



COMMISSION'S ORDER

ON

**TRUE UP FOR FY 2020-21, ANNUAL (MID YEAR) PERFORMANCE REVIEW
FOR FY 2021-22 AND DETERMINATION OF AGGREGATE REVENUE
REQUIREMENT AND TARIFF AND CHARGES FOR HARYANA VIDYUT
PRASARAN NIGAM LIMITED (HVPNL) FOR FY 2022-23**

CASE No: HERC/PETITION NO. 43 OF 2021

2nd March 2022

**HARYANA ELECTRICITY REGULATORY COMMISSION
BAYS 33-36, SECTOR-4, PANCHKULA-134112, HARYANA**

<https://herc.gov.in>

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BEFORE HARYANA ELECTRICITY REGULATORY COMMISSION

BAYS NO. 33-36, SECTOR-4, PANCHKULA-134112

CASE NO: HERC / PRO- 43 OF 2021

IN THE MATTER OF

Petition filed by Haryana Vidyut Prasaran Nigam Limited (herein after referred to as HVPNL or the Petitioner or the Licensee) for approval of True up for the FY 2020-21, Annual Performance Review for the FY 2021-22 and Tariff Petition for the FY 2022-23.

QUORUM

**Sh. R.K. Pachnanda
Shri Naresh Sardana**

**Chairman
Member**

ORDER

The present petition has been filed by HVPNL i.e. the Transmission Licensee also notified by the Haryana Government as the State Transmission Utility (STU) and State Load Dispatch Centre (SLDC).

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, has considered the petition filed by HVPNL for True-Up of the Aggregate Revenue Requirement (ARR) for Transmission Business and State Load Dispatch Centre (SLDC) for the FY 2020-21, Annual (Mid-Year) Performance review for the FY 2021-22, MYT petition for determination of ARR for the FY 2022-23 and determination of transmission tariff and SLDC charges for the FY 2022-23.

The petition filed by HVPNL for its Transmission Business and SLDC is briefly set out hereunder:

CHAPTER 1

1.1 PETITION FILED BY HVPNL (TRANSMISSION AND SLDC)

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, 2019 (“MYT Regulations 2019”) were notified on October, 31, 2019. As per the provisions of the said Regulations, the Transmission Licensee i.e. Haryana Vidyut Prasaran Nigam Limited (HVPNL) is required to file, each year, an Annual Performance Review (APR) petition for the 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.

The Transmission Licensee i.e. HVPNL has filed the present petition on 26.11.2021 for True-Up of the Aggregate Revenue Requirement (ARR) for Transmission Business and State Load Dispatch Centre (SLDC) for FY 2020-21, Annual (Mid-Year) Performance review for the FY 2021-22, MYT petition for determination of ARR for the FY 2022-23 and determination of transmission tariff and SLDC charges for the FY 2022-23 under section 26(7) of the Haryana Electricity Reform Act, 1997 read with applicable provisions of the license, the MYT Regulations and section 32 (3), section 62 and 64 of the Electricity Act, 2003, for consideration and approval of the Commission.

The petitioner, has sought True up of the FY 2020-21 based on the audited accounts of the said year; Annual Performance Review of the FY 2021-22 and Tariff Petition for the FY 2022-23, based on the revised estimates for the FY 2021-22 and projections for the FY 2022-23 along with revised Capital Expenditure Plan for the FY 2021-22 and FY 2022-23. The details, as submitted by the petitioner, are briefly set out in the paragraphs that follow.

At the onset, the Commission observes that the FY 2020-21 order (now being taken up for ‘true-up’) was passed in accordance with the applicable provisions of the HERC MYT Regulations, 2012. Hence, the ‘true-up’, for the FY 2020-21 shall be carried out as per the provisions and principles specified therein. While the Transmission ARR / SLDC charges for the FY 2022-23 shall be considered and determined in accordance with the provisions of the MYT Regulations, 2019 in vogue. The ARR approved by the Commission and revised ARR submitted for True up of transmission business for the FY 2020-21 are as under: -

Proposed True Up of Transmission Business ARR for FY 2020-21 (Rs. Millions)

Particulars	Approved by HERC	Actual	Gap Surplus/ (Deficit)
O&M expenses	4812.60	7020.32	(2207.72)
Employee Expenses	3979.37	4287.65	(308.28)
Terminal Benefits	-20.90	2069.75	(2090.65)

A&G Expenses	345.72	292.68	53.04
R&M Expenses	508.41	370.25	138.16
Depreciation	4247.90	4467.29	(219.39)
Interest on term Loans	2530.12	2012.88	517.24
Interest of Foreign Exchange Risk Variation	0.00	186.10	(186.10)
Interest on working Capital	180.38	37.68	142.70
Total Expenditure	11771.00	13724.27	(1953.27)
Return on Equity	0.00	3261.91	(3261.91)
Less Non-Tariff Income	-222.80	-294.58	71.78
Annual Transmission Charges	11548.20	16691.60	(5143.40)
Add: Incentive for TSA	0.00	27.37	(27.37)
Add: Sharing of Benefits @ 60% - Saving in IoWC	0.00	143.82	(143.82)
Net ARR	11548.20	16862.79	(5314.59)
Add: Revenue Gap 2019-20	-485.16	-485.16	0.00
Add: Carrying cost on above	-65.13	-65.13	0.00
Aggregate Revenue Requirement	10997.90	16312.49	(5314.59)
Transmission Share of SLDC Charges	9.99	13.88	(3.89)
Unitary Charges for JKTP	494.78	496.48	(1.70)
Less: YTC for Lines Operating As ISTS Lines FY 20-21	-96.90	0.00	(96.90)
Total Transmission Charges	11405.77	16822.85	(5417.08)

It is evident from the table above that the claim for true-up filed by the petitioner majorly comprises of terminal liabilities and Return on Equity.

1.2 TRUE-UP OF SLDC BUSINESS ARR FOR FY 2020-21

The ARR approved by the Commission and the actual expenditure incurred during the FY 2020-21 by SLDC business and filed for true-up by the petitioner, is summarized below:

Proposed True Up Requirement of SLDC Business for FY 2020-21 (Rs. Millions)

S. No.	Particulars	Approved by HERC	Actual	Gap Surplus/ (Deficit)
1	Employees Cost	43.68	51.08	(7.40)
2	Terminal Benefits	0.00	0.00	0.00
3	A&G expenses	6.77	8.56	(1.79)
4	R&M Expenses	6.29	17.50	(11.21)
5	Depreciation	41.41	41.23	0.18
6	Interest on Loan	13.85	0.00	13.85
7	Interest on working Capital	2.05	2.91	(0.86)
8	Return on Equity	0.00	43.02	(43.02)
9	Less: Non-Tariff Income	(1.45)	(3.03)	1.58
10	Add: Revenue Gap/ Surplus Refund	12.26	12.26	0.00
11	Carrying Cost	0.00	0.00	0.00
	TOTAL	124.86	173.52	(48.66)

1.3 ANNUAL PERFORMANCE REVIEW OF ARR FOR FY 2021-22

Transmission ARR for FY 2021-22 (Rs. Million)

Particulars	Approved by HERC	Revised estimates for FY 2021-22	Revenue Surplus/ (Deficit)
O&M expenses	7787.19	9267.85	(1480.66)

Employee Expenses	4947.51	4436.16	511.35
Terminal Benefits	2000.00	4002.50	(2002.50)
A&G Expenses	309.80	302.46	7.34
R&M Expenses	529.88	526.73	3.15
Depreciation	4260.11	4898.09	(637.98)
Interest on term Loans	2532.10	2499.73	32.37
Interest on working Capital	278.35	327.51	(49.16)
Total Expenditure	14857.75	16993.19	(2135.44)
Return on Equity	2565.92	3498.71	(932.79)
Less: Non-Tariff Income	(222.80)	(222.80)	0.00
Annual Transmission Charges	17200.87	20269.09	(3068.22)
Add: Revenue Gap for FY 2019-20	1536.45	1536.45	0.00
Aggregate Revenue Requirement	18737.32	21805.54	(3068.22)
Transmission Share of SLDC Charges	15.09	17.25	(2.16)
Unitary Charges for JKTPPL	497.30	497.30	0.00
Less YTC for Lines Operating As ISTS Lines FY 2021-22	(69.45)	0.00	(69.45)
Total Transmission Charges	19180.26	22320.09	(3139.83)

Proposed Revenue Gap with Carrying Cost for FY 2020-21, 2021-22 and FY 2022-23 (Rs. Million)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23
Approved ARR	11405.77	NA	NA
Proposed Revised ARR	16822.85	NA	NA
Opening Revenue Gap	0.00	5667.62	6149.37
Addition in Revenue Gap	5417.08	0.00	0.00
Closing Revenue Gap	5417.08	5667.62	6149.37
Interest Rate	9.25%	8.50%	8.50%
Carrying Cost	250.54	481.75	261.35
Closing Revenue Gap with Carrying Cost	5667.62	6149.37	6410.72

Proposed Aggregate Revenue Requirement of SLDC for FY 2021-22 (in Rs. Million)

Particulars	Approved by HERC in T.O 09.03.2021	Revised Estimates for FY 2021-22	Gap Surplus/ (Deficit)
Employees Expenses	54.45	52.79	1.66
Terminal Benefits	0.00	0.00	0.00
A&G expenses	8.92	8.84	0.08
R&M Expenses	6.99	4.96	2.03
Depreciation	56.13	47.87	8.26
Interest on Loan	24.79	4.90	19.89
Interest on working Capital	2.62	2.85	(0.23)
Return on Equity	0.00	41.68	(48.68)
Less: Non-Tariff Income	(1.45)	(1.45)	0.00
Add: Revenue Gap/ Surplus Refund	48.66	48.66	(14.50)
Carrying Cost	4.50	4.50	(2.53)
TOTAL	188.58	215.61	(27.03)

1.4 PROPOSED ANNUAL REVENUE REQUIREMENT FOR FY 2022-23

Proposed Transmission ARR for FY 2022-23 (in Rs. Million)

Particulars	FY 2022-23
O&M expenses	9242.89
Employee Expenses	4914.75
Terminal Benefits	3443.90
A&G Expenses	312.58
R&M Expenses	571.66
Depreciation	5331.54
Interest on term Loans	2929.30
Interest on working Capital	334.79
Total Expenditure	17838.52
Return on Equity	3750.34
Less: Non-Tariff Income	(222.80)
Annual Transmission Charges	21366.06
Add: Revenue Gap 2020-21	5417.08
Add: Carrying cost on Gap of FY 2020-21 in FY 2020-21	250.54
Add: Revenue Gap 2021-22	0.00
Add: Carrying cost on Gap of FY 2020-21 in FY 2021-22	481.75
Ass: Carrying cost on Gap of FY 2020-21 in FY 2022-23	261.35
Aggregate Revenue Requirement	22776.78
Transmission Share of SLDC Charges	17.94
Unitary Charges for JKTPL	496.40
Less: YTC for Lines Operating as ISTS Lines FY 2022-23	0.00
Total Transmission Charges	28291.12

Proposed Aggregate Revenue Requirement for SLDC for FY 2022-23 (in Rs. Million)

SLDC Business	ARR 2022-23
Employees Cost	54.56
Terminal Benefits	0.00
A&G Expense	9.14
R&M Expense	7.05
Depreciation	67.98
Interest on Loan	24.81
Interest on Working Capital	2.99
Return on equity	59.19
Less: Non-Tariff Income	(1.45)
TOTAL	224.26

1.5 ANNUAL TRANSMISSION CHARGES AND SLDC CHARGES

Proposed Annual Transmission Charges for FY 2022-23 (In Rs. Million)

Annual Revenue Requirement for FY 2022-23	Rs. Million	21366.06
Revenue Gap for FY 2020-21 & FY 2021-22	Rs. Million	5417.08
Carrying cost on above	Rs. Million	993.64
Aggregate Revenue Requirement	Rs. Million	27776.78

Transmission Share of SLDC Charges	Rs. Million	17.94
Unitary Charges for JKTP	Rs. Million	496.40
Less YTC for Lines Operating as ISTS Lines FY 2020-21	Rs. Million	-
Total Transmission Charges	Rs. Million	28291.12
Monthly Transmission Tariff	Rs. Million	2357.59
Monthly Transmission Charges UHBVNL	45.92%	1082.81
Monthly Transmission Charges DHBVNL	52.95%	1248.54
Monthly Transmission Charges TPTCL	0.44%	10.47
Monthly Transmission Charges NTPC	0.01%	0.42
Monthly Transmission Charges CRPCPL	0.00%	0.06
Monthly Transmission Charges Northern Railways	0.64%	15.28

The petitioner has submitted that the transmission charges are waived for M/s Marino Power and M/s Orbit as per the applicable regulations of the HERC for its captive Solar Power Plants. In case of any addition of new beneficiary, the transmission charges would be charged in proportion of the respective allotted capacity.

Proposed SLDC Charges for FY 2022-23 (in Rs. Million)

Beneficiaries	Share	Total (Rs. Millions) FY 2022-23
HVPN @ 8%	-	17.941
Generating Companies & Sellers @ 46%	Installed Capacity /Capacity (in MW)	103.161
HPGCL	2,582.40	59.649
Faridabad Gas Power Plant	432.00	9.978
Mahatma Gandhi Super Thermal Power Station	1320.00	30.490
Gemco Biomass	8.00	0.185
Star Wire India Ltd	9.90	0.229
Sri Jyoti	9.50	0.219
Shahbad Co-operative Sugar Mills	24.00	0.554
Naraingarh Sugar Mil	22.40	0.517
Amplus Sun Solutions Pvt. Ltd.	50.00	1.155
JBM Environment Pvt. Ltd.	8.00	0.185
Distribution Licensees and Buyers @ 46%	Transformation Ratio (in %)	103.161
UHBVNL	45.8860%	47.337
DHBVNL	52.9094%	54.582
Tata Power Trading Company Limited	0.4439%	0.458
NTPC	0.0179%	0.018
CRPCPL	0.0026%	0.003
Northern Railways	0.6477%	0.668
Merino Panel Products	0.0179%	0.018
Orbit Resorts Limited	0.0268%	0.028
M/S Sky City Hotels Pvt. Ltd.	0.0018%	0.002
M/s Asian Paints Limited	0.0179%	0.018
M/s Goodrich Carbohydrates Ltd.	0.0086%	0.009
M/s Dorset Industries Pvt. Ltd.	0.0032%	0.003
M/s KRBL Ltd.	0.0034%	0.004
M/s G.S. Spinning Mills	0.0036%	0.004

Beneficiaries	Share	Total (Rs. Millions) FY 2022-23
M/s Garg Spinning Mills	0.0036%	0.004
M/s Bhartiya Spinners Ltd.	0.0036%	0.004
M/s Blow Pakaging	0.0021%	0.005
TOTAL (HVPN + GENERATING COMPANIES + DISTRIBUTION LICENSEES)		224.264

It has been submitted that in case of any addition of new beneficiary, the SLDC charges would be charged in proportion to the respective transformation capacity.

1.6 SHORT-TERM OPEN ACCESS CHARGES (STOAC)

Proposed Transmission Charges to be recovered from STOAC

STOA Charges (Rs. Mn)	Amount
Transmission Cost for FY 2022-23 (Rs. Million)	27794.72
Unitary Charges (Rs. Million)	496.40
Total Transmission Charges for FY 2022-23(Rs. Million)	28291.22
Total Energy Transmitted by HVPN for FY 2020-21 (MUs)	52987.45
Proposed Charges (Rs./unit)	0.53

RECOVERY OF SLDC CHARGES FROM SHORT TERM OPEN ACCESS CONSUMERS

The petitioner has submitted that the short-term open access consumers will 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, 2019 as amended from time to time.

In view of the above, the petitioner has prayed that this Hon'ble Commission may kindly approve the SLDC Charges for the FY 2023 as proposed.

CHAPTER 2

PROCEDURAL ASPECTS OF THE ARR FILING

2.1 PUBLIC PROCEEDINGS

In compliance of section 64 (2) of the Electricity Act, 2003, the petitioner i.e. HVPNL published its petition in an abridged form for inviting comments/objections from the stakeholders/ general public. The public notice was issued by the HVPNL in The Tribune (English) dated 02.12.2021 and Dainik Tribune (Hindi) dated 30.11.2020 inviting objections/ suggestions/ comments from the stakeholders and general public.

The Commission also issued public notice in The Tribune (English) and Dainik Jagran (Hindi) dated 29.12.2021 inviting comments / objections from the stakeholders/general public.

2.2 PUBLIC HEARING

The Commission, in order to afford an opportunity to the stakeholder/ interested person to present their case in person, held a public hearing on the petition filed by HVPNL after intimating the date of public hearing in the newspapers. The date of the public hearing was also posted on the website of the Commission under the heading 'Schedule of Hearing'.

The public hearing was held on 12.01.2022, as scheduled, though the video conferencing. The petitioner made a detailed presentation in the hearing and also responded to various queries / clarifications sought by the Hon'ble Commission.

Further, in response to the public notice the Commission received objections from the following:

Indian Energy Exchange Limited (IEX)

The objections filed by the above intervener and Commission's view on the same is as under:

That HVPNL has projected transmission charges for STOA consumers @ 0.53/kWh against the present applicable charges of Rs. 0.36/kWh viz. 50% increase on the current level of charges. It has been submitted that such steep increase in charges in two consequent years (to the tune of 50% each year) will amount to a tariff shock for the open access consumers.

HVPNL View: -

HVPNL, while responding to the above objection, has submitted as under: -

It is pertinent to mention here that the petition for True up of the Aggregate Revenue Requirement (ARR) for the FY 2020-21", "ARR for FY 2021-22" and "ARR Tariff Petition for FY 2022-23" in respect of the Transmission Business and State Load Dispatch Centre (SLDC) has been prepared on the basis of the Annual Audited Accounts of HVPNL for the FY 2020-21 and in line with the provisions of the MYT Regulations, 2019 in vogue.

That the main reasons for the increase in STOA in the FY 2022-23 is due to claiming of Rs. 5417.08 Million, plus carrying cost thereon, in the ARR for the FY 2022-23 due to truing-up of the ARR of the FY- 2020-21 based on audited accounts of the FY-2020-21. The Hon'ble Commission in its order dated 21.05.2020 had approved terminal benefits of Rs. -20.90 million as projected by HVPNL for FY 2020-21 on the basis of the Actuary report as submitted by the Actuary vide letter dated 21.11.2017. Consequent upon the revision of provision made by the Govt of Haryana vide letter dated 10.01.2018, the actual terminal benefit liability for the FY 2020-21 was assessed by the actuary at Rs. 6030 million which was decided to be staggered over a period of three years. Hence, the terminal benefit liability for the FY 2020-21 was booked for Rs. 2069.75 million.

Additionally, it has been submitted that this Hon'ble Commission did not allow RoE for the FY 2020-21 in MYT order dated 21.05.2020 against HVPNL projection of Rs. 3,765.37 million despite explicit provision in the HERC MYT Regulations, 2019. In True-up, HVPNL has claimed ROE @ 14% amounting to Rs. 3261.91 million as per the MYT Regulations. Further, in the ARR of FY 2022-23, terminal benefit liability also includes 1/3rd liability of terminal benefits liability for the FY 2020-21.

Commission's view:

The Commission has taken note of the aforesaid objection and observes that the amount claimed towards true-up on account of terminal benefits (liability) and Return on Equity adding up to Rs. 5352.56 million along with carrying cost has distorted the ARR proposed by the licensee for the FY 2023. Hence, the multi-fold increase in transmission charges i.e Short Term Open Access Charges. The Commission shall review the true-up claims for the FY 2021 and ARR proposed for the FY 2023 as filed by the petitioner to arrive at a just and prudent cost .

The intervener has submitted that while determining depreciation for the FY 2023, depreciation on account of assets funded from the consumers contribution has not been reduced. Such treatment has to be in line with the Hon'ble Commission's view in the HVPNL tariff order for the FY 2021-22 dated 09.03.2021.

HVPNL View:

On the above issue, HVPNL has replied that while working out the amount of depreciation, the amount on account of assets funded through consumers contribution has been inadvertently left while preparing the ARR. However, the Commission may consider and work out the depreciation after taking an amount of Rs. 240.384 million on account of depreciation towards assets funded through consumer contribution, while approving the ARR of the FY 2022-23.

Commission's View:

The Commission has taken note of the aforesaid objection and submissions of the petitioner as well as the aforesaid reply filed in the matter and shall reckon with the same at the relevant place of the present order. The Commission ensures the intervener, herein, that no depreciation on assets funded by way of the consumers contribution shall be allowed to be a part of the allowable deprecation in the present matter.

2.3 STATE ADVISORY COMMITTEE (SAC)

The meeting of the State Advisory Committee, constituted under the provisions of section 87 of the Electricity Act, 2003, was held on 18.01.2022 through the video conferencing to seek suggestions / comments from the SAC Members on the ARR / Tariff proposal of the Haryana Power Utilities. The comments / suggestions of the SAC Members were mostly confined to the ARR / Tariff proposal of the power generating company i.e. HPGCL and the Distribution Licensee i.e. UHBVNL and DHBVNL. Hence, the same is not being reproduced here. The submission made by the MD/HVPNL in the SAC meeting on deferring of the TBCB for one year has been taken note of. However, the Commission is of the considered view that deferring the same may not serve any useful purpose given the fact, as submitted by the petitioner, that as of now there are no transmission projects above the threshold limit that may require TBCB.

CHAPTER 3

COMMISSION'S ANALYSIS OF THE PETITION, STAKEHOLDER'S COMMENTS & ORDER

3.1 TRUE-UP OF ARR FOR THE FY 2020-21

Regulation 13 of the HERC Tariff Regulations, 2019 provides for the True Up of the previous year based on audited accounts. Further, Regulation 8 of the Tariff Regulations, 2012 provides that the baseline values for various financial and operational parameters of the ARR for the control period shall be determined after taking into consideration the figures approved by the Commission in the past, actual average figures of last three years, audited accounts, estimate of the figures for the relevant year.

Accordingly, in the following paragraphs, the Commission has dealt with the various components of the ARR for ascertaining the amount eligible for 'true- up' for the FY 2021-22 based on the statute occupying the field and the audited accounts for the year placed on record by the petitioner.

3.1.1 OPERATIONS AND MAINTENANCE EXPENSES

Operations and Maintenance (O&M) Expenses of the petitioner consists of the following elements:

- A. Employee Expenses
- B. Repairs and Maintenance Costs (R&M)
- C. Administrative and General Expenses (A&G)

The employee expenses include salary, dearness allowance, leave encashment and staff welfare expenses etc. Administrative expenses mainly comprise of rents, telephone and other communication expenses, professional charges, conveyance and travelling allowances, other debits etc. Repairs and Maintenance Expenses go towards the day to day upkeep of the transmission network and form an integral part of the petitioner's efforts towards reliable and quality power supply as also in reduction of losses in the system. Terminal Liability consists of the pensions and other post retirement compensation to the staff. The dispensation on O & M is governed by the Regulation 45.3 of the HERC MYT Regulations 2019. A comparison of approved and actual (O&M) expenses, as per the audited accounts, for the financial year 2020-21, during the FY 2020-21 is as under:

Proposed True Up of O&M Expenses for FY 2020-21 (Rs. Million)			
Particulars	Approved by HERC	Actual	Difference Surplus/(Deficit)
O & M expenses	4812.60	7020.32	(2207.72)
R & M Expenses	508.41	370.25	138.16

Employee Expenses	3979.37	4287.65	(308.28)
Terminal Benefits	(20.90)	2069.75	(2090.65)
A&G Expenses	345.72	292.68	53.04

The Commission has dealt with the submission of the petitioner under each head of O&M in the paragraphs that followed:

A. Employee Expenses for the FY 2020-21

A comparison of approved and actual employee expenses incurred during the FY 2020-21 as filed by HVPNL is summarized in the following table.

Proposed True Up of Employee Expenses for FY 2020-21 (Rs. Millions)

Particulars	Approved by HERC	Actual	Difference Surplus/(Deficit)
Salaries and Wages	3979.37	3181.80	(308.28)
Other Staff Cost		1050.36	
Staff Welfare Expenses		106.57	
Benefit from Staff Loans		-	
Less: Employee Benefit for SLDC		51.08	
Total Employee cost	3979.37	4287.62	(308.28)

The Commission has considered the submissions of the petitioner that the employee cost for the FY 2020-21 was approved by the Commission vide its order dated 21.05.2020 and now the Commission may consider the actual employee cost of the FY 2020-21, as per the annual audited accounts for the year under consideration. It has been prayed that amount proposed may be approved and also be set as a base for projecting employee cost for the ensuing control period.

The Commission has considered the prayer of the petitioner and observes that there is considerable increase in the employee cost incurred as against that approved by the Commission for the FY 2020-21. The Commission finds the true-up claim in order and approves the same as the it is in line with the MYT Regulation in vogue.

Having approved the “True up” proposed, the Commission is of the considered view that the licensee ought not to lose sight of the Commission’s order dated 31.10.2018, as reproduced below:

“Employees Rationalization: As pointed out earlier also, the sub-station automation system has been embarked upon in all the new / upcoming sub-stations of HVPNL. Resultantly, the manpower required for manning such sub-stations would reduce to a certain extent. Hence, keeping in view modernization and automation, HVPNL was directed to undertake manpower planning & rationalizations to rein in employees’ cost. In this regard, HVPNL submitted that a proposal has been prepared by Technical Committee and considered by the Whole Time Directors, HVPNL in its meeting held on 21.12.2017. Now, the agenda is being put-up for

consideration of the BODs, HVPNL. ***In this regard, HVPNL is directed to submit the final report to the Commission within one month.***

The aforesaid direction was reiterated in order dated 21.05.2020 as under:

“The Commission observes that with advancements in technology, a proper long-term manpower planning / budgeting, re-skilling / re-deployment including those from other Power Utilities ought to be undertaken in order to ensure that human resources are gainfully utilized and the overall employees cost in the power sector in Haryana is reined in.”

In this regard HVPNL, vide office memo dated 22.07.2020 and 07.11.2020 has submitted as under:

- a) The Board of Directors, HVPNL in its meeting held on 13.12.2019 decided that the restructuring of manpower is required, keeping in view the vacancy position, digitalization, new technology for root survey of transmission lines, cyber security, networking, other new age jobs and desired that necessary steps be initiated so that restructuring exercise with proper justification of each post after having discussion with the concerned employee unions be completed within two months. Accordingly, draft restructuring proposal was prepared and appraised to the Board in its meeting held on 12.06.2020.
- b) Based, on the above appraisal, the board of directors, HVPNL decided to constitute a sub-committee of the members of the board to examine the proposed restructuring policy and submit the report in one month. Accordingly, a sub-committee has been constituted vide office order no. 848/CS/HVPNL/Misc-18/Vol-III dated 30.06.2020.
- c) After constitution of the Sub Committee of Board members, following meetings were held to finalize the restructuring of manpower in HVPNL.

Sr. No.	Number of meeting	Meeting held on
1	1 st Meeting	08.07.2020
2	2 nd Meeting	22.08.2020
3	3 rd Meeting	03.09.2020
4	4 th Meeting	14.09.2020
5	5 th Meeting	03.10.2020

- d) The Sub-Committee of Board members in its 5th meeting held on 03.10.2020 concluded that the draft report of restructuring of manpower in HVPNL be deliberated with the Management before proceeding further in the matter.
- e) It has been submitted that the draft report submitted by the Sub-Committee of the Board Members is under active consideration of the HVPNL management.

The Commission is constrained to observe that the transmission licensee has not taken the directive in the right spirit. The licensee must understand that each directive issued by the Commission is well thought of and is intended to provide appropriate direction to the operations of the licensee. Tardy implementation of these directives makes a sad mockery of the efforts put in by the Commission. This has also led to a gap in the projected costs and thereby leading to an additional cost on the true up. The entire effort ought to have been directed towards reigning in the cost of employee with proper manpower planning and budgeting. HVPNL shall keep the basic objective of restructuring of manpower in mind. As a last opportunity the Commission allow 15 days' time to submit the final report, action(s) taken as well as the benefits following from the same.

B. Terminal Benefits for FY 2020-21

Regulation 8.3.8(b) of the HERC MYT Regulations 2019 provides that the terminal liability is an uncontrollable element of the ARR. Accordingly, the petitioner has sought 'true up' of the terminal liability based on the actual terminal benefits expenses incurred as provided below.

Proposed True Up of Terminal Liabilities for FY 2020-21 (Rs. Million)

Particulars	Approved by HERC	Actual	Gap Surplus/(Deficit)
Terminal Liabilities	(20.90)	2069.75	(2090.65)

The Commission has considered the submissions of the petitioner and in accordance with the audited accounts, approves **Rs. 2069.75 million towards terminal benefits for the FY 2020-21**. The terminal benefits approved and the actual amount dispensed are poles apart. The Commission, for the FY 2021, had approved aforesaid amount as proposed by the licensee but the actual amount exceeds the amount proposed and approved. This casts serious doubt on the ability of the licensee to estimate or get the same done by the actuary in a reasonable manner. The tolerable error in projection/estimates ought not to exceed 5% on such issues. Consequently, the licensee, irrespective of the ex-post-facto reasoning/explanation, advised to gear-up its methodology so that they are able to estimate/project with at least 95% confidence level. The Commission, as a one-off measure, allows true-up in line with the audited accounts of the FY 2020-21.

The Commission reiterates the directive on payment to pension trust issued vide order dated 07.03.2019 as under:

"The Commission directs the licensee to seek prior approval of the Commission for contribution to the pension trust in excess of that proposed by it in the ARR in future in view of the fact that there is no legal hitch in deferring the payment to the trust funds as demonstrated by the proposal of the licensee for the FY 2016-17. The Commission further

directs the Licensee to ensure that any payment approved by the Commission in its order towards terminal benefits is duly paid within time and before the close of the relevant financial year.”

Accordingly, the Commission observes that though the terminal benefits cost actually incurred by the licensee is approved for true up, no carrying cost shall be allowed on the difference between the approved cost and the pass-through cost in the light of the ibid directive issued by the Commission to pay only the approved cost during the year. Needless to add that for any contribution to the pension trust in excess of the amount approved, has to be with prior approval of the Commission.

C. Administrative and General Expenses (A&G) for the FY 2021-21

The detailed submission of the petition while claiming the true-up of A&G expenses are set out in the table that follows:-

Proposed True Up of A&G Expenses for FY 2020-21 (Rs. Million)

Particulars	Approved by HERC	Actual	Gap Surplus / (Deficit)
Administration Expenses			
Rent (inculding lease rent)	2.03	2.00	0.03
Insurance	3.74	4.45	(0.71)
Rates and taxes	62.71	76.89	(14.18)
Telephone charges, postage, telegrpm and Telex charges	5.45	4.36	1.09
Mobile sets charges	0.51	0.49	0.02
Legal and professional	42.27	18.14	24.13
Payments to auditors (including out of pocket expenses)	0.79	0.71	0.08
Consultancy charges	5.51	3.94	1.57
Professional charges	5.22	3.43	1.79
Service charges for computerisation	0.44	1.84	(1.40)
Conference expenses	-	-	-
Tranning expenses	12.30	4.49	7.81
Travelling and conveyance	90.49	97.80	(7.31)
Other expenses	100.78	74.38	26.40
Sub total of Administrative Expenses	332.24	292.94	39.30
Other charges			
Material related expenses	18.51	6.72	11.79
Expenses on photoostate on contract basis	1.77	1.57	0.20
Impaiment loss	-	-	-
Sub total of other charges	20.28	8.29	11.99
Less A &G expenses against SLDC	6.80	8.56	(1.76)
Total charges	345.72	292.94	53.04

The Commission observe that the actual A&G expenses incurred are lower than the approved A&G expenses by the Commission as evident from the table above. The Commission accordingly approves Rs. 292.94 million as A&G expenses for the FY 2020-21. The same shall be reckoned with while truing-up the A&G expenses.

D. Repairs and Maintenance Expenses (R&M) for the FY 2020-21

The following table provides a comparison of approved and actual R&M Expenses for the FY 2020-21.

Proposed True Up of R&M Expenses for FY 2020-21 (Rs. Millions)			
Particulars	Approved by HERC	Actual	Difference Surplus/(Deficit)
Plant and Machinery		218.65	
Building		93.03	
Civil works		32.74	
Lines, Cables Net Works etc.		24.99	
Vehicles		8.12	
Furniture and Fixtures		0.51	
Other Office Equipment's		9.71	
Total		387.75	
Less: SLDC		17.50	
Total R & M Cost	508.41	370.25	138.16

The Commission has considered the submissions of the petitioner that the actual R&M expenses incurred are lower than the approved R&M expenditure. The petitioner has submitted that every element of R&M expenses incurred are related to works which are recurring in nature and the petitioner has applied significant prudence in undertaking these works, the benefit of which can be passed on to the beneficiaries. **The Commission accordingly approves Rs. 370.25 million i.e. the actual amount incurred as R&M expenses for the FY 2020-21. The differences shall be trued-up. The licensee is advised to take up preventive and predictive R&M works so as to ensure that the transmission assets are maintained in perfect condition for providing seamless transmission services to the beneficiaries.**

3.1.2 CAPITALIZATION OF ASSETS

The Commission observes that Capitalization of Assets i.e. transfer of assets from work in progress to Fixed Assets Register, as the assets enter into revenue earning mode, has a direct bearing on the ARR as the amount capitalized goes into the rate base. It has been noted that during the year FY 2020-21, a total of Rs. 9045.93 million has been capitalized and added to the Gross Fixed Asset towards the Transmission Business as per the following details provided by the petitioner.

ADDITIONS TO GFA for FY 2020-21 (Rs. Million)

Particular	Gross fixed assets			
	At the beginning of the year	Addition during year	Adjustment & deduction	At the end of the year
Land	3781.36	9.74	-	3791.11
Building	6185.61	175.95	-	6361.55
Plant and Machinery	83399.71	8879.17	515.44	91763.44
Furniture & Fixtures	258.44	15.29	1.06	272.68
Vehicles	136.62	2.03	5.23	133.42
Sub Total	93761.74	9082.19	521.73	102322.19
Less: SLDC Assets	1138.15	36.23	264.18	910.20
Less: Deprecation on account of consumer contribution	-	-	-	-
Total	92623.59	9045.93	257.55	101411.99

3.1.3 DEPRECIATION

The following table provide details of depreciation expenses for the FY 2020-21 as per the audited accounts.

Proposed True Up of Depreciation for Transmission Business for FY 2020-21 (Rs. Millions)

Particular	Provision for Depreciation			
	At the beginning of the year	Addition during year	Adjustment & deduction	At the end of the year
Land	-	-	-	-
Building	2023.67	196.53	-	2220.19
Plant and Machinery	32544.50	4297.56	386.62	36455.44
Furniture & Fixtures	150.32	11.30	0.87	160.76
Vehicles	106.37	3.13	4.56	104.95
Sub Total	34824.87	4508.52	392.04	38941.34
Less: SLDC Assets	391.79	41.23	208.39	224.63
Less: Deprecation on account of consumer contribution	-	-	-	-
Total	34433.07	4467.29	183.66	38716.71

The Commission observes that the petitioner has followed the methodology adopted by the Commission in its True up order and deducted the depreciation chargeable to SLDC assets, generation assets and towards assets financed through consumer contribution and further requests the Commission to approve the depreciation for the FY 2020-21 on actual basis, as detailed in the table above.

The Commission, in view of the fact that the rates of depreciation are as approved by the Commission in the MYT Regulations, 2019. Hence, the deprecation amount(s) calculated based on the approved rate(s) of depreciation works out to the same as proposed by the petitioner, except for reducing the depreciation on SLDC assets Rs. 41.23 million which has nothing to do with the transmission business and

transmission ARR thereto and depreciation on assets funded through consumer contribution amounting to Rs. 240.03 as such assets are not funded by the licensee, from the depreciation claimed as per the audited accounts i.e. Rs. 4508.52 million. Resultantly, the commission approved Rs. 4227.26 million for the FY i.e. 2021 on this account.

3.1.4 INTEREST AND FINANCE CHARGES FOR THE FY 2020-21

The following table provides a comparison of approved and actual interest and finance charges incurred in the FY 2020-21, as submitted by the petitioner.

Proposed True Up of Interest and finance charges for FY 2020-21 (Rs. Million)

Particulars	Approved by HERC	Actual	Gap/Surplus (Deficit)
Rural Electrification Corp.		1629.58	
Power Finance Corp.		383.83	
Interest on loan from NABARD		152.45	
Interest on World Bank Loan through State Govt. (WB)		141.74	
Loan Processing Fee World Bank Loan		1.78	
Total		2309.38	
Less: Interest & Finance Charges Chargeable to Capital Account		(296.50)	
Net Interest & Finance Charges	2530.13	2012.88	517.25

The Commission has considered the submissions of the petitioner that the actual interest and finance charges are lower than the approved Interest and finance charges. The petitioner has further submitted that in line with the methodology adopted by the Commission in its previous tariff order(s), the impact of foreign Exchange Risk Variation Rs. 186.10 Crore has been separately shown in the ARR. **The Commission accordingly approves Rs. 2012.88 million as Interest and finance charges for the FY 2020-21 as the trued-up amount.**

3.1.5 INTEREST ON WORKING CAPITAL

The Commission has taken note of the following table that provides a comparison of approved and normative computation of Working Capital as per the HERC MYT Regulations 2019 for FY 2020-21.

Proposed Interest on Working Capital for FY 2020-21 (Rs. Millions)

Particulars	Approved by HERC	Actual	Gap/Surplus (Deficit)
Interest on working capital	180.38	37.68	142.70

The petitioner has submitted that the interest on Working Capital approved by the Commission in the ARR was in line with the MYT Regulations 2019 as amended from time to time. It is observed that the normative Interest on working capital as approved by the Commission is significantly higher than the amount actually incurred toward interest on working capital.

The petitioner has prayed to the Commission to approve the interest on Working Capital as mentioned above i.e. Rs. 37.68 Million, as well as the sharing of gains on account of efficiency in managing cash flows which has resulted in savings in Interest on Working Capital in 60:40 ratio between HVPN and beneficiaries.

Sharing of Gains on Interest on Working Capital (Rs. Million)

Particulars	Actual	Normative	Gap / Surplus (Deficit)
Gains on Interest on working capital	37.68	277.37	143.82

The licensee is not claiming incentive on the gains arising from lower rate of interest but on account of better financial operations leading to lower working capital requirement and interest cost thereto. The Commission notes that with better cash flow management, the licensee was able to save Rs. 142.70 million in interest and finance cost. However, in the absence of any enabling provisions in the Regulations, the Commission is unable to grant the request for incentive. Accordingly, the Commission, after due deliberations, approves the interest on working capital to the cost actually incurred by the licensee i.e. Rs 37.68 million, for the purpose of 'True up'.

3.1.6 RETURN ON EQUITY (ROE)

The petitioner has proposed the RoE for the FY 2020-21 considering the closing equity for the FY 2019-20 as mentioned in the HERC order dated 09.03.2021. The petitioner has estimated RoE in line with the HERC MYT Regulations 2019 and subsequent amendments and as per the methodology proposed in the tariff order with equity share of 30%. The equity portion of assets capitalized is considered for estimating the amount of equity eligible for return on equity. The petitioner has proposed a return on equity @ 14% for true up purposes, justifying the same as being in line with the MYT Regulations, 2019 and subsequent amendments thereof.

Proposed RoE for FY 2020-21 (Rs. Million)

Particulars	Approved by HERC	Actual	Gap/Surplus (Deficit)
Equity to be considered for Transmission business (opening)		22394.77	
Add: Equity portion of GFA added		1809.19	
Closing equity for RoE		24203.96	
Average Equity		23299.37	
Rate of return		14.00%	
RoE- Proposed	-	3261.91	(3261.91)

The petitioner has prayed that the Commission may allow the normative equity addition as well as return on equity for the FY 2020-21 as a part of the true up.

The Commission has considered the submissions made by the licensee and observes that as per the MYT Regulations, 2019, ROE upto 14% can be allowed on the eligible Equity Capital in use. The Commission, taking a holistic view of the power sector in Haryana including the tariff payable by the electricity consumers had traditionally restricted the RoE to 10% in order to reign cost of delivered power to the consumers. In the FY 2020-21, given the unprecedented situation emanating from the COVID-19 pandemic and the resulting restriction/lockdown ordered by Central Government/State Government, all economic activities came to a standstill. Resultantly, the ability to pay of all categories of the consumers has been significantly reduced. The pandemic has impacted income, earnings and employment of all categories of consumers be it domestic consumers, industrial/commercial consumers. As far as government connections are concerned i.e. Public Water Works, Street Light, Lift Irrigation as well as general connections in Government Offices and building, it is also a fact that due to significant reduction in revenue from direct/indirect taxes and levies, their ability to pay, has also been impaired. Hence, the Commission, after due deliberations, had it appropriate considered not to allow any RoE in the FY 2020-21. Consequently, the true-up exercise is undertaken viz-a-viz the amount allowed previously. In this case since no amount was allowed by the Commission in the FY 2021, hence, RoE has not been considered in the true-up for the FY 2020-21.

3.1.7 INCENTIVES AND PENALTY: SYSTEM AVAILABILITY FOR FY 2020-21

The Commission observes that the Regulation 12.2 (c)(i) of the HERC MYT Regulations 2019 provides for the incentives and penalty for the amount the transmission system availability.

Accordingly, the availability has been calculated by the petitioner, circle wise for all circles, month wise and then the average has been taken to arrive at the system availability

for the year. The month wise availability of each circle is calculated in line with the MYT Regulations in vogue as under.

Calculation of System Availability for FY 2020-21

Sr. No.	Month	Hours in the month	No. of Transmission Lines (O)	No. of Power T/Fs (Q)	Availability of (O) number of AC lines (AVo)	Availability of (Q) number of Power Transformers (AVq)	Total Numerator (AVo*O+AVq*Q)	Total Denominator (O+Q)	Availability during month in percentage $\{(AVo*O+AVq*Q) / (O+Q)\} * 100$	Cumulative TSA (in %age)
1	Apr-20	720	936	1199	0.9965	0.9983	2129.6857	2135	99.7545	99.7545
2	May-20	744	930	1194	0.984	0.9964	2104.8216	2124	99.0962	99.4257
3	Jun-20	720	919	1196	0.9784	0.9961	2090.4852	2115	98.8433	99.2359
4	Jul-20	744	920	1201	0.9739	0.9977	2094.2257	2121	98.7384	99.0725
5	Aug-20	744	925	1208	0.989	0.9976	2119.9258	2133	99.3859	99.1626
6	Sep-20	720	930	1212	0.9904	0.9977	2130.2844	2142	99.4548	99.216
7	Oct-20	744	930	1214	0.9872	0.9976	2129.1824	2144	99.3071	99.2332
8	Nov-20	720	933	1224	0.9874	0.9974	2142.0618	2157	99.3048	99.2485
9	Dec-20	744	934	1229	0.9877	0.9979	2148.9309	2163	99.3515	99.2641
10	Jan-21	744	965	1227	0.9929	0.9985	2183.308	2192	99.6036	99.3016
11	Feb-21	672	965	1228	0.9939	0.9977	2184.2891	2193	99.598	99.3282
12	Mar-21	744	970	1231	0.9924	0.9972	2190.1812	2201	99.5056	99.3614
	Total FY 21									
1	Apr-21	720	970	1232	0.9924	0.9959	2189.5768	2202	99.4352	99.4352
2	May-21	744	971	1235	0.9921	0.9955	2192.7716	2206	99.4043	99.4011
3	Jun-21	720	971	1241	0.9823	0.9962	2190.0975	2212	99.0083	99.2644
4	Jul-21	744	971	1244	0.9951	0.9977	2207.3809	2215	99.6563	99.3246
5	Aug-21	744	975	1249	0.9958	0.9973	2216.5327	2224	99.6663	99.3879
6	Sep-21									
7	Total FY22 (H1)									

Legend
O=Total no. of Transmission lines for a month
Q=Total no. of Power Transformers for a month
AVo= Availability of (O) number of AC lines
AVq=Availability of (Q) number of Power Transformers
Wi=Weightage factor for each transmission line/ Transformers
where Weightage factor for a transmission line= No. of sub-conductors per phase multiplied by ckt-km of transmission line
Weightage factor for a Transformers= Rated MVA capacity
Annual TSA for the year 2020-21, as per CERC MYT Regulations, 2019 Formula (adopted by HERC) is:
 $= \{(AVo*O+AVq*Q) / (O+Q)\} * 100$

The amount of incentive claimed by the petitioner is reproduced in the table below:-

Incentive/ (Penalty) Calculation for System Availability for FY 2020-21 (Rs. Million)

Particulars	Formula	Figures
Annual Transmission Charges	ATC	13308.13
Actual Transmission Availability	AA	99.3614%
Normative Transmission Availability	TA	99.20%
	$(AA-TA)/TA$	0.001627
Incentives/(Penalties) (Rs. Mn)	$ATC*(AA-TA)/TA$	21.65

The petitioner has submitted that the transmission system availability has been higher than the normative availability during the FY 2020-21, for which the incentive of Rs. 21.65 million for the FY 2020-21 has been claimed. The Commission has examined the calculations of incentive as required to be calculated based on the revised ARR for the FY 2020-21 approved by the Commission on true up. **Accordingly, the incentive for actual availability is approved at Rs. 21.65 million for the FY 2020-21.**

3.1.8 FOREIGN EXCHANGE RATE VARIATION (FERV)

The petitioner has proposed recovery of FERV, in line with the Commission's order dated 31.03.2016, para 3.4.11, whereby the principle of recovery based on cash loss due to FERV has been considered. The calculation of FERV, proposed for 'true up' by the licensee is as under:-

Proposed Calculation of FERV (Rs. Millions)

FERV on installment paid in 2020-21	UOM	Figures (in Million)
Amount received (1 st installment of loan drawl)	USD	27.61
Repayment (of 1 st installment of loan drawl) upto 31.03.2019	USD	27.61
Balance of 1 st Installment	USD	0.00
Amount received (2 nd installment of loan drawl)	USD	21.40
Repayment (of 2 nd installment of loan drawl) during 2018-19	USD	8.23
Balance of 2 nd Installment as on 31.03.2019	USD	13.17
Repayment (of 2 nd installment of loan drawl) during 2019-20	USD	9.12
Balance of 2 nd installment as on 31.03.2020	USD	4.05
Amount received (3 rd installment of loan drawl)	USD	14.29
Repayment (of 2 nd installment of loan drawl) during 2020-21	USD	4.05
Repayment (of 3 rd installment of loan drawl) during 2020-21	USD	0.51
Repayment (of 2 nd installment of loan drawl) during 2020-21	USD	4.56
Balance (of 2 nd installment of loan drawl) as on 31.03.2021	USD	0.00
Balance (of 3 rd installment of loan drawl) as on 31.03.2021	USD	9.22
Exchange Rate at the time of receipt of 2 nd installment of Loan	INR	44.30
Exchange Rate at the time of receipt of 3 rd installment of Loan	INR	45.61
Exchange Rate at the time of payment of 12 th installment – in FY 2020-21	INR	74.86
Exchange Rate at the time of payment of 13 th installment – in FY 2020-21	INR	73.12
FERV on 12 th installment	INR	138.67
FERV on 13 th installment	INR	125.44
Less Recovery of capitalized FERV	INR	78.01
Net FERV on 12th and 13th installment of loan	INR	186.10

The Net FERV impact which is being claimed with the True-up for the FY 2020-21 is Rs. 186.10 million. **The calculation of FERV, as submitted by the licensee, has been examined by the Commission and found in order. Hence, the same is being allowed as the true up amount.**

3.1.9 NON-TARIFF INCOME FOR FY 2020-21

The Commission has examined the non-tariff income details submitted by the petitioner and finds the proposed true up of non-tariff income i.e. Rs. 297.23 million in order.

The details of true up proposed and approved are as under:

Non-Tariff Income Proposed for FY 2020-21 (Rs. Million)				
	Particulars	Approved by HERC	HVPNL Proposal	HERC Approval
A	Income from Investment, Fixed & Call Deposits			
1	Interest on fixed deposits		17.25	
2	Interest from Banks other than Fixed Deposits		22.13	
3	Interest on Reactive Energy Charges		2.21	
I	Sub Total		41.60	
B	Non-Tariff Income			
1	Income /Fee/collection against staff welfare activities		0.79	
2	Miscellaneous receipts		255.21	
3	Interest on advances to suppliers/contractors		2.67	
II	Sub Total		300.26	
	Less: NTI from SLDC		-3.03	
	Total (I+II)	222.80	297.58	-74.43

3.2 REVENUE FROM TRANSMISSION TARIFF

Based on the Transmission Tariff approved by the Commission for the FY 2020-21, the licensee has recovered the following amounts from the beneficiaries as per the audited accounts:

Transmission charges recovered for the FY 2020-21		
	As per HERC Order	As per Audited Accounts
Total Wheeling charges	11405.77	11405.77
Unitary charges received		11.01
Connectivity fee for Transmission system		6.92
Total Recovery for the credit of Long-Term Beneficiaries		11423.63

3.3 PROPOSED AND APPROVED ARR FOR TRUE-UP

Based on the above analysis and decision of the Commission 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 amount to be 'trued-up' is presented in the table below: -

Table: Revised ARR of Transmission Business for FY 2020-21 (Rs. Million)

Particulars	Approved by HERC vide Order dated 21.05.2020	Proposed for True-Up FY 2020-21	Revised ARR approved by the Commission
O&M expenses	4,812.60	7,020.33	7,020.33
<i>R&M Expenses</i>	508.41	370.25	370.25
<i>Employee Expenses</i>	3,979.37	4,287.65	4,287.65
<i>Terminal Benefits</i>	-20.9	2,069.75	2,069.75
<i>A&G Expenses</i>	345.72	292.68	292.68
Depreciation	4,247.90	4,467.29	4227.26
Interest on Term Loans	2,530.12	2,012.88	2,012.88
Impact of Foreign Exchange rate variation	0	186.1	186.1
Interest on working Capital	180.38	37.68	37.68
Total Expenditure	11,771.00	13,724.28	13,484.25
Return on Equity	0.00	3,261.91	0.00
Less Non-Tariff Income	222.8	294.58	297.23
Annual Transmission Charges	11,548.20	16,691.61	13,187.02
Add: Incentive for TSA	-	27.37	21.65
Add: Sharing of Benefits @ 60% - IWC	-	143.82	143.82
Net ARR	11,548.20	16,862.80	13,352.49
Add: Revenue Gap for True-up FY 2019-20	-485.16	-485.16	-485.16
Add:- Carrying cost on above	-65.13	-65.13	-65.13
Aggregate Revenue Requirement	10,997.91	16,312.51	12802.20
Transmission Share of SLDC	9.99	13.88	9.45
Unitary Charges for JKTPPL	494.78	496.48	496.48
Transmission ARR	11,502.68	16,822.87	13,308.13
Less: YTC for Lines Operating As ISTS Lines	-96.9	0	0
Total Transmission Charges	11,405.78	16,822.87	13308.13

True Up of Transmission Business for FY 2020-21 (Rs. Million)

Transmission ARR approved by the Commission for True up	13308.13
Total Revenue Recovered as per Audited Accounts	11423.70
ARR Surplus/(Gap)	-1884.43
Less terminal benefits on which carrying cost is not to be allowed	2069.75
ARR gap on which carrying cost is to be allowed	0.00

The Commission observes that as the ARR gap for the FY 2020-21 at Rs -1884.43 is less than the terminal benefits of Rs 2069.75, no carrying cost is allowed to the petitioner as there has not been any additional liability that may have required funding by way of raising short term debt. .

3.4 TRUE-UP OF SLDC BUSINESS

The Licensee has submitted and prayed to the Commission that the ARR for SLDC Business for the FY 2020-21 based on actual figures, may be approved for the true up of **Rs. 173.52 Million**.

True Up Requirement of SLDC Business for FY 2020-21 (Rs. Millions)				
S. No.	Particulars	Approved by HERC	Actual	Gap Surplus/ (Deficit)
1	Employees Expenses	43.68	51.08	(7.40)
2	Terminal Benefits	0.00	0.00	0.00
3	A&G expenses	6.77	8.56	(1.79)
4	R&M Expenses	6.29	17.50	(11.21)
5	Depreciation	41.41	41.23	0.18
6	Interest on loan	13.85	0.00	13.85
7	Interest on working Capital	2.05	2.91	(0.86)
8	Return on Equity	0.00	43.02	(43.02)
9	Less: Non-Tariff Income	(1.45)	(3.03)	1.58
10	Add: Revenue Gap/Surplus Refund	12.26	12.26	0.00
11	Carrying Cost	0.00	0.00	0.00
12	TOTAL ARR	124.86	173.52	(48.66)

The Commission has examined the true up proposal submitted by the licensee as against the segregated accounts forming part of the audited accounts for the FY 2020-21 and the principles adopted while determining the ARR for SLDC business vide its order dated 21.05.2020. Based on these parameters, the revised ARR for SLDC business for the FY 2020-21 is approved at Rs. 118.13 million as against Rs. 124.86 million earlier approved by the Commission. Accordingly, the licensee may recover the differential amount along with the SLDC charges for the FY 2022-23. The difference between the amount proposed by HVPNL and that estimated by the Commission is primarily on account of Interest and RoE. The ARR approved by the Commission, true up proposed by the licensee and the amount approved by the Commission for true-up is summarized below:

True Up of SLDC Business for FY 2020-21 (Rs. Million)			
Particulars	Approved by HERC	Actual	Revised ARR approved by the Commission
Employees Expenses	43.68	51.08	51.08
Terminal Benefits	0	0	0
A&G expenses	6.77	8.56	8.56
R&M Expenses	6.29	17.50	5.12
Depreciation	41.41	41.23	41.23
Interest on loan	13.85	0	0
Interest on working Capital	2.05	2.91	2.91
Return on Equity	0	43.02	0

Less: Non-Tariff Income	-1.45	-3.03	-3.03
Add: Revenue Gap/Surplus Refund	12.26	12.26	12.26
Carrying Cost	0	0	0
TOTAL ARR	124.86	173.53	118.13

3.5 ANNUAL (MID YEAR) REVIEW PERFORMANCE OF ARR FY 2021-22

HVPNL has submitted that the Hon'ble Commission, vide notification dated 21.05.2020 had issued the MYT order for HVPNL for the control period FY 2020-21 to FY 2024-25. The STU/HVPN is required to file Annual Performance Review (APR) in line with Regulation 11(5) of the MYT Regulations, 2019. The relevant extract of the regulation is as under:

“11.5 The scope of the mid-year performance review shall be a comparison of the performance of the generation company and the licensees for the relevant financial year with the approved forecast of ARR for their respective businesses and the performance targets specified by the Commission. Upon completion of the mid-year performance review and truing up as per regulation 13, the Commission shall pass an order recording:

- a) The revised approved ARR for such financial year including approved modifications, if any;*
- b) The approved aggregate gain or loss on account of controllable items and sharing of such gains or losses;*
- c) Truing-up or pass through of uncontrollable items of ARR of previous year(s);*
- d) Pass through of variations in controllable items due to force majeure events, if any.*
- e) Pass through of variations in controllable items attributable to uncontrollable factors.*
- f) Tariff applicable for the ensuing year.”*

In view of the above, the petitioner has requested the Hon'ble Commission to consider the revised estimates as per the Annual Performance Review for the FY 2021-22 including revised capital expenditure for the FY 2021-22 and proposed Capital Expenditure Plan for the control period FY 2022-23.

3.6 REVISED CAPITAL EXPENDITURE AND CAPITALIZATION FOR FY 2021-22 AND PROPOSED CAPITAL EXPENDITURE PLAN FOR CONTROL PERIOD FY 2022-23

HVPNL has prepared the capex plan considering all the factors which would affect the operations of the company. The capex plan includes the details of various capital expenditure schemes in the above identified areas and their respective estimates for the FY 2021-22.

That the capital investments of HVPNL can largely be categorized in the following areas:

2. Investments in new transmission infrastructure to support the demand requirements or power evacuation from generation projects.
3. System augmentation and strengthening, including renovation and modernization to maintain the performance of the existing system and to deter investments.

The petitioner has prayed that the Hon'ble Commission may approve the revised capital expenditure for the FY 2021-22 and proposed Capital Expenditure Plan for period of FY 2022-23 as per the following details.

A. Transmission System Business

The capital investment plan for the transmission business has been divided in the following key areas, based on the nature of 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 following table provides the work wise expenditure for period of FY 2021-22 and FY 2022-23. The details of the works are provided as part of the Annexure to this Petition.

Work-wise expenditure for period FY 2021-22 and FY 2022-23 (Rs. Million)

Works	FY 2021-22	FY 2022-23
Substation	6,826.19	5,839.70
Lines	1,442.54	4,948.24
Information Technology	27.89	89.35
Land	492.29	10.91
Miscellaneous	348.59	200.00
Total Transmission	9137.49	11088.20
SLDC	164.55	669.30
Total	9,302.04	11,757.50

B. Substations

That in the two zones, many new substations have been planned to augment the existing system and make it robust. It is submitted that adequate infrastructure is required to ensure that unforeseen breakdowns in system do not have any adverse impact on the availability of overall transmission system. Therefore, the capacity addition and the necessary expenditure are planned in a manner to create enough redundancies in the system considering the state of existing infrastructure and growth in power demand. The expenditure related to proposed substations in two transmission zones is summarized in the table below:

The petitioner has submitted that the capital expenditure proposed is likely to be incurred on strengthening the existing substation infrastructure and also to create new substation capacity.

Expenditure planned for new substations (in Rs. Million)		
Particulars	2021-22	2022-23
Substations	6,826.19	5,839.70

C. Transmission Lines

HVPL has submitted that a number of new transmission lines have been proposed together with repair and maintenance activities for the existing lines. The year-wise expenditure planned on the transmission lines in the two zones has been presented in the table below:

Expenditure planned for Transmission lines (in Rs. Million)		
Transmission Lines	2021-22	2022-23
Total	1,442.54	4,948.24

The main purposes for the expenditures on transmission line is to deport bulk quantum of power near to load centers with focus on creating redundancy by means of improvement/strengthening, supporting the load growth and facilitating the evacuation of power from the newly commissioned generating plants.

D. Information Technology

The expenditure on information technology is planned with the intention of equipping the personnel with tools to monitor and handle the transmission system efficiently and to access real time data for online system monitoring.

Expenditure planned for Information Technology (in Rs. Million)		
Information Technology	2021-22	2022-23
Total	27.89	89.35

E. Land

The land acquisition and RoW settlements occupy major proportion of the total capital investment plan. The yearly expenditure is presented in the table below.

Capital Investment plan for Land Acquisition & ROW settlements (in Rs. Million)

Land	2021-22	2022-23
Panchkula	27.60	6.26
Hisar	464.69	4.65
Total	492.29	10.91

F. SLDC

The Capital Expenditure planned to be incurred for SLDC is provided below as:

Table 1: Expenditure planned for SLDC (in Rs. million)

SLDC	2021-22	2022-23
Total	164.55	669.30

G. Miscellaneous Items

The miscellaneous works include civil works, one-time procurement of testing and T&P equipment, replacement of conventional insulator with polymer / Anti Fog insulator, damage of tower etc. due to windstorm and any unseen expenditure / Augmentations etc.

Expenditure planned for miscellaneous items (in Rs. Million)

Miscellaneous	2021-22	2022-23
Total	348.59	200.00

H. Funding Pattern

The licensee has proposed to utilize debt that is available at a low cost to ensure that the burden on the beneficiaries can be minimized. HVPNL has negotiated with the financial institutions and has ensured that the cost of capital is low and the terms of debt are favorable to the Company. The proposed funding arrangement is as under:

Funding Pattern (in Rs. Million)

Financial Institution	FY 2021-22	FY 2022-23
HSIIDC	8.00	8.00
Deposit work (self execution, all work, DHBVNL, DLF, Departmental)	27.33	71.84
JICA	-	-
NABARD (III, IV posed to NABARD)	1192.97	724.03
NCPRB	4.43	-
PFC (Posed to PFC)	1332.14	946.04

Posed to PNB	1022.71	1845.65
REC (Posed to REC)	1827.69	1207.80
World Bank	227.84	110.72
Yet to pose	1637.28	3956.47
Load Growth	29.60	-
Total	7310.00	8870.56
Equity	1827.50	2217.64
Total Transmission	9137.49	11088.20
SLDC	164.55	669.30
Total HVPNL	9302.04	11757.50

HVPN has submitted the revised Capex proposal for FY 2021-22 and FY2022-23 as under:

Capital Investment Plan (Rs. Million)					
Particulars	Actual Investment	Proposed	Proposed	Proposed	Proposed
Year	FY2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
HVPNL	5801.99	7656.56	5064.5	6122.74	1906.52
SLDC	2.03	1645.48	6693	3437	807
Total	5804.02	9302.04	11757.5	9559.74	2713.52

The Commission has taken into consideration the capital investment projections for the control period for FY 2022-23 only, from the CIP submitted by the HVPNL for the control period FY 2021-22 to FY 2024-25, for the approval of the ARR of the transmission business and SLDC and the transmission and SLDC charges for FY 2022-23. The projection of CIP for the FY 2023-24 and onwards shall be considered while considering the ARR for FY 2023-24 onwards.

The table below shows the capital expenditure projected by HVPNL, approved by HERC & the actual expenditure on capital works

Capital expenditure projected by HVPNL, Approved by HERC & the Actual Expenditure on Capital Works.

FY	Expenditure Projected by HVPNL (Rs. million)	Expenditure approved by HERC (Rs. million)	Actual Expenditure (Rs. million)	% of actual w.r.t. approved expenditure (Rs. million)
2018-19	11316	8421	7885	93.63%
2019-20	10113 12002 (Revised)	8500	7356	86.54%
2020-21	12064 8302.64 (Revised)	9250	5804	62.75%
2021-22	9269.21	7200	2344 (up to Sep. 2021)	

The Commission observes that every year HVPNL has been incurring capital expenditure, which is lower than the capex approved by the Commission. The Licensee has proposed revised capex of Rs. 9302.04 million for the FY 2021-22 and proposed Rs. 11757.50 million for the FY 2022-23.

The Commission, in view of the foregoing discussions, approves the capex of Rs.9524 million for the FY 2022-23 and decides to consider the revised capex for the FY2021-22 as per actuals at the time of its true-up.

I. Intra-State Transmission Losses

HVPN has submitted that the Hon'ble Commission fixed the Intra-State losses for the FY 2014-15 as 2.5% with the road map for reduction of these losses at **least @ 0.02% p.a.** during the control period, subject to penalty clause in line with the HERC MYT Regulations 2019, tabulated as under:

S.No.	Year	Target Transmission Losses (%)	Actual Transmission Losses (%)
1.	2014-15	2.50	2.62
2.	2015-16	2.48	2.70
3.	2016-17	2.46	2.31
4.	2017-18	2.44	2.26
5.	2018-19	2.42	2.06
6.	2019-20	2.40	2.065
7.	2020-21	2.15	2.115
8.	2021-22(upto September, 2021)	2.10	1.663

J. Trends in Transmission Losses

Reductions in the transmission losses is an important objective and as per section 26(2)(b) and (c) of the Act, tariff determination needs to take account of such reductions. The plans for reducing losses, together with relevant load flow studies and details of the investment required to achieve the planned reduction is required to be presented and substantiated by relevant analysis viz-a-viz achievability and cost. It has been submitted that the HVPNL has been able to limit transmission losses vis-à-vis the target to some extent from the FY 2016-17 onwards and trying to reduce losses further with the system strengthening as indicated below:

Transmission losses

Period	Target fixed by Hon'ble HERC (in %)	Intra-state Transmission Losses (%)	Energy Handled (in LU)
2005-06	-	2.77	212490
2006-07	-	2.35	238630

2007-08	2.6	2.44	
2008-09	2.1	2.57	284310
2009-10	2.1	2.68	312740
2010-11	2.1	2.63	344020
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	2.698	478718
2016-17	2.46	2.311	492195
2017-18	2.44	2.259	508710
2018-19	2.42	2.055	515146
2019-20	2.40	2.065	539731
2020-21	2.15	2.115	529874
2021-22 (upto September, 2021)	2.10	1.663	313999

* based on provisional energy account of Sep, 2021

Further, BOD is also monitoring the transmission losses to keep a watch.

The month wise transmission losses of HVPN during the FY 2020-21 and FY 2021-22 are as under:

Intra-State transmission losses FY 2020-21 and FY 2021-22

Month	2020-21			2021-22		
	Total Energy at state Bus from all sources	Intra State Transmission Losses in LU	Intra State Transmission on losses in %	Total Energy at state Bus from all sources	Intra State Transmission) losses	Intra State Transmission losses in %
April	25170.98804	559.02975	2.221	38496.66387	754.46767	1.960
May	38848.95003	731.56796	1.883	41236.95366	579.07548	1.404
June	51411.90547	1118.05179	2.175	56025.72435	965.65715	1.724
July	58884.58167	1410.78952	2.396	64736.04775	981.45871	1.516
Aug	57451.99453	1154.33549	2.009	64253.67244	1273.85855	1.983
Sept	60091.13568	1318.50231	2.194	49249.95804	665.73785	1.352
Oct	47916.33920	894.84539	1.868			
Nov	33975.96510	692.15147	2.037			
Dec	40130.21427	827.04847	2.061			
Jan	39180.80307	781.57926	1.995			
Feb	37082.57995	860.69965	2.321			
March	39729.00676	856.87502	2.157			
Total losses	529874.46376	11205.47609	2.115	313999.02010	5220.25541	1.663

* (Up- to Sep. 2021)

The system has been able to handle the energy of the order of 529874 LU during the year 2020-21 and 539731.04 LU in the year 2019-20.

It has been submitted that the transmission system in Haryana caters to load(s) through small transmission lines but with large number of interface points and substations to cater to the load and maintain voltage profile as per the norms. In order to achieve further appreciable reduction in Losses, the petitioner is required to invest huge additional capital, which may not

fulfil the criteria of Cost Benefit Analysis. The petitioner has submitted that the Transmission Losses varies with the load and generation variation from different sources, which is not in control of the transmission licensee beyond certain level.

In compliance with the direction of the Commission in previous ARR to provide status of SAMAST Project along with detailed time lines for rolling out it, HVPNL vide Memo No. Ch-28/XEN/RAU/F-170/Vol-II dated 09.06.2021 has submitted that the NIT for implementation of Scheduling, Accounting, Metering and settlement of Transaction in Electricity (SAMAST) Framework in the State of Haryana was floated on 15.01.2021. The expected date for award of tender was 16.07.2021 with 18 months project completion time i.e., up to 15.01.2023. The concern regarding intra state transmission losses has been noted and accordingly field offices of HVPNL has been directed to take remedial measures to achieve the targets as fixed by the Commission.

The Commission observes that it is admirable that HVPNL has improved upon the target for intra state transmission losses fixed for the FY 2020-21 i.e., the reported actual is 2.115% against the target of 2.15%.

In view of the foregoing discussions, the Commission is of the view that still there is some scope for further reduction in intra-state transmission losses and observes that target fixed for transmission losses in the MYT Regulations, 2019 are quite realistic and achievable. Hence it is expected that the licensee shall works towards bettering the benchmark set by the Commission.

K. TRANSMISSION SYSTEM AVAILABILITY

The normative annual transmission system availability factor as per the regulations is given here under:

Normative annual transmission system availability Factor (NATAF) (%)

Norms	1 st MYT Period						2 nd MYT control Period	
	2014-15 (%)	2015-16 (%)	2016-17 (%)	2017-18 (%)	2018-19 (%)	2019-20 (%)	2020-21 (%)	2021-22 (%)
AC System	98.80	99.00	99.20	99.20	99.20	99.30	99.20	99.20

It has been submitted that HVPNL has adopted the methodology for calculating the Transmission System Availability (Certified Deemed Availability) as per the CERC Regulations dated 19.01.2009 with effect from october 2009 up to the FY 2019-20.

Now, HERC vide Regulation No. HERC/46/2019 dated 31.10.2019 has directed that w.e.f. April, 2020, the procedure for calculation of Transmission System Availability factor shall be governed as per the CERC regulation, issued from time to time and accordingly, HVPNL is calculating the transmission system availability on the basis of the CERC Regulations, 2019 from April, 2020 onwards.

Availability in %	
Cumulative for the year 2006-07	99.62
Cumulative for the year 2007-08	99.57
Cumulative for the year 2008-09	99.57
Cumulative for the year 2009-10 (April to September)	99.56
Cumulative for the year 2009-10 (October 2009 to March 2010)	99.3935
Cumulative for the year 2010-11	99.5948
Cumulative for the year 2011-12	99.5569
Cumulative for the year 2012-13	99.6724
Cumulative for the year 2013-14	99.690
Cumulative for the year 2014-15	99.1309
Cumulative for the year 2015-16	98.2985
Cumulative for the year 2016-17	99.0425
Cumulative for the year 2017-18	98.9518
Cumulative for the year 2018-19	99.5401
Cumulative for the year 2019-20	99.8531
Cumulative for the year 2020-21	99.3614
Cumulative for the year 2021-22 (up to September, 2021)	99.4293

The Commission observes that the transmission system availability for the year for FY 2019-20, is 99.85% against the target of 99.30% and in the FY 2020-21, the availability has been 99.36% against the target of 99.20%. The licensee has been able to achieve transmission system availability of 99.43% in the FY 2020-21 (ending Sept. 2019).

FAILURES OF POWER TRANSFORMERS

HVPNL has submitted that there are 1247 Power Transformers installed in HVPNL as on 30.09.2021. Failure of transformers during last 3 years is as enumerated below:

01.04.2018 to 31.03.2019	01.04.2019 to 31.03.2020	01.04.2020 to 31.03.2021	01.04.2021 to 30.09.2021
27	14	11	19

The voltage wise detail of transformer damaged during the current year from 01.04.2021 to 30.09.2021 is as under:

Sr. No.	Voltage rating	Total no. of transformer	Damaged transformer	% of damage
1	400 kV	15	0	0
2	220 kV	224	2	0.89
3	132 kV	607	13	2.14
4	66 kV	393	4	1.0
5	33 kV	8	0	0
	Total	1247	19	1.524%

The licensee was advised, in the previous ARR order, to strictly enforce the preventive maintenance schedules, 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 Commission observes that the damage rate of power transformers continues to be high, which should not be more than 1% of its population as being observed in the best performing utilities. The damage rate was 2.40% in the FY 2018-19, 1.18% in the FY 2019-20, 0.88% in the FY 2020-21 and 1.52% during the FY 2021-22 (ending Sept, 2021) as reported by the licensee. It is a matter of concern that damage rate has increased in September 2021 i.e. 19, as compared to 11 as on march 2021 and 14 as on march 2020. The same, with concerted efforts ought to have decreased.

In response to the directive to provide the time line to replace/rehabilitate above balance identified sick transformers, HVPN has submitted as under:

Financial Year	Total damaged/ sick Transformers	Transformers got repaired/ surveyed-off/ lifted by firm for repair	Balance
2018-19 & 2019-20	34	24*	10
2020- 21	11	5	6
2021-22 (up to july, 2021)	16	7	9
Additional identified T/Fs for 2018-19 & 2019-20	15	6	9
Total	76	42	34

The work for repair of 132/ 11 kV damaged/ sick transformers has been awarded to M/s ECE, Sonipat. For other transformers, the process of tendering is under process and shall be completed by 31st March, 2022.

In compliance of the Commission's directive, HVPNL has submitted the status pending M&P observations, added during the year, observations attended and pending in the FY 2019-20 and the FY 2020-21. On perusal of the data, the Commission observes that 1454 observations of M&P wing were pending on 31st March 2020, and 4199 new observations have been added during the FY 2020-21. Out of total 5773 observations, 3791 (66%) have been attended during 2020-21 whereas 1983 (34%) observations are still pending as on 31st March 2021. HVPNL needs to attend the balance observations without any further delay as otherwise the very purpose of M&P checking will be defeated and will lead to avoidable outages.

Identification of defective LAs/GO Switches/defective earthing on 1st H-pole for 11 KV feeders emanating from HVPNL substations:

HVPNL vide memo no. Ch-28/XEN/RAU/170/Vol-II dated 07.09.2021 submitted the latest Status/ Progress of defective LAs/GO Switches/defective earthing at 1st H-pole of 11 KV feeders emanating from HVPNL substations as on 31.07.2021:

Sr. No.	Name of Division	Total No. of 11kV feeders	TS Zone Panchkula					
			Installed as on 31.03.2021			Balance as on 31.07.2021		
			GO Switch installed	LA installed	Earthing done	GO Switch	LA	Earthing
1	Madanpur	279	257	744	274	14	90	3
2	Ambala	365	323	879	349	31	153	12
3	Yamuna Nagar	389	361	966	369	17	177	18
4	kurukshetra	97	91	279	96	4	12	1
5	Kaithal	209	154	291	202	40	207	7
6	Karnal	244	189	606	242	50	120	0
7	Panipat	140	131	204	119	6	126	19
8	Sonepat	182	147	228	145	13	264	19
9	Rohtak	91	3	12	3	7	24	4
10	Jhajjar	90	17	75	8	24	96	6
Total		2086	1673	4284	1807	206	1269	89
Sr. No.	Name of Division	Total No. of 11kV feeders	TS Zone Hisar					
			Installed as on 31.03.2021			Balance as on 31.07.2021		
			GO Switch installed	LA installed	Earthing done	GO Switch	LA	Earthing

1	Hisar	167	146	453	40	14	1	21
2	Bhiwani	156	135	397	132	37	207	33
3	Sirsa	208	180	545	157	34	138	41
4	Jind	152	137	363	125	15	93	27
5	400 kV Nuhiyanwali	1	0	0	0	1	3	1
6	400 kV Kirori	44	36	57	34	8	75	10
7	Gurugram	540	510	1386	513	83	411	47
8	Rewari	209	146	459	121	58	333	99
9	Manesar	298	285	804	297	41	73	15
10	400 kV Daultabad	76	67	216	68	11	67	2
11	400 kV Dhanoda	0	0	0	0	0	0	0
12	Faridabad	486	434	1257	458	44	213	63
13	Palwal	308	268	695	272	20	353	34
14	400 kV Nawada	51	22	96	33	29	29	18
Total		2696	2366	6728	2350	395	2056	411
G.Total		4782	4039	11012	4157	601	3325	500

It has been submitted that HVPNL has pursued the matter regarding replacement of defective LAs/GO switches/defective earthing with the management of DISCOMs i.e. DHBVN & UHBVN vide D.O. letter no. 101 & 102/ DSO-11/ Vol-X dated 11.01.2021 respectively and a lot of progress have been achieved in this regard. Further, Inter-utility meetings between HVPNL, UHBVN and DHBVN officers has also been held at SEs level, CE's level & Directors level and the matter for replacement of defective LAs, GO switches and Earthing has been raised by HVPNL authorities and UHBVN/DHBVN authorities are ensuring that the work is in progress and will be completed at the earliest.

The Commission observes that as on 01.05.2020, 822 GO switches, 1492 LAs and 668 Earthing's were pending for replacement and Nigam has reported that as on 31.07.2021, 601 GO switches, 3325 LAs and 500 earthings are pending, which reveals that there is little progress in replacement of defective GO switches and earthing's and the count of defective LAs has increased from 1492 to 3325. HVPNL is required to monitor the replacement of defective LAs, GO switches, defective earthing and ensure complete replacements in coordination with the DISCOMs.

L. Fatal and Non-Fatal Accidents

HVPNL has supplied data for fatal and non-fatal accidents to human beings in respect of HVPN for the FY 2019-20 and FY 2020-21 and FY 2021-22 (up to 30.09 2021) as under:

Fatal and Non-Fatal Accidents

Category	2019-20	2020-21	2021-22 (till 30.09.2021)
(A) Fatal			
Human beings	2	1	0
Non-human beings	0	0	0
(B) Non-Fatal			
Human beings	3	5	0
Non-human beings	0	0	0

The Commission observes that fatal/non-fatal accidents have reduced and if proper training is given to adopt safety rules, the fatal accidents can be avoided in future.

M. PLANS FOR IMPROVING THE SYSTEM POWER FACTOR

As mandated in grid code, SLDC shall continuously monitor voltage at strategic substation and in coordination with NRLDC regulate voltage levels so that there is minimal reactive power from regional transmission system. Reactive power compensation should ideally be provided locally, by generating reactive power as close to the reactive power consumption as possible. The beneficiaries are therefore expected to provide local VARs compensation/ generation such that they do not draw VARs from the grid, particularly under low-voltage condition.

HVPNL has already installed 5419.951 MVAR capacitors (as on 31.03.2021) on 220kV, 132kV and 66kV network to improve the power factor. During the current year 2021-22, capacitors of 877.966 MVAR capacity have been added in the transmission system up to september-2021. However, 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 status of total capacitors installed in the HVPNL system is as under:-

Sr. No.	Name of Circle	Total capacitors in MVAR installed as on 31.03.2021	Total capacitors in MVAR installed as on 30.09.2021
1.	Panchkula Zone	2617.303	3232.195
2.	Hisar Zone	2802.648	3065.722
HVPNL		5419.951	6297.917

The Commission vide tariff order dated 09.03.2021 directed the licensee to expedite the repair of defective capacitor banks installed at various substations and to ensure the

healthiness of the capacitor banks. HVPNL has submitted the circle wise progress of replacement of capacitor banks up to July,2021, which is summarized in table below:

Sr No	Name of TS Circle	Total installed capacity (in MVAR)	Faulty capacitor as on 31.03.2021 (in MVAR)	Faulty capacitor as on 31.07.2021 (in MVAR)	Repaired/ Rehabilitated capacity upto 31.07.2021 (in MVAR)	Addition of New capacitor banks upto 31.07.2021 (in MVAR)
1	Hisar	1365.712	59.471	43.378	16.093	103.280
2	Faridabad	442.616	47.400	44.400	3.000	0.000
3	Gurugram	1360.324	42.555	24.555	18.000	262.724
4	Panchkula	805.927	3.968	3.568	0.400	30.000
5	Karnal	908.084	18.440	10.044	8.396	54.360
6	Rohtak	1058.320	88.982	87.712	1.670	70.668
Total		5940.983	260.816	213.657	47.559	521.032

It has been submitted by HVPN that the progress of installation of new capacitors and revival of damaged capacitors is being closely monitored by the Northern Region Power Committee (NRPC) through Operation Co-ordination Sub-Committee (OCC) meetings held on monthly basis and implementation of directions issued during OCC meeting are strictly monitored by SLDC Haryana. Further, a study on requirement of capacitors in Northern Region (NR) has also been conducted by the Central Power Research Institute (CPRI), Bengaluru on the direction of NRPC.

The Commission observes that 213.657 MVAR faulty capacitor banks are yet to be replaced/ rehabilitated as on 31.03.2021.

The Commission directs the licensee to expedite the repair of defective capacitor banks and ensure the healthiness of the capacitor banks installed in the system.

N. ENERGY ACCOUNTING

HVPNL has submitted that the information on energy received at interface points of HVPNL with CTU and energy supplied to distribution licensees at LV side of the transformers in the HVPNL sub stations is being accounted. Regarding metering of interface points with DISCOMs/Railways, HVPNL has submitted that there are 1379 interface points between HVPNL and distribution licensees i.e. UHBVNL, DHBVNL and Railways and at all the locations Special Energy Meters (SEMs) of 0.2s class accuracy have been installed. The monthly energy account is prepared by HVPNL after considering the energy measured and recorded by energy meters installed at the interface points of the DISCOMs at 11KV or 33 KV side of each power transformer feeding the distribution area. In addition, the energy fed directly from the sub stations of HVPNL at 66kV and above voltage to the consumers of DISCOMs and Railway is accounted for in the monthly energy accounts.

HVPNL has submitted that the transmission licensee has to install and maintain the interface meters for recording the flow of power from HVPNL to the distribution licensees i.e. UHBVN, DHBVN and Railways. So far as the interstate metering is concerned, these meters are installed and maintained by the Central Transmission Utility (Power Grid Corporation of India Ltd.). Adequate backup systems also exist to avoid metering issues. The Commission has taken note of the above submission.

3.7 EMPLOYEE RECRUITMENT AND RETIREMENT

The total number of employees being retired, and recruitment envisaged for the FY 2021-22 and FY 2022-23 are provided as below:

Retirements and Recruitments (Nos)

Financial Years	Retirement	Proposed addition of Employees	Effective	Cumulative
FY 2021-22	151	168	17	17
FY 2022-23	133	1224	1091	1108

3.8 AGGREGATE REVENUE REQUIREMENT

Based on the revised estimates of individual items, the licensee has proposed to revise the ARR for the FY 2021-22 approved by the Commission for the FY 2021-22 as summarized in the table below:

Transmission ARR for FY 2021-22 (Rs. Million)

Particulars	Approved by HERC in T.O 09.03.2021	Revised Estimates for FY 2021-22	Gap Surplus/ (Deficit)
O&M expenses	7787.19	9267.85	(1480.66)
R&M Expenses	529.88	526.73	3.15
Employee Expenses	4947.51	4436.16	511.35
Terminal Benefits	2000.00	4002.50	(2002.50)
A&G Expenses	309.80	302.46	7.34
Depreciation	4260.11	4898.09	(637.98)
Interest on term Loans	2532.10	2499.73	32.37
Interest on working Capital	278.37	327.51	(49.16)
Total Expenditure	14857.75	16993.19	(2135.44)
Return on Equity	2565.92	2498.71	(932.79)
Less: Non-Tariff Income	(222.80)	(222.80)	0.00
Annual Transmission Charges	17200.89	20269.09	(3068.22)
Add: Revenue Gap for FY 2019-20	1536.45	1536.45	0.00
Add: Carrying cost on above	0	0.00	0.00
Aggregate Revenue Requirement	18737.32	21805.54	(3068.22)
Transmission Share of SLDC Charges	15.09	17.25	(2.16)
Unitary Charges for JKTPPL	497.30	497.30	0.00
Less YTC for Lines Operating As ISTS Lines	(69.45)	0.00	(69.45)
Total Transmission Charges	19180.26	22320.09	(3139.83)

The petitioner has prayed that the Commission may approve the revised Aggregate Revenue Requirement for the FY 2021-22 as presented in the table above.

3.9 REVENUE GAP AND CARRYING COST

The petitioner has submitted that as per precedence set by the HERC on consecutive tariff orders from the last couple of years, the Commission may be inclined to follow the precedence of not approving the revised estimates for APR for the FY 2021-22. The petitioner has requested that the Commission to approve the Annual Performance Review for the FY 2021-22. Based on the true-up of the FY 2020-21 and revised ARR (APR) for the FY 2021-22, the petitioner has computed carrying cost on the revenue gap for the FY 2020-21, FY 2021-22 and FY 2022-23, considering the applicable SBI base rate and appropriate margin rate which is provided in the table below:

Revenue Gap with Carrying Cost for FY 2020-21 with carrying cost (Rs. Million)			
Particulars	FY 2020-21	FY 2021-22	FY 2022-23
Approved ARR	11,405.77	0.00	0
Proposed Revised ARR	16,822.85	0.00	0
Opening Revenue Gap	0	5,667.62	6149.37
Addition in Revenue Gap	5,417.08	0.00	0
Closing Revenue Gap	5,417.08	5,667.62	6,149.37
Interest Rate	9.25%	8.50%	8.50%
Carrying Cost	250.54	481.75	261.35
Closing Revenue Gap with Carrying Cost	5,667.62	6,149.37	6,410.72

The Commission has examined the half yearly accounts up to September 2021, submitted by the petitioner and observes that though the employees' cost has shown an upward trend and appears that it is likely to exceed the approved cost, the Commission is of considered view that it would not be appropriate to replace one set of estimated figures with another set of estimates. Further, in view of the facts that the year is over now and it would be appropriate to examine the financial impact at the time of true up only when the audited figures are available.

3.10 REVIEW OF SLDC CHARGES

The petitioner has submitted that the computation of expenses for SLDC business is done in accordance with the HERC MYT Regulations 2019. The petitioner has prayed that the Commission may approve the revised ARR as submitted below: -

Proposed ARR for FY 2021-22 (Rs. Million)

Particulars	Approved Vide HERC Order dated 09.03.2021	Revised Estimates for FY 2021-22	Revenue Surplus/(Gap)
Employees Cost	54.45	52.79	1.66
Interest on Capex	24.79	4.90	19.89
Depreciation	56.13	47.87	8.26
A&G expenses	8.92	8.84	0.08
R&M	6.99	4.96	2.03
Non-Tariff Income	(1.45)	(1.45)	0
Interest on Working Capital	2.62	2.85	(0.23)
Return on equity	0	41.68	(41.68)
Add: Revenue Gap/ Surplus Refund	34.16	48.66	(14.5)
Carrying Cost	1.97	4.5	(2.53)
TOTAL	188.58	215.60	(27.03)

The summary of approved and revised estimates for SLDC business along with surplus/ (deficit) is provided below:

Summary of Surplus/ (Deficit) of SLDC Business (Rs. Million)

SLDC Business	Approved by HERC	Revised Estimates	Surplus/ (Deficit)
TOTAL	188.58	215.61	(27.03)

The petitioner has requested that the Commission may approve the deficit of **Rs. (27.02) Million** and allow to recover the same along with True-up Gap for the FY 2020-21 with the ARR of FY 2022-23. The Commission has examined the proposal submitted by the licensee and observes that the ARR for the FY 2021-22 was approved vide order dated 09.03.2020, as proposed by the licensee. The Commission observes that there is a minor difference in the projected expenditure in the APR as against approved cost for the FY 2021-22, except for Return on Equity and the resultant increase in interest on working capital. Since the return on equity for SLDC business is not provided for in the MYT regulations, the same cannot be a basis for projecting a revision. It needs to be noted that SLDC, as such, is not a business but an apex body to ensure integrated operation of the power system in the State. Hence, for the functions associated with supervision and control under Section 32(3) of the Act, the SLDC is entitled for collecting fee and charges from the beneficiaries as may be determined by the Commission. Accordingly, the fee and charges have been determined in the present order without considering RoE.

In view of the above observations, the Commission does not find it appropriate to revise the ARR for the SLDC for the FY 2021-22 and the same shall be taken up for true up on the closure of the financial year as per the enabling provisions and terms of the MYT Regulations, 2019.

CHAPTER 4

ANNUAL REVENUE REQUIREMENT FOR THE FY 2022-23 AND ANNUAL TRANSMISSION CHARGES & SLDC CHARGES FOR FY 2022-23

4.1. BRIEF BACKGROUND

In line with the HERC MYT Regulations 2019, the petitioner has submitted the Annual Revenue Requirement for the FY 2022-23 and proposed annual transmission charges & SLDC charges for the FY 2022-23 as presented below.

4.2. OPERATION & MAINTENANCE EXPENSES

A. EMPLOYEE COST

The petitioner has submitted that employee cost of the FY 2020-21 has been considered as per audited accounts. The inflation factor growth has been considered as per methodology, approved by the Commission in the MYT Regulations and computed over the FY 2020-21 as presented in the earlier chapters at 3.34%. In addition to the employee cost, arrived after considering the inflation factor. The terminal benefits estimate for the MYT control period is based on the actuarial valuation as per the report of the actuary.

HVPNL estimates of Employee Cost for FY 2022-23 (in Rs. Million)

Particulars	Actuals for FY 2020-21	Revised Estimates for FY 2021-22 considering inflation of 3.34%	Approved in HERC Tariff Order dtd 21.05.20	Projections for FY 2022-23 considering inflation of 3.34%
Salaries and Wages	3,181.80	3,288.19	2,798.14	3,398.14
Other Staff Cost	1,050.36	1,085.48	1,168.04	1,121.77
Staff Welfare Expenses	106.57	110.14	104.26	113.82
Benefit from Staff Loans	-	-	3.34	-
Add: Employee Cost for Additional Employees (Net of Retires and New Joinees)	-	5.15	127.54	335.57
Less: Employee Benefit for SLDC	(51.08)	(52.79)	(46.70)	(54.56)
Total Employee Cost	4,287.65	4,436.16	4,154.62	4,914.75
Terminal Benefits	2,069.75	4,02.50	(81.60)	3,443.90
Total Employee Cost Incl Terminal Benefits	6,357.39	8,438.66	4,073.02	8,358.65

Particulars	HERC	HVPNL	HERC
	Approved vide order dated 21.05.2020	Proposed	Revised approval
Salaries and Wages	2,798.14	3398.14	3397.89
Other Staff Cost	1,168.04	1121.77	1121.70

Staff Welfare Expenses	104.26	113.82	113.81
Benefit from Staff Loans	3.34	0.00	0.00
Add: Employee Cost for Additional Employees (Net of Retires and New Joinees)	127.54	335.57	0.00
Less: Employee Benefit for SLDC	(46.70)	(54.56)	-54.55
Total Employee Cost	4,154.62	4914.75	4578.85
Terminal Benefits	(81.60)	3443.90	3443.90
Total Employee Cost Incl Terminal Benefits	4,073.02	8358.65	8022.75

It has been submitted that the terminal liability for the FY 2022-23 has been claimed by HVPNL based on the projection made by the actuary and may change at time of actual valuation due to change in assumptions/other parameters. The terminal liability of Rs. 3443.90 million including Rs. 2010 million pertains to the segregated liability for the FY 2020-21. Accordingly, the Hon'ble Commission is requested to approve the terminal liability for the FY 2022-23 as per the actuarial computations subject to true up based on the audited accounts.

B. REPAIR AND MAINTENANCE (R&M) EXPENSES

The petitioner has submitted that in the MYT Regulations 2019, the R&M expenses have been approved as percentage of GFA with K factor being 0.5% for the entire control period. The R&M expenses for the FY 2022-23 have been proposed, considering the revised opening GFA for FY 2020-21 and projected addition in GFA during FY 2021-22 and FY 2022-23.

R&M Cost for FY 2022-23 (In Millions)

Particulars	Approved in HERC T.O dated 21.05.2020	Projections for FY 2022-23 considering proposed addition to GFA
Opening GFA	114100.06	109279.94
Projected GFA addition during the year	5283.04	10106.02
Closing GFA	119383.10	119385.95
Average GFA	116741.58	114332.95
% of GFA for R&M Expenses	0.50%	0.50%
Total R&M Expense	583.71	571.66

The Commission has examined the R&M calculations proposed by the licensee and finds the same in accordance with the MYT Regulations. The Commission, however, observes that the actual R&M expenses continue to be much lower than the norm for the past many years, even when the availability of the transmission system is above the norm. **The Commission directs the licensee to examine the factor used for calculation of normative R&M expenses and submit a proposal to the Commission for rationalizing the same, after taking into account, both predictive and preventive maintenance.**

C. ADMINISTRATIVE & GENERAL (A&G) EXPENSES

In line with the MYT Regulations 2019, the petitioner has projected the A&G expenses for the FY 2022-23 considering an inflation factor as specified by the Commission and has submitted that the proposed A&G expenses may be allowed by the Commission, as these are reflective of true A&G expenses likely to be incurred.

Proposed A&G Expenses for FY 2022-23 (In Millions)	
Particulars	FY 22-23
	ARR
Administration Expenses	
Rent (Including Lease Rent)	2.14
Insurance	4.76
Rates and taxes	82.12
Telephone charges, Postage, Telegram and Telex Charges	4.65
Mobile sets Charges	0.52
Legal and professional	19.38
Payments to auditors (Including out of pocket expenses)	0.76
Consultancy charges	4.21
Professional charges	3.67
Service charges for computerization	1.97
Conference Expenses	0.00
Training Expenses	4.80
Travelling and conveyance	104.45
Other Expenses	79.43
Sub-Total of Administrative Expenses	312.86
Other Charges	
Material Related Expenses	7.18
Expenses on Photostat on Contract Basis	1.68
Impairment loss	0.00
Sub-Total of other charges	8.86
Less: A&G Expenses against SLDC	(9.14)
Total Charges	312.58

The Commission has examined the projected O&M expenses filed by the licensee, for the period under consideration, and observes that the Commission has considered and approved A&G expenses amounting to Rs. 292.68 million for the FY 2020-21 as part of true up. The same cost is adjusted for the proposed inflation factor of 3.34% p.a. to arrive at the approved A&G expenses for the FY 2022-23 amounting to Rs 312.58 for the FY 2022-23, as proposed.

4.3. DEPRECIATION

The petitioner has proposed depreciation for the FY 2022-23 considering the existing assets and assets likely to be added during the year, in view of the revised capitalization schedule. The actual depreciation rate works out to be 4.82% and the same has been considered for computation of depreciation for the FY 2022-23.

Depreciation for FY 2022-23 (In Rs. Million)

Particulars	At Beginning of Year	Addition During Year	Adjustments & Deduction	At End of Year	At Beginning of Year	Rate of Depreciation	Addition During Year	Adjustments & Deduction	At End of Year
Land	3791.11	-	-	3791.11	-	0.00%	-	-	-
Building	14394.04	-	-	14394.04	2720.73	4.82%	694.24	-	3414.96
Plant & Machinery	91763.44	10775.32	-	102538.76	40881.28	4.82%	4685.69	-	45566.98
Furniture & Fixtures	272.68	-	-	272.68	173.91	4.82%	13.15	-	187.06
Vehicles	133.42	-	-	133.42	11138	4.82%	6.43	-	117.82
Sub Total	110354.69	10775.32	-	121130.00	43887.30		5399.52	-	49286.82
Less: SLDC assets	1074.75	669.30	-	1744.05	272.50	4.82%	67.98	-	340.48
Total	109279.94	10106.02	-	119385.95	43614.80		5331.54	-	48946.34

The Commission has examined the projected depreciation filed by the licensee for the MYT Control Period and observes that the licensee has not reduced depreciation on assets funded through consumers contribution. Accordingly, the Commission approves the depreciation proposed by the licensee for the FY 2022-23 after reducing Rs. 240.04 million from the proposed amount i.e. the depreciation on assets funded through consumer contribution at the same level as per the audited accounts for the FY 2020-21. Accordingly, the Commission approves Rs. 5091.50 million towards depreciation, net of consumers contribution for the FY 2022-23.

4.4. INTEREST & FINANCE CHARGES

The interest charges, in line with the computation of interest on loans, has been proposed by the licensee as per the methodology specified in the MYT Regulations with combination of interest on existing loans and on prevailing rates and new loans at SBI base rate + 1.5% on 80% of the capitalized assets for each year and are provided as below:

Interest and Finance Charges Proposed for FY 2022-23 (In Rs. Million)

Particulars	FY 22-23
	ARR
Rural Electrification Corp.	2050.68
Power Finance Corp.	
Interest on loan from NABARD	
Interest on World Bank Loan through State Govt. (WB)	
Loan Processing Fee-World Bank Loan	
Sub Total	2050.68
Interest charges for Loan on GFA addition during FY	878.62
Net Interest & Finance Charges	2929.30
Less: Interest & Finance Charges Capitalized	-
Net Interest on Loans	2929.30

The licensee has submitted that interest computed on 'New Loans' is net of repayments made i.e. the loan component of newly capitalized assets are net-off with the repayments

expected for the year. The Commission has approved Interest and Finance Charges for the FY 2022-23, which is as under: -

Interest and Finance Charges approved for FY 2022-23 (In Rs. Million)

Particulars	FY 2022-23
Opening balances	39401.52
REC	14914.78
PFC	3468.07
NIDA	1872.33
World Bank	11836.35
Additions	7310.00
Additions	8870.56
Repayments	2734.08
REC	1511.55
PFC	413.32
NIDA	131.48
World Bank	677.73
Additions	
Closing Balances	45538.00
REC	13403.23
PFC	3054.75
NIDA	1740.85
World Bank	11158.62
Additions	16180.55
Average Loan during the FY 2022-23	42469.76
Average rate of interest during the FY 2020-21 as per audited accounts	6.89%
Interest cost on Capex borrowing during FY 2022-23	2928.11
REC	1470.43
PFC	338.45
NIDA	176.69
World Bank	63.92
Loan processing Fee world Bank Loan	0.00
Addition	878.62
Less Interest & Finance Charges Chargeable to Capital Account	0.00
Approved Interest and Finance Charges for FY 2022-23 net of IDC	2928.11

In view of the aforesaid computational details, the Commission approves Rs 2928.11 million towards interest and finance charges for the FY 2022-23.

4.5. INTEREST ON WORKING CAPITAL

The interest on working capital has been calculated by the licensee, based on the principles set out in the MYT Regulations 2019. The interest rate shall be considered at MCLR of relevant financial year plus 150 basis points, which comes out to be 8.50%. The Commission has examined the methodology adopted by the licensee for calculating interest on working capital and finds the same in accordance with the MYT Regulations. However, since the individual items as proposed by the licensee have been approved by the Commission with certain changes, the

amount of approved interest cost on working capital, based on the interest rates as proposed by the licensee, is as under: -

Interest on Working Capital for FY 2022-23 (in Rs. Millions)

Sr. No.	Particulars	HVPNL Proposed for FY 2022-23	HERC Approved for FY 2022-23
1	O&M for 1 month	770.24	742.25
2	Maintenance spares	1386.43	1336.05
3	Receivables	1782.00	1641.57
4	Total	3938.67	3719.87
5	Interest Rate	8.50%	8.50%
6	Interest on Working Capital	334.79	316.19

Accordingly, the Commission approves Rs 316.19 Million towards interest on working capital requirement for the FY 2022-23.

4.6. RETURN ON EQUITY (TRANSMISSION BUSINESS)

The return on equity has been estimated by the licensee based on the expected equity contribution on the new capex proposed to be incurred by the petitioner. The rate of return considered for the return on equity is 14% in line with the MYT Regulations, 2019. New Equity has been computed on 20% of the capitalized assets of FY 2022-23 as the assets may not be fully commissioned and put to use during the same year. The details are provided as below;

Return on Equity Proposed for FY 2022-23 (in Rs. Millions)

Sr. No.	Particulars	FY 2022-23
		ARR
1	Equity to be considered for Transmission business (Opening)	25777.55
2	Add: Equity portion of GFA added	2021.20
3	Closing equity for RoE	27798.75
4	Average Equity	26788.15
5	Rate of Return	14.00%
6	Proposed Return on Equity	3750.34

The Commission has considered the submissions made by the licensee and observes that as per the MYT Regulations, 2019, ROE up to 14% can be allowed; the same was amended vide 2nd Amendment to Bank Rate + 4.5% with a ceiling of 11%, on the eligible equity capital deployed in the transmission business. Accordingly, the Commission, taking a holistic view of the financial burden that may be passed on to the electricity consumers of Haryana, approves the rate of Return on Equity at 10% computed on average equity utilized in the transmission business during the FY 2022-23. The details are as under:

Sr. No.	Particulars	FY 2022-23	FY 2022-23
		Proposed ARR	Approved ARR
1	Equity to be considered for Transmission business (Opening)	25777.55	25,777.55
2	Add: Equity portion of GFA added	2021.20	2,021.20
3	Closing equity for RoE	27798.75	27,798.76
4	Average Equity	26788.15	26,788.15
5	Rate of Return	14.00%	10.00%
6	Return on Equity	3750.34	2,678.82

Accordingly, ROE approved by the Commission for the FY 2022-23 is Rs 2,678.82 Million.

4.7. NON-TARIFF INCOME

The non-tariff income has been considered in line with the non-tariff income approved in the order dated 21st May 2020 for the control period FY 2020-21 to 2024-25 for the FY 2022-23.

Non-Tariff Income for FY 2022-23 (Rs. Million)

Particulars	FY 2022-23
Non-Tariff Income	222.80

The Commission has considered the non-tariff income as proposed by the licensee and approves the same i.e., Rs 222.80 million.

4.8. ARR FOR THE FY 2022-23

As discussed in the preceding paragraphs, the revenue requirement for the transmission business proposed by the petitioner and that approved by the Commission for the FY 2022-23 is presented below:

Annual Revenue Requirement for FY 2022-23

Particulars	FY 2022-23 HERC Approved as per Order dated 21.05.2020	FY 2022-23 HVPNL Proposal	FY 2022-23 HERC Revised Approval
O&M expenses	5026.31	9242.89	8906.99
R&M Expenses	583.71	571.66	571.66
Employee Expenses	4154.62	4914.75	4578.85
Terminal Benefits	-81.60	3443.90	3443.90
A&G Expenses	369.58	312.58	312.58
Depreciation	5001.14	5331.54	5091.50
Interest on term Loans	2522.29	2929.30	2928.11
Interest on working Capital	191.69	334.79	316.19
Share of SLDC Charges	13.62	17.94	13.17
Total Expenditure	12755.05	17856.46	17255.97
Return on Equity		3750.34	2678.82

Less: Non-Tariff Income	-222.80	-222.80	-222.80
Annual Transmission Charges	12532.25	21384.00	19711.99

In addition to the annual transmission cost as approved above, other components forming part of computation of aggregate revenue requirement for the FY 2022-23 are discussed hereunder.

4.9. UNITARY CHARGES

The Commission has granted project specific transmission license, set up under Public Private Partnership (PPP) mode, to M/s Jhajjar KT Transco Private Ltd on 26th October, 2010. The above transmission works stands completed and the concessionaire has achieved Commercial Operation on 12th March 2012.

As per Transmission Service Agreement (TSA Clause 26.8.2); the applicable monthly unitary charges are being paid by HVPNL to concessionaire. The base Unitary charge for the accounting year, in which COD occurs (i.e. 2011-12), was Rs. 4,50,00,000/-, and the same is being revised annually by decreasing the base unitary charge for the immediately preceding accounting year by 3% thereof and the escalation to reflect 40% of the variation in WPI in accordance with the provisions of the TSA approved by the Commission.

The computation of monthly unitary charges for the FY 2022-23, as submitted by HVPNL, is presented below: -

Unitary Charges (FY 2022-23)			
Sr. No.	Description	Amount	Amount
		Proposed by HVPNL	Approved by HERC
1	Monthly Base Unitary Charge as per Clause 26.2.1 of TA for 2011-12	4,50,00,000.00	4,50,00,000.00
2	Yearly reduction (%)	3%	3%
3	Monthly Base Unitary Charge for 2020-21	3,31,84,085.71	3,31,84,085.71
4	WPI for Jan 2010 (Base Accounting Year) (published by the Ministry of Industry, GOI)	135.20	135.20
5	WPI for Jan 2020 preceding the Accounting Year (WPI base year 2011-12)	126.50	126.50
6	linking factor of all commodities WPI based 2004-2005 for 2011-12	1.598	1.598
7	WPI for Jan 2021 preceding the accounting year	202.15	202.15
8	Increase in WPI (%)	49.52%	49.52%
9	WPI Index (40 % of WPI increase) (%)	19.81%	19.81%
10	Increase in Base Unitary Charge linked with WPI	65,72,707	65,72,707
11	Indexed Unitary Charge	3,97,56,793	3,97,56,793

12	System Availability (%)	99.87%	99.87%
13	Normative Availability (%)	98.00%	98.00%
14	Incentive due to System Availability	7,58,625	7,58,625
15	Incentive due to less Transmission Losses	2,14,723	2,14,723
16	Unitary Charge + Incentives (Sl.No.11+14+15)	4,07,30,140	4,07,30,140
17	Monthly Unitary Charges (In Millions)	40.73	40.73

As estimated by the licensee, the expected unitary charges for the FY 2022-23 is likely to be around **Rs 40.73 Million** per month (approx.). Keeping in view the expected increase in WPI and yearly reduction of base unitary charge by 3%, HVPNL has prayed that the Commission may approve the same as part of annual transmission charges for the FY 2022-23.

Accordingly, unitary charges Rs. **40.73** million per month is approved for the FY 2022-23. However, the incentive component may be checked and verified by HVPNL w.r.t the actual system availability and transmission loss including the methodology adopted for calculating and claiming the same.

4.10. YEARLY TRANSMISSION CHARGES (YTC) FOR TRANSMISSION LINES INCIDENTAL TO INTER-STATE TRANSMISSION (ISTS) OF ELECTRICITY

The petitioner has submitted that the CERC vide its order dated 17th September 2015 in the petition No. 246/TT/2013 approved the Transmission Tariff for the ISTS lines of Haryana for the period FY 2011-15. For the year 2015 onwards, PGCIL continued to reimburse payment to Haryana for the ISTS lines, based on the tariff of FY 2014-15 as approved by the CERC.

However, from quarter 3 of the FY 2019-20, the payment has been discontinued by PGCIL due to unavailability of tariff from the FY 2019-20 onwards. For determination of charges for ISTS lines for the period FY 2019-20 to FY 2023-24, petition has been filed with the Hon'ble CERC on 18th January 2021. The petition is currently pending with CERC and in view of the same, the disbursement by PGCIL to HVPNL shall be made once the charges are determined by the Hon'ble Central Commission. Thus, the petitioner has considered nil YTC charges for the transmission lines incidental to ISTS. Hence, the petitioner requests the Hon'ble Commission to allow the charges to be considered for the said ISTS line at a later stage once the petition is allowed by CERC.

4.11. AGGREGATE REVENUE REQUIREMENT

As per the foregoing discussions, the proposed ARR of HVPNL for the FY 2022-23, as filed by them and that approved by the Commission is presented in the table below.

Particulars	FY 22-23 Approved by HERC 21.05.2020	FY 22-23 Revised proposal by HVPNL	FY 22-23 ARR HERC Approved
O&M Cost	7619.73	9242.89	8906.99
<i>Employee Expense</i>	4578.85	4914.75	4578.85
<i>Terminal Benefits</i>	2210.32	3443.90	3443.90
<i>A&G Expense</i>	312.53	312.58	312.58
<i>R&M Expense</i>	518.03	571.66	571.663
Interest on Loan	2929.30	2929.30	2928.11
Impact of Foreign Exchange Risk Variation	0.00	0.00	0.00
Depreciation	5091.50	5331.54	5091.50
Interest on Working Capital	284.96	334.79	316.19
Total Expenditure	15925.49	17838.52	17242.80
Return on Equity	2678.82	3750.34	2678.82
Less: Non-Tariff Income	-222.80	-222.80	-222.80
Annual Transmission Charges	18381.51	21366.06	19698.82
Add: Incentive for TSA	0.00	0.00	0.00
Add: Sharing of Benefits @ 60% - Saving in IoWC	0.00	0.00	0.00
Net ARR	18381.51	21366.06	19698.82
Add:- Revenue Gap FY 19-20 & 20-21		5417.08	1884.43
Add:- Carrying cost on gap of FY 2020-21 in FY 2020-21	0.00	250.54	0.00
Add:- Carrying cost on gap of FY 2020-21 in FY 2021-22	0.00	481.75	0.00
Add:- Carrying cost on gap of FY 2020-21 in FY 2022-23		261.35	0.00
Aggregate Revenue Requirement	18381.51	27776.78	21583.25
Transmission Share of SLDC Charges	16.58	17.94	13.17
Unitary Charges for JKTPPL		496.40	488.76
Less:- YTC for lines Operating as ISTS Lines FY 20-21		0.00	0.00
Annual Revenue Requirement	18398.09	28291.12	22085.18

4.12. SLDC ARR (FY 2021-22)

The licensee has submitted that the computation of expenses for SLDC business has been done in accordance with the MYT Regulations 2019. The revenue gap claimed in the FY 2020-21 is without any carrying cost. The Aggregate Revenue Requirement of SLDC for the FY 2022-23 has been projected by HVPNL as under: -

Aggregate Revenue Requirement for SLDC for FY 2022-23 (in Rs. Million)

SLDC Business	ARR 2022-23
Employees Cost	54.56
Terminal Benefits	0.00
A&G expenses	9.14
R&M expenses	7.05
Depreciation	67.98

Interest on Loan	24.81
Interest on Working Capital	2.99
Return on Equity	59.19
Less: Non-Tariff Income	-1.45
Total SLDC ARR	224.26

At the onset the Commission observes that, as per the existing arrangement, SLDC functions have been entrusted to the State Transmission Utility i.e. HVPNL. The Commission, from time to time beginning with its order dated 18th May, 2009, has expressed its views regarding the necessity of functional autonomy to the SLDC i.e. not only in financial terms but also in decision making. It is reiterated that the Ministry of Power, Government of India, constituted a Committee on “Manpower Certification and Incentives for System Operation and Ring-Fencing Load Despatch Centres” to ensure functional autonomy for the Load Despatch Centres. The Committee in its report dated 11th August, 2008 observed that functional autonomy would mean taking decisions without being adversely influenced by extraneous issues originating from the Company Management or any of the market players, which can be ensured through: -

- a) Independent governance structure
- b) Separate accounting
- c) Adequate number of skilled manpower having high ethical standards and driven by altruistic values
- d) Adequate logistics / infrastructure.

For implementation of the recommendations of the Committee the Ministry of Power, Government of India created a Task Force vide notification No. 6 / 2 / 2008 – Trans dated 13th October, 2008. The action plan formulated by the Task Force was forwarded to the Government of Haryana and HVPNL vide the Commission’s letter No. 2256-58 / HERC / 2008 dated 19.12.2008 for implementation of the same in the prescribed manner.

Although the accounts of SLDC business stands separated by HVPNL and the Commission has been giving separate order on the ARR and tariff applications of SLDC business of HVPNL since the FY 2006-07, yet other aspect such as independent governance structure, adequate skilled manpower and adequate logistics / infrastructure are still to be provided to SLDC. Therefore, it becomes utmost important that the action plan recommended by the task force is implemented in letter and spirit. The Commission had directed HVPNL to

submit detailed action taken report for implementation of the recommendations of the Committee within 30 days from the date of the Order dated 18th May, 2009. However, as per the record available in the Commission no progress has been made regarding this important matter.

The Commission has examined the proposed ARR for the SLDC Business as presented above and finds the same in order except RoE and calculations of the interest on working capital. The MYT Regulations clearly provides that only the equity capital deployed in the transmission business is eligible for RoE and not for the SLDC business. Additionally, the amount of approved working capital is arrived at based on the parameters specified by the Commission in the MYT Regulations. The rate of interest, on eligible Working Capital, is as approved for the transmission business. The resultant figures for the approved ARR for the FY 2022-23 for the SLDC business approved by the Commission are given in the following table: -

HERC Approved ARR of SLDC for the FY 2022-23 (Rs. Million)

SLDC Business	ARR 2021-22	ARR 2022-23	ARR 2022-23
	Approved Vide HERC Order dated 21.05.2020	HVPNL Proposal	Approved
Employees Cost	46.70	54.56	54.55
Interest on Capex	19.85	24.81	24.81
Depreciation	43.94	67.98	67.98
A&G expenses	7.18	9.14	9.14
R&M	10.42	7.05	7.05
Non Tariff Income	(1.45)	(1.45)	(1.45)
Interest on Working Capital	2.23	2.99	2.57
Return on equity	0.00	59.19	0.00
TOTAL	128.89	224.26	164.64

CHAPTER 5

5.1. ANNUAL TRANSMISSION CHARGES AND SLDC CHARGES

The annual transmission charges are determined as per the provisions of Regulation 50 of the MYT Regulations 2019 i.e. *“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 licensee are summarized in table below:

Annual Transmission Charges Proposed for FY 2022-23 (In Rs. Millions)		
Annual Revenue Requirement for FY 2022-23	Rs. Million	21366.06
Carrying Cost on Revenue Gap for FY 2020-21 & FY 2021-22	Rs. Million	5417.08
Carrying cost on above	Rs. Million	993.64
Aggregate Revenue Requirement	Rs. Million	27776.78
Transmission Share of SLDC Charges	Rs. Million	17.94
Unitary Charges for JKTPL	Rs. Million	496.40
Less YTC for Lines Operating as ISTS Lines FY 2020-21	Rs. Million	-
Total Transmission Charges	Rs. Million	28291.12
Monthly Transmission Tariff	Rs. Million	2357.59
Monthly Transmission Charges UHBVNL	45.9284%	1082.81
Monthly Transmission Charges DHBVNL	52.9584%	1248.54
Monthly Transmission Charges TPTCL	0.4473%	10.47
Monthly Transmission Charges NTPC	0.0179%	0.42
Monthly Transmission Charges CRPCPL	0.0026%	0.06
Monthly Transmission Charges Northern Railways	0.6483%	15.28

The petitioner has submitted that the transmission charges are waived for M/s Marino Power and M/s Orbit as per the applicable regulations of HERC for the captive Solar Power Plants and has submitted that in case of any addition of new beneficiary, the transmission charges would be charged in proportion of the allotted capacity.

Based on the Commission’s approved true up for the FY 2020-21 and the approved ARR for the FY 2022-23, the approved transmission tariff, for the FY 2022-23, to be recovered in the ratio of transformation capacity provided by the licensee is given in table below. The Commission observes that the transmission charges so apportioned are only indicative and are based on historical data provided by the licensee. The actual transmission tariff to be charged from existing and prospective beneficiaries shall, strictly, be in accordance with the relevant provisions of the MYT Regulations, 2019.

Approved Transmission Charges for the FY 2022-23 (Rs. Million)

		HVPNL Proposed Transmission Tariff for the FY 2022-23	HERC Approved Transmission Tariff for the FY 2022-23
Annual Revenue Requirement for FY 2022-23	Rs. Million	21366.06	19698.82
Revenue Gap for FY 2020-21	Rs. Million	5417.08	1884.43
Carrying cost on above	Rs. Million	993.64	0.00
Aggregate Revenue Requirement	Rs. Million	27776.78	21583.25
Transmission Share of SLDC Charges	Rs. Million	17.94	13.17
Unitary Charges for JKTPL	Rs. Million	496.40	488.76
Less YTC for Lines Operating as ISTS Lines FY 21-22	Rs. Million	-	-
Total Transmission Charges	Rs. Million	28291.12	22085.18
Monthly Transmission Tariff	Rs. Million	2357.59	1840.43
Monthly Transmission Charges UHBVNL	45.22%	1082.81	845.28
Monthly Transmission Charges DHBVNL	53.61%	1248.54	974.66
Monthly Transmission Charges TPTCL	0.47%	10.47	8.18
Monthly Transmission Charges NTPC	0.02%	0.42	0.33
Monthly Transmission Charges CRPCPL	0.00%	0.06	0.05
Monthly Transmission Charges Northern Railways	0.69%	15.28	11.93

5.2. SHARE OF SLDC CHARGES AS PER HERC MYT REGULATIONS 2019

As per the HERC MYT Regulations 2019. "The annual charges of SLDC is determined as a single composite charge from the beneficiaries as under: -

<i>Intra – State Transmission Licensee</i>	<i>8% of the Annual SLDC Charges</i>
<i>Generating Stations and Sellers</i>	<i>46% of the Annual SLDC Charges</i>
<i>Distribution Licensees and Buyers</i>	<i>46% of the Annual SLDC Charges</i>

In line with the above and HERC MYT Regulation 2019, the petitioner has apportioned the SLDC Charges for the FY 2022-23 among the different beneficiaries as per the table below:

Proposed SLDC Charges for FY 2022-23 (in Rs. Million)

Beneficiaries	Share	Total (Rs. Millions) FY 2022-23
HVPN @ 8%	-	17.941
Generating Companies & Sellers @ 46%	Installed Capacity / Capacity (in MW)	103.161
HPGCL	2,582.40	59.649
Faridabad Gas Power Plant	432.00	9.978
Mahatma Gandhi Super Thermal Power Station	1320.00	30.490
Gemco Biomass	8.00	0.185
Star Wire India Ltd	9.90	0.229
Sri Jyoti	9.50	0.219
Shahbad Co-operative Sugar Mills	24.00	0.554
Naraingarh Sugar Mil	22.40	0.517
Amplus Sun Solutions Pvt. Ltd.	50.00	1.155
JBM Environment Pvt. Ltd.	8.00	0.185

Beneficiaries	Share	Total (Rs. Millions) FY 2022-23
Distribution Licensees and Buyers @ 46%	Transformation Ratio (in %)	103.161
UHBVNL	45.8860%	47.337
DHBVNL	52.9094%	54.582
Tata Power Trading Company Limited	0.4439%	0.458
NTPC	0.0179%	0.018
CRPCPL	0.0026%	0.003
Northern Railways	0.6477%	0.668
Merino Panel Products	0.0179%	0.018
Orbit Resorts Limited	0.0268%	0.028
M/s Sky City Hotels Pvt. Ltd.	0.0018%	0.002
M/s Asian Paints Limited	0.0179%	0.018
M/s Goodrich Carbohydrates Ltd.	0.0086%	0.009
M/s Dorset Industries Pvt. Ltd.	0.0032%	0.003
M/s KRBL Ltd.	0.0034%	0.004
M/s G.S. Spinning Mills	0.0036%	0.004
M/s Garg Spinning Mills	0.0036%	0.004
M/s Bhartiya Spinners Ltd.	0.0021%	0.002
PROPOSED TOTAL (HVPN + GENERATING COMPANIES + DISTRIBUTION LICENSEES)		224.264

The petitioner has submitted that in case of any addition of new beneficiary, the transmission charges would be charged in proportion of the allotted capacity.

Based on the details of transformation capacity and the generation capacity, the Commission has approved SLDC charges on page no 58 of this order. The petitioner may note that the SLDC charges, so apportioned, are only indicative and the actual recovery of the charges from existing and prospective beneficiaries shall be strictly in accordance with the relevant provisions of the MYT Regulations, 2019 and the SLDC charges approved by the Commission for the FY 2023 in the present order i.e. Rs. 164.64 million.

5.3. PROSPECTIVE SHORT-TERM OPEN ACCESS CHARGES (STOA)

Transmission charges from short term consumers shall be recovered as per Regulation 53 of the HERC MYT Regulations, 2019 as may be amended from time to time i.e. “..... 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 transmitted by the transmission licensee during the previous year.”

As such, the petitioner has submitted the following calculation of the transmission charges to be recovered from Prospective Short-Term Open Access consumers.

Transmission Charges to be recovered by Short-Term Open Access Consumers

STOA Charges (Rs. Mn)	Amount
Total Transmission Cost for FY 2022-23	27794.72
Unitary Charges (Rs. Million)	496.40
Total Transmission Charges for FY 2022-23 (Rs. Million)	28291.12
The total energy transmitted by HVPNL for FY 2020-21 (MU)	52987.45
Proposed STOA Charges (Rs/unit)	0.53

Based on the approved transmission charges for the FY 2022-23, the Commission approves the transmission charges payable by the short-term open access consumers as per the details provided in the table that follows: -

Approved STOA Charges (Rs. Mn)	Amount
Transmission HERC Cost for FY 2022-23	21596.42
Unitary Charges	488.76
Total	22085.18
Total Energy transmitted by HVPNL for the FY 2020-21 (MU) (as per HVPNL Filing)	52987.45
Proposed Charges	0.42

5.4. RECOVERY OF SLDC CHARGES FROM SHORT TERM OPEN ACCESS CONSUMERS

The short-term open access consumers shall 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, 2019 as may be amended from time to time.

5.5. REACTIVE ENERGY CHARGES:

The reactive energy charges are payable by the Discoms as per Regulation 48 of the HERC MYT Regulations which provides that '*the reactive energy charges shall be as provided in the Haryana Grid Code as amended from time to time*'. Clause 5.5 of the HERC Haryana Grid Code (HGC) Regulations, 2009 govern the charges for the reactive energy drawl/injection from/to state transmission system i.e. for VAR exchanges with the State Transmission System.

The Commission, vide order dated 03.09.2020, in Suo Motu proceedings, had directed HVPNL as below:

"In view of the above discussions, the Commission adopts the following procedure for management of Reactive Energy Charges receivable from/ payable to the NRPC as also on account of recovery/ payment of Reactive energy charges for VAR exchanges with Intra State Transmission System from the regional entities within the state of Haryana, depending upon the Reactive Energy consumption by them, as worked out by SLDC in accordance with the Haryana Grid Code, 2009 as amended from time to

time, on monthly basis: (a) SLDC shall maintain a fund in its books of accounts in the name and style of Reactive Energy Pool Fund Account.

(b) The amounts received from NRPC shall be credited to above fund and the amounts paid to NRPC shall be debited to above fund. The recovery of Reactive energy charges for VAR exchanges within the Intra State Transmission System of Haryana (primarily UHBVNL, DHBVNL and Northern Railways, OA consumers, etc.) shall be credited to above fund and the amounts to be paid to such entities shall be debited to the above fund.

(c) The amounts shall be deposited in the bank account specially opened for this purpose. Considering the volume of funds in the bank account and the position of receivable/payables, SLDC may invest the funds in fixed deposit of banks till such time they are utilised.

(d) SLDC shall raise invoices of recovery/ payment of Reactive energy charges for VAR exchanges with STS, in accordance with the State Grid Code, within a period of 15 days of the close of each month. However, for the Distribution licensees, where the variation is very high, the accounts shall be balanced every six months and only the net amount shall be recovered or paid. In case the payables are higher than the receivables, the funds received from NRPC, if available, shall be utilised to bridge the gap.

(e) The SLDC shall always maintain sufficient balance in the Reactive energy pool account equal to last three years annual average deficit/ penalty amount levied by NRPC/ NRLDS on this account.

(f) SLDC shall file a periodic (quarterly) status of the fund including utilisation with the Commission and also put it on its website.

(g) After the close of each financial year, considering the position of receivables and payables on account of Inter-State Reactive Energy Pool Account, in case the position permits, the surplus amount, including interest earned, shall be utilized by SLDC in accordance with the directions issued by the Commission from time to time. SLDC shall submit a complete proposal in this regard along with relevant detail/ data in support of the proposed investment along with the true up petition.

The Commission has observed that HVPNL has improved the target for intra state transmission losses fixed for the FY 2020-21 i.e., the reported actual is 2.115% against the target of 2.15%. This is admirable. As such, the transmission licensee has efficiently managed the transmission system including Opex and Capex during the year under review.

The Commission expects that going forward HVPNL would go an extra mile to improve upon the benchmarks set so as to ensure that the backbone of power system in the State is amongst the best performing power utility in the country.

Apart from this, in view of the above discussions and decisions, the Commission directs the licensee as under:

1. - The licensee may identify projects that could be taken up for utilisation of the surplus fund in the reactive energy pool account, in addition to the projects already approved by the Commission.

2. The licensee to:

- to develop monitoring system for replacement defective LAs, GO switches and earthings with the involvement of Discoms and ensure that defects are removed within two months to minimize outage of system and give more reliable supply.**
- to evolve mechanism to monitor the Tan Delta and other parameters to arrest the damage rate of CTs.**

Progress, regarding the above, may be intimated to the Commission within 3 months of issue of order.

3. Regarding ringfencing of SLDC, the Commission, once again, directs HVPNL to take up the issue with the State Government and submit a report to the Commission within one month from the date of this Order.

4. The Commission directs the licensee:

i) to mention the reason of high transformer damage rate from 01.04.2021 to 30.09.2021 and measures taken to arrest the damage rate within three months.

ii) to identify the no. of power transformers which have completed useful life. Draw action plan to replace transformers which have out lived and sick transformers.

iii) to submit status of circle-wise /substation-wise M&P observations pending, as on 31.03.2022.

5. The licensee needs to keep focused attention for the preventive maintenance of the transmission lines and the power transformers to avoid outages/ break downs in the transmission system and work towards improving upon the benchmark set for intra-State transmission losses.

The licensee shall implement the tariff and charges determined / approved by the Commission w.e.f. 01.04.2022.

This order is signed, dated and issued by the Haryana Electricity Regulatory Commission on 2nd March, 2022. The petition is accordingly disposed of.

**Date: 02.03.2022
Place: Panchkula**

**(Naresh Sardana)
Member**

**(R.K. Pachnanda)
Chairman**