

**Submission on **AVVNL** Petition for ARR and Tariff  
for FY 2024-25 and for FY 2022-23**

JUNE 2024



## Introduction

Ajmer Vidhyut Vitran Nigam Ltd. (“AVVNL”) hereafter referred as “petitioner” filed a petition for approval of ‘True-up for FY 2022-23’ and ‘Aggregate Revenue Requirement (ARR) and Tariff for FY 2024-25’ in accordance with the provision of RERC (Terms and Conditions for Determination of Tariff) Regulations, 2019.

The present submission is in response to the petition filed by AVVNL as published on the Commission’s website. We request the Commission to accept this submission on record.

This submission is structured in four sections as given under:

- a) Comments on the Petition for True-up of 2022-23
- b) Comments on the Petition for ARR for 2024-25
- c) Comments on the Tariff Rationalization
- d) General Comments

### **A. Comments on True-up Petition for 2022-23**

#### **1. Increase in sales of Railway Traction**

The Petitioner in Table 2 provides for comparison of actual and approved sales for FY 2022-23 in the petition, specifying actual Railway Traction as 27 MU as against approved sales of 0.18 MU. We request the Petitioner to provide explanation for the escalation of sales in Railway Traction, especially when railway is an open access consumer

#### **2. Bad Debt**

The Petitioner has reported Bad Debts written off (including provisions during the year) amounting to Rs. Cr. 11.96 without any approved amount. We request the Petitioner to provide clarification regarding the nature of these Bad Debts. Additionally, the opening balance is significantly higher, yet no approval has been sought for it again. We request the Petitioner to provide explanation for the same.

*Table 1: Bad Debts for FY 2022-23*

<b>S.No.</b>	<b>Particulars</b>	<b>Actuals</b>
1	Opening balance of Provision for Bad Debts	347.53
2	Provision of Bad debts in financial year	11.96
3	Less: Actual debts written off	11.53
	Closing Balance of Provision for Bad Debts	347.97

#### **3. Revenue Subsidy received from Appropriate government other than the subsidy under section 65**

The Petition in Table 1 provides for the summary of ARR for FY 2022-23, wherein it specifies the actual revenue subsidy received from appropriate government other than the subsidy under section 65 as Rs. Cr. 618 against the approved amount of Rs. Cr. 15.89. We request the Petitioner to provide detailed explanation for the same.

#### 4. Delayed payment surcharge as part of NTI

The Petitioner in Table 1 provides for the summary of ARR for FY 2022-23, wherein it specifies the audited delayed payment surcharge as part of NTI as Rs. Cr. 118.27. We request the petitioner to provide explanation for the introduction of delayed payment surcharge as part of NTI along with specific details.

#### 5. Sanctioned Load

We conducted a load factor analysis for JVVNL and found various anomalies. However, we encountered difficulties in conducting a similar analysis for AVVNL due to the unavailability of data in Excel format. Therefore, we request the Commission to conduct a prudence check on the petition documents and the submitted formats. The quality of the data submitted severely restricts stakeholders' ability to conduct any meaningful analysis and offer informed suggestions based on the available information.

In view of the our previous recommendation, we also suggest to reassess the current methodology to improve the accuracy of demand predictions and optimize revenue returns. Relying on Sanctioned Load often leads to overestimations of consumptions. Instead, we propose focusing on average consumption patterns to more accurately forecast demand and make more informed adjustments to our revenue projections.

#### 6. Agriculture Defective meters

The petitioner submitted the month-wise data on no. of defective agriculture metres in its data gap reply presented below.

Sr. No.	Month	No. of Defective Meters	Connected Load (KW)	Quantum of Energy (MU)
1	Apr-22	153,251	1827728.66	340.90
2	May-22	156,988	1816502.12	404.24
3	Jun-22	156,193	1802394.32	245.48
4	Jul-22	158,509	1826207.27	273.87
5	Aug-22	158,811	1827634.04	204.23
6	Sep-22	159,027	1841923.72	205.83
7	Oct-22	159,408	1854199.36	234.90
8	Nov-22	159,635	1863192.45	277.78
9	Dec-22	156,834	1865473.22	333.30
10	Jan-23	157,935	1888528.18	365.41
11	Feb-23	158,711	1903711.58	362.42
12	Mar-23	156,235	1899577.49	357.68

The data indicates an on an average approximately 1,57,628 agricultural consumers have defective meters. Even after metering, having defective meters amounts to a de facto return to flat rates despite incurring expenses to install meters.

The Commission, in orders dated 01.09.2022 and 31.03.2023, directed the petitioner to ensure all meters remain operational, limit defective agriculture meters to a maximum of 10% of total meters within one year, submit compliance status in the next ARR/Tariff Petition, and replace defective meters within two months of detecting a defect. Despite the Commission's multiple directives, there is evident non-compliance, as the defective meter rate exceeds this limit.

Due to this laxity of the petitioner, there is an additional burden of 'rebate allowed by the settlement committees' and 'rebate on account of defective meters.'

We would also like to highlight that petitioner did not provide the revenue realized from the defective meters as directed by the Commission.

We, therefore, request the petitioner to provide the following:

- i. Circle-wise data on defective meters and the corresponding revenue realization.
- ii. Monthly status reports detailing the total number of meters, the number of defective meters at the end of each month, and the number of meters repaired during the month.
- iii. Circle-wise data on the number of meters defective for more than two months.
- iv. Clarification on the persistently high rate of defective meters and measures being implemented to rectify this issue.

We recommend that the Commission to appropriately penalise the petitioner and hold the management of AVVNL accountable for compliance in the matter in a time bound manner.

## **7. RDSS Scheme**

Under the RDSS, the Petitioner has committed to segregating 1,462 Agriculture feeders during the period from FY 2022-23 to FY 2024-25 and installation target of 18,251 cKms of AB and UG cables from FY 2022-23 to FY 2024-25. The year-wise target for these are provided in Table 50 and 51, respectively.

We request the Petitioner to kindly specify for the following:

- i. Total infrastructure network in Ckm under the Petitioner and among the total network how much is considered as target under the RDSS scheme. Analysis of actual network infrastructure improvements under the RDSS scheme.
- ii. Year-wise targets of each circles and its current progress.

## **8. Creation of a Separate IT Company**

The Petitioner mentions the establishment of an IT company for the power sector in Rajasthan, as announced in the Government of Rajasthan's Budget Speech for FY 2023-24. This initiative led to the renaming of Rajasthan Urja Vikas Nigam Limited to Rajasthan Urja Vikas and IT Services Limited (RUVITL) effective from October 9, 2023.

We kindly request the petitioner to provide clarification on the financial implications for the Discoms resulting from creation of separate IT company. Additionally, details regarding any Memorandum of Understanding (MoU) established with RUVITL and outsourcing the data analysis to a separate entity. Additionally, the petitioner is requested to supply details regarding any Memorandum of Understanding (MoU) established with RUVITL, brief description of role of separate IT company, and mechanism for its governance and accountability.

## **9. Vigilance Activities**

While we acknowledge the break-up provided by the Petitioner, we further request the Petitioner that the assessment be complemented with month-wise along with malpractice data.

## **10. Inter-State and Intra-State Losses**

The Petitioner in Table 3 and Table 5.1 of the said petition has provided a combined figure for inter-state and intra-state transmission losses. It is pertinent to note that the Commission in orders dated 24.11.2021, 01.09.2022, and 31.03.2023, have directed the Discoms, including AVVNL, to maintain separate accounts for inter-state and intra-state transmission losses and to present this bifurcation in forthcoming true-up petitions. Despite previous directions and warnings, there is a serious and continuous non-compliance with multiple orders issued by the Commission in this regard. Responding to the last non-compliance, the commission opinionated that further failure in compliance will lead to the Commission taking an adverse view on the same.

The Petitioner in its reply to the Commission has communicated the establishment of a committee comprising officials from AVVNL, RUVNL, and RVPNL to fulfil the Commission's directive on segregating inter and intra state transmission losses. However, the same committee has resulted in no substantial action till date. Moreover, this seriously hinders the ability of stakeholders to analyse the performance of the intra and inter-state transmission system. Therefore, we request the Commission to take a serious note of this and strictly direct the petitioner to provide a breakdown of inter-state and intra-state transmission losses. We further request the Commission to impose penalties for such non-compliances, as it may deem fit.

In this context, we would like to highlight that the Transmission Losses claimed by the Discom is record extremely high and unheard of anywhere in the country. We submit from the below data, even in the state comparable with the Rajasthan’s geography and load profile, the transmission losses are sub 4%

SNo	State	Transmission Loss	FY	Source
1	Maharashtra	3.27%	23-24	<a href="#">State Grid Loss Account Page -01</a>
2	Andhra Pradesh	3.55%	23-24	RTSOrderfor FY2023-24 Page 24
3	Gujarat	3.60%	23-24	GETCO Final Tariff Order FY24-25 Page 39
4	Madhya Pradesh	2.63%	24-25	ARR for FY24-25 MPERC Page 26

We submit the commission takes serious note of the and issue directives to constitute a committee with independent representation.

### 11. Power Purchase Cost

The Petitioner in Table 12 provides for the details of the Power Purchase Cost for FY 2022-23.

The petitioner, in the deviation analysis, computed the deviation based on the average total costs. This methodology is deeply flawed and does not provide clarity on whether the deviation in costs is due to capacity charges or energy charges. This leads to incorrect inferences, such as the claim that power purchase costs from Coastal Gujarat Power Plant increased by 2.2 times, which is incorrect. As per the format sheets of both the ARR petition and the true-up petition for FY 2022-23, the data is as follows:

	As per Tariff Order	As per True up petition	Deviation
Net generation (MU)	108	106.76	
Total Annual Fixed charges (Rs.Cr.)	13	36.5	180%
Variable Cost (Rs.Cr)	17	61.55	
Variable Cost per unit (Rs. /unit)	1.57	5.76	266%
Total Costs for AVVNL	30	98.05	

We request the petitioner to provide a separate analysis of power purchase costs into fixed and variable components to present a clearer understanding of deviations.

Furthermore, the petitioner submitted that the increase in power purchase expenses is due to the Ministry of Power’s (MOP) order of using 10% imported coal. However, this mandate was revised multiple times: In 2022, the gencos were mandated to blend 10% of their coal requirement; it was later made voluntary for any genco facing a domestic coal shortfall. In

January 2023, the mandate was reduced to 6% blending and on September 1, it was further reduced to 4%.<sup>1</sup>

Thus, the imported coal alone cannot be the reason for such a high escalation in power purchase costs. We request the petitioner to provide details of the coal imported by the respective gencos, including plant-wise monthly coal imports, costs of the coal, third-party audit reports on the quality of the imported coal, and the amount of imported coal used.

We would also like to highlight repeated instances of fraud, as unearthed by law enforcement, where inferior quality coal was brought to India via sea routes through different bills of entry, having a gross calorific value far below the technical specifications of the agreement<sup>2</sup>. In light of this, we recommend that the Commission constitute an independent committee to examine all details related to the imported coal used by the power plants supplying power to AVVNL.

Additionally, we request the petitioner to provide details of the penalties imposed during the year on RVUNL and other relevant entities due to low plant availability.

## **12. O&M Expenses**

The Petitioner in Table 16 outlines the Employee Expenses for the FY 2022-23, specifying training expenses as Rs. 0.14 Cr. This amount is insufficient to address the critical need for capacity building. The Commission has repeatedly stated in previous orders that Discoms can claim necessary training expenditures through the Investment Plan/ARR, and has reiterated its willingness to consider any additional amounts spent on employee training. Despite this, the petitioner has allocated a minimal amount for training.

We request the petitioner to provide a detailed breakdown of the training activities undertaken during FY 2022-23.

Furthermore, according to the RERC (Investment Approval) Regulation, 2006, Distribution Licensees are permitted to allocate up to 1% of their Investment Plan towards institutional strengthening. We urge the petitioner to clarify the reasons behind the underutilization of funds designated for employee safety and skill training. Additionally, we request detailed information on the total number of employees trained, the categories of employees trained, and the specifics of the training provided during FY 2022-23.

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<sup>1</sup> [https://www.business-standard.com/industry/news/centre-extends-mandate-on-coal-import-blending-to-continue-till-march-2024-123102501107\\_1.html](https://www.business-standard.com/industry/news/centre-extends-mandate-on-coal-import-blending-to-continue-till-march-2024-123102501107_1.html)

<sup>2</sup> <https://economictimes.indiatimes.com/industry/indl-goods/svs/metals-mining/inferior-coal-import-scam-cbi-registers-two-cases/articleshow/28400870.cms?from=mdr>

We also seek clarification on whether contractual employee expenses are included within the overall employee expenses. In a previous directive, the Commission instructed the petitioner to evaluate the operations of contractors responsible for managing certain substations. We request the Commission to direct the petitioner to furnish a comprehensive report detailing the outcomes of this review and to ensure its publication.

Moreover, we seek clarification on whether expenses incurred on the contractual employees on various contracts are included within the overall employee expenses.

Additionally, the commission in multiple previous tariff order, issued directives to the Petitioner to evaluate the operations of contractors responsible for managing certain substations. We request the Commission to direct the Petitioner to furnish a comprehensive report detailing the outcomes of this review and to ensure its publication.

### **13. Significant Deviations in R&M Expenses**

In Table 20, the petitioner submitted the actual R&M expenses at Rs. 459.50 Cr. that is significantly higher than the approved expenses of Rs. 143 Cr. by Rs. 316.50 Cr. The petitioner provided no reasons for the deviation and merely petitioned the Commission to approve the R&M expenses as per actuals.

This demonstrates a lack of seriousness on the part of the petitioner in justifying the significant increase in R&M expenses. It raises concerns about the petitioner's financial planning, transparency, and accountability in managing and reporting their expenditures. Without a clear and detailed explanation for such a large discrepancy, it is difficult for stakeholders to assess the necessity and effectiveness of the incurred expenses.

We request the petitioner to explain the reasons for such a significant increase from the approved amount. Additionally, we request the petitioner to provide a detailed list of the R&M activities undertaken during the control period and the outcomes of these activities in terms of improvements in reliability or other similar metrics.

### **14. Consumer Awareness Expenses**

The Petitioner in Table 18 provides breakup of A&G expenses for FY 2022-23, specifying consumer awareness expenses as Rs. 0.76 Cr. However, the petitioner failed to provide any details how these funds were spent. A comprehensive breakdown and impact analysis will help in understanding how effectively the allocated funds have been utilized in enhancing consumer awareness. This includes specifying the type of activities, such as workshops, campaigns, advertisements, and community outreach programs, along with the cost incurred for each.

Consumers are one of the most important stakeholders of the power sector and their awareness is an important for healthy functioning of the Discoms. We submit, the petitioner take this issue seriously and provide a detailed month-wise and circle-wise list of activities undertaken for consumer awareness along with associated costs. It will also provide insights into the effectiveness of different awareness initiatives, enabling better planning and resource allocation for future consumer awareness programs. Additionally, we request details of any impact analysis conducted to assess the improvement in consumer awareness.

#### **15. Insurance Expenses**

The Petitioner in Table 22 provides Insurance Expenses FY 2022-23, specifying actual insurance expenses as Rs. Cr. 1.25 against the approved insurance expenses of Rs. Cr. 23. We request the petition to provide a detailed explanation for a significant reduction in insurance expenses despite the fixed assets and net worth remaining the same.

#### **16. Interest and Financial Charges**

The Petitioner in Table 23 has provided a combined amount for the Interest and Finance Charges for FY 2022-23, specifying actual Interest on Short-term Borrowings / Interest on Working Capital (including LPS paid to generators) and Interest on the unfunded gap. We request the petitioner to provide a rationale behind combining both heads of different natures and further provide a detailed break-up of each category.

Moreover, the Commission in its order dated 24.11.2021 and 01.09.2022, observed that the Discoms would be requiring additional working capital to implement bi-monthly billing for BPL, domestic consumers having consumption up to 150 units and agriculture consumers as per GoR orders. To meet such crunch of working capital, Discoms were directed to claim the interest on such additional working capital requirement from the GoR.

The petitioner has submitted before the Commission that the Discom has issued an order dated 02.01.2024 wherein it has been decided that all consumers except domestic and agriculture category of consumers shall be billed on a monthly basis. However, the petitioner failed to answer regarding any settlement of interest with the government of Rajasthan. In this regard, we request the petitioner to provide a detailed explanation as to why, despite the sharp rise in working capital requirements, they are refusing to demand funds from the government. We would also like to highlight that other Discoms in Rajasthan, such as JdVVNL, have complied with the Commission's directive, computed the impact, and petitioned the government for compensation.

#### **17. Compensation for Injured/ Death of Employees and Outsiders**

The Petitioner in Table 27 provides for other debits and prior period expenses during FY 2022-23, wherein it specifies compensation for injured/death of employee and compensation for injured/death of outsiders as Rs. Cr. 1.52 and Rs. Cr. 8.34, respectively. We request the

petitioner to furnish details of each of these accidents resulting in injury or death of employees and outsiders. This should include detailed accident reports, electrical inspector reports, and action taken reports.

Furthermore, we request the petitioner to provide data on the compensation paid for loss/damage of property during FY 2022-23.

#### **18. Compensation on Standard of Performance Violations**

The Commission, in its order dated 31.03.2023, directed the petitioner to report all parameters based on smart meters wherever installed and to pay direct compensation immediately for any violations. For other consumers, the Discom is to institute a system for direct compensation and report the same in the formats submitted to the Commission as well as along with the next ARR.

In this regard, we request the petitioner to provide detailed circle-wise information on direct compensation disbursed for violations of the standard of performance. This should include the total number of consumers who received such compensation and the overall amount disbursed.

#### **19. Circle-Wise Details of Rebate Provided to Consumers**

The Petitioner in Section 6.45 Table 27 provides for other debits and prior period expenses during FY 2022-23, specifying the DPS/LPS waived off as around Rs. Cr. 39.10. We request the petitioner to furnish circle-wise and category-wise details and the amount provided as said waiver.

The Petitioner in Section 6.46 provides for the bifurcation of the rebates provided to consumers in FY 2022-23. We request the petitioner to furnish circle-wise details of beneficiaries and amount provided as rebate.

Furthermore, section 6.56 provides for other expenses including rebate and bad debts specifying actual expenditure of Rs. Cr. 778.88 as against the approved expenditure of Rs. Cr. 307. We request the petitioner to provide a detailed explanation for such significant increase.

We would like to highlight Section 10.6, clause (g) of the RERC Electricity Supply Code mandates that the licensee must deliver electricity bills within 3 days of the issue date. The 10-day payment window is calculated from the date of issuance of bills. However, the bill reaches the consumer later than issuance date. This effectively reduces the 10-day payment window stipulated in Section 10.7, as consumers only have 7 days from the date of receipt to make the payment. Based on our experience, it has been observed that consumers, particularly small consumers and those residing in rural areas, often cannot pay their bills on

time due to this inadequate payment window, resulting in the burden of late payment surcharges.

In regard to this, we request the Commission to give specific direction to Discoms to provide adequate and equitable payment window to all consumers including those residing in rural areas for payment of bills.

## **20. Non-Tariff Income and Other Tariff Income**

The Petitioner in Table 30 provides for non-tariff income and other tariff income for FY 2022-23 and section 6.53 provides for details of other miscellaneous receipts. In this regard, we request the petitioner to furnish the circle-wise data on realized and unrealized non-tariff income arising from pole rents.

## **21. Write Off Tariff Subsidy Receivables from GoR**

The Petitioner in Section 8.3 mentions writing off tariff subsidy receivables from GoR on account of stopped and defective meters which has been calculated on the bases- of flat rate billing instead of metered rate billing. Accordingly, Discom has written-off differential tariff subsidy receivable amounting to ₹ 843.59 Cr till 31.03.2022 in the current financial year and the same is disclosed as an “Exceptional Expenses” in the Statement of Profit & Loss.

It is pertinent to emphasise that the writing off tariff subsidy receivables from the GoR affects the overall health of Discoms. This impacts service quality and the ability of Discoms to deliver services. In this regard, we recommend a committee should be constituted to avoid such circumstances, and appropriate directions should be requested from RERC for future instances.

## **22. Revenue Deficit**

The petitioner submitted in Paragraph 10.1 and Table 36 details of Revenue Surplus/Deficit for FY 2022-23, where the revenue gap stands at Rs. 1,981 Cr. as against a revenue surplus of Rs. 1,156 Cr. approved by the Commission. This has been a pattern for the last decade, that the petitioner projects a revenue surplus during the ARR and ends up in deficit during the true up. We submit the commission takes serious note of this glaring issue, and recommend appropriate action, including constituting a committee to examine the root-cause of the issue.

We further submit that the petitioner state how it intends to address the deficit for FY 2022-23 as filed in the current true-up petition.

Additionally, we highlight, as per Ministry of Power's Standard Operating Procedures<sup>3</sup> in respect to important conditionalities under RDSS, LIS, Additional borrowings etc to be

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<sup>3</sup> [https://powermin.gov.in/sites/default/files/uploads/Standard\\_Operating\\_Procedures\\_01\\_07\\_2022.pdf](https://powermin.gov.in/sites/default/files/uploads/Standard_Operating_Procedures_01_07_2022.pdf)

followed during implementation and evaluation Paragraph 3.4(ii) the States/DISCOMs are to ensure that no new Regulatory Assets/uncovered revenue gaps are created in future. Therefore, we seek clarity on the action plan to address this revenue deficit and request the Commission to refrain from creating additional regulatory assets.

## ***B. Comments on ARR, Tariff, and Investment Plan for 2024-25***

### **1. Defective Agriculture Metres**

As highlighted in the previous true up section, despite the conversion of agricultural flat-rate to metered connections, it has been observed by the Commission that numerous meters remain faulty, resulting in continued flat-rate billing. We request the petitioner to provide a detailed action plan for rectifying defective electricity meters, along with a timeline and measures they plan to undertake to ensure a prompt resolution and effective implementation of metered billing.

### **2. Pending Agriculture Connections**

We request the petitioner to provide detailed information regarding circle-wise pending agricultural connections, disclosing the number of pending connections per circle, and the projected timeline for addressing and closing the remaining applications.

### **3. Distribution and AT&C Losses Reduction**

It is commendable that the petitioner managed to reduce the losses to below 10% and projecting both the Distribution and AT&C Losses at 10%. However, we submit that the Commission should approve a more ambitious figure for loss reduction, given that losses as low as 6.46% have been demonstrated to be achievable by BSES Rajdhani Power Limited in Delhi and other discoms across the country.

### **4. RDSS Scheme**

We request the petitioner to provide a circle-wise audit report on the total number of meters at feeder segregation and DT, along with details of operational and faulty meters. The Petitioner has submitted on various occasions that it aims to achieve 100% feeder metering and DT metering by 2023. We request the petitioner to provide a detailed explanation for the delay in achieving the said target.

Additionally, Discom were also supposed to maintain database while implementing the prepaid smart metering projects. We request the petitioner to furnish details about status of the remotely readable metering at DT level, Consumer indexing, integration of feeder level data, and the consumer billing database.

### **5. BEE Reporting**

The petitioner in the said petition has declared that 100% feeder metering and consumer indexing are completed. However, it has been observed that the data submitted to the Bureau of Energy Efficiency (BEE) is incomplete. The Input Energy and Infrastructure details on the Energy Audit Report for FY 22-23 are missing crucial data on line length (ckt. km) at the 66kV voltage level and the number of feeders at the 66kV voltage level. Similarly, for feeders >66kV and LT, the data on the number of metered feeders, feeders with communicable meters, and unmetered feeders are also missing.

We submit that the Commission takes cognizance of this issue and directs an independent audit to verify the claim of the feeder and DT metering.

### **6. Vigilance Targets**

We request the Petitioner to provide list detailing specific targets for vigilance, circle-wise and category-wise data on vigilance activities planned, including the number of visits planned to be undertaken, targeted revenue realised.

### **7. Circle-wise details of smart metres**

We request the Petitioner to provide detailed information on the total numbers of smart metres installed along with the circle-wise list, with a further breakdown by category. Additionally, to specify the details on the number of smart meters installed in urban and rural areas for each category.

### **8. RPO**

The petitioner in paragraph 12.21 outlines the existing Renewable Purchase Obligation (RPO) achieved against the target for FY 2022-23. However, the RPO for previous years has not been fully met. The year-wise remaining RPO is provided in the table below. We request the petitioner to provide detailed action plans to address the legacy (outstanding) RPO from previous years along with the associated costs for fulfilling these obligations.

We advise the petitioner to take note of the prevailing low market prices of REC and leverage them to clear the legacy RPOs.

Data of RPO compliance of AVVNL from FY11 to FY23.

<b>Year</b>	<b>Target (%)</b>	<b>Achieved (%)</b>	<b>Shortfall (MU)</b>
2010-11	8.50	3.83	635.33
2011-12	6.00	5.58	60.91
2012-13	7.10	6.74	57.00
2013-14	8.20	7.79	67.67
2014-15	9.00	7.24	325.76
2015-16	10.20	7.55	501.79

2016-17	11.40	8.56	535.31
2017-18	14.25	10.15	779.39
2018-19	13.35	11.92	293.45
2019-20	15.00	14.42	117.48
2020-21	16.65	13.42	701.38
2021-22	18.48	15.58	671.98
2022-23	19.95	15.16	1,235.26
<b>Total</b>			5,982.71

Source: RTI petition filed by CEEP

At the current cost of the REC at Rs. 150 per certificate<sup>4</sup>, the petitioner can liquidate the entire legacy RPO at the cost of Rs. 90 Cr. We submit the petitioner to take proactive measures to consider that.

### **9. Disallow O&M expenses for Distribution Franchises**

The petitioner requests approval for O&M expenses, including sales to the distribution franchises. However, since AVVNL does not undertake O&M in the distribution franchise area, we request the Commission to deny this request and not allow O&M expenses for overall sales that include sales to the distribution franchise area.

Furthermore, we request the petitioner to provide detailed planned activities and outlay for expenses related to safety and training for the financial year. These should be included in the annual action plan to ensure transparency and accountability in the utilization of funds allocated for these purposes.

### **10. Capital Investment Plan**

As per the RERC (Investment Approval) Regulation, 2006, Distribution Licensees are permitted to allocate up to 1% of their Investment Plan towards institutional strengthening. Accordingly, the Petitioner should plan and implement training programs and other related initiatives. We request the Petitioner to provide details on action plan for the training and safety of employees along with the amount it is planning to incur for such activities. Furthermore, as per the Commission's directive, a cost-benefit analysis of the investments made should be conducted and be filed with the said petition.

### **11. O&M Expenses for Smart Metres**

As the smart meter installation has already progressed to a considerable level, the petitioner is requested to provide the provisional figures on the monthly O&M expenses being incurred per meter along with the benefits observed in the areas where the smart meters are installed.

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<sup>4</sup> Cost of the REC as on 12<sup>th</sup> June 2024 as per PXIL. <https://powerexindia.in/Pages/Market.html#REC/>

We further request the petitioner to provide estimates of O&M expenses for smart meters for FY 2025. Additionally, we request the petitioner to assess and provide details of the cost reductions due to billing (spot billing charges and the bill collection charges) and collection efficiency gains resulting from the implementation of smart metering. This will help in understanding the financial impact and benefits of the smart meter deployment.

We further submit, the petitioner provide the details of how it intends to recover the capital costs incurred for the installation of the smart meters.

### **12. Refinancing of Loans**

We request the Petitioner to provide detailed plans for refinancing high-interest rate loans with lower interest rates aimed at reducing existing debts.

### **13. Unfunded Gaps**

We request the petitioner to provide a comprehensive action plan to liquidate these regulatory assets, including proposals for regulatory surcharges. We believe that regulatory assets are meant to be an instrument to normalise fluctuations in national and global fuel markets, but it has been consistently used as a political instrument, masking inefficiencies in planning and operations of the power sector. We sincerely request the Commission to move away from the practice of creating regulatory assets as this will allow for improved cash flows, improved efficiencies, improvement in credit rating, reduction in cost of finance, and better accountability of respective power sector institutions.

### **14. Non-Tariff and Other Tariff Income**

The Commission, through its directive dated 24.11.2021, has instructed Discoms to explore and implement asset monetization strategies, including setting up EV charging stations, utilizing buildings for advertising hoardings and ATMs, leveraging advertisements on portals/apps, and considering sale of unused lands at commercial locations to local bodies.

The Managing Directors of Discoms were personally directed to oversee the implementation of asset monetization concepts, issue necessary guidelines, and submit quarterly compliance reports detailing actions taken and revenue realized on a circle-wise basis. The directive stresses optimizing pole rents, monetizing vacant lands, buildings, and other assets, including advertisement space on bills. The Petitioner were requested to provide projections for each of these monetization avenues.

Furthermore, as per the Commission's directive dated 01.09.2022, Discoms are mandated to report circle-wise details of poles and cables along with their respective incomes. If income is reported as zero, the Assistant Engineer concerned must submit an affidavit within three months to the Senior Engineer, affirming thorough checks across their area confirming no

misuse by telecom operators, cable operators, or other entities. The Senior Engineer were required to then deploy an internal audit team to verify claims and take appropriate action if misreporting is identified. The Senior Engineer was assumed personal responsibility for monitoring income from asset monetization within their circle, with verification by an independent agency or consultant mandated by the Commission.

In this regard, we request the Petitioner to provide the detailed information and plan to realise the other tariff income.

### **15. Voltage-Wise Loss of Supply**

The Commission's order dated 31.03.2023 directed the Petitioner to conduct an independent study to calculate voltage-wise losses and voltage-wise cost of supply. Despite the Commission's directive in its order dated 01.09.2022, which required Discoms to submit voltage-wise cost of supply based on actual losses and sales rather than the dispensation allowed by APTEL's judgment, the petitioner failed to comply.

Despite repeated reminders and opportunities provided by the Commission, the Petitioner submitted data using the APTEL methodology, which was subsequently rejected by the Commission. We urge the Commission to take strict note of the petitioner's laxity in fulfilling these obligations and request imposition of penalties, including a reduction in the Annual Revenue Requirement (ARR).

### ***C. Submission on the Tariff Rationalization***

#### **Need for Tariff Rationalization**

Electricity access and affordability amongst the poor, which results in better livelihoods, reduced health risks, and improved access to education. Despite this, the recent **Household Consumption Expenditure Survey** (HCES 2022) reveals that in Rajasthan, households belonging to the lowest-income decile have spent 3.84% in urban areas and 2.82% in rural areas of their monthly budget on electricity, corresponding to 2.43% for urban and 1.95% for rural households belonging to the top decile. It clearly shows that even a bare minimum of electricity usage by poor households results in a significant burden on their monthly budget compared to the richer households. Therefore, electricity tariffs for domestic consumers demand further attention ensure equity, increase energy efficiency, and financial and environmental sustainability.

As per our calculations from HCES 2022, the top decile accounts for 15% of the consumer base. The median consumption for the decile is 25 units and 50 units approx. per capita per month for rural and urban, respectively. The increase in prices for the topmost consumers should result in a significant increase in revenue, as price elasticity of electricity is less than 1

for the domestic consumers.<sup>5,6</sup> While we argue for increasing prices for the topmost category, this will also incentivise middle consumers to increase energy efficiency by shifting to energy-efficient equipment. Such improvements in the tariff structure should result in better energy efficiency, equitable access to energy, and improved financial and environmental sustainability.

*Table 2: Energy Consumption and Income for Urban Households in Rajasthan*

<b>Income Decile</b>	<b>Mean Income of Decile (In Rs)</b>	<b>Share of Income Spent on Electricity</b>	<b>Median Consumption Monthly Per Capita</b>
1	2836	3.85%	15.0
2	3648	3.87%	20.0
3	4245	3.82%	23.0
4	4826	3.90%	26.7
5	5436	3.79%	28.2
6	6127	3.93%	30.3
7	7025	3.73%	35.2
8	8309	3.53%	38.3
9	10145	3.47%	49.4
10	14888	2.43%	54.0

Source: Author's calculations from HCES 2022

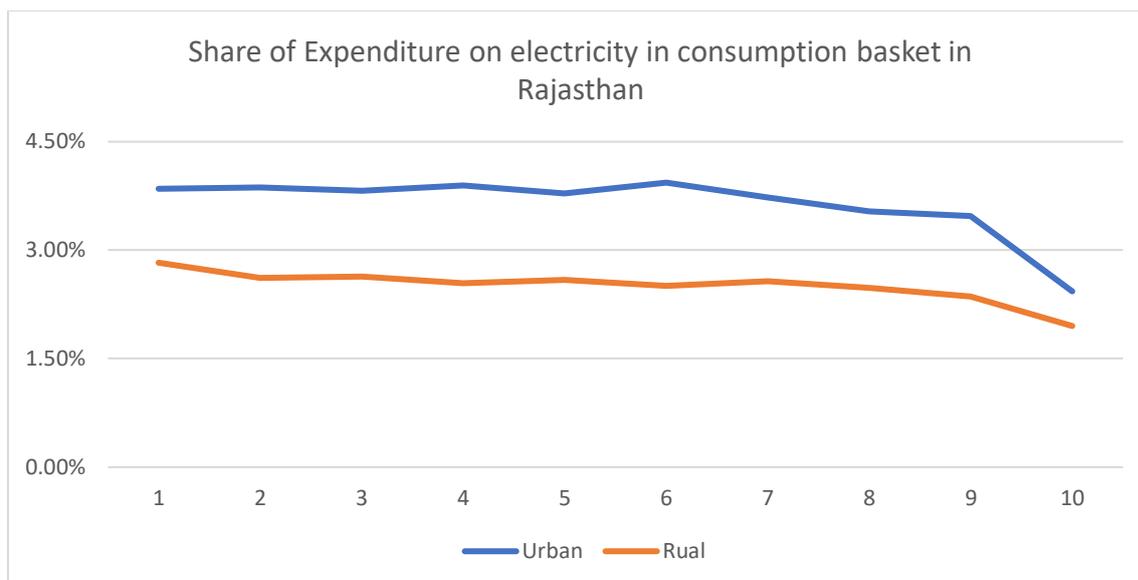
*Table 3: Electricity Consumption and Income of Households in Rural Rajasthan*

<b>Income Decile</b>	<b>Mean Income of Decile</b>	<b>Share of Income Spent on Electricity</b>	<b>Median Consumption Monthly Per Capita</b>
1	2071	2.83%	9.0
2	2724	2.61%	13.2
3	3192	2.64%	15.2
4	3612	2.55%	17.4
5	4048	2.59%	19.2
6	4495	2.51%	20.2
7	5012	2.57%	21.8
8	5692	2.48%	25.8
9	6772	2.36%	28.5
10	9449	1.95%	37.3

Source: Author's calculations from HCES 2022

<sup>5</sup> <https://www.sciencedirect.com/science/article/abs/pii/S0301421502003142?via%3Dihub>

<sup>6</sup> <https://www.sciencedirect.com/science/article/abs/pii/S0301421599000117?via%3Dihub>



Further, we note multiple inefficiencies and unnecessary complexities in the design of tariff schedule of Rajasthan. In this section, we discuss the same, comparing the treatment of tariff design to the tariff schedules notified by the SERCs in the states of Delhi, Gujarat and Maharashtra. Detailed calculations of the state level analysis is in added to the Annexure I and Annexure II. We especially discuss the aspects of transparency, simplicity, cost-reflectiveness, and affordability.

### 1.1. Domestic

Socialization of fixed costs is a major issue in the existing tariff regime. Consumers up to 50 kVA are charged a maximum fixed cost of INR 400 per connection per month. In case the premises are not occupied, this shall fall to INR 230 per month. A consumer with 20 kVA connected load in such an instance shall be paying a maximum fixed charge of INR 20 /kVA and minimum of INR 11.5 /kVA per month. This is against system fixed cost of INR 481.56 /kVA (equated over 12 months).

We observe that General Domestic consumers who are consuming less than 50 units (as per data provided in tariff petition formats) account for 30% of the connected load amongst the domestic category, but on 3% of the consumption. This may be explained by financially affluent consumers having multiple assets, some of which may not be occupied, leading to low utilization. Hence, the existing tariff regime directs subsidies to financially affluent consumers, violating the principle of equity.

In comparison, a consumer with 1 kVA connected load ends up paying a fixed cost of INR 230 /kVA when they lie in the lowest consumption slab. This is a gross violation of principles of equity and cost reflectiveness. In comparison, Gujarat levies escalating fixed charge on per kVA of connected load.

Suggestion:

- Make the fixed charges reflective of sanctioned load across categories, including BPL. Escalating fixed charges may be levied, with lower fixed charges for loads less 5kVA. At least 50% of the fixed costs should be recovered from fixed charges for consumer with connected load over 10 kVA Following schedule may be adopted for domestic category.<sup>7</sup>

Connected Load	Suggested Rate
0 – 1 kVA	INR 20 /kVA
1 – 3 kVA	INR 50 /kVA
3 – 5 kVA	INR 90 /kVA
5 – 10 kVA	INR 150 /kVA
> 10kVA	INR 240 /kVA

- 50 kVA and above category may be removed, and a discount on variable charges may be provided to the consumers based on connection voltage.
- Post adoption of the proposed tariff regime, the small domestic and GD1 consumer category may be merged as the new tariff regime shall significantly reduce their financial burden.
- Given the paying capacity of effluent consumers and increasing economic disparity, we propose that electricity consumption above 500 units is charged at the rate of INR 8.95 per unit. This shall also encourage adoption of solar and energy efficiency amongst the effluent domestic consumers.<sup>8</sup>
- Since electricity consumption in NDS category is for productive use, these adjustments may be used to lower the tariff rates for NDS consumers.
- Given the urban – rural economic disparity and different in electricity supply quality and services, it is suggested that a small discount on variable energy charges is offered to rural consumers across consumptions slabs. Such incentives are likely to have positive externalities for rural energy consumption and economic growth.

## 1.2. Non-Domestic

The tariff regime for NDS category follows a similar structure to domestic category, resulting in similar issues, i.e. the tariff design not being cost reflective, equitable or efficient.

### Suggestions:

- We propose the following schedule for fixed charges for the NDS consumers to address the same.

Connected Load	Suggest Rate
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<sup>7</sup> More detailed analysis (including revenue impact) was not feasible because of dearth of time, but CEEP offers to undertake the same on direction of the honorable Commission and AVVNL.

<sup>8</sup> Mharastra discoms levy a high escalation on energy charges for higher consumption slabs.

0 – 1 kVA	INR 60 /kVA
1 – 3 kVA	INR 120 /kVA
3 – 5 kVA	INR 180 /kVA
5 – 10 kVA	INR 240 /kVA
> 10kVA	INR 300 /kVA

- It is suggested that variable charges of NDS category are appropriately lowered while accounting for principles of efficiency and affordability, especially for small consumers.
- Given the urban – rural economic disparity and different in electricity supply quality and services, it is suggested that a small discount on variable energy charges is offered to rural consumers across consumptions slabs. Such incentives are likely to have positive externalities for rural energy consumption and economic growth.

### 1.3. Public Street Lighting

Both fixed and variable charges for Public Street Lighting in Rajasthan are unusually high. Maharashtra discoms levy a fixed charge of INR 142 per kW and variable energy charge slightly lower than Rajasthan. In contrast, Gujarat levies a charge of INR 70 per installation and much lower variable energy charge.

It may be noted that streetlights are a night load with high-capacity utilization in the range of 21 – 24% based on data provided by JVVNL. Following the principle of cost reflectiveness and allocative efficiency, it's fixed charges and variable charges should be lower. Such charges shall account for any additional costs and responsibilities born by discoms for maintenance of streetlights. A detailed breakdown of such costs should be provided by discoms for them to be included in the tariff rates.

#### Suggestions:

- Fixed charges should be made reflective of load for every point. Discoms may propose suitable load slabs for defining tariff.
- We suggest that fixed charges shall be levied at the rate of 250 per kW, with actual charges reflective of actual load. For instance, for a 100 Watt street light, fixed charge should be INR 25 per month (INR 250 /kW x 0.1 kW).
- Energy charges shall be reflective of average power procurement price at night.
- Cross subsidy surcharge should not be added to the variable energy charge because its costs are socialized amongst all consumers – the rich and the poor.

### 1.4. Agriculture

Agriculture demand is seasonal with farmers cultivating 1-3 crops in a year. A farmer's ability to pay has a direct correlation with number of crops and actual utilization of the agriculture connection. Their cash flows are also strongly dependent on the harvest cycles.

Hence, it is suggested that fixed costs levied for agriculture connection is levied based on Maximum Demand in a month instead of Sanctioned Connected Load. However, we suggest that fixed charges for agriculture connections are made reflective of the fixed costs. This shall also reduce the unnecessary subsidies being indirectly allocated to large farmers.

Further, agriculture supply suffers critical issues because of infrastructure constraint. The discoms must advocate and re-implement agriculture block supply over 24-hour duration instead of a 12-hour duration. The 24-hours block supply shall significantly reduce technical losses and peak load.

Suggestions:

- We suggest the following schedule for fixed charges, levied based on Maximum Demand for each month.

Maximum Demand	Suggest Rate
0 – 5 kVA	INR 60 /kVA
5 – 10 kVA	INR 120 /kVA
> 10kVA	INR 240 /kVA

- While agriculture supply shall continue to be on block basis, it is suggested that the blocks are distributed across 24 hours. This shall reduce peak load, reduce over-loading on infrastructure, defer infrastructure investments in transmission and distribution network, reduce transmission losses, and improve quality of supply.
- **Notify day-time and night-time energy charges, with respective charges being reflective of average power procurement price for the duration.**

### 1.5. Industries

Section 62 (3) of the Electricity Act states that, “The Appropriate Commission shall not, while determining the tariff under this Act, show undue preference to any consumer of electricity but may differentiate according to the consumer's load factor, power factor, voltage, total consumption of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required.” However, the categorization into small, medium and large industries seems unnecessary benefits based on connection voltage and rebates for night use are already available. Any variation based on volume of consumption shall be strictly reflective of marginal cost of supply energy.

The practice of defining charges per HP is also redundant, and all charges may be defined on kVA may be defined for ease of understanding and administrative consistency. Further, there is a need to formally acknowledge the seasonal industries in the tariff schedule.

The fixed charges for industries in Maharashtra are at the rate of 549 /kVA whereas in Gujarat it ranges from 150 to 475 /kVA, with fixed charges being highest being highest for industries with connected load over 2500 kVA. However, fixed charges are much lower in Rajasthan, and

they are not reflective of the fixed costs borne by the discoms. This also leads to under recovery of fixed costs when industrial consumers move to solar rooftop or open access.

Suggestions:

- Merge categories of small, medium and large industries into a single category.
- Increase fixed charges to at least 75% of fixed costs, that is INR 360 /kVA per month. Small industries may be levied a concessional fixed charge of INR 240 /kVA per month for load up to 20 kVA.
- Introduce a sub-category of seasonal industry with fixed charges of INR 480 /kVA and appropriate energy charges.
- Other rebates and concessions shall continue as in practice.

1.6. Bulk supply for Mixed load

This category is completely redundant. As per data provided by JVVN their load factor (19%) is similar to large industries (22%). Hence, it is recommended that this category is eliminated from the tariff schedule, and the consumers are subsumed within the industrial category.

1.7. Proposal for Green Tariff

In principle, we concur with the need to implement Green Tariff to enable consumers to meet their ESG and Net Zero goals. However, we do not fully agree with the structure proposed by the discom. The objective of Green Tariff is to increase renewable energy adoption, and it is not an instrument meant to simply increase the revenue of the discom. The implementation of green tariff shall pave way for additional renewable energy to be added to the green, beyond the Renewable Purchase Obligation (RPO), which is a statutory requirement for the discom.

The proposed mechanism by discom shall just lead to increase in their revenue, and not necessarily lead to increased adoption of renewable energy. Hence, we recommend that commission may adopt either of the following suggested mechanisms for implementation of green tariff.

- a) The consumers are allocated the RPO/REC generated against the green procurement, which they may trade in the market as an incentive along with meeting their net-zero commitments. In this case discom will not be able to account for RPO against supply of green power to meet its RPO obligations.
- b) The consumers may be given an appropriate discount to the proposed tariff in a manner that accounts for the market value of the RPO.

In adoption of the proposed mechanisms, the honourable commission (and the petitioner) shall also account for prevalent market clearance price of Renewable Energy Certificates (REC) over the period of June 2023 to February 2024 as provided in the table below.

**Table: PXIL REC MVP Report**

<b>Auction Date</b>	<b>Cleared Price (INR/Certificate)</b>	<b>Cleared Volume</b>
<b>28-Jun-2023</b>	<b>745</b>	<b>122038</b>
26-Jul-2023	590	100630
<b>30-Aug-2023</b>	<b>545</b>	<b>80779</b>
27-Sep-2023	500	557000
<b>11-Oct-2023</b>	<b>380</b>	<b>4996</b>
25-Oct-2023	450	91800
<b>08-Nov-2023</b>	<b>375</b>	<b>266138</b>
29-Nov-2023	375	328288
<b>13-Dec-2023</b>	<b>370</b>	<b>179950</b>
27-Dec-2023	375	36961
<b>10-Jan-2024</b>	<b>360</b>	<b>916223</b>
31-Jan-2024	360	198263
<b>14-Feb-2024</b>	<b>360</b>	<b>130000</b>
28-Feb-2024	360	131208
<b>13-Mar-2024</b>	<b>300</b>	<b>274012</b>
27-Mar-2024	270	325045
<b>10-Apr-2024</b>	<b>240</b>	<b>155049</b>
24-Apr-2024	204	271644
<b>08-May-2024</b>	<b>189</b>	<b>209933</b>
29-May-2024	165	110299
<b>12-Jun-2024</b>	<b>150</b>	<b>82417</b>

#### ***D. General Comments***

##### **1. Format of documents for placing on website**

The Commission directed Discoms in its orders dated 14.07.2022 and 01.09.2022 to improve the accessibility and format of petition documents on their websites. Specifically, Discoms were instructed to upload readable PDF and Excel formats along with signed copies of petitions and ensure that files are in searchable formats such as Word, Excel, or PDF. In compliance, AVVNL acknowledged the directives and confirmed adherence to these requirements as noted in the Commission's order dated 31.03.2023.

Despite this, it has been observed that documents in the current petition are of poor quality scans, which are not machine readable. This is in violation of the Commission's directives, as observed below. We submit that the Commission takes serious cognizance of this issue, as it

limits meaningful stakeholder engagement in the due process. An illustration of a poorly scanned page is shown in the below image.

राजस्थान सरकार  
वित्त ( भारोपाय ) विभाग

जयपुर, दिनांक ६ अप्रैल 2022

क्रमांक प 5 (4) वि. सं. 2022

**आदेश**

राज्य सरकार द्वारा विद्युत दरों के सम्बन्ध में घोषित राहत कार्यक्रमों के फलस्वरूप जयपुर, जोधपुर एवं अजमेर विद्युत वितरण विभाग पर पड़ने वाले अनुमानित भार की प्रतिपूर्ति हेतु अनुदान राशि रु. 100000.00 लाख ( अक्षरों रूप में एक लाख हजार ) विद्युत विभागों को भुगतान करने हेतु निर्देशानुसार राजस्थान महोदय की स्वीकृति एतद्वारा प्रदान की जाती है। यह राशि वित्तीय वर्ष 2022-23 में विभिन्न बजट शीटों में बंधन की जाती है।

(राशि लाखों में)

	190-सार्वजनिक क्षेत्र के और अन्य उपक्रमों को सहायता	789-अनुसूचित जातियों के लिए विशिष्ट राधटक योजना	796- जन जातियों क्षेत्र उपयोगना	योग
बजट राशियाँ	48	51	30	
2801-विकसित 80-सहायता 190-सार्वजनिक क्षेत्र के और अन्य उपक्रमों को सहायता /789-अनुसूचित जातियों के लिए विशिष्ट राधटक योजना/796- जन जातियों क्षेत्र उपयोगना	(43) विद्युत दरें नहीं बढ़ाने हेतु अनुदान	(02) विद्युत दरें नहीं बढ़ाने हेतु अनुदान	(02) विद्युत दरें नहीं बढ़ाने हेतु अनुदान	
[01] जयपुर विद्युत वितरण निगम लिमिटेड 81 सहायता (सब्सिडी) (राज्य निधि)	20749.90	5884.30	4335.80	30970.00
[02] जोधपुर विद्युत वितरण निगम लिमिटेड 81 सहायता (सब्सिडी) (राज्य निधि)	29071.30	8244.10	6074.60	43390.00
[03] अजमेर विद्युत वितरण निगम लिमिटेड 81 सहायता (सब्सिडी) (राज्य निधि)	17178.80	4871.60	3589.60	25640.00
योग	67000.00	19000.00	14000.00	100000.00

## 2. Disclosure of Information on Bills

Section 10.2 of the RERC Electricity Supply Code specifies the necessary information to be included on electricity bills. Clause (r) of the said section indicates that the name, address, mobile/phone number, fax number, and email address of the consumer should be included. To protect consumer privacy, personal information such as mobile/phone numbers, fax numbers, and email addresses should be partially masked, ensuring the fundamental right to privacy.

## 3. Mode of Delivery of Bills

We propose that consumers be given the choice to select their preferred method of bill delivery from a range of available options. This approach will accommodate the diverse needs and preferences of consumers, ensuring greater convenience and timely receipt of bills.

#### **4. Presentation on Tariff Petition**

We would like to bring to the Commission's attention that the presentation on the Tariff Petition for FY 2024-25 was conducted at the Petitioner's office without any public notification on the website. This lack of transparency significantly limits the participation of stakeholders, hindering their ability to engage in and contribute to the tariff determination process.

Annexure I: Comparison of fixed charges

SNo.	Category	Sub- Category	Load Slabs	Consumption Slabs (units/month)	Rajasthan (Rs/kW/month)	Gujarat (Rs/kW/month)	Maharashtra (Rs/kW/month)
1	Domestic	BPL & Astha Card			288	5	34
		General Domestic	0 - 50	151	15	Single phase- Rs. 128 Three phase- Rs. 424	
			50 - 150	142	25		
			150 - 300	142	45		
				98	45		
				98	70		
			300 - 500	80	70		
> 50kW	>500	54	70				
2	Non- Domestic	0- 5 kW	60-460	50	517		
		5 - 10 kW	135-150	50	517		
		10 -20 kW	135-150	85	517		
		20 - 40 kW	135-150	85	465		
		40 -50 kW	243	85	465		
		>50 kW	243	85	465		
		3	Street Lights			291.1	70/ installation
4	Industries	Small scaled	upto 500	59.696	135	583	
			over 500	82	234		
		Medium scaled		86	427.5	349.2	
	Large scaled			243	427.5	494	

Note:

- Fixed charges on connection basis for various categories and sub-categories are converted into Fixed charges per kW of connected load, and the same is computed based on total connected load and fixed charges recovered for respective categories.

Annexure II: Comparison of variable charges

S.No.	Category	Sub- Category	Load Slabs	Consumption Slabs (units/month)	Rajasthan (Rs/unit)	Gujrat (Rs/unit)	Maharashtra (Rs/unit)
1	Domestic	BPL & Astha Card			3.5	1.5	1.56
		General Domestic		0-50	4.75	3.05	4.71
				50-100	6.5	3.50	4.71
				100-150	6.5	4.15	10.29
				150-250	7.35	4.15	10.29
				250-300	7.35	5.2	10.29
				300-500	7.65	5.2	14.55
				500 and above	7.95	5.2	16.64
2	Non- Domestic		0- 5 KW		7.55-8.95	4.35	8.52
			5 - 10 KW		7.55-8.95	4.35	8.52
			10 -20 KW		7.55-8.95	4.65	8.52
			20 - 40 KW		7.55-8.95	4.65	13.01
			40 -50 KW		8.85	4.65	13.01
			>50 KW		8.85	4.65	15.38
3	Street Lights	Population < 1 lakh			7.55	6.83	3.9
		Population => 1 lakh			8.1	8.31	3.9
4	Industries	Small scaled		upto 500	6	4.00	6.16
				over 500	6.45	4.20	
		Medium scaled			7	4.20	7.3
		Large scaled			5.985-7.3	4.30	8.36