL reveals excessive recovery in FY 2007-08 and FY 2008-09 i.e. as against Rs. 558.46 million approved for FY 2007-08 the actual as per the audited account was Rs. 514.88 million. Similarly as against Rs. 630.08 millions approved for FY 2008-09 the actual as per the audited accounts was Rs. 619.54 millions. Thus it is evident that the consumers end up paying for the system which has not been made available / erected for the purpose of transmission service.

Table 2.5 Depreciation for FY 2010-11 (Rs. Millions)

Particulars	HVPNL (Proposal)	HERC (approval)
Gross fixed assets at the beginning of the year	32533.37	30082.67
Depreciation Rate (%)	4.83%	3.07%
Depreciation for FY 2010-11	1572.03	923.54
Less depreciation against Capital reserve	23.55	23.55
Less Depreciation against SLDC assets	22.19	22.19
Net Depreciation for FY 2010-11 for Transmission Business	1518.75	877.80

2.8 Other expenses

The licensee has claimed other expenses amounting to Rs. 121.1 million as expenditure on IT. **As far as the proposed IT expenditure is concerned, the Commission is of the view that this being expenditure of capital nature should form part of Capex plan and therefore is not being considered as part of the instant ARR.**

Special appropriations

2.9 Fringe Benefit Tax (FBT)

In accordance with our order dated 26.9.2007 on the review petition on the ARR of transmission business for FY 2007-08, HVPNL is being allowed to recover interest on FBT on contribution to superannuation fund deposited with the income tax authorities before the date of stay granted by the Hon'ble High Court on the issue. This interest is allowable from the date of deposit of amounts till the date of resolution of the case in the Hon'ble Supreme Court. At an average rate of borrowings this amounts to Rs. 8.61 million on a deposit of Rs. 95.64 million. **The licensee is directed to submit the status of Rs. 95.64 million as on 31.3.2010 before June 30th 2010.**

Attention of the licensee is drawn to the "the notes to accounts" to the Audited Balance sheet of DHBVNL for FY 2008-09 which reveals that Rs. 80.7 million paid by them as FBT on contribution to superannuation fund in FY 2005-06 has been treated as advance tax during FY 2005-06 to be refunded by the Income Tax Department. They have further disclosed that FBT case for FY 2005-06 has been assessed by the authority and refund of deposit claimed by DHBVNL.

The Commission would like HVPNL to pursue the matter in line with DHBVNL and inform the Commission accordingly.

2.10 Income Tax

The incidence of Income Tax is linked to the amount of ROE allowed for Transmission & SLDC business. On the allowed return, the amount of MAT @

18% plus surcharge comes to Rs.182.88 million for transmission and Rs. 1.04 million for SLDC business.

Regarding tax on RoE the Commission observes that if the RoE is treated as an income by the licensee in its books of accounts then such income needs to be set off against the accumulated losses. In such a case there shall be no tax liability on RoE. Therefore, tax liability including any other statutory levies, if any, shall be allowed by the Commission only on actual basis against documentary evidence of the amounts having been paid in the ensuing ARR.

The Commission had allowed the licensee to recover income tax amounting to Rs. 58.41 million for transmission business and Rs. 0.508 million for SLDC business in FY 2008-09 against which the actual payment is only Rs. 0.22 million. Resultantly, the balance amount of Rs. 58.698 million (Rs. 58.41 million + Rs. 0.508 million – Rs. 0.22 million) is reduced from this amount leading to a net allowable recovery of Rs. 124.19 million.

2.11 Advance against Depreciation (AAD)

The licensee has not proposed any advance against depreciation for FY 2010-11. However, the advance against depreciation allowed till date is a reserve that is to be adjusted against future depreciation in accordance with the Regulation 56 (ii) b of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 along with any excess depreciation allowed in any previous year.

The Commission had directed the licensee to create an AAD reserve. In future, when depreciation amount exceeds loan repayment amount, the amount in reserves is to be drawn down to meet depreciation requirement, thereby reducing the cost passed on to the consumers. However, the licensee has not reported the compliance of this direction.

The Licensee is directed to submit a report showing year wise cumulative depreciation and instrument wise cumulative repayment of loans for capital works upto 31.3.2010 within 3 months of this order to ensure compliance of the 1st proviso to Regulation 56 (ii) (b) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004.

2.12 Contribution to Contingency Reserve

The licensee has not proposed any additional contribution to the contingency reserve for FY 2010-11. With reference to the previous balance, the **Commission directs that any drawl from the Contingency Reserve shall be made only with the explicit approval of the Commission.**

2.13 Debt redemption obligation

The Commission has allowed the licensee to recover Rs. 481.93 million towards cost of redemption of PF bonds.

The recovery of debt redemption amount has been allowed to the licensee only because there was no other means for the licensee to be able to redeem these debts being of a peculiar nature where assets formed out of these liabilities were not earning enough money. Consequently, the licensee was directed by the Commission vide its order on the ARR for FY 2008-09 to ensure that any amount received on sale of assets was to be utilized to reduce these liabilities and reduce that burden on the consumers who are not a party to creation of this liability. The licensee was directed to report compliance by 30th June 2009. However, the commission notes that the licensee has earned Rs. 605.969 million as gain from sale of fixed asset during FY 2008-09 as shown in the audited balance sheet for FY 2008-09. The licensee is required to utilize this amount towards redemption of pension bonds.

2.14 Financial impact of other orders of the Commission

2.14.1 The Commission order on the review petition on the ARR and tariff order for transmission and SLDC business for FY 2009-10

The Commission vide its order dated 19.2.2010 on the review petition on the ARR and tariff order for transmission and SLDC business for FY 2009-10 has allowed HVPNL to recover Rs. 871.96 million additionally. Accordingly, this amount is to be added to the ARR for FY 2010-11

2.14.2 Commission order on the financial impact of the order of the Hon'ble Appellate Tribunal for Electricity in case no 27 of 2007

The Commission, vide its order dated 18.3.2010 has also decided to allow the licensee to recover the benefit of the order of the Hon'ble Appellate Tribunal for Electricity in case no 27 of 2007 in three equal installments w.e.f. FY 2010-11. Therefore the financial impact amounting to 1/3 of Rs. 1915 million ie Rs. 638.33 million along with holding cost of Rs. 102.13 million on the balance amount is allowed to be recovered in the ARR for FY 2010-11.

As the Commission had already allowed the accumulated losses as per the audited accounts as on 31.3.2006 in its order dated 1.12.2006, the additional amount now allowed may therefore be utilized by the licensee to redeem its pension bonds in accordance with the Commission's order on the ARR of HVPNL for FY 2008-09.

2.15 Total Expenditure

The total expenditure approved by the Commission with respect to the transmission business for the financial year 2010-11 is Rs. 9303.26 million and SLDC expenditures of Rs. 108.04 Millions. Table 2.6 & 2.7 presents the details of HVPNL's proposed expenditures in respect of their Transmission business & SLDC charges viz-a-viz those approved by the Commission.

**Table 2.6 Transmission Business Approved expenditure for FY
2010-11 (Rs. millions)**

Description	HVPL Proposal (Revised)	HERC Approval
Expenditure		
Employees' cost	3600.28	3342.26
Salary Arrears		946.23
R&M expenses	176.31	163.85
A & G Expenses	112.90	95.32
Interest on Capital Expenditure Borrowings	1712.37	768.17
Debenture Interest (PF Bonds)	168.40	168.40
Debenture Interest (Pension Bonds)	673.00	612.40
Interest on Working Capital	156.10	101.68
Depreciation	1518.75	877.80
Other expenses	121.10	0.00
Total Expenditure	8239.21	7076.11
Special Appropriations		
Tax on Income & Profit	259.85	124.19
Interest on FBT Rs. 95.64 million	8.61	8.61
Debt redemption obligation (PF Bonds)	481.92	481.93
Review petition on ARR order for FY 2009-10		871.96
Financial impact of the order of the Appellate Tribunal for Electricity in case no 27 of 2007		638.33
Holding cost on the balance amount remaining from the above amount		102.13
Total Special Appropriations	750.39	2227.15
Total "expenditure" (including special appropriation)	8989.60	9303.26

Table 2.7 SLDC Approved expenditure for FY 2010-11 (Rs. million)

Description	HVPNL Proposal	HERC Approval
Expenditure		
Employees' cost	38.59	38.59
A & G Expenses	5.98	5.98
R&M expenses	18.31	18.31
Depreciation	22.18	22.19
Interest & Finance Charges on Capital Expenditure	20.78	20.78
Interest on Working Capital	1.76	1.16
Other Expenses	0	0
Special Appropriations		
Tax on Income & Profit	1.48	1.04
Total "expenditure" (including special appropriation)	109.08	108.05

The methodology for working out the various components of SLDC ARR is the same as discussed in respect of the transmission ARR.

2.16 Return on Equity (ROE)

The entire equity of HVPNL is contributed by the State Government; any ROE allowed has cascading effect on the distribution companies who are not being allowed any return. Also, while consumer's appetite for any increases in already low, retail tariff is very high. Besides burdening the retail consumers, the ROE allowed increases the tax liability of HVPNL while the Distribution companies who bear the burden of transmission / SLDC charges are in deep financial distress as they are unable to absorb or pass on any additional financial burden. Consequently, in view of the above facts as well as the massive financial impact of FSA during the current year, the Commission restricts the return on equity to 10% during FY 2010-11.

2.17 Capital Base & CWIP

Capital Works in Progress (CWIP)

On the basis of the details provided by HVPNL regarding capital expenditure incurred by them during FY 2009-10, the Commission has assessed the likely expenditure on capital works ending March, 2010 to be Rs. 11785.28 millions. HVPNL has projected a capital expenditure of Rs. 22665 millions during FY 2010-11. After scrutinizing the details provided by the licensee in this regard and keeping in view their preparedness and execution capability as per past performance, the Commission has pegged capital expenditure during FY 2010-11 at Rs. 17000 millions. In case any amount remains unspent during the year under consideration the same shall be adjusted in the next year's ARR.

The estimation of fixed assets of the licensee is based on the opening balance of CWIP as on 1.4.2009 which is as per the audited accounts of HVPNL for FY 2008-09. The additions during FY 2009-10 and Fy 2010-11 are dependent on the planned additions as well as availability of funds during the relevant years.

The capitalization of approved works for the purpose of transfer to gross fixed assets is integral to calculation of related expenses forming part of ARR. The Commission has always considered the capitalization schedule of 30:60:10 meaning that 30% of the works included in the ARR for FY 2010-11, 60% of works initiated during FY 2009-10 and 10% of works initiated during FY 2008-09 will be completed and hence transferred to GFA during FY 2010-11. However, HVPNL has submitted that out of total estimated borrowings for FY 2009-10, the unsanctioned amount as on 28.2.2010 is Rs. 3539.09 millions. The Commission estimates that no works funded by this unsanctioned amount are likely to be commissioned within one month and therefore these funds are kept out of calculation of amount to be capitalized as on 31.3.2010. Except as above, the balance capitalization is as per the schedule as mentioned. The calculation of CWIP as on 31/03/2011 is as per the details presented in table 2.8 below

Table 2.8 Calculation of CWIP for FY 2010-11 (Rs. millions)

Description	HVPNL Proposal	HERC Approval	
	2010-11	2009-10	2010-11
Opening balance of CWIP	14272.30	8864.99	14053.27
Additions during the year	23455.60	11785.28	17000.00
Transfer to GFA	16054.39	6397.01	14529.78
Closing balance of CWIP	21673.51	14053.27	16523.48
Funding of CAPEX :			
Equity	5226.50	2088.10	5226.50
Loan funds	18229.10	9697.18	11773.50
Total Funds (Including IDC and Expenses Capitalised)	23445.60	11785.28	17000.00

2.18 Gross Fixed Assets (GFA)

The opening balance of GFA as on 1.4.2009 is based on the closing balance of GFA as on 31.3.2009 as per the audited accounts of HVPNL. The additions to GFA are derived from the CWIP workings. The computation of gross fixed assets for FY 2010-11 is presented in table 2.9

Table 2.9 Determination of GFA for FY 2010-11 (Rs. millions)

	HVPNL Proposal	HERC Approval
Opening Balance of gross fixed assets	32533.37	30082.67
Add: Additions to GFA	16054.39	14529.78
Less: Retirement	0	0
Closing balance	48587.76	44612.45
Consumers Contribution	669.42	669.42
SLDC	429.60	429.60

2.19 Non Tariff Income

2.19.1 Non tariff income

HVPNL has proposed that it will earn Rs. 112.05 million on account of non - tariff income during FY 2010-11 keeping them at the same level as the audited figures of FY 2008-09. However, the Commission applies the same rate of inflation as done in case of expenses i.e. 5% p.a. and arrives at a figure of 117.16 million for FY 2010-11.

2.19.2 Truing up of revenue based on audited accounts for FY 2008-09

As per audited accounts for FY 2008-09, the licensee has earned Rs. 1054.17 million as non tariff income. Rs. 605.97 million on account of profit on sale of assets has been reduced from pension fund bonds. After exempting income from treasury operations Rs.39.86 million and Rs. 88.03 million allowed in the ARR order for FY 2008-09, the balance amount of Rs. 320.31 million is added to the non tariff income for FY 2010-11. All these incomes have been earned on expenses which have been incurred by the consumers of HVPNL at one time or the other. Also, the licensee has asked for truing up of expenses, thereby truing up of income is also required.

2.19.3 Revenue from short term open access customers

A perusal of the audited accounts of FY 2008-09 reveals that the licensee has earned Rs. 101.13 million on account of open access charges. In accordance with the Commission order for FY 2008-09, this amount shall be utilized to reduce the transmission charges to be paid by long term customers.

The computation of other income is presented in table 2.10.

Table 2.10 Non- tariff income for FY 2010-11 (Rs. millions)

Description	HVPNL Proposal	HERC Approval
Investment income	30.79	30.79
Ancillary and incidental income	81.26	86.37
Total	112.05	117.16
Prior period credits		320.31
Revenue from short term open access customers		101.13
Total of "Non-tariff Income"		538.60
Less (for SLDC)	0.41	0.41
For Transmission Business		538.19

For SLDC, the Commission allows a non-tariff income of Rs. 0.41 million which the licensee has proposed in its filing under consideration.

2.20 Aggregate Revenue Requirement

In light of the above analysis, the Commission approves Rs. 9751.50 million as the net aggregate revenue requirement of the Transmission business and Rs. 113.23 Million as SLDC expenditures for FY 2010-11. The details are presented in table 2.11 & 2.12.

Table 2.11 Transmission ARR for FY 2010-11 (Rs. million)

Description	HVPNL Proposal	HERC Approval
Return on equity	1528.97	986.43
Total expenditure	8989.60	9303.26
<i>Minus</i> Non-tariff income	112.05	538.19
Total Aggregate Revenue Requirement	10406.52	9751.50

Table 2.12 SLDC ARR for FY 2010-11 (Rs. million)

Description	HVPNL Proposal	HERC Approval
Return on Investments	8.68	5.61
Total expenditure	117.76	108.05
<i>Minus</i> Non-tariff income	0.41	0.41
Total Aggregate Revenue Requirement	126.03	113.25

2.21 Transmission Losses:

HVPNL has submitted transmission loss profile for its transmission system for FY 2007-08 and FY 2008-09 and FY 2009-10 (up to September 2009) as under:-

Period	Interstate (%)	Intrastate (%)	Total Transmission (%)
FY 2007-08	4.78	2.44	4.49
FY 2008-09	4.56	2.57	4.50
FY 2009-10 (up to Sept.2009)	4.33	2.59	4.76

It is observed that the inter-state transmission losses are on the increase. HVPNL has not projected any loss reduction trajectory despite the directions of the Commission in the previous orders.

HVPNL have stated that the transmission losses are a phenomenon of Physics, depend on quantity and direction of loadings and transmission licensee has no control over them. It has been claimed that views of HVPNL are supported by the CERC concept paper. Ongoing through the CERC paper referred to above, it is observed that CERC paper relates to inter-state losses which are apportioned to the constituent utilities making use of the inter-state transmission system. CERC paper states that transmission losses are a phenomenon of Physics and are unavoidable. However, this statement does not mean that the transmission losses cannot be reduced. CERC paper further states that the outage of a transmission element increases the power flow on parallel paths, which increases the losses. The payment to the transmission owner is already linked to availability of transmission elements, which induces him to minimize the outages and hence the transmission losses. CERC paper further states that users of transmission system can contribute to reduction of transmission losses by reducing the drawl of reactive power. The inter-state transmission losses also depend on the distance of the sourced generator from the user state.

The intra-state transmission losses are a little different from inter-state losses because the geographical area is fixed and far less as compared to that in case of inter-state transmission system.

As per technical formula, transmission loss = $I^2 \times R$,

Where I = Current flowing through transmission line,

R = Resistance of the transmission line which is further proportional to length and temperature of the line conductor and inversely proportional to the area of cross section of the conductor

As the load (current) in the system increases with increase in system demand, the transmission loss will tend to increase. The aging factor in the old transmission system also adds to the transmission losses. Capital expenditure for new S/Stns / lines and augmentation of existing transmission system is to be

so planned that the length of the lines & loading for individual circuits decrease and the area of cross section of the line conductors increase in line with the principle that continuous loading on all components of the system is limited to about two third of their design capabilities. If the plans are implemented in time matching with the increase in load flow, the transmission losses should form a declining trend. The reduction in reactive power flow is also helpful in reducing the transmission losses. The transmission system should be operated in such a way that the outages of elements are minimized.

As per the details given in GERC tariff order dated 17.01.2009, the overall transmission losses of GETCO system gradually decreased from 4.41% during FY 2003-04 to 4.06% during FY 2006-07 and GETCO has submitted a loss reduction trajectory to GERC as per which the losses are proposed to be reduced to 3.99% by FY 2010-11.

Similarly, as per the details given in PSERC tariff order dated 08.09.2009, the transmission and distribution losses of the PSEB have gradually come down from 24.27% during FY 2004-05 to 21% during FY 2008-09. **Thus the argument of HVPNL that the transmission losses cannot be reduced is not convincing.**

HVPNL have got carried out the network analysis for their transmission network from M/s Trident Techlab. As per the report submitted by them, they have analyzed the existing transmission system in order to improve its performance and optimize it so that it can cater the future load with higher reliability and decreased losses. They have also made recommendations for addition of new S/Stns and the transmission lines. It is expected that HVPNL have formulated the capital investment plan and fixed the completion dates of various schemes accordingly. However, on going through the progress of execution of various schemes, it is observed that original completion dates have been revised in so many cases due to which the expansion of transmission network lags the growth of load. HVPNL need to improve on this aspect and it is expected that timely

commissioning of various schemes as per the original schedule dates will definitely lead to reduction in intra-state transmission losses.

In order to reduce the chances of outages during foggy conditions in winter, HVPNL may consider providing anti-fog polymer insulators along its transmission network.

HVPNL should also install sufficient capacitor banks to reduce reactive power flow and replace all the conventional energy meters with special energy meters conforming to CEA's Regulation (on installation and operation of meters), 2006 in order to improve accounting level of transmission losses.

In order to give some more time to HVPNL to implement the pending schemes formulated by them and keeping in view the suggestions given above, **the Commission pegs transmission losses at 4.23% inter-state and 2.1% intra-state.**

2.22 Damage of Power Transformers

HVPNL have now furnished the data regarding damage of power transformers during the last three years as under:-

Sr. No.	FY	CETS, PKL	CETS, Hisar	Total
1	2007-08	17	7	24
2	2008-09	15	5	20
3	2009-10 (upto 12/09)	8	9	17

It is observed that there is overall reduction in the damage to power transformers. HVPNL is advised to strictly enforce the preventive maintenance schedules, ensure healthiness of the protective system and implement the findings of the enquiry reports so as to aim for zero damage rates.

2.23 Fatal & non – fatal accidents

HVPNL have furnished the data regarding fatal / non-fatal accidents during the last three years as under:-

Sr. No.	FY	CETS, PKL		CETS, Hisar		Total	
		Fatal	Non fatal	Fatal	Non Fatal	Fatal	Non-Fatal
1	2007-08	1	1	0	2	1	3
2	2008-09	1	1	1	3	2	4
3	2009-10(upto 12/09)	1	2	0	1	1	3

As reported last year there was no fatal / non- fatal accident up to September 2009 during FY 2008-09. However, the rate of such accidents has increased later on. HVPNL should investigate the reasons for rise in number of accidents and aim for zero tolerance on this front.

3. TRANSMISSION TARIFF & SLDC CHARGES

3.1 Background Information on Tariff Filing

This section deals with the determination of transmission tariff and SLDC charges for FY 2010-11 based on the ARR determined by the Commission in section – 2 of this order. The Haryana Electricity Regulatory Commission in its previous orders determined a single part transmission tariff based on respective the transformation capacity (MVA) of UHBVNL and DHBVNL as projected by the petitioner for FY 2010-11. The entire cost of transmission business (including SLDC cost) was considered as of ‘fixed’ nature, hence the Commission considered it reasonable to allow recovery of entire cost through a ‘demand charge’ on a monthly basis. The Commission has notified Regulation No.HERC/ 20 / 2008 dated 19th of December, 2008 the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2008. Regulation 27 provides for Payment of Transmission Charges i.e “(1) Annual transmission charges shall be fully recoverable at 98% target availability. Payment of transmission charges below 98% shall be on pro-rata basis. The transmission licensee may recover its annual revenue requirement by way of a fixed charge based on transformation capacity, contracted capacity, a charge based on energy transmitted, connectivity charge, reactive energy charge or a combination of these charges. The transmission charges shall be calculated on a monthly basis. In case of more than one beneficiaries of the transmission system, including the distribution licensees and long term open access customers, the monthly transmission charges leviable on each beneficiary shall be computed as per the following formula unless amended by the Commission.

$$\text{Transmission Charges} = \frac{\text{ATC}}{12} \times \frac{\text{CA}}{\text{CS}}$$

Where, ATC = Annual Transmission Charges payable by the beneficiaries, after deducting total transmission charges paid by the short term open access customers; other income, as decided by the Commission, to be passed on to the beneficiaries; reactive energy charges and transmission charges received from the CTU.

CA = Transformation Capacity Allocated to each beneficiary individually including long term open access transmission customers.

CS = Sum of long term Transformation Capacity of the intra – state transmission system.

(2) The transmission losses shall be allocated to the beneficiaries / users of the intra – state transmission system in proportion to the energy drawn”.

In light of the above HVPNL has proposed recovery of transmission charges based on the respective transformation capacity of UHBVNL and DHBVNL. Which was accepted by the Commission as the same was also in line with the CERC methodology.

Table 3.1 – HERC approved transmission tariff & SLDC charges for FY 2009-10)

Tariff	UHBVNL	DHBVNL
Transmission Charges (Rs millions / month)	311.05	238.7
SLDC Charges (Rs. million / month)	3.253	3.253

Besides the transmission tariff the Commission also determined transmission tariff of Rs. 0.21 / kWh for short term Open Access customers.

3.2 Tariff Proposed by HVPNL for FY 2010 - 11:

HVPNL has proposed a revision in the existing tariff & charges on the following grounds:

- The aggregate revenue requirement representing the costs to be recovered for the transmission business for the financial year 2010-11 is different from the aggregate revenue requirement for FY 2009 - 10.
- The individual parameters used for calculation of tariffs such as transformation capacity, average demand etc. are different for the two financial years.

In the instant tariff petition, HVPNL has reiterated that so far as transmission business is concerned all the expenses contribute towards fixed cost only and as such the transmission tariff for FY 2010 -11 has been proposed as single part tariff consisting of fixed charge based on the transformation capacity (MVA) at the interconnection points. Thus HVPNL has proposed to levy a fixed charge based on the ratio of each long-term customer to the total proposed transformation capacity. Further, HVPNL has submitted that a customer who contracts firm transmission capacity on short – term basis shall pay open access charges on the lines of open access charges notified by HERC in their order dated 23/04/2008 for using state transmission facilities, from time to time. The licensee has proposed that the State Transmission Utility (STU) shall retain 50% of the charges collected from the short term open access customer and the balance shall be passed on to the long term customers including Discoms in proportion to the transformation capacity. Retention of 50% charges have been proposed due to the fact that the STU shall be required to deal with Inter – State transactions as well as Intra – State transactions and as such the work involved will be more than the work involved with RLDCs despite the fact that the volume of power could be less than the volume handled by the Central Transmission

Utility (CTU). Similarly, monitoring and control shall have to be exercised by SLDC on Intra –State as well as Inter – State system.

HVPNL has submitted that the actual transformation capacity data as on date has been complied. For the period April 2009 to March 2010. The system transformation capacity from April 2010 to March 2011 has been estimated by taking into account the augmentation / addition of new capacities (MVA) to be added. The details are presented in the table below.

(Figures in MVA)	UHBVNL	DHBVNL	Total
Transformation Capacity as on 31/03/2009	5716.07	4795.00	10,511.7
Anticipated Transformation Capacity as on 31/03/2010	6896.7	5920.2	12,816.9
Projected Transformation Capacity as on 31/03/2011	8204	7882	16,086
Percent Share (%) as on 31/03/2011	51	49	100

In addition to the above HVPNL has proposed that besides recovery of fixed costs, they will also be entitled to incentive on achieving annual availability

beyond the target availability of 98% (target availability) in accordance with the formula specified in the CERC regulations. The proposed transmission tariff is single part comprising fixed cost component only. The tariff proposed by HVPNL is presented in table 3.2. Rebate/Late Payment Surcharge shall be in accordance with the HERC provisions dated 30/07/2008. HVPNL also proposed to charge UHBVNL & DHBVNL and all short / long term open access customers, reactive energy charge on the basis of recording made by the existing Special Energy Meters (SEMs) and individual ABT compliant meters of short term and long term open access customers.

Table 3.2 HVPNL's proposed Transmission Tariff for FY 2010-11

Tariff	Ratio of Average Transformation Capacity	Fixed Charge (Rs. million / month)
UHBVNL	51%	442.25
DHBVNL	49%	424.92
Total	100%	867.17

The above mentioned recovery is based on the net annual revenue requirement of Rs. 10406 millions (Rs. 867.17 millions per month) proposed by HVPNL for FY 2010-11. The projected transformation capacity as on 31/03/2011 is 16086 MVA i.e. 8204 MVA (UHBVNL) and 7882 MVA (DHBVNL), thus based on the respective shares (51% UHBVNL & 49% DHBVNL) the per month recovery has been apportioned.

In respect of short-term customers having intra state / interstate power transactions, HVPNL has proposed to charge Rs. 0.30/kWh. It has further proposed that 50% of the charges collected from short – term customer(s) for use of intra –state transmission system shall be retained by the State Transmission Utility and the remaining part of these charges shall be adjusted towards reduction in the transmission charges payable by the long-term customers.

3.3 Analysis of the Tariff Proposal

The Commission, in line with its previous order, accepts the plea of HVPNL for considering all transmission related cost as fixed for the purpose of this order. The Commission is of the view that 'transmission' needs to be seen as a 'pure wire / carrier' business. Consequently, almost the entire cost structure will be of 'fixed' nature and will not vary with the volume of energy transported in any given year. The Commission reiterates the need to refine the transmission tariff design based on voltage differentiation i.e. segregating 'costs' and losses at 220 KV, 132 KV and 66 KV. However, in the absence of reliable and adequate data on voltage wise fixed assets, sales and loss levels and sharing of system peak by consumers at different voltages etc. the Commission has no option but to continue with the existing tariff design.

3.3.1 Transmission Cost

HVPNL has proposed Rs. 10406 millions as their net aggregate revenue requirement for transmission business for FY 2010-11. The Commission as per the details presented in Chapter-2 (table 2.11) of this order determined Rs. 9751.5 millions as net aggregate revenue requirement for transmission business.

3.3.2 Tariff Design

The Commission, in its earlier order(s), allowed recovery of cost of transmission charges based on the ratio of respective projected transformation capacity of the two Discoms i.e. UHBVNL & DHBVNL, as at present there are no other long term open access customers in Haryana. The Commission has notified terms and conditions for determination of transmission tariff regulations on 19th December 2008. As per regulation 27, the payment of Transmission Charges provides (1) Annual transmission charges shall be fully recoverable at 98% target availability. Payment of transmission charges below 98% shall be on pro-rata basis. The transmission licensee may recover its annual revenue requirement by way of a fixed charge based on transformation capacity, contracted capacity, a charge based on energy transmitted, connectivity charge, reactive energy charge or a

combination of these charges. The transmission charges shall be calculated on a monthly basis. In case of more than one beneficiaries of the transmission system, including the distribution licensees and long term open access customers, the monthly transmission charges leviable on each beneficiary shall be computed as per the formula incorporated in the terms and conditions for determining transmission tariff notified by the Commission.

In line with the above regulations, the Commission accepts the proposal of the transmission licensee for recovery of transmission cost based on the projected transformation capacities of the user(s) i.e. UHBVNL & DHBVNL. **The Commission is in the process of finalizing Multi Year Tariff (MYT) Regulations for pricing of intra –state transmission services. Consequently, HVPNL is advised to gear – up its resources including data requirement for filing transmission ARR / Tariff and SLDC charges on a multiyear basis.**

3.3.2.1 Transmission tariff

The Commission, for determining transmission tariff, has considered the fact that entire cost allocated to the transmission business is of 'fixed' nature. Hence, it would be reasonable to recover the entire cost through a demand charge based on the ratio of the projected transformation capacity of the distribution licensees.

Considering the above factors, the Commission has arrived at monthly fixed charge (Rs/millions) for the transmission of power by HVPNL in FY 2010-11.. The recovery shall be applicable for power transmitted to the distribution business. The calculation details are provided in Table 3.3 below.

Table 3.3 - Determination of Transmission Tariff (FY 2010-11)

Particulars	
Transmission Cost (Rs. millions)	9751.5
Transformation Capacity (MVA)	16086
UHBVNL's Share (MVA)	8204
DHBVNL's Share (MVA)	7882
Ratio of Average Transformation Capacity	
UHBVNL (%)	51
DHBVNL (%)	49
Transmission Charges Recoverable from UHBVNL (Rs. millions)	4973.26
Transmission Charges Recoverable from DHBVNL (Rs. millions)	4778.24
Monthly Transmission Charge UHBVNL (Rs. millions)	414.44
Monthly Transmission Charge DHBVNL (Rs. millions)	398.19
Wheeling charge for third party sale based on energy sales of 34402 MUs considered by HVPNL (Rs / kWh)	0.28

The transmission charges shall be recovered from the distribution licensee (s). The wheeling customers will be subject to a single rate of Rs. 0.28/Unit as determined above. As the entire cost of transmission system including renovation, modernization and augmentation under the present tariff design is borne by the distribution companies, the Commission does not agree with the submission of the petitioner for being allowed to retain 50% of the revenue collected from short – term open access customers. Consequently, in line with its previous order(s) the Commission allows 25% of the charges collected from the short – term customers for use of intra – state transmission system to be retained by HVPNL and the remaining shall be adjusted towards reducing the transmission charges payable by the existing long term customers viz. UHBVNL & DHBVNL in proportion to their transformation capacity. **The Commission believes that 25% allowed to be retained by HVPNL is sufficient to meet with any extra cost including monitoring and control that HVPNL may have to incur with respect to short term open access related transactions.**

3.4 Reactive Energy Charges:

HVPNL has proposed to charge UHBVNL & DHBVNL and all short / long term Open Access Customers reactive energy charge @ 6.00 paise / KVArh from 1/04/2010 on the basis of recording made by the SEMs and individual meters of short term and long term open access customers. This being a legitimate charge is allowed to be recovered as per the provisions of the Indian Electricity Grid Code (IEGC) / Haryana Grid Code as amended from time to time.

3.5 Billing

The billing of transmission tariff shall be on a monthly basis in the ratio of the respective transformation capacity of the distribution licensee(s).

The single rate for wheeling, as determined by the Commission, shall be recoverable from the short term & long term 'open access' customers availing HVPNL's transmission system. The wheeling charges recovered from such customers, subject to 25% retention by HVPNL, shall be reduced from the transmission charges to be recovered from the distribution licensees.

3.6 Recovery of SLDC Expenses

The operating cost of SLDC determined by the Commission for FY 2010-11 as per details provided in Chapter – 2 (table 2.12) of the instant order is Rs. 113.25 million. A total monthly recovery of Rs. 9.43 millions shall be made from the two distribution licensees i.e. UHBVNL & DHBVNL in 50:50 proportion and long term open access customers (if any) in the ratio of their required transformation capacity / load requirement in case no additional transformer is required to be used.

The Commission in its previous order dwelt at length on the issue of granting functional autonomy to the SLDC. Load Despatch Centres have been termed as apex bodies in the electricity industry and they need 'true independence' not only

in financial terms but also in decision making. Thus HVPNL was expected to set up a mechanism to ensure:-

- a)Independent governance structure
- b)Separate accounting
- c)Adequate number of skilled manpower.
- d)Adequate logistics / infrastructure.

The action plan formulated by the Task Force set up by the Ministry of Power, Government vide notification No. 6 / 2 / 2008 – Trans dated 13th October, 2008 was forwarded to the State Government as well as HVPNL vide Commission's letter No. 2256-58 / HERC / 2008 dated 19.12.2008 for implementation of the same in the prescribed manner. The Commission directed HVPNL to submit action taken report on the recommendations of the Task Force within 30 days from the date of the order. However, the Commission so far, has not been intimated about any concrete shape given to the SLDC in the light of the recommendations of the task force. **HVPNL is once again directed to take up this issue with the State Government and submit action taken report without any further loss of time.**

3.6.1 Short Term Open Access Customers

The short-term open access customers (if any) shall pay a composite fee and charges for short term Open Access customers for each transaction as per the rates approved and notified by CERC for SLDC from time to time till the time the Commission notifies regulations on SLDC in line with the recommendations of the Task Force set up by the Ministry of Power, Government vide notification No. 6 / 2 / 2008 – Trans dated 13th October, 2008

3.6.2 SLDC Application Fee

The application fee shall be as per the Haryana Electricity Regulatory Commission (Terms and conditions for Open Access for Intra – state Transmission and Distribution System) Regulation, 2005 notified on 19th May

2005. 25% of the charges collected from the short – term customer for use of SLDC shall be retained by HVPNL and the balance 75% shall be adjusted towards reduction in SLDC charges to be recovered from UHBVNL, DHBVNL and other long term open access customer.

3.7 Incentive

HVPNL, for its transmission business has claimed incentive on achieving annual availability beyond 98% (Target availability). The Commission, for the time being, has not considered any availability-linked incentive.

The Commission acknowledges the need for a system of incentive and penalty in order to reduce the 'cash cycle' and 'defaults' for better realisation of 'book debt', thereby minimising the need for expensive working capital borrowings. Resultantly, the Commission for FY 2010-11 approves the schedule of rebate(s) as per provisions in the Secretary, HERC memo no. 793-796/HERC dated 30/07/2008 which was conveyed to the power utilities.

3.8 Late Payment Surcharge

The late payment surcharge shall be applicable as per provisions in the Secretary, HERC memo no. 793-796/HERC dated 30/07/2008 which was agreed upon by the power utilities.

CONCLUSION

1. For FY 2009-10, HVPNL proposed capital expenditure of Rs. 24009.75 million for transmission and SLDC business in their ARR filing which was subsequently revised by them to Rs. 21194.24 million. After due diligence in respect of status of ordering of equipment, progress of works and urgency of expansion of the transmission system in view of additional generation expected, the Commission was liberal enough to allow the Capex amounting to Rs. 19000 million expecting that HVPNL will gear up their resources and speedup the procurement of material and execution of works. As per the latest assessment provided by HVPNL, the likely capital expenditure during FY 2009-10 will be of the order of Rs. 11785 million which is just 49.08% of the capex proposed by HVPNL. In future, HVPNL is advised to be more realistic while filing the capital investment plans and take appropriate action to commission the works planned as per the original schedules.

2. It has been observed that the capital investment plan submitted to the Commission is prepared in a casual manner with so many incorrect or missing details. In future, the capital investment plan should be prepared carefully giving full justification & cost / benefits analysis for the new proposals backed by load flow studies and approval of the competent authority of HVPNL along with the latest status for each & every work such as tie up of funding, date of issue of NITs / award of contracts, contractual completion period, acquisition of land etc so as to enable the Commission to appraise the investment plan.

3. In spite of huge capital expenditure incurred by HVNPL year after year on creation of new transmission network and augmentation of the existing system, the graph of intra-state transmission losses (%) is on the rise, whereas in other states like Gujarat the transmission losses (%) are

getting reduced every year. It has been noted that HVPNL has formulated the various schemes on the basis of load flow studies with a view to improve reliability of transmission system and reduce transmission losses. As per the details given in the capital investment plan, it has been observed that commissioning of the schemes in most of the cases has been rescheduled. It appears the expansion of transmission system is lagging the load growth due to which the transmission losses (%) are on the rise. HVPNL is advised to interact with other states which have been successful in reducing the transmission losses.

4. In the winter season, the tripping of power transmission lines takes place due to dense foggy conditions. HVPNL may consider providing anti-fog polymer insulators on the transmission network to avoid this problem.
5. HVPNL was advised in the previous ARR order to ensure 100% installation of shunt capacitor banks at 66/11 kV sub – stations so as to reduce the reactive power in the system and consequently transmission loss (%). HVPNL is advised to submit up to date progress on this subject.
6. In the previous ARR orders, the Commission has been pointing out the aberrations in the monthly transmission loss data vis-à-vis energy transmitted and directing HVPNL to examine the same and submit an analysis of the same. The direction given by the Commission has not been complied with by HVPNL so far. HVPNL is once again directed to do the needful and submit a loss reduction trajectory within one month.
7. In order to eliminate the errors in the metering of energy transmitted and to comply with section 55 (1) of the EA 2003, HVPNL should take immediate steps to provide all interface meters in accordance with CEA's (on installation and operation of meters), 2006 and submit the latest progress on this subject.

8. The Commission has noted that the trend of damage to power transformers is declining, but the number of fatal/ non fatal accidents is on the increase. HVPNL should aim for zero tolerance on these fronts.
9. In the previous ARR order, it was emphasized that all efforts need to be made to create an environment where the SLDC has functional autonomy duly staffed with people having the right skills, equipments and incentives to deliver. The State Government was urged to create a separate representative board structure for governance of SLDC on the lines of wholly owned subsidiary by 31.03.2009. HVPNL must peruse the matter with the State Government for an early action in this regard and expedite the expansion of data acquisition & communication systems at SLDC so that load flows of the entire transmission network under control of HVPNL could be monitored by SLDC.
10. The Commission has noted that HVPNL has sent the requisition of manpower requirement to the recruiting agencies of the State Government. HVPNL is advised to regularly follow up the matter with the recruiting agencies and adequate manpower should be got trained to handle the transmission network.
11. The Commission, under Section 62 read with Section 64(3) (a) and Section 64(6) of the Act, issues this tariff order with modification of the calculation of expected revenue requirement and transmission tariff & SLDC charges proposal of the licensee i.e. HVPNL and hereby determines the same as under:
 - a) The net ARR for FY 2010-11 of HVPNL, for its transmission business, is determined as Rs 9751.5 millions for FY 2010-11 of HVPNL.
 - b) SLDC ARR is determined as Rs. 113.25 million (monthly recovery of Rs. 9.43 million).

- c) The recovery of transmission cost shall be @ Rs. 414.44 millions (UHBVNL) and Rs. 398.19 million (DHBVNL) per month.
- d) Transmission tariff for short-term customers shall be Rs. 0.28/ kWh.
- e) Inter-state transmission losses pegged at 4.23% and intra-state. Transmission losses pegged at 2.1%.
- f) The directives issued by the Commission in its order(s) shall be monitored separately for which action has already been initiated.
- g) The licensee shall implement the tariff and charges contained in this order with effect from 1st April 2010.**

This order is signed, dated and issued by the Haryana Electricity Regulatory Commission on 16th April, 2010.

Date: April 16, 2010.

Place: Panchkula.

Rohtash Dahiya
(Member)

Bhaskar Chatterjee
(Chairman)