



COMMISSION'S ORDER

ON

**TRUE-UP PETITION FOR THE FY 2014-15, ANNUAL (MID-YEAR)
PERFORMANCE REVIEW FOR THE FY 2015-16 AND TRANSMISSION
TARIFF
& SLDC CHARGES FOR THE FY 2016-17**

CASE No: HERC/PRO-31 of 2015

31st March, 2016

**HARYANA ELECTRICITY REGULATORY COMMISSION
BAYS 33-36, SECTOR - 4, PANCHKULA - 134 112, HARYANA**

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HARYANA ELECTRICITY REGULATORY COMMISSION

BAYS NO. 33-36, SECTOR-4, PANCHKULA-134 112

CASE NO: HERC / PRO-31 OF 2015

IN THE MATTER OF

Petition / Application filed by Haryana Vidyut Prasaran Nigam Limited (herein after referred to as HVPNL or the Petitioner or the Licensee) for approval of true-up of the Aggregate Revenue Requirement (ARR) for Transmission business and State Load Dispatch Centre (SLDC) for the FY 2014-15, Annual (mid-year) Performance Review for the FY 2015-16 and determination of Transmission Tariff and SLDC Charges for the FY 2016-17.

Present

Shri Jagjeet Singh

Chairman

Shri M.S. Puri

Member

ORDER

The Haryana Electricity Regulatory Commission (hereinafter referred to as 'the Commission' or 'HERC'), in exercise of powers vested in it under section 62 of the Electricity Act, 2003 and Section 26 of the Haryana Electricity Reforms Act, 1997 and all other provisions enabling it in this behalf, passes this order determining the true-up for the FY 2014-15, Annual (mid-year) Performance Review for the FY 2015-16 and revised ARR/ transmission tariff and SLDC charges for the FY 2016-17. The Commission while passing this Order has considered the Petition filed by HVPNL, subsequent filings made by HVPNL in response to various queries of the Commission and submissions made by HVPNL in its presentation in the public hearing held on 15.02.2016.

CHAPTER 1

FILING OF THE ARR/TARIFF PETITION BY HVPNL

The HERC (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 ("MYT Regulations 2012") notified on December 5th, 2012, the Transmission Licensee i.e. Haryana Vidyut Prasaran Nigam Limited (herein after to be called as HVPNL) is required to file each year an Annual Performance Review (APR) Petition for true-up of past year and review of estimates for the ensuing year as per the MYT Order for the Control Period, in accordance with Regulation 11 of the ibid Regulations. Accordingly, HVPNL vide Memo No. Ch.23/SE/RAU/F-148 dated 26.11.2015 submitted the true-up petition for the FY 2014-15, the application for midyear review for the FY 2015-16 and the revised ARR for the 2016-17 for consideration and approval of the Commission. In the present petition, the Petitioner has prayed that the Commission may consider the revised estimates for the FY 2015-16 and the FY 2016-17 based on the audited accounts of the FY 2014-15 on the plea that it would provide more realistic base for estimate during the MYT Control Period.

Subsequently, HVPNL filed a revised submission of Annual Transmission Charges and Short Term Open Access charges vide Memo No Ch-32/SE/RAV/F-148 dated 21.12.2015.

In reply to the observations of the Commission, the Licensee vide Memo No. 2900 dated 24.12.2015, filed additional information vide Memo No. Ch-78/SE/RAV/F-148 dated 08.02.2016, Memo No. Ch-95/SE/RAU/F-148 dated 29.12.2016 and memo no. Ch- 98/SE/RAU/F/148 dated 02.03.2016. Additionally, HVPNL has also raised the issue of withdrawal of investment in contingency reserve fund vide its Memo No. Ch-2/SE/RAU/F-52 Vol-V dated 15.01.2016.

The Petitioner has also submitted the status of capital expenditure approved vis-à-vis incurred by them upto the first quarter of the FY 2015-16 and the capital expenditure expected to be incurred in the FY 2015-16 and the 2016-17. The changes in the envisaged capital expenditure and the impact thereto on the relevant elements of ARR/ Tariff have been provided in the present petition.

The Petitioner has submitted that while passing the true-up Order for the FY 2013-14, the Commission had considered the audited annual accounts for true-up most of the elements of the ARR and the Petitioner has prayed that based on the same principle the true-up exercise for the FY 2014-15 may also be undertaken. The Petitioner has revised the projection of ARR for the MYT Control Period i.e. FY 2015-16 to FY 2016-17 and has also proposed a review of capital expenditure during the said years based on the expenditure incurred, so far, in the FY 2014-15 and envisaged for the remaining years of the Control Period i.e. the FY 2015-16 and the FY 2016-17.

The Petitioner has also submitted the performance of HVPNL during the first six months of the FY 2015-16 alongwith its half yearly financial statements for consideration of the Commission.

1. HVPNL'S PETITION

1.2 TRUE-UP FOR THE FY 2014-15 FOR TRANSMISSION BUSINESS

In accordance with the MYT Regulations, 2012 the Petitioner has filed the present true-up Petition for the FY 2014-15 as under:-

1.2.1 Operations and Maintenance Cost

The O&M expenditure comprises of employees' cost, administration, general expenses, repair and maintenance expenses.

The Regulation 45.3 of the MYT Regulations 2012 provides for determination of O&M cost as per the actual audited employees cost (excluding terminal liabilities) and A&G expenses for the financial year preceding the base year, subject to prudence check, to be escalated at 4% per annum to arrive at the employees' cost (excluding terminal liabilities) and A&G expenses for the base year of the Control Period.

The Petitioner has submitted the details of approved vis a vis actual O&M expenses as under:-

Particulars (Rs. Millions)	Approved	Actual	Difference
Employee Cost	2,177.09	2387.11	(210.02)
Terminal liability	1,297.62	1,917.76	(620.14)
Repair & Maintenance Cost	296.75	386.75	(90.0)
A&G Expenses	168.92	131.42	37.50
Total O&M Expenses	3940.38	4823.04	(882.66)

1.2.2 Employees' Cost

The petitioner has submitted that the Commission in its True-up Order for the FY 2013-14 has considered audited accounts of the FY 2013-14 to approve the revised employees' cost and accordingly based on the same principle, the Commission may true-up the employees' cost for the FY 2014-15.

In support for its plea for true-up HVPNL has submitted that the Commission while allowing the actual employees' cost for FY 2013-14, projected the employees' cost for the FY 2014-15, considering an inflation rate of 4.86% only. The details of the approved vis-à-vis actual employees' cost incurred by the Petitioner are provided below:-

Particulars (Rs. Millions)	Approved	Actual	Difference
Employees' cost	2,177.09	2,387.11	(210.02)

It has been submitted that the increase in employees' cost was primarily on account of increase in dearness allowance in the FY 2014-15 due to implementation of the instructions of the Haryana Government and beyond the control of Petitioner. The component wise break up of employees' cost in the FY 2014-15 and preceding year as provided by HVPNL is as under:-

Particulars (In Rs Millions)	Actual 2014-15	Actual 2013-14
Basic	915.73	862.73
DA	921.07	757.52
Other allowances	317.07	260.18
Contract employees	394.10	283.71
Contribution to new pension scheme (NPS)	43.47	39.15
Total Employees' cost	2,591.44	2,203.29
Employees' cost capitalized	-172.95	-195.96
Net Employees' cost Expensed	2,418.49	2,007.33
• For Transmission Business – Excl. SLDC business	2,387.11	2,007.33

HVPNL has further submitted that in line with the directive of the Commission the Petitioner has not done any new recruitment of employees in the FY 2014-15 and the increase in actual cost as against the approved employees' cost is purely on account of factors beyond their control. The Petitioner has complied with the directions of the Commission to increase the contractual employees, thus limiting the financial burden.

HVPNL has prayed that the Commission may consider the actual employees' cost of the FY 2014-15 as per the audited accounts, which may also be considered as a base for the projection of employees' cost for the MYT Control Period.

1.2.3 Terminal Benefits

Regulation 8 of the MYT Regulations, 2012 provides for terminal liability to be uncontrollable element of ARR. In this regard it has been submitted that the Hon'ble APTEL in its judgment dated 30.04.2013 in Appeal No. 100 of 2012, has held that the terminal benefits may be trued-up based on the actual as per the audited accounts. The terminal benefits liability for the FY 2014-15 has been Rs.1917.76 millions for which the Petitioner has submitted actuarial valuation report for the consideration of the Commission. Hence, the Petitioner has sought true - up of the terminal liability based on the actual terminal benefits expenses incurred by them.

Particulars (Rs. Millions)	Approved	Actual	Difference
Terminal Liability	1,297.62	1,917.76	(620.14)

1.2.4 Repair and Maintenance Cost

The Petitioner has submitted R&M expenses as approved by the Commission and actual R&M cost incurred by them. It has been submitted that the actual R&M cost incurred is slightly higher than the approved R&M cost owing to significant R&M expenditure incurred by the Petitioner to ensure reliability of the transmission system. It has been mentioned that in the FY 2013-14, the Petitioner had itself requested the Commission to pass on the benefit of lower R&M expenditure incurred vis-à-vis that of approved in MYT Tariff Order. However, in order to ensure the upkeep of the system the R&M expenses incurred are slightly higher and the Petitioner has prayed to the Commission to true-up the same in line with the Commission's Order dated 31.03.2015 on true-up.

Particulars (Rs. Millions)	Approved (FY 2014-15)	Actual (FY 2014-15)	Difference
Total R&M Cost	301.29	395.05	93.76
Less: R&M cost of SLDC	4.54	8.30	3.76
R&M Cost – Transmission	296.75	386.75	(90.0)

The Petitioner has submitted that the entire R&M expenses incurred is related to works which were un-avoidable and was done after prudence check. Hence, it has been prayed that the Commission may true-up the R&M cost based on the actual cost incurred by them.

1.2.5 Administrative and General Expenses

The Petitioner has submitted A&G expenses approved by the Commission and actual A&G expenses incurred as provided below:-

Particulars (Rs. Millions)	Approved	Actual	Difference
A&G Expenses	168.92	131.42	37.50

It has been submitted that HVPNL is committed to optimize the operating costs wherever possible and A&G expenses are the testimony to the same. The Petitioner has been able to significantly reduce the actual A&G expenses incurred vis-à-vis that approved by the Commission. The Petitioner has submitted that the benefit of such saving of A&G expenses may be passed on the consumers of the State.

1.2.6 Return on Equity (RoE)

The Petitioner has submitted that the Commission had curtailed the RoE due to the reasons such as lower system availability, non provision of Special Energy Meter (SEM) at all interface points etc. In view of this, the Petitioner has undertaken measures to improve its reliability and the improvement is evident from its overall system availability.

That the regulation 45 of the MYT Regulations, 2012 provides for the target transmission availability for the FY 2013-14 at 98.5%, which is to be increased to the level of 99.2% by the FY 2016-17. In this connection, it has been submitted that the transmission system availability of the Petitioner has been as high as 99.13% during the FY 2014-15 itself owing to better O&M practices, significant capital expenditure on system reliability etc. Hence, the Petitioner has sought the RoE of 14% as provided under Regulation 20.1 of the MYT Regulations 2012.

The Petitioner has submitted that details of the approved RoE vis-a-vis the entitled RoE as under:-

Particulars(Rs. Millions)	Approved	Actual	Difference
Return on Equity	1425.00	1699.87	(274.87)

1.2.7 Depreciation

The Petitioner has submitted that the average actual rate of depreciation is different from the average depreciation rate considered by the Commission, mainly due to the change in composition of assets as a substantial share of assets added during

the year are depreciable at rate different from 5.28% as provided in MYT Regulations 2012.

The Petitioner has further submitted that while approving the ARR for the FY 2014-15 vide Order dated 29th May 2014, the Commission has considered a lower base of GFA, while the actual opening and closing GFA during FY 2013-14 and FY 2014-15 are significantly higher.

The Petitioner has submitted that the Commission while allowing the depreciation vide Order dated 29th May 2014, for the FY 2014-15, had considered the GFA as on 31st March 2013, amounting to Rs. 44,524.72 millions, whereas it should have been Rs.56,204.86 millions (Total GFA Rs. 56,629.53 millions less GFA of SLDC of Rs. 424.67 Millions), as per audited accounts for the FY 2012-13.

The Petitioner has sought true-up of the depreciation amount for the FY 2014-15 on actual basis, as detailed in the table below:-

Particulars (Rs. Millions)	Approved	Actual	Difference
Depreciation	2074.80	2699.47	(624.67)

1.2.8 Interest and Finance Charges

The Petitioner has submitted that the interest and finance charges for borrowings approved by Commission and the actual interest and finance charges incurred by the Petitioner are considerably higher, as presented below:-

Particulars (Rs. Millions)	Approved	Actual	Difference
Interest Cost (Capex Loan)	1476.74	2217.61	(740.87)

The Petitioner has submitted that the higher interest and financing cost of capital expenditure loan is on account of the following reasons:-

- i) Consideration lower opening and closing balance of loan for FY 2014-15, as the actual figures have changed due to the difference in loan drawn, loan repayments and assets capitalized.
- ii) Excess capitalization of interest by the Commission by taking the CWIP relating to World Bank loan projects. It is submitted that the interest on World Bank loan is directly capitalized by HVPNL after taking the same as part of CWIP and while calculating the capitalization of interest HVPNL excludes the interest on World Bank loan as well as CWIP (World Bank) amount pertaining to World Bank loan.

The Petitioner has prayed that the Commission may allow the same based on the actual interest cost as per the audited annual accounts for the year.

It has been submitted that interest on PF and Pension bonds as incurred by the Petitioner needs to be allowed as it is a legitimate expenditure.

Interest Cost(Bond) (Rs. in millions)	Approved	Actual	Difference
Interest on Pension Bonds	193.55	673.0	(479.45)
Interest on PF Bonds	58.01	162.17	(104.16)

The petitioner has further submitted that the Commission while truing up the interest cost for the FY 2013-14 had considered the closing balance of capex loans for the FY 2013-14 amounting to Rs. 24,894.80 Million instead of the actual audited amount of Rs. 31,345.29 Millions for the FY 2013-14. Based on which the Commission allowed the differential interest of Rs. 269.96 Million instead of actual differential interest cost to the tune of Rs. 364.96 Million. The Petitioner has requested that the Commission may allow the differential interest along with true-up for the FY 2014-15.

1.2.9 Interest on Working Capital

The petitioner has submitted that the working capital requirement assessed by the Commission was on the lower side owing to lesser approved annual revenue requirement for the FY 2014-15. Also, there is a significant impact of actual receivable days and normative considered receivable days, with actual receivable days being significantly higher. However, the petitioner had to raise excess amount to bridge requisite working capital requirements.

Therefore, the Petitioner has prayed that the Commission may approve the actual interest on working capital incurred by the Petitioner, which is based on the audited accounts for the FY 2014-15 as under:-

Working Capital/Bank Loans (Rs. In Millions)	Approved	Actual	Difference
Interest	176.10	467.33	(291.23)

Petitioner has further submitted that the short term interest rate allowed by the Commission in its Order for the FY 2014-15, was lower than the actual short term interest rates prevailing in the market due to which the higher short term borrowing interest burden has arisen.

1.2.10 Incentives and Penalty: System Availability

It has been submitted that as per MYT Regulations, 2012 the Petitioner is eligible for incentive on account of actual availability above target availability. The Petitioner,

based on the system availability, has sought incentive of Rs.28.13 millions for the FY 2014-15 and has proposed to pass on 40% of the same to the beneficiaries.

1.2.11 Reactive Energy Charges

In accordance with the Regulation 48 of MYT Regulations, 2012, the Petitioner has submitted that the reactive charges incurred by the petitioner during the FY 2014-15, as per the audited accounts is Rs. 171.16 million, whereas the actual expenses recovered from the Discoms is Rs. 148.84 million. The Petitioner has prayed that the Commission may approve the differential reactive energy charges to be claimed from the Discoms. The Petitioner has given the details of Reactive Energy Charges as under:-

Particulars (Rs. Millions)	Charges Incurred	Charges Recovered	Difference
Reactive Energy Charges	171.65	148.84	22.80

1.2.12 Loss due to Foreign Exchange Rate Variation (FERV)

In line with the Regulation 24.3 of the MYT Regulations, 2012, the Petitioner has requested the Commission to allow the true-up of cost due to FERV for the FY 2014-15, as per the audited accounts for the year as under:-

Particulars (Rs. Millions)	Amount
Loss due to foreign Exchange Rate Variation	134.36

In addition to above, the Petitioner has also requested the Commission to consider the losses on account of FERV, incurred in the past year i.e. FY 2011-12 and FY 2012-13 based on the respective audited accounts as they have not been able to claim the past FERV losses as the MYT Regulations, 2012 came into effect from December, 2012 and there was no provision of true-up under the repealed HERC Tariff Regulations, 2008. The actual FERV losses booked by the Petitioner for the said period are presented in the table below:-

Particulars (Rs. Millions)	Amount
Loss due to foreign Exchange Rate Variation – 2011-12	258.90
Loss due to foreign Exchange Rate Variation – 2012-13	66.10
Total FERV losses – Past years	325.00

1.2.13 Revised ARR for Transmission business

The ARR approved by the Commission for the FY 2014-15 and the revised ARR submitted by HVPNL for true-up, is summarized below:-

Revised ARR for Transmission business for FY 2014-15

(Rs. in millions)			
ARR - Transmission	HERC Approved	Proposed for True-Up	Surplus/ (Gap)
Employees' cost	2177.09	2387.11	-210.02
Terminal benefits	1297.62	1917.76	-620.14
R&M expenses	296.75	386.75	-90.00
A & G Expenses	168.92	131.42	37.50
Interest on Capital Expenditure Borrowings	1476.74	2217.61	-740.87
Debenture Interest (PF Bonds)	58.01	162.17	-104.16
Debenture Interest (Pension Bonds)	193.55	673.00	-479.45
Interest on Working Capital/Bank Loans	176.10	467.33	-291.23
Interest on Bonds Others	983.00	983.00	0.00
Depreciation	2074.80	2699.47	-624.67
Return On Equity	1425.00	1699.87	-274.87
Non-Tariff Income	-240.02	-314.38	74.36
Share of SLDC Charges	11.57	11.57	0.00
Total	10,099.13	13422.69	-3323.56
Add: True-up of interest cost for FY 2013-14		94.98	-94.98
Add: Reactive energy Charges		22.81	-22.81
Add: Loss Due to Foreign Exchange		134.36	-134.36
Add: FERV True-up of FY 11-12 and FY 12-13		325.00	-325.00
Total ARR	10,099.13	13,999.84	-3900.71
Add: Incentive based on Transmission Availability passed on to beneficiary		28.13	-28.13
Total ARR-Including Incentive	10,099.13	14,027.97	-3928.84

Based on the comparison of the approved and actual expenditures as per the audited accounts for the FY 2014-15, a true-up amount of Rs. 3928.84 million has been computed by HVPNL for the FY 2014-15, also including the incentive of Rs. 28.13 million for FY 2014-15 which has been proposed to be carried forward. HVPNL has requested the Commission to approve the same along with carrying cost.

1.3 ARR OF SLDC

The table that follows provides the details of ARR approved for SLDC business by the Commission in its Tariff Order for the FY 2014-15. In line with the revised ARR for transmission business, HVPNL has submitted that the true-up for SLDC business

may also be considered and approved by the Commission. The details provided by HVPNL are as under:-

ARR of SLDC for FY 2014-15

SLDC ARR (Rs. Millions)	HERC Approved	Actual	Surplus/ (gap)
Employees' cost	32.89	31.38	1.51
A & G Expenses	9.18	10.13	-0.95
R&M expenses	4.54	8.30	-3.76
Depreciation	45.59	23.44	22.15
Interest & Finance Charges on Capital Expenditure	50.91	14.59	36.32
Interest on Working Capital	2.29	2.59	-0.30
Total Expenditure (including special appropriation)	145.40	90.42	54.98

1.4 REVIEW OF ANNUAL REVENUE REQUIREMENT FOR THE FY 2015-16 AND THE FY 2016-17

1.4.1 Capital Expenditure

It has been submitted that in view of the need to cater to the demand growth and to improve the existing system the Petitioner has revised the capital expenditure estimates for the Control Period. The details of the proposed schemes have been provided by HVPNL. The Petitioner requested that the Commission may accordingly revise the capital expenditure. The capital expenditure incurred during first quarter of the FY 2015-16 and works wise revised capital expenditure for the Control Period, as submitted by HVPNL, is summarized in the table as under:-

Capital Expenditure

(Rs. in millions)

	FY 2015-16			FY 2016-17	
Works	Approved	Actual Up to Q1	Envisaged	Approved	Envisaged
Substations	6316	490	5148	4479	6028
Lines	2126	338	1733	2175	2927
IT	170	12	139	30	41
Land	679	0	553	71	96
Misc	514	0	419	427	574
Total	9805	840	7991	7182	9665

1.4.2 Operation & Maintenance Expenditure

The Petitioner has submitted that the Commission in its Order dated 31st March 2015 had approved various components of O&M expense i.e. employees' cost, R&M expenses and A&G expenses based on the actual expenses incurred in the FY 2013-14 after considering inflationary factor of 4.68%. Since the FY 2014-15 is over and audited

actual accounts of the FY 2014-15 as well as the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) for the year are now available, HVPN has accordingly proposed revision of O&M components for the FY 2015-16 and the FY 2016-17 based on the latest available audited accounts.

1.4.3 Employees' cost

For employees' cost, the Petitioner has considered actual employees' cost as per audited accounts of the FY 2014-15 after excluding capitalization and SLDC employees' cost. The inflation factor has been considered as 7.43% in line with the MYT Regulations, 2012. It has been submitted that no further addition in manpower has been considered. Additionally, HVPNL has submitted that the terminal benefits estimate for the MYT Control Period is based on the valuation done by the Actuary. The details provided by HVPNL are as under:-

Particulars (Rs. Millions)	2015-16 Revised	2016-17 Revised
Employee cost (excluding Terminal benefits)	2564.53	2960.19
Inflation	7.43%	7.44%
Terminal Benefits	2596.38	2093.11
Revised Employee Cost	5160.91	5053.30
Approved Employee Cost	As per 31 st March 2015 Order	As per 29 th May 2014 Order
	3,249.85	3729.65

In view of the above, the petitioner has submitted that the Commission may revise the employees' cost for the MYT Control Period.

Additionally, the Petitioner has mentioned that while carrying projecting the employees cost the impact of 7th pay Commission has not been considered as at this stage impact of the same cannot be ascertained. Hence, as and when the Haryana Government notifies the implementation of the recommendations of the 7th pay Commission, the Petitioner shall approach the Commission.

1.4.4 R&M Expense

The MYT Regulations, 2012 provides that the R&M expenses shall be a percentage of GFA with K factor being 0.5% for the entire Control Period. The R&M expenses have been revised considering the revised opening GFA for FY 2015-16 as under:-

Particulars (Rs. Millions)	2015-16	2016-17
Revised GFA (Average)*	75767.14	87510.25
Revised R&M Expense	406.99	505.06

Particulars (Rs. Millions)	2015-16	2016-17
Approved R&M Cost	As per 31 st March 2015 Order	As per 29 th May 2014 Order
	366.45	382.68

**The allocated SLDC assets have been reduced from the HVPN GFA for the FY 2014-15 while determining the R&M Expense.*

1.4.5 A&G Expense

As per the MYT Regulations 2012, the FY 2013-14 A&G cost has to be the baseline for projection of A&G expenses, accordingly the Petitioner has projected the A&G expenses for the Control Period. The Petitioner has submitted that the proposed A&G expenses may be allowed by the Commission, as these are reflective of the actual A&G expenses likely to be incurred by them. The details are as under:-

Particulars (Rs. Millions)	2015-16	2016-17
Revised HVPN A&G Cost	141.19	151.69
Approved A&G Cost	As per 31 st March 2015 Order	As per 29 th May 2014 Order
	141.19	151.69

Further, the Petitioner has prayed that the Commission may approve the revised O&M expenses for the FY 2015-16 and FY 2016-17 as proposed by them.

1.4.6 Depreciation

The Petitioner has separately proposed depreciation for the existing assets and assets likely to be added in the Control Period, considering the revised capital expenditure schedule as under:-

Existing Assets (Rs. Millions)	2015-16	2016-17
Depreciation during the year	2862.6	2862.6
	4	4
Less: Depreciation on assets through consumer contribution	139.74	139.74
Less: Depreciation on SLDC Assets	23.44	23.44
Total depreciation on existing assets	2699.4	2699.4
	7	7

The computation of depreciation on new assets is provided below:-

New Assets (Rs. Millions)	2015-16	2016-17
Opening GFA	--	10828.21
Additions	10828.21	12658.01
Closing GFA	10828.21	23.486
Rate of Depreciation	5.20%	5.18%
Depreciation during the year	281.30	888.54

The Petitioner has mentioned that while estimating the depreciation for the new assets, they have considered the weighted average rate of depreciation as derived from the proportion of different category of assets being added.

1.4.7 Interest and Finance Charges

The interest and finance charges, as proposed by HVPNL, on the existing Loans likely to be incurred by the Petitioner are presented below:-

Loan Schedule (Existing Borrowings, Rs. Millions)	2015-16	2016-17
Opening	32619	29542
Addition	--	--
Repayments	3077	3077
Closing	29542	26464
Interest Capitalized	150	136
Interest	2206	1987

It has been submitted that besides the above loans, the Petitioner has plans for significant capital expenditure during the Control Period. Hence, most of the additional loans which are required to be drawn have been already tied-up with funding agencies. Therefore, HVPNL has prayed that the Commission may allow interest cost for the Control Period as proposed by them as per the table below:-

Loan Schedule (New Borrowings, Rs. Millions)	2015-16	2016-17
Opening	--	6171
Addition	6171	7700
Repayments	--	--
Closing	6171	13871
Interest Capitalized	46.95	46.27
Interest Cost	307.12	1161.85

It has been submitted that the interest on pension bonds and PF bonds, as per the details provided below, may be approved by the Commission. HVPNL has further submitted that the estimation of interest cost below considers the likely redemption of bonds as per schedule.

Interest on Bonds (In Rs Million)	2015-16	2016-17
Interest on PF Bonds	162.17	137.85
Interest on Pension Bonds	673.00	572.05
Total Interest	835.17	709.90

It has been submitted that the above interest on PF and Pension bonds have been actually incurred by the Petitioner and recovery of the same needs to be allowed as it a legitimate expenditure.

In addition, it has been submitted that the Commission in its Order dated 29th May 2014 has considered Rs 1397.6 million on account of DVB liability written back by the company during the FY2012-13 towards redemption of pension bonds while allowing interest on pension bonds to the petitioner. The writing back of the liability of Rs 1397.6 million was only a book entry and no cash realization has been made by the petitioner out of which the petitioner could redeem the pension bonds. Therefore, it has been prayed that Rs 1397.6 millions may be allowed to petitioner as no cash realization has accrued from liability written back so that the petitioner can redeem the pension bond out of this money.

1.4.8 Interest on Working Capital

The interest on working capital based on the relevant Regulations of MYT Regulations, 2012, revised for the Control Period by HVPNL is as under:-

Working Capital (Rs. Millions)	2015-16	2016-17
O&M	476	476
Maintenance spares	856	856
Receivables	1428	1259
Total	2760	2591
Interest Rate	13.50%	13.50%
Interest on Working Capital	372.60	349.85

It has been submitted that as per the information available on the SBI's website the base rate prevailing during the 1st April 2015 is 10.0% and after adding a margin of 350 basis points (3.5%), the interest rate on working capital is estimated at 13.5%, which may be considered by the Commission while approving the revised ARR for the Control Period.

1.4.9 Return on Equity (RoE)

The revised RoE has been estimated by HVPNL based on the expected equity capital infusion on the new capex proposed to be incurred by the Petitioner. The rate of return considered for computing return on equity is 10% in line with the office memo no. Ch 65/SE/RAU/F122/Volume-II dated 04/12/2014, which takes into consideration the approach adopted by the Commission in its Order dated 29th May 2014. The details are as under:-

Particulars (Rs. Millions)	2015-16	2016-17
Paid up equity in beginning	19367.10	19367.10
Add: share application money pending allotment	2120.60	2120.60

Less: SLDC equity	56.00	56.00
Less: Generation equity	1595.40	1595.40
Less: Distribution equity	1259.33	1259.33
Equity to be considered for Transmission business	18576.97	18576.97
Less: Equity related to transmission works not yet commissioned	2235.20	1443.30
Add: 50% of Equity portion of GFA added	1624.20	1698.70
Closing equity for RoE	17966.00	19032.40
Rate of Return	10.0%	10.0%
RoE Proposed	1796.60	1903.24

As is evident from above, the equity base considered for revised proposal of return on equity is adjusted for the CWIP, as Commission has established in its approach for approval of ARR that such returns shall not be provided on the equity invested in the capital works in progress. Therefore, it is prayed that the above RoE may be allowed in the revised ARR for MYT Control Period.

1.4.10 Non-Tariff Income

The non-tariff income has been considered in line with the actual non-tariff income during the FY 2014-15, to the tune of Rs.314.38 million for the remaining Control Period.

1.4.11 Aggregate Revenue Requirement

As per the submissions in the preceding paragraphs, HVPNL has revised the ARR for the FY 2015-16 and the FY 2016-17 as per table 1.4 below:-

Revised ARR for Transmission Business for FY 2015-16 and FY 2016-17

(In Rs. Millions)

Financial year	FY 2015-16	FY 2015-16	FY 2016-17	FY 2016-17
	HERC (Approved)	HVPNL (Revised Proposal)	HERC (Approved)	HVPNL (Revised Proposal)
O&M Cost	3777.42	5709.09	4315.21	5710.05
Interest on Loan	1706.37	2512.88	1445.93	3149.21
Interest on Pension Bonds	7	673	61.97	572.05
Interest on PF Bonds	18.40	162.17	--	137.85
Interest on Bonds (others)	0	0	983.00	0
Depreciation	3147.64	2980.76	2854.43	3588.0
Interest on Working Capital	206.73	372.60	182.86	349.85
Return on Equity	1832.23	1796.60	2060.62	1903.24
Share of SLDC Charges	--	9.98	17.60	13.68
Non-Tariff Income	(241.87)	(314.38)	(52.14)	(314.38)
True-up for FY13- 14(Including Holding Cost)	1833.95	1833.95	--	--
Redemption of	--	1397.6	--	--

Pension Bond				
Total ARR	12287.87	17134.27	11869.48	15109.56
Review of True-Up FY13-14 (Order Dated 18 th August 2015)	381.13			
Revised ARR(Order Dated 18 th August 2015)	12669.0			

The Petitioner has prayed that the Commission may approve the Revised Aggregate Revenue Requirement as proposed above and allow recovery of the same by appropriate adjustments in the transmission charges.

1.4.12 Revenue Gap and Carrying Cost

In view of the true-up of the FY 2014-15 and revised ARR for the FY 2015-16, the revenue gap computed by the Petitioner for the respective years are provided in table no. 1.5.

Table 1.5 Proposed Revenue Gap (Rs. Millions)

Financial Year	2014-15	2015-16
Approved ARR	10,099	12,288
Proposed Revised ARR	14,028	17,134
Revenue Surplus /(Gap)	(3,929)	(4,846)

The Petitioner has prayed that the Commission may allow recovery of the revenue gap of FY 2014-15 as well as the revenue gap on account of revision in the ARR of the FY 2015-16 in the transmission charge to be approved by the Commission for the FY 2016-17 and also allow for carrying cost on the under-recovered amount in line with the MYT Regulations, 2012.

The carrying cost computed by the Petitioner pertaining to the revenue gap for the FY 2014-15 and the FY 2015-16 after considering the applicable SBI base rate and appropriate margin is as under:-

Particulars (Rs Million)	FY 2014-15	FY 2015-16	Total
Opening Revenue Gap (including carrying cost)	--	3929	--
Addition	3929	4846	8775
Closing Revenue Gap	3929	8775	--
Interest Rate	13.20%	13.50%	--
Carrying Cost	259	858	1117

HVPNL has requested the Commission to include the carrying cost of Rs 1,117 million in the ARR of the FY 2016-17 for recovery through transmission charges. It has

been submitted that while calculating carrying cost HVPNL has assumed that full cost will be recovered at the beginning of the FY2016-17.

1.5 UNITARY CHARGES

The Petitioner has submitted that the Commission has granted transmission license to M/s Jhajjar KT Transco Private Ltd on 26th October, 2010. The Licensee is under commercial operation w.e.f 12th March 2012.

As per Transmission Service Agreement (TSA) approved by the Commission (clause 26.8.2); the applicable monthly Unitary Charges is being paid by HVPNL to M/s Jhajjar KT Transco Private Ltd. The base Unitary Charge for the accounting year, in which COD was declared i.e. 2011-12, was Rs. 4,50,00,000/-, and the same, as per the TSA, is subject to adjustment annually by decreasing the Base Unitary Charges for the immediately preceding Accounting Year by 3% and also on account of 40% of the variation in the Whole Sale Price Index.

Accordingly, the monthly Unitary Charges for FY 2015-16 have been worked out to be Rs. 4.59 Crore and the expected Unitary Charges for the FY 2016-17 at about the same level keeping in view the expected increase in WPI and yearly reduction of Base Unitary Charge by 3%.

The Petitioner, has prayed that the Commission may consider the above proposed unitary charges as part of annual transmission charges to be approved for the FY 2016-17 in view of its Order dated 31.03.2015, wherein the Commission included the Unitary Charges in the ARR of HVPNL to be recovered from UHBVNL, DHBVNL and TPTCL in proportion to their respective share in the transformation capacity (MVA).

1.5.1 Yearly Transmission Charges (YTC) for Transmission Lines Incidental to Inter-State Transmission of Electricity

HVPNL has submitted that in compliance of the Central Electricity Regulatory Commission's Order dated 14.3.2012 in Petition No.15/SM/2012; the Petitioner had filed a petition for approval of annual transmission charges of the transmission assets connecting two states. The CERC has issued Order on 23.09.2015 in Petition No. 246/ TT/ 2013 filed by HVPNL. As per the said Order, three transmission lines of HVPNL were identified as inter-State transmission lines on the basis of the inputs provided by Northern Regional Power Committee (NRPC) and CERC. The CERC in its Order has

allowed annual transmission charges for the assets covered in the said petition to be adjusted against the ARR. The table below presents the details of the Yearly Transmission Charges allowed by the CERC.

S. No.	Line Name	Length (Ckt km)	2011-12	2012-13	2013-14	2014-15
1	220 kV S/C Bhiwadi-Rewari line Rajasthan-Haryana)	23.761	1,51,45,599	1,44,76,630	1,27,80,233	2,17,16,642
2	220 kV D/C Madanpur,Panchkula, Kunihar(HP) line with LILLO one Ckt.At 220 kV S/S Baddi(HP) [Haryana Portion 40.5km=81Ckt. km]	81	4,15,13,754	4,04,09,841	3,53,83,897	5,92,24,713
	Total in Rs.		5,66,59,353	5,48,86,472	4,81,64,130	8,09,41,355
	Grand Total (in Rs. Millions)				240.65	

In line with above, the Petitioner has prayed that the Commission may allow the YTC for intra-State lines operating as ISTS.

It has been submitted that in line with the methodology applied by the CERC, the Petitioner has also calculated and included YTC for the FY 2015-16 and the FY 2016-17 based on tentative line lengths (Ckt.km) to be added in corresponding years.

1.5.2 Review of SLDC ARR

The Petitioner seeks to revise the capital expenditure envisaged during the remaining MYT Control Period. The table below provides the details of proposed capital expenditure for the SLDC for the FY 2015-16 and the FY 2016-17:-

Year	FY 15-16 (Q1- Actual)	FY15-16 (Proposed) (Qtr 2, 3 & 4)	FY16-17 (Proposed)
Expenses (In Rs Million)	180	160.3	374.3

Based on the above revised capital expenditure plan for the remaining years of the MYT period and actual expenses for the FY14-15, the revised annual revenue requirement for the SLDC has been estimated by HVPNL as under:-

Particulars (Rs Million)	FY 2015-16 (Proposed)	FY 2016-17 (Proposed)
O&M Cost	63	69
Interest on Loan	20	50
Depreciation	41	50
Interest on Working Capital	2	3
Non-Tariff Income	1	1
Annual Revenue Requirement	125	171

The Petitioner has requested the Commission to approve the same for the remaining years of the MYT period.

It has been submitted that in view of above changes in the ARR of SLDC for the FY 2015-16 and the FY 2016-17, the SLDC charges (system operation charges and the market operation charges) in line with the Regulation 6 and 16 of the MYT Regulation, 2012 shall also be revised.

Further the Petitioner in its filing of the ARR for the MYT Control Period dated 26th March, 2015 has informed the Commission that the website of SLDC has been revamped during the month of February, 2015 through M/s Siemens under the ULDC phase-II Project. The domain name is www.haryanaSLDC.org and the selected online/real time data is now available on the SLDC website.

1.5.3 Annual Transmission charges for the FY 2016-17

HVPN has submitted that the annual transmission charges are to be determined under Regulation 50 of the MYT Regulations, 2012 as under:-

“Transmission Licensee shall recover the transmission charges at the normative annual transmission system availability factor specified for it by the Commission”.

The details of the annual transmission charges proposed by the HVPNL are summarized in the table 1.6.

Table 1.6 HVPNL's Proposed Transmission Tariff for the FY 2016-17

Particulars	Amount (Rs. Millions)
Aggregate Revenue Requirement for FY 2016-17	15,110
Gap on account of True-up for FY 2014-15	3,929
Gap on account of Review of FY 2015-16	4,846
Carrying Cost on Gap for FY 2014-15 & FY 2015-16	1,117
Adjusted ARR	25,002
Unitary Charges for JKTPL	46
YTC for Lines Operating As ISTS Lines (Till FY14-15)	240.65
YTC for Lines Operating As ISTS Lines (For FY15-16 & FY16-17)	203.51
Total Transmission Charges	25,492
Monthly Transmission Tariff	2,124.31
Ratio Of Average Transformation Capacity	
UHBVNL	49.62%
DHBVNL	49.64%
TPTCL	0.71%

Particulars	Amount (Rs. Millions)
NTPC Ltd	0.03%
Chanderpur Renewable Power Co. Private Limited (CRPCPL)	0.0042%
Monthly Transmission Tariff - UHBVN (based on ratio of Transmission capacity)	1,054.06
Monthly Transmission Tariff - DHBVN (based on ratio of Transmission capacity)	1,054.55
Monthly Transmission Tariff - TPTCL (based on ratio of Transmission capacity)	15.0
Monthly Transmission Tariff - NTPC (based on ratio of Transmission capacity)	0.6
Monthly Transmission Tariff - CRPCPL (based on ratio of Transmission capacity)	0.09

It has been submitted that In case of any addition of new beneficiary, the transmission charges shall be recovered in proportion to the allotted transformation capacity.

1.5.4 Share of Charges as per MYT Regulations, 2012

It has been submitted that the ARR/ operating cost of SLDC for the FY 2016-17 have been estimated at Rs. 171.05 million. The estimated SLDC charges for the FY 2016-17 has been apportioned into market operation activity and system operation function in the ratio of 20:80. Hence, Rs. 34.21 million has been apportioned towards the former and Rs. 136.84 million towards the later. Further, the Market Operation charges amounting to Rs. 34.21 million have been equally apportioned to all the entities i.e. TPTCL/UHBVNL/DHBVNL/NTPC/CRPCPL and HVPNL. The System Operation charges amounting to Rs. 136.84 million has been allocated to HVPNL (10%), Generating Stations / sellers (45%) and Discoms / buyers (45%). The amount allocated to the Discoms / Buyers were further distributed amongst UHBVNL, DHBVNL, TPTCL, NTPC and CRPCPL in the ratio of their transformation capacity. In the case of TPTCL/CRPCPL/NTPC as no transformation capacity is available; their MW capacity was converted into MVA by applying a power factor of 0.9 for the purpose of allocation of system operation charges as determined by the Commission in accordance with the MYT Regulations. The details are as under:-

Table 1.7 Proposed SLDC charges for FY 2016-17

Beneficiaries	Market Operations Function (20%) (Rs. Million)	System Operation Function (80%) (Rs. Million)	Total (Rs. Millions)	Transformation Capacity (MVA)
UHBVNL	5.70	30.55	36.26	9,682.20
DHBVNL	5.70	30.57	36.27	9,686.70
TPTCL	5.70	0.43	6.14	137.80
NTPC	5.70	0.02	5.72	5.56
CRPCPL	5.70	0.0026	5.70	0.82
HVPNL	5.70	61.58	67.28	

HVPN	0	13.68	13.68	
Total	34.21	136.84	171.05	

1.5.5 Short Term Open Access Charges (STOAC)

It has been submitted that the MYT Regulation, 2012 provides that the transmission charges shall be payable by the Short Term Open Access Consumers for the scheduled energy drawl at per kWh rate as worked out by dividing the annual transmission charges by the total volume of energy sales by the Distribution Licensee(s) during the previous year. Accordingly, HVPNL has prayed that the Commission may decide the Transmission Charges to be recovered from prospective Short Term Open Access Consumers. The calculation details submitted by the Petitioner are as per table 1.8.

Table 1.8 Proposed STOAC for the FY 2016-17

Particulars	FY 2016-17
Transmission Cost for FY 2016-17(Rs. Millions)	15109.56
Unitary Charges for JKTPPL (Rs. Millions)	45.87
Total volume of energy sales by the distribution Licensee(s) during the previous year (MU) 2014-15	45260.42
Total volume of expected energy sales by the distribution Licensee(s) during the current year (MU) 2015-16 (Assuming 10% Escalation)	49786.47
Proposed Transmission Charge (Rs./kWh) from STOA Consumer	0.3044

1.5.6 Recovery of SLDC Charges from Short Term Open Access Consumers

It has been submitted that the Short Term Open Access Consumers are required to pay composite SLDC charges as provided in the HERC (Terms and Conditions for grant of connectivity and Open Access for intra-State Transmission and Distribution System), Regulations, 2012 as amended from time to time. As such HVPNL has prayed that the Commission may decide the SLDC Charges to be recovered from prospective Short Term Open Access Consumers.

1.5.7 Reactive Energy Charges

Regulation 48 of MYT Regulations, 2012 provides that the reactive energy charges are payable by the Distribution Licensee to the Transmission Licensee as per Regulation 5.5.1 of the Haryana Grid Code (HGC) as amended from time to time. The reactive energy charges paid by the Distribution Licensee, however, shall not be recovered through ARR.

That a generating station shall inject/absorb the reactive energy into the grid as per the directions of State Load Dispatch Centre. Such injection/absorption may be undertaken on the basis of machine capability and in accordance with the directions issued by SLDC as per the provisions of Haryana Grid Code as amended from time to time.

That the reactive energy charges from embedded Open Access Consumers shall be recovered by the Distribution Licensee. Reactive energy account shall be maintained and operated as per the intra-State ABT Regulations to be notified by the Commission and as amended from time to time. Until the intra-State ABT Regulations are notified by the Commission, CERC ABT Regulations shall be applicable;

That the DISCOMs, Generators /Long Term Open Access Customers are expected to provide adequate reactive compensation in order to ensure that they do not draw / inject VARs during low /high voltage conditions, in line with the criteria laid under Clause 6.6 of Indian Electricity Grid Code.

That the beneficiaries are expected to provide local VAR compensation such that they do not draw VAR from EHV grid, particularly under low voltage conditions. Accordingly the Grid Code provides VAR exchanges as under:-

- ❖ The beneficiary pays for VAR drawl when voltage at metering point is below 97%.
- ❖ The beneficiary gets paid for VAR return when voltage is below 97%.
- ❖ The beneficiary gets paid for VAR drawn when voltage is above 103%.
- ❖ The beneficiary pays for VAR return when voltage is above 103%.

As per Clause-6.6 (2) of Indian Electricity Grid Code the VARh shall be @ 10 paise per KVARh w.e.f. 1.4.2010 to be escalated at the rate of 0.5 paise per KVARh per annum thereafter.

HVPN has submitted that they are raising reactive energy bills on the Discoms at rates determined by the CERC and for the FY 2016-17, HVPNL has proposed to charge UHBVN & DHBVN at a rate of 13 paise /KVARh w.e.f 1.4.2016 on the basis of the SEMs installed at the interface.

CHAPTER 2

PROCEDURAL ASPECTS OF THE ARR FILING

The Petitioner i.e. Haryana Vidyut Prasaran Nigam Ltd. (HVPNL) is a State Government owned company and is registered under the Indian Companies Act, 1956. The Government of Haryana vide its notification No. 1/10/2003-1/ Power dated 9.12.2003 notified HVPNL as the State Transmission Utility (STU) for the purpose of section 39(1) of Electricity Act, 2003. Through another notification No. 1/11/2003-1 Power dated 9.12.2003, the State Government notified that SLDC at Sewah in Distt. Panipat, established for the purpose under Section 31 (1) of the Act, shall be operated by HVPNL w.e.f. 10.12.2003. HVPNL also holds ownership interest in the generation project i.e. BBMB. HVPNL's share of Power Generation from BBMB Hydro Projects i.e. Bhakra, Dehar and Pongs has been assigned to the UHBVNL & DHBVNL in the ratio of 1:1 vide Government of Haryana notification dated 11.4.2008 and further extended by notification dated 07.02.2014. It has been submitted that these being inter-state generation projects, the power to fix generation tariff for these projects are not vested in this Commission.

2.1 MODIFICATION IN THE TRANSMISSION LICENCE

HVPNL was initially granted Transmission and Bulk Supply Licence [Licence No. 1 of 1999] by the Commission under Section 15 of the Haryana Electricity Reforms Act, 1997. However, the Government of Haryana vide its notification no. 116/2005/1/ Power dated 9th June, 2005, transferred the rights relating to procurement and bulk supply of electricity or trading of electricity from HVPNL to HVPNL and subsequently to the Distribution Licensees. Accordingly, in compliance to the provisions of Regulation 22.2 of Form-1 in HERC (Conditions for Transmission Licence) Regulations, 2008 notified by the Commission on 31st October, 2008, HVPNL had submitted application for the modifications in its existing licence. The Commission vide Order dated 11.01.2013, in line with the Regulation No. 09/2004 namely "Haryana Electricity Regulatory Commission (Transmission and Distribution Licensing) Regulations, 2004 and Section 18 of the Electricity Act, 2003 granted the amended Transmission Licence to HVPNL for carrying on the business of transmission of electrical energy in the area of supply within

the State of Haryana as per the terms and conditions mentioned in the amended Licence i.e. Licence No. 1 of 1999, 1st Amendment dated 11.01.2013.

It has been submitted that as per Section 86 (a) of Electricity Act, 2003 the power to determine tariff for generation, transmission, supply & wheeling of Electricity, wholesale, bulk or retail, as the case may be, are vested with the Commission. Hence, HVPNL has filed the present Petition for true-up of FY 2014-15, Annual (Mid-year) performance review for the FY 2015-16 and determination of revised ARR for Transmission business & SLDC and for fixation of transmission tariff & SLDC charges for the FY 2016-17 under Section 62 read with Section 64 (3) (a) and Section 64 (6) of the Electricity Act, 2003.

2.1.1 Public Proceedings

In accordance with the provisions of Section 64 (2) of the Electricity Act, 2003 HVPNL published its petition in abridged form to invite comments / objections from the stakeholders / general public. The Public Notice was issued by the HVPNL in The Tribune (English) dated 29.11.2015 and Dainik Tribune (Hindi) dated 28.11.2015 inviting objections/ suggestions/ comments from the stakeholders and general public. Additionally, the Commission also issued Public Notice in the Hindustan Times (English) and Dainik Jagran (Hindi) on 12.1.2016 inviting comments / objections from the stakeholders/general public. However, in response to the Public Notice(s) inviting objections/comments on the Petition filed by the HVPNL no objections/ comments were filed by any party including the Distribution Licensees in Haryana.

2.2 PUBLIC HEARING

The Commission proceeded to hold public hearing on the petition filed by HVPNL after intimating the date of public hearing in the newspapers. The date of public hearing was also posted on the website of the Commission under the heading 'Schedule of Hearing'.

The public hearing was held on 15.2.2016 in the Conference Hall of the Commission. The Petitioner made a presentation in the hearing and also responded to the queries of the Commission.

2.3 STATE ADVISORY COMMITTEE

The Commission, in order to have the benefit of the views of State Advisory Committee (SAC) members, convened a meeting of the State Advisory Committee, constituted under Section 87 of the Electricity Act, 2003, on 10.03.2016. No comments/suggestions specific to the Transmission ARR/Tariff and charges were offered by the SAC Members and they mostly confined their comments/suggestions to the Distribution ARR/Tariff.

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CHAPTER 3

COMMISSION'S ANALYSIS OF THE PETITION & ORDER ON TRANSMISSION CHARGES

3.1 ANNUAL PERFORMANCE (MID-YEAR) REVIEW

The Petitioner has submitted the performance of HVPNL for the first six months of the FY 2015-16 along with its half-yearly financial statements.

3.1.1 CAPITAL EXPENDITURE FOR THE FY 2015-16 AND FY 2016-17

The Petitioner has submitted that Capital expenditure is essential for meeting demand growth and upkeep of the network on sustainable basis and further submitted that HVPNL has incurred capital expenditure each year with a focus to improve its transmission system through addition of transmission capacity, augmentation, maintenance and strengthening to improve the existing system.

The Petitioner had submitted the following capital investment plan (CIP) relating to the transmission & SLDC business for the Control Period (FY 2014-17) in March 2014.

Abstract of works

Work	2013-14	2014-15	2015-16	2016-17
Sub station	4,058	7,092	7,531	7,495
Transmission Lines	2,398	4,297	1,849	320
Land	1,372	634	774	759
Information Technology	156	106	10	10
Miscellaneous	303	835	945	975
Total	8,287	12,964	11,110	9,559

The Commission, after due diligence, had approved the Capital Expenditure of Rs. 8337 million, Rs. 7744 million and Rs. 7182 million for the FY 2014-15, FY 2015-16 and FY 2016-17 respectively for the transmission business and Rs. 360 million & Rs. 446 million for FY 2014-15 and FY 2015-16 respectively for SLDC business of HVPNL.

3.1.2 REVISED CAPITAL INVESTMENT PLAN FOR CONTROL PERIOD FY 2014-17

The Petitioner had submitted its revised Capital Investment Plan for the Control Period from the FY 2014-15 to the FY 2016-17 on 30.12.2014 which was further revised after public hearing as under:-

Revised Capital Investment Plan Submitted by HVPNL				
Work	2013-14	2014-15	2015-16	2016-17
Sub station	4200	4547	10202	8210
Transmission Lines	2867	3673	3084	447
Land	1197	1007	941	779
Information Technology	156	106	10	10
Miscellaneous	303	360	780	915
Total	8722	9693	15017	10362
Revised after public hearing dated 12.02.2015	6379	7480	11058	9814

The Petitioner has submitted that for proper monitoring, administration and management the State transmission system has been divided into two zones, namely Hisar and Panchkula, which are further divided into of three circles each i.e. Hisar, Gurgaon, Faridabad under Hisar Zone and Panchkula, Karnal and Rohtak circles under Panchkula zone. There are 17 Divisions working under these circles.

The Planning Department of HVPNL receives inputs from field officers and the Distribution Companies on investment requirement for catering to the load growth on annual basis which forms the core of the capital expenditure plan. Accordingly the capacity addition requirements are incorporated in the capital expenditure Plan of HVPNL. The Transmission Licensee consistently monitors loading of transformers and transmission lines so as to promptly address any constraints. The load flow analysis is also being carried out to derive scientific evidences to strengthen capital investment plan.

The Petitioner has submitted that the capex plan includes the various transmission schemes in the identified areas of the respective Discoms and the estimates for each work for the FY 2014-15, FY 2015-16 and FY 2016-17.

It has been further submitted that the capital investments of HVPNL has been categorized in following areas-

- i) Investments in New Transmission Infrastructure to support the demand requirements or power evacuation from generation projects.

- ii) System augmentation and strengthening including renovation and modernization to maintain the performance of the existing system and to deter investments.

The Petitioner has submitted that the capital investment plan for the transmission business comprises of the following capital works:-

- i) Transmission lines
- ii) Sub- station
- iii) Information technology initiatives
- iv) Land & Right of Way expenses
- v) Miscellaneous works including civil works, procurement of thermo-vision cameras, testing equipment, contingency capital works.

The Petitioner has submitted that in order to address the requirement of consumers, they intend to revise the Capex Plan approved for the FY 2015-16 based on the latest available data from the field and system operations. The Petitioner has also submitted the details of Capex already incurred up to the first quarter of the FY 2015-16. The Petitioner has requested the Commission to review the Capex for the FY 2015-16 in the light of actual Capex incurred in first quarter of the FY 2015-16 and approve the revised Capex Plan for the FY 2015-16 and the FY 2016-17. The work wise expenditure for the Control Period from the FY 2014-15 to the FY 2016-17 proposed by HVPNL is as under: -

Works	FY 20 14-15	FY2015-16	FY 2015-16		FY 20 16-17	
	HERC Approved	HERC Approved	Actual to Q1	Up HVPNL Envisaged	HERC Approved	HVPNL Envisaged
Hisar Zone						
Sub Station	2747	4316	361	3517	2742	3990
Transmission lines	1548	986	121	803	1379	1856
Land	302	473	0	385	67	90
Panchkula Zone						
Sub Station	1814	2000	130	1630	1737	2338
Transmission lines	1215	1140	217	929	796	1071
Land	106	206	0	168	5	6
Information Technology	68	170	12	139	30	41
Misc. work	536.98	514	0	419	427	574
Total	8336.98	9805	841	7990	7182	9966

The Petitioner has submitted that while formulating the revised Capex Plan they have focused on catering to the increasing demand in the State and its commitment to supply quality and reliable power to the consumers by strengthening of the existing transmission system. New sub-stations along with the requisite lines have been planned, while older, inefficient equipment at the existing sub-stations have been

considered for replacement with modern and efficient equipments. New transmission lines are planned for power evacuation, meeting the load growth / demand; accordingly the existing lines will be strengthened and renovated.

The Petitioner has further submitted that Capex planning has been meticulously done to ensure effective modernization of the system through IT implementation and to mitigate problems and delays due to acquisition of land and right of way issues.

The Capex Plan also includes the envisaged expenditure for land acquisition and ROW settlements and other miscellaneous works including civil works, procurement of testing, T&P equipments and Thermo-vision Cameras for hot spot detection.

3.1.3 FUNDING SOURCES

The Petitioner has submitted the revised statement of loans negotiated with the financing institutions for funding for the capital works as under:-

Financial Institution	2015-16 (Revised)	2016-17 (Revised)
ASIDE	0	0
NABARD	138	204
PFC	381	73
REC	1814	3080
World Bank	2880	1938
JICA	866	160
Total	6080	5455
Loan Pending Approval		
NABARD (PROPOSED)	167	214
REC (PROPOSED)	79	257
Total	246	471
Expenditure against which loans are yet to be sanctioned		
Expenditure	1112	3640
Loans not Tied up		
Expenditure	553	96
Total	7991	9662
Renovation of Shakti Bhawan		
Expenditure	5	3
Grand Total	7996	9665

It has been submitted that the main sources of Capex loans are the World Bank and the Japan International Cooperation Agency (JICA). The works are being funded by domestic Financial Institutions i.e. Power Finance Corporation (PFC), Rural Electrification Corporation (REC), and National Bank for Agricultural and Rural Development (NABARD).

It has been further added that for Capex schemes have been proposed to the Financial Institutions for funding, the approval for the requisite loans is awaited. Further, a few Capex schemes have been approved by the competent authority of HVPNL and the same are in the process of being proposed to the lending Institutions for tie-up of loans. Additionally, quite a few Capex schemes have also been undertaken from the grants and deposits provided by the HSIIDC; therefore, no investment is being made by HVPNL for such projects. The following table presents the debt equity details as provided by the Petitioner:-

Capital Structure of Capex (Rs. Millions)

Particulars	FY 15-16	FY 16-17
Total Capex (Excluding IDC)	7,991.00	9,665.00
Equity	1,969.21	2,109.39
Loans Total	6,022.04	7,555.62
Loan Break up		
ASIDE	0.00	--
NABARD	103.65	152.89
PFC	323.87	61.63
REC	1,542.24	2,618.25
World Bank	2,160.28	1,453.50
Yet to be posed	833.69	2,730.21
NABARD (POSED)	125.03	160.50
REC (POSED)	67.45	218.69
JICA	865.83	159.96

Table 3.1 Capital expenditure projected by HVPNL, approved by HERC & actual (Rs. millions)

FY	Projected by HVPNL	Approved by HERC	Actual Expenditure	% of actual w.r.t. projected expenditure	% of actual w.r.t. approved expenditure
2008-09	9613.90	6601.41	6704.40	69.73	101.56
2009-10	24009.75	19000	10818.80	45.06	56.94
2010-11	23605.60	17000	10927.00	46.29	63.64
2011-12	14057.51/ 9172 rev.	10158	7061.90	50.23	69.52
2012-13	9261.68/ 9100.89 rev	6878	6202.1	68.14	90.17
2013-14	11274.48 11810.88 rev.	7368	8722 6379 (rev.)	54%	86.57%
2014-15	12963 (9694 as per APR) 30.12.2014 7480 (rev.) 12.02.2015	8337	6296.83	48.57%	75.53%
2015-16	11110 (15017 as per APR) 30.12.2014 11058 rev. 12.02.2015 7991 envisaged	7744 9805 rev. 31.03.2015			

	26.11.2015				
2016-17	9558 (10362 as per APR) 9814 (rev.) 12.02.2015 9665 envisaged 26.11.2015	7182 rev. approved 31.03.2015			

The Commission has perused the submissions of HVPNL and observes that in the FY 2014-15 they have incurred Capex of Rs.6296.83 millions as against Rs. 8337 million approved by the Commission. Hence, the Licensee, in the FY 2014-15, could achieve only about 48.57% of its projected capital expenditure and 75.53% of the approved capital expenditure by the Commission. Regarding the significant under achievement in the FY 2014-15 HVPNL has not provided any reasons. It is further observed that the Petitioner has prayed the Commission to revise its Capex for the FY 2015-16 from Rs.9805 millions approved by the Commission vide its Order dated 31.03.2015 to Rs. 7991 million as they could spent only about Rs.841 millions on capital works during the first quarter of the FY 2015-16 and is expecting to incur Rs. 9665 millions of capital expenditure in the FY 2016-17 against HERC approved Capex of Rs. 7182 million.

The Commission observes that HVPNL has been unable to undertake capital investment during the FY 2014-15 and the FY 2015-16 as per the amount approved by the Commission. The Licensee in its Petition filed on 30.12.2014 for true-up of the FY 2013-14, APR 2014-15 and revised ARR for 2015-16 has further revised its projected capital expenditure as on 12.02.2015 for the FY 2015-16 from earlier project Rs. 15017 million to Rs. 11058 million and for the FY 2016-17 from Rs. 10,362 million to Rs. 9814 million. **The frequent downward changes in the proposed Capex Plan speak volumes about the planning process/methodology followed by HVPNL despite their claims of being meticulous. It appears that either the Licensee is unable to assess its Capex requirements based on technical requirements of the transmission system keeping in view the load growth, existing system constraints as well as the need to rein in Intra-State transmission losses or its ability to execute the Capex posed by them and the lower amount approved by the Commission. HVPNL is advised to gear-up its planning cell, conduct load-flow studies at regular intervals and in discussions with the Discoms formulate**

Capex plans that can be realistically achieved. The benefits of the Capex must be visible to the electricity consumers of Haryana.

The Commission, after considering the past performance of the HVPNL, had approved Capex for the FY 2015-16 as Rs. 9805 million and for FY 2016-17 had pegged the same at Rs.7182 million. However, the Licensee has now again requested to revise the Capex for the 2015-16 as Rs.7991 million and for FY 2016-17 at Rs. 9665 million.

The Commission observes that Licensee expects that an expenditure of about Rs. 1800 million will spill over from the FY 2015-16 to the FY 2016-17 without analyzing and providing the reasons leading to their failure in making the requisite capital investment in to the transmission business to ensure better quality as well as quantum of power to the electricity consumers.

The Commission had approved capital expenditure of Rs. 8337 million for the FY 2014-15 and Rs. 7744 million for FY 2015-16 and Rs. 7182 million for FY 2016-17 against the projected Capex by the Petition of Rs. 12,963 million for the FY 2014-15, Rs.11110 million for the FY 2015-16 and 9558 million for FY 2016-17 respectively after prudence check and had curtailed the Capex projected by the Petitioner in view of its past performance and execution capability in its Order dated 29th May, 2014 on the ARR for the Control Period FY 2014-17 under the MYT requirement of the HVPNL transmission business.

In the revised capital investment plan submitted by the Petitioner in its true-up application for the FY 2013-14 and APR for the FY 2014-15 dated 30.12.2014 it was observed that the Petitioner had projected the capital expenditure of Rs.9694 million for FY 2014-15, Rs.15017 million for FY 2015-16 and Rs.10362 million for FY 2016-17 respectively which was further revised on 12.02.2015 as Rs. 7480 million for the FY 2014-15, Rs. 11058 million for FY 2015-16 and Rs. 9814 million for FY 2016-17.

The Commission, however, did not alter the expenditure of Rs. 8337 million approved for the 2014-15 on the ground that the same shall be taken care at the time of true-up in the Order for the FY 2016-17 and allowed Capex of Rs. 9805 million for the FY 2015-16 and Rs. 7182 million for the year FY 2016-17.

Now from the statement of funding provided by the HVPNL for capital investment in the FY 2015-16 and the FY 2016-17, it is observed that during the FY 2015-16 an expenditure of Rs.1112 million is shown for the works for which loans are yet to be sanctioned and the loan amounting to Rs. 246 million for the works pending for approval. The Commission is unable to comprehend as to how the Licensee expects to incur the expenditure of capital nature without tie-up of the requisite funds from the financial institutions at a stage when the financial year is almost on the verge of its close.

Similarly, the for the FY 2016-17, the proposed expenditure against the works which are yet to be sanctioned has been shown as Rs.3,640 million. It is pertinent to mention that as per the past performance of HVPNL the expenditure for the works where the loan are yet to be sanctioned by the financial institutions could not be more than 20% to 25% in the first year and 50% to 60% in the second year of their commencement.

It is further observed that in the revised capital expenditure plan a large number of works which were targeted to be completed in the FY 2014-15 have spilled over to the next financial year. Also, there are quite a few capital works which were commissioned in the past but are still appearing in the capital expenditure plan despite the fact that these works have been completed and are in operation since last more than one year. **The Commission directs HVPNL to review all such works at the highest level and classify them appropriately by taking decisions in the pending disputes/difference related to these works, if any.**

The Commission observes that HVPNL has not provided the cost-benefit analysis and the envisaged reduction in O&M cost /losses in line with the provision of the Regulation 9.1(f) and 9.1(g) of the MYT Regulations, 2012. This is despite the fact that the Licensee at the time of filing of the application for ARR of transmission and SLDC business for the Control Period from the FY 2014-15 to the FY 2016-17 had committed that the same shall be provided after approval of ARR for the FY 2014-15 with reference to peak met.

The Commission has observed that the Licensee was able to incur only about 50.23% and 68.14% of the projected capital expenditure in the FY 2011-12 and the

FY 2012-13 respectively and has incurred Rs.6379 million as capital expenditure in the FY 2013-14 against its projected expenditure of Rs.11810 million which is 54%. The Petitioner had also submitted in the hearing held on 12th February, 2015 that they might not achieve the targeted/approved Capex during the FY 2014-15 due to spillage of certain capital works to the next financial year and had also revised its Capex for the FY 2014-15 as Rs.7480 million which appeared to be justified given the position obtaining at that point of time.

In view of above, it was felt that during the FY 2015-16 HVPNL may incur capital expenditure of about 65% of its projected Capex of Rs.15086 million i.e. Rs.9805 million. The commission did not alter the earlier approved capital expenditure of Rs.8337 million for the FY 2014-15 and had allowed the capital expenditure Rs.9805 million and Rs.7182 million for the FY 2015-16 and the FY 2016-17 respectively for transmission and Rs.360 million and Rs.446 million for SLDC for the FY 2014-15 and the FY 2015-16 respectively vide its Order dated 31.03.2015.

The Petitioner, in its true-up Petition dated 26.11.2015 for the FY 2014-15 and the APR of the FY 2015-16 and revised ARR for the FY 2016-17, has submitted that against the approved capital expenditure of Rs.9805 million for the FY 2015-16 the Licensee had incurred Capex of Rs.841 million during the first quarter and is likely to incur Capex of Rs.7991 million during the FY 2015-16. It has been further submitted that during the FY 2016-17 the envisaged capital expenditure is Rs.9965 million against Rs. 7182 million approved by the Commission and has prayed for the approval of the same.

The Commission observes that vide its Order dated 29.05.2014, it had initially approved the Capex for Transmission Business for the FY 2014-15, FY 2015-16 & FY2016-17 as Rs.8337 million, Rs.7744 million and Rs.7182 million respectively. However, HVPNL requested the Commission to revise the Capex for the FY 2014-15 to Rs.7480 million, for FY 2015-16 to Rs.11058 million & Rs.9814 million for the FY 2016-17 in the hearing held on 12.02.2015 on the petition for true-up of FY 2013-14 and APR for 2014-15. The Commission, vide its order dated 31.03.2015, did not change the earlier approved. Capex of Rs. 8337 million for the FY 2014-15 and Rs.7182 million for the FY 2016-17 and revised the Capex for the 2015-16 to Rs. 9805 million against the projection of Rs.11058 million by the Licensee.

It is observed that the Petitioner has incurred Rs. 6298.30 million on capital works against the approval of Rs.8337 million during the FY 2014-15. For FY 2015-16, the Capex was revised from Rs.7744 million to Rs.9805 million on the request of the Petitioner vide Order dated 31.03.2015 but now again they have requested to revise the same to Rs.7991 million. HVPNL was asked to provide the list of works where the capital expenditure has not been made as per the approval of the Commission and the expenditure incurred on the works other than those approved by the Commission in the FY 2014-15. A perusal of the reply submitted by HVPNL reveals that there are 20 works relating to the augmentation of the HVPNL sub-stations wherein the capital expenditure approved by the Commission for the FY 2014-15 was Rs. 2670 lacs against which the expenditure of Rs. 1640 lacs has been incurred by the Nigam during the period. Similarly, there are 14 works relating to the transmission line amounting to Rs. 9469 lacs on which an expenditure of Rs. 2964 lacs has been incurred. It is further observed that out of the 34 capital works, against approved expenditure of 1214 million the Licensee was able to incur only Rs.460 million and has attributed the lower Capex incurred due to Right Of Way problems in the erection of lines and certain other contractual issues.

It appears that the Petitioner has virtually no control over implementation of its Capital works/projects or schemes. It has been seen that the Petitioner has been repeatedly seeking revision in its projected Capex due to one reason or the other. It shows that HVPNL has failed to establish proper and effective mechanism for planning and implementation of capital works/schemes and project monitoring thereto. It is needless to mention that the projects specially the transmission works including sub-stations and Lines that are required to cater the electricity requirement of DISCOMs if delayed, the ultimate consumers suffers.

The past trend indicates that HVPNL needs to improve its capability to execute the Capital works efficiently so that its investments fructify in a timely manner and the end consumer is served properly. **HVPNL is directed to analyze and take immediate corrective steps to improve its management of implementation of capital works/schemes covered under the approved capital investment plan, so that the benefit of the Capex flows to this electricity Consumers timely and the cost overrun is avoided.**

In view of the above discussions the Commission does not find it appropriate to further revise the Capex for the FY 2015-16 and the FY 2016-17 at this point of time and shall review the same at the end of the Control Period (FY 2014-17) in line with the MYT Regulations.

3.2 PERFORMANCE OF TRANSMISSION SYSTEM

3.2.1 INTRA-STATE TRANSMISSION LOSSES

Regulation 45.4 of the MYT Regulations, 2012 provides that; (a) The Commission may specify the trajectory for intra-state transmission losses based on the approved capital investment plan in the MYT order; (b) The losses shall be borne by the beneficiaries in kind. The SLDC shall reduce the demand scheduled by the beneficiaries during each time block by the 12 months rolling transmission losses (the said period will be the 12 months period preceding the relevant month by 3 months). The SLDC shall post the rolling 12 months losses regularly on its website. The SLDC, however, shall develop necessary software for working out rolling 52 week losses and reduce the scheduled demand accordingly thereafter. (c) If the actual annual transmission losses (%) exceed the benchmark value (%) approved by the Commission, the Licensee(s) shall be penalized.

In accordance with the above Regulations, the Commission had fixed the intra-State transmission losses for FY 2013-14 at 2.5% with the road map for reduction of these losses further at the rate of 0.1% p.a. If the actual transmission losses (%) exceed the benchmarked 2.5% the Licensee shall be penalized as per the Regulation in vogue.

The plans for reducing losses, together with relevant load flow studies and details of the investment required to achieve the planned reductions should be presented and shall be substantiated by relevant analysis as to achievability and the cost.

It has been submitted that during 11th Five Year Plan (2007-12) capital expenditure of Rs.4111.7 crore. has been incurred by the HVPNL for the system strengthening, hence the average transmission losses are on decrease as indicated below:-

Table 3.2 Transmission losses

Period	Target fixed by HERC in %	Intra-state Transmission Losses (%)	Energy Handled in LU
2007-08	2.6	2.44	
2008-09	2.1	2.57	28431
2009-10	2.1	2.68	31274
2010-11	2.1	2.63	34402
2011-12	2.1	2.76	363631
2012-13	2.5	2.494	380431
2013-14	2.5	2.737	428485
2014-15	2.5	2.615	464758
2015-16	2.48	2.779*	
2016-17	2.46		

** based on provisional energy account of October 2015*

Table 3.3 The month wise transmission losses of HVPNL transmission system

Month	2014-15			2015-16		
	Total Drawl by Discom in LU	Intra State Transmission Losses in LU	Intra State Transmission losses in %	Total Drawl by Discom in LU	Intra State Transmission losses in LU	Intra State Transmission losses in %
April	29347.39	753.044	2.502	29505.73	762.025	2.518
May	36413.76	995.828	2.662	40283.23	1092.836	2.641
June	43192.67	1430.555	3.206	42960.90	1287.638	2.910
July	52041.93	1376.320	2.576	48324.26	1822.059	3.633
Aug	53446.94	1323.983	2.417	49430.89	1270.708	2.506
Sept	42336.04	1199.713	2.756	47875.15	1249.617	2.544*
Oct	37834.55	768.540	1.901	40364.15	1054.957	2.547*
Nov	31132.18	830.015	2.597	30755.59	930.790	2.938*
Dec	33931.71	1035.334	2.961	35317.30	1144.410	3.139*
Jan	33747.32	932.842	2.690			
Feb	30904.93	872.224	2.745			
March	28274.81	635.922	2.200			

** based on provisional account.*

The Petitioner has submitted that they have not been able to achieve the transmission losses as per the target fixed as 2.5%, as well as reduce losses further, in spite of the increase in energy handled and investment made. HVPNL has submitted that the Commission in the past had been restricting the transmission losses and is not allowing the actual losses though, the loss level achieved by the HVPNL is very much comparable with other Power Utilities in States like A.P, Karnataka, M.P, Gujarat, Chattisgarh. The details are as under:-

State	Year	Transmission Losses	State	Year	Transmission Losses
Andhra Pradesh	2014-15	3.37%	Chhattisgarh	2013-14	4.30%
Rajasthan	2014-15	4.23% (provisional)	Madhya Pradesh	2014-15	2.82%
Karnataka	2013-14	3.94%	Gujarat	2014-15	3.76%

UP	2013-14	3.67%			
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The Petitioner has submitted that the losses of DTL and Power Transmission Corporation of Uttaranchal which are in the range of 0.96% and less than 2% respectively, cannot be compared with HVPNL due to significant difference in the infrastructure, w.r.t. installed capacity and energy handled.

It has been submitted that the losses in HVPNL system is less than 3%. HVPNL system comprises of 440 kV, 220 kV and 132 kV transmission lines as well as the sub-stations. The percentage losses increases with increase in line length and the no. of transformers, also the percentage losses are higher at lower voltage levels. HVPNL has submitted that best efforts are being made to achieve low Transmission Loss level.

It has been further submitted that the State transmission losses are purely technical losses and are due to energy dissipated in the conductors and equipment used for transmission, transformation, sub-transmission. These technical losses are inherent in a system and cannot be reduced beyond an optimum level. The losses can be further sub grouped depending upon the stage of power transformation and transmission system as Transmission losses (400kV/220kV/132kV/66kV).

The Inter-State transmission losses over a given transmission system keep varying over time depending upon power flows, voltage profile, reactive flows, pattern of energy use, load demand, load density and capability & configuration of transmission system etc. The transmission system owner has little control over these, except that outage of transmission element increases, power flow on parallel path which affects losses. The Central Electricity Regulatory Commission is also of the similar view and has categorically indicated in the proposed approach for sharing of charges and losses in inter-State transmission system that transmission losses is the phenomenon of physics and are unavoidable.

Also according, to a study carried out by Electric Power Research Institute (EPRI) of the USA some time back, (referred in 17th Power Survey report of CEA) the losses in various elements of the Transmission system usually are of the order as indicated below:-

System element	Power Losses (%)	
	Minimum	Maximum
Step up transformers & EHV transmission system	0.5	1.0
Transformation to intermediate voltage level, transmission system & step down to sub- transmission voltage level	1.5	3.0
Sub transmission system & step down to distribution voltage level	2.0	4.5

It has been further submitted that the Nigam's Board of Directors (BOD) is also monitoring the Transmission Losses and memorandum is being put up in every BOD meeting.

The petitioner has stated that the system has handled the energy of the order of 464758 LU during the year 2014-15 as compared to the 428485 LU in the year 2013-14.

The transmission loss in HVPNL is 2.615% for the FY 2014-15. The losses from April to October, 2015 are 2.779%. HERC has fixed the target for Transmission Loss as 2.48% for the FY 2015-16 for HVPNL which is subject to penalty.

The Petitioner has submitted that the transmission losses are purely technical losses, and the only measure in the hands of the Petitioner is to invest in augmentation of transmission network, to the extent allowed by the Cost Benefit Analysis. The Capital Investment Plan for the period FY 2014-17 required an investment as per CWIP submitted to accommodate additional power expected to be handled in the Intra-State Transmission System, and keep losses at present loss level. The target of Transmission Losses prescribed for the Control Period is too ambitious, and are much lower than the targets fixed in other similar States.

Haryana is particularly a State where loads are catered by small transmission lines but large no. of interface points and sub-stations to cater the load and maintain voltage profile as per Norms. In order to achieve further appreciable reduction in losses, the Petitioner is required to invest huge additional capital, which may not fulfill the criteria of Cost Benefit Analysis and required lenders and long time to get the additional Plan completed, which does not appear practical. The Petitioner is of the view that the Transmission Losses varies with the load and Generation from different sources, which is not in control of the Transmission Licensee beyond certain level.

In view of the above, it has been requested that the Commission may allow the actual Transmission losses in view of above prayer.

It has been observed that the intra-State transmission losses have increased from 2.5% in the FY 2009 to 2.68% in the FY 2010 and further increased to 2.76% in the FY 2012. In the FY 2013, though it has registered reduction to 2.5% but again these losses have increased to 2.615 in the FY 2015. The intra-State transmission losses during the 2015-16 (ending Oct. 2015) has been 2.779% against target of 2.48% approved by the Commission in its Order dated 30.03.2015 on the Petition for the true-up of the FY 2013-14, APR of the FY 2014-15 and revised ARR for the FY 2015-16.

It has been indicated that during the FY 2014-15, 5 new sub-stations have been constructed, 72 existing sub-station augmented and 203.472 Km. of transmission lines have been added with an investment of Rs.384.2 crore. as a result of which the transformation capacity has increased by 1870 MVA. In addition 5 new sub-stations have been added, 29 existing sub-stations augmented and 155 Kms lines have been added till October, 2015 thereby adding 841 MVA capacity in the system with an investment of Rs.211.95 crore.

Commission further observed that the Licensee was directed that the SLDC shall post the rolling 12 month losses regularly on its website and shall develop necessary software for working out rolling 52 weeks losses and reduce the schedule demand accordingly thereafter in compliance of the Regulation 45.4 of the MYT Regulations, 2012. However, the same has not been complied with in true spirit.

The Commission in its Order dated 29th May, 2014 had directed HVPN to study the variation in the transmission losses for the months during the year where there is sharp rise in comparison to the losses of the corresponding months, of the previous years and find out the reasons for such variations so that the remedial action could be taken. There is a need to investigate the causes for such variations as the transmission system is a static system the only thing which is dynamic in nature is the load flows over a particular system wherein all these parameters are known. This needs to be examined on monthly basis in each circle to pinpoint the part of the system to be augmented. It was further directed that the SEMs readings should also be compared with their check meters readings and the officers sending the data to the HVPN energy centre should certify the readings / consumptions for their correctness and in case there is any variation more than 0.5%, the prompt action should be taken to get the meters tested for accuracy/replacement thereof.

The Commission had again directed the Licensee vide its Order dated 31st March, 2015 to examine the variation in the transmission losses and its increasing trends despite a considerable investment in the strengthening and up-gradation of its transmission system. The report was to be submitted within 45 days of the Order.

The HVPNL has supplied information in respect of overloaded/fully loaded transmission lines in its system which is as under:-

Sr. No.	Name of Circles	Fully Loaded /overloaded lines
1	TS Circle Panchkula	4
2	TS Circle Karnal	6
3	TS Circle Rohtak	7
4	TS Circle Gurgaon	8
5	TS Circle Faridabad	11
6	TS Circle Hisar	2

It has been observed that there are significant number of transmission lines which are running on full load or in some of the cases in overloaded condition which result in to the increased number of tripping and the higher line losses. The Licensee needs to pay special attention on these lines to take immediate steps for appropriate loading of these lines.

The HVPNL has submitted the report of load balancing in 8 sub stations under Palwal Division in TS Circle, Faridabad. However, such action is also required to be taken in all the Circles of HVPNL and report to this effect be submitted to the Commission within 45 days of the Order.

It has been further observed that in some of the sub-station of HVPNL the parallel operation of power transformers is not feasible (for instance 220 KV sub-station at Palla and Palwal) due to non-availability of bus couplers. Licensee is directed to check up the position in all other TS divisions and to arrange the requisite material and put such transformers in parallel operation in its transmission system within six months to avoid losses due to overloading of transmission elements and inconvenience to the consumers due to loaded shading etc.

The Commission does not agree to the contention of the Licensee that in order to achieve further reduction in the losses, the Petitioner is required to invest huge additional capital which may not fulfill the criteria of cost benefit analysis. It is observed that regular investment is being made on development of adequate transmission

system and its strengthening etc. as per the requirement envisaged. **The system or part of the system prone to higher losses must be identified and rectified for its un-gradation and proper loading. The focus should be to cater to the growing requirement of electricity qualitatively and to ensure that the transmission losses remain within the limits prescribed by the Commission.**

The Commission observes that the power transformers and the lines working with very low loading conditions do not justify the capital investments made by the Licensee. Despite the fact that these works have been commissioned since long but the capacity so created by the Licensee is not being utilized optimally, may be the system down the level has not been created at the distribution end to service their load.

The Commission directs the Licensee to identity and pay special attention on such assets and ensure that the loads are connected on these sub-stations without any further loss of time and to ensure that the transmission and the distribution system are developed in perfect coordination so that the investment made on such works are optimally utilized. The Commission does not appreciate the fact that no proper attention is given on the issue by the Licensee. HVPN should have demonstrated its effort to take specific steps for curtailing these losses.

The Commission cannot allow the transmission loss as per actual as requested by the Licensee as it has not been able to show any special efforts made in respect of reduction of the transmission losses. Thus, the target fixed by the Commission in its Order needs to be adhered.

3.2.2 TRANSMISSION SYSTEM AVAILABILITY

As per MYT Regulations, 2012 the Normative Annual Transmission System Availability Factor is given as under:-

Norms	MYT Period			
	2013-2014 (%)	2014-2015 (%)	2015-2016 (%)	2016-2017 (%)
AC System	98.5	98.8	99	99.2

The above mentioned target availability is subject to an incentive and penalty mechanism once the conditions specified in Regulation 12 are satisfied.

It has been submitted that HVPN has adopted the methodology for calculating the Transmission System Availability (Certified Deemed Availability) on the basis of CERC Regulations dated 19.01.2009 with effect from October 2009.

The transmission system availability of HVPN is given as under:-

Availability in %	
Cumulative for the year 2010-11	99.59
Cumulative for the year 2011-12	99.56
Cumulative for the year 2012-13	99.67
Cumulative for the year 2013-14	99.69
Cumulative for the year 2014-15	99.12
Cumulative for the year 2015-16 (end Aug. 2015)	98.33

The Commission in its Order dated 29.05.2014 on the ARR for the MYT Control Period filed by the HVPN, had fixed the targets for normative annual transmission system availability as 98.8%, 99% 99.2% for the FY 2014-15, FY 2015-16 and FY 2016-17 respectively. It is further observed that the transmission system availability is showing declining trend despite continuous infusion of capital for strengthening of transmission system as well. **HVPNL needs to analyze the reasons behind the recent decline in the Transmission System availability and submit a report to the Commission within 45 days. The Licensee is further directed to provide the month-wise number of tripping and break downs at various voltage levels in the system for the FY 2013-14, FY 2014-15 and FY 2015-16 with detailed analysis report giving the reasons for such break downs in the transmission system leading to decline in the transmission system availability within 45 days.**

3.2.3 FAILURE OF POWER TRANSFORMERS

The Commission in its Order dated 29th May, 2014 for ARR and tariff proposal of HVPNL transmission business, had advised to strictly enforce the preventive maintenance schedules, ensure healthiness of the protection system, prevent over loading of the transformers and implement the findings of the enquiry reports of the Maintenance and Protection wing of the HVPNL to aim for zero damage rate for Power Transformers.

The HVPNL has provided the status of damage of power transformers in the FY 2014-15 and FY 2015-16 as under:-

Sr. No.	Period	Total no. of Power Transformers	No. of Transformers damaged	
			Nos.	% age
1	2014-15	1085	27	2.72
2.	2015-16 (Oct, 2015)	1106	24	2.36

It has been observed that the damage rate of power transformer continues to be high which should not be more than one percent of its population as compared to the best performing utilities. During FY 2014-15, out of 1085 nos. Power Transformers in HVPN system 27 nos. transformers have damaged and out of 1106 nos. Power Transformers installed in HVPN 24 nos. Power Transformers have failed till 31st October, 2015 which is a matter of concern.

The Licensee has supplied the voltage-wise damage of power transformers vis-à-vis the population of power transformers from 01.04.2015 to 31.10.2015, which is as under:-

Sr. No.	Voltage rating	Total no. of transformer 2015-16	Transformer Damage	% of damage
1	400 kV	13	1	7.69
2	220 kV	147	1	0.68
3	132 kV	532	16	3.1
4	66 kV	305	6	1.97

The HVPN has provided data in respect of circle-wise, voltage-wise power transformer damage.

Table 3.4 Circle-wise Transformer damage

Name of circle	Voltage	FY 2013-14			FY 2014-15			2015-16		
		No. of T/F	T/F Damage	%	No. of T/F	T/F Damage	%	No. of T/F	T/F Damage	%
Panchkula	220 KV	17	0	0	17	0	0	17	0	0
	132 KV	4	0	0	4	0	0	4	0	0
	66 KV	125	0	0	128	3	2.4	140	4	2.86
	33 KV	1	0	0	2	0	0	1	0	0
Karnal	220 KV	34	1	2.9	35	2	5.71	25	0	0
	132 KV	209	2	0.95	214	7	3.27	160	4	2.50
Rohtak	220 KV	18	1	5.5	18	0	0	21	0	0
	132 KV	88	9	10.22	91	2	2.19	117	3	2.56
Faridabad	400 KV	1	0	0	2	0	0	2	1	50
	220 KV	12	0	0	14	1	7	14	0	0
	66 KV	87	1	1.15	92	3	3.30	96	2	2.08
Gurgaon	400 KV	6	0	0	6	0	0	6	0	0
	220 KV	31	0	0	31	1	3.23	32	0	0
	132 KV	51	2	3.9	51	0	0	52	1	1.96
	66 KV	80	1	1.3	81	2	2.5	85	1	1.18
Hisar	400 KV	5	0	0	5	0	0	5	0	0
	220 KV	29	0	0	32	0	0	40	0	0
	132 KV	145	2	1.8	194	4	2.05	199	9	4.3
	33 KV	12	1	8.33	12	0	0	16	0	0

It is observed that there has been not much improvement in the reduction of damage rate of the power transformers in the HVPN. The damage rate continues to remain high.

The HVPN was asked to provide the number of sick power transformers in the system along with rating, age and location and action plan for replacement but the same has not been provided. It was further directed to monitor the above work at the senior level for timely replacement of the sick powers transformers and submit report quarterly but no report has been received in this regard.

The Licensee was directed to submit a report with regard to investigation into the causes of damage of power transformers and action taken thereof to avoid recurrence of such damage in future.

The Commission observed from the information supplied with reference to the damaged transformers by HVPN that 10/16 MVA, 132/11 KV transformer damaged at Julana Sub-station on 02.11.2015 had experienced 19117 trippings and 2239 break downs in last 12 years which shows that no serious importance is given by the field officers to improve upon such conditions which are leading to damage of power transformer.

The Commission noted that, no serious efforts are being made on this account. **The Licensee is again directed to get the detailed analysis done for the damage of its power transformers in the FY 2015-16 and take all remedial steps to save the power transformers from further damage. It is further added that the information w.r.t. to the nos. of sick power transformers location and capacity wise with action plan to replace such sick power transformers in a given timeframe be provided to the Commission within 45 days.**

3.2.4 PROVISION OF POLYMER INSULATORS

In order to avoid the problem of tripping of power transmission lines due to dense foggy conditions in winter season, HVPN was advised to provide anti fog/polymer insulators in the transmission network. The Licensee has informed as per compliance of directives vide its letter dated 21.07.2015 that 91% work under phase -I and, 84% work under phase II, for replacement of porcelain insulators by Anti-Fog insulators, has been completed except 220 KV D/C PTPS-Rohtak line, Hisar PGCIL-Fatehabad line and

220KV Badshahpur- Bhiwadi-Rewari line which is pending for want of material. HVPN was required to supply the status position of the work and ensure that this work is completed by 31.12.2015 positively and also to report the compliance to the Commission.

The HVPN has submitted that the work of replacement of insulators is in progress and will be completed as soon as the material is available. However, the supply of above material has been delayed due to dispute in procurement as a purchase order no. HDP-2035/QPD-959/XEN/MM dated 21.11.2014 was issued to M/s G.K XIANGHE Electricals Pvt. for the supply of 220KV, 120KN Composite Polymer long rod string insulator & 220 KV, 90 KN Composite Polymer long rod string Insulator. The material supplied by the Firm, M/s G.K. XIANGHE Electricals Pvt., is under dispute.

The Commission feels that such disputes of the suppliers must be resolved on priority where the material required for security and safety of the system is required urgently or alternatively the material may be arranged from the other alternative sources. **HVPN is directed to send the status report within 90 days of its Order.**

3.2.5 SAFETY STANDARDS

The Commission in its Order dated 29.05.2014 on the petition for APR of Transmission business of HVPN for the FY 2014-15 had directed the Licensee to ensure development of Safety Manual as per the provisions of CEA Regulations by 30th June 2014 and circulate the same within one month thereafter positively. It was further directed that the staff may be provided adequate training and sensitized for use of safety equipment and to take necessary safety precautions while working on electric lines and equipments to safeguard the precious human life and the costly equipments.

Table below provides the data in respect of fatal / non-fatal accidents occurred in HVPNL during the last 6 years.

Table no 3.5 Fatal/Non-Fatal Accidents

Sr. No.	Period	Human Beings	
		Fatal	Non fatal
1	2010-11	1	3
2	2011-12	2	5
3	2012-13	2	11
4	2013-14	3	4
5	2014-15	0	4
6	2015-16 (end Spt. 2015)	0	6

It has been observed that though, the Licensee has submitted that all possible safety measures are being taken to avoid the accidents, six non-fatal accidents have occurred to human beings till September, 2015 in the FY 2015-16.

The Licensee was directed to provide the details of safety workshops organized in the field to increase awareness about Safety Regulations and safety measures to be taken while working on electrical equipments and lines. It was further directed that the copy of literature on Safety Regulations and safety measures prepared and circulated by the Licensee among its officers and staff be also provided to the Commission.

HVPN has submitted that to avoid the occurrence of Fatal/Non-Fatal accidents, Nigam is taking all precautionary/ safety measures while working on electrical equipment and lines. Field offices are organizing safety workshops and have provided safety kits to the staff. Awareness amongst the employees working at the transmission lines and sub-stations is also being imparted by organizing training programmes and safety workshops regularly in the field. Such type of safety workshops have been organized at no. of substations, namely 220 kV Bastara, 222kV Salempur, 220kV Tepla, 220kV Durals, 220kV Madanpur, 220kV Badshahpur, 220kV Daultabad, Sec-52, Gurgaon, 220kV Palla etc. Copy of safety manual issued during the year 2005 to HVPNL field offices has been supplied. The revision/ updation of this safety manual as per the provision of CEA Regulations, 2010 and various Statutory Acts is under process. It has been further informed that to revise/update the safety instructions of the Nigam, a committee has been constituted and the updation of the same is likely to be finalized by 15.10.2015.

The Licensee is directed to investigate the causes of these accidents and circulate these cases in the field advising the appropriate preventive actions to avoid recurrence of such incidents in future. Further, the status of revision/updation of safety instructions is to be intimated to the Commission within 45 days of the order.

3.2.6 INSTALLATION OF CAPACITOR BANKS

The Licensee is required to comply with the provisions of the Regulations 4.10 and 5.5 (a) of the Haryana Grid Code in order to improve the reactive power management of the transmission and distribution system.

The Petitioner has submitted that it has already installed 3885.52 MVAR Capacitors (as on 30.09.2015) on 220kV, 132 kV, and 66 kV network to improve the power factor in the HVPN System. Further, an addition of 785.87 MVAR Capacitors is planned to be made during 2015-16. During the current FY 2015-16, HT Capacitors banks of 37.08 MVAR Capacity have been added in the Transmission system up to September, 2015. There are 364.02 MVAR defective Capacitor Units as on 30.09.2015 which are to be revived/replaced. It has been further added that the system power factor is mainly driven by the power factor of the load and is affected primarily by the consumers of the Distribution and Retail Supply Licensees. The Capacitors installed in the transmission and distribution system is as under:-

Table 3.6 Installed Capacitor Banks in HVPN System

Sr. No.	Name of Circle	Total Capacitors installed as on 31.03.2015 (MVARs)	Total Capacitors installed as on 30.09.2015 (MVARs)
1.	TS Zone, Panchkula	2084.427	2122.227
2.	TS Zone, Hisar	1763.294	1763.294
Total of HVPNL		3847.721	3885.521

The Licensee was advised to carry out surprise checks by Senior Officers to ensure that the instructions for proper operation of capacitor banks in the system are followed in letter and spirit. The Licensee was also advised to install 11 KV automatic switchable capacitors banks in its sub-stations which can be operated without human intervention as per system requirements. In response the HVPNL has submitted that Senior Officers of the Nigam up to the level of Chief Engineer are regularly checking the proper operation of the capacitor banks installed in the system.

It has been further submitted that 11kV automatic switchable capacitors banks are now being installed at all new sub-stations. For existing sub-stations, new 11 kV automatic switchable capacitors banks are being procured as per requirements HVPN was asked to provide the progress in the work of rehabilitation of defective capacitor banks in its transmission system. The capacity of defective units replaced and brought back in to the service and the details of random checks carried out by officers of utility regarding proper operation of the capacitor banks was also sought. It has been submitted that two parts open Tender Enquiry No. 725 and 726 dated 16.04.2015 were floated through E-procurement portal/press for procurement of 4.536 MVAR & 13.608 (2x6.804) MVAR capacity 11kV Automatically Switched capacitor bank along with allied

equipment and supporting structure including Erection, Testing & Commissioning the Commercial part has been opened on 10.07.2015 the case is under process.

It has been further submitted that the random checking is being carried out during the monthly inspection by respective XENs/SEs/CE. It is worthwhile to mention that special campaign has been launched in the field to make all the installed capacitor banks operational.

The Licensee is directed to expedite the rehabilitation of the defective capacitors banks in its sub stations by replacing some of these and cannibalizing the others from spared healthy capacitor units and other allied equipments as a result of providing replacement and to submit the progress report within 90 days.

3.2.7 SPECIAL ENERGY METERS

HVPN has submitted that under the terms and conditions of the Transmission Licence, HVPNL is required to install and maintain the interface meters for recording the flow of power from HVPNL to DISCOMs (UHBVNL & DHBVNL). There are 962 interface metering points between HVPNL & DISCOMS.

The Licensee has provided the status of Special Energy Meters (SEMs) and Conventional Meters installed at various interface locations with DISCOMs, as on 31.10.2015 is as under:-

HVPN interface points with DISCOMS

Sr. No.	Description	UHBVNL	DHBVNL	TOTAL
1	Total No of interface between HVPNL and Discoms	475	487	962
2	Total no. of Metering Points where SEMs are commissioned	468	485	953
3	No. of Metering Points where SEM have not been installed and ECMs are installed	7	2	9

Interface points with State Generator

Name of Generating Plant	PTPS	WYC	DCRTPP	RGTPP	FGPS	MGSTPP
Total No. of Interface Points	14	3	8	4	4	4

Name of Renewable Energy Generating plant	Shahbad Sugar Mill	Starwire	Gemco	Sri Jyoti
Total No. of Interface Points	2	1	1	1

It has been submitted that at the new interface points, where conventional energy meters were installed initially, the same are being replaced with special energy meters (SEMs).

Further as far as the inter-State metering is concerned these meters are installed and maintained by the Central Transmission Utility (Power Grid Corporation of India LTD.) adequate back-up systems also exist to avoid metering inadequacies in the system.

Commission observed that HVPNL was directed in the last ARR order dated 31.03.2015 to provide meters at all interface points and as per the latest status, there are only 9 interface points with ECMs which are to be replaced with SEMs.

The Commission in its Order dated 31.03.2015 had observed that as per the Licensee's development plan, the addition of new sub-stations or the augmentation of the capacity of the existing sub-stations by providing additional power transformers or the augmentation of the existing transformers is a continuous process and each year the population of the power transformer increases. The Licensee should ensure the availability of the SEMs along with the requisite CTs/PTs so that the SEMs are provided on all those interface points which are commissioned and added in the transmission system of the Licensee.

The License is required to provide the pendency in providing of the SEM's at new location or where conventional energy meters are required to be replaced and directed to ensure that in future no transmission element forming interface point with any utility is energized without installation and commissioning of SEMs as per CEA Regulations.

3.2.8 EFFICIENCY FACTOR

Section 45.3 of the MYT Regulations provides that "Xn" (efficiency factor) is to be calculated by the Commission for which total operating expenditure i.e. expenditure before depreciation, interest and taxes (i) per unit of circuit km over the last three years and (ii) per unit of transformation capacity over last three years, is to be submitted by the transmission Licensee, which is to be based on actual. In the MYT Petition HVPNL had not provided the requisite details.

In response to the Commission's observations on the issue of efficiency factor for the FY 2014-15, HVPNL has submitted that the expenditure per Circuit KM is Rs.0.38 million and Rs.0.24 million per MVA as under:-

Particulars	2010-11	2011-12	2012-13	2013-14	2014-15
Repair & Maintenance expense	105.41	110.72	137.1	155.55	398.32
Employee Benefits Expense	3531.15	2336.78	3489.56	3717.85	4304.86
Admin & General Expense	103.38	110.72	141.37	170.63	132.64
Total (Rs. Millions)	3739.94	2558.22	3768.03	4044.03	4835.82
Total line length (Circuit Km) 400 kV+220 kV+132kV +66 kV)	9902.5	11270.21	11992.09	12366.998	12650.328
Expenditure per Ckt. km (Rs. million Per km)	0.38	0.23	0.31	0.33	0.38
Total Transformation Capacity at Interface point (Mva)	13920.6	15373.6	16592.1	18332.4	20001.9
Expenditure per MVA (Rs. Million/MVA)	0.27	0.17	0.23	0.22	0.24

It is observed that though, there had been some improvement in the expenditure per ckt-km and expenditure per MVA of transformation capacity during the FY 2011-12. However, the same have been increasing year by year which is a matter of concern.

The Licensee is directed to examine the above issue and submit a report to the Commission within 45 days.

3.3 UNITARY CHARGES

The Petitioner has proposed monthly Unitary Charges for the FY 2015-16 as under:-

Table 3.7 Monthly Unitary Charges (FY 2015-16)

Sr. No	Description	Amount in Rs.
1	Monthly Base Unitary Charge as per Clause 26.2.1 of TA for 2011-12	45000000
4	Yearly reduction (%)	3
5	Monthly Base Unitary Charge for 2015-16	39831177
6	WPI for Jan 2010 (Base Accounting Year) (published by the Ministry of Industry, GOI)	135.2
7	WPI for Jan.,2015 preceding the Accounting Year(published by the Ministry of Industry, GOI)	177.3
8	Increase in WPI (%)	31.1391%
9	WPI Index (40 % of WPI increase) (%)	12.4556%
10	Increase in Base Unitary Charge linked with WPI	4962084

11	Indexed Unitary Charge (Rs) (Sl.No.5+10)	44800261
12	System Availability (%)	100% (Assuming)
13	Normative Availability (%)	98
14	Incentive due to System Availability	914291
15	Incentive due to less Transmission Losses	160375
16	Unitary Charge + Incentives (Sl.No.11+14+15)	45874927
17	Total Unitary charges for the month	Rs.45874927 (i.e. 4.59 crore)

It has been further submitted that the expected Unitary Charges for the next Financial Year (2016-17) would also remain around 4.59 Crore per month keeping in view the expected increase in WPI and yearly reduction of Base Unitary Charge by 3%.

The Petitioner has further submitted that the Commission in its Order dated 31.03.2015, Section 3.2.11 has given the approval to the Petitioner to include such unitary charge to be part of this ARR, of HVPNL to be recovered from UHBVNL, DHBVNL and TPTCL in proportion to their respective share in the transformation capacity. **The Commission approves the projection of monthly Unitary Charges of Rs. 4.48 Crores as proposed by the Petitioner for the FY 2016-17 after excluding the incentive for system availability and transmission losses. The incentive on account of availability of transmission system and transmission losses shall be separately billed by HVPNL to the beneficiaries only after ensuring the conditions and provisions in the Transmission Service Agreement.**

Further, the Commission, in its earlier Order, had directed HVPNL that incentive on account of availability of the transmission system and the transmission losses shall be subject to ensuring fulfillment of the terms and the conditions and other provisions in the transmission service agreement regarding the same. The calculations details/ methodology adopted by the Independent Engineer was also required to be scrutinized before the incentive on both these account are paid. However, it is observed that, so far, no such report has been submitted to the Commission by HVPNL. **The Licensee is once again directed that incentive on account of availability and transmission losses shall be allowed to the concessionaire only after ensuring the conditions and provisions in the Transmission Service Agreement are met and after thoroughly examining the calculations and methodology adopted for computing the incentive amount.**

3.4 TRUE-UP OF ARR FOR THE FY 2014-15

The Commission has examined the true-up petition of HVPNL's expenditures in line with the MYT Regulations, 2012 with reference to the Order of the Commission for the FY 2014-15 and the actual expenditure incurred by the Licensee as per the audited accounts submitted by the Licensee. The True-up amount admitted by the Commission for individual components of the ARR is discussed in the following paragraphs:-

3.4.1 EMPLOYEES' COST

The Commission has examined each component of the employee cost with reference to the previous year cost in order to arrive at the reason behind the 20.5% increase in the said cost especially when the inflation indexation factor has been calculated at 4.65% only for the FY 2014-15 over the FY 2013-14. A comparison of item wise annual increase in each component of employees' cost is presented below:-

Particulars (In Rs Millions)	Actual 2014-15	Actual 2013-14	% increase over previous year
Basic	915.73	862.73	6%
DA	921.07	757.52	22%
Other allowances	317.06	260.18	22%
Contract employees	394.10	283.71	40%
Contribution to new pension scheme (NPS)	43.47	39.15	11%
Total Employee Cost	2,591.44	2,203.30	17.62%
Employee cost capitalized	-172.95	-195.96	
Net Employee Cost	2,418.49	2,007.33	20.5%

The MYT Regulations, 2012 provides that the employees' cost, as part of O&M expenses, is to be considered as controllable cost. The Commission observed that the employees' cost has gone up substantially in the FY 2014-15 as compared to the FY 2013-14. It is also observed that the effect of normal attrition/ retirement is not reflected in the employees' cost given the fact that about 5-6 % of employees retire each year. Resultantly, the basic cost should have declined or at the most remained at the same level.

In response to the above aberrations pointed out, the Licensee, vide memo no. CFO/HVPNL/6 dated 1.4.2016 has certified that the contractual employees engaged by the company during the FY 2014-15 were not in excess of category-wise sanction strength of the company. The Licensee has further submitted that the main reason for increase in employees' cost is DA @ 16%, annual increment @ 3% and increase in pay due to promotions of the employees which is quite substantial when the promotion

takes place from Pay Band 3 to Pay Band 4. Another reason for increase in employees' cost is due to increase in number of outsourced employees which was the result of increase in number of sub-stations during the FY 2014-15. In view of the above submissions, the Commission approves the actual employees' cost incurred by HVPNL as per the audited accounts for its transmission business during the FY 2014-15.

The Licensee is directed to immediately restrict the employee strength to the sanctioned posts only. They are further directed to ensure that in accordance with the Commission's directions, any post that has remained vacant for three years as on 29.05.2014 should be abolished. HVPNL may also consider utilizing the employees rendered surplus after phasing out of HVPNL's PTPS Units (1-4) on deputation after identifying the eligible employees that can be gainfully utilized. The Licensee is directed to submit action taken report in the matter within three months from the date of this Order and on similar intervals thereafter.

The details of employees' cost, excluding terminal benefits, after true-up as approved by the Commission is given in table 3.8 below.

Table 3.8 Employees' cost for FY 2014-15

	HVPN Proposal	HERC Order	HVPNL Audited	HERC True-Up
Employees' cost(excluding terminal benefits)	2541.91	2177.09	2387.11	2387.11

3.4.2 TERMINAL BENEFITS

On the basis of the audited accounts for the FY 2014-15, the petitioner has sought true-up of Rs.620.14 million as under:-

Particulars (Rs. Millions)	HERC Approved FY 2014-15	HVPNL Actual FY 2014-15	Difference
Terminal Liability	1,297.62	1,917.76	(620.14)

The Commission had allowed Rs. 1297.62 million towards terminal benefits for the FY 2014-15 as proposed by the Licensee. As per the MYT Regulation 8.3 (b) the terminal benefits are classified as 'uncontrollable' on account of changes in pay scales or dearness allowance due to inflation. As per the present filing, the Licensee has sought true-up of Rs. 620.14 million without citing any reasons why the liability has gone up as against its own estimates. However, this being uncontrollable item, the Commission approves the true-up amount as proposed by the Licensee. Resultantly,

the trued-up terminal benefit shall be Rs. 1917.76 millions (Rs.1297.62 million+ Rs.620.14 million).

3.4.3 REPAIR AND MAINTENANCE EXPENSES

The Licensee has submitted that the actual R&M cost incurred is slightly higher than the HERC approved R&M cost, owing to significant R&M expenditure incurred by the Petitioner to ensure reliability of the transmission system. The details are as under:-

Particulars (Rs. Millions)	HERC Approved	HVPNL Actual	Difference
R&M Cost	301.29	395.05	93.76
Less: R&M cost of SLDC	4.54	8.30	3.76
R&M Cost – Transmission	296.75	386.75	(90.0)

As per the MYT Regulations, the R&M expenses are to be allowed as a factor of GFA. Accordingly, the Commission approves the true-up R&M cost for the FY 2014-15 as under:-

Calculation of R&M true-up cost for FY 2014-15 (Rs. Millions)

GFA as on 31.3.2014	62756.07
GFA as on 31.3.2015	70353.04
Average GFA	66554.55
Normative R&M Expenses	332.77
Inflation factor	4.65%
Normative R&M Expenses adjusted for inflation	348.25
Less SLDC	8.30
R&M Cost for Transmission	339.95
R&M expenses actually incurred during FY 2014-15	386.75
Excess R&M cost	46.80

As against the normative R&M expenses, the petitioner has incurred Rs. 386.05 million i.e. excess by Rs. 46.80 million.

3.4.4 A & G EXPENSES

The Petitioner has submitted A&G expenses approved by the Commission and the actual A&G expense incurred as under:-

True-up of A&G Expenses for FY 2014-15

Particulars (Rs. Millions)	Approved	Actual	Difference
A&G Expenses	168.92	131.42	37.50

The Licensee has proposed that the Commission may allow actual A&G expenses of Rs. 131.42 million and the difference in actual and approved cost may be

considered for reduction in the transmission tariff. The Commission observes that the savings in the A&G expenses is apparently on account of the efficiency and economy in the managing the administrative and general expenses. Hence, as per the MYT Regulations, 2012 the same could have been dealt with as per sharing of the gains. However, while doing so only 50% of the amount saved would have been passed on to the beneficiaries. As the Licensee has proposed to pass on the entire saving on account of A&G expenses to the beneficiaries and ultimately to the electricity consumers, the Commission accepts the proposal of the Licensee.

3.4.5 DEPRECIATION

The Petitioner has submitted that this Commission in its true-up Order for the FY 2013-14 had provided for deprecation based on the GFA of the FY 2013-14 with certain estimates. In line with the approach adopted by the Commission, the Petitioner has submitted the details of depreciation for true-up for the FY 2014-15. The Commission has examined the details provided by HVPNL and observes that depreciation for true-up has been worked out by HVPNL based on the actual opening GFA in the FY 2014-15 adjusted for the additions/deletions during the year to arrive at the closing GFA of Rs.70,353 million. Further, from the depreciation amount of Rs.2862.64 Million, depreciation on SLDC assets amounting to Rs.23.44 million and depreciation on assets funded through consumer contribution amounting to Rs. 139.74 million has been reduced to arrive at the deprecation amount of Rs. 2699.47 million for the Transmission business for the FY 2014-15. However, the Commission observes that that Licensee has not adjusted for depreciation of Rs. 78.766 million written back for assets sold/ written off during the year. After adjusting for the depreciation written back, the Commission approves Rs. 2620.70 million as depreciation for the FY 2014-15 for the purpose of truing-up for the FY 2014-15.

3.4.6 RETURN ON EQUITY (RoE)

The Licensee has proposed RoE of Rs. 1699.87 million for the FY 2014-15. However, the Commission observed that the Licensee has wrongly considered Rs. 2120.60 million as share application money pending allotment. The said amount, as per the audited accounts for the FY 2014-15 is Rs. 1751.20 million. Hence, this amount, which gets added to the Equity eligible for RoE has been overstated by Rs. 369.40 by

HVPNL. The Commission has, therefore, corrected this aberration as per the details provided in table 3.9 of the present Order.

The Commission, while determining the ARR for the FY 2013-14 had observed that the Licensee had received equity amounting to Rs. 2725 million for capital works during FY 2011-12 but had utilized only Rs. 1098.48 million for the purpose. Consequently, the Commission had excluded the unutilized amount from the calculation of RoE for the FY 2013-14.

The Licensee, vide its memo No. CFO/HVPNL/6 dated 30.3.2016, has now submitted that the World Bank loan is received in advance and because of this the matching Equity corresponding to the unutilized World Bank loan has been presumed to be unutilized by the Commission.

The Commission has examined the detail of loan now submitted by the Licensee and observes that the interest earned on the World Bank loans available with HVPNL from the FY 2011-12 and partly for the FY 2012-13 has been treated as 'Other Income' hence as a corollary the same has been reduced from the ARR and Tariff. Further, for the remaining period up to the FY 2014-15 the same has been (negative) capitalized. Additionally, from the loan details for the FY 2014-15 submitted by HVPNL, it is evident that for the World Bank Loans, HVPNL had received some additional loan fund and also made some repayments, however, no interest was paid on the World Bank Loans in the FY 2014-15.

The Licensee, vide memo no. CFO/HVPNL/6 dated 30.03.2016 has certified that "there is no unutilized Equity of HVPNL since the FY 2012-13 to the FY 2015-16 and has prayed that that the Commission may allow them RoE on Rs. 1626 million that had been reduced from the calculation of RoE in the Commission's Order dated 29.05.2014.

The Commission has considered the above and given the fact that additional Equity amounting to Rs. 1626 million has actually been infused in the transmission business, as certified by HVPNL, the same shall be considered for RoE for the FY 2014-15 as part of true-up. **However, while allowing RoE on the said additional Equity, the Commission observes that excess corresponding loan and interest thereto also needs to be trued-up. The Commission, therefore, directs the Licensee to file statement of utilization of funds (both Equity and Debt) including**

capitalization of Interest during construction for CWIP for generation, transmission and SLDC from the FY 2011-12 onwards within one month. The Commission shall review the details and accordingly adjust the amount i.e. excess loan and interest thereto in the true-up for the FY 2015-16. The details of the true-up of RoE for the FY 2014-15 are given in the table 3.9.

Table 3.9 True-up of Return on Equity for FY 2014-15

	HERC Order 2014-15 Rs Millions	HVPNL Proposed	HERC order 2014-15 Rs Millions
Paid up Equity Share Capital at the beginning of the year		19,367.10	19,367.16
Share application money pending allotment		2,120.60	1,751.20
Out of the above, Equity Capital for SLDC		56.00	56.00
Out of the above, Equity Capital for Generation as on 31.3.2014		1,595.40	1,595.42
Out of the above equity capital for investment in distribution companies		1,259.30	1,259.33
Balance Equity for Transmission		18,577.00	18,207.61
less equity related to transmission works not yet commissioned		2,745.70	2,748.87
Opening balance of equity for transmission business		15,831.30	15,458.74
Add 50% of equity portion of GFA added during FY 2014-15		1,167.40	1,167.43
Equity to be considered for ROE	14,250.00	16,998.70	16,626.17
Rate of return	10%	10%	10%
Return on Equity for Transmission Business	1,425.00	1,699.87	1662.617

As against true-up of RoE amounting to Rs. 1699.87 millions claimed by the Licensee, the Commission approves the revised RoE of Rs. 1662.62 millions for the FY 2014-15.

The Licensee has submitted that the Commission had curtailed the RoE due to the reasons such as lower system availability, provision of SEM's at all interface points etc. HVPNL has submitted that they have taken a number of measures to improve system reliability which is evident from its overall system availability. Regulation 45 of the MYT Regulations, 2012, provides for the target transmission availability for the FY 2013-14 at 98.5% increased to 99.2% by the FY 2016-17. It has been submitted that owing to enhanced O&M practices, significant capital expenditure on system reliability etc. the transmission system availability of the Petitioner has been as high as 99.13% during the FY 2014-15 itself. Hence, it has been prayed that the Commission may consider RoE @ 14% in accordance with Regulation 20.1 of the MYT Regulations. The Commission has considered the submissions of the Petitioner and is of the view that

true-up exercise has limited scope i.e. what was not considered/allowed while passing the original Order for the FY 2014-15 has attained finality and the same cannot be re-opened at the true-up stage. Hence, only the amounts are recalculated keeping in view the actual audited figures that are now available.

3.4.7 INTEREST AND FINANCE CHARGES

The Licensee has submitted the break-up of finance cost (interest expenses) of transmission business as per audited annual accounts as under:-

Particulars (In Rs Million)	Interest Cost Incurred
Interest on Cap-Ex Loan	2,217.61
Interest on Bank loans & Working capital loan	467.33
Interest Pension Bond	673.00
Interest on PF Bond	162.17
Interest on bonds issued by HVPN on behalf of Discoms	1,229.87
Total interest incurred by HVPN	4,749.98

True-up of Term loan proposed by the Licensee is as under:-

Interest Cost (Capex Loan)	Approved	Actual	Difference
Interest (In Rs Million)	1,476.74	2,217.61	(740.87)

HVPNL has submitted that the higher interest cost of capital expenditure loan vis-à-vis that approved by the Commission is on account of following reasons;

- Lower opening and closing balance of loan considered for the FY 2014-15, as the actual figures have changed due to the difference in loan drawn, loan repayments and assets capitalized.
- Excess capitalization of interest by the Commission by including the CWIP relating to World Bank loan projects. It is submitted that the interest on World Bank loan is directly capitalized by HVPNL after taking the same as part of CWIP and while calculating the capitalization of interest HVPNL excludes the interest on World Bank loan as well as CWIP (World Bank) amount pertaining to World Bank loan.

In addition to above, the Petitioner has also submitted that the Commission, while truing- up the interest cost for FY 2013-14, had considered the closing balance of capex loans for the FY 2013-14 amounting to Rs. 24,894.8 million instead of the actual audited figure of Rs. 31,345.29 million for the FY 2013-14. Based on which the Commission allowed the differential interest of Rs. 269.96 million instead of actual differential interest cost of Rs. 364.96 million. Therefore, the Licensee has submitted

that the Commission may now allow the differential interest along with the true-up for the FY 2014-15.

The Commission has considered the above submissions and is of the view that the closing balance of approved borrowing for capital works, as per its Order dated 18.08.2015, on the review Petition filed by HVPNL was considered as the opening balance as on 01.04.2014. The additional borrowings during the year and repayments were derived from the information provided by HVPNL vide memo no. Ch-78/SE/RAU/F-148 dated 08.02.2016 and memo no. CFO / HVPNL / 6 dated 01.04.2016. Going forward, the closing balance of borrowings for capital works as on 31.3.2015, as approved by the Commission, shall be used to calculate the interest to be allowed for the FY 2015-16 onwards. The Licensee is therefore directed to ensure that it maps the capital expenditure to the funding while filing its true-up petition for each year in future. Based on this, the interest on borrowings for capital expenditure as calculated by the Licensee appears to be correct and are approved for true-up.

3.4.8 INTEREST ON WORKING CAPITAL LOANS

The Petitioner has submitted that the working capital requirement approved by the Commission was on lower side owing to lesser approved annual revenue requirement for the FY 2014-15. Also, there is a significant impact on the working capital requirement of actual receivable days and normative receivable days. The actual receivable days being significantly higher than the norms the petitioner had to raise additional working capital to bridge requisite working capital requirement gap. Therefore, the Petitioner has prayed that the Commission may approve the actual interest on working capital incurred by them as per the actual audited accounts of the FY 2014-15 as under:-

Working Capital/Bank Loans (Rs. Millions)	Approved	Proposed Based Actual	Difference
Interest	176.10	467.33	(291.23)

The Petitioner has further submitted that the short term interest rate allowed by the Commission in its MYT Tariff Order for the FY 2014-15, was lower than the actual short term interest rates prevailing in the market, due to which the higher short term borrowing interest burden has arisen.

The Commission has considered the submissions and observes that the rate of interest charged by banks from HVPNL on working capital borrowings ranges from

9.95% to 10.65% in the FY 2014-15 as per its filing dated 08.02.2015. The Commission had approved the Interest on normative working capital borrowings @ 10.85% in its Order dated 31.3.2014 on the ARR for the FY 2014-15. The Commission therefore finds no reason to change the rate of interest. Regarding actual receivables being higher than normative receivables, the Commission would like to draw the attention of the Licensee towards the fact that it is allowed to charge penalty from its beneficiaries and STOA customers for any delayed payments in order to compensate it for higher borrowings in such situations.

The Commission had directed HVPNL to keep the funds collected on account of contingency reserve invested in approved securities and interest earned was used to reduce the ARR. However, from a perusal of the audited accounts of the Licensee it appears that no income has been earned from investment of contingency reserve investments during the FY 2014-15. Therefore, the amount of contingency reserve has been reduced from the calculation of working capital and the non-tariff income has not been adjusted on this account. The contingency reserve fund has now been adjusted in the transmission tariff to be paid by the two DISCOMS during the FY 2016-17. In case the Licensee does not separately show the income earned from contingency reserve fund during the FY 2015-16, the same shall again be reduced from the working capital calculations for the FY 2015-16 during the true-up exercise.

The amount of working capital borrowings has been reworked keeping in view the revised ARR based on the true-up amounts approved by the Commission. The revised interest on normative working capital borrowing for the FY 2014-15 is as per the details provided in the table 3.11.

Table 3.11 Interest on Working Capital	
Particulars	True-up 2014-15
O&M Expenses for a month	398.02
Spares (15% of annual O&M Expenses)	716.43
Receivables - 1 Months	927.96
Total working Capital (1+2+3)	2042.41
Less Contingency reserve	282.87
Working Capital Loan	1759.54
Normative Interest Rate (%)	10.85%
Normative Interest on Working Capital (6 x 7)	190.91

3.4.9 OTHER INTEREST COSTS

In addition to the borrowings for Capital expenditure and Working Capital, HVPNL has to bear certain other interest costs i.e. interest on bonds issued towards its liabilities for pension and Provident Fund of the employees. The Commission has made concerted efforts to ensure that these liabilities are discharged at the earliest. The Commission had approved Rs.193.55 million as interest cost on average balance of pension bonds for the FY 2014-15. However, in view of the adjustment of certain revenues accruing to the Licensee which have been adjusted as part of the true-up Order for the FY 2013-14, there is need for re-calculation of the interest on pension bonds for the FY 2014-15. The approved interest on pension bonds for the FY 2014-15 is given below:-

Interest on pension bonds Rs. million

Balance as on 31.3.2014 as per true-up order for FY 2013-14	439.99
Adjustment of 25% revenue from Short term open access customers	115.39
Interest on refund of income tax	40.23
Closing balance as on 31.3.2015	284.37
Interest @10% on average balance for the year	36.22

Interest on PF bonds is retained at the same level as approved by the Commission in its Order dated 29.5.2014 at Rs. 58.01 million.

3.4.10 REACTIVE ENERGY CHARGES

The issue of reactive energy charges is covered by Regulation 48 of the MYT Regulations, 2012. The Petitioner has submitted that in line with the above, the reactive charges incurred by the Petitioner during the FY 2014-15, as per the audited accounts is Rs.171.6 million. As against this the actual expenses recovered from the Discoms is only Rs.148.84 million. Hence, the Petitioner has prayed that the Commission may approve the differential reactive energy charges. However, vide memo no. CFO/HVPNL/6 dated 1.4.2016, the Licensee has submitted as below:-

“The reactive energy charges are not part of the ARR filing and are to be recovered on the basis of actual reactive energy consumption recorded at inter-phase point between HVPNL and Discoms. At the earlier occasions also, the Commission has clarified that the same maybe recovered by HVPNL as per the regulation. Accordingly, this item in true-up petition is withdrawn and direct billing will be done to the Distribution Companies.”

In view of the revised submission of the license withdrawing its claim for reactive energy charges, no further order is required on the matter. However, the Commission again directs the Licensee to comply with the Commission's Order dated 18.8.2015 on the issue of reactive energy charges. The operative part of the said Order is reproduced below:-

".....Hence, HVPNL is directed to pay the said amount i.e. Rs. 44.187 Million to the Discoms out of Rs. 75.4 Million received from PGCIL-NRLDC and the balance is to be kept in the State Reactive Energy Pool Account, to be maintained by the SLDC on behalf of the Haryana Power Utilities. SLDC shall invest any surplus available in the pool account in fixed deposits with any nationalised bank and the same shall be shown under a separate head in its books of accounts. The Commission shall issue separate instructions/ directions for maintenance and use of funds in the pool account shortly after holding consultation with stakeholders"

The Commission observes that the Licensee has neither complied with the directions of the Commission nor has it given any reason for non compliance of the same. The reactive energy charges for the FY 2014-15 are to be met through the State reactive energy Pool account as ordered by the Commission for the FY 2013-14. **The Licensee is directed to submit the details of the reactive energy Pool Account including the amount received by HVPNL from NRLDC within 45 days of the present Order. It may also inform the Commission about the details of fixed deposits held by it out of balance funds of the Pool Account.**

3.4.11 FOREIGN EXCHANGE RATE VARIATION (FERV)

The petitioner has prayed that the Commission may allow the true-up of the cost due to foreign exchange rate variation for the FY 2014-15 as per the audited accounts as under:-

Particulars	Amount (Rs. Millions)
Loss due to Foreign Exchange Rate Variation	134.36

In addition to above, the Petitioner has also requested the Commission to consider the losses on account of FERV, incurred in the past years, i.e. FY 2011-12 and FY2012-13 based on the audited annual accounts as they have not been able to claim

the past FERV losses as the MYT Regulations, 2012, came in effect from December 2012 and there was no provision of true-up under the repealed HERC Tariff Regulations 2008. The actual FERV losses booked by the Petitioner for the said period are as under:-

Particulars	Amount (Rs. Millions)
Loss due to foreign Exchange Rate Variation (FY 2011-12)	258.90
Loss due to foreign Exchange Rate Variation (2012-13)	66.10
Total FERV losses	325.00

The issue of FERV as per the MYT Regulations was dealt by the Commission for the first time in the true-up petition for the FY 2013-14 filed by HVPNL. The Commission had allowed the Transmission Licensee to fully recover the FERV cost in line with the Accounting Standard 11 issued by the Institute of Chartered Accountants of India. The Commission observes that the cost towards FERV allowed to be recovered by the Licensee, on an annual basis, is not actually a cost incurred by it but a notional enhancement of loan and that may or may not be actually incurred by it by at the time the loan is repaid i.e. in case the Rupee (INR) appreciates vis-à-vis the base rate of the foreign currency in which the loan was availed, the status of such foreign currency loans in INR terms loans would completely change. In view of this, the Commission has examined the methodology followed by other Commissions with respect to treatment of FERV.

The Commission observes that CERC, which has a similar Regulation on FERV in its MYT Tariff Regulations, treats the FERV cost incurred during a Control Period as additional capitalization and allows the Licensee to depreciate it over the remaining life of the asset. The methodology followed by CERC has stood the test of time and also judicial review and has been upheld by the Appellate Tribunal for Electricity. Hence, unless there is any adverse Judgment of the Hon'ble Supreme Court in the matter, the treatment of FERV as done by the CERC has become a settled law. This treatment of charging the FERV on loan in one year is also contrary to the cost causation principle as consumers in one year are paying for cost of an asset that is expected to be used over many more years.

The issue was discussed with the Licensee in light of the orders of the Hon'ble Appellate Tribunal for Electricity and the regulations of the Commission. In response, the Licensee has revised its claim for FERV as given below:-

"The Licensee has proposed recovery of foreign exchange variation on its World Bank loan as per Accounting Standard 11 and 16 which has been adopted in audited balance sheet. However, in order to spread the incidence of recovering FERV, the cash payment basis can be adopted for the purpose of regulatory practice. Under this methodology, the Licensee will claim the FERV as and when the repayment of loan is made. However, care should be taken that the FERV which has been capitalized should not be recovered again while making payment of the loan. Accordingly, the capitalized value of FERV will be divided into 50 installments (based on the number of installments of loan repayment) and while calculating the FERV on the each repayment installment, the additional FERV will be reduced by 1/50th of the FERV already capitalized."

Accordingly, the Licensee has withdrawn the claim of FERV during FY 2014-15 as submitted and has given revised calculations for FY 2014-15 of FERV on cash basis as given below:-

Statement of Foreign exchange rate variation during FY 2014-15			
Year	FERV Capitalized	FERV Charged to P&L	Total FERV
2011-12	42.42	15.9	58.32
2012-13	27.77	6.6	34.37
2013-14	79.16	15.8	94.96
2014-15	30.72	13.43	44.15
Total	180.07	51.73	231.8
Capitalized FERV to be recovered in each installment = Rs. 180.07 / 50 = 3.6 Crore			

Calculation of FERV on 1 st installment Paid in 2014-15 in February 2015		
		Figure in Crore
Amount Paid	USD	0.35
Amount received	42.42	15.9
(1 st Installment)	USD	2.36
	INR	108.18
Exchange Rate at the time of receipt of installment	INR	45.84
Exchange Rate at the time of Payment of installment	INR	61.80
FERV on 1 st installment = (61.80 – 45.84) * 0.35 =		5.59
Less recovery of capitalized FERV		3.6
Net FERV on 1st installment of loan		1.99

The Commission agrees with the revised submission of the Licensee and approves FERV cost for FY 2014-15 on true-up for Rs. 1.99 crores as proposed by the Licensee.

The Commission had allowed the Licensee to recover Rs. 158.03 million as part of true-up of the ARR for the FY 2013-14. In view of the revised treatment of FERV proposed by the Licensee, the recovery allowed during FY 2015-16 shall be available for true-up for the same year.

3.4.12 CONTINGENCY RESERVE INVESTMENT

The Commission had allowed the Transmission Licensee to retain the funds recovered as contingency reserve and had directed that these funds be invested in the approved securities. However, the present true-up petition of HVPNL for the FY 2014-15 does not provide for any interest income from the contingency reserve investment. It appears that the Licensee has not invested Rs. 282.87 million made available to it under contingency reserve as ordered by the Commission. These funds have been recovered from the electricity consumers of the State and till such time the Commission allows these to be adjusted against amounts payable by the consumers, these funds were to be kept separately and the Commission has not allowed these amounts to be utilized in the business by the Licensee. As the Licensee has not invested the contingency reserve fund in prescribed securities during the FY 2014-15 and the same appears to have used in its business, the Commission Orders that Rs. 282.87 million be deducted from the working capital for calculation of interest to be allowed to the transmission Licensee for the FY 2014-15 in Table 3.11.

Further, the Licensee, vide memo no. Ch-2/SE/RAU/F-52/ Vol-V dated 15.01.2016, has requested the Commission to allow HVPNL for not investing further the amount available in the Contingency Reserve, keeping in view the fact that the Electricity Act, 2003 has no provision for contribution to contingency reserve. HVPNL has proposed that the amount available under Contingency Reserve may be allowed to be utilized for paying off high cost loans. In this matter, the Commission observes that this amount has been charged from the long term beneficiaries of the Transmission Licensee. The purpose of the Contingency Reserve fund was to make available certain amount to the Transmission Licensee in case of emergency/contingency as and when

required with the prior approval of the Commission. Now that the fund is no longer being maintained by the Transmission Licensee and also not required as per the statute, the Commission Orders that Rs. 282.87 millions be returned to those consumers who had contributed to the said fund. Accordingly, the same shall be adjusted in the monthly transmission tariff recoverable from UHBVNL and DHBVNL for the FY 2016-17@ Rs. 11.785 million per month.

3.4.13 NON TARIFF INCOME

The Commission had considered a non-tariff income of Rs. 52.14 million for the FY 2014-15 and a true-up of Rs. 187.88 million for the FY 2011-12 and the FY 2012-13 while determining the ARR for the FY 2014-15. As against this, the Licensee has proposed a true-up of Rs. 314.38 million as non tariff income for the FY 2014-15. The Commission now approves the non- tariff Income for the FY 2014-15 as per table 3.12.

Table 3.12 Non-Tariff Income

Non Tariff Income for FY 2014-15	Rs. Millions
	2014-15
Non tariff income as per audited accounts	188.64
Fee for grant of connectivity	3.40
Provisions written back	46.87
True-up of Non tariff income for FY 2012-13	187.88
Total approved Non Tariff Income	426.80
Less allowed as per ARR order	240.02
Non Tariff Income to be trued up	186.78

3.4.14 YEARLY TRANSMISSION CHARGES (YTC) FOR LINES OPERATING AS INTER STATE TRANSMISSION LINES (ISTS)

In compliance of the Central Electricity Regulatory Commission's Order dated 14.3.2012 in petition No.15/SM/2012, the Petitioner had filed a Petition for approval of annual transmission charges of the transmission assets connecting two States. The Hon'ble CERC has issued Order on 23.09.2015 in Petition No. 246/ TT/ 2013 filed by HVPNL. As per the said Order, three transmission lines of HVPNL were identified as ISTS lines on the basis of the inputs provided by Northern Regional Power Committee (NRPC) and CERC. The Hon'ble CERC in its Order has allowed annual transmission charges for the assets covered in the said petition to be adjusted against the ARR. The table below presents the details of the Yearly Transmission Charges allowed.

Table 3.13 Details of Yearly Transmission Charges approved by CERC

S. No.	Line Name	Length (Ckt km)	2011-12*	2012-13	2013-14	2014-15
1	220 kV S/C Bhiwadi-Rewari line Rajasthan-Haryana)	23.761	1,51,45,599	1,44,76,630	1,27,80,233	2,17,16,642
2	220 kV D/C Madanpur Panchkula)-Kunihar (HP) line with LILO one Ckt. At 220 kV S/S Baddi (HP) [Haryana Portion 40.5 Km=81 Ckt. km]	81	4,15,13,754	4,04,09,841	3,53,83,897	5,92,24,713
Total (In Rs)			5,66,59,353	5,48,86,472	4,81,64,130	8,09,41,355
Grand Total (In Rs Million)			240.65			

In line with above, the Petitioner has prayed that the Commission may allow the above YTC for intra-State lines operating as ISTS. Further, it has been submitted that in line with the same methodology applied by the CERC, the petitioner has also calculated and included YTC for the FY 2015-16 and FY 2016-17 based on tentative line lengths (Ckt. k.m) to be added in the respective years.

The Licensee has proposed to reduce the yearly transmission charges (YTC) received for transmission lines designated as ISTS lines from the transmission charges payable by the long term beneficiaries. As the cost of these transmission lines forms part of the transmission ARR, the Commission agrees to the proposal of the Licensee. However, the YTC upto 31.3.2015 shall form part of true-up for FY 2014-15. The YTC for the FY 2015-16 shall form part of true-up for the FY 2015-16. The YTC for the FY 2016-17 shall be reduced from the transmission charges for the FY 2016-17.

3.4.15 APPROVED AND PROPOSED ARR FOR TRUE-UP OF FY 2014-15

Based on the above analysis on various components of the of the ARR, the true-up proposed by the Licensee and revised calculations based on the MYT Regulations and previous Orders of the Commission, the true-up amount for the FY 2014-15 is presented as under:-

Table 3.13 HERC Approved True-up for the FY 2014-15 (Rs. Million)

Description	HVPNL Proposal	HERC Approval	HVPNL Audited	HERC True-up/Revised ARR for the FY 2014-15
Employees' cost	2541.91	2177.09	2387.11	2387.11
Terminal benefits	1297.62	1297.62	1917.76	1,917.76
R&M expenses	410.16	296.75	386.75	339.95
A & G Expenses	168.92	168.92	131.42	131.42
Interest on Capital	2889.74	1476.74	2217.61	2217.61

Expenditure Borrowings				
Debenture Interest (PF Bonds)	160.32	58.01	162.17	58.01
Debenture Interest (Pension Bonds)	673.00	193.55	673.00	36.22
Interest on bonds – Others		983.00	983.00	0.00
Interest on Working Capital/Bank Loans	296.66	176.10	467.33	190.91
Depreciation	3243.91	2074.80	2699.47	2620.70
Return On Equity	2768.02	1425.00	1699.87	1662.62
Non-Tariff Income	-52.14	-240.02	-314.38	-426.80
Share of SLDC Charges	13.76	11.57	11.57	11.57
Total	14411.88	10099.13	13422.69	11,147.07
Add: YTC for ISTS up to FY 2014-15				-240.65
Add: True-up of interest cost for FY13-14			94.98	0.00
Add: Reactive energy Charges			22.81	0.00
Add: Loss Due to Foreign Exchange -			134.36	19.90
Add: FERV True-up of FY11-12 and FY12-13			325.00	0.00
Total ARR		10099.13	13999.84	10,926.32
Add: Incentive based on Transmission Availability passed on to beneficiary			28.13	
Total ARR - Including incentive		10099.13	14027.97	10,926.32

Accordingly, as against true-up of Rs. 3,928.84 million proposed by the Licensee, the Commission approves true-up of Rs. 827.19 million i.e. the difference between the revised ARR (after true-up) now approved for the FY 2014-15 i.e. Rs. 10,926.32 million and the ARR originally approved by the Commission in the Order for the FY 2014-15 i.e. Rs.10,099.13 million as per the table 3.13. The said amount shall be added to the ARR/Tariff in the FY 2016-17.

3.5 REVISED ARR FOR THE FY 2016-17 BASED ON MIDTERM PERFORMANCE REVIEW FOR THE FY 2015-16

The revised ARR for the FY 2016-17 is required to be examined based on the mid-year review in order to determine the tariff for the FY 2016-17. The Commission shall only revise the approved figures for the FY 2016-17 to the extent of the change in the inflation indexation factor as the same has undergone major change and also on account of any change that is necessitated by the mid year performance review. The Commission's analysis and Order on each of the expenditure items are as under:-

3.5.1 O & M EXPENSES

The O&M expenses proposed by HVPNL for the FY 2016-17 at Rs. 5710.05 million is substantially higher (32%) than Rs. 4315.21 million approved by the Commission as per the MYT Order dated 29.05.2014. This is despite the fact that the inflation factor considered by the Commission was much higher than the actual inflation indexation factor. The Commission, after taking into account the true –up of employees' cost for the FY 2014-15 approved by the Commission and the inflationary factor of 2.47% for the FY 2015-16 revises its approved employees' cost to Rs. 2506.49 million for the FY 2016-17. Repair and maintenance expenses are calculated @ 0.5% of the average GFA for the FY 2016-17 in view of the fact that the actual GFA as on 31.3.2015 is different from that estimated as on 29.5.2014 i.e. the date of the MYT Order and then escalating it by the inflation factor. The Licensee projections of A&G expenses and terminal benefits are approved by the Commission. The details of Licensee projections and Commission approved O&M expenses are as given in table 3.14.

**Table 3.14 Commission Approved O&M expenses for FY 2016-17
(Rs. Millions)**

	HERC Order	HVPNL revised estimate	HERC Revised approval
O&M expenses	4315.21	5710.05	5165.85
R&M Expenses	382.68	505.06	414.56
Employee Expenses	2615.73	2960.19	2506.49
Terminal Benefits	1113.92	2093.11	2093.11
A&G Expenses	202.87	151.69	151.69

3.5.2 DEPRECIATION

The Commission has reviewed the depreciation allowed for the FY 2016-17 and is of the considered view that the same needs to be revised to account for the revised opening balance as on 01.04.2016 (based on the audited accounts for the FY 2014-15) and also to account for the change in the average rate of depreciation.

The rate of depreciation considered by the Licensee is 5.20% for the FY 2015-16 and 5.18% for the FY 2016-17 on the additions to GFA. The Commission notes that the depreciation rates used for calculation in the MYT Order were based on the audited accounts for the FY 2012-13. Now that the audited accounts for the FY 2014-15 are available, it is appropriate that the depreciation rates should be based on the latest available audited accounts.

Though, the opening balance of GFA as on 1.4.2015 considered by the Commission is the same as taken by the Licensee for its calculations, the additions during the FY 2015-16 are as approved by the Commission. The Licensee, on the other hand has considered higher expenditure during the FY 2015-16 and has also considered depreciation on assets added during the FY 2016-17. The Commission however, observes that average rate of depreciation as per audited accounts would also take into account any effect of depreciation on assets capitalized during the year and accordingly, using the average rate of depreciation as per the audited accounts for the FY 2014-15, the depreciation for the FY 2016-17 is revised from Rs. 2854.43 million to Rs. 3285.91 million as against Rs.3588 million proposed by the Licensee.

The revised calculations of CWIP and GFA approved by the Commission and used for various calculations is given below:-

**Table 3.15 Commission approved calculation of CWIP and its Funding
(Rs. Million)**

	2015	2016	2017
	Audited	Estimated	estimated
Opening CWIP excluding Generation Proj.	9,162.90	7,473.53	8,942.12
Additions during the year / interest	6,093.52	8,190.00	7,182.00
Total	15,256.41	15,663.53	16,124.12
Transfer to GFA	7,782.88	6,721.41	7,677.95
Closing Balance excluding generation works	7,473.53	8,942.12	8,446.17
Funding of CAPEX:			
Equity	369.40	2,047.50	1,795.50
Rate of equity contribution		25%	25%
consumer contribution	754.56	50.00	50.00
Loan Funds (balancing figure)	4,969.56	6,092.50	5,336.50
Total funds	6,093.52	8,190.00	7,182.00

**Table 3.16 Commission approved calculation of GFA and depreciation
(Rs. Million)**

	HVPNL	HERC	HERC
Transmission and SLDC GFA	Audited	Estimated	Estimated
	2014-15	2015-16	2016-17
Opening Balance of gross fixed assets	62756.065	70353.037	77074.45
Add: Additions to GFA	7782.882	6,721.41	7,677.95
less: Retirement	185.91	0	0
Closing balance	70353.037	77,074.45	84,752.40
Consumer Contribution	2801.684	3556.25	3606.25
SLDC	119.671	119.671	119.671
Generation Assets	2424.146	2424.146	2424.146
Rent earning assets			

Depreciation			
Gross Fixed Assets at the beginning of the year	62,756.07	70,353.04	77,074.45
Depreciation rate	4.56%	4.56%	4.56%
Total Depreciation Expense Rs. Million	2,862.64	3,209.18	3,515.78
Less Depreciation against Capital reserve	139.74	177.37	179.87
Less Depreciation against SLDC	23.44	23.44	50.00
Net Depreciation for the year	2699.47	3008.37	3285.91

3.5.3 INTEREST ON TERM LOAN FOR CAPITAL EXPENDITURE

The Commission observes that the allowed interest on capex loan for the FY 2016-17 was based on the audited figures of the FY 2012-13 and estimates of capital expenditure for the subsequent years. Based on the latest available audited accounts for the FY 2014-15 and the closing balance of borrowings for transmission and SLDC business on 31.3.2015 as approved by the Commission, the Interest on borrowing for capital works is accordingly revised from Rs. 1445.96 million to Rs.2654.04 million as against HVPNL proposal for Rs. 3149.21 million. 25% of the approved capital expenditure for the FY 2015-16 and FY 2016-17 is proposed to be met through equity as proposed by the Licensee and for the remaining amount additional borrowings shall be allowed. The Licensee projections have been worked out on the revised capital expenditure plan submitted by it which has not been approved by the Commission.

3.5.4 INTEREST ON PENSION BONDS

As per the principles laid down in the MYT Order dated 29.5.2014, the outstanding liability of pension bonds is being discharged out of certain proceeds being received by the Licensee. In accordance with the same principle, the estimated outstanding balance of pension bonds as on 31.3.2015 calculated as part of the truing-up for the FY 2014-15 is reduced on account of adjustment of 25% of revenue expected to be earned by HVPNL from the Short Term Open Access consumers for the FY 2015-16 amounting to Rs. 150 million to arrive at the revised balance of Rs. 134 million as on 31.03.2016.

Similarly, after accounting for the estimated 25% revenue from Short Term Open Access Customers during the FY 2016-17 i.e. Rs. 134 million, the interest cost on average balance of pension bonds during the FY 2016-17 @ 10% p.a. is estimated at Rs.6.72 million as per details given in the table 3.17. This interest cost shall further be

trued-up based on actual revenue from Open Access consumers received during the FY 2015-16.

Table 3.17 Interest on Pension Bonds for the FY 2016-17

	Rs. millions
Pension bonds	
Balance as on 31.3.2015	284.37
Estimated Adjustment of 25% of revenue from short term open access consumers FY 2015-16	150.00
Balance as on 31.3.2016	134.37
Interest on average balance of bonds for FY 2015-16	20.94
Estimated Adjustment of 25% of revenue from short term open access consumers FY 2016-17	134.37
Balance as on 31.3.2017	0.00
Interest on average balance of bonds for FY 2016-17	6.72

3.5.5 INTEREST ON PF BONDS

On the issue of the interest cost on PF Bonds, the Commission finds no reasons to review the same. Hence, the Interest on PF bonds shall be retained at the same level i.e. as per MYT Order.

3.5.6 INTEREST ON WORKING CAPITAL

Based on the revised ARR for FY 2016-17, the interest on working capital has been reworked as per the MYT Regulations, 2012 and at the rate of interest approved by the Commission for the FY 2015-16. The revised working capital borrowings are estimated at Rs. 2323.91 million and interest cost on the same @10.85% p.a. works out to Rs. 252.14 million for the FY 2016-17, as against Rs. 182.86 million earlier allowed in the MYT Order. The details are as under:-

Table 3.18 Interest on working capital 2016-17

S. No.	Interest on working capital	Rs. millions
1	O&M Expenses for a month	430.49
2	Spares (15% of annual O&M Expenses)	774.88
3	Receivables - 1 Months	1133.85
4	Total working Capital (1+2+3)	2339.21
5	Normative Interest Rate (%)	10.85%
6	Normative Interest on Working Capital (5 X 6)	253.80

3.5.7 INTEREST ON OTHER BONDS

The Commission had allowed HVPNL to raise bonds amounting to Rs. 1000.00

crores, on behalf of the Discoms, towards payments of additional cost of HVPNL and HPGCL, arising out of various Orders of the Appellate Tribunal for Electricity. Now that all these costs form part of the FSA being recovered by the Discoms from the electricity consumers, the Commission considered it appropriate to allocate the balance FRP borrowings, which are still not addressed, in the ARR of the Distribution Licensees and the interest cost of these bonds was reduced from the ARR of the Transmission Licensee from the FY 2015-16 onwards. The Commission retains the same approach for the FY 2016-17.

3.5.8 TRUE-UP OF THE FY 2014-15

Based on the audited accounts of HVPNL for the FY 2014-15, the true-up amount has been estimated at Rs. 663.05 million and the same has been added to the ARR for the FY 2016-17.

3.5.9 RETURN ON EQUITY (RoE)

The Return on equity that formed part of the MYT Order dated 29.5.2014 was calculated only on the share capital that had been issued and did not take into account the share application money pending allotment despite the fact that the money had been utilized by the Licensee. Consequently, the opening equity capital for the purpose of calculating the RoE for the FY 2016-17 has undergone a change. The Commission observes that HVPNL has calculated RoE @ 10% while the same, in the text, has been mentioned as 14%. Thus, the Commission is not going in the details of various inefficiencies including Capex Plan implementation, power transformer damage rate etc. for restricting the RoE at 10%. The revised RoE proposal of HVPNL and that approved by the Commission is as per table 3.19.

Table 3.19 Computation of Return on Equity for FY 2016-17 (Rs. Million)

	HVPNL Proposal	HERC approval
Paid up Equity Share Capital at the beginning of the year	19,367.10	19367.10
Share application money pending allotment	2,120.60	2,120.60
Less		
Equity Capital for SLDC	56.00	56.00
Equity Capital for Generation	1,595.40	1,595.42
Equity capital for investment in distribution companies	1,259.33	1,259.33
Balance Equity for Transmission	18,576.97	18576.97
Add 50% of equity portion of GFA added during FY 2016-17	1,898.70	1151.69
Less equity related to transmission works not yet commissioned	1,443.30	2682.64

Equity to be considered for ROE	19,032.40	17046.03
Rate of return	10%	10%
Return on Equity for Transmission Business	1,903.24	1704.60

Accordingly, the revised RoE @ 10% amounting to Rs. 1704.60 million as against Rs. 2060.62 million allowed in the MYT Order dated 29th May, 2014 has now been considered. The additions to equity share capital are calculated based on 25 % share of additional capital expenditure as proposed by the Licensee in its present petition.

3.5.10 NON-TARIFF INCOME

The Commission, in the MYT Order had approved non-tariff income as proposed by the Licensee with an observation that Licensee's estimates of Non-Tariff Income appears to be on the lower side as compared to actual amounts. The Licensee has now revised its estimate of non-tariff income from Rs. 52.14 million to Rs. 314.38 million. The revised amount being reasonable is approved.

3.5.11 SHARE OF SLDC CHARGES

The Commission had approved the SLDC ARR at Rs. 220.01 million for the FY 2016-17 against which the Licensee has submitted the revised estimates of Rs. 171 million based on the revised capital expenditure and actual expenses for the FY 2014-15. The Commission approves the estimates of the Licensee subject to true-up. Accordingly, the share of SLDC charges to be borne by the Transmission Licensee is revised to Rs. 9.28 million. However, the SLDC charges have been taken out of calculation of the ARR of the transmission Licensee in order to avoid double counting of the working capital borrowings and interest thereto. Also, as the Licensee has not provided the breakup of individual components of SLDC O&M expenses, the Commission is constrained to reduce the total approved O&M cost of SLDC from the O&M cost of forming part of transmission ARR.

Table 3.20 SLDC Charges for FY 2016-17 Approved by the Commission
(Rs. Million)

Particulars (Rs Million)	FY16-17 (Proposed)
O&M Cost	69
Interest on Loan	50
Depreciation	50
Interest on Working Capital	3
Non-Tariff Income	1

Annual Revenue Requirement	171
Less true-up for FY 2014-15	54.98
Net ARR for SLDC business for FY 2016-17	116.02

3.5.12 REVISED ARR FOR TRANSMISSION BUSINESS FOR FY 2016-17

Based on the above calculations, the revised ARR for the transmission business for the FY 2016-17 is as per the table 3.21.

**Table 3.21 Revised ARR for Transmission business for FY 2016-17
(Rs. million)**

S.NO.	Particulars	Annual Revenue Requirement		
		FY 2016-17 HERC Order	FY 2016-17 HVPNL revised estimate	FY 2016-17 HERC Approval
	Expenditure			
1	O&M expenses	4315.21	5710.05	5165.85
a	R&M Expenses	382.68	505.06	414.56
b	Employee Expenses	2615.73	2960.19	2506.49
c	Terminal Benefits	1113.92	2093.11	2093.11
d	A&G Expenses	202.87	151.69	151.69
2	Depreciation	2854.43	3588.00	3285.91
5	Interest on term Loans	1445.93	3149.21	2655.75
4	Interest on Pension Bonds	61.97	572.05	6.72
5	Interest on PF Bonds	0.00	137.85	0.00
6	Interest on working Capital	182.86	349.85	253.80
7	Interest on bonds (others)	983.00		0.00
8	Share of SLDC Charges	17.60	13.68	0.00
A	Total Expenditure (1+2+3+4+5+6+7+8)	9861.00	13520.69	11368.04
B	Return on Equity	2060.62	1903.24	1704.60
C	Non Tariff Income	(52.14)	(314.38)	(314.38)
D	Less SLDC expenses forming part of O&M expenses			(69.00)
E	True-up for FY 2014-15 for Transmission			827.19
F	Carrying cost on true-up for FY 2014-15			89.75
G	Incentive passed on			
H	Aggregate Revenue Requirement	11869.48	15109.55	13606.19

3.6 TRANSMISSION TARIFF FOR THE FY 2016-17

Unitary charges of M/s KT Transco and share of SLDC charges borne by the Transmission Licensee are to be added to the transmission ARR approved by the Commission to arrive at the total transmission charges to be recovered from long term beneficiaries of Intra-State Transmission system, in accordance with Regulation 50 of MYT Regulations, 2012. However, the transmission charges to be recovered from both long term beneficiaries and Short Term Open Access Consumers requires certain other adjustments.

The Commission observes that the Licensee has added certain long term beneficiaries during the FY 2014-15 as under:-

		MW
1	NTPC Ltd. Faridabad	5
2	Chanderpur Renewal Power Company Pvt. Ltd	0.74
3	Jindal Stainless Ltd	30
	Total	35.74

The MYT regulations 51.1.2 provide for the methodology of recovery of transmission charges as under:-

"The Total Transmission Cost (TTC) as determined by the Commission as per regulation 51.1.1 above, shall be shared by all long-term and medium-term open access consumers on monthly basis (including existing Distribution Licensees) in the same manner as provided for in regulation 50 for sharing of annual transmission charges."

The Commission observes that the Licensee has recovered transmission cost and SLDC charges from the new beneficiaries in addition to that charged from its existing beneficiaries instead of adjusting the charges from all its long term consumers for that month. This has resulted in over recovery of transmission Charges in the FY 2014-15. The excess recovery is, therefore, to be adjusted in the tariff to be charged from all long term beneficiaries in the FY 2016-17.

Excess Transmission Charges Recovered by HVPNL in FY 2014-15 (Rs. million)				
		Transmission charges	SLDC charges	Total
1	NTPC Ltd. Faridabad	2.861	0.305	3.166
2	Chanderpur Renewal Power Company Pvt. Ltd	0.277	0.03	0.307
3	Jindal Stainless Ltd	4.768	0.511	5.279
	Total	7.906	0.846	8.752

3.6.1 ADJUSTMENT OF CONTINGENCY RESERVE FUND

HVPNL, vide its memo no. Ch-2/SE/RAU/F-52/ Vol-V dated 15.01.2016 has requested the Commission to allow HVPNL for not investing further the amount of contingency reserve, keeping in view the fact that the Electricity Act 2003 has no provision for contribution to contingency reserve. HVPNL has proposed that the amount be used to pay off high cost interest. In this matter, the Commission observes that this amount has been charged from the long term beneficiaries of the Transmission Licensee. The purpose of the fund was to make available certain amounts to the

Transmission Licensee in case of emergency by way of a small continuous charge. Now that the fund is no longer being maintained by the Transmission Licensee, the Commission orders that Rs. 282.87 millions be returned to those consumers who had contributed to the fund and adjusted in the monthly transmission tariff recoverable from UHBVNL and DHBVNL for the FY 2016-17

3.6.2 YEARLY TRANSMISSION CHARGES FOR LINES OPERATING AS ISTS LINES

As discussed in Para 3.4.14 above, the Licensee has proposed to reduce the yearly transmission charges (YTS) for transmission lines designated as inter-state transmission lines from the charges to be paid by long term beneficiaries. As the cost of these transmission lines forms part of the transmission ARR, the Commission agrees to the proposal of the Licensee. However, the YTC upto 31.3.2015 shall form part of true-up for the FY 2014-15. The YTC for the FY 2015-16 shall form part of true-up for the FY 2015-16. The YTC for the FY 2016-17 shall be reduced from the transmission charges for FY 2016-17.

3.6.3 DETERMINATION OF TRANSMISSION TARIFF

In accordance with the revised ARR determined by the Commission for the FY 2016-17 and the above mentioned adjustments, the Transmission Tariff for the FY 2015-16 shall be as per the details provided in the table that follows and shall be shared by the long term beneficiaries of the intra-state transmission system based on their respective estimated transformation capacity.

Table 3.22 Transmission Tariff for the FY 2016-17 (Rs. Millions)

	HVPNL Proposal	HERC Approval
	Amount	Amount
Particulars	(Rs. Millions)	(Rs. Millions)
Aggregate Revenue Requirement for FY 2016-17	15,110	13606.19
Gap on account of True-up for FY 2014-15	3,929	
Gap on account of Review of FY 2015-16	4,846	
Carrying Cost on Gap for FY 2014-15 & FY 2015-16	1,117	
Adjusted ARR	25,002	13606.19
Transmission share of SLDC charges		9.28
Add Unitary Charges for JKTPL	550.50	537.60
Less Over recovery of Transmission and SLDC charges during FY 2014-15		-8.75
Less YTC for Lines Operating As ISTS Lines (Till FY14-15)	240.65	0.00
Less YTC for Lines Operating As ISTS Lines (For FY15-16 & FY16-17)	203.51	-101.76
Less 75% of Income from open access consumers		-346.17
Total Transmission Charges	25996.16	13696.40
Monthly Transmission Tariff	2166.38	1141.37
Adjustment of Contingency reserve fund (only for Distribution		282.87

Licensees)		
Average Transformation Capacity (%)		
UHBVNL	49.62%	49.6190%
DHBVNL	49.64%	49.6421%
TPTCL	0.71%	0.7062%
NTPC Ltd	0.03%	0.0285%
CRPCPL	0.0042%	0.0042%

Monthly Transmission Tariff - UHBVN (based on ratio of Transformation capacity)	1,074.96	566.3350
Less monthly reduction on account of contingency reserve fund		11.7850
Net Monthly transmission charges recoverable from UHBVNL		554.55
Monthly Transmission Tariff - DHBVN (based on ratio of Transformation capacity)	1,075.40	566.5982
Less monthly reduction on account of contingency reserve fund		11.7850
Net Monthly transmission charges recoverable from DHBVNL		554.8132
Monthly Transmission Tariff - TPTCL (based on ratio of Transmission capacity)	15.38	8.0603
Monthly Transmission Tariff - NTPC (based on ratio of Transmission capacity)	0.65	0.3252
Monthly Transmission Tariff - CRPCPL (based on ratio of Transmission capacity)	0.09	0.0480

3.6.4 REVENUE FROM SHORT TERM OPEN ACCESS CONSUMERS

In accordance with Regulation 47 (b) of the MYT Regulations, the Commission has reduced 75% of the charges collected from the Short Term Open Access Consumers on account of application money and transmission charges has been adjusted towards reduction in the transmission charges payable by the long term and medium term users.

3.7 TRANSMISSION CHARGES FOR SHORT TERM OPEN ACCESS CONSUMERS

HVPNL has sought revision of Short Term Open Access (STOA) charges for the FY 2015-16 vide a separate Petition (Case No. HERC/PRO-18 of 2016) filed on 10th August 2015 with the Commission on account of revision of Annual Transmission Charges due to financial relief provided as per HERC Order dated 19.03.2015 and HERC Order dated 18.08.2015. The Commission heard the case on 11th September 2015, 7th October 2015 and 29th January 2016 for disposing of the above Petition and providing appropriate relief to HVPNL. In view of the fact that only about two months were remaining for the FY 2015-16 to end, the Licensee submitted that any Order that

may be passed by the Commission in the matter, at this stage, will not enable HVPNL to realize the entire financial relief that may be allowed to it.

Subsequently, HVPNL, vide memo no. CH 70/SE/RAU/F-148 dated 2.2.2016 filed a revised estimation of Short Term Open Access Charges for the FY 2016-17 to be determined (Case no. HERC/PRO-31 of 2015) for "True-up for the FY 2014-15, Review of the FY 2015-16 and Revised Aggregate Revenue Requirement for MYT Control Period" considering the financial relief of Rs. 1290.12 million provided to HVPNL by the Commission vide its Order dated 19.03.2015 for kind consideration and approval of the Commission in line with its approach adopted in its Order dated 18.08.2015.

Table 3.23 Transmission charges proposed to be recovered from STOA Consumers

Particulars	FY 2016-17
Transmission Cost for FY 2016-17(Rs. Millions)	15109.56
Unitary Charges for JKTPL (Rs. Millions)	550.50
Total volume of energy sales by the distribution Licensee(s) during the previous year (MU) 2014-15	45260.42
Total volume of expected energy sales by the distribution Licensee(s) during the current year (MU) 2015-16 (Assuming 10% Escalation)	49786.47
Proposed Transmission Charge (Rs./kWh) from STOA Consumer	0.3145

In view of the revised prayer of the Licensee, the Commission agreed to consider the matter along with the ARR and Tariff Petition for the FY 2016-17. However, before doing so, the Commission made available the Petition filed by HVPNL on its website inviting the stakeholders/General Public to participate in the proceedings on date mentioned therein. In response to the said notice no written objections/comments were received from any stakeholder/General Public and no one was present to make oral submissions in the public hearing held in the matter. The Commission, therefore, allows the petition and approves Rs. 1290.12 million as trued-up amount to be included in the Transmission ARR for the FY 2016-17 for the purpose of calculation of Transmission charges to be paid by Short Term Open Access consumers. Additionally, it is observed that the energy handled by the transmission system in the FY 2015-16 as per the inter-utility meters (SEMs) installed at the interface between the Transmission Licensee (HVPNL) and the Distribution Licensees (UHBVNL & DHBVNL), after accounting for the Intra-State transmission losses, i.e. energy drawl by the Discoms, as intimated by the CE/SO & Commercial was 46,356 Million Units as against 49,786.47 MUs after assuming 10% escalation in the FY 2014-15 indicated by HVPNL in its presentation in the public hearing. Thus, the Commission has considered the latest figure made

available by HVPNL vide email dated 4th April, 2016 for working out transmission charge (Rs/kWh) for the Short Term Open Access Consumers.

Accordingly, the transmission cost for the calculation of short term open access charges is under:-

Table 3.24 Transmission Cost for Short Term Open Access consumers for FY 2016-17 (Rs. Millions)

Aggregate Revenue Requirement for FY 2016-17	15,110	13606.19
Gap on account of True-up for FY 2014-15	3,929	
Gap on account of Review of FY 2015-16	4,846	
Carrying Cost on Gap for FY 2014-15 & FY 2015-16	1,117	
Adjusted ARR	25,002	13606.19
Transmission share of SLDC charges		9.28
Unitary Charges for JKTP	550.47	537.60
True-up as per HERC order dated 19.3.2015		1290.12
Total Transmission Charges	25,492	15443.19
Transmission Tariff for short term open access consumer (Rs / kWh) rounded off.		0.33

CHAPTER 4

ANALYSIS OF THE PETITION AND COMMISSION'S ORDER ON SLDC CHARGES

4.1 TRUE-UP OF ARR OF SLDC BUSINESS FOR THE FY 2014-15

The Petitioner has submitted that the true-up for SLDC business may be considered by the Commission as per details provided by them. The details of the ARR approved for SLDC business by the Commission in its Tariff Order for the FY 2014-15, the actual expenditure incurred as per the audited accounts is provided in the table that follows.

The Commission has examined the petition for true-up of the SLDC expenses and approves the same as proposed by HVPNL. Accordingly (Rs. 54.98) million is approved for true-up of the SLDC expenses for the FY 2014-15 as under:-

SLDC ARR (Rs. Millions)	Approved	Actual	Surplus/ (gap)
Employees' cost	32.89	31.38	1.51
A & G Expenses	9.18	10.13	(0.95)
R&M expenses	4.54	8.30	(3.76)
Depreciation	45.59	23.44	22.15
Interest & Finance Charges on Capital Expenditure	50.91	14.59	36.32
Interest on Working Capital	2.29	2.59	(0.30)
Total Expenditure (including special appropriation)	145.40	90.42	54.98

The over recovery of Rs. 54.98 million shall be adjusted in the approved ARR for the SLDC for FY 2016-17 in accordance with the MYT Regulations, 2012.

4.2 SLDC ARR FOR THE FY 2016-17

The Petitioner has sought to revise the capital expenditure envisaged for SLDC during the remaining period of the MYT Control Period with consequential impact on the ARR for SLDC business. The details provided by HVPNL are as under:-

Year	FY2015-16 (Q1-Actual)	FY 2015-16 (Proposed)	FY 2016-17 (Proposed)
Expenses (in Rs. Millions)	180	160.3	374.3

Based on the proposed revised capital expenditure plan for the remaining years of the MYT Control Period and actual expenses for the FY 14-15 the revised ARR for the SLDC has been estimated by HVPNL as under:-

Particulars (Rs. Millions)	FY 15-16 (Proposed)	FY 16-17 (Proposed)
O&M cost	63	69
Interest on Loan	20	50
Depreciation	41	50
Interest on Working Capital	2	3
Non-tariff Income	1	1
Annual Revenue Requirement	125	171

The Petitioner has prayed that the Commission may approve the same for the remaining years of the MYT Control Period.

In view of above and as the Petitioner has sought the change in the ARR of SLDC for the FY 2015-16 and the FY 2016-17 the SLDC charges (system operation charges and the market operation charges) as determined in line with the Regulation 6 and 16 of the HERC MYT Regulations, 2012 shall also be revised as approved by Commission.

Additionally, the Licensee in its submission in the ARR Petition for the MYT Control Period dated 26th March, 2015 had informed the Commission that its SLDC website has been revamped in February, 2015 through M/s Siemens under ULDC phase-II Project. The Commission has taken note of the same and expects that the Licensee shall update the data/information made available on the same at regular intervals.

The Commission approves the revised proposal of the Licensee for the ARR of the SLDC for the FY 2016-17 only. At this stage the Commission has not considered revision of the ARR for FY 2015-16 as the same shall be taken-up in the FY 2016-17 in line with the MYT Regulations, 2012.

In view of the above, the Commission Orders that the true-up amount of the FY 2014-15 i.e. Rs. 54.98 million is to be reduced from the Approved ARR for the FY 2016-17 as per the details provided in the table that follows.

Table 4.1 ARR for SLDC Business for FY 2016-17(Rs. Million)

Particulars (Rs Million)	HERC Approved
O&M Cost	69
Interest on Loan	50
Depreciation	50
Interest on Working Capital	3
Non-Tariff Income	1
Annual Revenue Requirement	171
Less true-up for FY 2014-15	54.98
SLDC charges for FY 2016-17	116.02

4.3 SLDC CHARGES

HVPNL has proposed that the SLDC charges as approved by the Commission shall be recovered from various beneficiaries in accordance with the provisions of the MYT Regulations, 2012. Regulation 52 of the said Regulations provides as under:-

“52 RECOVERY OF CHARGES BY SLDC

- (a) *The annual charges of SLDC, as determined as per regulations 6 and 16, shall be apportioned between system operation function and market operation function as mentioned below:-*

<i>System operation function</i>	<i>80% of annual charges</i>
<i>Market operation function</i>	<i>20% of annual charges</i>

(b) **Collection of system operation charges**

- i. *System operation charges shall be collected from the beneficiaries as per the norms given below:-*

<i>(1) Intra-State transmission Licensee</i>	<i>10% of operational charges</i>
<i>(2) Generating stations and sellers</i>	<i>45% of operational charges</i>
<i>(3) Distribution Licensee and buyers</i>	<i>45% of operational charges</i>

- ii. *The system operation charges shall be levied on the intra-State transmission Licensees on the basis of the ckt.-km of the lines owned by them as on the last day of the month prior to billing of the month;*
- iii. *The system operation charges from the generating companies and sellers (which excludes short term open access consumers) shall be collected in proportion to their installed capacity or contracted capacity, as the case may be, as on the last day of the month prior to billing of the month;*
- iv. *The system operation charges from distribution Licensees and buyers (which excludes short term open access consumers) shall be collected in proportion to the sum of their allocations or contracted capacities, as the case may be, as on the last day of the month prior to billing of the month.*

(c) **Collection of market operation charges.**

- i. *The market operation charges shall be shared equally by all the beneficiaries of SLDC except intra-State transmission Licensees.*
- ii. *Market operation charges shall be collected on monthly basis.*

- iii. *Any deviation in the value of annual market operation charge determined and collected from the open access consumers shall be trued up during the annual performance review. “*

In accordance with the methodology provided in the MYT Regulations, 2012 for recovery of SLDC charges, the charges attributable to system operation function and market operation function corresponding to the approved ARR for SLDC for FY 2016-17 are as under:-

System operation function charges	=	80% of Rs116.02 million
	=	Rs. 92.816 million
Market operation function charges	=	20% of Rs116.02 million
	=	Rs. 23.204 million

10% of the system operation function charges is the share of intra-state transmission Licensee i.e. HVPNL. 45% of system operation function charges i.e. Rs. 41.76 million is to be divided between the Discoms and the buyers proportionately corresponding to the transformation capacity or installed capacity of the beneficiaries, as the case may be, under this category. HVPNL in its Petition has divided 45% system operation function charges proportionately in the ratio of MW capacity (converted to MVA using a power factor of 0.9) in case of buyers other than Discoms and in the ratio of transformation capacity in the case of Discoms between UHBVNL, DHBVNL, TPTCL, NTPC and CRCPCL. It is observed that the SLDC charges worked out by HVPNL in their petition needs further deliberations and accordingly reviewed as the petitioner has not considered all the generating stations supplying power in Haryana i.e. Small Hydro, Biomass / bagasse based RE projects Solar Power Projects etc. It is further observed that HVPNL has clubbed NTPC and CRCPCL with the Discoms for recovering System Operation Charges whereas as per the MYT Regulations, 2012, these are to be clubbed with HPGCL as Generating Stations.

In line with the above, HVPNL may examine the entire matter of apportionment of SLDC charges keeping in view its financial impact and Regulations of various States and file its observations in the Commission within three months of the issue of this Order. The Commission shall separately determine the apportionment of SLDC charges after holding hearing in the matter. Meanwhile, HVPNL may continue recovering SLDC Charges as per the previous Order of the Commission.

4.4 INCENTIVE AND PENALTY (SYSTEM AVAILABILITY) FOR THE FY 2014-15

HVPNL has submitted that the transmission system availability has been calculated circle wise and month wise and then the average has been taken to arrive at the system availability in the FY 2014-15. The month wise availability of each circle is calculated in accordance with the formula prescribed in MYT Regulations, 2012 as under:-

Calculation of System Availability (FY 2014-15)

S. No	Month	Total of lines and transformer capacity during month (C*D)	Total Numerator (HxCxD)	Availability during month {100-100*(D/(F*C))}	Hours in the month	Total Denominator (C*F)
A	B	C	D	E	F	G
1	Apr-14	96267.2354	354085.8636	99.50	720.00	69312409.4880
2	May-14	91681.4754	224718.0106	99.67	744.00	68211017.6976
3	Jun-14	91343.71281	380779.0312	99.42	720.00	65767473.2256
4	Jul-14	88666.69873	816180.7103	98.76	744.00	65968023.8556
5	Aug-14	89521.06873	445430.1649	99.33	744.00	66603675.1356
6	Sep-14	90683.2444	936893.7636	98.57	720.00	65291935.9680
7	Oct-14	90933.7744	982196.4623	98.55	744.00	67654728.1536
8	Nov-14	100603.4705	614225.0939	99.15	720.00	72434498.7814
9	Dec-14	99947.75669	510303.1048	99.31	744.00	74361130.9746
10	Jan-15	101541.3756	900509.3308	98.81	744.00	75546783.4216
11	Feb-15	102178.4436	490285.1099	99.29	672.00	68663914.1101
12	Mar-15	102862.2815	613004.9394	99.20	744.00	76529537.4173
	Total	1146230.5377	7268611.5854		8760.00	836345128.2290
	Annual TSA for the year 2014-15			99.13		
Legend						
	C = length of line in Ckt KM/MVA Rating of T/F					
	D = No. of Sub-conductors per phase/constant factor=2.5 for T/F					
	H = Total Outage hours (Planned Outage + Forced Outage)					
	Annual TSA for the year 2014-15, as per HERC Formula is:					
	=	100-100*{Total Numerator H*C*D}/(Total Denominator C*F)}				
	=	100-100*{(7268611.5854)/(836345128.2290)}				
	=	99.1309				
	Certified that the Annual Transmission System Availability of HVPNL for the Financial year 2014-15 as per HERC MYT regulations, 2012 has been worked out as 99.1309 %					

Accordingly, the Petitioner has sought an incentive of Rs. 28.13 Million for the FY 2014-15 based on system availability as computed above and has proposed to pass on the incentive to the consumers by reduction of its ARR.

The Commission in its Order dated 29.03.2013 on the ARR / Tariff and charges

for the Transmission and SLDC business of HVPNL for the FY 2013-14 had observed that the incentive if any shall be governed by the MYT Regulation, 2012. The relevant regulations are reproduced below:-

12.1 Various elements of the ARR of the generating company and the Licensee will be subject to incentive and penalty framework as per the terms specified in this regulation. The overall aim is to incentivize better performance and penalize poor performance, with the base level as per the norms / benchmarks specified by the Commission."

12.2 "The elements of ARR of generating company and Licensees to which incentive and penalty framework shall apply are as follows:

(c) Only for Transmission Licensee

(i) Availability- Applicable when actual availability falls below or exceeds the level specified by the Commission. The incentive for actual availability above target availability shall be worked out as per the following formula:

$I = ATC \times (AA - TA) / TA$ Where

I = Incentive

ATC = Annual transmission charges

AA = Annual availability achieved (actual)

TA = Normative target availability.

Note 1: The incentive mechanism for availability shall be applicable only when the transmission Licensee submits detailed computation of the availability figures to the Commission and the Commission approves the same. The detailed computation will include all details of the input data, methods of recording the data (manual or through electronic modes), formula used for computation and all other details required to establish the current level of availability. While reporting the level of availability to the Commission, the transmission Licensee shall enclose a certificate from the SLDC validating the indicated level of availability.

Note 2: For all purposes the 'normative target availability factor' shall be considered for recovery of fixed charges. Any fall in the actual availability from the normative target availability shall result in pro-rata reduction of fixed charges."

As per the norms of operation given in the MYT Regulations, 2012 for Transmission Licensee the normative annual transmission system availability factor is as under:-

Normative Annual Transmission System Availability Factor (NATAF)

Norm	FY 2013-2014	MYT Control Period		
		FY 2014-2015	FY 2015-2016	FY 2016-17

	(%)	(%)	(%)	(%)
AC System	98.5	98.8	99	99.2

It has been provided that the target system availability shall be subject to incentive and penalty mechanism subject to the conditions specified in Regulation 12 of the MYT Regulations, 2012. The normative target availability for the FY 2014-15 is 98.8 %, thus the incentive worked out for the FY 2014-15 is as under:-

Calculation for Incentive on account of transmission system availability for FY 2014-15

Particulars	(Rs Million)
Annual Transmission Charges (ATC)	10926.32
Annual Availability Achieved (Actual) (AA)	99.13
Normative Target Availability (TA)	98.80
(AA-TA)/TA	0.003340
Incentive (I) (Rs. millions)	36.49

Incentive Sharing	
Licensee	Beneficiary
60%	40%
21.89	14.60

HVPNL shall recover the 60% incentive i.e. 21.89 million allowed to them for the FY 2014-15 by raising separate bills to the beneficiaries. The balance i.e. Rs.14.13 million gets automatically passed on to the beneficiaries as the same has not been included in the ARR of HVPNL.

Transformation Capacity (MVA)

Share of Transformation Capacity	2012-13	2013-14		2014-15	2014-15	2015-16
		Projected	Actual	Projected	Actual	Actual up to January 2016
UHBVNL	8349.2	8,826	8936.2	10,126	9690.7	10210.7
DHBVNL	8242.9	9,027	8943.7	10,974	9858.7	10846.2
TPTCL					137.8	137.8
Total						21194.7
% Share of UHBVNL	50.3%	49%	49.98	48%		48.176
% Share of DHBVNL	49.7%	51%	5.02	52%		51.174
% Share of TPTCL						0.065

The projected revenue recoverable from each beneficiaries of the transmission system is based on their respective share in the transformation capacity during the MYT Control Period.

4.5 RECOVERY OF REACTIVE ENERGY CHARGES

The reactive energy charges payable by the Distribution Licensee to the Transmission Licensee shall be as per Regulation 5.5.1 of the Haryana Grid Code (HGC) as amended from time to time. HVPNL, in its petition, had submitted that they are raising reactive energy bills on the Discoms at the rate determined by the CERC for the FY 2016-17 and had proposed to charge the Discoms @ 13 Paisa/kVARh w.e.f. 1.04.2016 based on the kVARh recorded by the SEMs installed at the interface of HVPNL and the Discoms. Subsequently, vide Memo No. CFO/HVPNL/6 dated 30.03.2016 HVPNL has submitted that the reactive energy charges are not part of the ARR and are to be recovered on the basis of actual energy consumption at the interface meters between HVPNL and the Discoms. Accordingly, HVPNL has prayed that this claim, in their ARR Petition may be considered as withdrawn and direct billing will be done to the Discoms.

The Commission has considered the above submission of HVPNL and is of the view that reactive energy charges is not part of the ARR under consideration, hence, in the present Order no further deliberations are required.

CHAPTER 5

GENERAL INSTRUCTIONS/DIRECTIVES

5.1 COMPLIANCE OF DIRECTIVES

In addition to the directives contained in the preceding paragraphs, the Commission further directs as under:-

- a) That HVPNL shall abolish all non-technical posts continuously lying vacant during the last three years as on 29.05.2014 as has already been ordered by this Commission in the ARR of the FY 2014-15. Further, non- technical posts may not be filled-up from any source except promotions. If required, HVPNL shall obtain prior approval of the State Government and the Commission before initiating the process of filling-up of any non-technical posts. In case of any violation, the Appointing Authority shall be held responsible. The Commission shall not allow any extra expenditure incurred in this regard in the ARR / Tariff.
- b) That HVPNL shall implement Aadhaar Enabled Biometric Attendance System (AEBAS) for all regular/contractual officers /officials as per State Government notification.
- c) That HVPNL shall centralize its Pay and Pension cell as soon as possible. HVPNL shall submit action taken report in this regard within 45 days from the date of issue of this Order.
- d) That HVPNL shall take all necessary steps for implementation economy measures as per Haryana Government instructions issued vide letter no. 5/6/2002-IB&C dated 15.02.2016.
- e) That HVPNL shall implement the Haryana Government instructions issued vide letter no. 28/9/2016-5 B&C dated 11.02.2016 regarding payment through Real Time Gross Settlement system (RTGS). Further, the Haryana Government instructions issued vide letter no. 28/14/2011-5B&C dated 15.02.2016 regarding payment of salaries of all contractual employees be implemented in true letter and spirit.
- f) In order to ensure transparency in procurement of material and award of works contract, HVPNL is directed to implement open e-tendering. Such invitation of

tenders shall be given wide publicity i.e. by way of notice issued in two national newspapers each in Hindi & English and one in local newspaper having wide circulation and tender document be hoisted on the website. Further, all information relating to the tender document be hosted on the website, otherwise the tenders shall be treated as invalid/void.

- g) In order to rein in the Employees cost and also to facilitate gainful training to the Engineering Graduates of Haryana, HVPNL is directed to provide first opportunity as trainee/apprentice to Haryana domicile Engineering Graduates (B.Tech.) from the recognized Engineering Colleges located in Haryana, after obtaining necessary approval of the State Government, if required. This, the Commission believes, shall facilitate reduction in employees cost for HVPNL and also open up some employment avenues for the un-employed engineering graduates of Haryana.

Any other issue not specifically dealt with in this order shall be governed by the provisions of the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 and other relevant Regulations as may be applicable to HVPNL.

HVPNL is directed to review all the earlier directions / Orders passed by the Commission and submit a report to the Commission within a month including reasons for non-compliance, if any.

The Licensee shall implement the tariff and charges contained in this Order with effect from 1st April, 2016.

This order is signed, dated and issued by the Haryana Electricity Regulatory Commission on 31st March, 2016.

Date: 31st March, 2016
Place: Panchkula

(M. S. Puri)
Member

(Jagjeet Singh)
Chairman