RAJASTHAN ELECTRICITY REGULATORY COMMISSION, JAIPUR
Petition No. RERC 2011/22, 2012/22, 2013/22

In the matter of approval of Aggregate Revenue Requirement, Tariff Petition and Investment Plan of Jaipur Vidyut Vitran Nigam Ltd. (JVVNL), Ajmer Vidyut Vitran Nigam Ltd. (AVVNL) and Jodhpur Vidyut Vitran Nigam Ltd. (JdVVNL) for FY 2022-23.

Coram: **Dr. B. N. Sharma, Chairman**
Shri Hemant Kumar Jain, Member
Dr. Rajesh Sharma, Member

Petitioners: Jaipur Vidyut Vitran Nigam Ltd., Jaipur (2011/22)

Ajmer Vidyut Vitran Nigam Ltd., Ajmer (2012/22)

Jodhpur Vidyut Vitran Nigam Ltd., Jodhpur (2013/22)

Date of Hearing: 22.06.2022, 23.06.2022, 24.06.2022, 21.07.2022 & 23.08.2022

Date of Order: **01.09.2022**

ORDER

Section-1: Background

1.1 ARR and Tariff Order for FY 2021-22 was issued by the Rajasthan Electricity Regulatory Commission on 24.11.2021. The three distribution companies namely, Jaipur Vidyut Vitran Nigam Ltd. (JVVNL), Ajmer Vidyut Vitran Nigam Ltd. (AVVNL) and Jodhpur Vidyut Vitran Nigam Ltd. (JdVVNL), collectively called Discoms sought multiple extensions for filing ARR & Tariff petition and Investment Plan for FY 2022-23. Accordingly, the Commission on the request of Discoms has allowed extension in time, to file Petition.

1.2 Thereafter, JVVNL, AVVNL and JdVVNL had filed petitions for approval of Aggregate Revenue Requirement (ARR), Tariff and Investment Plan for FY 2022-23 on 30.03.2022, 31.03.2022 and 31.03.2022 respectively under section 62 & 64 of Electricity Act, 2003 read with RERC (Terms and Conditions for Determination of Tariff) Regulations, 2019 and amendment thereof and Investment Approval Regulation, 2006.

1.3 As per Section 64(2) of the Electricity Act, 2003 which requires that applicant should publish application filed in such abridged form and manner as may be specified by the Appropriate Commission, the Commission on dated 05.04.2022 allowed Discoms to publish the notice in the newspapers.

1.4 Accordingly, public notices with salient features of the petitions, inviting comments/suggestions, were published in the following newspapers on the dates shown against each of the petitions and were also placed on the websites of the Commission and Discoms. The last date for submission of comments/ suggestions was notified as 11.05.2022 for JVVNL and AVVNL and 13.05.2022 for JdVVNL.

Sr. No.	Name of Newspapers	JVVNL	AVVNL	JdVVNL
(i)	Rajasthan Patrika	08.04.2022	----------	13.04.2022
(ii)	Dainik Bhaskar	08.04.2022	11.04.2022	13.04.2022
(iii)	Dainik Navjyoti	08.04.2022	11.04.2022	---------
(iv)	Hindusthan Times	----------	11.04.2022	---------
(v)	First India Rajasthan	08.04.2022	---------	---------
(vi)	Times of India	09.04.2022	---------	13.04.2022

1.5 After examining the petitions, the Commission vide letter dated 13.04.2022 sought additional information for FY 2022-23 from Discoms and the Discoms were directed to clarify the same along with supporting documents.

1.6 JVVNL, AVVNL & JdVVNL vide letters dated 18.05.2022, 19.05.2022 & 19.05.2022 respectively, filed additional information as sought above relating to approval of ARR, tariff and investment plan for FY 2022-23.

1.7 Further, JVVNL, AVVNL and JdVVNL vide letters dated 03.06.2022, 30.05.2022 and 29.05.2022 have submitted additional information in respect of Inter State Transmission Losses.

1.8 In all, 12 numbers of comments/suggestions were received on JVVNL petition and 16 numbers on AVVNL petition and 10 numbers on JdVVNL petition from the stakeholders for FY 2022-23. The list of stakeholders is enclosed at **Annexure-A.**

1.9 The Commission forwarded the suggestions/comments submitted by the Stakeholders to the respective Discom for furnishing the reply.

1.10 Discoms furnished the reply to Stakeholders as well as to the Commission.

1.11 During the course of this order, Member Sh. S. C. Dinkar got retired on dated 17.07.2022 and Sh. Hemant Kumar Jain and Dr. Rajesh Sharma have joined as Member on dated 30.05.2022 and 29.07.2022 respectively.

1.12 The public hearing in the matter was held through video conferencing on 22.06.2022, 23.06.2022, 24.06.2022, 21.07.2022 and 23.08.2022.

1.13 During the hearing held on 22.06.2022 to 24.06.2022, Managing Directors of all three Discoms were directed to submit their additional submissions on the issues raised during the hearings including Compliance report of directions given by the Commission from time to time, till 30.06.2022 to the Commission.

1.14 In response to above directions during hearing, Discoms have submitted the information vide letters dated 30.06.2022. Further vide letters dated 12.07.2022 Dicoms have filed additional information.

1.15 Based on the above information submitted by the Discoms, the Commission vide letter dated 18.07.2022 sought additional information. In response, JVVNL has submitted its reply on dated 21.07.2022 and AVVNL & JdVVNL have submitted their reply vide letter dated 20.07.2022. Further, JVVNL vide their letter dated 26.07.2022 have submitted revised additional submission. The list of stakeholders who made submissions during the hearing through video conferencing is enclosed at **Annexure-B**.

1.16 Post hearing, the Discoms also filed clarification in respect of issues raised by the stakeholders during the hearing.

1.17 The matter was finally heard on dated 23.08.2022 through video conferencing where Discoms and stakeholders were also present.

1.18 The Commission has carefully considered the petitions filed by Discoms, objection and suggestion filed by stakeholders thereon, reply given by the Discoms in respect of stakeholder's objections/ suggestions and oral submissions made by the Stakeholders during the hearing, replies received after hearing and also perused all the relevant records while finalizing this order.

1.19 As issues arising in all the petitions are almost common for all three Discoms and the Stakeholders have also made common submissions on all the petitions and joint hearings were held in the matter, the Commission, therefore, has decided to consider all the petitions together for FY 2022-23 and dispose them through this common order.

1.20 The projections approved in this order for Generation and Transmission are for the purpose of estimating the Aggregate Revenue Requirements of the petitioners. It shall not be construed as formal approval of the Commission for any investment or tariff for transmission or generating plant etc.

1.21 For ready reference, a list of abbreviations used in this order is placed at **Annexure – C** of this order.

1.22 All energy figures used in this order, unless stated otherwise, are in Million Units (MU).

1.23 For the purpose of representation, figures given in the tables are shown as rounded off. However, for calculation purpose, actual figures have been considered.

1.24 This order has been structured in five sections as given under:

a) **Section 1 – Background**

b) **Section 2 - Comments/suggestions of Stakeholders, Petitioners' response and the Commission's observations/views thereon**

In this section, the Commission has considered comments/suggestions made by stakeholders on the General and specific issues related to proposals of ARR, tariff determination and investment plan of three Discoms.

c) **Section 3 - ARR and Investment Plan for FY 2022-23 of the three Discoms**

In section 3, the Commission has looked into performance of Discoms, Distribution losses, effect of UDAY, various steps taken by Discoms for efficiency improvement and individually dealt various cost parameters viz power purchase cost, O&M, interest cost, Investment Plan, capital expenditure, depreciation etc. and the ARR of FY 2022-23 and the estimated sales and revenue for various categories of consumers in accordance with RERC (Terms and Conditions for Determination of Tariff) Regulations, 2019.

d) **Section 4 –Tariff Proposals and approved Tariff**

Discoms have proposed certain rationalization measures in order to facilitate better utilization of resources, economic pricing and better revenue management which have been dealt in the order.

e) **Section 5-Directives**

In this section, the Commission has considered compliance of directions given in its previous order and has made observations and directives for improvement of the sector as a whole and Discoms.

Section – 2 Stakeholders comments, Petitioners' response and the Commission's views:

2.1. General:

2.1.1. Stakeholders' Suggestions/Comments:

1. It was submitted that the Discoms have uploaded the copy of petition in poorly scanned images instead of machine readable text, further copy of excel format is also not provided.
2. It was submitted that the present petition for ARR and Tariff for FY 2022-23 cannot be processed as no true-up petition of previous year 2020-21 has been submitted by the Discoms.
3. It was submitted that in the ARR & Tariff filing for FY 2022-23 Discoms have also filed revised estimates for FY 2021-22. Commission is requested not to consider the request for approval for any revised estimates for FY 2021-22.
4. It was submitted that the Commission in order dated 24.11.2021 directed Discoms to furnish report of independent auditor for ABR Analysis of franchisee for FY 2019-20 and FY 2020-21. Discoms may provide copy of above said report.
5. It was submitted that the Commission in order dated 24.11.2021 directed Discoms to furnish study to assess the quantum of standard capacity, action plan to reduce the burden of the capacity charges and projections of available capacity and requirement as assumed by energy assessment committee along with next ARR & Tariff petition. Discoms may provide copy of such study.
6. It was submitted that most of the items mentioned in petitions are copy paste from last years, need to be looked by Commission.
7. It was submitted that there are more than one crore poles, on which rent not realized for optical fiber cable and other cables on such poles. It was also submitted that Discoms have indicated various circles without cables/optical fibre cables on the electric poles.Discoms may clarify the same
8. It was submitted that Commission's Directives have not been complied with properly by the Discoms.
9. It was submitted that in AVVNL Audited Accounts, auditor have observed various negative points to which Discom has not furnished any satisfactory reply.

10. It was submitted that mode of implementation of the smart meter rollout has been specified in the petition i.e. via TOTEX but process of implementation is still unclear and requested Commission to direct the Discoms to make the implementation and rollout plan.

11. It was submitted that Discoms have not provided energy audit data. The same may be provided by the Discoms.

12. It was submitted that Discoms are not serious in IT implementation. Therefore, the Commission should direct Discoms for getting IT implementation work from IT professionals.

13. It was submitted that MD of Jaipur Discom has adopted two nos. high losses circle i.e. Bharatpur and Dholpur after the directions of the Commission. However, still the losses in both these circles are very high.

14. It was submitted during hearing that Ajmer Discom is not accepting bill payments through cheques in accordance with the Regulation framed by RERC.

2.1.2. Petitioners' Response:

1. Discoms submitted that copy of petition was uploaded in PDF and formats in excel on Discoms website and copy of petition also provided in appropriate format separately to stakeholders who have asked for the same.

2. Discoms submitted that the ARR and Tariff Order for FY 2020-21 was issued on 24.11.2021. Thus, the true up petition was filed in February, 2022.

3. Discoms submitted that the ARR petition has been filed as per the provisions of RERC Tariff Regulations, 2019. As the petition filed is for FY 2022-23, the base year for projections would be FY 2021-22. Accordingly, based on the actual available data at the time of preparation of the petition, the revised projections for FY 2021-22 have been made. The revised projections so arrived at, have accordingly been used to compute the projected numbers for FY 2022-23.

4. Discoms submitted that the quarterly reports are presently in provisional stage, as the independent auditor (M/s KPMG) is yet to finalize the ABR figures for FY 2019-20 and FY 2020-21. Once the same is finalized, the required report on the performance of the franchisees, shall be submitted to the Commission.

5. Discoms submitted that the based on the quantum of stranded capacity, Additional Surcharge is computed and the same has been detailed out in the ARR Petition for FY 2022-23. Therefore, impact of stranded capacity due to Open

Access consumers is being duly recovered from such consumers through Additional Surcharge and income derived from such Surcharge is passed on to other consumers of the State.

6. Discoms submitted that all requisite information pertaining to determination of ARR has been submitted as a part of the ARR petition and reply to the data gaps observed by the Commission, as per RERC, Regulations, 2019.

7. Discoms submitted that, presently, only laying of optical fiber-based telecom network cables on existing electric poles for 4G communication is allowed. A proposal for allowing laying of Coaxial TV cables/Communication Cable and to reconsider the existing rental charges and security deposit for use of Discom's Poles by other agencies was discussed upon and approved in Coordination Committee Meeting, where Coordination Committee has revised the rental charges from Rs. 3543 /pole/year to Rs. 1000/ pole/year.

8. Discoms submitted that they always considered the directives issued by the Commission with utmost sincerity and aims to implement these directives in a time bound manner.

9. AVVNL submitted that the management has provided detailed reply to each observation as pointed out by the Statutory Auditor. Discom also submitted that the Independent Auditor in its Report on the Audit of Financial Statements, has clearly stated that the financial statements give the information required by the Act in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India.

10. Discoms submitted that Ministry of Power, vide its Gazette Notification dated 17th August 2021, in pursuance to the provisions made in clause 4(1) (b) of the Central Electricity Authority (Installation and Operation of Meters) (Amendment) Regulations, 2019 framed under sub-section (1) of section 55 read with clause(c) of sub-section (2) of section 177 of the Electricity Act, 2003, the Central Government has notified the timelines for the replacement of existing meters with smart meters with prepayment feature. The said timelines were further revised vide the gazette notification dated 23.05.22. The Discoms have prepared the action plan for rollout of smart meters in accordance with the notification by MoP. The same has also been approved by the State Cabinet and works have been planned accordingly by the Discom.

2.1.3. Commission's View:

The Commission has issued the true up order for FY 2020-21 separately and accordingly considered figures of FY 2020-21 on the basis of true up order. The Commission has taken note of the comments of the Stakeholders and reply of Discoms thereto and has taken a view in section 3 to 5 and also has issued necessary directions wherever required. Further, as regards observation regarding implementation of smart meters on Totex mode, the Commission has observed that Discoms have filed a separate petition on dated 29.07.2022 to allow expenditure incurred in execution of Smart metering works over and above normative O&M expenses. Hence Commission will deal the above matter separately based on the order thereto in subsequent ARR/True up orders.

2.2. Sales

2.2.1. Stakeholders' Suggestions/Comments:

1. It was submitted that in the petition the Discoms stated that "other factors affecting the energy sales for various consumers classes have also been considered while projecting the sales." These factors may also be clarified in detail by Discoms.
2. It was submitted that Discoms have shown the sales of various categories of consumers by including the sales of consumers of franchisee area. This is not correct as Discoms wants to obtain undue advantage for obtaining higher quantum of power purchase. Commission should not approve such methodology adopted and higher power purchase be disallowed.
3. It was submitted that Discoms may supply category-wise actual sales of Discoms and franchisee area as on October 21st, 2021.
4. Impact of COVID on energy sales be provided.
5. It was submitted that under large industry category break up of consumers with contracted demand below 1 MVA, 1 MVA or more and Load factor 50% or more may be provided by Discoms.
6. It was submitted during hearing that Jaipur Discom has shown sale on 220kV voltage. Discom may provide the details of such consumers.

2.2.2. Petitioners' Response:

1. Discoms submitted that there are various factors such as the consumption pattern among different categories of consumers, prevalent market scenarios, seasonal impact, difference in mix of consumer category, release of new connections etc. which play a significant part in the energy sales to consumers of the Discoms.

2. Discoms submitted that projections for sales have been made at end consumer level and the approach should not be questioned as the consumers of the DF are also consumers of the Discoms. The energy requirement and procurement cannot be practically arrived at just for the Discom consumers only, as the same is based on the sales to end consumers.

3. Discoms submitted the information sought by the stakeholders.

4. Discoms submitted that economic activity in the state had been severely affected due to COVID. For Discoms, a sharp decline in consumption of Industrial and Commercial (Non-Domestic) categories of consumers was observed in April 2020 as compared to April 2019. These categories of consumers are cross-subsidizing consumers in the present tariff structure of Rajasthan Discoms. Due to reduction in demand from these categories, the Discoms saw a huge dip in revenue during the lockdown period. It is expected that the demand from such consumers shall take a good amount of time to return to Business As Usual (BAU) scenario.

5. Discoms submitted that presently the required bifurcation is not available with the Discoms and is in the process of incorporating the mentioned changes in its billing system.

6. Discom submitted that they have inadvertently shown 0.77MU sale in FY 2020-21 at 220kV. The same has been rectified now and there is no quantum of energy sold at 220kV.

2.2.3. Commission's View:

The Commission has taken note of the comments of the Stakeholders and reply of Discoms thereto and has dealt with this issue under section 3 of this order.

2.3. Revamped Distribution Sector Scheme (RDSS)

2.3.1. Stakeholders' Suggestions/Comments:

1. It was submitted that in respect of Revamped Distribution Sector Scheme, Discoms will have to ensure that no new Regulatory Assets are created in latest tariff determination cycle, but in the present petition Discoms have requested the Commission that they projected Revenue Gap of Rs. 2881 crore for all Discoms which may be allowed as Regulatory Assets. This is against the RDSS scheme thus no Regulatory Assets and carrying cost thereon should be allowed.

2. It was submitted that In view of RDSS scheme, the distribution loss for FY 2022-23 for all three Discoms should not be decided by more than 15%. The energy assessment shall also be worked out with 15% distribution loss only.

2.3.2. Petitioners' Response:

1. Discoms submitted that although under RDSS, the Discoms have to ensure that no further Regulatory Assets are to be created in forthcoming years, it is not entirely on practical lines to assume that the Regulatory Assets can be stopped in one shot go. A multitude of factors like historical background and performance of the Discoms have to be given due consideration while determining the way forward in regard to the non-creation of further Regulatory Assets. The Discoms further submitted that they will pursue the matter with Government of India.
2. Discoms submitted that the Distribution Loss considered for FY 2022-23 is as per the proposed trajectory under Revamped Distribution Sector Scheme (RDSS) which was notified by MoP on 20.07.2021.

2.3.3. Commission's View:

The Commission has taken note of the comments of the Stakeholders and reply of Discoms thereto and has dealt with this issue under section 3 of this order.

2.4. Transmission Losses and charges

2.4.1. Stakeholders' Suggestions/Comments:

1. It was submitted that as per RVPN tariff filling for FY 2022-23, the transmission loss for intra state transmission has been claimed as 3.30% and as such the same losses should be allowed while calculating the energy balance/requirement for FY 2022-23.
2. It was submitted that Discoms have claimed transmission charges and POC charges in respect of PTC/Karamchand Wangloo), PTC(DB), PTC (Maruti) and UPPTCL (Tanda), so far known PTC is a trader having trading license and therefore question of any POC charges/transmission charges does not arise. Discoms may clarify the same.
3. It was submitted that the Commission has directed to correctly work out the inter and intra state transmission losses. Copy of report by the Committee in this regard may be furnished by Discoms.

2.4.2. Petitioners' Response:

1. Discoms submitted that the Intrastate Transmission loss of 3.31% as considered for FY 2022-23 is as per the loss approved by the Commission in its tariff Order dated 24.11.2021.
2. Discoms submitted that the Transmission and POC charges paid is as per the clauses of the respective Transmission Service Agreements.
3. Discoms submitted that, in compliance to the directive by RERC, a Committee was formed to access and bifurcate the Transmission Loss. The Committee has

conducted several meetings and one of the key findings of the Committee was that the RVPN considers Intra State Transmission Losses as loss incurred in transmission of energy between the State periphery and Discoms periphery, excluding the auxiliary consumption of GSS. Due to this, there is an impact of 0.05% in the intra-state transmission loss which, presently, is part of Discom's disallowances in the Tariff Order. The Commission may take a prudent view on the same considering the submissions made.

2.4.3. Commission's View:

The Commission has taken note of the comments of the Stakeholders and reply of Discoms thereto and has dealt with this issue under section 3 of this order. As regards additional submission of Discoms regarding transmission losses the Commission observes that the same issues has been raised in the ARR petition of RVPN. The Commission while doing true up of Discoms for FY 2022-23 will consider the transmission losses based on final decision made on the issue in RVPN order.

Power Purchase

2.4.4. Stakeholders' Suggestions/Comments:

1. It was submitted that the energy availability from various sources as shown in form 3.1 and its average cost appears to be incorrect.
2. It was submitted that while computing the energy balance normative distribution losses should be considered**.**
3. It was submitted that Discoms may furnish the source wise power availability and cost thereof certified by Urja Nigam.
4. It was submitted that vide order dated 24.11.2021 Commission has decided that Discoms must try to sell surplus power at least equivalent to or higher than the variable charges of thermal generation. The same methodology may also be adopted in the present petition.
5. It was submitted that Discoms have taken high variable charges as compared to the charges approved in Commission's order dt. 06.02.20& 24.11.21 for Chhabra Super critical plant unit 5&6 , in Fuel surcharge orders.
6. It was submitted that Rajasthan needs Solar & Wind Hybrid generation with Storage. Such storage could be from Pumped Storage Projects or Battery System and Discom were requested to furnish action plan for solar & wind Hybrid Projects with storage System for FY 2022-23 & onwards, but Discoms have not provided any such plan.

2.4.5. Petitioners' Response:

1. Discoms submitted that the energy availability for FY 2021-22, for existing stations, has been estimated based on the actual energy received during FY 2021-22 till the month of November and accordingly projected for the remaining part of year. The existing power scenario was also analyzed, and the power purchase has been accordingly estimated considering the energy requirement and back down has been considered for certain plants based on the merit order principles as well as previous trends. For FY 2022-23 projection is made as same as that projected for FY 2021-22. As far as cost is concerned Discoms have submitted that they have considered the actual purchase cost for FY 2020-21 & projected the cost for FY 2021-22 and FY 2022-23 from various sources with a nominal hike of 2% in the fixed charges as well as energy charges per unit considering the actual increase over past years.

2. Regarding disallowance of the power purchase quantum against distribution losses higher than those approved by the Commission. Discoms submitted that they are bound to meet their incremental energy demand by procuring power at a variable rate according to the merit order dispatch principle from approved long term tied up sources.

3. Discoms submitted that the year wise power purchase details have been mentioned in Format 3.1 of the ARR Petition.

4. Discoms submitted that the rate of sale of surplus power is dynamic in nature and depends on the prevalent market scenario and rates discovered at specific times.

5. Discoms submitted that the Fuel Surcharge is computed as per Regulation 88 of the RERC (Terms and Conditions for Determination of Tariff) Regulations, 2019. Also, the power purchase bills of approved stations duly verified by RUVNL are considered for the computation purpose.

2.4.6. Commission's View:

The Commission has taken note of the comments of the Stakeholders and reply of Discoms thereto and has dealt with this issue under section 3 of this order and has issued necessary direction in section 5 wherever required.

2.5. Flat Rate

2.5.1. Stakeholders' Suggestions/Comments:

1. It was submitted that in JVVNL petition opening number of consumers in

Agriculture Flat Rate category for FY 2021-22 has been shown as 16804. Whereas in true-up petition of FY 2020-21 the closing balance is different. Further, the closing balance of connected load as per true-up of FY 2020-21 is 150391 kW whereas in the present petition it is different. JVVNL may clarify the same.

2. It was submitted that Discoms are not complying with directions of Commission regarding conversion of flat rate consumers, therefore, specific consumption should be considered 5% less than 1945 kWh/kw/year, 1707 kWh/kw/year & 1741 kWh/kw/year for Jaipur, Ajmer, & Jodhpur Discoms respectively.

3. In the past ARR and Tariff orders, Commission has directed the Discoms to study the specific consumption of agriculture category and submit the report to the Commission, However, Discoms have not conducted the study on specific consumption, the same be carried out by some reputed institutes and submitted to the Commission.

2.5.2. Petitioners' Response:

1. JVVNL submitted that the number of flat rate agriculture consumers as on 31st March'21 was 16,804 and the same is also considered as the opening of consumers for FY 2021-22. It is further submitted that the connected load of such consumers at the end of March'21 was 152,167 kW and the same may be considered as the opening for FY 2021-22 also.

2. Discoms submitted that continuous efforts are being made to convert all flat rate Agriculture consumers into metered category. The Discoms officials have been engaging with various stakeholders including individual farmers, FPO(farmers producers Organisation), influential members of the villages and persuading them to convert to metered category.

3. Discoms submitted that their officials are involved in regular discussions regarding study to be carry out on specification consumption of agriculture category.

2.5.3. Commission's View:

The Commission has taken note of the comments of the Stakeholders and reply of Discoms thereto and has dealt with this issue under section 3 of this order.

2.6. O&M Expenses

2.6.1. Stakeholders' Suggestions/Comments:

It was submitted that O&M Expenses should be allowed on normative basis. Commission may continue its approach of considering the sales excluding the sale of DF for allowing O&M Expenses.

2.6.2. Petitioners' Response:

Discoms submitted that the O&M expenses have been computed on the basis of the norms specified under Regulation 82 of the RERC (Terms and Conditions for Determination of Tariff) Regulations, 2019.

2.6.3. Commission's View:

The Commission has taken note of the comments of the Stakeholders and reply of Discoms thereto and has dealt with this issue under section 3 of this order.

2.7. Terminal Benefit

2.7.1. Stakeholders' Suggestions/Comments:

1. It was submitted that Discoms may intimate amount of month wise additional contribution under Pension and Gratuity and furnish the certificate for the same.
2. It was submitted that it is a recognized fact that liability of employee is the actuarial liability recognized in the balance sheet and it cannot be met in one go by Discoms, but Discoms should not make misleading statement and atleast pay contribution equal to payment for pension, gratuity and leave encashment (on retirement) and form the consideration of increase in number of retirees and annual dearness relief (DR) increase, 3% increase will be inadequate it should be more than DR increase.

2.7.2. Petitioners' Response:

1. AVVNL & JdVVNL submitted the month wise deposits made as additional contribution under Pension and Gratuity along with certificate.
2. Discoms submitted that regarding the shortfall in the contribution in the previous years, the Petitioner appreciates the stakeholder's concern and it is submitted that the Petitioners are making all out efforts in meeting the past shortfall in the contributions made to the Fund in the future years. They accept the stakeholder's view that the increase in the contributions may be higher than 3% annually with respect to the previous year. The Commission may take a prudent view on the same.

2.7.3. Commission's View:

The Commission has taken note of the comments of the Stakeholders and reply of Discoms thereto and has dealt with this issue under section 3 of this order. Discoms should deposit the amount of terminal benefits in accordance with approval given by the Commission and also submit a plan to meet their liability towards terminal benefit with next ARR/Tariff Petition.

2.8. Depreciation

2.8.1. Stakeholders' Suggestions/Comments:

Discoms have not provided the details of assets having completed life more than 12 years and are within the period of 12 years. Discoms may provide the same.

2.8.2. Petitioners' Response:

Discoms submitted that depreciation has been calculated as per Straight Line Method (SLM) at rates specified in Annexure-1 of the RERC (Terms and Conditions for Determination of Tariff) Regulations 2019 in accordance with Regulation 22 of the said Regulations. It is further submitted that the Fixed Assets Register for all circles till FY 2020-21 has been filed by JVVNL & JdVVNL and till FY 2019-20 by AVVNL.

2.8.3. Commission's View:

The Commission has taken note of the comments of the Stakeholders and reply of Discoms thereto and has dealt with this issue under section 3 of this order.

2.9. Insurance charges

2.9.1. Stakeholders' Suggestions/Comments:

It was submitted that as per Regulation 25 insurance expenses shall be subject to a ceiling of 0.2% average net fixed assets of the year. It may be observed that actual expenses of three Discoms are within 2 crore and therefore allowing any expenses more than this is not justified.

2.9.2. Petitioners' Response:

Discoms submitted that the insurance expenses have been projected in accordance with Regulation 25 of the RERC (Terms and Conditions for Determination of Tariff) Regulations 2019.

2.9.3. Commission's View:

The Commission has taken note of the comments of the Stakeholders and reply of Discoms thereto and has dealt with this issue under section 3 of this order.

2.10. Interest on Term Loan, security deposit and Working capital

2.10.1. Stakeholders' Suggestions/Comments:

1. It was submitted that Interest on long term loan may be allowed on admitted balance of loan.
2. It was submitted that as far as security deposits interest is concerned, each Discom may intimate the amount actually paid to consumers in FY 2020-21 and

how much has been paid to consumers.

3. It was submitted that each Discom may also intimate that security deposits of PDC consumers has been fully adjusted and there is no balance of such adjustments.

4. It was submitted that interest on working capital may be allowed on normative basis.

2.10.2. Petitioners' Response:

1. Discoms submitted that the interest charges on long term loans have been projected as per the norms specified in the RERC (Terms and Conditions for Determination of Tariff) Regulation, 2019.

2. Discoms submitted that the amount of Interest on Security Deposit to Consumers for FY 2020-21 is as per the annual audited accounts.

3. Discoms submitted that the adjustment of security deposit pertaining to PDC consumers is an ongoing process and is being done from time to time.

4. Discoms submitted that they have estimated interest on working capital as per the Regulation 27 (3) of the RERC (Terms and Conditions for Determination of Tariff) Regulations 2019.

2.10.3. Commission's View:

The Commission has taken note of the comments of the Stakeholders and reply of Discoms thereto and has dealt with this issue under section 3 of this order.

2.11. Subsidy

2.11.1. Stakeholders' Suggestions/Comments:

1. It was submitted that Discoms should try to recover outstanding subsidy from the Government of Rajasthan, the interest burden due to unpaid amount should not be passed on to consumer.

2. As per section 65 of electricity Act 2003, the subsidy support from Government should be received in advance. Discoms have to ensure the compliance of section 65 of Electricity Act 2003.

2.11.2. Petitioners' Response:

Discoms submitted that regular follow ups have been made by the Discom regarding release of outstanding tariff subsidy by GoR. They further submitted that under the recently launched Revamped Distribution Sector Scheme (RDSS), Government of Rajasthan, has committed to completely liquidate the outstanding subsidy amount by FY 2025-26.

2.11.3. Commission's View:

The Commission has taken note of the comments of the Stakeholders and reply of Discoms thereto and has dealt with this issue under section 3 of this order.

2.12. Safety

2.12.1. Stakeholders' Suggestions/Comments:

1. It was submitted that Discoms should focus on safety of its consumers and staff, further they must also provide attention toward training of its workforce.
2. It was submitted that Discoms should organise consumer awareness programs on regular basis.

2.12.2. Petitioners' Response:

1. Discoms submitted that they are committed towards providing a reliable and quality supply to its consumers without compromising on the safety of its workmen and public in general. It strives its best to ensure the compliance of CEA (Measures relating to safety and Electric Supply) Regulations, 2010 and CEA (Safety requirements for construction, operation and maintenance of electrical plants and electric lines) Regulation 2011. Discoms further submitted that presently, trainings are being provided by in-house Discom officers who are well versed with the subject and have significant experience of working in the required field. An order was also issued in this regard directing the Discom officials to strictly comply to the mentioned CEA Regulations.
2. Discoms submitted that they have been organizing various consumer awareness drives and programs in its areas.

2.12.3. Commission's View:

The Commission has taken note of the comments of the Stakeholders and reply of Discoms thereto.

2.13. Refund of ROE

2.13.1. Stakeholders' Suggestions/Comments:

It was submitted that the amount of refund of ROE from RVUNL so received by each Discom may be intimated and the same shall be reduced from the total ARR of present petition for FY 2022-23.

2.13.2. Petitioners' Response:

Discoms submitted that the refund amount of RoE by RVUN has duly been accounted for in the annual audited accounts for FY 2020-21. Refund of RoE from RVUNL for FY 2020-21 has been adjusted against the power purchase cost in the books of accounts and the refund of RoE for FY 2019-20 has been shown in the Non-Tariff Income in the books of accounts.

2.13.3. Commission's View:

The Commission has taken note of the comments of the Stakeholders and reply of Discoms thereto the Commission has dealt with the refund of ROE appropriately in True Up order for FY 2020-21.

2.14. Tariff Rationalization

2.14.1. Stakeholders' Suggestions/Comments:

1 It was submitted that under RDSS, no new Regulatory Assets are allowed to be created in any case.

2 It was submitted that for change in base year for computation of incremental consumption rebate, Discoms may furnish the financial implication of the mentioned proposal.

3 It was submitted that Discoms may intimate the No. of Tourism and Hospitality sector consumers. Further,

a. In this respect Commission has already issued a *suo-moto order* on the dated 01.04.2022. Each Discom may intimate if the same order has been implemented or not.
b. The amount of subsidy to be obtained under the above order from the State Government may be intimated by each Discom and whether required subsidy has since been received in advance may also be intimated.
c. The energy as was being billed in respect of above category and now sold from 01.04.2022 to date be also intimated.
d. In case of non-receipt of subsidy in advance as per Commission's order dated 01.04.2022 for the reduced tariff has been applied in respect of above referred category, may also be specifically stated by each Discom, with reasons thereof.

4 It was submitted that Hi-tech farming activities are prevailing in the state, which is beneficial for the enhancing efficiency and overall economic development of the state and other state regulator has already created separate category for such activities at par with agriculture tariff, whereas in Rajasthan it has been

considered under commercial category. Accordingly, requested for creating a new tariff category at par with agriculture in Rajasthan.

2.14.2. Petitioners' Response:

1. Discoms submitted that although under RDSS, the Discom have to ensure that no further Regulatory Assets are to be created in forthcoming years, it is not entirely on practical lines to assume that the Regulatory Assets can be stopped in one shot go. The Discoms, in due course of time, shall pursue the matter with Govt. of India.
2. Discoms submitted the financial implication of the mentioned proposal.
3. Discoms submitted that as the Tourism and Hospitality sector consumers fall under the Commercial/non-domestic category, there is no bifurcation available to segregate them from other consumers of this category. However, going forward, as per the workflow developed to convert such consumers to Industrial category, the consumers shall be required to submit their applications along with the requisite documents and NOC from the tourism department. The Discoms shall be in a position to furnish the required impact of such conversion during the time of truing up for the year.
4. Discoms welcomes the suggestion of the stakeholder and submitted that Commission may take a view on the same.

2.14.3. Commission's View:

The Commission has taken note of the comments of the Stakeholders and reply of Discoms thereto and has dealt with this issue under section 4 of this order. Regarding creation of separate category for Hi-Tech farming activities, Discoms may examine the same and come up with suitable proposal if need be.

2.15. ToD Rebate

2.15.1. Stakeholders' Suggestions/Comments:

1 It was submitted that ToD rebate should not be reduced, as the wind generation stations which are must run stations are also available during such night hours and Government is emphasizing on shifting of power supply to agriculture sector from night to daytime. In view of this reduction in rebate is not justified without proper study of load pattern and available generation.

2 It was submitted that the only continuous running industry has derived the benefit without shifting the load. The proposal of Discoms will reduce such benefit to continuous process industry but objective of flatting the load curve will not be achieved. For flatting the load curve, Discoms should formulate some

other scheme for example record load demand in KW during peak load and night our billed separately with surcharge and rebate on fixed charges.

2.15.2. Petitioners' Response:

Discoms submitted that the proposal for introduction of Time of Day (ToD) rebate/surcharge for the Large Industrial consumers of the State was made with a vision to balance the existing load curve and provide consumers with an option of availing rebates in the process. ToD tariff is generally a revenue neutral proposal for Discom and is implemented just to manage the load in a scientific manner. However, in case of Rajasthan Discoms, the same does not hold true as the surcharge is on a much lower side compared to the rebate being offered. In order to manage demand during the peak hours, the Discom has to resort to procurement of energy from exchange during such hours at much higher rates. The Discoms have been facing this negative impact, further deteriorating their financial health, due to the substantial amount of rebates being offered to the consumers of the State. Also, the envisaged load shifting is not taking place and only the continuous running industries are availing the benefits of ToD rebate being provided.

Considering the above-mentioned scenario, the proposal for reducing the ToD rebate to 10% has been made. As there still a substantial rebate on offer for consumption by these consumers during the peak hours, the proposal would not severely impact the consumers. Based on further analysis of the same, it is submitted that reducing the ToD rebate for consumption during off-peak hours from 15% to 10% (of energy charges) is likely to reduce the existing amount of rebate by about ~Rs 47 Cr, Rs. 42 Cr. & Rs. 16 Cr. annually for Jaipur, Ajmer & Jodhpur Discom respectively.

Discoms submitted that in most of the other states, ToD structure is revenue neutral . However, in case of Rajasthan Discoms, the same does not hold true as the surcharge is on a much lower side as compared to the rebate being offered. The Discoms submitted that they have been facing this negative impact, further impacting their financial health, due to the substantial amount of rebates being offered to the consumers of the State.

2.15.3. Commission's View:

The Commission has taken note of the comments of the Stakeholders and reply of Discoms thereto and has dealt with this issue under section 4 of this order.

2.16. Wheeling Charges

2.16.1. Stakeholders' Suggestions/Comments:

It was submitted that Discoms have proposed increase in wheeling charges at

11kV voltage level from 49 paisa/unit for FY 2021-22 to 90 paisa/unit for FY 2022-23, an increase of about 84% which is too high.

2.16.2. Petitioners' Response:

Discoms submitted that they have computed the wheeling charges as per the RERC Tariff Regulations, 2019 and the methodology as adopted by the Commission in its previous tariff orders.

2.16.3. Commission's View:

The Commission has taken note of the comments of the Stakeholders and reply of Discoms thereto and has dealt with this issue under section 4 of this order.

2.17. Cross subsidy Surcharges

2.17.1. Stakeholders' Suggestions/Comments:

It was submitted that Discoms have proposed increase in Cross subsidy Surcharge at 132 kV and 33 kV voltage level which is too high, increase in CSS is not justified for FY 2022-23.

2.17.2. Petitioners' Response:

Discoms submitted that they have computed the cross-subsidy surcharge for FY-2022-23 as per the formula specified by the Commission in RERC Regulations, 2019.

2.17.3. Commission's View:

The Commission has taken note of the comments of the Stakeholders and reply of Discoms thereto and has dealt with this issue under section 4 of this order.

Section-3: Annual Revenue Requirement and Investment Plan

3. Annual Revenue Requirement for FY 2022-23:

3.1 Determination of ARR requires assessment of energy sales as well as cost of various elements like power purchase cost, O&M expenses, interest cost and depreciation, etc. Projection of the Discoms with respect to various components of ARR, the Commission's analysis thereon after consideration of views expressed by the Stakeholders and decision with respect to items given below are discussed in the following paras:

(1) Energy sales
(2) Losses, both transmission and distribution
(3) Power purchase cost, including transmission charges and SLDC charges
(4) Operation and maintenance expenses
(5) Interest and finance charges and interest on working capital
(6) Depreciation
(7) Revenue from existing tariff
(8) Non-tariff and other income
(9) Revenue deficit based on existing tariff

Energy Sales

3.2 Discoms in the petition have worked out the energy sales for FY 2022-23 on the basis of past growth in consumers, connected load and energy sales to forecast the category-wise energy sales. Projections are based on the methodology approved by the Commission in the past tariff orders. Discoms have computed category wise sales' CAGR for 3 years, 5 years and 7 years based on the historical data. The consumer category wise sales projected by the three Discoms and the energy sales being approved now by the Commission have been discussed in the following sub-paras.

3.3 The Discoms have projected the energy sales for FY 2022-23 for the following consumer categories:

(1) All consumer categories, except agriculture
(2) Agriculture consumers (Metered)
(3) Agriculture consumers (Flat Rate)

Petitioners' Submission

Energy Sales for Metered Categories (except Agriculture)

3.4 The Discoms have submitted that energy sales for FY 2022-23 are projected on the basis of historic sales data using the category wise CAGR as per the methodology approved by the Commission in the previous year tariff orders. For all consumer categories except the agriculture category, past trends have been used while estimating sales. Wherever the trend has seemed unreasonable, the forecast has been appropriately adjusted after taking into consideration the latest available data.

3.5 For Domestic category, the sales grew at CAGR of 7% for JVVNL & JdVVNL and 8% for AVVNL from FY 2013-14 to FY 2019-20. However, in FY 2020-21, the growth increased further owing to people working from home due to COVID pandemic apart from the organic growth.

3.6 For Non-domestic category, last five years except FY-21 have shown an increasing trend in the energy sales. For FY 2020-21, the sales for Industrial and Non-Domestic categories were negatively impacted as compared to FY 2019-20 due to disruption in industrial and commercial activity owing to COVID pandemic, going forward from FY 2021-22 onwards, the sales are expected to recover at an adequate pace.

3.7 For Public Street Lights, Public Water Works and Mixed Load categories, energy sales are projected on the basis of historical data, using category wise CAGR, as per the methodology approved by the Commission in the previous year tariff orders.

3.8 Discoms submitted that in the tariff order for FY 2019-20 dated 06.02.2020, two new categories were introduced, namely Traction Load and EV charging stations. JVVNL & AVVNL submitted that the Electric Vehicle Charging Stations category has started to observe addition of consumers. AVVNL submitted details of consumers and sales in traction load. Accordingly, the sales have been projected for EV & traction category considering the marginal entry of consumers in this category.

Energy Sales to Agriculture Metered (M) Consumers

3.9 For FY 2022-23, the energy sales for agriculture metered category has been estimated on the basis of the following factors:

(a) Existing Consumers at the start of the Financial Year

(b) Proposed addition in the consumers during the Financial Year based

(c) Consumers converted from 'Agriculture Flat' to 'Agriculture Metered' category

(d) Connected load per consumer

(e) Estimated specific energy consumption

Agriculture Consumption = No. of consumers × Connected load per consumer × Specific Consumption

3.10 The Discoms submitted that, they have considered the following specific consumption for working out Agriculture(M) Consumption:

Table 1: specific consumption for FY 2022-23

Year	Specific Consumption		
	JVVNL	AVVNL	JdVVNL
FY 2022-23	2077	1657	1797

3.11 The Discoms have furnished the following information regarding number of metered consumers, connected load and specific consumption in their petition:

Table 2: Agriculture (M) sales for FY 2022-23 -JVVNL

Particulars	Consumers (Nos.)	Connected Load per consumer (kW)	Total Connected Load (kW)	Specific consumption (kWh/kW/year)	Consumption (Sales) MU
Existing consumers	5,70,521	8.21	46,84,411	2,077	9,633
New Consumers	71,207	8.21	5,84,664	2,077	1,309
Add: converted from flat rate	4,000	8.21	32,843	2,077	69
Total	**6,45,728**		**53,01,917**		**11,011**

Table 3: Agriculture (M) sales for FY 2022-23- AVVNL

Particulars	Consumers (Nos.)	Connected Load per consumer (kW)	Total Connected Load (kW)	Specific consumption (kWh/kW/year)	Consumption (Sales) MU
Existing consumers	580468	7.05	40,95,092	1,657	6,654
New Consumers	70000	7.05	4,93,837	1,657	952
Add: converted from flat rate	0	7.05	0	1,657	0
Total	**6,50,468**		**45,88,928**		**7,606**

Table 4: Agriculture (M) sales for FY 2022-23 JdVVNL

Particulars	Consumers (Nos.)	Connected Load per consumer (kW)	Total Connected Load (kW)	Specific consumption (kWh/kW/year)	Consumption (Sales) MU
Existing consumers	3,99,204	17.95	71,67,302	1,797	12756
New Consumers	90,137	17.95	16,18,318	1,797	3016
Add: converted from flat rate	4,000	17.95	71,816	1,797	150
Total	**4,93,341**		**88,57,436**		**15,921**

3.12 In data gap reply, Discoms have clarified that out of above sales projection, the projection of KUSUM-C have been reduced and accordingly the sale for agriculture metered category has been computed as follows:

Table 5: Projection of KUSUM-C for FY 2022-23

Particulars	Sales (MU)	KUSUM-C Scheme (MU)	Net Sales(MU)
JVVNL	11011	69	10942
AVVNL	7606	54	7551
JdVVNL	15921	8	15913

Energy Sales for Agriculture Flat Rate (FR) Consumers

3.13 For FY 2022-23, The energy sales for agriculture flat- rate category has been estimated on the basis of the following factors:

(a) Existing Consumers at the start of the Financial Year

(b) Consumers converted from 'Agriculture Flat' to 'Agriculture Metered' category

(c) Connected load per consumer

(d) Approved specific energy consumption

Agriculture Consumption = No. of consumers × Connected load per consumer × Specific Consumption

3.14 For forecasting the connected load per consumer for FY 2022-23, the actual connected load per consumer of previous year 2020-21 which was 8.91 kW for JVVNL, 11.23 kW for AVVNL and projected connected load of 19.26 kW for JdVVNL has been considered.

3.15 For projecting the sales for agriculture (flat) category for FY 2022-23 Discoms have considered the specific consumption of 1945 kWh/kW/year as approved in earlier tariff orders by the Commission.

3.16 Discoms indicated the following sale to the agriculture Flat Rate category:

Table 6: Agriculture (FR) Sales for FY 2022-23 – JVVNL

Particulars	Consumers (Nos.)	Connected Load per consumer (kW)	Total Connected Load (kW)	Specific consumption (kWh/kW/year)	Consumption (Sales) MU
Existing consumers	12804	8.91	114142	1945	222
Less: converted to meter	4000	8.91	35658	1945	69
Total	**8804**				**153**

Table 7: Agriculture (FR) Sales for FY 2022-23– AVVNL

Particulars	Consumers (Nos.)	Connected Load per consumer (kW)	Total Connected Load (kW)	Specific consumption (kWh/kW/year)	Consumption (Sales) MU
Existing consumers	0	0	0	0	0
Less: converted to meter	0	0	0	0	0
Total	**0**				**0**

Table 8: Agriculture (FR) Sales for FY 2022-23 – JdVVNL

Particulars	Consumers (Nos.)	Connected Load per consumer (kW)	Total Connected Load (kW)	Specific consumption (kWh/kW/year)	Consumption (Sales) MU
Existing consumers	34090	19.26	656491	1945	1277
Less: converted to meter	4000	19.26	77030	1945	150
Total	**30090**				**1127**

Total Energy Sales projected by Discoms:

3.17 The projection of energy sales of different consumer categories at end consumer level discussed in preceding sub-paras is given in the following table:

Table 9: Total Energy Sales for FY 2022-23-Discoms' Projection (MU)

Particular	JVVNL	AVVNL	JdVVNL	Total
Domestic	6,451	4,810	4,175	15,436
Non-Domestic	2,181	1,307	1,322	4,810
Public Street Light	180	96	92	368
Agriculture (Metered)	10,942	7,551	15,913	34,406
Agriculture (Flat)	153	0	1,127	1,280
Small Industry	392	292	233	917
Medium Industry	904	961	706	2,571
Large Industry	6,945	5,639	1,862	14,446
Public Water Works (S)	437	399	363	1,199
Public Water Works (M)	46	36	102	184

Particular	JVVNL	AVVNL	JdVVNL	Total
Public Water Works (L)	426	384	672	1,482
Mixed Load / Bulk Supply	186	98	401	686
Electric Traction	0	0.18	0	0
EV	2.80	0	0	3
Total	**29,245**	**21,574**	**26,968**	**77,787**

Commission's Analysis

Energy Sales for Metered Categories (except Agriculture Metered and Flat Rate Category)

3.18 For sales projection of FY 2022-23, considering approach followed in order dated 24.11.2021 and submission of the Discoms in the present petition, the Commission has escalated actual figure of FY 2021-22 considering the 3, 5 and 7 year CAGR (from FY 2013-14 to FY 2021-22) as under:

3.19 Domestic, Small Industry, Medium Industry, PWW(S), PWW(M) and PWW(L) have been escalated by 5 year CAGR for all Discoms. However, due to negative or very nominal growth in small Industry, PWW (M) for AVVNL & JDVVNL, these are escalated at 5%.

3.20 Non Domestic, Public Street light(PSL) and Large industry have been escalated by 7 Year CAGR. For Non Domestic in JVVNL actual data of FY 2019-20 has been considered assuming that in FY 2022-23, the Discom is likely to achieve sales in this category at business as usual level. PSL category in JDVVNL has been escalated at 3 Year CAGR as 7 year CAGR was negative.

3.21 Further, Commission observed that the 3, 5 and 7 year CAGR of Mixed Load is negative or very low growth, which may be due to shifting of various consumer in NDS category in earlier years. However, for the last two years there is no such change and looking to overall growth, the Commission has considered 5% growth in this category.

3.22 AVVNL has projected the sales of Traction Load and JVVNL has projected the sales of Electrical Vehicle, the same has been considered by the Commission for FY 2022-23.

3.23 The category wise growth rate and energy sales (excluding franchisee) for FY 2022-23 (except agriculture) are as given in the tables below:

Table 10: Growth Rate and Energy Sale for FY 2022-23 – JVVNL

Particulars	Energy Sales (MU) Actual FY 21-22	JVVNL			Growth Rate Adopted by Commission	Energy Sale (MU) Approved FY 23
		3-Year CAGR	5-Year CAGR	7-Year CAGR		
Domestic	5270	2.84%	4.12%	5.40%	4.12%	5487
Non-Domestic	2057	-2.36%	0.93%	3.08%	2019-20	2344
Public Street Light	155	1.60%	-0.82%	0.99%	0.99%	157
Small Industry	349	4.21%	2.89%	1.18%	2.89%	360
Medium Industry	792	1.06%	2.86%	1.21%	2.86%	815
Large Industry	6444	0.15%	11.17%	6.53%	6.53%	6865
Public Water Works (S)	358	5.82%	8.37%	7.40%	8.37%	388
Public Water Works (M)	42	12.65%	0.90%	2.15%	0.90%	42
Public Water Works (L)	332	6.50%	5.19%	8.71%	5.19%	349
Mixed Load / Bulk Supply	154	0.02%	-1.98%	-0.17%	5.00%	161
Electric Traction	0	0.00%	0.00%	0.00%	0.00%	0
EV	1	0.00%	0.00%	0.00%	as filed	2.80
Total	**15954**					**16971**

Table 11: Growth Rate and Energy Sale for FY 2022-23 - AVVNL

Particulars	Energy Sales (MU) Actual FY 21-22	AVVNL			Growth Rate Adopted by Commission	Energy Sale (MU) Approved FY 23
		3-Year CAGR	5-Year CAGR	7-Year CAGR		
Domestic	4151	6.45%	5.39%	6.03%	5.39%	4375
Non-Domestic	1146	-0.41%	2.62%	4.65%	4.65%	1199
Public Street Light	82	1.28%	3.30%	2.66%	2.66%	84
Small Industry	264	-0.11%	-0.48%	-0.73%	5.00%	278
Medium Industry	857	0.69%	2.21%	1.60%	2.21%	876
Large Industry	5663	9.58%	19.22%	11.84%	11.84%	6334
Public Water Works (S)	367	0.75%	5.35%	6.44%	5.35%	386
Public Water Works (M)	32	-2.74%	-13.74%	-1.75%	5.00%	34
Public Water Works (L)	351	10.36%	11.74%	11.82%	11.74%	392
Mixed Load / Bulk Supply	84	-5.19%	-1.17%	-1.57%	5.00%	88
Electric Traction	3	0.00%	0.00%	0.00%	as filed	0.18
EV	0	0.00%	0.00%	0.00%	as filed	0.00
Total	**13001**					**14047**

Table 12: Growth Rate and Energy Sales FY 2022-23 - JdVVNL

Particulars	Energy Sales (MU) Actual FY 21-22	JdVVNL			Growth Rate Adopted by Commission	Energy Sale (MU) Approved FY 23
		3-Year CAGR	5-Year CAGR	7-Year CAGR		
Domestic	3789	5.99%	5.85%	5.66%	5.85%	4010
Non-Domestic	1167	1.25%	3.59%	4.83%	4.83%	1223
Public Street Light	80	0.13%	-0.82%	-5.20%	0.13%	80
Small Industry	204	0.36%	-1.18%	-1.04%	5.00%	214
Medium Industry	672	2.41%	3.62%	2.38%	3.62%	697
Large Industry	1855	5.88%	11.41%	6.37%	6.37%	1974
Public Water Works (S)	327	4.54%	4.55%	4.58%	4.55%	342
Public Water Works (M)	91	-0.36%	-0.45%	-0.87%	5.00%	96
Public Water Works (L)	622	7.42%	6.68%	7.02%	6.68%	663
Mixed Load / Bulk Supply	324	-1.62%	0.14%	0.92%	5.00%	340
Electric Traction	0	0.00%	0.00%	0.00%	0.00%	0
EV	0	0.00%	0.00%	0.00%	0.00%	0
Total	**9132**					**9640**

Agriculture Metered (M) consumers

3.24 For FY 2022-23, The Commission has accepted Discoms' submissions in respect of number of new consumers and consumers to be converted from flat rate to metered category.

3.25 The specific consumption for FY 2022-23 has been considered at same level of for FY 2021-22 as filed by the Discoms in the post hearing submission.

3.26 For projecting the sale to metered agriculture consumers connected load and specific consumption as applicable for metered category have been considered for 6 months in case of new consumers and those converted from flat rate for working out their sales for FY 2022-23.

3.27 Further, Discoms have projected the impact of KUSUM scheme on agriculture sales. The solar generation of KUSUM scheme to the extent of self consumption by farmer has been reduced from the Agriculture (M) sales. The Commission has considered only 50% of projection made by Discoms in FY 2022-23. The Excess generation have been shown as power purchase under renewable energy.

3.28 Accordingly for FY 2022-23, based on information of connected load andconsumers as filed by Discoms as additional information and actual specific consumption for FY 2021-22, the Commission has worked out the sale to agriculture metered category for FY 2022-23 as follows:

Table 13: Agriculture (M) sales for FY 2022-23-JVVNL

	Consumers (Nos.)	Connected Load per consumer (kW)	Total Connected Load (kW)	Specific consumption (kWh/kW/year)	Consumption (Sales) MU
Existing Consumers	5,70,521	8.21	46,84,411	1,948	9,125
New Consumers	71,207	8.21	5,84,664	1,948	569
Add: converted from flat rate	4,000	8.21	32,843	1,948	32
Less: Impact of Kusum Scheme					27
Total	**6,45,728**		**53,01,917**		**9,700**

Table 14: Agriculture (M) sales for FY 2022-23-AVVNL

	Consumers (Nos.)	Connected Load per consumer (kW)	Total Connected Load (kW)	Specific consumption (kWh/kW/year)	Consumption (Sales) MU
Existing Consumers	580468	7.05	40,95,092	1,748	7,158
New Consumers	70000	7.05	4,93,837	1,748	432
Add: converted from flat rate	0	7.05	0	1,748	0
Less: Impact of Kusum Scheme					14
Total	**6,50,468**		**45,88,928**		**7,576**

Table 15: Agriculture (M) sales for FY 2022-23-JdVVNL

	Consumers (Nos.)	Connected Load per consumer (kW)	Total Connected Load (kW)	Specific consumption (kWh/kW/year)	Consumption (Sales) MU
Existing Consumers	3,99,204	17.95	71,67,302	1,724	12,356

	Consumers (Nos.)	Connected Load per consumer (kW)	Total Connected Load (kW)	Specific consumption (kWh/kW/year)	Consumption (Sales) MU
New Consumers	90,137	17.95	16,18,318	1,724	1,395
Add: converted from flat rate	4,000	17.95	71,816	1,724	62
Less: Impact of Kusum Scheme					3
Total	**4,93,341**		**88,57,436**		**13,810**

Energy Sales for Agriculture Flat Rate (FR) Consumers

Connected Load per Consumer & Specific Consumption for Flat Rate Consumers.

3.29 The Commission has observed that the Discoms have considered the connected load per consumer of 8.91 KW for JVVNL, 11.23 KW for AVVNL and 19.26 KW for JdVVNL for FY 2022-23.

3.30 Further, the Commission has found that Discoms have filed the specific consumption of 1945 kWh/kW/year for flat rate consumers.

3.31 The Commission in its Order dated 24.11.2021 for ARR of FY 2021-22 has observed as under:

"Due to non compliance of the directions for conversion of flat rate consumers to metered category and non submission of study on specific consumption of flat rate, the Commission has considered the Metered category specific consumption for computing the Flat rate sales for FY 2020-21 and FY 2021-22 for AVVNL & JdVVNL. However, in case of JVVNL Metered category specific consumption is more than 1945 kWh/kW/year, thus the specific consumption of JVVNL has been considered at 1945 kWh/kW/year for FY 2020-21 and FY 2021-22"

3.32 The JVVNL submitted that the number of flat rate consumers of the Discom as on 31st March 2015 was 36,252 consumers, which are on a decreasing trend with 12,264 such consumers as on 31st March 2022.

3.33 AVVNL submitted that the reduction in flat rate consumers of the Discom itself reflects the commitment of the Discom for complying the Commission directive of converting all flat rate agriculture consumers. To substantiate this the Discom has also not projected any energy sales to flat rate consumers in FY 2022-23.

3.34 The JdVVNL submitted that the flat rate consumers of the Discom as on 31st March 2011 was 42,366 consumers, which are on a decreasing trend with 34,075 such consumers as on 31st March 2022.

3.35 It is observed that Discoms have not submitted any study along with current petition. Regarding Conversion of Flat Rate consumers, except AVVNL, both JVVNL and JDVVNL have failed to convert all flat rate consumers to Metered Category.

3.36 Therefore, in view of decision taken in last ARR order Dated 24.11.2021. The Commission has considered the data of connected load and number of consumers of Flat category and approved specific consumption of metered category subject to maximum of 1945 kWh/kw/year for computation of sales for flat rate category of FY 2022-23, though the same shall be subject to true up. It is observed that while computing the sale for flat rate category, Discoms have considered the sale to converted consumer for the full year, instead of that consumers converted on the average could be taken in the metered category for 6 months and flat rate for 6 months for FY 2022-23.

3.37 Commission observed that AVVNL has converted all flat rate consumers, whereas JVVNL and JDVVNL has submitted that continuous efforts are being made to convert all flat rate Agriculture consumers into metered category. The JVVNL and JDVVNL further submitted that Discoms officials have been engaging with various stakeholders including individual farmers, FPO, influential members of the villages and persuading them to convert to metered category. In the last order the Commission directed to convert all flat rate consumers by 31st March 2022. However JVVNL and JDVVNL have not been able to achieve the target and requested for more time for conversion. The Commission shows its strong displeasure towards it and decides to reduce ARR by Rs. 10 Crore each for JVVNL and JDVVNL on this account. The Commission further, directs JVVNL and JdVVNL to convert balance flat rate consumers by 31st March 2023, positively. In case of non compliance, the Commission may further consider to increase the amount of deduction.

3.38 Accordingly, the connected load, specific consumption and estimated sales for FY 2022-23 have been approved by the Commission as under:

Table 16: Agriculture (FR) Sales for FY 2022-23 – JVVNL

Particulars	Consumers (Nos.)	Connected Load per consumer (kW)	Total Connected Load (kW)	Specific consumption (kWh/kW/year)	Consumption (Sales) MU
Existing consumers	12804	8.91	114142	1945	222
Less: converted to meter	4000	8.91	35658	1945	35
Total	**8804**		**78484**		**187**

Table 17: Agriculture (FR) Sales for 2022-23 – AVVNL

Particulars	Consumers (Nos.)	Connected Load per consumer (kW)	Total Connecte d Load (kW)	Specific consumption (kWh/kW/year)	Consumption (Sales) MU
Existing consumers	0	0	0	0	0
Less: converted to meter	0	0	0	0	0
Total	0	0	0	0	0

Table 18: Agriculture (FR) Sales for FY 2022-23 – JdVVNL

Particulars	Consumers (Nos.)	Connected Load per consumer (kW)	Total Connected Load (kW)	Specific consumption (kWh/kW/year)	Consumption (Sales) MU
Existing consumers	34090	19.26	656491	1724	1132
Less: converted to meter	4000	19.26	77030	1724	66
Total	**30090**		**579461**		**1065**

Energy Sales as approved by the Commission for all categories

3.39 With regard to sales projection for Distribution Franchisee (DF) of FY 2022-23, Commission has considered the same approach as discussed above for sale projection of consumer (excluding franchisee), accordingly the sale projection for DF consumers for FY 22-23 is as under:

Table 19: Total Energy Sales of DF approved by the Commission for FY 2022-23

(MU)

Particular	JVVNL	AVVNL	JdVVNL	Total
Domestic	632	269	338	1238
Non-Domestic	175	97	96	367
Public Street Light	26	6	17	49
Agriculture (Metered)	8	8	32	48
Agriculture (Flat)	0	0	1	1
Small Industry	14	8	15	37
Medium Industry	46	14	55	115
Large Industry	259	104	88	451
Public Water Works (S)	2	0	2	4
Public Water Works (M)	1	1	7	9
Public Water Works (L)	63	0	14	77
Mixed Load / Bulk Supply	37	12	52	101
Total	**1263**	**518**	**716**	**2497**

3.40 Based on the approach as discussed in the preceding paragraphs and agriculture metered and flat rate sales, as worked out on the basis of connected load and accepted specific consumption, the energy sales for Discoms including DF are being approved as under:

Table 20: Energy Sales approved by the Commission for FY 2022-23 (MU)

Particular	JVVNL	AVVNL	JdVVNL	Total
Domestic	6119	4644	4348	15111
Non-Domestic	2519	1296	1319	5133
Public Street Light	182	90	98	370
Agriculture (Metered)	9708	7584	13842	31134
Agriculture (Flat)	187	0	1066	1254
Small Industry	374	285	230	889
Medium Industry	861	890	752	2503
Large Industry	7124	6438	2061	15624
Public Water Works (S)	390	386	344	1121
Public Water Works (M)	43	35	103	181
Public Water Works (L)	412	392	677	1481

Particular	JVVNL	AVVNL	JdVVNL	Total
Mixed Load / Bulk Supply	199	100	392	691
Electric Traction	0	0.18	0	0.18
EV	2.80	0	0	2.80
Total	**28121**	**22141**	**25232**	**75494**

Note: the above sale is projection purpose only, Commission will examine the actual figure at the time of True up.

Transmission and Distribution losses

Distribution Losses

Petitioners' Submission

3.41 Discoms submitted that in the FY 2020-21 several activities were carried out in order to curb the losses and bring it down to approved levels by the Commission. The actual distribution losses for FY 2020-21 stood at 19.44%, 15.15% and 22.46% respectively.

3.42 A few key measures taken by the Discoms for reduction of Distribution losses are:

A. Initiatives for Technical Loss Reduction:

a) Network enhancement

Technical losses are mostly due to losses at LT level. To reduce the technical losses, Discom plans to:

- Improve HT:LT ratio (Deteriorated post DDUGJY & Saubhagya)
- For consumer service line, non-armored cable replacement with armored cable
- Replacement of old/frayed conductors
- DTR Load balancing: Post DT metering, Discoms shall correct balance load of Distribution Transformers by augmenting / adding their capacity in required areas
- Provision of Aerial bunched Cables (ABC) & High Voltage Distribution System (HVDS) in high loss areas

b) Feeder Segregation

- Agriculture consumers consume about 40% of total energy, which is amongst highest in the country
- Segregation of agriculture feeders from mixed feeders will ensure:
    - Uninterrupted block hour power supply to Agriculture Consumers

    - Uninterrupted 24 hours supply to rural domestic consumers
    - Avoid misuse/theft of single-phase supply by Agriculture consumers
    - Better system planning and load management leading to reduction in T&D Loss
- Solarizing grid connected Pumpsets under Kusum-C scheme thereby reducing the agriculture consumption and corresponding losses. Also, use of distributed generation under Kusum-A and Kusum-C (feeder level solarization), wherein the generating source is close to the load center, reduces the line losses. Discom plans to install solar plants by utilizing the land available in existing 33 kV substations.

B. Initiatives for Commercial loss reduction

a) Metering and energy accounting

- 100% consumer metering done (except for few flat rate agriculture consumers)
- 100% feeder metering and consumer indexing done
- About 70% DT metering has been done. Discom plans to complete 100% DT metering under the Revamped Distribution Sector scheme (RDSS).
- Undertaking feeder wise AT&C loss analysis
- Capturing actual meter reading
- Verification of correct multiplying factor

b) Vigilance

- Massive drives by vigilance dept. (Vigilance officers, O&M officers, M&P officers) to increase checking, assessment and arrests
- Checking and removal of illegal DTs of the consumers; Checking single phase DT/ supply for agriculture purpose
- Connected load checking of Agriculture connections
- Checking of PDC consumers
- Checking of connections having less than 50 units consumption/ month
- Detection of cases of parallel service lines
- Feeder wise report of defective meter, low consumption, parallel service line, service line – AB cable cut, PDC connections service line, meter and DT not removed
- To rule out manipulation and discretionary power of checking officers and for increased transparency, vigilance-mobile app has been developed

c) Smart metering

- Installation of smart meters will help in improving billing efficiency and assist in undertaking data analytics
- Discoms are installing smart meters in urban sub-division and all Govt. office falling under these sub-divisions will be covered as part of IPDS and NSGM schemes of GoI.
- For the remaining consumers, the Discoms plans to install smart meters under the RDSS scheme as per phases stipulated in the scheme.

d) Focus on monthly collection efficiency

- Collection efficiency ranges between 80% - 90% during first 8 months and increases beyond 100% during last two months
- Discom has been focusing on monthly collection efficiency (95% in rural and 98% in urban) rather than yearly efficiency for better realization

e) Use of IT

The Discom plans to continuously leverage IT in order to address the gaps and improve upon the operational and financial efficiency of the organization while improving the customer satisfaction levels. The vision of the Discom is in-line with the Central and State Government's vision to provide affordable and reliable 24x7 Power for all while focusing on the reduction in AT&C losses, improvement in electrical safety and reliability of the network infrastructure and to enhance customer services.

Loss trajectory submitted under RDSS scheme

3.43 Discoms submitted that Revamped Distribution Sector Scheme (RDSS) was notified by MoP on 20.07.2021 followed by the detailed guidelines dated 29.07.2021 and amendments from time to time.

3.44 The objective of the scheme is to bring down pan-India AT&C losses to 12 – 15% level, reduce ACS-ARR gap to Zero by 2024-25 and improve reliability and quality of power to consumers.

3.45 The Scheme provides for annual appraisal of the DISCOM performance against predefined and agreed upon performance trajectories on certain parameters which includes AT&C losses, ACS-ARR gaps, infrastructure upgrade performance, consumer services, hours of supply, corporate governance, etc.

3.46 Discoms have to score a minimum of 60% marks in the Result Evaluation Framework along with meeting the pre-qualification criteria as required under the RDSS scheme, to be eligible for receiving funding against the Scheme in that year.

3.47 Under the scheme, the Discom have prepared a detailed Action plan for achieving the scheme's objective of bringing down the AT&C losses to 15% by FY 2024-25. The DPR of various activities to be carried out under the scheme has also been prepared in order to achieve the targeted loss reduction.

3.48 Discoms have requested to approve the Distribution losses trajectory as adopted in RDSS scheme.

3.49 Accordingly, during FY 2022-23, Discoms have projected the following Distribution Losses:

Table 21: Distribution Losses Projections of Discoms (%)

Year	JVVNL	AVVNL	JdVVNL
FY 2022-23	17.25%	14.60%	18.20%

Commission's Analysis

3.50 For FY 2022-23, JVVNL, AVVNL and JdVVNL have projected distribution losses at 17.25%, 14.60% and 18.20% respectively. The distribution losses of JVVNL and JdVVNL are on higher side as compared to loss trajectory specified by the Commission for earlier years.

3.51 The Commission has observed during the last few years, inspite of clear directives for reduction of Distribution Losses, Jaipur & Jodhpur Discoms were unable to achieve the targets as approved by the Commission. This is also evident from the table given below for the actual Distribution Losses for period FY 2015-16 to FY 2019-20 and FY 2021-22.

Table 22: Distribution Losses of Discoms (%)

YEAR	JVVNL		AVVNL		JdVVNL	
	Approved	Actual	Approved	Actual	Approved	Actual
2015 – 16	15.19	31.90	16.36	26.75	14.47	23.32
2016 – 17	22.00	25.48	20.00	22.10	18.00	21.69
2017 – 18	18.50	21.06	17.50	20.15	16.50	19.33
2018 – 19	15.00	20.54	15.00	18.03	15.00	23.12

YEAR	JVVNL		AVVNL		JdVVNL	
	Approved	Actual	Approved	Actual	Approved	Actual
2019- 20	15.00	17.21	15.00	14.48	15.00	19.38
2020- 21	15.00	19.44	15.00	15.15	15.00	22.46

3.52 From the above table it is observed that none of the Discom has achieved the approved losses in any of the above past 6 years (Except Ajmer Discom for FY 2019-20). However, in FY 2020-21 losses of Ajmer also is little higher than Approved Losses of 15%. It is observed that Discoms are making lot of investment for reducing the AT&C losses but the desired results are not visible.

3.53 The Regulation 7 (1) of the RERC (Terms and Conditions for Determination of Tariff) Regulations, 2019' requires the Commission to approve a trajectory for the Control Period for certain variables like transmission losses, distribution losses and collection efficiency, having regard to the past performance.

3.54 The Commission in earlier year has already set a benchmark of 15% distribution loss and 100% collection efficiency for Discoms, Stakeholders have also requested to not to approve losses higher than that. Otherwise also the Commission do not find any reasons to revise the target set by it. As AVVNL has proposed lower losses, the Commission appreciate and accepts that. Accordingly, the Commission approves the target for distribution losses at 15% for JVVNL & JdVVNL and 14.60% for AVVNL and collection efficiency at 100%.

3.55 The summary of proposed distribution losses by Discoms and distribution losses approved by the Commission have been provided below:

Table 23: Proposed and Approved Distribution Losses (%)

YEAR	JVVNL		AVVNL		JdVVNL	
	Proposed	Approved	Proposed	Approved	Proposed	Approved
FY 2022-23	17.25%	15.00%	14.60%	14.60%	18.20%	15.00%

3.56 The Commission in ARR order dated 24.11.2021 has observed that many stakeholder during the public hearing submitted that the losses at 33 KV and 11 KV are lower at 3.8% and 8.8% respectively as evident from Discoms submission on wheeling charges, whereas the target given by the Commission is combined target for all voltage level. The Commission in last ARR order directed Discoms to furnish the voltage wise sales and losses in next petition. It is observed that the Discom have submitted the voltage wise sales but they have not submitted the voltage wise losses stating that the necessary infrastructure is yet to be put in place and requested for more time. Accordingly, the Discoms are directed to furnish the voltage wise losses to the Commission as per direction given later in this Order.

Collection Efficiency

3.57 The Discoms have projected 100% collection for FY 2022-23. The Commission has considered the collection efficiency at 100%, therefore the AT&C losses and Distribution Losses have been considered at same level, even if actual collection efficiency may be lower than 100%, adoption of lower collection efficiency will increase the revenue gap of Discoms which will indirectly burden the consumers of the State. Hence the target for collection efficiency shall be 100%.

Transmission Losses

3.58 The Discoms have filed the Intra-state and Inter-state transmission loss of 3.31% and 2.79% For FY 2022-23 respectively.

3.59 Whereas, the Commission has considered the Intra-state transmission loss of 3.80% based on the RVPN ARR and Tariff order dated 13.07.2022 for FY 2022-23.

3.60 As regards Inter State Losses, Discoms in reply to data gap filed an additional submission that CERC has notified CERC (Sharing of Inter State Transmission Charges and Losses) Regulation, 2020 on 4th May 2020 w.e.f. 1st November, 2020. As per clause 10 of these regulations, transmission losses for ISTS shall be calculated on all India average basis for each week, from Monday to Sunday. Discoms requested to approve Inter State Losses accordingly. The Commission has considered the above submission of Discoms and accordingly computed the 52 weeks average losses during FY 2021-22 and has considered the same for FY 2022-23 on all central power stations.

3.61 In view of above discussions, the levels of transmission losses as proposed by the Discoms and considered by the Commission for FY 2022-23 have been shown in the following table:

Table 24: Levels of Transmission Loss (%)

Particulars	Proposed for FY 2022-23	Approved for FY 2022-23
Intra-State Transmission Losses- Discoms	3.31%	3.80%
Inter-State Transmission Losses- Discoms	2.79%	3.51%

Energy Requirement as approved vis-à-vis Petitioners' submission

3.62 On the basis of the sales and distribution & transmission losses discussed above, the energy requirement proposed by Discoms and approved by the Commission for FY 2022-23 are given in the following table:

Table 25: Energy Requirement for FY 2022-23 (MU)

Particulars	JVVNL		AVVNL		JdVVNL		Total	
	Proposed	Approved	Proposed	Approved	Proposed	Approved	Proposed	Approved
Estimated Sales	29,245	28,121	21,574	22141	26968	25232	77787	75494
Distribution Loss (%)	17.25%	15.00%	14.60%	14.60%	18.20%	15.00%	16.87%	14.88%
Add: Distribution Loss (MU's)	6,096	4,963	3,688	3,785	6,000	4,453	15785	13200
Energy Required at Discom Periphery	35,342	33,084	25,262	25,926	32,968	29,685	93572	88695
Intra-State Transmission Loss (%)	3.31%	3.80%	3.31%	3.80%	3.31%	3.80%	3.31%	3.80%
Intra-State Transmission Loss (MU's)	1,210	1,307	865	1,024	1,129	1,173	3203	3504
Energy Required at State Periphery	36,552	34,391	26,127	26,950	34,097	30,857	96775	92198
Inter-State Transmission Loss (%)	2.79%	3.51%	2.79%	3.51%	2.79%	3.51%	2.79%	3.51%
Inter-State Transmission Loss (MU's)	348	438	260	295	395	355	1003	1088
Gross Energy Requirement	**36,900**	**34,829**	**26,387**	**27,246**	**34,492**	**31,212**	**97,778**	**93,287**

Power Purchase Cost

Petitioners' Submission

3.63 The Discoms have considered the actual purchase cost for FY 2020-21& projected the cost for FY 2021-22 and FY 2022-23 from various sources based on the following assumptions:

a) For the estimation of cost, a nominal hike of 2% in the fixed charges as well as energy charges per unit has been considered considering the actual increase in the past few years.

b) The Discoms have not considered prior period charges in forecasting power purchase cost for FY 2022-22 and FY 2022-23 assuming normal business scenario and considering these cost as extraordinary expenses.

c) In accordance with the direction of Energy Department, GoR to RVUNL, the RoE charged by RVUNL to Discoms shall have to be refunded to the Discoms for FY 2019-20, FY 2020-21 and no RoE shall be charged during FY 2021-22. Accordingly, while projecting the power purchase cost for FY 22, the Discoms have projected gross power purchase cost from RVUNL stations based on FY 21 actual costs incurred and has considered refund of RoE during FY 22.

d) However, in the absence of any direction to RVUNL for not charging RoE during FY 2022-23, the Discoms have not considered any such refund during FY 2022-23.

3.64 Discoms submitted that the energy availability for FY 2021-22 and FY 2022-23 is projected on the basis of estimated generation from existing stations and projected generation from new stations. For FY 2021-22, for existing stations, the Discoms submitted that the power purchase quantum has been estimated based on the actual energy received during FY 2021-22 till the month of November and accordingly projecting it for the remaining part of year. The Discoms submitted that they have analysed the existing power scenario and the power purchase has been accordingly projected considering the energy requirement and has backed down certain plants based on the merit order principles as well as previous trends.

3.65 Discoms submitted, the total power purchase for FY 2021-22 and FY 2022-23 also includes power from short term sources/ energy exchanges which has been considered based on the actuals till November'21 for FY 22 and estimated deficit during FY 23. This is because most of the states across the country were facing an acute power crisis situation due to a gap between the demand of power from consumers and the supply available from generators with whom the respective state Discoms have long term power purchase agreements.

3.66 Discoms submitted that for the estimation of quantum of power procurement, the availability of each station and the corresponding energy (in MU) purchased from that station for FY 2022-23 has been considered same as that projected for FY 2021-22. In case the energy requirement is more, the Discoms have considered energy procurement based on Merit Order Dispatch (MoD) duly keeping in mind the PLF of that particular station does not exceed a normative level of 85%. In case the energy requirement is less in any particular year vis-à-vis FY 2020-21, the Discoms have reduced the energy procurement from the costliest plant as per the MoD principle duly keeping in mind the PLF of that particular station does not fall below a technical minimum level of 55%.

3.67 Discoms submitted that, while projecting the power purchase quantum for FY 2022-23, they have not considered power from five NTPC stations namely Anta

GTPS, Auriya GTPS, Dadri GTPS, FGUTTPS Unit 1and FSTPS aggregating to 252 MW. The same has not been considered as per the Commission's Order dated 28.10.2021 in which the Commission has allowed the Discoms to exit the PPAs due to the expiry of term of these PPAs.

3.68 Discoms have considered the power availability from the new capacity of STPS super-critical generating plant (Unit 8) which has achieved COD in October, 2021. Energy procurement from Dholpur power plant has not been considered for FY 21 and FY 22 in the absence of any approved tariff for the plant.

3.69 Discoms submitted that while there are various Central Sector plants expected to come up, as per the data available from CEA and analysed by RUVN, energy availability from these Central Sector plants are in 'Unsure Category' owing to issues such as land acquisition, pending clearances, non-achievement of financial closure, bidding not started etc. Accordingly, the Discoms have not considered any projections from such Central Sector plants.

Impact of KUSUM scheme on power purchase projections

3.70 Discoms submitted that impact of solar PV plant capacities being added or to be added under Component A and Component C (feeder level solarization) of KUSUM scheme have been considered while projecting power availability of the Discoms.

3.71 There are a lot of challenges faced in fulfilling the Renewable Purchase Obligation due to infirm nature of such power, lack of sufficient hydel sources which can be operated in integration with renewable sources to absorb the variations in generation from such renewable sources, inverse relation between generation from renewable sources and demand in the state of Rajasthan, financial burden on the Discoms, etc. It is very much important to note that the state already has sufficient tied up capacity. Many such stations are likely to be commissioned in near future. This will lead to increasing stranded capacity. The situation will only be worsened if more capacity is to be tied up in order to meet the increasing RPO obligations.

3.72 Summary of the power purchase quantum and cost as submitted by Discoms are as under:

Table 26: Power Purchase (MU) and Cost (Rs. Cr.) for FY 2022-23 submitted by Discoms

Particulars	JVVNL		AVVNL		JdVVNL	
	Total Energy (MU)	Total Cost of Energy Received (Rs. Crore)	Total Energy (MU)	Total Cost of Energy Received (Rs. Crore)	Total Energy (MU)	Total Cost of Energy Received (Rs. Crore)
Power from sources other than RVUNL (Net of surplus)	26866	9970	18113	6720	21986	8150
Power from RVUNL sources	12533	6447	8489	4367	10252	5276
Transmission Charges		2161		1463		1768
Total Power Purchase	**39399**	**18578**	**26602**	**12550**	**32239**	**15194**

Commission's Analysis

3.73 While estimating energy availability and power purchase cost for FY 2022-23, the Commission has considered the generation in MUs and cost in Rs. Crore from State and Central generating units based on the additional information filed post hearing for FY 2021-22 by the Discoms.

3.74 For 2022-23, for plants other than NPCIL, RVUN and Rajwest the Commission has considered actual cost for FY 2021-22. For NPCIL, RVUN and Rajwest the Commission has considered cost on the basis of relevant orders.

3.75 For estimating the power purchase cost, the Commission has considered availability from various sources for the State as a whole. For working out Discom wise availability and cost, the allocation of power to JVVNL, AVVNL and JdVVNL from all generating stations has been considered in the ratio of 40.27%, 27.14% and 32.59% respectively, except that 100% allocation of RFF share has been considered for JVVNL.

Energy Availability and Cost for FY 2022-23

RVUN Stations

3.76 For RVUN generating stations, including KTPS (Unit 1-7) & STPS (Unit 1-6), RGTPS (Stage I, II & III), Mahi, Chhabra (Unit 1-6) & Kalisindh (Unit 1&2), the Commission has considered the energy for FY 2022-23 with 2% escalation over actual of FY 2021-22.

3.77 The Commission has not determined the ARR & Tariff for FY 2022-23 for DCCPP therefore, the same has not been considered for the purpose of estimation of power purchase cost.

3.78 The fixed and energy charges for the RVUN plants and CTPP(Unit 5-6) are as per RVUN Tariff order(s) dated 23.06.2022.

3.79 The Commission has considered the energy availability for STPS (Unit 7) for FY 2022-23 with 2% escalation over FY 2021-22. The generation of STPS (Unit-8) has been considered equivalent to STPS (Unit-7). The fixed and energy charges of STPS (Unit 7-8) for FY 2022-23 have been considered as per RVUN order dated 03.02.2021 for FY 2020-21.

3.80 Tariff of Mini/Micro (MMH) plants have been considered as per Regulation 57 of RERC Tariff Regulations, 2019.

3.81 For the purpose of computing fixed charges of RVUN Stations actual availability (provisional) of FY 2021-22 has been considered by the Commission. There may be a situation that Discoms may have to purchase higher quantum of energy from these plants due to higher power requirement or shortfall in any other sources. The actual impact will be considered in true up. The Discoms while making power purchase should strictly follow the Merit Order Dispatch. The Discoms are also directed to monitor the availability of these plants and pay fixed charges in accordance with provision of RERC Tariff Regulations.

3.82 The energy availability and cost of RVUN's generating stations as considered by the Commission have been shown in the table below:

Table 27: Energy Availability (MU) and Cost (Rs. In Cr.)- RVUN Stations for FY 2022-23

Station	**Energy Availability (MU)**	**Cost (Rs. In Cr.)**
KTPS(1 to 7)	6406	2637
STPS(1 to 6)	3502	1994
SSCTPP (7)	3162	1519
SSCTPP (8)	3162	1480
CTPP (1-4)	4519	1936
CTPP (5&6)	5663	2191
RGTP(1,2 & 3)	1418	543
KaTPP#1 & 2	6942	3084
MAHI	190	35
MAHI MMH	1	0
MANGROL	7	3
STPS MMH	1	0
Total	**34973**	**15422**

Lignite based projects

3.83 The lignite based projects include Giral Lignite Power Limited, Rajwest Limited and Neyveli Lignite Corporation Limited.

3.84 For Giral Unit 1 & 2, Commission has not determined any tariff for FY 2022-23 as these Units are not functioning for long period of time.

3.85 For Neyveil Lignite, the Commission has considered the energy availability, Fixed and energy charges for FY 2022-23, with 2% escalation over FY 2021-22.

3.86 For Rajwest Power Limited the Commission has considered the energy availability for FY 2022-23, with 2% escalation over FY 2021-22. The fixed and energy charges for FY 2022-23 are as per RWPL tariff order of FY 2018-19 dated 26.09.2018 .

3.87 The energy availability and total power purchase cost for Lignite based projects have been summarized in the table below:

Table 28: Energy Availability (MU) and Cost (Rs. In Cr.)- Lignite Plants for FY 2022-23

Station	Energy Availability (MU)	Cost (Rs. In Cr.)
RAJWEST POWER LIMITED	6646	2791
GLTPP	0	0
Neyveli Lignite Corporation Ltd	1437	486
Total	**8083**	**3278**

Nuclear Power Corporation of India Ltd. (NPCIL)

3.88 The energy availability of NPCIL has been considered for FY 2022-23, with 2% escalation over FY 2021-22.

3.89 The Cost of NPCIL power plants has been considered as per DAE notification dated 22.03.2018.

3.90 The energy availability and total power purchase cost for NPCIL plants have been summarized in the table below:

Table 29: Energy Availability (MU) and Cost (Rs. In Cr.)- NPCIL for FY 2022-23

Station	Energy Availability (MU)	Cost (Rs. In Cr.)
NPCIL	3174	1088

Partnership Projects (PP)

3.91 The energy availability, fixed and energy charges of partnership projects have been considered for FY 2022-23, with 2% escalation over FY 2021-22.

3.92 Energy availability and total power purchase cost for partnership projects have been summarized in the table below:

Table 30: Energy Availability (MU) and Cost (Rs. In Cr.)- Partnership Projects for FY 2022-23

Station	Energy Availability (MU)	Cost (Rs. In Cr.)
Partnership Projects	2482	126

NTPC, NHPC & Others

3.93 The energy availability, fixed and energy charges of NTPC & NHPC and others have been considered for FY 2022-23, with 2% escalation over FY 2021-22.

3.94 The energy availability and total power purchase cost for NTPC, NHPC and other plants have been summarized in the table below:

Table 31: Energy Availability (MU) and Cost (Rs. In Cr.)- NTPC & NHPC and Other Generating Stations for FY 2022-23

NTPC & NHPC and Other Generating Stations		
Station	FY 2022-23	
	Energy Availability	Cost
NTPC Stations	10567	3682
NHPC Stations	1628	562
Others		
SJVNL-NATHPA-JHAKRI	531	129
Rampur	216	73
Tehri Hydro	235	93
Koteshwar	99	46
Tala	42	9
NVVN BUNDLED	2378	1131
Coastal Gujarat	396	109
Adani Power Rajasthan Ltd.	8030	3350
Sasan Power Ltd.	3040	436
Karcham Wangtoo	435	155
DB POWER	2238	898
MARUTI	1475	515
Teesta	466	270

NTPC & NHPC and Other Generating Stations		
Station	**FY 2022-23**	
	Energy Availability	**Cost**
SKS	486	140
R.F.F.	186	72
Total	**32448**	**11668**

3.95 While projecting the power purchase quantum for FY 2022-23, the Discoms have not considered power from five NTPC stations namely Anta GTPS, Auriya GTPS, Dadri GTPS, FGUTTPS Unit 1and FSTPS aggregating to 252 MW. The same has not been considered as per the Commission's Order dated 28.10.2021 in which the Commission has allowed the Discoms to exit the PPAs due to the expiry of term of these PPAs.

3.96 Accordingly, Commission has not considered the energy availability and cost from these stations, which are subject to true up during FY 2022-23.

Non-Conventional Energy Sources

3.97 The Commission has taken the availability from non-conventional energy sources to the extent of RPO requirement, i.e., 9.10% for wind, 9.50% for Solar, 1.00% for Bio-mass and 0.35% for HPO for FY 2022-23 as per RERC (Renewable Energy Obligation) (Seventh Amendment) Regulation, 2019 dated 24.12.2021 as amended from time to time.

3.98 While calculating the RPO from Solar, it is observed that during FY 2022-23, Discoms have projected 575.35 MUs solar energy generation from the rooftop solar systems (RTS), however, looking to growth in capacity the Commission projected the same to be approx. 600 MUs during FY 2022-23, the above generation shall be considered under RPO of Discoms. Further, Commission has projected Solar Generation of 70 MUs from KUSUM-Component-A: Grid Scale Solar PV at agriculture lands to be purchase at Rs. 3.14 per/unit and Solar generation from KUSUM Component-C: Feeder Solarization of 09 MUs to be purchase at Rs. 2.89 per/unit. The balance Solar RPO requirement has been considered to be met from large scale solar plant at Rs.2.25/unit (including trading margin of 7 paisa)

3.99 To compute the cost for FY 2022-23, the actual per unit cost of FY 2021-22 has been considered, further the additional units during FY 2022-23 for Solar, Wind, and Biomass have been considered at Rs. 2.25/ unit (including trading margin of

7 paisa), Rs. 2.85/unit (including trading margin of 7 paisa) and Rs. 6.81/unit respectively.

3.100 The energy availability and total power purchase cost from non-conventional energy sources have been summarized in the table below:

Table 32: Energy to be purchased (MU) and Cost (Rs. in Cr.)- Wind, Solar & Biomass for FY 2022-23

Station	FY 2022-23	
	Energy to be purchased (MU)	Cost (Rs. in Cr.)
Wind	7882	3970
Solar	7629	2392
Biomass	866	636
Total	**16377**	**6998**

3.101 *Hydro Power* Purchase Obligation (HPO): Rajasthan Electricity Regulatory Commission (Renewable Energy Obligation) (Seventh Amendment) Regulations, 2021 state that:

"Hydro Power Purchase Obligation (HPO) shall be met from the power procured from eligible large hydro power projects including pump storage projects having capacity more than 25 MW (LHPs)commissioned on and after 08.03.2019 and upto 31.03.2030 in respect of 70% of the total generated capacity for a period of 12 years from the date of commissioning. Free power to be provided as per the agreement with the State Government and that provided for Local Area Development Fund (LADF), shall not be included within this limit of 70% of the total generated capacity."

3.102 In view of above, Discoms shall ensure the compliance of the above Regulation during FY 2022-23 and submit the information for Hydro Power Purchase Obligation compliance separately alongwith true up petition.

Short term Sources

3.103 Discoms submitted that they needs to resort to power exchange when:

a. In certain time blocks when there is energy shortage due to non-availability of power from long term tied up sources. This could be due to planned or unplanned shutdown of generating station, unavailability of transmission network, coal related issues etc.

b. When the cost of power from exchange is cheaper than the variable cost of some of the tied-up long term sources. In such cases in order to optimize the overall power purchase cost, the Discom backs-down the costlier power plant and purchases power from exchange.

3.104 Discoms further submitted that while the Rajasthan state is expected to be in deficit in various time blocks especially during the day-time depending on the season, in certain blocks, it is expected to have surplus power. This is due to unique characteristic of the state of significant intra-day and intra-season variation in demand. During the day hours, the state experiences peak demand during which it resorts to short-term power while during the night hours, the state experiences power surplus position.

3.105 Discoms submitted that sale and purchase of power through exchange is a dynamic process. The market clearing prices in exchange are dependent on the bids submitted by buyers and other sellers and the power available in the entire market. It is important to note that the Discoms have no control over the mentioned factors. With the increasing surplus energy across the nation, the market prices are further expected to reduce. Discoms submitted that the rates discovered in the exchange for selling of surplus power are lower than the variable cost payable to generators by the Discoms.

3.106 Discoms submitted that the rate of purchase of energy from exchange has been considered as Rs 4.50/kWh for FY 22 based on the actual rate of purchase till November, 2021. The recent coal crisis in the country had resulted in significant increase in short term prices due to demand outstripping the supply. For FY 23, the Petitioner has projected short term rate of Rs 3.50/kWh based on previous years' trend.

3.107 Discoms submitted that the rate of sale of surplus energy on exchange has been considered as Rs 3.34/kWh for FY 22 based on the actual rate of sale till November, 2021 and a 5% increase in FY 23 i.e. Rs 3.50/ kWh.

3.108 After considering the energy available to Discoms based on their respective allocated shares, the Commission has estimated a surplus in energy availability for FY 2022-23.

3.109 With regard to issue raised by various stakeholders during the public hearing that the Discoms had been purchasing power at very high rates on the power exchange. The Discoms submitted that most of the states across the country are facing an acute power crisis situation due to a gap between the demand of power from consumers and the supply available from generators with whom the respective state Discoms have long term power purchase agreements. Such crisis which began in the months of October- November 2021 have been continuing since after a brief period of relief in the first 2-3 months of this FY 23.The same has been taken into cognizance by State and Central Governments. The Ministry of Power, GoI had acknowledged the crisis, in October 2021 and published a press note regarding the same on 09.10.2021. Subsequently, the Ministry of Power, has initiated multiple measures to address this emergency situation. Steps includes restarting idle imported coal based plants, increasing allocation of railway rakes to power sector, directions to State Gencos for blending of imported coal (up to 10%), directions to all Gencos (including IPPs) under Section 11 of the Electricity Act 2003, for timely import of coal for blending thereby maximizing production in captive mines.

3.110 During October 2021, Rajasthan had been dealing with daily deficit of 1600 MW in meeting the peak power demand of the state. Further, during the ongoing crisis beginning from April 2022, Rajasthan has been dealing with daily deficit of 2100 MW in meeting the peak power demand of the state.

3.111 At present, the deficit is being managed by the Discoms through the following means:

a. Purchase of power from Energy Exchange during peak deficit hours
b. Planned power cuts in rural areas and municipal towns on a roster basis

3.112 Discoms further submitted that in light of the current scenario, they are facing several challenges in ensuring power supply to consumers with minimal disruptions for which it had to resort to purchase power from power exchanges at high prices. It is pertinent to note that the Commission has taken cognizance of situation wherein the Rajasthan Discoms may have to resort to short term power purchase, which shall be taken into consideration under MYT Regulation 78(6). Commission has indicated a ceiling tariff for procurement of short-term power at Rs. 4/unit in the ARR Order for FY 2021-22. As observed, the Discoms had to resort to procure power at costs (in the range of Rs.10/unit to Rs.17/unit) which is way higher than the ceiling limit mandated by the Commission to meet with the electricity demands of the State consumers. Furthermore, in accordance with Rajasthan Electricity Regulatory Commission (Terms and

Conditions for Determination of Tariff) Regulations, 2019, under Regulation 78(6)(d) Discoms may carry out power procurement at a rate higher than the ceiling rate as approved by the Commission under unforeseen circumstances/ emergency conditions that hamper network stability. Thus, considering the on-going crisis, high rates on power exchanges and financial position of Discoms, requested that short-term power procurement be allowed temporarily till the power crisis is resolved and the rate of short-term power purchase, which is currently fixed at Rs 4/unit in the ARR Order for FY 2021-22 may be revised and be benchmarked with the exchange prices prevailing during the hours when power is procured by the Discoms.

3.113 Commission estimated the Rajasthan state to be in surplus power by 4249 MU for FY 2022-23. Discoms have proposed to sell the surplus power at the rate of Rs. 3.50 per/unit, for FY 2022-23. In this context, the Commission agrees with the Stakeholders' concern that the Discoms must try to sell the surplus power at least equivalent to or higher than the variable charges of thermal generation i.e. STPS variable charges of Rs. 4.22 per/unit or it may not schedule that power.

3.114 However, there may have been a situation when Discoms may have resorted to short term power purchase. In that situation, the Regulation 78(6) provides that the Commission shall indicate a tariff for procurement of short term power. In view of above submission of Discoms regarding availability of costlier power the Commission deems it proper to fix the rate of short term purchase for the purpose of Regulation 78 (6) equivalent to variable cost of STPS i.e. Rs. 4.22 per/unit.

3.115 The energy requirement for Discoms has been calculated based on sales estimated in this order and normative losses. There may a situation when Discoms may have to purchase higher quantum of energy due to higher sales, losses or shortfall in generation from other sources.

3.116 The Discoms while making power purchase should strictly follow the Merit Order Dispatch. The Discoms are also directed to monitor the availability of plants and pay fixed charges in accordance with provisions of appropriate regulations.

Total Power Purchase Cost

3.117 Based on the above, the summary of source wise breakup of power purchase quantum and cost for FY 2022-23 as considered by the Commission for the three Discoms is given in the table below and details are given at **Annexure-E**:

Table 33: Energy Availability (MU) and Cost for FY 2022-23 (Rs. in Crore)

Station	FY 2022-23	
	Units (MU)	Cost (Rs. In Cr.)
NTPC	10567	3682
NHPC	1628	562
Others	20253	7424
NPCIL	3174	1088
Partnership Projects	2482	126
RVUN	34973	15422
Lignite Power Projects	8083	3278
Wind Farms, Solar and Biomass	16377	6998
Gross Energy Available	**97536**	**38578**
Surplus	(4249)	(1793)
Total	**93287**	**36785**

Transmission Charges

Petitioners' Submission

3.118 The Discoms have considered a nominal annual escalation of 2% over that as incurred in FY 2021-22, while projecting transmission charges for FY 2022-23.

3.119 The details of the PGCIL, RVPN, RLDC and SLDC charges submitted by Discoms have been summarized in the table below:

Table 34: Transmission Charges & SLDC Charges for FY 2022-23 (Rs. in Crore)

Particulars	Discoms' submission			
	JVVNL	AVVNL	JdVVNL	Total
PGCIL Charges	818	554	669	2041
RVPN and Others Charges	1328	900	1087	3314
RLDC Charges	1	1	1	3
SLDC Charges	14	9	11	34
Total Transmission Charges	**2161**	**1463**	**1768**	**5392**

Commission's Analysis

3.120 The Commission has considered the RVPN and SLDC charges for FY 2022-23 as per RVPN ARR and Tariff order dated 13.07.2022.

3.121 Further, the Commission has considered PGCIL & other charges for FY 2022-23 with 2% escalation over actuals of FY 2021-22.

3.122 The transmission & SLDC charges approved by the Commission for FY 2022-23 are as under:

Table 35: Transmission Charges approved by the Commission for FY 2022-23

(Rs. in Crore)

Particulars	**APPROVED**			
	JVVNL	**AVVNL**	**JdVVNL**	**Total**
PGCIL Charges	818	554	669	2041
RVPN Charges	1127	760	912	2799
RLDC Charges	1	1	1	3
SLDC Charges	9	6	8	24
Total Transmission Charges	**1956**	**1321**	**1590**	**4867**

3.123 Apart from above transmission charges, the Commission has also considered the impact of true up order of RVPN and SLDC for FY 2020-21 while determining the ARR of Discoms for 2022-23.

<u>Proposed Investment Plan for FY 2022-23</u>

3.124 The Discoms have proposed investment under various projects/schemes to be executed along with the proposed targets in FY 2022-23 as detailed below:

Table 36: Proposed Capital Expenditure for FY 2022-23 (Rs. in Crore)

Sr. No.	**Name of schemes**	**Proposed for F.Y. 2022-23**			
		JVVNL	**AVVNL**	**JdVVNL**	**TOTAL**
	Plan Work				
1	Sub- Transmission & Distribution	491.32	500.00	906.71	1,898.03
2	Rural Electrification Works	1,439.81	1,500.00	2,987.66	5,927.47
3	R-APDRP-A	1.03	-	-	1.03
4	Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY)	20.00	-	--	20.00
5	Integrated Power Development Scheme (IPDS)& IT infrastructure & ERP	1.08	23.36	20.70	45.14
6	Post Soubhagya	-	25.00	-	25.00
7	Feeder Segregation	50.00	-	-	50.00
8	AP Supply (2 Block Regime)	265.00	63.00	647.84	975.84
9	Smart metering	15.63	5.27	-	20.90
10	RDSS	995.00	784.77	668.20	2,447.97
11	Formation of IT Company	-	3.00	-	3.00
12	Kusum-C	-	-	19.72	19.72
	Total	**3,278.87**	**2,904.40**	**5,250.83**	**11,434.10**

3.125 To execute the above work, the Discoms have proposed the funding from following sources:

Table 37: Source wise details of funding for FY 2022-23 (Rs. in Crore)

Sr.No.	Sources of funding	JVVNL	AVVNL	JdVVNL	Total
1	Loan	1541.05	1717.49	4,163.13	7,421.67
2	Grant	648.00	575.61	514.20	1,737.81
3	Equity	1089.82	611.30	573.50	2,274.62
	Total	**3,278.87**	**2,904.40**	**5,250.83**	**11,434.10**

3.126 The proposed Capital Investment Plan is based on the philosophy focused on the following areas:

(a) Creation of new sub-transmission and distribution network to meet the increasing demand within the area of supply of Discoms.

(b) Strengthening of the existing sub-transmission and distribution network to cope up with the growing demand and connectivity to the new areas under development.

(c) Rural electrification to create distribution infrastructure in villages and release electricity connections in villages

(d) Scaling up of IT infrastructure and strengthening of IT backbone to improve the efficiency, capacity and reliability of distribution network.

(e) Demand side management for efficient and optimum utilisation of distribution network capacity.

3.127 Discoms submitted that the proposed Capital Investment Plan incorporates the basis and details pertaining to the budget allocation under various schemes, associated targets and sources of funding.

3.128 Discoms submitted that the capital investment planning plays a pivotal role in efficiency improvement of the Discoms. The growing number of consumers, load and per capita consumption, burdens the existing networks resulting to frequent outage and energy spillages. Therefore, the Capital Investment Plan requires to be planned appropriately.

3.129 The Discoms submitted that they are making concerted efforts for strengthening of distribution network. This will curb down the system spillages, improve efficiency and ensure sustainability against the revenue gap of the previous years.

Sub Transmission and Distribution Infrastructure Works:

3.130 The Discoms have proposed a total investment of Rs. 1898.03 Crore in FY 2022-23 for sub transmission and distribution infrastructure works. The Discoms wise proposed investment and physical targets are provided below:

Table 38: Proposed Investment and physical target for sub-transmission & distribution works in FY 2022-23

Sr. No.	Name of Schemes	Proposed Investment & Physical targets for F.Y. 2022-23			
		Units	JVVNL	AVVNL	JdVVNL
1	Sub- Transmission & Distribution				
a.	Proposed Investment	(Rs. in Crore)	491.32	500	906.71
b.	33/11 KV S/s	MVA	206	250	807.75
		Nos.	40	55	100
c.	33 KV Lines	KMs	630	350	800

3.131 The Discoms submitted that these schemes are identified on need basis, with the objective to increase reliability of the network, to strengthen the network and for improvement of the system to meet the demand growth; the circle planning department initiate the proposals along with the detailed technical due-diligence & after cost-benefit analysis of the proposed investment to be undertaken in the field. The proposals are being forwarded to the headquarters for approval. The planning circle at headquarters selects the schemes on the basis of technical and financial feasibility and according to the available sanction for the year from the Government. All the schemes under Sub-Transmission and Distribution works, RE works are under Rs. 10 Cr. and the same are being implemented after administrative, technical and financial sanctions of the competent authority in accordance to delegation of powers (DOP).

Rural Electrification Works:

3.132 Discoms have proposed a total investment of Rs. 5927.47 Crore in FY 2022-23 respectively for rural electrification works which includes expansion of distribution network to release agriculture connection , reduction in system losses along with improvement of reliability parameters, providing domestic connections in rural areas and energization of wells with a view to increase water supply. The Discom wise proposed investment and physical targets are provided in table given below:

Table 39: Discom wise proposed investment for RE works in FY 2022-23

Sr. No.	Name of Schemes	Proposed Investment & Physical targets for F.Y. 2022-23			
		Units	JVVNL	AVVNL	JdVVNL
1	Rural Electrification Works				
a.	Proposed Investment	(Rs. in Crore)	1,439.81	1,500.00	2,987.66
b.	Domestic connection rural	Nos.	140000	100000	115000
c.	Agriculture Pump Set RE	Nos.	71207	70000	90137

R-APDRP-A:

3.133 Jaipur Discom has proposed an investment of Rs. 1.03 Crore in FY 2022-23 under RAPDRP-Part A. Under RAPDRP-Part A scheme, works for developing IT enable activities such as SCADA etc. and strengthening of existing network have been taken up along with installation of hardware and software for data Center, disaster recovery Centre, establishment of customer care center at Discoms Head Quarter, installation of Modems for Meter Data Acquisition System etc.

3.134 The Discom wise proposed investments are provided in the table given below:

Table 40: Discom wise proposed investment in FY 2022-23 (Rs. in Crore)

Sr. No.	Name of schemes	Proposed investment for FY 2022-23		
		JVVNL	AVVNL	JdVVNL
1	R-APDRP- Part A	1.03	0	0

Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY)

3.135 JVVNL has proposed a total investment of Rs. 20 Crore in FY 2022-23 for Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) which includes separation of agriculture and non- agriculture feeders, strengthening and augmentation of sub-transmission & distribution infrastructure in rural areas and Rural electrification for completion of the targets laid down under RGGVY for 12th and 13th Plan by carrying forward the approved outlay for RGGVY to DDUGJY.

3.136 Rural Electrification Corporation Limited (REC) will be the nodal agency for implementation of the scheme.

Table 41: Discom wise proposed investment for DDUGJY in FY 2022-23 (Rs. in Crore)

Sr. No.	Name of schemes	Proposed investment for F.Y. 2022-23			
		Units	**JVVNL**	**AVVNL**	**JdVVNL**
1	DDUGJY	(Rs. in Crore)	20	0	0

Integrated Power Development Scheme (IPDS):

3.137 Discoms have proposed a total investment of Rs. 45.14 Crore in FY 2022-23 under Integrated Power Development Scheme, launched by Government of India, to extend financial assistance against capital expenditure & to address the gaps in sub transmission & distribution network and metering in urban areas to supplement the resources of Discoms/Power Dept.

3.138 The projects under the scheme is formulated for urban areas (Statutory Towns) only and will cover works relating to strengthening of sub-transmission & distribution network, including providing of solar panels on Govt. buildings with Net-metering, metering of feeders /distribution transformers / consumers and IT enablement of distribution sector. Scope of IT enablement extended to the statutory towns having population up to 5000 as per Census 2011.

Table 42: Discom wise proposed investment for Integrated Power Development Scheme in FY 2022-23

Sr. No.	Name of schemes	Proposed investment & for F.Y. 2022-23			
		Units	**JVVNL**	**AVVNL**	**JdVVNL**
1	**IPDS**	(Rs. in Crore)	1.08	23.36	20.70

<u>Feeders Segregation</u>

3.139 JVVNL has proposed a total investment of Rs. 50 Crore in FY 2022-23 under Feeder Segregation Scheme.

3.140 Segregation of agriculture feeders from mixed feeders is a vital step to ensure efficient rural power supply with minimal losses. The activity was undertaken by the Discom since 2004. From 2004 to 2010, segregation of agricultural load from non-agricultural load (virtual feeder segregation) was done. Since the rural consumers are scattered over a large area, a significant number of single-phase transformers were installed at rural areas to provide domestic connections at minimum expense. Further, 11 KV HVDS systems were installed to cater to the electricity demand of agriculture consumers.

3.141 Feeder Segregation works were also proposed in the DDUGJY Scheme of Government of India. However, during the implementation of this scheme, the shift of complete focus by Government of India on providing connections to the un-electrified households led to the most utilization of funds in release of connections and associated infrastructure. Discom has to cut short the works proposed under DDUGJY scheme for Feeder Segregation.

3.142 By segregation of Agriculture feeder, an uninterrupted power supply may be given even in day hours utilizing the solar power. So the farmer will get the advantage to get supply in day hours and need not to go in to field in winter time when temperature in state touches to zero degree centigrade.

Table 43: Discom wise proposed investment for Feeder segregation Scheme in FY 2022-23

Sr. No.	Name of Schemes	Proposed Investment for F.Y. 2022-23			
		Units	JVVNL	AVVNL	JdVVNL
1	Feeder Segregation	(Rs. in Crore)	50.00	-	-

<u>2-Block Supply to Agriculture Feeders</u>

3.143 Discoms have proposed a total investment of Rs. 975.84 Crore in FY 2022-23 - under 2-Block Supply Scheme.

3.144 The State of Rajasthan, with approx. 1.6 Cr consumers, has about 14 lakh agriculture consumers. Being a desert state, the annual rainfall is insufficient to meet the water demand for agricultural activities. Thus, there is lack of free-flowing surface water to meet the irrigation needs of the agriculture lands. As a result, 70% of irrigation is dependent on ground water. To pump ground water electric pump-sets are required, thereby making electricity supply a key input for agriculture.

3.145 At present, the Discoms manages power supply to such agriculture consumers by providing power in four blocks. Weekly rotation of the four blocks is done to efficiently manage the demand of agriculture consumers and at the same time to ensure grid stability.

3.146 As a result, majority of agriculture consumers get power at inconvenient night hours, making it difficult for them to irrigate their lands. Often such agriculture consumers leave their pump-sets on throughout the night, leading to wastage of electricity as well as ground water. In order to relieve the agriculture consumers of such inconvenience, Discoms had planned to provide day-time supply to agriculture consumers in 2 blocks.

Table 44: Discom wise proposed investment for 2-Block Supply Scheme in FY 2022-23

Sr. No.	Name of Schemes	Proposed Investment for F.Y. 2022-23			
		Units	JVVNL	AVVNL	JdVVNL
1	**AP Supply (2 Block Regime)**	(Rs. in Crore)	265.00	63.00	647.84

Smart Metering:

3.147 JVVNL & AVVNL has proposed a total investment of Rs. 20.90 Crore in FY 2022-23 respectively under Smart Metering Scheme.

3.148 Advanced Metering Infrastructure, also referred as "Smart Metering" is the combination of the electronic meters with two-way communications technology for information, monitoring, and control. AMI initiative is targeted to achieve Operational Efficiencies, Protection of Revenue, Increased Cash Flow, Improvement in Customer Service & Conservation and Energy Efficiency.

Table 45: Discom wise proposed investment for Smart Metering in FY 2022-23

Sr. No.	Name of Schemes	Proposed Investment for F.Y. 2022-23			
		Units	**JVVNL**	**AVVNL**	**JdVVNL**
1	Smart Metering	(Rs. in Crore)	15.63	5.27	-

<u>Post Saubhagya Yojna</u>

3.149 AVVNL proposed an investment of Rs. 25 Crore under Post Saubhagya Yojna scheme.

3.150 Saubhagya Yojna was launched by the GoI in September 2017. Under this scheme, electricity connections to all households (both APL and poor families) in rural areas and poor families in urban areas are provided. REC has been designated as its nodal agency.

Table 46: Discom wise proposed investment for Post Saubhagya in FY 2022-23

Sr. No.	Name of schemes	Proposed investment for F.Y. 2022-23			
		Units	JVVNL	AVVNL	JdVVNL
1	Post Saubhagya	(Rs. in Crore)	-	25	-

REVAMPED DISTRIBUTION SCHEME

3.151 Discoms have proposed a total investment of Rs. 2447.97 Crore in FY 2022-23 - under Revamped Distribution Scheme. The details of scheme is as under.

3.152 The Central Government has approved a Revamped Distribution Sector Scheme- a Reforms-based and Results-linked Scheme with an outlay of Rs. 3,03,758 Crore over a period of five years from FY 2021-22 to FY 2025-26 with the objective to improve the quality, reliability and affordability of power supply to consumers through a financially sustainable and operationally efficient distribution sector. The Scheme aims to reduce the AT&C losses to pan-India levels of 12-15% and ACS-ARR gap to zero by 2024-25 by improving the operational efficiencies and financial sustainability of all DISCOMs/ Power Departments excluding Private Sector DISCOM.

3.153 The Revamped Distribution Sector Scheme has the following parts:

Part A – Metering & Distribution Infrastructure Works:

• Facilitating in installing prepaid smart meters for all consumers excluding agriculture consumers along with associated AMI, communicable meters for DTs & Feeders, ICT including Artificial Intelligence (AI), Machine Learning (ML), etc. based solutions for power Sector and a unified billing and collection system.

• Distribution infrastructure works as required for strengthening and modernizing the system as well as measures for loss reduction. The infrastructure strengthening works will include separation of Agriculture feeders to enable implementation of the KUSUM scheme, Aerial Bunch cables and HVDS for loss reduction, replacement of HT/LT lines as required, construction of new/ upgradation of substations, SCADA and DMS system etc. Each DISCOM/ State will draw up the scheme according to its requirement with the end objective of reducing losses and ensuring 24 x 7 supply.

Part B - Training & Capacity Building and other Enabling & Supporting Activities: Supporting and enabling components, such as Nodal Agency fee, enabling components of MoP (communication plan, publicity, consumer awareness, consumer survey and other associated measures such as third party evaluation etc.), up-gradation of Smart Grid Knowledge Centre, training and capacity building, awards and recognitions etc.

Objectives: The objectives of the scheme are to:

- Improve the quality, reliability and affordability of power supply to consumers through a financially sustainable and operationally efficient Distribution Sector.

- Reduce the AT&C losses to pan-India levels of 12-15% by 2024-25.

- Reduce ACS-ARR gap to zero by 2024-25. The state-wise targets for each year will depend on their current levels of AT&C losses and ACS-ARR gap.

Parts of the Scheme

The Scheme has the following parts –

- Part A

Component I: Metering, Component II: Distribution Infrastructure Works, Component III: Project Management

- Part B: Training, Capacity Building and other Enabling & Supporting Activities

Eligible Works and Activities under Part A – Metering

Under this part, Prepaid Smart metering for consumers, and System metering at Feeder and Distribution Transformer level with communicating feature along with associated Advanced Metering Infrastructure (AMI) will be done in TOTEX mode through PPP, to facilitate reduction of Distribution losses and enable automatic measurement of energy flows and energy accounting as well as auditing.

Funding under this Part will be available only if the DISCOM agrees to the operation of smart meters in prepayment mode for consumers, and in accordance with the uniform approach indicated by the Central Government, with implementation in TOTEX mode. Under this mode, a single agency will be contracted for supplying, maintaining and operating the metering infrastructure for the purpose of meter related data and services to the DISCOM. It will make both capital and operational expenditure under DBFOOT (Design Build Fund Own Operate & Transfer) or similar modes and will be paid for a portion of its capital expenditure initially and the remaining payment over the O&M period.

Pre-paid smart metering works carried out after 1st January, 2020 will be eligible for funding, if they were carried out in TOTEX mode, after obtaining approval from Monitoring Committee in this regard.

Eligible Works and Activities under Part A- Distribution Infrastructure Works

Under this component, DISCOM can take up works related to loss reduction and system strengthening. 33kV level and below will be eligible under this component. In areas, were 33kV system does not exist, 110 kV/66kV shall be permitted. A list of indicative works is given below:

i. Construction of new substations, augmentation of substations

ii. Provision of Armoured / Aerial bunched Cables (ABC) or High Voltage Distribution System in high loss areas.

iii. Segregation / Bifurcation of feeders and other allied works

iv. Replacement of conductors, which are old/frayed

v. Additional HT lines to improve quality of supply

vi. IT/OT works

vii. Supervisory Control and Data Acquisition (SCADA) and Distribution Management System (DMS) in urban areas

- SCADA/DMS in 100 towns (approx.) with eligibility of towns having population > =1 Lacs in special category states and towns having population > = 2.75 Lacs in other states as per Census 2011 data, as well as all Capital/DISCOM HQ towns, if not covered earlier.
- Basic SCADA in 3875 towns based on district-wise or Circle-wise common

control centres in all other statutory towns

viii. Works like new feeders, capacitors, etc for loss reduction

ix. Under-ground cabling works.

x. Any other works required for system strengthening and loss reduction

Segregation of feeders dedicated only for supply of power for agricultural purpose, which are proposed to be solarized under Kisan Urja Suraksha Evam Utthan Mahabhiyan (KUSUM) scheme will be sanctioned on priority under the scheme. Further, agricultural feeders once segregated will not be used for serving other non-agricultural consumers.

Scope of Work under Part A- Project Management

One or more Project Management Agency (PMA) shall be appointed by each DISCOM for project formulation and project management, based on their requirement to cover different phases of the project. The scope of PMA may include preparation of plan, DPR, tender documents, awarding, monitoring, quality assurance, material inspection, results evaluation or any other related works. (excluding signing of Joint Measurement Certificate).

Eligible entities for Part A

All State-owned Distribution companies and State /UT Power Departments (referred to as DISCOMs collectively) excluding private Sector power companies will be eligible for financial assistance under the revamped scheme. The State transmission utilities which own and operate network at 110 kV and 66 kV levels in areas where 33 kV system does not exist shall also be eligible (for this purpose, all eligibility, and other relevant parameters of respective DISCOMs shall be evaluated) Further, funds release and any coordination shall be through DISCOM only, for such works to be executed in the specific manner by the transmission utility).

The scheme would be optional to DISCOMs and will be implemented in urban and rural areas of all States/UTs except private DISCOMs.

Eligible Works and Activities under Part B - Training, Capacity Building and other Enabling & Supporting Activities

Part B focuses on the softer parts – up-gradation of human skills; process

improvements; Nodal Agency fee, enabling components of MoP (communication plan, publicity, consumer survey, consumer awareness and other associated measures such as third-party evaluation etc), augmentation of Smart Grid Knowledge Centre including AI, training and capacity building for personnel involved in execution of the Scheme at field level, awards and recognitions etc.
Same works sanctioned under any other scheme of the Government of India will not be eligible for funding under this scheme.

DISCOMs/ Power Departments would be able to access funds under the Scheme for Pre-paid Smart Metering, System Metering and Distribution infrastructure works for loss reduction and modernisation. The financial assistance for Distribution infrastructure works under the Scheme would be subject to meeting pre-qualifying criteria as well as upon achievement of basic minimum benchmarks by the DISCOM and evaluated on the basis of Action plans.

The Scheme provides for annual appraisal of the DISCOM performance against predefined and agreed upon performance trajectories including AT&C losses, ACS-ARR gaps, infrastructure upgrade performance, consumer services, hours of supply, corporate governance, etc. DISCOMs have to score a minimum of 60% of marks and clear a minimum bar in respect to certain parameters to be able to be eligible for funding against the Scheme in that year.

Implementation of the Scheme would lead to consumer empowerment by way of prepaid Smart metering to be implemented in Public-Private-Partnership (PPP) mode and leveraging Artificial Intelligence to analyze data generated through IT/OT devices including System Meters, prepaid Smart meters to prepare system generated energy accounting reports every month to enable DISCOMs to take informed decisions on loss reduction, demand forecasting, Time of Day (ToD) tariff, Renewable Energy (RE) Integration and for other predictive analysis.

Metering and Energy Accounting: Implementation of the Scheme would lead to improvement in the quality & reliability of power supplied to the consumers by making the Distribution system more robust. The scheme envisages to strengthen the energy accounting system installation of Smart Pre-paid meters/System meters and adoption of Artificial Intelligence to analyze data generated through IT/OT devices. Such a robust energy accounting system shall enable DISCOMs to take informed decisions on loss reduction initiatives, demand forecasting, Time of Day (ToD) tariff, Renewable Energy (RE) Integration and for other predictive analysis.

Metering activities are to be undertaken under two phases. Phase I shall be completed by December 2023 and shall cover following areas:

- <u>Prepaid Smart meters:</u>
  - All Electricity Divisions of 29 AMRUT cities in Rajasthan, with AT&C Losses > 15% in base year.
  - Industrial and Commercial Consumers.
  - All Government offices/Autonomous Bodies/Boards/Corporations at Block level and above.
  - Other areas with high losses, which shall mandatorily include Electricity Divisions having more than 50% consumers in urban areas and with AT&C losses more than 15% and other Electricity Divisions with AT&C losses more than 25%, in the base year.
- All DTs (above 25 kVA) in areas where Prepaid Smart metering is being carried out in first phase to be metered.
- All feeders to be metered by December 2022.

  <u>Phase II shall</u> be completed by Mar 2025 and shall cover all other consumers (Except agriculture) and DTs (above 25 kVA) to be metered.

Measures for technical loss reduction:

- In order to reduce the T&D losses, overloaded 33 KV and 11 KV feeders shall be bifurcated to make less lengthy and less loaded feeders, which shall not only reduce losses but simultaneously shall enhance reliability and quality of power supply and thus consumer satisfaction as well. Similarly, to make the system LT less, the work of extending HT line, installation of new DTs shall improve further HT/LT ratio as more supply shall be transmitted on higher voltage, which shall eventually reduce losses.
- Under capacity of conductor as well damaged /frayed conductor, substantial line losses are occurring in power system, therefore, work of conductor replacement/augmentation of 33 KV as well of 11 KV feeders is taken up.
- Cabling work, particularly laying of LT cable and AB cable in theft prone areas has been proposed to curb over the theft. To provide uninterrupted 24 hours supply to non -Ag consumers and block supply in day hours, work of segregation of 11 KV mix load rural feeders is covered in the DPR.

- Substantial energy is consumed by Ag. consumers, wherein poor power factor is the main reason of losses, therefore, to improve power factor, the work of installation of capacitors at Ag. consumers shall play a major role in loss reduction.
- Segregation of Agriculture and Non-Agriculture feeders and further their solarization under Kusum 'C" component shall be taken, which shall apart to give regulated block supply to Ag. Consumers shall provide financial support as well.
- To rule out any possibility of tempering the service cable, multi meter boxes shall be mounted on electric pole supports in which 3 to 4 pre-paid smart meters shall be housed and load line shall be emanated from there. Many DTs are not having Distribution kiosks (LT pillar boxes) due to which theft of electricity is being done by laying service cable directly from the open-ended LT busbars, therefore, at such specific locations, these shall be installed.
- **IT/OT works:** JdVVNL envisages undertaking following activities under IT/OT works:
  - ✓ **BI Software Applications:** -Advanced ICT like Artificial Intelligence, Machine Learning and Block chain Technology would be leveraged to analyse data generated through IT/OT devices including System Meters, prepaid Smart meters to prepare actionable MIS from system generated energy accounting reports every month so as to enable the DISCOMs to take informed decisions on loss reduction, demand forecasting, asset management, Time of Day (ToD) tariff, Renewable Energy (RE) Integration and for other predictive analysis. This would contribute a great deal towards enhancing operational efficiency and financial sustainability of the DISCOMs.
  - ✓ **ERP**: Current ERP system meets limited system requirement and does not fulfil comprehensive enterprise resource planning requirements of Discoms. Accordingly, following modules shall be developed under the RDSS scheme:

    a) Financial Accounting and Controlling
    b) Human Resources and Payroll
    c) Materials Management
    d) Asset Management
    e) Customer Relationship Management (CRM)
    f) Project Management
    g) Production Planning
    h) Quality Management

i) Business Intelligence Reporting

- Summarizing above works, following are the major activities covered in the DPR of loss reduction, causing substantial T&D losses: -
    - Bifurcation of overloaded 33 KV and 11 KV feeders.
    - Replacement of frayed/damaged conductor (including augmentation by higher capacity) of 33 KV and 11 KV lines.
    - Construction of HVDS system.
    - Cabling work
    - Segregation of Agriculture and Non-Agriculture feeders and Solarization.
    - Installation of LT Distribution Kiosk.
    - Installation of Capacitors at Ag. consumers.
    - Replacement of 11 KV UG PILCA/frayed XLPE cable
    - IT/OT works

Measures for Modernisation & System augmentation:

- The work of construction of conventional as well GIS substations shall be executed under this part along with associated 33 KV and 11 KV line works in load centres, anticipating present load and future load growth. Similarly, work of Augmentation and additional Power Transformers at existing 33/11 KV Sub Stations shall also be carried out under Modernization.
- **SCADA Implementation:** i) Implementation of SCADA / DMS in Big cities including OPEX /FMS for 7 years ii) Basic SCADA (Real Time Supervision & Controllability of Sub- station) including OPEX/ FMS for 7 years with Zone-wise common control centers.
- Summarizing above works, following are the major activities covered in the DPR of Modernisation & System augmentation:
    - New 33/11 KV Substation
    - New 33 KV line
    - New 11 KV line
    - Additional Power transformer
    - Augmentation of Power Transformer
    - SCADA/DMS

Funding under the RDSS scheme:

- Part-A -Metering: Prepaid Smart and System Meters
    - Grant @15% of the Meter Cost (subject to ceiling of Rs 900/ Meter in case of Smart Meters)

- Installation of meters shall be through PPP under TOTEX (Total Expenditure) Mode

- o Part-A -Distribution Infrastructure works:
  - Grant @60% shall be provided;
  - Discoms need to arrange balance funding from Banks and Financial Institutions.

III. Part-B –Fully funded by Grant

3.154 Summary of metering works proposed to be undertaken by the Rajasthan Discoms under the RDSS scheme are as shown below:

Metering (in Nos)	Jaipur Discom	Ajmer Discom	Jodhpur Discom	Total
Consumer (Other than Agri.)	4762643	5432231	4080848	**14275722**
Distr. Transformers (DT)	111346	155453	167809	**434608**
Feeder & Boundary	5799	11007	10322	**26593**
Total	**4879788**	**5598691**	**4258979**	**14736923**

3.155 Estimated outlay proposed by the Rajasthan Discoms under RDSS is as shown below: **(Rs in Cr)**

Discom	Metering			Loss Reduction	Modernization& System augmentation	PMA	Total Outlay
	Phase -I	Phase -II	Total				
JVVNL	1466.74	1815.36	3282.10	3662.00	2473.80	104.34	9522.24
AVVNL	827.29	2835.81	3663.11	2770.06	2628.52	94.72	9156.40
JdVVNL	1103.98	1773.40	2877.37	3835.55	2874.90	111.44	9699.26
Total	**3398.01**	**6424.56**	**9822.58**	**10267.61**	**7977.22**	**310.50**	**28377.90**

3.156 The RDSS component wise expenditure plan is as under:

Table 47: RDSS Component wise expenditure plan for FY 2022-23 (Rs in Cr)

Sr. No	Particulars	JVVNL	AVVNL	JdVVNL	Total
1	RDSS- System Strengthening	975	749	608	2332
2	Loss reduction activity under RDSS	20	25	35	80
3	RMS/ unified billing software & other IT/OT software		11	25	36

	Total*	995	785	668	2448

Note: ***Total expenditure under RDSS for FY23 is INR 1,100 Cr., INR 1,268.60 Cr , INR 769.23 Cr. for JVVNL, AVVNL & JdVVNL respectively. However, for the purpose of capital investment, expenditure attributed towards the Smart Metering component (INR 105 Cr) , (INR 483.83Cr) , (INR 101.03 Cr) for JVVNL, AVVNL & JdVVNL respectively has not been included, as it is to be implemented on Total Expenditure (TOTEX) mode.***

Formation of IT Company:

3.157 AVVNL has proposed Rs. 3 Crore for Formation of IT Company.

Kusum- C

3.158 JdVVNL has proposed Rs. 19.72 Crore under Kusum –C.

Analysis of the Commission and decision:

3.159 The capital expenditure in past years and the envisaged plan of FY 2022-23 is as under:

Table 48: Actual capital expenditure in past years and investment proposed for FY 2022-23 **(Rs in Cr.)**

Sr.No.	Financial Year	JVVNL	AVVNL	JdVVNL	TOTAL
1	2017-18 (ACTUAL)	1573	1349	1318	4241
2	2018-19 (ACTUAL)	2767	2454	2195	7417
3	2019-20 (ACTUAL)	1783	2405	2199	6388
4	2020-21 (ACTUAL)	1130	1169	1308	3607
5	2021-22 (PROVISIONAL)	1604	1398	1493	4495
6	2022-23 (PROPOSED)	3,279	2,904	5,251	11,434

3.160 For FY 2022-23 investment approval, Commission has relied on Hon'ble APTEL judgment in appeal no. 84 of 2006, which has been discussed in subsequent paras.

3.161 The issue of according approval by Regulatory Commission of investment plan of a utility had come up before Hon'ble APTEL in appeal no. 84 of 2006. The said appeal had arisen against order of the Karnataka State Regulatory Commission, wherein investment plan of the State Transmission Utility was reduced by the Commission.

3.162 Hon'ble APTEL in that case had examined at length the powers and functions of the Regulatory Commission as regards investment approval and observed in following para as under:

“**XXXX**

9. *The only provision, if at all which has a relevance is Section 86 (2), which is advisory in nature. This being the position it is obviously clear that the legislature has left it to the utilities to decide their plans of investment or improvement of system or expansion to meet the demand of power within their area including up gradation and maintenance for a better and quality generation, transmission or supply as the case may be. It is the commercial decision of the utility and its source to raise funds which falls within the domain of the utility and not liable to be interfered, except at the stage when utility claims for return on such investment, interest on capital expenditure and depreciation. It is at that stage the Commission shall undertake a prudent check and if deemed fit allow the claim. In appropriate cases the Commission may disallow such claims of utility and it is for the utility to bear the brunt of such investment and it cannot pass it on to consumers.*

…………

22. *The consumers interest also do not arise at this stage for consideration nor they could be an objector in respect of proposal or plan or investment by utility as the liability of the consumers, if any, arise or there could be a passing by way of return on equity or interest etc. as such contingency arises only when the Regulatory Commission subject to its prudent check allows such expenditure, while fixing the annual revenue requirement and determining the tariff. Till then, the consumers have no say and there could be no objection from their side. When the consumers complain poor service or failure to maintain supply, to face such a situation the utility has to plan in advance, invest in advance, execute the project or scheme for better performance and maintain.*”

3.163 In the said judgment, it has been concluded that Regulatory Commission should confine itself to exercising prudent check on investment being made by licensee and should not delve in the area of micro management of utility. This inference has been drawn by Hon’ble APTEL after careful examination of the provisions of Electricity Act, 2003. Suffice to say that any control by a Regulatory Commission on investment plan of a licensee beyond requirement of prudent check would not be in consonance with Electricity Act, 2003.

3.164 In view of above, Hon’ble APTEL has clear findings on the subject of investment approval, that the Commission would be exercising only prudent check on the investment of the licensee and allow/dis-allow expenditure based on such prudent check instead of according project/scheme-wise approvals. Regulations have to be seen and applied within the overall mandate and objective of the Electricity Act.

3.165 For exercising prudent check of the proposed investment plan, the Commission has kept in view the following:

a) The ceiling limit on investment as per investment guidelines attached with RERC (Investment Approval) Regulations, 2006;
b) The schemes and programme of Central Govt. like RAPDRP, Saubhagya, DDUGJY and IPDS etc. which are formulated, approved and implemented as per guidelines of the Govt. of India;
c) Items/works not eligible for inclusion in investment plan;
d) The nature of proposed investment and reasons thereof.

3.166 Para E of investment guidelines as attached with RERC (investment approval) Regulation, 2006 provides that the size of the annual investment plan (including deposit works of the other agency and consumer/user's contribution) shall not exceed the ceiling limit determined, based on growth of load/sales and annual inflation rate. The deposit works shall be committed only to the extent such work do not affect annual works planned by the licensees. The annual size of investment plan will be based on criterion that with the addition of assets, cost of generation, transmission and distribution shall not exceed the respective current cost by the inflation rate. For transmission and distribution licensees, it shall not exceed the following ceiling limits:

Annual plan=k*GFA *[(1+inflation rate)*(1+growth rate)-1]

Where k=constant to convert GFA at the end of previous year to current cost of assets. Till same is worked out it shall be taken as 1.30.

Inflation rate = ratio of WPI as on 1st April of previous year and current year.
Growth rate = growth of sales envisaged for current year over that of previous year.

GFA = Gross Fixed Assets

3.167 Based on above formula, the ceiling limit for FY 2022-23 works out to be as under:

Table 49: Ceiling Limit for investment plan for FY 2022-23 (Rs. in Crore)

Sr. No.	Particulars	JVVNL	AVVNL	JdVVNL	Total
1	GFA closing figure of 2021-22 (as per tariff petition)-Rs. in Crore	24267.05	18609.90	19954.45	62831.40
2	K	1.30	1.30	1.30	1.30
3	Sale for FY 22(MU) as per petition	26875.99	20121.30	23465.55	70462.83
4	Sale for FY 23(MU) as per petition	29245.28	21573.81	26968.12	77787.21
5	Growth rate for sale (%)	8.82%	7.22%	14.93%	10.39%

6	Inflation (%)	10.74%	10.74%	10.74%	10.74%
7	**Annual Plan ceiling -Rs. in Crore**	**6467.34**	**4531.86**	**7073.41**	**18173.26**

3.168 In view of above table, the total Investment proposed by Discoms are within ceiling Limit. However, Commission in compliance to aforesaid Hon'ble APTEL Judgement confine himself to exercising prudent check on Investment proposal as under:

3.169 In respect of Sub Transmission and Distribution works, the Commission has observed that normally financial expenditure in Discoms is not commensurate with the physical target in a year and has exceeded the amount of the investment planned in past years. Care should be taken to initiate an investment in consonance with physical target or augmentation proposed. Unlike centrally sponsored scheme, the Discoms themselves are required to exercise prudence and control over such investment. In the last order the Commission directed the Discoms to carry out special audit of Investment made by Discoms in all circles and to start with Jaipur city, Ajmer city & Jodhpur city circle to justify the investment made along with cost benefit analysis within 3 months and furnish the same to the Commission and also issue internal guidelines for field officer indicating steps to exercise prudence while proposing/executing investments. However, the Discoms have not yet carried out special audit in this regard.

3.170 It is observed that during FY 2022-23, both JVVNL and AVVNL have projected the capital expenditure plan under Sub-Transmission & Distribution of Rs. 491.32 Crore and Rs. 500 Crore respectively which is in line with capital expenditure incurred during FY 2021-22. However, JDVVNL has projected the capital expenditure under this head of Rs. 906.71 Crore which is just double the expenditure incurred during FY 2021-22.

3.171 JdVVNL has indicated the following physical target in FY 2021-22 and FY 2022-23 under ST&D:

Particulars	Unit	FY 2021-22	FY 2022-23
33/11KV Sub Stations.	MVA	719.55	807.75
33/11KV Sub Stations.	Nos.	71	100
33 KV Lines	Kms	560	800

3.172 Further in data gap reply JdVVNL has submitted the physical targets and achievements for FY 2021-22 as under:

Particulars	Unit	Target	Achievement
33/11KV Sub Stations.	MVA	719.55	334.55
33/11KV Sub Stations.	Nos.	71	29
33 KV Lines	Kms	560	217.69
Rural Domestic Connections	Nos.	43000	52320
Agriculture connections	Nos.	25000	22466

3.173 It is observed that during FY 2021-22, JdVVNL has not been able to achieve the target set for FY 2021-22, on comparing the physical target of JdVVNL during FY 2022-23 with FY 2021-22, it is observed that target set for FY 2022-23 are not much higher as compared to FY 2021-22. The capital expenditure projection made by the JdVVNL seems to be on higher side, therefore the Commission has restricted the investment proposal of JdVVNL under ST&D scheme upto 130% of provisional expenditure of FY 2021-22 of Rs. 454 Crore i.e. 590 Crore. The same shall be further examined at the time of true up of FY 2022-23.

3.174 **Rural Electrification Works**: In this scheme every year the Discoms proposes the capital expenditure for release of new connection for domestic category in rural areas and for agriculture pump sets. It is observed that during FY 2022-23, the physical target sets for agriculture pump set are extraordinarily high as compared to last two year as under:

Particulars	FY 2020-21	FY 2021-22	FY 2022-23
JVVNL			
Domestic Connections Rural	100,000	140,000	140,000
Energisation of wells	10,708	24,577	71,207
AVVNL			
Domestic Connections Rural	124452	102701	100000
Energisation of wells	23039	30245	70000
JDVVNL			
Domestic Connections Rural	84993	43000	115000
Energisation of wells	13960	25000	90137

3.175 Accordingly the high Capital expenditure has been proposed for FY 2022-23 by the Discoms as compared to previous two years as under:

Particular	2020-21	2021-22	2022-23
JVVNL	458	497	1,440
AVVNL	684	698	1500
JdVVNL	637	920	2988

3.176 The Discoms in their petition submitted that increase in agriculture connection is as per the commitment of the State Government as per budget announcement.

The Commission while allowing sales has considered the addition of No. of agriculture connection as proposed by Discoms. As regards the financing of the same the Commission is of the view that for FY 2022-23, extremely high No. of connection have been proposed to be released as compared to earlier year and outlay on this has increased 2 to 3 times. This is coupled with the fact that additional expenditure has also been proposed in ST&D scheme for strengthening of the system. As this is done in compliance of announcement of the State Government, the Commission is of the view that the 100% cost except consumer contribution should be funded by the grant and on this basis the Commission allows the target of release of Agriculture connection as proposed. However, looking to the past trend of achievement in physical targets, it is likely that some slippages will be there, as tender for release of connection yet to be finalized. It is further likely that due to competition in tender for high quantity the Discoms may get competitive rates. Accordingly, the Commission has considered the 80% of the proposed investment to be incurred during FY 2022-23. However, the Commission will consider the actual cost at the time of true up.

3.177 **2 Block supply:** Discoms have submitted that majority of agriculture consumers get power at inconvenient night hours, making it difficult for them to irrigate their lands. Often such agriculture consumers leave their pump-sets on throughout the night, leading to wastage of electricity as well as ground water. In order to relieve the Agriculture consumers of such inconvenience, Discoms have proposed to provide day-time supply to agriculture consumers in 2 blocks. With regard to sources of funding of this scheme, Commission observes that all three Discoms have shown the funding of 2 block supply scheme from Equity and Loan. It is observed that providing 2 block supply is a policy decision of the State Government. Due to 2 block supply the transmission losses have been increased which has also lead to additional power requirement. In view of the above the Commission is of the view that the works related to two block supply scheme should be funded through grant from Government of Rajasthan and accordingly, the Discoms are directed to approach the Government of Rajasthan to provide the grant for such capital expenditure. The same shall be examined at the time of true up based on actual data filed by the Discoms.

3.178 The Commission has time and again stressed the need of decentralized solar generation for providing day time power supply to consumers. The Discoms should take up the feeder level solarization under KUSUM scheme in true spirit, it will help them to supply the agriculture consumer in day time and will also help in saving investment in network apart from saving in power procurement cost. The Discoms may review their network upgraation plan and try to defer investment in network upgradation by using decentralized solar generation.

3.179 The Commission has considered this as a scheme of GoR only and has approved the proposed capex. Looking to the past trends of execution and availability of funds of the Discoms, the Discoms would be able to take up only 80% of the works. Therefore, the Commission has considered 80% of capex during FY 2022-23. Actual capex shall be examined at the time of true up.

3.180 **RDSS**: Discoms have proposed a substantial amount of capital investment under Revamped Distribution Sector Scheme with the objective to improve the quality, reliability and affordability of power supply to consumers through a financially sustainable and operationally efficient distribution sector. The Scheme aims to reduce the AT&C losses to pan-India levels of 12-15% and ACS-ARR gap to zero by 2024-25 by improving the operational efficiencies and financial sustainability of all DISCOMs/ Power Departments. The Scheme has the following parts –

A. Metering, Component II: Distribution Infrastructure Works, Component III: Project Management

B. Training, Capacity Building and other Enabling & Supporting Activities

RDSS being an ambitious scheme, which will help Discoms in reducing both technical and commercial losses and improve operational efficiencies of Discoms. Accordingly, the Commission approves the proposed capex under the scheme. Discoms are directed to achieve the target set under RDSS and fulfill all conditions and reap maximum benefit of RDSS.

It is observed that the metering is an important part of RDSS scheme. Discoms have almost included all the consumers in RDSS scheme for metering purpose. However, it is observed that apart from RDSS scheme, JVVNL and AVVNL have also claimed additional amount of Rs 15.63 Crore and Rs. 5.27 Crore under Smart Metering. In view of duplicacy of similar works under metering, the Commission has not considered the additional amount of smart metering of Rs. 15.63 Crore and Rs. 5.27 Crore as claimed by JVVNL and AVVNL respectively as the same is approved under RDSS. However, from the submission of JVVNL and AVVNL it cannot be ascertained that such amount proposed for smart metering is a carried over work of any old scheme or not. In case it is a carried over work of earlier scheme and taken up by the Discoms, they may bring this fact in true up petition for consideration of the Commission, clearly proving that there is no duplicacy in the investment.

3.181 Target of AT&C losses as given by Commission should be strictly monitored and adhered to while taking up various works and focus should be on IT enablement, Feeder/DT metering, Network strengthening and implementation of ERP system, etc.

3.182 It has been observed that centrally sponsored scheme comprises funding from GoI/GoR and the resources of Discoms as per funding pattern of the schemes. Release of funds under the schemes from GoI/GoR is subject to the fulfillment of various conditions as stipulated in the guidelines of such scheme. Therefore, Discoms should ensure release of entire funds from GOI/GOR as per prescribed funding pattern.

3.183 The Commission in its various orders has stressed on the need of Compliance of CEA (Measures relating to Safety and Electric Supply) Regulations, 2010 and CEA (Safety requirements for construction, operation and maintenance of electrical plants and electric lines) Regulations, 2011 and to ensure safety for its workmen, Public and Livestock. The Commission has reiterated many times that if Discoms need to spend any money for compliance of the Safety Regulations, the same can be claimed through Investment Plan/ARR and the Commission reiterate that it is willing to consider any additional amount spent on training of employees and for compliance of Safety Regulations.

3.184 It is observed that the Discoms have not proposed any specific investment on account of compliance of safety Regulation. The Discoms may file the details of additional amount, if any, spent over and above O&M expenses towards safety compliance in next True up petition for FY 2021-22 and also furnish separate proposal towards safety Compliance, if need be, in ARR for FY 2023-24.

3.185 The Commission reiterates that it is the duty of the Discoms to ensure that safety tools/ devices are made available to each and every worker and training has been imparted to each and every technical worker/officer of the Discom. They should also provide a copy of safety Manual in Hindi to each and every workmen and officer. Danger plates should be affixed everywhere, guarding/fencing should be provided wherever it is required and earthling and other protection should be checked /provided as per safety Regulations. Every circle officer should ensure that each line, plant or meter is checked from safety point of view as per the periodicity decided by the Discoms in accordance with safety Regulations. System of line patrolling must be followed vigorously and complaints related to safety must be given overriding priority. If need be, the Discoms may review their staffing pattern and working appropriately.

3.186 It is observed that AVVNL has proposed Rs. 3 Crore towards formation of IT Company and JdVVNL has proposed Rs. 19.72 Crore towards Kusum-C, however both AVVNL and JdVVNL has not furnished any detail of the aforesaid investment. Further with regard to KUSUM-C, Commission so far has approved the scheme for JVVNL under RESCO model, therefore Discoms would not incur any capital expenditure under this head. Therefore, Commission has not approved the same in the current investment plan. However, the same can be considered in the true up petition, if the Discom come up with requisite details.

3.187 Investment proposal in R-APDRP-A, DDUGJY, IPDS, Post Saubhagya & Feeder Segregation schemes has been considered as proposed by Discoms.

3.188 As per RERC (Investment Approval) Regulation, 2006 Distribution Licensee can spent upto 1% of its Investment Plan on institutional strengthening. The Discoms can accordingly plan for training program & refresher program for all its employees and officers.

3.189 In previous orders, the Commission has directed the Discoms to submit the Fixed Assets Register. This year JVVNL has submitted FAR upto 31.03.2021, AVVNL has submitted the Fixed Assets Registers up to 31.03.2020, further, submitted that FAR for FY 2021-22 will be completed by September-2022. JDVVNL has submitted FAR upto FY 2020-21 and stated that FAR for FY 2021-22 is under progress.

3.190 The Commission appreciates the efforts of Discoms in making Fixed Asset Register. However, it is observed that information of rate of depreciation, voltage wise assets, the reconciliation of same with scheme wise capitalization and spreading of depreciation over the useful life of the assets after a period of 12 years from date of commercial operation have not been provided. As such the Discoms have not submitted the information of Fixed Assets Register to the full satisfaction of Commission.

3.191 Accordingly, Discoms should furnish the complete updated Fixed Asset Register for all circles upto FY 2021-22 in soft copy along with hard copy with executive summary duly reconciled with audited accounts within 6 months from the issue of this order, showing details required as per RERC Tariff Regulations. Latest Progress in this regard should also be submitted alongwith next tariff petition.

3.192 Though this year the investment plan proposed by the Discoms is quite high as compared to previous year because of release of high agriculture connection and 2 block supply but the Commission has approved the plan considering 100% grant from the state government for release of agriculture connection and two block supply, as these are being taken up in compliance to budget announcement. Accordingly, this will not impact consumers of other categories. The same shall be examined at the time of true up.

3.193 In the light of the position discussed above, the Commission considers it appropriate to allow the investment in respect of Discoms as under:

Table 50: Approved investment plan for FY 2022-23 (Rs. in Crore)

Sr. No.	Name of schemes	Approved for F.Y. 2022-23			
	Plan Work	JVVNL	AVVNL	JdVVNL	TOTAL
1	Sub- Transmission & Distribution	491	500	590	1582
2	Rural Electrification Works	1152	1200	2390	4742
3	R-APDRP-A	1	-	-	1
4	Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY)	20	-	-	20
5	Integrated Power Development Scheme (IPDS)& IT infrastructure & ERP	1	23	21	45
6	Post Soubhagya	-	25	-	25
7	Feeder Segregation	50	-	-	50
8	AP Supply (2 Block Regime)	212	50	518	781
9	Smart metering	-	-	-	-
10	RDSS	995	785	668	2448
11	Formation of IT Company	-	-	-	-
12	Kusum-C	-	-	-	-
	Total	**2922**	**2584**	**4188**	**9693**

Capitalization

Petitioners' Submission

3.194 The capital investment and capitalization proposed by Discoms are shown in the table below:

Table 51: Capital Expenditure and Capitalization proposed for FY 2022-23

(Rs. in Crore)

FY 2022-23				
Particulars	**JVVNL**	**AVVNL**	**JdVVNL**	**Total**
Capital Expenditure	3279	2904	5251	11434
Capitalization	2951	2201	4131	9283

Commission's Analysis

3.195 Following the methodology adopted in ARR order for FY 2021-22, the Commission has considered 80% of the proposed capitalization in this ARR order for FY 2022-23.

3.196 The Commission has approved investment plan of Rs. 9693 Crore against a proposal of Rs. 11434 Crore and accordingly Capitalisation has been considered as Rs. 7426 Crore for FY 2022-23.

Table 52: Projected Capitalization approved by the Commission for FY 2022-23

(Rs. in Crore)

FY 2022-23				
Particulars	**JVVNL**	**AVVNL**	**JdVVNL**	**Total**
Capitalization	2361	1761	3305	7426

Operation and maintenance Expenses

Petitioners' Submission

3.197 Discoms have estimated O&M expenses based on the O&M norms specified in RERC Tariff Regulations, 2019.

3.198 The Operation and Maintenance (O&M) expenses comprise of Employee expenses, Repair and Maintenance (R&M) expenses and Administration and General (A&G) expenses.

3.199 The norms for each component of O&M expenses for the distribution business are based on per unit of energy sold and are specified under Regulation 82 of the RERC (Terms and Conditions for Determination of Tariff) Regulations 2019.

3.200 The Normative O&M expenses allowed at the commencement of the Control Period (i.e. FY 2019-20) under the aforesaid Tariff Regulations are to be escalated at the rate of 3.63% per annum for each year of the Control Period.

3.201 The O&M expenses projected by Discoms for FY 2022-23 have been summarized below:

Table 53: Operation and Maintenance Expenses for FY 2022-23

(Rs. in Crore)

Particulars	**JVVNL**	**AVVNL**	**JdVVNL**	**TOTAL**
Employee Costs	1562	1152	1441	4155
Administrative & General Costs	212	156	195	563
Repairs & Maintenance Costs	292	220	239	750
Total O&M Costs	2065	1529	1874	5468
Less: Expenses to be Capitalized	328	233	272	834
Net O&M Costs charged to revenue	**1737**	**1296**	**1602**	**4635**

Installation of Smart Meters under TOTEX mode and its impact on O&M expenses

3.202 Discoms submitted that they need to install prepaid smart meters for all consumers (other than agriculture) in phases under the RDSS scheme. Further, vide a Gazette notification dated 17.08.2021 also, the MoP has mandated installation of Prepaid Smart Meters in phases (as per timelines stipulated under RDSS scheme) for all Discoms irrespective of the participation of the Discoms in the RDSS scheme.

Mode of implementation of Smart Metering and funding

3.203 The MoP has recommended implementation of Smart Metering in TOTEX (Total Expenditure) mode through PPP. Under this mode, a single agency will be contracted for supplying, maintaining and operating the metering infrastructure for the purpose of meter related data and services to the DISCOM. It will make both capital and operational expenditure under DBFOOT (Design Build Finance Own Operate & Transfer) or similar modes and will be paid for a portion of its capital expenditure initially and the remaining payment over the O&M period.

3.204 As per the Scheme, the DISCOM shall receive Government Budgetary Support from Central Government of 15% / 22.5% of the approved cost of the metering works including the operational cost, subject to a maximum of Rs. 900 per meter. The remaining amount shall be paid by the Discoms over the O&M period.

3.205 As part of the main features and guidance notes of Standard Bidding Document for appointment of Advanced Metering Infrastructure (AMI) Service Provider for Smart Prepaid Metering in India, issued by GoI on 22.10.2021 under the RDSS scheme, the accounting process of Advance metering infrastructure services provider) payment shall be as follows:

- *Transaction Nature*: Payment to the AMISP by the DISCOM will be considered as an Operational Expenditure on DISCOM's account

- Regulatory Treatment: DISCOM to consider AMISP payments as operation expenditure while filing ARR and tariff review petition to the state ERC

3.206 The Discoms Submitted that the norms of the O&M expenses as determined by the Commission does not include such expenditure on account of TOTEX mode of implementation of Smart meters. It is therefore, requested to the Commission to allow such operational expenditure on Smart Meters over and above the normative O&M expenditure.

3.207 The Discoms Submitted that they will submit the details of such operational expenditure on Smart Meters at the time of Truing up of relevant year once the actual rates are discovered in accordance with the SBD for appointment of Advanced Metering Infrastructure (AMI) Service Provider to be floated by the Petitioner in due course of time.

Commission's Analysis

3.208 Commission has allowed O&M expenses in accordance with Regulation 82 of RERC Tariff Regulations, 2019.

3.209 The per unit norms for each component for first year of the control period FY 2019-20 are as follows:

- Employee expenses-Rs. 0.48/per unit of sale
- A&G expenses-Rs. 0.065/ per unit of sale
- R&M Expenses – R&M Expenses for each year (n) of Control Period:

k x GFAn-1 x (1+ER)

Where, ‘k’ is a constant (expressed in %) governing the relationship between R&M expenses and Gross Fixed Assets (GFA) for the (n-1)th year and shall be considered as 1.2%; ‘GFA’ is the average value of the Gross Fixed Assets of the (n-1)th year;

‘ER’ means the escalation rate as specified in Regulation 24; ‘n’ is the year for which R&M expenses is to be determined.

3.210 The Normative O&M expenses allowed at the commencement of the Control Period (i.e. FY 2019-20) under the aforesaid Tariff Regulations are to be escalated at the rate of 3.63% per annum for each year of the Control Period.

3.211 In accordance with view taken by the Commission in the last ARR Order the Commission has not considered O&M expenses on sales in DF area and also accounted for revenue of DF separately in this Order. For projecting normative O&M expenses sale of Distribution franchisee i.e. JVVNL 1263 MUs, AVVNL of 518 MUs and JdVVNL of 716 MUs for FY 2022-23 respectively have not been considered. Commission has considered the sales (excluding sale by DF) allowed for FY 2022-23 for projecting normative O&M expenses.

3.212 Capitalized O&M expenses have been considered in the same ratio as projected by Discoms.

3.213 O&M expenses approved by the Commission for Discoms for FY 2022-23 have been summarized below:

Table 54: Operation and Maintenance Expenses approved for FY 2022-23

(Rs. in Crore)

Particulars	**JVVNL**	**AVVNL**	**JdVVNL**	**TOTAL**
Employee Costs	1435	1155	1310	3899
Administrative & General Costs	194	156	177	528
Repairs & Maintenance Costs	208	143	147	498
Total O&M Costs	1837	1455	1633	4925
Less: Expenses to be Capitalized	292	222	237	751
Net O&M Costs charged to revenue	**1545**	**1233**	**1396**	**4174**

3.214 With regard to Smart Meters under TOTEX mode it has been observed that Discoms have filed a separate petition on dated 29.07.2022 to allow expenditure incurred in execution of Smart metering works over and above normative O&M

expenses. Hence Commission will deal the above matter separately based on the order thereto in subsequent ARR/True up orders.

Terminal Benefit Expenses

Petitioners' Submission

3.215 For determination of terminal benefits liability, the Petitioner has adopted the guidelines specified under AS-15 (Employee benefit). The guidance of implementing AS-15 states that the benefit involving employer established provident funds, which require interest shortfall to be provided, are to be considered as defined benefit plans. In accordance with the provisions of the AS-15, the company has provided for the shortfall in the terminal benefits in respect to pension and gratuity each year.

3.216 Discoms have estimated the contributions based on the average of the last 4 years i.e. FY 18 to FY 21 assuming a nominal hike of 3% that will be made towards terminal benefits for FY 2021-22 and FY 2022-23.

3.217 Terminal benefit liability submitted by the Discoms for FY 2022-23 has been tabulated below:

Table 55: Terminal Benefit Expenses for FY 2022-23 (Rs. in Crore)

Particulars	JVVNL	AVVNL	JdVVNL	TOTAL
Terminal Benefit Expense	513	507	613	1633

Commission's Analysis

3.218 The Commission has considered terminal benefit expenses for FY 2022-23 as submitted by Discoms. However, the Commission shall allow the payment made towards actuarial valuation liability in the true up of FY 2022-23 only to the extent of funds actually transferred to the designated Fund.

Table 56: Terminal Benefit Expenses for FY 2022-23 (Rs. in Crore)

Approved				
Particulars	JVVNL	AVVNL	JdVVNL	TOTAL
Terminal Benefit Expense	513	507	613	1633

3.219 It is observed by the Commission that Discoms are depositing the amount towards terminal benefit significantly lower than the amount approved by the Commission. This amount is being allowed to Discoms to meet its future liabilities in a planned manner. The Commission has time and again shows its serious concern regarding the continuous default in depositing the requisite amount by Discoms. Accordingly, Commission directs the Discoms that they should deposit the amount equivalent to approved by the Commission in future and also make a plan to meet their liability towards terminal benefit.

Interest on Loans and Finance Charges & Lease rental

Petitioners' Submission

3.220 To compute the interest on loan, Discoms have considered the Closing balance of normative loan for FY 2020-21 as the opening loan balance for FY 2021-22. Based on the projected capital investments and capitalizations. The total capitalisation during the year (or additions to GFA) has been reduced by the grant amount, arrived at by proportioning it on the basis of grants against the proposed capital investment plan as elaborated in the Investment Plan Formats ~~also~~. The remaining capitalisation has been considered to be funded through equity and loans, which are again proportioned on the basis of equity and loans proposed against the Investment Plan for the year. The loan portion has been considered as addition to long term loans during the year.

3.221 The loan repayment has been considered in accordance with Regulation 21 of the RERC Tariff Regulations, 2019 which caps deemed repayments to the extent of depreciation charged for the year. The closing normative loan is considered after deducting repayment for FY 2021-22.

3.222 Similarly they have computed the Interest on Loan for FY 2022-23

3.223 The interest on long term loans is estimated on the basis of actual weighted average interest rate for long term loans and applied on the average of normative loans (average of opening and closing normative loan) which works out to be 10.97%,10.92% and10.95% for JVVNL, AVVNL and JdVVNL respectively.

3.224 The Discoms have considered interest on security deposit for FY 2022-23 on the basis of average of actual security deposit per consumer in the previous two years as per the audited accounts and the projected growth in number of consumers. The interest rate has been considered equivalent to RBI Bank Rate as on 1st April 2021, which is in accordance with the RERC norms.

3.225 Discoms have projected the finance charges or other borrowing cost for FY

2022-23 estimated to increase by 5% per annum from actual of previous year.

Interest on unfunded revenue gap for past years

3.226 The average unfunded gap for FY 2021-22 is arrived at by considering the opening balance for FY21, additions during the year and closing balance. The same approach has been considered for FY 2022-23.

3.227 In order to calculate the interest on unfunded revenue gap, the Discoms have considered the weighted average rate of interest as per the audited accounts for FY 2020-21available with the Discoms.

Interest on Loans taken-over by GoR under UDAY

3.228 The Commission, in the Tariff Order for FY 2019-20 dated 6th February 2020, had approved the total interest on UDAY for the JVVNL, AVVNL and JdVVNL as Rs 2599 Cr, 2690 Cr and 2439 Cr respectively to be recovered over a period of 5 years in equal installments viz. Rs 520 Cr, 538 Cr and 488 Cr for JVVNL, AVVNL and JdVVNL respectively to be recovered each year till FY 2023-24.

3.229 Accordingly, the interest charges and finance charges for FY 2022-23 have been summarized in the table below:

Table 57: Interest and Financing Charges for FY 2022-23

(Rs. in Crore)

Particulars	JVVNL	AVVNL	JdVVNL	Total
Opening balance of LTL (A)	3745	5765	5973	15483
Capitalization (B)	2951	2201	4131	9283
Capital expenditure financed by Equity (C)	981	187	451	1619
Capital expenditure financed by Consumer Contribution and grants (D)	583	1342	325	2251
Receipt of LTL for Capital expenditure E=(B-C-D)	1387	672	3355	5414
Principal Repayment(F)	1341	1114	1153	3609
Closing balance of LTL, G=(A+E-F)	3790	5322	8175	17288
Average LTL, H=(A+G)/2	3768	5543	7074	16385
Average Interest rate of LTL (%)(I)	10.97%	10.92%	10.95%	
Interest Charges on LTL, J=(HXI)	413	605	775	1793
Interest on Security Deposit (K)	67	53	36	156
Finance Charges & Lease Rental (L)	189	149	192	529
Gross Interest Charges, M=(J+K+L)	**669**	**807**	**1002**	**2478**
Interest Expenses Capitalized (N)	69	322	99	490

Total Interest & Financing Charges (O)	**600**	**485**	**904**	**1989**
Unfunded Gap up to 2020-21 (P)	**19913**	**13185**	**22348**	**55446**
Interest on Carry Forward Revenue Gap, Q=(PXI)	**2184**	**1440**	**2447**	**6071**
Interest on loan taken over UDAY, X	**520**	**538**	**488**	**1546**
Total Interest & Financing Charges after interest on carry forward Gap (O+Q+X)	**3304**	**2463**	**3839**	**9605**

Commission's Analysis

3.230 The interest and finance charges have been calculated by the Commission considering the following:

a) The closing balance of long-term loans for FY 2020-21 in the true up order has been considered by the Commission as the opening balance for FY 2021-22.

b) For the capitalization, capital expenditure financed by equity, capital expenditure financed by consumer contribution and grants and receipt of long term loan for capital expenditure have been considered as per order dated 24.11.2021 and principal repayment for FY 2021-22 has been considered equal to deprecation for FY 2021-22 to arrive at the opening balance of loan of FY 2022-23.

c) Capitalization for FY 2022-23 has been considered as discussed in foregoing paragraphs. Since only 80% capitalization has been allowed by the Commission, consumer contribution and grants have also been taken to the extent of 80% of the total projection by the Discoms.

d) The long-term loans required for capitalization during the FY 2022-23 have been reduced by the amount of consumer contribution, capital grants and equity projected for the year.

e) Repayment for FY 2022-23 has been considered equal to the depreciation allowed by the Commission.

f) Unfunded Gap- For computing the carrying cost, the unfunded gap upto FY 2020-21 has been considered as per true up order for FY 2020-21. Further during FY 2022-23 the aforesaid unfunded loss has been considered after adjustment of surplus /gap as determined in ARR order for FY 2021-22 dated 24.11.2021.

g) The weighted average interest rate has been considered at 10.97%, 10.92% and 10.95% as claimed by JVVNL, AVVNL and JdVVNL respectively.

h) Finance charges and interest on security deposit has been considered as submitted by Discoms.

i) Recovery of interest on Loan taken over under UDAY: The Commission has considered the payment of the accrued interest in five yearly instalments as allowed vide order dated 24.11.2021 and accordingly considered the 1/5th of the amount for FY 2022-23 as claimed by Discoms.

3.231 **Grant on release of New Agriculture Connection under RE Works:** Discoms has indicated release of 71,207, 70000 & 90137 Nos of new agriculture connections in their ARR. During last year true up exercise It was brought to the notice of Commission that 50% of difference between actual expenditure incurred on release of new connection and amount deposited by consumer shall be given by GoR to Discoms. The Commission has considered it as a grant as it is a part of consumer contribution which would have to be borne by consumer, if Government had not provided aforesaid 50% grant support.

3.232 The Commission while allowing sale has considered the addition of No. of agriculture connection as proposed by Discoms. As regards the financing of the same the Commission is of the view that for FY 2022-23, extremely high No. of connection have been proposed to be released as compared to earlier year and outlay on this has increased 2 to 3 times, this is coupled with fact additional expenditure has also been proposed in ST&D scheme for strengthening of the system. As this is done in compliance of announcement of the State Government, the Commission is of the view that the 100% cost except consumer contribution should be funded by the grant. Further, the Discoms in the post hearing additional submission filed the per connection cost of Rs. 195000, Rs. 225000 and 336000 with consumer contribution of Rs. 25000, Rs. 25000 and Rs. 50000 per consumer for JVVNL, AVVNL and JdVVNL respectively. Accordingly, the grant works out to be Rs. 1210.52 Crore, Rs. 1400 Crore and Rs. 2577.92 Crore for JVVNL, AVVNL and JdVVNL respectively.

3.233 The Commission has considered this amount as additional grant, Discoms may obtain this amount from the State Government.

3.234 As per true up of FY 2020-21, the Commission in absence of detailed information has worked out the figure of grant on normative basis, in case of any discrepancy; Discoms may come up with actual figure of applicable grant and may request for recalculating the impact of grant during true up petition of respective year.

3.235 In the last year ARR order the Discoms were directed to renegotiate with banks and financial institutions for availing the loan at a lower interest rate to the possible extent. Jodhpur Discom submitted that on request of JdVVNL, REC then letter dt. 18.01.2022 reduced ROI to 10.15% by giving benefit of 50bps on all sanctioned/ documented schemes for the FY 2021-22. Further, for FY 2022-23, REC conceded to Jodhpur Discom's request and vide their letter dt. 06.06.2022 has given interest rebate of 50 bps over the present applicable interest rate and reduced its rate to 9.75% p.a. against all schemes sanctioned in FY 22-23. Further, PFC has also been requested by Chairman, Discoms to reduce ROI to 9.50% p.a. The proposal is under consideration in PFC.

3.236 it is observed that JdVVNL has negotiated the interest terms and is availing benefits of lower rate of interest . The Commission understands that similar negotiation have been carried out by other Discoms too. The Commission appreciates the efforts made by JdVVNL and directs all Discoms to continue their efforts to renegotiate with banks and financial institutions (Including REC and PFC) not only for availing the loan at a lower interest rate for scheme sanctioned in current year but also for swapping of existing loan.

3.237 In view of above, the Commission while calculating Interest and Finance charges in the current ARR order has reduced the interest rate on the loan addition during the FY 2022-23 by 0.50%.

3.238 Based on the above, the approved interest and finance charges (with respect to the assets capitalized) approved for FY 2022-23 for the three Discoms have been summarized in the tables below:

Table 58: Interest and Finance Charges approved by the Commission for FY 2022-23 (Rs. in Crore)

FY 2022-23				
Particulars	**JVVNL**	**AVVNL**	**JdVVNL**	**Total**
Opening balance of LTL (A)	6648	3458	4267	14373
Capitalization (B)	2361	1761	3305	7426
Capital expenditure financed by Equity (C)	278	101	295	673
Capital expenditure financed by Consumer	1435	1425	2322	5182

Contribution and grants (D)				
Receipt of LTL for Capital expenditure E=(B-C-D)	648	235	688	1571
Principal Repayment(F)	841	516	684	2042
Closing balance of LTL, G=(A+E-F)	6454	3177	4270	13902
Average LTL, H=(A+G)/2	6551	3318	4268	14137
Average Interest rate of LTL (%)(I)	10.97%	10.92%	10.95%	
Interest Charges on LTL, J=(HXI)	715	361	464	1540
Interest on Security Deposit (K)	67	53	36	156
Finance Charges & Lease Rental (L)	189	149	192	529
Gross Interest Charges, M=(J+K+L)	**971**	**563**	**691**	**2226**
Interest Expenses Capitalized (N)	101	225	68	393
Total Interest & Financing Charges (O)	**871**	**338**	**623**	**1833**
Unfunded Gap up to 2021-22 (P)	**16558**	**12727**	**19609**	**48894**
Interest on Carry Forward Revenue Gap, Q=(PXI)	**1816**	**1390**	**2147**	**5353**
Interest on loan taken over UDAY, X	**520**	**538**	**488**	**1546**
Total Interest & Financing Charges after interest on carry forward Gap (O+Q+X)	**3207**	**2266**	**3259**	**8732**

Interest on Working Capital

Petitioners' Submission

3.239 Discoms estimated their working capital requirement for FY 2022-23 as per Regulation 27(1) (3) of the RERC Tariff Regulations, 2019 and the same has been tabulated below:

Table 59: Interest on Working Capital for FY 2022-23 **(Rs. in Crore)**

Particulars	**JVVNL**	**AVVNL**	**JdVVNL**	**Total**
O&M expenses (as per norms)	145	108	134	386
Maintenance Spare (as per norms)	261	194	240	695
Receivables (as per norms)	2,820	2,099	2,459	7,378
Less: Security deposit of Consumers	1,579	1,247	847	3,673
Bad Debts	-		-	-
Total Working Capital	**1,646**	**1,154**	**1,986**	**4,786**
Interest Rate (%)	**10%**	**10%**	**10%**	**10%**
Interest on Working Capital	**165**	**115**	**199**	**479**

3.240 Discoms have further submitted that they have considered the rate of interest as per the average Base Rate (1-year MCLR) for first six months of the year previous to the relevant year plus 300 basis points.

Commission's Analysis

3.241 The normative working capital requirement along with interest thereon has been calculated as per regulation 27(1)(3) of RERC Tariff Regulations, 2019, by the Commission as under:

a) Operation and Maintenance expenses for one month; **plus**
b) Maintenance spares @15% of O&M expenses as per Regulation 82 of the RERC Tariff Regulations 2019; **plus**
c) Receivables equivalent to one and a half-months billing of consumers; **Less**
d) The security deposits as submitted by the Discoms have been considered;
e) For the purpose of calculating interest on working capital, the Commission has considered 300 basis points higher than average base rate prevalent during first six months of the previous year to the relevant year as per RERC Tariff Regulations, 2019. The rate of interest thus works out to 10% for FY 2022-23.

3.242 Accordingly, the interest on working capital considered by the Commission is as under:

Table 60: Interest on Working Capital approved by the Commission for FY 2022-23 **(Rs. in Crore)**

Description	JVVNL	AVVNL	JdVVNL	Total
O&M expenses (as per norms)	129	103	116	348
Maintenance Spare (as per norms)	232	185	209	626
Receivables (as per norms)	2709	2051	2469	7228
Less:				
Security deposit of Consumers	1579	1247	847	3673
Bad Debts				
Total Working Capital	1490	1092	1948	4529
Interest Rate (%)	10%	10%	10%	10%
Interest on Working Capital	**149**	**109**	**195**	**453**

Depreciation

Petitioners' Submission

3.243 The Discoms have submitted that for computation of depreciation they have considered the specified rates as provided in the Regulation 22 of RERC (Terms and Condition for Determination of Tariff) Regulations, 2019 in Annexure-I based on Straight Line Method (SLM).

3.244 The depreciation has been determined by applying applicable depreciation rates on the average balance of opening and closing Gross Fixed Assets.

3.245 The Discoms have submitted the following Depreciation for FY 2022-23:

Table 61: Depreciation for FY 2022-23 **(Rs. in Crore)**

Particulars	JVVNL	AVVNL	JdVVNL	Total
Depreciation	1341	1114	1153	3609

Commission's Analysis

3.246 Commission has considered depreciation based on the following consideration:

- The closing balance of depreciable assets allowed in the true up order for FY 2020-21 has been considered by the Commission as the opening balance for FY 2021-22.
- The capitalization during the year, capital expenditure financed by consumer contribution & grants and depreciable assets added during the Year for FY 2021-22 has been considered as per order dated 06.02.2020 to arrive at the opening balance of FY 2022-23
- Commission has considered 80% of the amount proposed by Discoms as capitalization and capital expenditure financed by consumer contribution & grants during FY 2022-23 respectively.
- Depreciable assets for FY 2022-23 have been reduced by the amount of consumer contribution and capital grants projected for the year.
- Average depreciation rate has been considered as per true up order for FY 2020-21, in which average depreciation rate are approved at 4.77%, 4.31% and 5.23% for JVVNL, AVVNL and JdVVNL respectively.

Fixed Asset Register:

3.247 The issue of fixed assets register has been discussed earlier in this order and Discoms are required to comply with Commission's directive in this regard. This year the Commission has not made any deduction on account of non furnishing of fixed assets register in the desired format. However if the Discoms do not comply with direction of Commission, it may consider to deduct a suitable amount from depreciation while doing true up.

3.248 Depreciation allowed by the Commission for each of the three Discoms have been tabulated below:

Table 62: Depreciation allowed by the Commission for FY 2022-23

(Rs. in Crore)

Particulars	JVVNL	AVVNL	JdVVNL	TOTAL
Depreciable Assets at the beginning of the Year (A)	17178	11817	12599	41593
Capitalization during the year (B)	2361	1761	3305	7426
less: Consumer Contribution and Capital Grants during the year (C)	1435	1425	2322	5182
Depreciable Assets added during the Year D=(B-C)	926	336	983	2244
Depreciable Assets at the end of the Year (E=(A+D))	18104	12152	13581	43837
Average Depreciable Assets during the Year (F=(A+E)/2)	17641	11984	13090	42715
Average Depreciation Rate (G)	4.77%	4.31%	5.23%	
Depreciation (FXG)	**841**	**516**	**684**	**2042**

Insurance Expenses

Petitioners' Submission

3.249 Discoms have estimated the Insurance expenses for FY 2022-23 on the basis of net fixed assets subject to the ceiling specified in Regulation 25 of the RERC Tariff Regulations, 2019.

Table 63: Insurance Expenses- Discoms submission for FY 2022-23

(Rs. in Core)

Particulars	JVVNL	AVVNL	JdVVNL	Total
Insurance Expenses	32.98	24.78	28.49	86.25

Commission's Analysis

3.250 Commission has allowed Insurance expenses in accordance with Regulation 25 of RERC Tariff Regulations, 2019.

3.251 To compute the insurance expenses on average Net Fixed Assets (NFA) as per aforesaid regulation, the Commission has considered the following:

i. The closing balance of Net Fixed Assets allowed in true up order for FY 2020-21 is considered as opening balance for FY 2021-22 and closing balance of FY 2021-22 considered as opening balance for FY 2022-23

ii. The capitalization as discussed in above Para's have been added and depreciation for FY 2022-23 has been deducted from the above opening balance to arrive at closing balance.

3.252 Accordingly, the following insurance expenses have been computed on the average NFA.

Table 64: Insurance Expenses Approved for FY 2022-23 (Rs. in Crore)

Particulars	JVVNL	AVVNL	JdVVNL	Total
Insurance Expenses	34	23	25	81

Rebate allowed to Consumer:

Petitioners' Submission

3.253 The Discom has submitted that it has been providing a variety of rebates to its consumers like prompt payment incentive, rebate for supply on specific voltage, power factor incentive, load factor incentive etc.

3.254 Also, considering the interest of its Industrial consumers and to utilize the available surplus power of the Discoms, a couple of more rebates in the form of Time-of-Day rebate and rebate on incremental consumption were proposed by the Discoms, which were also approved by the Commission in its tariff order for FY 2019-20.

3.255 However, considering the substantial impact of such rebates provided to the consumers, the same have also been projected for FY 2021-22 and FY 2022-23. To project the rebates allowed to consumers, the Discoms have considered the actual rebates given to consumers for FY 2020-21 and has nominally escalated the same to arrive at the numbers for FY 2021-22 and FY 2022-23.

Table 65: Rebate allowed to Consumer - Discoms submission for FY 2022-23

(Rs. in Crore)

Particulars	JVVNL	AVVNL	JdVVNL	Total
Rebate allowed to Consumer	426	361	91	878

Commission's Analysis

3.256 Commission has dealt with rebate allowed to consumer under revenue head of this order.

Return on Equity

Petitioners' Submission

3.257 Discoms submitted that as per Regulation 20 of Rajasthan Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2019"

(1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulation 19.

(2) Return on equity shall be computed at the rate of 14% for Transmission Licensees and SLDC, 15% for Generating Companies and 16% for Distribution Licensees".

3.258 Discoms submitted that considering the additional burden on the consumers, it is in the interest of stakeholders that return on equity should not be claimed and therefore, Discoms are not claiming Return on Equity .

Commission's Analysis

3.259 It is observed that Discoms have not claimed RoE on Equity base. Therefore, the Commission has not allowed Return on Equity for FY 2022-23.

Non-Tariff Income and Wheeling Charges

Petitioners' Submission

3.260 Discoms submitted that for FY 2022-23 the non-tariff income (excluding Delayed Payment Surcharge) has been projected as per the norms in RERC (Terms and Conditions for Determination of Tariff) Regulations 2019.

3.261 Income from wheeling charges, cross subsidy surcharge and additional surcharge have been considered based on actuals of FY 2021-22, the same cost parameters have been projected and summarised below:

Table 66: Non-Tariff Income for FY 2022-23 **(Rs. in Crore)**

Particulars	**JVVNL**	**AVVNL**	**JdVVNL**	**Total**
Interest on loans and advances to suppliers/contractors	0	0	5	**5**
Interest and other income from investments and deposits	6	5	0	**10**
Income from sale of scrap	15	81	29	**125**
Income from deferment of Govt. Grants & Subsidies	268	243	279	**790**

Particulars	JVVNL	AVVNL	JdVVNL	Total
Rebate for early payment	46	3		**49**
Income from rent on land/building	0		37	**37**
Other miscellaneous receipts	56	135	194	**386**
Total	**392**	**467**	**544**	**1403**

Income from wheeling charges, cross subsidy Surcharge and Additional Surcharge				
FY 2022-23				
Particulars	**JVVNL**	**AVVNL**	**JdVVNL**	**Total**
Income from Wheeling Charges	6	5	2	**13**
Cross Subsidy Surcharge	5	49	4	**59**
Additional Surcharge	3	25	2	**30**
Total	**13**	**79**	**9**	**101**

Commission's Analysis

3.262 The Commission has considered the non-tariff income for FY 2022-23 excluding Deferred Income. It is further observed that the Discoms have not clearly indicated income from rental income of use of Discoms assets mainly for laying for various type of cables and poles. Whereas the Commission assess that there is high potential of rental income from cables and poles specially in view of the Discoms latest order where they have allowed various type of cables on the poles. Therefore, the Commission has considered additional income of Rs 100 Crore towards rental income of cable and poles under miscellaneous receipts from three Discoms during FY 2022-23 towards this head. Accordingly, the miscellaneous receipts during FY 2022-23 has been considered as Rs. 486 Crore.

3.263 The Commission has considered wheeling charges, Cross Subsidy Surcharge and additional Surcharge as per Discom's filing. However, actual income from these charges due to impact of this order shall be considered at the time of true up.

Table 67: Non-Tariff Income for FY 2022-23 **(Rs. in Crore)**

Particulars	JVVNL	AVVNL	JdVVNL	Total
Interest on loans and advances to suppliers/contractors	0	0	5	5
Interest and other income from investments and deposits	6	5	0	10
Income from sale of scrap	15	81	29	125
Income from deferment of Govt. Grants & Subsidies	0	0	0	0

Rebate for early payment	46	3	0	49
Income from rent on land/building	0	0	37	37
Other miscellaneous receipts	96	163	227	486
Total	164	251	293	707

Income from wheeling charges, cross subsidy Surcharge and Additional Surcharge				
FY 2022-23				
Particulars	**JVVNL**	**AVVNL**	**JdVVNL**	**Total**
Income from Wheeling Charges	6	5	2	13
Cross Subsidy Surcharge	5	49	4	59
Additional Surcharge	3	25	2	30
Total	13	79	9	101

Aggregate Revenue Requirement

Petitioners' Submission

3.264 The Annual Revenue Requirement for FY 2022-23 proposed by the three Discoms have been given in the table below:

Table 68: Summary of ARR for FY 2022-23 – Discoms' submission (Rs. in Crore)

Sr. No	Particulars	FY 2022-23			
		JVVNL	AVVNL	JdVVNL	Total
		Submission	Submission	Submission	Submission
1	Power Purchase Expenses	16,417	11,086	13,425	40929
2	Transmission charges				
	PGCIL	818	554	669	2041
	RVPN	1,328	900	1,087	3314
	RLDC	1	1	1	3
	SLDC	14	9	11	34
3	Operation & Maintenance Expenses	1,737	1,296	1,602	4635
4	Terminal Benefits	513	507	613	1633
5	Interest and Finance Charges	600	485	903	1988
6	Interest on Working Capital	165	115	199	479
7	Interest of Regulatory assets	2,184	1,440	2,447	6071
8	Depreciation	1,341	1,114	1,153	3609
9	Other expenses(including prior period)	426	361	91	878

Sr. No	Particulars	FY 2022-23			
		JVVNL	AVVNL	JdVVNL	Total
		Submission	Submission	Submission	Submission
10	Insurance Expenses	33	25	28	86
11	Return on Equity	-	-	-	-
12	Interest on Uday Loan	520	538	488	1546
13	**Aggregate Revenue Requirement**	**26,097**	**18,431**	**22,718**	**67246**
14	Less: Non Tariff Income	392	467	544	**1403**
15	Less: Income from wheeling charges	6	5	2	13
16	Less: Cross Subsidy Surcharge	5	49	4	59
17	Less: Receipt on account of additional surcharge on charge of wheeling	3	25	2	30
18	**Net Aggregate Revenue Requirement**	**25,692**	**17,885**	**22,165**	**65742**

Commission's Approval

3.265 Commission has approved the ARR for FY 2022-23 based on the items of expenditure discussed in the preceding sections and the same has been summarized in the table below:

Table 69: Summary of ARR for all the three Discoms for FY 2022-23 – Approved by Commission (Rs. in Crore)

Sr. No.	Particulars	FY 2022-23			
		JVVNL	AVVNL	JdVVNL	Total
		Approved	Approved	Approved	Approved
1	Power Purchase Expenses	13,654	10,799	12,332	36785
2	**Transmission charges**				
	PGCIL	818	554	669	2041
	RVPN	1,127	760	912	2799
	RLDC	1	1	1	3
	SLDC	9	6	8	24
3	Operation & Maintenance Expenses	1,545	1,233	1,396	4174
4	Terminal Benefits	513	507	613	1633
5	Interest and Finance Charges	871	338	623	1833
6	Interest on Working Capital	149	109	195	453

Sr. No.	Particulars	FY 2022-23			
		JVVNL	AVVNL	JdVVNL	Total
		Approved	Approved	Approved	Approved
7	Interest of Regulatory assets	1,816	1,390	2,147	5353
8	Depreciation	841	516	684	2042
9	Other expenses(including prior period)	-	-	-	0
10	Bad debts/Provisioning for Bad debts, if any	-	-	-	0
11	Insurance Expenses	34	23	25	81
12	RVPN and SLDC True up for FY 2020-21	-54	-36	-44	-134
13	Interest on Uday Loan	520	538	488	1546
14	**Aggregate Revenue Requirement**	**21,845**	**16,738**	**20,050**	**58633**
15	Less: Non Tariff Income	164	251	293	707
16	Less: Income from wheeling charges	6	5	2	13
17	Less: Cross Subsidy Surcharge	5	49	4	59
18	Less: Additional surcharge	3	25	2	30
19	**Net Aggregate Revenue Requirement from Retail Tariff**	**21,668**	**16,408**	**19,749**	**57825**

**Power purchase cost has been considered after adjustment of sale of surplus power*

Revenue and Revenue Deficit based on Existing Tariff

Revenue on Existing Tariff

Petitioners' Submission

3.266 Discoms have projected the revenue based on energy sales forecasts for FY 2022-23 and the applicable retail tariff as per the RERC's Tariff Orders.

3.267 The revenue in FY 2022-23 from existing tariff as per Discoms' submission is as under:

Table 70: Revenue from existing tariff for FY 2022-23– Discoms' submission

(Rs. in Crore)

FY 2022-23				
Particular	**JVVNL**	**AVVNL**	**JdVVNL**	**Total**
Domestic	5109	3803	3640	12552
Non-Domestic	2566	1491	1631	5688
Public Street Light	151	96	99	346
Agriculture (Metered)	6385	4436	9407	20229

FY 2022-23				
Agriculture (Flat)	120	0	771	891
Small Industry	315	241	213	769
Medium Industry	819	830	705	2355
Large Industry	6222	5171	1955	13349
Public Water Works (S)	302	283	240	825
Public Water Works (M)	37	29	82	148
Public Water Works (L)	354	306	555	1215
Mixed Load / Bulk Supply	179	99	372	651
EV	2	0	0	2
Railway traction	0	2	0	2
Total	**22562**	**16789**	**19670**	**59021**

Subvention and Subsidy

3.268 Discoms have shown subvention against ED which has been estimated based on the sales projected for the year and the category wise per unit ED subvention receivable and Subsidy against compounding charges and other subsidy for FY 2022-23 as under:

Table 71: Subvention and subsidy for FY 2022-23 **(Rs. in Crore)**

FY 2022-23				
Particular	**JVVNL**	**AVVNL**	**JdVVNL**	**Total**
Subvention from State Govt. against ED	770	591	445	1807
Subsidy against compounding charges and other subsidy	20	27	4	51
Total	**791**	**618**	**449**	**1858**

3.269 The Commission has considered the subvention and subsidy as filed by Discoms for FY 2022-23.

Revenue Deficit

3.270 The revenue deficits submitted by Discoms for FY 2022-23 at the existing tariff have been provided in the table below:

Table 72: Revenue Deficit/Surplus at existing tariff for FY 2022-23 (Rs. in Crore)

Particulars	JVVNL	AVVNL	JdVVNL	Total
	FY 2022-23			
Net Aggregate Revenue Requirement (A)	**25,692**	**17,885**	**22,165**	**65,742**
Revenue from Existing tariff (B)	**22,562**	**16,789**	**19,670**	**59,021**
Revenue From Trading Income B1	**862**	**75**	**-760**	**177**
Subvention from State Govt. against ED	770	591	445	**1,807**
Subsidy against compounding charges and other subsidy	20	27	4	**51**
Total of subvention against ED and Subsidy (C)	791	618	449	**1,858**
Deficit including Carrying cost D= (A-B-C)	**-1,478**	**-403**	**-2,806**	**-4,686**

Commission's Analysis:

3.271 Commission has calculated the category wise revenue from existing tariff at tariff approved in order dated 24.11.2021 on the basis of consumer category wise energy sales (excluding DF sales) approved by the Commission in this order. The revenue from sale of power to DF has been computed separately in below table. Further impact of ToD rebate, incremental consumption rebate and various other rebates have been considered which is subject to true up. The estimated revenue at existing tariff for different consumer categories for all the three Discoms for FY 2022-23 have been summarized in the table below:

Table 73: Revenue from Existing Tariff for FY 2022-23 Approved by the Commission (Rs. in Crore)

FY 2022-23				
Particular	**JVVNL**	**AVVNL**	**JdVVNL**	**Total**
Domestic	4386	3486	3152	11024
Non-Domestic	2718	1399	1397	5514
Public Street Light	132	81	85	298
Agriculture (Metered)	5705	4464	8263	18432
Agriculture (Flat)	98	0	723	821
Small Industry	295	233	187	715

Medium Industry	762	774	653	2189
Large Industry	6197	5723	1908	13828
Public Water Works (S)	271	276	252	798
Public Water Works (M)	35	28	78	140
Public Water Works (L)	295	312	551	1158
Mixed Load / Bulk Supply	160	91	324	575
EV	2	0		2
Railway Traction		2		2
Total	**21055**	**16870**	**17572**	**55497**
add DF income	964	383	516	1862
less: Rebate	521	307	214	1042
Total	**21497**	**16946**	**17875**	**56318**

***Rebate: ToD rebate, incremental rebate etc.**

ARR and Revenue

3.272 Considering the ARR and Revenue at existing tariff as determined by the Commission, subsidy & subvention as shown by Discoms in their petition, the revenue gap for all the three Discoms for FY 2022-23 at the existing tariff has been worked out.

Table 74: Revenue Deficit/Surplus at existing tariff for FY 2022-23 Approved by the Commission (Rs. in Crore)

Particulars	JVVNL	AVVNL	JdVVNL	Total
	FY 2022-23			
Net Aggregate Revenue Requirement (A)	**21668**	**16,408**	**19,749**	**57,825**
Revenue from Existing tariff (B)	**21497**	**16,946**	**17,875**	**56,318**
Subvention from State Govt. against ED	770	591	445	**1,807**
Subsidy against compounding charges and other subsidy	20	27	4	**51**
Total of subvention against ED and Subsidy (C)	791	618	449	**1,858**
(Gap) /Surplus	**620**	**1,156**	**-1,425**	**351**
D= (A-B-C)				
Less : Reduction on account of non conversion of Flat rate consumers	**10**	**0**	**10**	**20**
(Gap)/Surplus	**630**	**1,156**	**-1,415**	**371**

Section- 4 Tariff Proposals and Approved Tariff

4.1 Tariff proposal for FY 2022-23.

4.1.1 Discoms projected an ARR of Rs. 65742 Crore and net deficit of Rs. 4686 Crore after receipt of Govt. subsidy at existing tariff for FY 2022-23 and furnished the following measures for funding of revenue gap.

Funding of Revenue gap by GoR

4.1.2 Discoms have not proposed any tariff increase and regarding gap they have submitted that the Fifteenth Finance Commission (XV-FC) has recommended performance based additional borrowing space of 0.50 per cent of Gross State Domestic Product (GSDP) to States, in the power sector. The objective of additional borrowing space is to improve operational & economic efficiency of the sector and promote a sustainable increase in paid electricity consumption. This special dispensation has been recommended for each year for a four-year period from 2021-22 to 2024-25. GoR, as part of the above-mentioned scheme has provided an undertaking to the GoI for taking over of future losses of the Discoms as per the following trajectory.

2022-2023	2023-2024	2024-2025	2025-2026 onwards
60% of the loss for the year 2021-22	75% of the loss for the year 2022-23	90% of the loss for the year 2023-24	100% of the loss for the year 2024-25 & onwards

4.1.3 Discoms submitted that as per above, GoR shall take-over 60% and 75% of the actual losses of Discoms for FY 2021-22 and FY 2022-23 respectively, further even after considering the impact of loss takeover by GoR under the FRBM Scheme and revision of ToD rebate, the Discoms would still be left with balance cumulative revenue gap of Rs. 2,881Cr, as shown under:

Particulars	**In Rs Cr.**
Gross Revenue Gap of FY 2021-22 & FY 2022-23	9,058
Less: Funding by GoR under FRBM scheme	6,138
Less: Incremental revenue due to revision in Time of Day Rebate	40
Net Revenue Gap	**2,881**

4.1.4 The Discoms submitted that they acknowledge that GoI has directed the

Discoms in the country to ensure that there should not be further creation of Regulatory Assets. The Petitioners also resonate with the view of the Ministry/ Regulatory bodies regarding no further creation of Regulatory Assets and is a step in the right direction.

4.1.5 However, the Discoms lay emphasis on the fact that the effective implementation of any such step that too in a sector which stands in a poor financial health not just in the State of Rajasthan but also on a National level needs much needed strategic planning with due consideration to other State specific parameters also.

4.1.6 The sudden impact of such non-consideration/ non-creation of Regulatory Assets would be on the Government of Rajasthan in the form of increased subsidy levels or loss takeover, to further burden the GoR, which is already committed towards taking up the financial losses of the Discom in a planned manner as stated under the FRBM enhancement scheme, is not a favourable option. Besides, the State Government has also agreed to liquidate the outstanding tariff subsidy of the Discoms to the tune of Rs 17,459 Cr (as on 31.03.21) over the next 5 years under the RDSS scheme. In view of the increasing annual subsidy burden on the GoR, financial loss takeover, liquidation of outstanding subsidy and equity support for RDSS and other capital works, the burden on the GoR for FY 23 already stands at Rs 30,000 Cr.

4.1.7 On the other hand, the Discoms shall have to undertake tariff revision to meet the revenue gap in FY 2022-23. However, the Discoms submitted that they do not wish to burden consumers with another tariff hike after the hike approved by the Commission in FY 2019-20 vide Tariff Order dated 06.02.2020, especially considering the aftermath of the COVID pandemic.

4.1.8 Discoms further submitted that as a sector that holds consumer interest at its paramount, sudden non-creation of Regulatory Assets would imply that the same are met either via tariff hikes to the consumers or via GoR support, which may not be practically feasible at the moment. The Discoms submitted that they are fully intent and committed towards eradication of Regulatory Assets and shall be putting in its sincere efforts to reach such ideal scenarios.

4.1.9 Accordingly, the Discoms requested to consider the projected cumulative revenue gap of Rs. 2,881 Crore and consider the same as Regulatory Assets and allow carrying cost attributed to the same.

4.1.10 Commission in section 3 has worked out ARR for the three Discoms wherein after disallowing excess losses beyond approved trajectory and considering other costs on normative basis, the Commission has determined the net ARR as Rs. 57825 Crore with a net surplus of Rs. 371 Crore at existing tariff for FY 2022-23 taking all Discoms together.

4.1.11 In view of Discoms request of no increase in tariff and determination of surplus position of ARR at Rajasthan level by the Commission during FY 2022-23, the Commission has not made any increase in tariff.

4.1.12 At present the Commission is determining uniform tariff across all the three Discoms and more or less same practice is being adopted by many State Commissions. However, Jodhpur Discom is the largest Discom in terms of area and also have highest share of agriculture consumption therefore the Government to balance out the gap among the Discoms may make special dispensation in terms of subsidy /Government support and also consider to assign low cost PPAs to Jodhpur Discom so as to wipe out the disparity in these Discoms.

4.1.13 Discoms have proposed certain rationalization measures which are discussed hereunder.

4.1.14 There are other proposals in the petition of Discoms which requires consideration of the Commission i.e. ToD, incremental consumption, modify the existing categorization of the LIP (HT-5), categorization of Tourism, Hospitality sector and wheeling charges, Cross subsidy surcharge and additional surcharge which are discussed hereunder.

Tariff Rationalisation Proposal

a) Reduction of Time of Day (ToD) rebate

4.1.15 Discoms submitted that ToD tariff is generally a revenue neutral proposal for Discoms and is implemented just to manage the load in a scientific manner. However, in case of Rajasthan Discoms, the same does not hold true as the surcharge is on a much lower side compared to the rebate being offered. The Discoms have been facing this negative impact, further impacting their financial health, due to the substantial amount of rebates being offered to the consumers of the State.

4.1.16 Discoms submitted that considering the non-revenue neutral scenario in the existing ToD scheme, they have proposed to reduce the ToD rebate to 10% from the existing 15% for the consumers of the State. As there still a substantial rebate on offer for consumption by these consumers during the peak hours, the proposal would not severely impact the consumers. Reducing the ToD tariff with rebate during consumption of electricity in peak hours a rebate of 10% on Energy Charges is likely to reduce the existing amount of rebates by about Rs 105 Crore annually and reduce the revenue gap to that extent.

4.1.17 Accordingly, the following ToD structure is proposed for FY 2022-23:

Table 75: Proposed ToD rebate and surcharge for FY 2022-23

Particulars	ToD rebate	ToD surcharge
% charge	10%	5%
Hours	12 am to 6 am (6 hours)	6 am to 10 am (4 hours)

4.1.18 Further, post hearing Discoms have filed additional information, where Discoms have submitted that in the last two years viz. FY 21 and FY 22 they have been severely impacted by two externalities impacting the load curve i.e. Covid-19 pandemic and ongoing power crisis in the country due to coal shortages.

4.1.19 Due to Covid-19 pandemic, the industrial segment had to undergo lockdown and could not operate as per their Business-As-Usual scenario. Once the scenario began to normalize post Covid-19, the coal shortage in the country resulted in a power crisis, which is still ongoing. This impacted the prices in the exchange as well as the demand curve of the Discoms as the Discoms had to impose load shedding due to the supply side constraints.

4.1.20 Due to these events, the load curve is not reflective of the actual scenario. The Discom have requested Commission to allow some more time to study the same.

4.1.21 Discoms further submitted that due to the ongoing power crisis in the country, they had to procure power at costs as high as Rs 17.00/kWh during these hours to meet the demand of such consumers.

4.1.22 Due to ToD rebate, Discoms are burdened financially owing to high cost of power in Exchange during these hours. Such financial burden shall ultimately be borne by all other consumers of the State. It is further submitted that such crisis is likely to continue looking at significant surge in demand due to hot weather conditions and the unavailability of supply owing to coal related issues.

4.1.23 Thus, in view of above, Discoms requested that the ToD rebate for LIP consumers be suspended temporarily till the time the power crisis is resolved.

Commission's View

4.1.24 Commission has examined this issue and observe that the very purpose of introduction of ToD rebate was to balance the load curve and Rajasthan being a surplus state, rather than selling the surplus power by Discoms at lower tariff at exchange, the power should be made available at lower tariff to the consumers. Consequently the Discoms would have been realizing the better price of power, which thereby reduces the gap and interest thereon in the total ARR.

4.1.25 However, looking at the submission made by the Discoms, the scenario seems to be on reverse side, it is observed from the above data submitted by the Discoms that instead of having surplus power during off peak hours, Discoms are facing power shortage and buying power at higher tariff, which may be due to shortage of coal throughout the India.

4.1.26 Discoms have submitted the quantum of rebates passed on to consumers and surcharge recovered from consumers during the last 2 years are as under:

(Rs in Crore)

Particulars	**JVVNL**		**AVVNL**		**JdVVNL**	
	FY 21	**FY 22**	**FY 21**	**FY 22**	**FY 21**	**FY 22**
ToD rebate	139.49	172.56	121.89	159.12	65.61	65.88
ToD surcharge	-	10.16	-	Not submitted	-	7.97

4.1.27 Ideally the ToD tariff should be revenue neutral, However it is observed that Discoms are passing higher quantum of rebate to consumer and the revenue from surcharge is on lower side, this situation does not seem to be revenue neutral. As consumer at large will be loaded with rebate provided to few consumers that too when Discoms are buying power during off peak hours.

4.1.28 Few of the stakeholder also submitted that only the continuous running industries have derived the benefit of ToD rebate without shifting the load. The proposal of Discoms of reducing the rebate will reduce the such benefit to continuous process industry but objective of flattening the load curve will not be achieved.

For flattening the load curve, Discoms should formulate some other scheme for example recorded load demand in KW during peak load and night hour billed separately with surcharge and rebate on fixed charges etc, Discoms should find some other way of providing ToD rebate for consumers which should be successful in all scenarios and ultimately result into lower tariff for consumes.

4.1.29 It seems that the very purpose of the ToD seems to be defeated by such scenario, as per data submitted by Discoms, rather than selling surplus power in off peak hours Discoms are buying power that too at a very high rate during August 2021 to May 2022. However, such scenario may not persist for long. The Commission also notes that presently the power crisis have been eased out. However in view of Discoms submission regarding costly purchase from exchange during off peak hours, the existing ToD rebate is reduced from 15% to 7.5% against proposal of 10%. Which on one hand will save some outflow of Discoms on rebate and on the other hand the consumer will continue to get rebate as against total suspension of ToD Tariff. The Commission in future years will consider revising ToD tariff structure based on a study. Further, regarding ToD study Commission has appointed M/s Prayas (Energy Group), Pune for conducting independent study of ToD tariff design in Rajasthan. Commission has directed Discoms to appoint nodal officers for providing the necessary data and coordinating with M/s Prayas regarding the study.

4.1.30 Based on data filed by the Discoms for FY 2021-22, Commission has assessed the revenue impact of reduction of ToD from 15% to 10% is Rs.133 Crore, with further reduction to 7.5%, the rebate would go down by Rs. 199 Crore therefore increasing the revenue of Discom by Rs. 199 Crore.

b) Modification in base year for computation of incremental consumption rebate

4.1.31 Discoms submitted that with a vision to boost the consumption of the Industrial consumers of the state, they had proposed a rebate on their incremental consumption in their ARR and Tariff Petition for FY 2019-20.

4.1.32 The Commission, looking at power surplus scenario and back down position of State power plants, found it appropriate to introduce the rebate on incremental consumption which would not only ensure that the load curve for the state is flattened, but also improve the PLF of State power stations and reduce the Discoms' deficit on account of paying fixed charges for back-down of State power stations. Accordingly, the Commission in its Tariff Order for FY 2019-20 dated 06.02.2020 had approved rebate to Medium Industry (HT) and Large Industrial consumers of the state on their incremental consumption. The relevant clause of the tariff order is reproduced as under:

> *" 4.14.12 A rebate of Rs. 0.55/unit and Rs. 0.85/unit in energy charges is applicable for incremental monthly consumption w.r.t. corresponding month of* ***FY 2018-19 (base year)*** *for MIP (HT) and LIP consumers respectively. The incremental consumption for any month shall be worked out considering the consumption of the corresponding base month, i.e., an increase in the units consumed from the Licensee in any month of the current year (FY 2019-20) onwards compared to the same month in base year."*

4.1.33 Discoms submitted that from the above, it can be observed that the base year for incremental consumption rebate is fixed as FY 2018-19. However, the incremental consumption should be calculated on the basis of the immediately preceding year and not on one set base year.

4.1.34 Discoms accordingly proposed to modify the base year (FY 2018-19) as defined in the order and to consider the preceding year as the base year for the computation of rebate on incremental consumption of MIP (HT) and LIP consumers for any year.

Commission's View

4.1.35 The Commission agrees with the proposal of Discoms that for the computation of rebate on incremental consumption of MIP (HT) and LIP consumers the preceding year should be the base year. Therefore, the Discoms are directed to make the necessary changes in tariff booklet accordingly.

4.1.36 As per submission of the Discoms change in base year will result in reduction of rebate by Rs. 157 Crore. The Commission accepts the same.

c) Change in definition/particularisation of LIP consumers

4.1.37 The Discom submitted that the existing categorization of the LIP (HT-5) category of consumers, as per the latest applicable ARR and Tariff order for FY 2020-21 and FY 2021-22 dated 24.11.2021 is produced as under:

" SCL above 150 HP &/or having Contract/Maximum Demand above 125 kVA (HT-5)".

4.1.38 The Discoms, for the purpose of clarity and ease of understanding, hereby propose to remove "&" from the categorization defined for such consumers and modify the same as under:

"SCL above 150 HP or having Contract/Maximum Demand above 125 kVA (HT-5)".

Commission's View

4.1.39 As discussed in above proposal of change in definition of LIP consumers, to bring the clarity and ease of understanding, Commission approves the Discom's above proposal of change in definition of LIP consumers**.**

d) Change in categorization of Tourism and Hospitality consumers

4.1.40 Discoms submitted that as a part of the recently announced budget of the State for FY 2022-23, the Hon'ble Chief Minister of Rajasthan, has made various announcements in order to provide benefits to the consumers of the State.

4.1.41 One such announcement is to consider the Tourism and Hospitality Sector as Industry Sector and to charge such consumers as per the approved tariff applicable for Industrial consumers as per applicable supply voltage instead of the presently applicable rates of Non-Domestic Category as approved by the Commission of the State.

4.1.42 The Discoms accordingly requested the Commission to categorize the Tourism and Hospitality Sector consumers, presently classified as Non-Domestic consumers to be classified in the Industrial Category of consumers.

Commission's View

4.1.43 The Commission accepts the proposal of Discoms to categorize the Tourism and Hospitality Sector consumers, presently classified as Non-Domestic consumers to be classified in the Industrial Category of consumers as per applicable load/demand and voltage without benefit of any incentive or rebate. ToD tariff will not be applicable on Tourism industries at present on which the Commission will take a view based on the independent study to be submitted by Discoms.

During the hearing Discoms intimated that likely impact of this will be approximately Rs. 200 Crores for all three Discoms. Actual impact of this will be considered during true up. The power factor surcharge/rebate clause will continue to be applicable on Tourism and Hospitality Industries. The Discoms shall issue detailed guidelines for change in categorization of Tourism and Hospitality Consumers.

4.1.44 Except tariff rationalization proposals as discussed above, the Commission has not made any change in tariff for retail consumers. Accordingly, the tariff determined vide order 24.11.2021 shall continue to prevail during FY 2022-23 except where changed by this order. The category wise tariff is enclosed at **Annexure – D.**

4.2 Wheeling Charges

4.2.1 The Discoms have projected the wheeling charges as per the Regulation 86 of RERC (Terms and Conditions for Determination of Tariff) Regulations 2019, estimated voltage- wise losses and the projected ARR for FY 2022-23 in line with the RERC regulations.

4.2.2 Discoms submitted that wheeling charges for open access consumers have been computed based on the following assumptions.

Basis for Apportionment of network costs & losses at each voltage

i. Apportionment at 132 KV Level: As per the provisions under Regulation 86 (2), the wheeling charges so worked out shall be apportioned supply voltage wise on the basis of fixed asset at each voltage level. The Discoms have submitted that at present they do not have any fixed assets at 132 KV Voltage level, however the Discoms help the open access consumers in installation of lines & poles and claim fee on account of customer service cost (mainly costs associated with metering, billing and collection at this voltage).

The Discoms also submitted that although the cost associated with metering, billing and collection at 132 KV level has increased but the Discoms do not propose any change in the wheeling charges at 132 kV level of Rs. 0.01/kWh at 132 KV level as the cost of providing customer service to 132 KV level consumers.

Discoms submitted that practically there is no apportionment of gross fixed assets at 132 KV level as the assets attributable to supply at 132 KV level include transformers (220/132 KV) and lines (1323 KV). The transformers belong to RVPN and are considered in transmission charges. The Discoms submitted that there are minor system losses at 132 KV level. The procurement of power happens at the periphery of Discom (i.e. GSSs of RVPN). Therefore, transmission charges & losses - whether inter-state or intra-state, have already been considered in determining cost of power purchase in the ARR and tariff petition for FY-21 and accordingly, distribution losses at 132 KV are considered as nil.

ii. Apportionment at 33 KV, 11 KV and LT Level: The cost of wheeling has been apportioned voltage wise on the basis of the length of network lines and transformation capacity for voltage wise segregation of GFA. Similar methodology is followed by other SERCs like MPERC, PSERC, etc.

4.2.3 Further, Discoms submitted that RERC in its Order dated 19th September 2006 has also considered the voltage-wise length of lines and transformation assets as basis for apportionment of wheeling cost at all voltages. The relevant extract of the above-mentioned Order has been summarized below:

> "As current cost was to form only the basis of inter-se allocation of operating cost of distribution system among 33 KV, 11 KV & LT distribution systems, current cost of lines and substations, based on that of AVVNL, have been considered for the voltage wise line length plus substation of each Discom. Accordingly, percentile allocation of 33 KV, 11 KV & LT system, worked out as 11.81%, 53.14% and 35.04% has been considered."

Discoms submitted that to even out any difference due to geography and pace of development, the operational cost and sales for all Discoms has been considered together for apportionment at each voltage. This is in line with the methodology adopted by the Commission in Order dated 19 September 2006. The relevant extract of the above-mentioned Order has been summarized below:

> "Distribution system of three Vitran Nigam differs due to geographical conditions and pace of development. The present proportion may get altered in later years. Further, as apportionment is based on assumptions that may reflect the realistic values, so considering them separately for each Discoms may not be appropriate. Considering operational cost and sales for three Discoms together in determining wheeling charges, will even out differences."

4.2.4 The Discoms have submitted the following assumptions to segregate the assets into voltage levels as shown below:

a. Network Statistics as on 31st March 2021 has been considered as the basis for segregation of assets and losses. 33 KV lines have been considered to constitute the assets at 33 KV level, both 11 KV lines and transformation capacity at 33/11 KV have been considered to constitute the assets at 11 KV level and both LT lines and transformation capacity at 11/0.4 KV have been considered to constitute the assets at LT level. These voltage-wise network statistics as on 31 March 2021 have been summarized in following tables.

Table 76: Network Length in KM

S. No.	Lines at Voltage Level (KV)	JVVNL	AVVNL	JdVVNL	Total
1	132	-	-	-	**-**
2	33	16,240	16,391	25,047	**57,678**
3	11	178,431	151,414	251,337	**581,182**
4	LT	159,819	194,249	163,996	**518,064**
Total		**354490**	**362,053**	**440,380**	**1,156,923**

Table 77: Network Transformation Capacity in MVA

S. No	Transformation Capacity at Voltage Level (KV)	JVVNL	AVVNL	JdVVNL	Total
1	33/11	12,492	10,078	11,683	**34,253**
2	11/0.4	17,853	16,953	17,669	**52,475**

b. The existing distribution network of Rajasthan is a mixture of old and new assets. Also, the Discoms do not have the fixed asset register for these assets owing to which the present cost of these assets cannot be ascertained. Therefore, the Discoms have apportioned the Gross Fixed Asset as on 31 March 2021 in proportion to the cost of voltage wise distribution lines and transformation capacity as determined through cost estimates from Store Rates issued on the 1st April, 2021.

c. Estimated cost of single circuit dog conductor having span of 66 meters with 9 meter PCC pole line and single circuit weasel conductor having span of 66 meters with 8 meter PCC pole line has been considered for reckoning the average line cost of 33 KV lines and 11 KV lines respectively.
d. Similarly, the estimated cost of three phase aerial bunch conductor line, for the supply of industrial connection, having span of 40 meter with 8 meter PCC pole line, has been considered for computation of average cost of LT lines.

Table 78: Average cost of lines

S.No.	Voltage Level (kV)	Per Unit Cost (Lakh Rs./Km)
1	33	7.94
2	11	2.94
3	LT	2.01

e. Transformation cost of 33/11 KV substation has been determined by averaging the estimated cost of 3.15 MVA substation of all the three Discoms, calculated based on the Store Rates issued on the 1st April, 2021.

f. For determination of transformation cost of 11/0.4 KV asset, forty percent of average cost of 33/11 KV substation has been considered.

Table 79: Average transformation cost on substation

S.No.	Transformation Capacity (MVA)	Per Unit Cost (Lakh Rs./MVA)
1	33/11 KV	10.01
2	11/0.4 KV	31.36

g. On the basis of network statistics and average cost as mentioned above, the estimated voltage-wise network cost for Rajasthan Discoms is shown below:

Table 80: Voltage-wise Infrastructure network cost (in Rs lakh)

S No	Line at voltage Level (KV)	JVVNL	AVVNL	JdVVNL	Total
1	132	-	-	-	**-**
2	33	128,866	130,061	198,751	**457,678**
3	11	524,404	445,002	738,673	**1,708,079**
4	LT	320,858	389,980	329,244	**1,040,081**

h. The cost of transformation capacity for three Discoms is summarized as under:

Table 81: Infrastructure transformation capacity cost (in Rs. lakh)

S. No.	Transformation Capacity at Voltage Level (KV)	JVVNL	AVVNL	JdVVNL	Total
1	33/11	125,045	100,881	116,947	**342,873**
2	11/0.4	559,870	531,646	554,100	**1,645,616**

i. The Discom-wise total infrastructure cost derived on the basis of the above data is as under:

Table 82: Total infrastructure cost derived (in Rs. lakh)

S. No.	Network at Voltage Level	JVVNL	AVVNL	JdVVNL	Total
1	132 KV Line Only	-	-	-	**-**
2	33 KV Lines Only	128,866	130,061	198,751	**457,678**
3	11 KV Lines and 33/11 KV S/S	649,449	545,882	855,620	**2,050,951**
4	LT Lines and 11/0.4 KV S/S	880,728	921,626	883,344	**2,685,697**
Total (As per GFA)		**1,659,043**	**1,597,569**	**1,937,715**	**5,194,327**

j. The above apportionment of estimated cost at each voltage level is being determined to apportion the approved value of depreciable gross fixed assets (as on 31st March 2021) as submitted in the ARR and Tariff petition for FY 2022-23. This voltage wise break-up of fixed assets along with the network usage is worked out to calculate the wheeling charges at 33 KV, 11 KV and LT level.

Table 83: Apportionment of original cost of Fixed Assets (in Rs. lakh)

S.No.	Network at Voltage Level	JVVNL	AVVNL	JdVVNL	Total
1	132 kV	-	-	-	-
2	33 kV	1,758	1,368	1,891	5,016
3	11 kV	8,858	5,741	8,140	22,739
4	LT	12,012	9,692	8,404	30,108
Gross fixed Asset		**22,628**	**16,801**	**18,435**	**57,863**

k. Sales Projections for FY-2022-23 of Jaipur, Ajmer and Jodhpur Discoms have been apportioned to the voltage levels based on the approved character of service. The wire costs at higher voltage levels has been further apportioned to lower voltage levels, since the HT system is also being used for supply to the LT consumers. The apportioned sales as per above estimates and losses for EHT and HT consumers has been considered as per the Commission's order dated 19.09.2006 (in absence of voltage wise losses at EHT and HT level), to calculate the input energy at various voltage levels. The balance losses have been allocated to the LT level. The calculations are provided below for Jaipur, Ajmer and Jodhpur:

l. Apportionment of sales of Rajasthan Discoms for FY-2022-23 is as under:

Table 84: Apportionment of voltage-wise sales- JVVNL

Voltage Level	Wheeling Cost (Rs Cr.)	Input (MU)	Sale (MU)	Loss %	Assets (Rs Cr.)
132 KV	6,819	2,047	2,047	0.00%	-
33 KV		2,432	2,340	3.80%	1,758
11 KV		4,810	4,387	8.80%	8,858
LT		26,052	20,472	21.42%	12,012
Total		**35,342**	**29,245**	**17.25%**	**22,628**

Table 85: Apportionment of voltage-wise sales- AVVNL

Voltage Level	Wheeling Cost (Rs Cr.)	Input (MU)	Sale (MU)	Loss %	Assets (Rs Cr)
132 KV	5,099	1,510	1,510	0.00%	-
33 KV		1,794	1,726	3.80%	1,368
11 KV		3,548	3,236	8.80%	5,741
LT		18,410	15,102	17.97%	9,692
Total		**25,262**	**21,574**	**14.60%**	**16,801**

Table 86: Apportionment of voltage-wise sales- JdVVNL

Voltage Level	Wheeling Cost (Rs Cr.)	Input (MU)	Sale (MU)	Loss %	Assets (Rs
220/132 KV	6,710	1,888	1,888	0.00%	-

Voltage Level	Wheeling Cost (Rs Cr.)	Input (MU)	Sale (MU)	Loss %	Assets (Rs
33 KV		2,243	2,157	3.80%	1,891
11 KV		4,436	4,045	8.80%	8,140
LT		24,402	18,878	22.64%	8,404
Total		**32,968**	**26,968**	**18.20%**	**18,435**

m. Discoms have considered overall distribution losses at LT level which includes commercial losses which is line with methodology followed by PSERC and other SERCs also. Moreover, as open access can be availed by consumers having contract demand of 1 MVA and above, such consumers can be connected at voltages of 11 kV and above only. The Commission is requested to allow the segregation of losses at LT level as per the methodology proposed by the Discoms and followed by other SERCs.

n. Based on the voltage wise asset segregation, the Discoms have allocated the wheeling cost to the asset at respective voltage levels which is depicted in the table below:

Table 87: Wheeling cost allocation into assets at different voltage levels

(Rs. in Crore)

Wheeling Cost Allocation into Assets at different Voltage Levels	JVVNL	AVVNL	JdVVNL
33KV	530	415	688
11KV	2,669	1,742	2,963
LT	3,620	2,942	3,059
Total	**6,819**	**5,099**	**6,710**

o. The assessed wheeling cost (as derived above) at each voltage level have been reallocated to the different voltage levels in the proportion of their contribution to energy input at each voltage levels:

Table 88: Wheeling cost apportioned on the basis of network usage (Rs in Crore)

Derived wheeling cost, apportioned on the basis of usage of network	JVVNL	AVVNL	JdVVNL
33KV	39	31	50
11KV	416	282	456
LT	6,364	4,786	6,205
Total	**6,819**	**5,099**	**6,710**

p. The apportioned wheeling cost as estimated above is used to calculate the wheeling charge applicable at each voltage level on the basis of estimated sales at each voltage level for Rajasthan.

4.2.5 The Discoms submitted that since uniform tariff is prevailing in the State of Rajasthan, therefore, the proposal of average wheeling charges is to be made applicable as the wheeling charges for the open access users in the Rajasthan. Thus, the Discoms have proposed following charges at each voltage to maintain uniform wheeling tariff across the State.

Table 89: Proposed Wheeling Charges for FY 2022-23

Wheeling Charges at 132 KV Voltage Level (Rs/kWh)	0.01
Wheeling Charges at 33 KV Voltage Level (Rs/kWh)	0.19
Wheeling Charges at 11 KV Voltage Level (Rs/kWh)	0.90

Commission's view:

4.2.6 For Computation of wheeling charges, Regulation 86 of the RERC tariff Regulations 2019 provides the following:

" 86 (1) For determination of Wheeling charges of a Distribution Licensee, shall be computed by deducting the following amounts from its aggregate revenue requirement worked out under Regulation 76 (1):
(a) Cost of power purchase as per Regulation 78,
(b) Interest payable on security deposits of consumers,
(c) Transmission & SLDC charges and
(d) 10% of O&M expenses

86 (2) Wheeling charges so worked out shall be apportioned supply voltage-wise on the basis of fixed asset at each voltage level, as submitted by the Distribution Licensee:

Provided that the Distribution Licensee shall work out the voltage wise asset allocation and losses within one year of coming into force of these Regulations or the extended period as approved by the Commission. The Distribution Licensee shall also give the basis of allocation of fixed costs to the different voltage levels, energy supplied at each voltage level and prevalent distribution losses at each voltage level in the petition for determination of wheeling charges:

Provided further that till the time Distribution Licensee submits the actual allocation of fixed assets at each voltage level, the Commission shall apportion fixed assets at each voltage level on the basis of length of distribution lines in ckt. km and transformation capacity in MVA as furnished by the Distribution Licensee or any other methodology which it feels appropriate,

86 (3) Payment of wheeling charges:
Wheeling charges may consist of the following or any one or combination thereof:

(a) Fixed charge in Rs. per month per KW of contracted power.
(b) A charge in Rs. per KWh of energy wheeled separately for
(i) Wire business
(ii) Installation, operation and maintenance of meters, metering system and any other equipment at consumer's premises.
(iii) Billing & collection of payment
(iv) Consumer services.
(c) Connectivity fee.

(d) Reactive energy charge / incentive

4.2.7 Discoms submitted that, presently they do not have audited accounts for voltage wise assets. As per present accounting practices of Rajasthan Discoms, it is difficult to segregate the GFA among the voltage levels directly. Moreover, voltage wise gross fixed asset register would also require the original cost of each asset to be determined, present cost after applying depreciation and allocation to voltage level. Thus, as mentioned earlier, the study is a time intensive exercise considering the quantum of work and data limitation.

4.2.8 Discoms have requested to consider the apportionment of present value of fixed assets and losses based on the network cost, transformation capacity at 33 KV, 11 KV and LT level and system losses to determine the voltage wise wheeling charges and losses.

4.2.9 Discoms have proposed uniform wheeling charges based on the combined figure of three Discoms. Accordingly, the Commission has also determined uniform wheeling charges.

4.2.10 In view of above regulations and submission of Discoms, the Commission has worked out the segregation of wheeling charges at each voltage level based on the cost of line and transformer submitted by the Discoms and losses as approved in order dated19.09.2006 have been considered. Further, to work out the per unit wheeling charges, sales as approved in the instant order has been considered.

4.2.11 The Commission has determined the wheeling charges for FY 2022-23 based on ARR for FY 2022-23.

a) Based on the approved ARR for FY 2022-23, the wheeling charges as per Regulation 86 of RERC (Terms and Conditions for Determination of Tariff) Regulations, 2019 is as under:

Table 90: Wheeling Charges **(Rs in Crore)**

S. No.	Particulars	FY 2022-23			
		JVVNL	AVVNL	JdVVNL	Total
1	**Net Aggregate Revenue Requirement**	21668	16408	19749	57825
2	Cost of Power Purchase	13654	10799	12332	36785
3	Interest Payable on security deposit of consumers	63	48	33	145
4	Transmission Charges	1956	1321	1590	4867
5	10% of O&M Expenses	206	174	201	581
	Subtotal	**15879**	**12342**	**14157**	**42377**
6	**Wheeling Charges (in Crore)**	**5789**	**4066**	**5592**	**15447**

b) As regards wheeling charges at 132 KV and above the Commission accepts submission of the Discoms.

c) Based on the following cost of lines and Transformer as submitted by the Discoms, the aforesaid wheeling charges has been segregated at each voltage level in the following percentage:

Table 91: Cost of lines and Transformer (Rs. In Lakhs)

S. No.	Network at Voltage Level	FY 2022-23			
		JVVNL	AVVNL	JdVVNL	Total
1	132 KV Line Only	-	-	-	-
2	33 KV Lines Only	128,866	130,061	198,751	**457,678**

3	11 KV Lines and 33/11 KV S/S	649,449	545,883	855,620	**2,050,952**
4	LT Lines and 11/0.4 KV S/S	880,728	921,626	883,344	**2,685,698**
Total		**1,659,043**	**1,597,570**	**1,937,715**	**5,194,328**
132 KV Line Only		-	-	-	
33 KV Lines Only		7.77%	8.14%	10.26%	
11 KV Lines and 33/11 KV S/S		39.15%	34.17%	44.16%	
LT Lines and 11/0.4 KV S/S		53.09%	57.69%	45.59%	
Total		100.00%	100.00%	100.00%	

d) Based on the aforesaid percentage, the assets has been segregated at each voltage level as under:

Table 92: Assets Allocation at different Voltage Levels (Rs in Crore)

	JVVNL	AVVNL	JdVVNL
33KV	1,758	1,368	1,891
11KV	8,858	5,741	8,140
LT	12,012	9,692	8,404
Total	**22,628**	**16,801**	**18,435**

e) Further, based on the losses as approved in order dated 19.09.2006 and sales as approved in the instant order has been considered at each voltage level as under:

Table 93: JVVNL sales and losses at each voltage level

Voltage Level	Wheeling Cost in Rs. Crore	FY 2022-23			
		Input (MU)	Sales (MU)	Losses in %age	Loss (in MU)
132 KV	5789	1204	1204	0.00%	0
33 KV		3743	3601	3.80%	142
11 KV		4209	3838	8.80%	370
LT		23928	19478	**18.60%**	4450
Total		**33084**	**28121**	**15.00%**	**4963**

Table 94: AVVNL sales and losses at each voltage level

Voltage Level	Wheeling Cost in Rs. Crore	FY 2022-23			
		Input (MU)	Sales (MU)	Losses in %age	Loss (in MU)
132 KV	4066	2309	2309	0.00%	0
33 KV		1475	1419	3.80%	56
11 KV		3877	3536	8.80%	341
LT		18387	14877	19.09%	3510
Total		**26048**	**22141**	**15.00%**	**3907**

Table 95: JdVVNL sales and losses at each voltage level

Voltage Level	Wheeling Cost in Rs. Crore	FY 2022-23			
		Input (MU)	Sales (MU)	Losses in %age	Loss (in MU)
132 KV	5592	697	697	0.00%	0
33 KV		1198	1152	3.80%	46
11 KV		2039	1860	8.80%	179
LT		25751	21523	**16.42%**	4228
Total		**29685**	**25232**	**15.00%**	**4453**

f) Based on the voltage wise asset segregation, Commission has allocated the wheeling cost to the asset at respective voltage levels which is depicted in the table below:

Table 96: Wheeling cost allocation into assets at different voltage levels(Rs.in Cr.)

Wheeling Cost Allocation into Assets at different Voltage Levels	JVVNL	AVVNL	JdVVNL
33KV	450	331	574
11KV	2266	1389	2469
LT	3073	2346	2549
Total	**5789**	**4066**	**5592**

g) The assessed wheeling cost (as derived above) at each voltage level have been reallocated to the different voltage levels in the proportion of their contribution to energy input at each voltage levels:

Table 97: Wheeling cost apportioned on the basis of network usage (Rs in Cr.)

Derived wheeling cost, apportioned on the basis of usage of network	JVVNL	AVVNL	JdVVNL
33KV	53	21	24
11KV	339	242	181
LT	5397	3804	5387
Total	**5,789**	**4,066**	**5,592**

h) The apportioned wheeling cost as estimated above is used to calculate the wheeling charge applicable at each voltage level on the basis of estimated sales at each voltage level for Rajasthan.

4.2.12 Per unit wheeling charges approved in this order is as under:

Table 98: Per unit Wheeling charges

Wheeling Charges for	FY 2022-23
Wheeling Charges at 132 KV and above Voltage Level (Rs/kWh)	**0.01**
Wheeling Charges at 33 KV Voltage Level (Rs/kWh)	**0.16**
Wheeling Charges at 11 KV Voltage Level (Rs/kWh)	**0.77**

4.2.13 The above Wheeling Charges shall be levied and collected with effect from the date of this Order and remain in force till Wheeling Charges are re-determined by the Commission. Wheeling losses which are in force shall also be continued to remain applicable.

4.3 Cross Subsidy Surcharge

4.3.1 The Discoms have projected the cross-subsidy surcharge for FY 2022-23 as per the formula provided by the Commission in RERC (Terms and Conditions for Determination of Tariff) Regulations, 2019. The relevant clause of the said regulations for cross-subsidy surcharge is as under:

*"**90. Cross-subsidy Surcharge***

The surcharge payable by consumers opting for open access on the network of the Distribution Licensee or transmission Licensee will be determined by the Commission as per the following Formula:

$S = T - [C /(1 - L/ 100) + D+R]$

Where,

***S** is the surcharge;*

***T** is the Tariff payable i.e., Average Billing Rate of the relevant category of consumers;*

***C** is the per unit weighted average cost of power purchase by the Licensee;*

***D** is the aggregate of transmission, distribution and wheeling charges applicable to the relevant voltage level;*

***L** is the aggregate transmission, distribution and commercial losses, expressed as percentage applicable to the relevant voltage level;*

R *is the per unit cost of carrying Regulatory Assets or unfunded gap recognised by the Commission:*

Provided that if S is computed to be negative as per above Formula, S shall be considered as zero."

4.3.2 Discoms submitted that categories of consumers for whom cross-subsidy surcharge is applicable are Large Industries, Mixed Load-HT & Non-Domestic-HT. The details of the tariff for said categories of consumers at different voltage levels is provided below:

Table 99: Tariff for FY 2022-23

Category	Tariff (Rs./kWh)		
	11 kV	33 kV	132 kV
LIP	9.24	8.96	8.87
Mixed Load	9.48	9.20	9.10
NDS (HT)	12.86	12.47	12.34

4.3.3 The Discoms have considered distribution losses at different voltage levels for calculation of cross-subsidy surcharge as per the Commission's Order dated 01.12.2016. The transmission losses have been considered as per the losses projected in ARR for FY 2022-23. The details of the same are provided below:

Table 100: Transmission and Distribution losses considered for cross-subsidy surcharge

Losses	11kV	33kV	132kV
Distribution	12.60%	3.80%	0%
Transmission	4.24%	4.24%	4.24%
Total	**16.84%**	**8.04%**	**4.24%**

4.3.4 The Discoms submitted that Open access consumers are only in the HT category. For these categories, the collection efficiency is 100% and as such there is no commercial loss. So, in calculation of 'L', commercial losses are taken as 0%.

4.3.5 The Discoms submitted that Transmission Cost per unit has been considered as per the projected transmission cost and sales in ARR for FY 2022-23. The aggregate transmission and wheeling cost at different voltage levels has been summarized below:

Table 101: Wheeling and Transmission Costs for FY 2022-23

Discom	Cost per unit (Rs/kWh)	11kV	33kV	132kV
JVVNL	Wheeling cost	0.90	0.19	0.01
	Transmission cost	0.74	0.74	0.74
	Total	**1.64**	**0.92**	**0.75**
AVVNL	Wheeling cost	0.90	0.19	0.01
	Transmission cost	0.68	0.68	0.68
	Total	**1.58**	**0.86**	**0.69**
JdVVNL	Wheeling cost	0.90	0.19	0.01
	Transmission cost	0.66	0.66	0.66
	Total	**1.56**	**0.84**	**0.67**
RAJASTHAN	Wheeling cost	0.90	0.19	0.01
	Transmission cost	0.69	0.69	0.69
	Total	**1.59**	**0.88**	**0.70**

4.3.6 The per unit carrying cost of Regulatory Assets (element 'R') for FY 2022-23 has been determined on the basis of approved interest on unfunded gap by the Commission. The summary of carrying cost for FY 2022-23 is summarized below:

Table 102: Carrying Cost of Regulatory Assets for FY 2022-23

Discom	Interest on unfunded gap (Rs. Cr.)	Total Sales (MU)	Carrying Cost (Rs./unit)
JVVNL	2,184	29,245	0.75
AVVNL	1,440	21,574	0.67
JdVVNL	2,446	26,968	0.91
RAJASTHAN	**6,070**	**77,787**	**0.78**

4.3.7 Based on the above cost parameters, the cross-subsidy surcharge for FY 2022-23 as submitted by Discoms is as under:

Table 103: Cross Subsidy Surcharge for FY 2022-23 –JVVNL, AVVNL & JdVVNL

Category	Voltage (kV)	Tariff (Rs./ kWh)	Weighted Average Power Purchase Cost (Rs./kWh)	Aggregate Transmission, Distribution and Commercial Losses (%)	Aggregate Transmission, Distribution and Wheeling Charges (Rs./kWh)	Carrying cost of Regulatory Assets (Rs./ kWh)	CSS at Existing Tariff (Rs./ kWh)
LIP /	132	8.87	4.17	4.22%	0.70	0.78	3.04
	33	8.96	4.17	8.02%	0.88	0.78	2.78
	11	9.24	4.17	16.82%	1.59	0.78	1.86

Category	Voltage (kV)	Tariff (Rs./ kWh)	Weighted Average Power Purchase Cost (Rs./kWh)	Aggregate Transmission, Distribution and Commercial Losses (%)	Aggregate Transmission, Distribution and Wheeling Charges (Rs./kWh)	Carrying cost of Regulatory Assets (Rs./ kWh)	CSS at Existing Tariff (Rs./ kWh)
Mixed Load-HT	132	9.10	4.17	4.22%	0.70	0.78	3.27
	33	9.20	4.17	8.02%	0.88	0.78	3.01
	11	9.48	4.17	16.82%	1.59	0.78	2.10
NDS-HT	132	12.34	4.17	4.22%	0.70	0.78	6.51
	33	12.47	4.17	8.02%	0.88	0.78	6.28
	11	12.86	4.17	16.82%	1.59	0.78	5.47

Commission's view:

Computation of Cross Subsidy Surcharge

4.3.8 Commission has observed that Discoms have submitted same proposal for Cross subsidy Surcharge. Therefore, Commission has determined uniform Cross subsidy Surcharge as the tariff for these category is uniform across all the Discoms.

4.3.9 Discoms in their petition have submitted the calculation of Cross Subsidy Surcharge for FY 2022-23. The Commission has also determined the ARR for FY 2022-23. Thus, the Commission has determined the Cross Subsidy Surcharge for FY 2022-23 based on ARR for FY 2022-23.

4.3.10 For the purpose of computation of Cross Subsidy Surcharge for FY 2022-23, the Commission has considered the formula as specified in the RERC Tariff Regulations, 2019. Based on the formula as per Tariff Regulations, 2019, the item wise computation of Cross Subsidy Surcharge is as follows:

(1) **"T" (Average Billing Rate of the relevant category of consumers):**

As per Regulation 90 of the Rajasthan Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2019, T is the Tariff payable i.e., Average Billing Rate of the relevant category of consumers.

Table 104: Calculation of "T" for FY 2022-23

Particulars	Avg. Realisation (Rs./per Unit) FY2022-23
Non Domestic Category (NDS)	11.57
Bulk Supply for Mixed Load (ML)	9.74
Large Industries (LIS)	9.11

(2) **"C" (is the per unit weighted average cost of power purchase by the Licensee):**

Based on the figures as approved in foregoing paras, the weighted average cost of power purchase is worked out to be Rs. 3.94/unit for FY 2022-23.

(3) **"L" (is the aggregate transmission, distribution and commercial losses, expressed as percentage applicable to the relevant voltage level):**

a. Commission has considered voltage wise distribution losses as per the Commission's Order dated 01.12.2016. The transmission losses have been considered as per the losses approved in foregoing paras as under :

Table 105: Transmission and Distribution losses considered for FY 2022-23

Losses	11kV	33kV	132KV
Distribution	12.60%	3.80%	0.00%
Transmission	4.87%	4.87%	4.87%
Total	17.47%	8.67%	4.87%

(4) **"D" (is the aggregate of transmission, distribution and wheeling charges applicable to the relevant voltage level):**

Table 106: Transmission, Distribution and Wheeling Charges for 2022-23

Cost per unit (Rs/kWh)	11kV	33kV	132kV
Wheeling cost	0.77	0.16	0.01
Transmission cost	0.64	0.64	0.64
Total	**1.42**	**0.80**	**0.65**

(5) **"R" (is the per unit cost of carrying Regulatory Assets or unfunded gap recognised by the Commission):**

a. While working out the per unit cost of Regulatory Assets, Commission has considered interest on unfunded gap (including Interest on Uday) as approved in forgoing paras.

Table 107: Carrying Cost of Regulatory Assets

Particulars		FY 2022-23
Interest on unfunded gap	Rs. in Crore	6899
Total Sales	(MU)	75494
Carrying Cost	(Rs./unit)	0.91

b. The stakeholder's have contended that CSS should not be increased.

c. Whereas, many of the stakeholder's submitted that as per National Tariff Policy, CSS should be kept at 20% of average tariff.

d. There is no dispute on the legal position that the CSS should be reduced progressively but the reduction should relate to the actual cost and not to historical facts. While determining CSS in the present order, the Commission has to rely on the present values and accordingly has taken the values as approved in its Tariff Order for FY 2022-23. The CSS determined in the order is in accordance with the spirit of the Act on Cross Subsidy Surcharge. However, the Commission has capped CSS at the rate of 20% of Average Tariff as per Tariff Policy.

(6) **"S" (is the surcharge) i.e.,**

$$\mathbf{S = T - [C /(1 - L/ 100) + D+R]}$$

4.3.11 Based on the above discussions, the Cross Subsidy Surcharge payable for FY 2022-23 by the open access consumers works out as below:

Table 108: Cross Subsidy Surcharge for FY 2022-23 as per RERC Tariff Regulations, 2019 (Rs/kWh)

CATEGORY OF CONSUMER	VOLTAGE LEVEL	TARIFF (T)	WEIGHTED AVERAGE COST OF POWER (C)	SYSTEM LOSSES (L)	TRANSIMISSION, DISTRIBUTION AND WHEELING CHARGES (D)	PER UNIT COST OF CARRYING REGULATORY ASSETS (R)	CROSS SUBSIDY SURCHARGE (S)	20% of Tariff	Cross Subsidy Surcharge to be Levied
		(A)	(B)	(C)	(D)	(E)	S=T-[C/(1-L/100)+D+R] (F)	(G)	Min (F,G)
NON DOMESTIC SERVICE	11 KV	11.57	3.94	17.47%	1.42	0.91	4.46	2.31	2.31
	33 KV	11.22	3.94	8.67%	0.80	0.91	5.19	2.24	2.24
	132 KV	11.11	3.94	4.87%	0.65	0.91	5.39	2.22	2.22
MIXED LOAD/ BULK SUPPY	11 KV	9.74	3.94	17.47%	1.42	0.91	2.63	1.95	1.95
	33 KV	9.45	3.94	8.67%	0.80	0.91	3.41	1.89	1.89
	132 KV	9.35	3.94	4.87%	0.65	0.91	3.64	1.87	1.87
LARGE INDUSTRIAL SERVICE	11 KV	9.11	3.94	17.47%	1.42	0.91	2.00	1.82	1.82
	33 KV	8.84	3.94	8.67%	0.80	0.91	2.81	1.77	1.77
	132 KV	8.75	3.94	4.87%	0.65	0.91	3.04	1.75	1.75

4.3.12 Accordingly, the Commission determines the following Cross Subsidy Surcharge payable for FY 2022-23 by Open Access Consumers of the respective category who are liable to pay CSS in accordance with the Electricity Act, 2003 and Rules and Regulations made there under:

Table 109: CSS as Approved by the Commission

Category of Open Access Consumer	Voltage Level	Cross Subsidy Surcharge (Rs./Unit) FY 2022-23
NON DOMESTIC SERVICE	11 KV	2.31
	33 KV	2.24
	132 KV and above	2.22
MIXED LOAD/ BULK SUPPY	11 KV	1.95
	33 KV	1.89
	132 KV and above	1.87
LARGE INDUSTRIAL SERVICE	11 KV	1.82
	33 KV	1.77
	132 KV and above	1.75

4.3.13 The above Cross Subsidy Surcharge shall be levied and collected with effect from the date of this Order and remain in force till CSS is re-determined by the Commission.

4.4 **Additional Surcharge**

4.4.1 The Discoms have submitted the following regarding the additional surcharge.

Section 43 of the Electricity Act, 2003 provides for a duty on the distribution licensees of the area of supply to develop and maintain an efficient, coordinated and economical distribution system and to supply electricity to all in the area in accordance with the provisions of the Act. Section 43 (1) of the Electricity Act reads as under:

"Section 43. (Duty to supply on request): --- (1) 1[Save as otherwise provided in this Act, every distribution] licensee, shall, on an application by the owner or occupier of any premises, give supply of electricity to such premises, within one month after receipt of the application requiring such supply:

Provided that where such supply requires extension of distribution mains, or commissioning of new sub-stations, the distribution licensee shall supply the electricity to such premises immediately after such extension or commissioning or within such period as may be specified by the Appropriate Commission: Provided further that in case of a village or hamlet or area wherein no provision for supply of electricity exists, the Appropriate Commission may extend the said period as it may consider necessary for electrification of such village or hamlet or area.

1[Explanation.- For the purposes of this sub-section, "application" means the application complete in all respects in the appropriate form, as required by the distribution licensee, along with documents showing payment of necessary charges and other compliances.]"

To meet the universal supply obligation, Discoms have entered into long term PPAs with Generating Companies which inter-alia provide for payment of the guaranteed fixed charges payable irrespective of the fact whether Discoms are able to off take the entire power made available over the plant load factor.

In exercise of the powers under Section 181 of the Electricity Act, 2003, the State Commission has notified the Open Access Regulations, 2016, inter alia, providing for a person with contract demand of one MVA and above to draw electricity from sources other than the distribution licensees of the area through the Open Access.

Whenever any consumer opts for open access, the Petitioner continues to pay fixed charges to its contracted generation stations as per the PPAs. However, the Petitioner is not able to sufficiently recover such fixed cost obligation from the open access consumers. The cost recovered from fixed tariff schedule is less than the fixed costs incurred by the Petitioner which leads to the situation where the Petitioner is saddled with the stranded cost on account of its universal supply obligation.

To ensure that the burden of fixed cost of stranded power due to open access does not adversely impact the Discoms and is also not passed onto the general consumers at large, the Discoms are entitled to collect Additional Surcharge as per Section 42 (4) of the Electricity Act, 2003.

"Section 42 (4): Where the State Commission permits a consumer or class of consumers to receive supply of electricity from a person other than the distribution licensee of his area of supply, such consumer shall be liable to pay an additional surcharge on the charges of wheeling, as may be specified by the State Commission, to meet the fixed cost of such distribution licensee arising out of his obligation to supply."

Regulation 17 of the RERC Open Access Regulations, 2016 also entitle the Petitioners to collect additional surcharge from consumers opting for open access.

"17. Additional Surcharge

(1) A consumer availing open access and receiving supply of electricity from a person other than the Distribution Licensee of his area of supply shall pay to the Distribution Licensee an additional surcharge, in addition to wheeling charges and cross subsidy surcharge, to meet the fixed cost of such Distribution Licensee arising out of his obligation to supply as provided under sub-section (4) of section 42 of the Act."

The Commission in its order dated 24th August 2016 has determined the additional surcharge payable by open access consumers using the following methodology.

"114. The lower of the back-down quantum and open access quantum has been considered as power surrendered due to open access for each of the 96 time blocks in a day, i.e., if the back down quantum is more than the open

access quantum, the open access quantum has been considered, and if the back down quantum is less than the open access quantum, then the back down quantum has been considered as the quantum stranded due to Open Access Consumers not sourcing power from Discoms. This ensures that only the power stranded because of Open Access Consumers is taken.

115. Since the quantum of power surrendered every day is not from a specific power plant, and fixed cost associated with every power plant is different, the Commission has calculated an effective per unit fixed cost for every month by calculating weighted average fixed cost per unit based on the relevant tariff order of generating station against fixed charges and the quantum of energy drawn from each station for FY 2015-16 (up to Jan 2016).

116. To work out a total effective per unit fixed cost of generation backed down, the fixed costs for the individual power plant units as per tariff order have been taken in the same proportion as the proportion in which individual power plant units have contributed to the surrendering of power. As compared to the consideration of actual payments made to generators, taking the fixed costs as per tariff orders eliminates all apprehensions about the period for which payments pertain. Thus, the rates of fixed costs are consistent.

117. This fixed cost has been considered for calculating the amount of total fixed charges that the Petitioner has paid because of the total stranded power owing to corresponding open access for FY 2015-16 (up to Jan.16).

118. To compute the Additional Surcharge recoverable, the effective per unit fixed cost obtained as explained above is multiplied to the quantum of stranded power (in MUs) which has been considered to be surrendered because of consumers opting for open access.

119. To compute per unit Additional Surcharge to be levied on Open Access Consumers, it has been assumed that the Open Access scenario will remain the same in FY 2016-17. Therefore, the total Additional Surcharge recoverable for the FY 2015-16 (up to Jan.16) computed above has been spread over the total open access quantum for the FY 2015-16 (up to Jan.16) to arrive at Additional Surcharge of Rs. 0.80 per unit."

Accordingly, the computation of additional surcharge for FY 2022-23 is based on the following methodology.

The lower of the stranded power (backdown quantum + boxup quantum) and open access quantum has been considered as power surrendered due to open access for each of the 96 time blocks in a day, i.e., if the quantum of stranded power is more than the open access quantum, the open access quantum has been considered, and if the stranded power quantum is less than the open access quantum, then the stranded power quantum has been considered as the quantum stranded due to Open Access Consumers not sourcing power from Discoms. This ensures that only the power stranded because of Open Access Consumers is taken.

Since the quantum of power surrendered every day is not from a specific power plant, and fixed cost associated with every power plant is different, the Discoms have calculated an effective per unit fixed cost by calculating weighted average fixed cost per unit based on the relevant tariff order of generating station against fixed charges and the quantum of energy drawn from each station for FY 2020-21.

To work out a total effective per unit fixed cost of generation stranded, the fixed costs for the individual power plant units as per tariff order have been taken in the same proportion as the proportion in which individual power plant units have contributed to the surrendering of power. As compared to the consideration of actual payments made to generators, taking the fixed costs as per tariff orders eliminates all apprehensions about the period for which payments pertain. Thus, the rates of fixed costs are consistent.

This fixed cost has been considered for calculating the amount of total fixed charges that the Petitioner has paid because of the total stranded power owing to corresponding open access for FY 2020-21.

To compute the Additional Surcharge recoverable, the effective per unit fixed cost obtained as explained above is multiplied to the quantum of stranded power (in MUs) which has been surrendered because of consumers opting for open access.

To compute per unit Additional Surcharge to be levied on Open Access Consumers in the FY 2022-23, it has been assumed that the Open Access scenario will remain the same in FY 2022-23 as in FY 2020-21. Therefore, the total Additional Surcharge recoverable for the FY 2022-23 computed above has been spread over the total open access quantum for the FY 2020-21 to arrive at the payable Additional Surcharge.

For the sake of brevity, the daily block wise details of station wise power backed *down, power boxed up and bilateral purchases along with net open access have been provided.*

4.4.2 Based on the above submission, the Discoms proposed additional surcharge for FY 2022-23 based on data of FY 2020-21as below.

i. Stranded power due to Open Access (MW):

Table 110: Stranded power due to Open Access (MW):

Month	Backdown Aggregated over 96 Time Blocks	Boxup Aggregated over 96 Time Blocks	Boxup + Backdown aggregated over 96 time blocks	Open Access Aggregated over 96 Time Blocks	Backdown due to Open Access Aggregated over 96 Time Blocks
	1	2	4	5	6
	MW	MW	MW	MW	MW
April	2374460	3420385	5794845	466671	456749
May	2119971	1504250	3624221	538710	434018
June	2017556	533500	2551056	476054	332670
July	1647555	3733525	5381080	933208	815504
August	2485568	4516645	7002213	351395	331001
September	2142853	1775490	3918343	365107	336306
October	1512219	2054120	3566339	1509745	1193956
November	2227167	2108680	4335847	1927357	1300402
December	2348524	2589930	4938454	2218335	1580186
January	2213387	2446170	4659557	1983616	1757864
February	1511330	2148830	3660160	1680071	1361419
March	1297770	6481215	7778985	2486096	2409278
Total	**23898359**	**33312740**	**57211099**	**14936365**	**12309353**

It may be observed that there is continuous stranded capacity over the entire period for which data has been submitted. It has to be noted that stranded capacity may vary in a day, a month and the year depending upon the load conditions and therefore, the overall situation needs to be considered. It is clearly demonstrable through the data that there is stranded capacity occurring on account of the consumers availing open access to source power from sources other than Discoms.

ii. Effective fixed cost of generation stranded (Rs./kWh):

Table 111: Effective fixed cost of generation stranded (Rs./kWh)

Station	Power Stranded in FY 2020-21 (MU)	% of surrender	Fixed charges (approved Rs./kWh)	Component of fixed cost (Rs./kWh)
ANTA-GTPS	14	0.10%	0.71	0.00
AURIYA GTPS	21	0.15%	0.63	0.00
DADRI GTPS	48	0.34%	0.58	0.00
NCPP-2 (Dadri-II Thermal)	182	1.27%	1.46	0.02
UNCHAHAR 1	71	0.50%	1.08	0.01
UNCHAHAR 2	188	1.32%	1.00	0.01
UNCHAHAR 3	117	0.82%	1.35	0.01
UNCHAHAR 4	283	1.98%	1.56	0.03
MEJA	47	0.33%	1.91	0.01
FARAKKA STPS	30	0.21%	0.82	0.00
TANDA II	148	1.04%	1.60	0.02
KAHALGAON- 1 STPS	29	0.20%	1.05	0.00
KAHALGAON-2 STPS	110	0.77%	1.09	0.01
PTC DB POWER	87	0.61%	2.72	0.02
PTC MCCPL	67	0.47%	1.76	0.01
CGPL	318	2.23%	0.90	0.02
SINGRAULI STPS	145	1.01%	0.66	0.01
RIHAND 1 STPS	53	0.37%	0.84	0.00
RIHAND 2 STPS	55	0.39%	0.70	0.00
RIHAND 3 STPS	35	0.24%	1.44	0.00
Sasan	38	0.27%	0.17	0.00
DCCPP	1	0.01%	1.02	0.00
Ramgarh GTP(Stage-III)	0	0.00%	1.17	0.00
STPS-(I-VI)	6071	42.45%	0.74	0.31
STPS-VII	97	0.68%	2.04	0.01
KTPS Unit(I-VII)	2745	19.19%	0.61	0.12
ADANI POWER	1057	7.39%	1.31	0.10
Rajwest Power	479	3.35%	1.70	0.06
CTPP 1,2,3,4	561	3.92%	1.44	0.06
NLC Barsinghsar	5	0.03%	2.31	0.00
DCCPP SPOT	22	0.15%	1.86	0.00
VSLP	38	0.26%	1.86	0.00
CTPP-V & VI	355	2.48%	1.66	0.04
Kalisindh TPP-I & II	785	5.49%	1.73	0.09
Total	**14303**	**100.00%**		**0.98**

iii. Additional surcharge to be levied in the FY 2022-23

Table 112: Additional surcharge to be levied in the FY 2022-23

	Open Access Aggregated over each time block	Total Open Access	Back-down due to Open Access Aggregated over 96 Time Blocks	Back-down due to Open Access	Effective Fixed Cost	Additional Surcharge
	MW	MU	MW	MU	Rs. / kWh	Rs. Cr.
Total	**14936365**	**3734**	**12309353**	**3077**	0.98	**297.15**
Additional Surcharge Recoverable per unit considering same open access scenario for the next year (Rs./kWh) (Total Additional Surcharge/Total Open Access*10)						**0.80**

Commission View

4.4.3 The Commission has determined the Additional Surcharge for FY 2022-23 based on actual as submitted by Discoms for FY 2020-21.

4.4.4 Since the quantum of power surrendered every day is not from a specific power plant, and fixed cost associated with every power plant is different, the Commission has calculated an effective per unit fixed cost for every month by calculating weighted average fixed cost per unit based on the relevant tariff order of generating station against fixed charges and the quantum of energy drawn from each station for FY 2020-21.

4.4.5 To work out a total effective per unit fixed cost of generation backed down, the fixed costs for the individual power plant units as per tariff order have been taken in the same proportion as the proportion in which individual power plant units have contributed to the surrendering of power. As compared to the consideration of actual payments made to generators, taking the fixed costs as per tariff orders eliminates all apprehensions about the period for which payments pertain. Thus, the rates of fixed costs are consistent.

4.4.6 This fixed cost has been considered for calculating the amount of total fixed charges that the Petitioner has paid because of the total stranded power owing to corresponding open access for FY 2020-21.

4.4.7 To compute the Additional Surcharge recoverable, the effective per unit fixed cost obtained as explained above is multiplied to the quantum of stranded power (in MUs) which has been considered to be surrendered because of consumers opting for open access.

Calculation of Additional Surcharge based on the above method

4.4.8 In view of the above, Additional Surcharge for FY 2022-23 is worked out as below:

i. Calculation of back down due to Open Access (MW):

Table 113: back down due to Open Access (MW)

Month	Backdown Aggregated over 96 Time Blocks	Boxup Aggregated over 96 Time Block	Boxup + Backdown aggregated over 96 time blocks	Open Access Aggregated over 96 Time Blocks	Backdown due to Open Access Aggregated over 96 Time Blocks
	MW	**MW**	**MW**	**MW**	**MW**
April	2374460	3420385	5794845	466671	456749
May	2119971	1504250	3624221	538710	434018
June	2017556	533500	2551056	476054	332670
July	1647555	3733525	5381080	933208	815504
August	2485568	4516645	7002213	351395	331001
September	2142853	1775490	3918343	365107	336306
October	1512219	2054120	3566339	1509745	1193956
November	2227167	2108680	4335847	1927357	1300402
December	2348524	2589930	4938454	2218335	1580186
January	2213387	2446170	4659557	1983616	1757864
February	1511330	2148830	3660160	1680071	1361419
March	1297770	6481215	7778985	2486096	2409278
Total	**23898359**	**33312740**	**57211099**	**14936365**	**12309353**

ii. Calculation of effective fixed cost of generation back down:

Table 114: Effective fixed cost of generation back down

Station	Power Stranded in FY 2020-21 (MU)	% of surrender	Fixed charges (approved Rs./kWh)	Component of fixed cost (Rs./kWh)
ANTA-GTPS	14	0.10%	0.71	0.00
AURIYA GTPS	21	0.15%	0.63	0.00
DADRI GTPS	48	0.34%	0.52	0.00
NCPP-2 (Dadri-II	182	1.27%	1.39	0.02

Station	Power Stranded in FY 2020-21 (MU)	% of surrender	Fixed charges (approved Rs./kWh)	Component of fixed cost (Rs./kWh)
Thermal)				
UNCHAHAR 1	71	0.50%	1.08	0.01
UNCHAHAR 2	188	1.32%	1.10	0.01
UNCHAHAR 3	117	0.82%	1.35	0.01
UNCHAHAR 4	283	1.98%	1.66	0.03
MEJA	47	0.33%	2.04	0.01
FARAKKA STPS	30	0.21%	0.82	0.00
TANDA II	148	1.04%	1.47	0.02
KAHALGAON- 1 STPS	29	0.20%	1.05	0.00
KAHALGAON-2 STPS	110	0.77%	1.09	0.01
PTC DB POWER	87	0.61%	2.18	0.01
PTC MCCPL	67	0.47%	1.69	0.01
CGPL	318	2.23%	0.90	0.02
SINGRAULI STPS	145	1.01%	0.66	0.01
RIHAND 1 STPS	53	0.37%	0.84	0.00
RIHAND 2 STPS	55	0.39%	0.77	0.00
RIHAND 3 STPS	35	0.24%	1.44	0.00
Sasan	38	0.27%	0.17	0.00
DCCPP	1	0.01%		-
Ramgarh GTP(Stage-III)	0	0.00%	0.93	0.00
STPS-(I-VI)	6071	42.45%	0.59	0.25
STPS-VII	97	0.68%	2.04	0.01
KTPS Unit(I-VII)	2745	19.19%	0.57	0.11
ADANI POWER	1057	7.39%	1.27	0.09
Rajwest Power	479	3.35%	1.70	0.06
CTPP 1,2,3,4	561	3.92%	1.19	0.05
NLC Barsinghsar	5	0.03%	2.31	0.00
DCCPP SPOT	22	0.15%	-	-
VSLP	38	0.26%	1.86	0.00
CTPP-V & VI	355	2.48%	1.49	0.04
Kalisindh TPP-I & II	785	5.49%	1.37	0.08
Total	**14303**	**100.00%**		**0.86**

iii. Calculation of Additional Surcharge based on above for FY 2022-23

Table 115: Additional Surcharge

	Open Access Aggregated over each time block	Total Open Access	Back-down due to Open Access Aggregated over 96 Time Blocks	Back-down due to Open Access	Effective Fixed Cost	Additional Surcharge
	MW	**MU**	**MW**	**MU**	**Rs. / kWh**	**Rs. Cr.**
Total	**14936365**	**3734**	**12309353**	**3077**	**0.86**	**261**
Additional Surcharge Recoverable per unit considering same open access scenario for the next year (Rs./kWh) (Total Additional Surcharge/Total Open Access*10)						**0.70**

4.4.9 In view of the foregoing discussion, the Commission hereby allows Additional Surcharge at Rs. 0.70/unit to be recoverable from all the Open Access consumers except CPPs to the extent they consume the electricity generated by them for their own use.

4.4.10 The above additional Surcharge shall be levied and collected with effect from the date of this Order and remain in force till additional surcharge is re-determined by the Commission.

4.5 Revenue Deficit

Submission of Discoms

4.5.1 Discoms in their petition have shown a combined deficit of Rs. 4686 Crore for FY 2022-23. The Discoms submitted that they have taken various initiatives to improve overall efficiency such as Loss Reduction, Feeder Segregation, Billing efficiency, Network Strengthening, Cost Optimisation, Vigilance Drives, Focus on customer service and other efficiency improvement measures.

4.5.2 The Govt. of Rajasthan has participated in Revamped Distribution Sector Scheme (RDSS) of Govt. of India, where one of the mandatory criteria is that the DISCOMs will have ensured that no new Regulatory Assets have been created in latest tariff determination cycle and first evaluation would take place in FY 2022-23. Under RDSS, Govt. of Rajasthan shall have the responsibility "To facilitate/enable approval of tariff for the DISCOM in time every year as per regulations and finance Regulatory Assets and financial losses".

4.5.3 With regards to Commission query on non-creation of Regulatory Assets as per condition of RDSS the Discoms submitted that, although under RDSS, the Discoms have to ensure that no further Regulatory Assets are to be created in forthcoming years, it is not entirely on practical lines to assume that the Regulatory Assets can be stopped in one shot go. A multitude of factors like historical background and performance of the Discoms have to be given due consideration while determining the way forward in regard to the non-creation of further Regulatory Assets. Discoms submitted that in due course of time, shall pursue the matter with Govt. of India.

4.5.4 While allowing additional borrowing limit of 0.50 percent of Gross State Domestic Product (GSDP) linked to performance in the power sector, Govt. of Rajasthan has undertaken to take over future losses of Discoms in the following manner:

2022-23	2023-24	2024-25	2025-26 & onwards
60% Loss for the year 2021-22	75% Loss for the year 2022-23	90% Loss for the year 2023-24	100% Loss for the year 2024-25 & onwards

4.5.5 However, Discoms in the instant ARR and Tariff petition for FY 2022-23 have shown gap and requested to create new Regulatory Assets despite the provisions of RDSS. Discoms also submitted that they do not wish to burden its consumers with another tariff hike after the hike approved by the Commission in FY 2019-20 vide Tariff Order dated 06.02.2020, especially considering the aftermath of the COVID pandemic. Further, GoR support is not practically feasible at the moment.

4.5.6 Discoms submitted that even though, Discoms will have to bear remaining loss of 25% for FY 2022-23 & 10% for FY 2023-24. As Govt. of Rajasthan has undertaken to liquidate upto 75% of loss for FY 2022-23 in FY 2023-24 yet Discoms shall have to bear expected loss in FY 2022-23 of Rs. 1171 Cr. (i.e. 25% of Rs. 4686 Cr.).

4.5.7 As regards the creation of Regulatory Assets, Discoms acknowledged to ensure that there would be no further creation of Regulatory Assets as per various orders issued by the GoI. The Discoms also resonate with the view of the Ministry/ Regulatory bodies regarding no further creation of Regulatory Assets and is a step in the right direction.

4.5.8 The Discoms submitted that the effective implementation of any such step that too in a sector which stands in a poor financial health not just in the State of Rajasthan but also on a national level needs much needed strategic planning with due consideration to other state specific parameters also.

4.5.9 The sudden impact of such non-consideration/ non-creation of Regulatory Assets would be on the Government of Rajasthan in the form of increased subsidy levels or loss takeover. To further burden the GoR, which is already committed towards taking up the financial losses of the Discom in a planned manner as stated under the FRBM enhancement scheme, is not a favourable option. Besides, the State Government has also agreed to liquidate the outstanding tariff subsidy of the Discoms to the tune of Rs 17,459 Cr (as on 31.03.21) over the next 5 years under the RDSS scheme. In view of the increasing annual subsidy burden on the GoR, financial loss takeover, liquidation of outstanding subsidy and equity support for RDSS and other capital works, the burden on the GoR for FY 23 already stands at Rs 30,000 Cr.

4.5.10 As a sector that holds consumer interest at its paramount, sudden non-creation of Regulatory Assets would imply that the same are met either via tariff hikes to the consumers or via GoR support, which may not be practically feasible at the moment. The Petitioners also are fully intent and committed towards eradication of Regulatory Assets and shall be putting in its sincere efforts to reach such ideal scenarios. Discoms accordingly prayed to consider the gap of Rs. 2,881 Cr. on Regulatory Assets.

Commission's View

4.5.11 The Commission notes the commitment of GOR given to Govt of India for taking over the losses while seeking additional borrowing limit of 0.5% of GSDP.

4.5.12 The Commission also notes that one of important pre-qualification criteria of RDSS Scheme is that the Discoms will have to ensure that no new Regulatory Assets are created in latest tariff determination cycle. Under RDSS, Govt. of Rajasthan shall have the responsibility "To facilitate/enable approval of tariff for the DISCOM in time every year as per regulations and finance Regulatory Assets and Financial Losses.

4.5.13 In Commission's view as per the provisions of FRBM scheme read with provision of RDSS scheme, the Regulatory Assets and balance financial losses after takeover are also to be financed by Govt. of Rajasthan.

4.5.14 The Commission while approving the Investment Plan has approved proposed

Capex under RDSS Scheme and is of the clear view that there should not be any new Regulatory Assets for the FY 2022-23 onwards and Discoms should ensure to get the full benefit of grant under RDSS from Govt. of India by complying with all its conditions. In view of above, Commission shall not consider creation of any Regulatory Assets for FY 2022-23 onwards.

4.5.15 Against the deficit of Rs. 4686 Crore proposed by Discoms, Commission has approved the combined Surplus of Rs. 371 Crore at existing tariff for FY 2022-23 and after taking impact of ToD rebate, as Rs. 199 Crore, impact of change in base year for incremental consumption as Rs.157 Crore and impact of Rs. 200 Crore on account of change of categorization of Tourism and Hospitality consumers, the combined surplus of Discoms will be Rs. 526 Crore. If in future years further surplus situation arises, any surplus shall be adjusted against the accumulated revenue gap of previous years.

4.5.16 As such for FY 2022-23 no Regulatory Assets have been created. The Commission would like to mention that the combined unfunded gap for Rajasthan Discoms up to FY 2019-20 as assessed vide true up order dt. 27.01.2021 for FY 2018-19 and ARR order dt. 6.2.2020 for FY 2019-20 was Rs. 48912 Crore. However, for FY 2022-23 the unfunded gap assessed after considering true up order for FY 2020-21, ARR order for FY 2021-22 and surplus of current order of Rs. 526 Crore comes out to be Rs 48368 Crore. As such no new Regulatory Assets have been considered over the years. In the true up order for FY 2020-21 the Commission noted that the Government of Rajasthan is charging interest on account of UDAY loan and if that is reversed for FY 19-20 to FY 22-23 the unfunded gap will be further reduced by Rs. 6184 Crore. As such, the Commission advises Government of Rajasthan not to charge the interest on UDAY loan and reverse the amount already charged.

4.5.17 Discoms should attempt to bridge the accumulated gap by taking measures for loss reduction, efficiency improvement and cost optimization. The Government may also consider to reallocate power or provide additional subsidy support to JdVVNL so as to remove differentiation in gap due to adverse consumer mix and climatic conditions in JdVVNL.

4.5.18 Before parting the Commission would like to again mention that the Commission in future will not increase any unfunded gap or create additional Regulatory Assets. For future years Discoms may either propose tariff hike, improve internal efficiency or request State Government to take over 100% losses of Discoms.

4.5.19 In the Section 5, the Commission has reviewed compliance of its directives and issued fresh directives to the Discoms. MDs of each Discom are directed to personally submit a compliance report of these directives as well as directions given earlier as per the periodicity called for.

4.5.20 This tariff order shall come into force from the date of issue of this order and remain in force till the next tariff order of the Commission. All existing provisions which are not modified by this order shall continue to be in force. Discoms shall publish salient features of tariff within one week in two daily newspapers in Hindi and one in English having large circulation in their respective areas of supply. Discoms shall revise the existing tariff structure in accordance with this order and publish in Hindi and English a booklet containing all details of tariff and its applicability for the benefit of consumers. It should be made available for sale to general public at a nominal price.

(Dr. Rajesh Sharma)	(Hemant Kumar Jain)	(Dr. B. N. Sharma)
Member	Member	Chairman

<u>**Section 5- Commission Directives**</u>

5.1 The Commission in its last order dated 24.11.2021 issued certain directives/ measures for improvement in working of the Discoms. The submission of the Discoms on these is summarized below:

<table>
<tr><th>Directive</th><th>Submission</th></tr>
<tr><td colspan="2"><u>Reduction of Losses and Control of Theft</u></td></tr>
<tr><td>The Commission till now has given overall distribution loss target. It has been observed that the distribution losses target i.e. 15% is the target for combined losses inclusive of Losses at 33 KV, 11 KV and LT Level. However, for FY 2022-23 onwards, the Commission may consider the 15% Losses only at LT level. Therefore, the combined distribution losses shall be lower than 15%. Hence, The Discoms are directed to furnish the voltage wise sales and losses in next petition and based on that Commission may consider to set voltage wise loss</td><td>JVVNL, AVVNL & JdVVNL: The voltage wise sales for FY 2020-21 and FY 2021-22 are as under:

JVVNL Voltage wise Sales (MU)
<table>
<tr><th>Voltage Level</th><th>2020-21</th><th>2021-22</th></tr>
<tr><td>11 KV</td><td>2855.95</td><td>3585.38</td></tr>
<tr><td>33 KV</td><td>2994.73</td><td>3363.26</td></tr>
<tr><td>132 KV</td><td>844.76</td><td>1124.68</td></tr>
<tr><td>TOTAL</td><td>6695.44</td><td>8073.32</td></tr>
</table>
AVVNL Voltage wise Sales (MU)
<table>
<tr><th>Voltage Level</th><th>2020-21</th><th>2021-22</th></tr>
<tr><td>11 kV</td><td>2,924</td><td>3,184</td></tr>
<tr><td>33 kV</td><td>1,045</td><td>1,278</td></tr>
<tr><td>Above 33 kV</td><td>1,242</td><td>2,079</td></tr>
<tr><td>TOTAL</td><td>5,210</td><td>6,541</td></tr>
</table>
JdVVNL Voltage-wise Sales (MU)
<table>
<tr><th>Voltage level</th><th>2020-21</th><th>2021-22</th></tr>
<tr><td>11KV</td><td>1480.46</td><td>1699.84</td></tr>
<tr><td>33KV</td><td>989.57</td><td>1053.48</td></tr>
<tr><td>132 KV</td><td>225.91</td><td>436.32</td></tr>
<tr><td>220KV</td><td>59.43</td><td>200.53</td></tr>
<tr><td>Total</td><td>2755.37</td><td>3390.17</td></tr>
</table>
Discoms Submitted that Voltage-wise losses can be determined once 100% metering is achieved at all the voltage nodes across the infrastructure. Presently, the Discoms have almost completed metering across all its feeders and aims to achieve 100% feeder metering by December 2022, as per commitment under RDSS. The Discoms is yet to achieve 100% DT Metering, which the Discom is committed to complete by December 2023,</td></tr>
</table>

Directive	Submission
targets.	under the RDSS scheme. On the consumer end, barring 48000 agriculture consumers across the 3 Discoms, remaining 1.5 Cr consumers are metered. To ascertain voltage-wise losses, it is essential that the necessary metering infrastructure is in place. The Discoms humbly requests the Commission to grant some more time regarding the same. Further, Discoms submitted that in order to carry out a study on voltage wise losses Discoms submitted that necessary directions have been imparted to concerned officers of Discom to furnish voltage wise losses at 33 KV, 11 KV and LT level for one (1) number 33/11 KV S/S.
Discoms are directed to ensure the proper metering of 11 KV feeders either departmentally or through outsourcing and monitoring of 11 KV feeders which will result into reduction in feeder losses. Each feeder should be treated as a management and profit center and feeder manager should be made fully responsible for each feeder.	**JVVNL**: There are 9466 (nos.) feeders in the area of Jaipur Discom and all the feeders are metered. Further, the work for feeder meter data acquisition system has been awarded to two firms namely M/s Linkwell Ltd. and M/s Fox Solution Ltd. Out of the 9,466 nos. feeders, modems have been installed on 8,457 (or 90%) of the feeders which are communicable. Installation of modems on the remaining feeders is under progress. The Discom has committed a target of achieving 100% feeder metering with communication with National Portal by December 2022. **AVVNL:** Done 100 % Feeder Metering on all 9386 (nos.) 11 KV feeders and 980 (nos.) 33 kV feeders (installed and maintained by RRVPNL) and respective Astt. Engineer (FIS) was made responsible for up keeping the 11kV Feeder metering system. A status of range wise loss analysis of 33 KV feeders carried out in FY 2021-22 is submitted. AVVNL also submitted that Issued an order vide No. 17 dated 25.04.2022 wherein in each XEN/AEN/JEN is directed to identify one high loss 11 KV feeder in its area and convert it to "Ideal Feeder" by reduction in loss, ensuring tripping not more than the specified norms, 0% transformer burning rate, no defective/stopped meters, 100% checking of DC & PDC premises, quick releasing of new DL connections, reducing high risk points to zero, replacement of burnt transformers in 48 hours, theft free feeder & redressal of grievances quickly & efficiently. These activities will result in

<table>
<tr><th>Directive</th><th>Submission</th></tr>
<tr><td></td><td>feeder being converted into profit making entity alongwith enhanced consumer satisfaction due to quality of supply. The copy of order and the list of feeders identified by concerned officers has submitted.

JdVVNL: There are 99.46% of 11Kvfeeder metering has been completed (i.e., 11,627 No's of feeders are metered out of 11,690).8,511 feeders (i.e., 72.8%) which are equipped through AMR metering. Installation of Modems on remaining feeders is under progress. The Discom has committed a target of achieving 100% feeder metering with communication with National portal by December 2022. The circle-wise information of Number of 11KV feeder meters installed, number of Modem installed is submitted.

Discoms submitted that they have already taken an initiative to treat every feeder as profit center. Discoms vide order dated 31.08.2015 have designated feeder in-charges at each feeder & assigned responsibility includes proper operations and maintenance of 11 kV lines, 11/0.4 kV substation/transformer, LT lines, services lines for their respective feeders. The feeder in-charges have been entrusted with the task of constant monitoring and reducing of the AT&C losses on their respective feeders and suitable actions may be initiated against them in case of non-reduction in losses.</td></tr>
<tr><td>Discoms should identify the industrial feeders with more than 5% losses and ensure proper monitoring and supervision of such feeders, so that the losses of such feeders should be brought to less than 5%.</td><td>**JVVNL**: The industrial feeders are regularly monitored and supervised by the concerned officials of the area as well as by the Corporate Office and required technical operations are carried out accordingly.

Analysis of industrial feeders indicates the following:

<table>
<tr><th></th><th>Total No of Feeders</th><th>Feeders with Losses> 5%</th><th>% of feeders with losses > 5%</th></tr>
<tr><td>FY 2019-20</td><td>247</td><td>14</td><td>6%</td></tr>
<tr><td>FY 2020-21</td><td>290</td><td>23</td><td>8%</td></tr>
</table>
AVVNL: The industrial area wise feeders are regularly monitored and supervised by the concerned officials of the</td></tr>
</table>

Directive	Submission
	area as well as by the management and required technical operations are carried out accordingly wherever needed. The Industrial Feeder (161 Nos.) wise losses up-to March 22 have been submitted. Only one Industrial Feeder namely 11 KV RIICO-I feeder in Industrial Area Palsana under Reengus (O&M) Division has T&D losses of just more than 5% i.e. 5.65 %. This is due to the fact that this is not a purely industrial feeder. Only 147 consumers exists on this feeder out of which >50% are DL/NDS/PSL. Losses of some of the feeders are in negative owing to the excess solar generation. The status of Industrial area wise losses is submitted. No industrial area in Discom has T&D loss over 5%. **JdVVNL:** Total 181 number of industrial feeders are there in Jodhpur Discom. Out of which only one feeder is having more than 5% losses in Jodhpur Zone. Monitoring and supervision work on this feeder is done on regular basis in order to reduce the losses below 5%. The circle-wise, sub-division wise report of industrial feeders along with losses for FY 2020-21 and FY 2021-22 is submitted**.**
Take necessary initiatives to reduce the scope of theft like regular checking of theft prone installations	**JVVNL:** To prevent pilferage of energy/electricity theft, regular vigilance checking of consumers/non consumers are being carried out by the vigilance and O&M officers in their respective jurisdiction to book the offenders indulged in theft of electricity and necessary legal action is being initiated as per the provisions of the E.A. 2003. Apart from this, the high losses areas/feeders have been identified every month with consultation to the Circle SEs and the same being allotted to the vigilance officers for intensive checking in that area/feeders. Sincere efforts are being made to recovery of assessed amount from the offenders. The Discoms submitted that the information of vigilance checking carried out by the vigilance& O&M officers in the FY 2021-22 as under: JVVNL: a) Total number of Checkings: 60,123 b) Theft cases: 56,340

Directive	Submission
	c) Assessment (in lakhs): Rs 136,37 d) Realization (in lakhs): Rs 6,738 e) FIRs lodged (Nos): 8,121 **AVVNL:** During the current year, the Discom has planned &carried out special vigilance drives for high value consumers on three occasions i.e. on3rd and 4thJune 2022,10th and 11thJune 2022 and 18th and 24 and 25 June 2022.The cumulative progress of these drives is summarized as under:- 1. Total number of checking done- 66716 (no's) 2. Theft cases booked- 10692 (no's) 3. Malpractice/Misuse/others cases booked- 3015 (no's) 4. Assessment of Theft cases-21.29 (in Rs. Cr.) Also the information of vigilance checking carried out by the vigilance & O&M officers in the FY 2022-23 (Up to May-2022) is detailed as under: a) Total number of VCRs: 14534 Nos b) Theft cases: 8119 c) Assessment: 20.04 Cr d) Realization: 6.47 Cr (e) FIRs lodged: 1048 (f) Arrests: 11 All out efforts are being taken by the Discom for recovery of the assessed amount from such consumers. In addition Discom has initiated the work of installing 4 & 6 meter boxes outside in theft prone areas wherein the meters from the premises will be shifted in these meter boxes to curtail the tendency of making theft/misuse by the consumers. The progress of aforesaid installation of meter boxes is submitted. Further in order to control the theft in rural area, the MD, Ajmer Discom vide order No. 68 dated 17.06.2022 has issued direction to all concerned for ensuring that in rural areas all Service Lines be made visible within a time span of 3 months. The copy of the order is submitted.

Directive	Submission
	JdVVNL: To prevent pilferage of energy/ electricity theft, JdVVNL has a dedicated Special Vigilance cell headed by Addl. SP/Vigilance. This cell has full time deployment of 12 Nos. XEN and 19 Nos. of AEN to monitor vigilance related activities and take corrective action. Further, JdVVNL has 12 Anti Power Theft Police Stations (APTPS) and 10 designated courts for Electricity Act offence. These police stations extend support in vigilance activities and subsequent booking of vigilance related cases. Further, one court per circle helps in speedy recovery/disposal of vigilance/ regulator enforcement. A circle-wise team of vigilance department and O&M team is appointed to check for high losses areas and high value consumers, hotels on National Highway, connections which were disconnected long time ago. Target is given to O&M staff for vigorous vigilance activities and initiating necessary legal action as per the provisions of the EA 2003. The circle-wise information of complaints regarding theft of electricity registered at "CCC" in FY 2021-22 and FY 2022-23(Up to 10th May,2022) is submitted**.** The information of vigilance checking carried out by the vigilance & O&M officers in FY-22 is as under: a) No. of VCR's: 30,188 b) Theft cases: 16,305 c) Assessment (in lakhs): Rs 4,613 d) Realization (in lakhs): Rs 2,077.86 The circle-wise, category-wise progress of vigilance checking carried out by the vigilance & O&M officers in FY-22 is submitted.
Initiate a scheme of appreciation and reward, where a person	**JVVNL & JdVVNL:** The scheme is under consideration at the Senior Management level of the Jaipur Discom. **AVVNL:** In the proposal previously initiated, only reward scheme for theft cases were considered. A revised

Directive	Submission
who informs the Discoms about theft cases is being appreciated and rewarded.	proposal with reward scheme for information of theft to informer as well as for checking officers and also a reward scheme for realization of long PDC dues will be incorporated. The revised proposal will be initiated shortly for approval.
Re-assess wheeling losses and furnish detailed report.	**JVVNL, AVVNL & JdVVNL**: The voltage wise sales for FY 2020-21 and FY 2021-22 have been as part of point 1.1 above. With respect to voltage wise losses, such losses can be determined once 100% metering is achieved at all the voltage nodes across the infrastructure. Presently, the Discoms have almost completed metering across all its feeders and aims to achieve 100% feeder metering by December 2022, as per the commitment under RDSS. The Discom is yet to achieve 100% DT metering, which the Discom has committed to complete by December 2023, under the RDSS scheme. On the consumer end, barring 48000 flat rate agriculture consumers across the 3 Discoms, remaining 1.5 Cr consumers are metered. **To ascertain voltage wise losses, it is essential that the necessary metering infrastructure is in place.**
Segregate Technical and Commercial Losses and to come out with an action plan for implementation of energy audit and segregation of technical and commercial losses.	**JVVNL**: Discoms, under RDSS scheme, are deploying Smart Meters across all nodes i.e. feeders, DT and consumers. Such smart metering infrastructure shall enable real time, accurate and expeditious availability of data and aid in segregating the voltage wise losses. **AVVNL:** Already taken several steps in the direction of loss reduction and operational improvement. Further, several key activities required to undertake the segregation of technical and commercial losses, as highlighted above, are also in process. A few key measures are as below. • All feeders up to 11 kV have been metered • To ensure remote collection of data on the same day for all DTs in the area, DT metering with AMR meters is under process • Consumer indexing is being regularly updated and is at a level of ~99% as of now

Directive	Submission
	• The details of each asset including transformer capacity, conductor size, rating, etc. are being mapped to enable appropriate load flow studies Moreover, smart metering is one aspect that the Discom is very much focused upon. Detailed plans have been captured in the Investment Plan regarding the same. In compliance of the BEE (Manner and Intervals for conduct of Energy Audit in electricity distribution companies) Regulations 2021, a Centralized Energy Accounting and Audit Cell under the control of the Addl. Chief Engineer (IT-M&P), Ajmer has been constituted by the Managing Director AVVNL, vide office order no. 464 D. 3083 dt. 12/01/2022. Further Discom has floated tender (TN/M&P-33) for hiring services of accredited energy auditor agency to carry out energy audit in Discom. Currently the tender is near to finalization and Accredited Energy Auditor Agency shall be shortly awarded the work to carry out energy audit for FY 2020-21 & FY 2021-22. **JdVVNL:** Already taken several steps in the direction of loss reduction and operational improvement. Further, several key activities required to undertake the segregation of technical and commercial losses, as highlighted above, are also in process. A few key measures are as below. • Near about all 11 KV feeders are metered. • To ensure remote collection of data on the same day for all DTs in the area, DT metering with AMR meters is under process • All the consumers in JdVVNL area are indexed at feeder level. • The details of each asset including transformer capacity, conductor size, rating, etc. are being mapped to enable appropriate load flow studies To get consumer meter readings of all connected consumers to the identified feeders on the same day, consumer metering is being strengthened. Also, smart metering is one aspect that the Discom is very much focused upon. Detailed plans have been captured in the Investment Plan regarding the same.

Directive	Submission
	All the Discoms submitted that recently Bureau of Energy Efficiency (BEE) has come out with the Regulation on Manner and Interval for Conduct of Energy Audit (Accounting) in Discoms as per which the Discoms need to conduct Energy Audit regularly as per timelines prescribed in the Regulations. The Discom shall be carrying out the Energy Audit in conformance to the Regulation.
Commission vide its order dated 06.2.2020 has directed MD/ Director (T) of Discoms" to adopt circles having highest distribution losses. In this regard, JVVNL has not furnished detail of the impact of the said adoption. Commission directs MDs of three Discoms to furnish the detailed comparative report from FY 2019-20 to FY 2021-22 stating interventions made and achievement in reduction of losses.	**JVVNL**: In compliance to the earlier Directive of the Commission, MD, JVVNL, vide order dated 12.06.2020, had adopted two circles with highest losses viz. Bharatpur and Dholpur. Director, Technical had also adopted Karauli circle for reviewing, monitoring and reducing of losses. These circles are pain areas for the Discoms and historically, had significant high losses. MD and Director Technical, Jaipur Discom have been closely and regularly monitoring the progress of various interventions for loss reduction in these areas. Frequent meetings over Video Conferencing (VC) mode combined with physical visits are being conducted. The MD and Director Technical have also been interacting with the field engineers and staff of these sub-divisions so as to increase their motivation levels, thereby pushing them to achieve the desired results. **AVVNL:** In compliance to the earlier Directive of the Commission, MD, AVVNL had adopted Nagaur circle with highest loss in the Discom for reviewing, monitoring, and reducing of losses. Nagaur circle is the area of worry for the Discom and historically, had significant high losses. MD AVVNL has been regularly initiating technical interventions and closely monitoring the progress & outcome of these interventions enabling loss reduction in the area. Frequent meetings through Video Conferencing (VC) combined with physical site visits are being conducted. The MD has also been interacting with the field engineers and staff of circle in order to increase their motivation levels and pushing them for achieving the desired results. The same is reflected below in the table:

Directive	Submission

Distribution loss of Nagaur circle:

	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22 (Prov)
Nagaur	38.13%	32.26%	27.64%	26.54%

Revenue Realization

	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22 (Prov)
Nagaur	98.11%	95.17%	99.28%	100 %

Key interventions taken in Nagaur Circle

1. Load balancing of Power Transformer

Load Balancing of all the Power Transformers carried out in Nagaur division so as to reduce imbalance current in neutral. The details are as under:

Particular	Unit	February 2020	February 2021	July 2021
Total no. of Power Transformer	nos.	453	481	484
No. of Power Transformers balanced	nos.	453	481	484
Neutral Current Before Balancing	A	10363	6572	6299
Neutral Current After Balancing	A	7432	6042	5694
Saving in imbalance Current	A	2931	530	605

2. Vigilance drive

Vigilance drives conducted in Nagaur are detailed as hereunder*:

Particulars	Unit	FY 2019-20	FY 20-21	FY 2021-22 (till February)
Checking	nos.	12251	17284	6824
Theft cases detected	nos.	9608	14072	5118
Assessment	lacs	2486.86	3449.81	1168.47
Realization	lacs	870.21	1261.96	437.60
FIR lodged	nos.	726	1379	393
Arrest	nos.	15	8	3
Illegal Transformers lifted/ seized	nos.	273	286	213

*Note: * The figures also include the figures of Special vigilance drives.*

Along with vigilance drives, Discom also conducted Special vigilance drive as per the directions of the MD sir. The details are as under:

Particulars	Unit	FY 2019-20	FY 20-21	FY 2021-22 (till February)
No. of drives	No.	9	13	6
Checking	nos.	3816	12880	2676

Directive	Submission

Theft cases detected	nos.	2645	5609	1112
Assessment	Lacs	627.81	1191.92	194.7

3. **Recovery/ DC Drive by Feeder Incharge Drive**

A Recovery / DC drive is being performed on July 2021 to February 2022 in which every Feeder incharge has been assigned a target of 10 consumers must be attended by either recovery or DC made. Status till Feb 2022 is as follow:

Recovery Made (Nos.)	Recovery Made (in Cr.)	DC Made (Nos.)
280940	142.17	1823

4. **Revenue recovery (50k & above)**

Discom from time-to-time conduct revenue recovery drive on consumers having outstanding above Rs.50000/.

5. **AG load enhancement**

Another initiative taken by AVVNL is enhancement of Ag load after verification of Agriculture load.

Particulars	Total Load extended
FY 20-21	32992 HP
FY 21-22 (upto February)	37923 HP

6. **Feeder segregation**

Discom taken an initiative of feeder segregation in Nagaur. The progress and benefit of feeder segregation is as below:

No of Feeder	200 feeders completed
Energy Saving	452.45 LUs/ month
Financial Saving	INR 21.49 crore per month
Payback period	Less than 1 year

7. **Dropping Reactor**

To prevent theft during single phase supply hours a device called Dropping Reactor is installed on 92 feeders in Nagaur Circle. The results of Dropping Reactor are summarized as hereunder:

- Estimated saving in unit: 156.31 LU/month
- Estimated saving in INR: 742.45 Lakhs/ month

8. **Release of AG connections**

Special camps were organized to release AG connections

Particular	FY 2019-20	FY 2020-21	FY 2021-22 (upto Feb 2022)
Connection Released	2339	2672	1543
Applications under			417

Directive	Submission
	process

9. **Shifting of meter on pole for curtailing theft by domestic consumers**

- Shifting of consumer meters on poles using meter box suitable for holding 4 to 6 meter in one box.

Nagaur Circle	Boxes Installed till Feb 2022	Consumer Connected till Feb 2022
4-meter Box	5631	17988
6-meter Box	2978	16465
Total	8609	34453

In the cradle of the directive continuous interventions in Nagaur circle are continued this year also with the aim that losses which stood at 26.54% in the FY 2021-22 is brought down.

In Nagaur, 218 illegal transformers were removed in the FY 2021-22 and so far during this year 95 illegal transformers have been removed. In a special drive carried out in Mundwa sub-division 21 illegal transformers were removed in one single day. During current FY, 8104 meters in 2069 meter boxes (4 and 6 meter box) have been installed outside the premises in theft prone area. For controlling unauthorized use of electricity, 48 camps have been organized for releasing domestic connections during the year in which 1514 DL connections were released. Special focus is made on Ren area, in Nagaur Circle, which has a loss of 70%. It has been targeted to bring down the loss of this area to below 15% for which 70% of the planned work has been completed.

JdVVNL: In compliance to the Directive of the Commission, the Managing Director, Jodhpur Discom has taken Jodhpur DC & Bikaner DC and the Director (Tech.) had taken Churu (O&M) Circle.

It is pertinent to note that these circles are geographically critical areas for the Discoms and historically, had significant high losses. Discom have been closely and regularly monitoring the progress of various interventions for loss reduction in these areas. Frequent meetings over Video Conferencing (VC) mode combined with physical

<table>
<tr><th>Directive</th><th>Submission</th></tr>
<tr><td></td><td>visits are being conducted. The appointed nodal officers have also been interacting with the field engineers and staff of these sub-divisions so as to increase their motivation levels, thereby pushing them to achieve the desired results.

The office orders of appointment of Nodal officers/officials and brief of checklist of activities ensuring reduction in losses below 15% is submitted.</td></tr>
<tr><td colspan="2"><u>Metering, Billing and Collection related</u></td></tr>
<tr><td>Discoms may also work out a tariff design which incentivizes the consumer to move to metered category and keep the meter in healthy condition and furnish suitable proposal along with next tariff petition.</td><td>JVVNL: The Discom officials have been engaging with various stakeholders including individual farmers, FPO, influential members of the villages and persuading them to convert to metered category.

The flat rate consumers of the Discom have been on a decreasing trend from 36,252 consumers to 12,264 consumers as on 31.03.15 and 31.03.22 respectively.

AVVNL: All the consumers except agriculture flat consumers are metered in Discom. The Discom is carrying out the task of converting flat rate agricultural consumers to metered consumers at priority and are working on converting all flat rate agricultural consumers to metered consumers.

The flat rate consumers of the Discom have been on a decreasing trend & The Discom submitted that Flat consumers exists in only 4 circles of Discom, details of which are as under:
<table>
<tr><td>S.No</td><td>Circle</td><td>Balance Ag Flat Consumers (Nos)</td><td>Remarks</td></tr>
<tr><td>1.</td><td>Nagaur</td><td>6</td><td></td></tr>
<tr><td>2.</td><td>Chittorgarh</td><td>11</td><td>In process of conversion</td></tr>
<tr><td>3.</td><td>Jhunjhunu</td><td>240</td><td>235 are DC consumers</td></tr>
<tr><td>4.</td><td>Sikar</td><td>205</td><td>12 are DC consumers</td></tr>
<tr><td></td><td>Total</td><td>462</td><td></td></tr>
</table>
As per the billing cycle, the conversion progress will be incorporated and reflected in the MIS.

JdVVNL: The Discom officials are in continuous process to get consent of farmers with flat-rate connections to convert to flat rate category. For energy accounting,</td></tr>
</table>

Directive	Submission
	metered transformer have been installed on all the consumers of flat rate category. Category of flat rate to metered may be changed only with consent of the consumer, as per provision of Agriculture Policy. The flat rate consumers of Discom are on decreasing trend from 42,366 to 34,075 consumers as on 31.03.11 and 31.03.2022 respectively.
It has been observed that despite continuous pursuance by the Commission, Discoms are not able to convert all flat rate consumers, The Discoms are directed to convert all flat rate agriculture consumers to metered category by 31.03.22.	**JVVNL:** The flat rate consumers of the Discom have been on a decreasing trend with 12,264 such consumers as on 31st March 2022. The same was 36,252 consumers as on 31st March 2015. Inspite of Covid-19 pandemic and the associated frequent restrictions and lockdowns, the number of flat rate consumers has further reduced to 12,264 as on 31stMarch, 2022. The conversion of remaining flat rate agriculture consumers to metered category is in process. The desired speed of conversion could not be reached due to general resistance, law and order issues and the outbreak of the Covid-19 pandemic. **The Discom, therefore, requests the Commission for some more time.** **AVVNL:** The reduction in flat rate consumers of the Discom itself reflects the commitment of the Discom for complying the Commission directive of converting all flat rate agriculture consumers. To substantiate this the Discom has also not projected any energy sales to flat consumers in FY 2022-23. **JdVVNL:** The consent of such consumers is necessary as per Agriculture Policy and is in process. However, the process has slowed down due to the outbreak of Covid-19 pandemic and the associated frequent restrictions and lockdowns. The Discom is still taking all the required efforts consistently and all field officers have been directed to speed up the process and requests the Commission for some more time and submits that the Discom is also acknowledging the fact that the conversion is beneficial for Discom as well as consumer. The flat rate consumers of the Discom have been on a

Directive	Submission
	decreasing trend with 34,075 such consumers as on 31st March 2022. The same was 42,366 consumers as on 31st March 2011. Inspite of Covid-19 pandemic and the associated frequent restrictions and lockdowns, the number of flat rate consumers has further reduced to 34,075 as on 31st March, 2022. **The Discom, therefore, requests the Commission for some more time.**
General and ARR related directions	
Furnish the pin-pointed replies while responding to the stakeholder's comments.	**JVVNL, AVVNL & JdVVNL**: Direction has been noted and shall be adhered to while replies to stakeholder comments are submitted.
Discoms are directed to file detailed category wise calculation of sales and revenue realization made for consumers with defective meters along with the next year ARR and Tariff petition.	**JVVNL:** The details of revenue recovered from consumers with defective meters for FY 2020-21 is submitted. **AVVNL:** 3316.8 MU sales & INR 1887.96 Cr revenue has been assessed under agriculture metered category with defective meters during FY 2021-22. For other than Ag category, directions have been provided to the billing agency for capturing the same in the MIS which will be provided. **JdVVNL:** Direction has been noted for compliance and Discom will furnish the same.
Discom should furnish the complete updated Fixed Asset Register for all circles in CD along with hard copy with executive summary duly reconciled	**JVVNL**: Fixed Assets Register (FAR), as on 31.03.2021 has been prepared and submitted to the Commission. Considering the importance and urgency of this directive of the Commission, MD (Jaipur Discom) has issued an order (as submitted) imparting strict directions to all Zonal Chief Engineers and Superintending Engineers to ensure completion of voltage wise (33kV, 11kV, 220/440 volt) assets register for the assets created till date which should be regularly updated.

Directive	Submission
with audited accounts within 6 months from the issue of this order, showing details required as per RERC Tariff Regulations.	Also, CAO (FM-W&M), Jaipur Discom has been made the nodal officer in overall monitoring of maintaining assets register under the supervision of Director (Technical), Jaipur Discom. Also, directions have been imparted that all such records shall be digitized as required by the Commission as well. Further, possibilities are also being explored to hire the services of third-party agencies for digitization of Discom's assets. Meanwhile, as per the directions of Commission, the Discom has uploaded the soft copy of the FAR on the Discom's website. **AVVNL:** Fixed Assets Register (FAR), as on 31.03.2020 has been prepared and submitted to the Commission. Further, FAR for FY 2021-22 will be completed by September-2022 and subsequently will be submitted to the Commission. **JdVVNL:** Fixed Assets Register of all circles has been submitted up to 2020-21. FAR for the year 2021-22 is under progress. The circle-wise executive summary is submitted.
Before taking up any investment, Discoms must check the need of the same in the first instance and look into cost benefit analysis. This will ensure that investments are prioritized and are made where they are really needed.	**JVVNL**: Any capital investment work is taken up after a thorough cost benefit analysis in accordance with the guidelines laid down in the RERC (Investment Approval) Regulations. The Discom submitted that all proposals of Rural S/Ss are examined as per the Chairman Discom's order no. 632 dated 15.07.2014 and 'Benefit to Cost' ratio of the same is calculated before getting the same duly approved from higher authorities. It is also submitted that in the same context, the Order JPR5-623 regarding creation of 33/11 KV S/S in Urban areas and RIICO Industrial areas is followed in which it was mandated that the creation of 33/11 KV S/S at district headquarters and in Industrial areas be considered

Directive	Submission
	keeping in view load demand/ load growth, flexibility of power supply and development of industrial areas without insisting for cost benefit ratio. **AVVNL:** Any capital investment work is taken up after a thorough cost benefit analysis in accordance with the guidelines laid down in the RERC (Investment Approval) Regulations. The cost benefit is being analyzed before approval of any new 33/11 kV substation by the office and sanctions are issued for those cases only where BC ratio of >12 is calculated. Lower BC ratio cases are not sanctioned and proposals are returned back to circle offices. BC ratio of 12 implies that the payback period is around 8 years. The details of GSS which were sanctioned in FY 2021-22 & FY 2022-23 having BC ratio >12 and also which were returned is submitted. **JdVVNL:** Any capital investment work is taken up after a thorough cost benefit analysis in accordance with the guidelines laid down in the RERC (Investment Approval) Regulations. Under Jodhpur Discom, for sanction of proposal for creation of new 33/11kv GSS, % Benefit to cost ratio evaluate in each and every case as per guideline issued by Chairman Discoms vide letter No. 632 Dated. 15.07.2014 and proposal become feasible for approval from competent authority whenever % CBR will be >12% after analysis to be carried by CCOA and SE(PPM).
The Commission directs the Discoms to carry out special audit of Investment made by Discoms in all circles and to start with Jaipur city, Ajmer city & Jodhpur city circle	**JVVNL**: The directive is under consideration and further compliance status will be updated once the same is finalized. Further, in compliance to the directive, a letter has been issued to the office of SE (JCC) regarding the cost benefits analysis of the investments made in Jaipur City and the outcome shall be shared with the Commission in due course of time.

Directive	Submission
to justify the investment made along with cost benefit analysis within 3 months and furnish the same to the Commission.	**AVVNL**: For ensuring compliance of the said direction the office of Internal Audit (AVVNL) has issued an order constituting a special committee to conduct a special audit of the investment made by Ajmer Discom in Ajmer City Circle. **JdVVNL:** The directive is under consideration and further compliance status will be updated.
Discoms should monitor and review all capex and rate contracts regularly and make necessary intervention to remove shortcomings /loopholes observed.	**JVVNL**: The Discom keeps a check on the works being awarded along with all the associated details in order to iron out the shortcomings observed. Also, re-tendering of the Discom's Annual Rate Contract prices had been done leading to fixing of new prices which are lower than 6% of the previous rates. **AVVNL:** A check on the works being awarded along with all the associated details in order to iron out the shortcomings observed is being carried out by the work awarding and executing authority of the Discom. **JdVVNL:** TW wing awards contract after checking administrative clearance, Technical Sanction and budget provisions and obtaining approval from management. The Discom keeps checks on works being awarded by regularly updating the formats for monitoring the tender process and on-going works. Further, before closure of technical audit is also done by Internal Audit wing. From time to time, notices are issued to the contractors and actions are taken against them by forfeiting earnest money deposits, cancellation of work order, debarment and penalty as per the provisions of RTPP Act 2012 and RTPP rules 2013 and other terms and conditions of Contract. NIT (Tender) status, abstract of CLRC work from field, notice for not starting work, forfeiting of EMD and order for penalty and Debarment.
Set a critical level of inventory and optimize their	**JVVNL:** Due consideration is given before making any capital expenditure and every measure is being taken to avoid any inventory lying idle in the stores. Detailed report

Directive	Submission
purchases and ensure that no material lies idle in the store beyond the pre-determined level.	on the inventory is submitted. **AVVNL**: Due consideration is given before making any capital expenditure and every measure is being taken to avoid any inventory lying idle in the stores. It is also submitted that directions have been issued vide letter no. AVVNL/MD/TA to MD/D. 839 dt. 27.03.2019 to monitor the inventory on regular basis, analyze the requirement/ availability of materials and if any material is found excess of the required of next 4 months then the same is informed to SE(MM) to take suitable action for deferment. Further minimum inventory of material under deferment is monitored and the availability of material found below the level of 2 months average requirement, then SE (MM) is informed to initiate action for lifting the deferment. The yearly inventory is maintained, and the materials are issued/utilized in the field as per requirement/allotment against the job order/work order. Hence time to time the allotment/diversion and requirement of material are monitored for optimal utilization of material. Further, it is also ensured that no material is lying idle in the store beyond the pre-determined level. **JdVVNL**: While procuring any material, strictly follows inventory optimization. The comparative statement of store Inventory Control of Jodhpur Discom for the FY 2020-21 and 2021-22 up to the Month of January 2022 and office order issued by the ACE(MM) No. 174 dated 29/07/2020 is submitted.
Data collection, reporting and analysis which ultimately affects proper decision making and implementation of various projects. As such Discoms	**JVVNL**: The work for implementation of ERP has been awarded to M/S RISL. The status of various ERP modules are as follows:

Nomenclature of Module	No of Sub Modules	Implemented/ Rollout	Under Testing	Under Customization/ Development
A. Human Resources Management System	16	7	0	9
B. Works/Project	7	0	0	6

Directive	Submission

Directive: should make all efforts to implement ERP and IT intervention. Discoms are directed to make a time bound program regarding implementation of ERP.

Submission:

Management				
C. Finance & Accounts	9	1	4	1
D. Material Management	7	2	0	5

AVVNL: The work for implementation of ERP has been awarded to M/S RISL.

The status of various ERP modules are as follows:

Sr. No.	Module	Sub-Module	Developed	Balance under-development
1	Human Resources Management System (HRMS)	16	13	3
2	Finance & Accounts (F&A)	9	5	4
3	Material Management	7	7	0
4	Works/Project Management	7	6	1

All the ERP modules shall be completed by September 2022. Further IT interventions shall be covered in the upcoming RDSS scheme.

JdVVNL: ERP System implementation:

ERP system has been implemented partially and is operational across JdVVNL to the extent completed and consists of following four modules.

- Finance & Accounting Module
- HRMS Module
- MM Module
- WPM Module

➢ *Management MIS dashboard*

- MIS dashboard is prepared manually.

➢ *Mobile app and Web services*

- Discom has developed following Mobile app and Web services:

Mobile App:

- **VidyutSaathi** can be accessed by consumers and has

Directive	Submission
	following facilities: ▪ Downloading Energy bill ▪ Bill Payment ERP and Billing integration is under progress and shall be further taken up under RDSS scheme. Following Modules are planned to be implemented and subsequently integrated: ▪ E-office & Document Management System ▪ Enterprise Asset Management ▪ IT tool for feeder route/optimization, rerouting for technical loss optimization and improvement of operational safety ▪ Power Transformer Tracking and Health monitoring ▪ Employee Self Service Cyber Security assessment and implementation Business Intelligence, Data Analytics etc.
Discoms are directed to furnish detailed calculation of voltage wise cost of supply along with next year tariff petition for FY 2022-23.	**JVVNL**: The process of reassessment of voltage wise sales and losses is under process and requests the Commission to grant some more time regarding the same. Further, in order to carry out a study on voltage wise losses for which necessary directions have been imparted to SE(JPDC), Jaipur Discom to furnish voltage wise losses at 33 KV, 11 KV and LT level for one (1) number 33/11 KV S/S under its jurisdiction. **AVVNL:** The Discom, as mentioned in point 1.1 is focused on proper feeder and DT metering and is committed to meet the targets reading the same as specified under RDSS. Once the same is completed, the Discom shall be in a position to assess the voltage wise losses. Further, in order to initiate the process of calculating voltage wise losses, directions have been issued to the concerned wings for making arrangements for recording

Directive	Submission
	voltage wise input energy and voltage wise & category wise sales. **JdVVNL**: The process of reassessment of voltage-wise sales and losses is under progress and requests the Commission to grant some more time regarding the same.
Regarding depositing the terminal benefits amount, Commission directs the Discoms that they must deposit the amount equivalent to approved by the Commission in future and submit its compliance alongwith next ARR/Tariff petition and also make a plan to meet their liability towards terminal benefit.	**JVVNL**: The details of actual amount deposited in the Trust in Format 3.2(b) of the True Up Petition for FY 2020-21. Also, efforts are being made to deposit the amount equivalent to approved by the Commission. **AVVNL:** Making all efforts to deposit terminal benefit amount as per the directions received from Commission time to time. It is submitted that an amount of INR 326 Cr in addition to regular contribution has been deposited in the Fund during FY 2021-22 in order to meet its liability towards terminal benefits. The additional contribution is being deposited on monthly basis rather than in one go at the end of the year. During FY 2022-23 (upto June-22) also additional contribution to the tune of INR 128 Cr has been deposited. **JdVVNL:** The details of actual amount deposited in the Trust in Format 3.2(b) of the True Up Petition for FY 2020-21. Also, Funds are transferred regularly as per the availability/ liquidity position. Terminal payment of Rs. 245.50 crore has been made for terminal benefits in F.Y. 2021-22 with regular payment. In FY 2022-23, Rs. 50 Cr. is being deposited monthly, in addition to this additional funds will be deposited as per liquidity position. Details submitted. Further, efforts are being put in to deposit the amount equivalent to approved by the Commission in future years.
Discoms are directed to renegotiate with	**JVVNL**: All possible options for availing loans at lower interest rate from banks and financial institutions are being explored by the management of Discom.

Directive	Submission
banks and financial institutions(Including REC and PFC) for availing the loan at a lower interest rate to possible extent.	The issue was also discussed during the 29th Coordination Committee Meeting in 30.12.2021 and it was decided that a high-level Committee would be formed to restructure/reset the high interest loans especially from PFC and REC into low interest loans. Energy Department, GoR vide order dated 12.01.22 constituted a committee consisting the following officers: 1. Joint Secretary, Energy – Chairman 2. Director (Finance), RVPN – Co-Chairman 3. Director (Finance), JdVVNL – Member 4. Director (Finance), RVUNL – Member 5. CCOA, JVVNL – Member 6. CCOA, AVVNL – Member 7. CCOA, RUVNL – Member Secretary The matter is under deliberation by the Committee and the outcome shall be shared with the Commission in due course of time. **AVVNL:** The Discom avails loan from banks and FIs like REC, PFC. Interest rate offered by Banks/FIs are based on many facts like financials of Discom, Govt. Policies, market conditions, rating of Govt. and Discom. While availing loans Ajmer Discom always negotiates with banks/FIs to provide lower interest rates to the extent possible. Further it is submitted that in future also negotiation will be made with banks/FIs to get lower interest rate to the extent possible for the loans. Further Energy Department, GoR vide order dated 12.01.22 has constituted a committee, consisting of the following officers, for restructuring/resetting the high interest loans especially from PFC and REC into low interest loans: 1. Joint Secretary, Energy – Chairman 2. Director (Finance), RVPN – Co-Chairman 3. Director (Finance), JdVVNL – Member 4. Director (Finance), RVUNL – Member 5. CCOA, JVVNL – Member 6. CCOA, AVVNL – Member 7. CCOA, RUVNL – Member Secretary

Directive	Submission
	The matter is under deliberation by the Committee and the outcome shall be shared with the Commission in due course of time. **JdVVNL:** The Discom avails loan from Banks/FIs such as REC & PFC etc. Interest rate offered by Banks/FIs are based on many factors such as financials of Discom, Govt. policies, market conditions and rating of Govt. &Discom etc. While availing loans Jodhpur Discom always negotiates with Bank/FIs to provide lower interest rates possible. Further, it is also submitted that in future while availing loan negotiation will be made with Bank/FIs to get lower interest rate to the extent possible. It is pertinent to submit that on request of JdVVNL, REC vide its letter dt. 18.01.2022 **reduced ROI to 10.15%** by giving benefit of 50bps on all sanctioned/ documented schemes for the FY 2021-22. Further, in FY 2022-23, JdVVNL again requested REC to extend the benefit for FY 2022-23 also. REC conceded to Jodhpur Discom's request and vide its letter dt. 06.06.2022 has given interest rebate of 50 bps over the present applicable interest rate and **reduced its rate to 9.75%** p.a. against all schemes sanctioned in FY 22-23. Further, PFC has also been requested by Chairman, Discoms vide letter dt. 26.05.2022 to reduce ROI to 9.50% p.a. in respect of MTL. The proposal is under consideration in PFC.
In current scenario Discom's billing period is on Monthly basis but according to GoR announcement in the current budget for BPL, domestic consumers having consumption upto 150 units and agriculture consumers billing	**JVVNL, AVVNL & JdVVNL**: The directive have been noted by the Discoms and will be pursued accordingly. The Discoms have claimed interest on working capital on normative basis in accordance with the Tariff Regulations, in the ARR Petition.

Directive	Submission
system would be based on bi-monthly. Thus, Discoms would be requiring additional working capital. To meet such crunch of working capital, Discoms are directed to claim the interest on such additional working capital requirement from the GoR. The Commission will not pass on the burden of additional interest liability in this regard.	
Prepare a medium-term business plan indicating likely impact and strategy to deal with electric vehicles, distributed generation, prosumers and influx of renewable energy and other related trends of power sector.	**JVVNL, AVVNL &JdVVNL**: It was in the process of the preparing a medium-term business plan duly incorporating the various megatrends such as Electric Vehicles, Distributed Energy, Prosumers etc. However, the advent of COVID-19 pandemic and the associated restrictions and lockdowns resulted in disruption in normal business activities of the Discom. In the aftermath of such a Pandemic, the Discoms are striving to bring in normalcy to their business akin to a pre-covid or Business-As-Usual scenario. However, the recent ongoing power crisis has once again disrupted various activities and has forced the Discoms to manage demand and supply efficiently. Hence, once things normalize, there shall be a need for strategic rethinking of Discom's medium term Business Plan looking at the new normal post the pandemic as well as the power crisis. Accordingly, the Discom requests the Commission to allow it to submit a medium-term business plan along

Directive	Submission
	with the next tariff petition.
The Commission directs Discoms that the study to assess the quantum of stranded capacity and recommend an action plan to address the issue to reduce the burden of the capacity charges and projections of available capacity and requirement as assumed by energy assessment committee be furnished along with next ARR and Tariff petition.	**JVVNL, AVVNL &JdVVNL**: Based on the quantum of stranded capacity, Additional Surcharge is computed and the same has been detailed out in the ARR Petition for FY 2022-23. Therefore, impact of stranded capacity due to Open Access consumers is being duly recovered from such consumers through Additional Surcharge and income derived from such Surcharge is passed on to other consumers of the State in the form of Non-Tariff Income. The Discoms are contractually bound to pay for the fixed charges as per the terms of the PPA. Therefore, until Discoms are able to exit the PPAs, the Discoms shall have to continue bearing the fixed charges. With increase in renewable penetration which have Must Run status, Discoms have no option but to back down the thermal plants but also continue paying fixed charges. In this regard, Discoms plan to exit PPAs which have completed their useful lives after a thorough due diligence. As an immediate measure, Discoms plan to exit from 252 MWs of PPA for which the Commission vide its order dated 28.10.2021 has approved the Discoms to exit from the PPAs of 5 NTPC stations namely Anta GTPS, Auriya GTPS, Dadri GTPS, FGUTTPS Unit 1and FSTPS. This will enable the Discoms to save on fixed charge burden. It may also be noted that inspite of increased influx of renewables, the Discoms cannot completely ignore or exit their thermal PPAs since such thermal load provides the necessary base load for supply of power. In this regard, it is also submitted that the CEA, in its report on Optimal Generation capacity, has recommended minimum thermal capacity of 35% in 2029-30. Therefore, the Discom shall have to continue with thermal PPAs to such extent.
Consumer Service related	

Directive	Submission
Separate Fault Removal Teams be also formed in rural areas, if any area is still left.	**JVVNL:** Currently 236 FRT teams have been deployed by M/s Intelenet Global Services Pvt. Ltd. which had been entrusted with the task of deployment of Fault Rectification Services including vehicles and manpower. After the expiry of the contact period of the above-mentioned vendor in January 2022, a new work order has been placed upon M/s Sandha and Company w.e.f 22 January, 2022 for a period of 3 years, in which the number of FRTs to be deployed has been increased from 236 to 290 including 167 in rural areas. As and when new sub-divisions shall be created, the firm shall deploy extra FRTs in addition to the existing FRTs. **AVVNL:** Due considerations have been given for the deployment of FRT teams in the rural areas to improve the quality of supply. Prior to the directive of the Commission the Discom had already initiated the process of deployment of FRTs in various sub-divisions of the Discom along with appropriate infrastructure for rectification of No-Current complaints of LT consumers as well as rectification of various types of faults occurring on LT and HT lines (upto 11kV). FRT was already deployed in all urban and rural areas as per the requirements. At present 377 numbers of FRT have been deployed in 178 nos. sub-divisions of O&M circles. **JdVVNL:** M/s "Teleperformance Global Services Pvt. Ltd. (TPGSPL)" has been awarded the work order to establish and operate Smart Customer care Centre on SAAS basis vide JDVVNL/SE (CSS)/ JU/XEN-IPDS/TN -TW- 468/WO No 257 /D 549 dated 10th July 2020 against tender number TN -TW- 468.M/s TPGSPL has rolled out CCC , Helpdesks and Fault Removal teams in various Circles of Jodhpur Discom. The circle-wise sub-division wise FRT summary is submitted.

Directive	Submission
To clearly indicate the detailed break up of other debits, fuel surcharge and other miscellaneous charges shown in consumer electricity bills.	**JVVNL:** Due to the Spot Billing practice being followed by the Jaipur Discom, there is a constraint on the space available on the bill being generated under such Spot Billing. Hence, detailed breakup of other debits, FSA and miscellaneous charges is not being presently indicated. However, the detailed breakup of such charges is available in the e-copy of the bill which may be downloaded from BijliMitra app, which is available on the Android as well iOS platforms. The Discom is also exploring the option of the indicating the breakup of such charges in the hard copy of the bill being generated under Spot Billing. **AVVNL:** Sundry code CB LIP 120 has been allotted for peak hour surcharge and same has been communicated to SE(IT) and HCLI. However, the changes in pre-printed stationery will be incorporated after finalization of bill format by HCLI. The details of each charges applicable on the consumers in the printed bill along with list of sundry codes used against each charge in the backside of the bill for Industrial consumers. The Discom further submits that due to ongoing issues with HCLI, the bill format as per directive will be modified after finalization of RMS tender. Work regarding same are being taken under RDSS. **JdVVNL:** The action to provide breakup of other debits, fuel surcharge and other miscellaneous charges is already being indicated in electricity Bills.
Tariff Related	
The Discom are directed to file separate figure of sales for each sub-	**JVVNL:** The detailed sub-category wise sales figures have been mentioned in Format 2.1 of the True Up Petition for FY 2020-21.

<table>
<tr><th>Directive</th><th>Submission</th></tr>
<tr><td>category of consumers where rebate or lower tariff is provided as well as for EV and traction load also while filing true up petition.</td><td>

AVVNL: The detailed sub-category wise sales figures and rebates have been regularly mentioned in Format 2.1 of the True Up Petitions submitted before the Commission. For FY 2021-22, the same will be provided at the time of true up.

JdVVNL: The detailed sales figures have been mentioned in Format 2.1 of the True Up Petition for FY 2020-21. Further, Accounting code heads has been issued separately for each category.

</td></tr>
<tr><td>Discoms are also directed to furnish the impact of various rebate given vide order dated 06.02.2020 in the next ARR and Tariff Petition.</td><td>

JVVNL: The quantum of rebates passed on to consumers by Jaipur Discom during the last 3 years are summarized in the following table:

<table>
<tr><th>In Rs Cr</th><th>FY 21</th><th>FY 22</th><th>FY 23 (Till June)</th></tr>
<tr><td>ToD rebate</td><td>139.49</td><td>172.56</td><td>45.51</td></tr>
<tr><td>Incremental consumption rebate</td><td>66.11</td><td>96.59</td><td>35.76</td></tr>
<tr><td>Load Factor rebate</td><td>179.25</td><td>252.42</td><td>68.48</td></tr>
<tr><td>Total rebates</td><td>384.84</td><td>521.58</td><td>149.75</td></tr>
<tr><td>ToD surcharge</td><td>0.00</td><td>10.16</td><td>10.34</td></tr>
</table>

The month-wise consumption details has also been submitted**.**

AVVNL: The quantum of rebates passed on to consumers by Ajmer Discom during FY 21 and FY 22 are summarized in the following table:

<table>
<tr><th>Particulars</th><th>FY 21 (in INR Crore)</th><th>FY 22 (Prov.) (in INR Crore)</th></tr>
<tr><td>ToD rebate</td><td>121.89</td><td>159.12</td></tr>
<tr><td>Incremental consumption rebate</td><td>72.28</td><td>146.73</td></tr>
<tr><td>Load Factor rebate</td><td></td><td>0.89</td></tr>
<tr><td>Total rebates</td><td>194.18</td><td>306.73</td></tr>
</table>

JdVVNL: The quantum of provisional rebates passed on to consumers by Jodhpur Discom during last three years are summarized in the following table below and detailed report of rebate given by Discom for FY 2020-21 and FY 2021-22 is submitted**.**

<table>
<tr><th>In Rs Cr</th><th>FY-21</th><th>FY-22</th></tr>
<tr><td>ToD rebate</td><td>65.61</td><td>65.88</td></tr>
<tr><td>Incremental consumption rebate</td><td>33.23</td><td>57.94</td></tr>
<tr><td>Load Factor rebate (1 MVA and above)</td><td>35.91</td><td>89.76</td></tr>
<tr><td>Total rebates</td><td>134.75</td><td>213.58</td></tr>
<tr><td>ToD surcharge</td><td>0.00</td><td>7.97</td></tr>
</table>

</td></tr>
</table>

Directive	Submission
Discoms are also directed to review the various rebates and incentive as well as the tariff for various sub-category at regular intervals and file suitable proposals for revision, if required.	J**VVNL**: As evident from the table, the Discom has given significant rebates whereas the revenue from surcharges is significantly less. **The ToD structure is not revenue neutral.** This is clearly indicated in the table below: In Rs Cr. | FY 22* | FY 23 (Till June) ToD rebate | 55.99 | 45.51 ToD surcharge | 10.16 | 10.34 **From December 21 to Mar 22, after the issuance of the last Tariff Order* **Accordingly, to move towards revenue neutrality, the Discoms have proposed a reduction in ToD rebate from 15% to 10% in the current Petition.** **The Discoms have also proposed revision in the base year for the purpose of computation of incremental consumption rebate.** **AVVNL:** In the FY 2022-23 ARR petition the proposal for revision in TOD rebate and for revision in base year for incremental consumption has been submitted for approval of the Commission. **JdVVNL:** As evident from the table, the Discom has given significant rebates whereas the revenue from surcharges is significantly less. As submitted, in case of ToD, the Discom provided a rebate of Rs 28.82Cr from Nov'21 to March 22, after the issuance of the last Tariff Order whereas the surcharge levied in the same period was Rs 7.97 Cr. This clearly indicates the ToD structure is not revenue neutral for the Discoms. Accordingly, to move towards revenue neutrality, the Discoms have proposed a reduction in ToD rebate from 15% to 10% in the current Petition. The Discoms have also proposed revision in the base year for the purpose of computation of incremental consumption rebate.

Directive	Submission
Study month wise and hourly, Peak hours and off-peak hours and the power rates in power exchange during such peak and off peak hours in Rajasthan and accordingly suggest the ToD tariff in the next tariff petition considering the road map given by the Commission.	**JVVNL, AVVNL & JDVVNL:** The last two years viz. FY 21 and FY 22 have been severely impacted by two externalities impacting the load curve as well as prices in the exchanges. These two externalities are: 1. Covid-19 pandemic 2. Ongoing power crisis in the country due to coal shortages Due to Covid-19 pandemic, the industrial segment had to undergo lockdown and could not operate as per their Business As Usual scenario. Once the scenario began to normalize post Covid-19, the coal shortage in the country resulted in a power crisis, which is still ongoing. This impacted the prices in the exchange as well as the demand curve of the Discoms as the Discoms had to impose load shedding due to the supply side constraints. Due to these events, the load curve as well as the short term exchange prices are not reflective of the actual scenario. Due to the ongoing power crisis in the country, the Discoms had to procure power at costs as high as INR 17.00/kWh during these hours to meet the demand of such consumers. Due to ToD rebate, Discoms are burdened financially owing to high cost of power in Exchange during these hours. Such financial burden shall ultimately be borne by all other consumers of the State. It is further submitted that such crisis is likely to continue looking at significant surge in demand due to hot weather conditions and the unavailability of supply owing to coal related issues. Thus, considering the plight of Discoms currently, it is prayed that ToD rebate for LIP consumers be suspended temporarily till the time the power crisis is resolved.
The Discoms are directed to furnish the energy data of shifting of load due to ToD and its financial impact in the next year ARR and Tariff Petition so as to enable the Commission to take a view on the trajectory.	
The Commission directs that for the categories where	**JVVNL, AVVNL &JdVVNL:** The direction of the Commission has been noted and is being adhered to.

Directive	Submission
rebates/surcharge are offered the power factor rebate/ surcharge shall be worked out on energy charges arrived at after availing all rebates/surcharge except power factor rebate/surcharge.	
<u>Internal Audit, Training and Studies</u>	
Review the working of contractors to whom certain substations have been outsourced specially with regards to deployment of skilled manpower and safety.	**JVVNL**: The M.D, Jaipur Discom vide order no. 27 dated 30.04.2020 had constituted a Committee in this regard. The report of committee with regard to deployment of skilled labour and their safety is submitted**.** The performance of the contractors of such outsourced substations are being regularly monitored by the Discom's field officers and deficiencies in services, if any, are being brought to the notice of the contractor. **AVVNL:** A check on the works being awarded along with all the associated details in order to iron out the shortcomings observed is being carried out by the work awarding and executing authority of the Discom. In order to ascertain the working of such contractors, standing order has already been issued by MD, Ajmer Discom vide order No. 101 dated 13.06.2019. Detailed directions have been issued for checking GSS for ascertaining that same are being operated as per provisions of work order or not and for submitting inspection report. Based on inspection report the bills of the contractor are entertained and passed. A sample copy of the inspection reports so furnished by the concerned SEs to payment releasing authority are

Directive	Submission
	submitted. **JdVVNL:** The performance of the contractors of such outsourced substations are being regularly monitored by the Discom's field officers and deficiencies in services, if any, are being brought to the notice of the contractor.
Discoms are also directed to initiate a scheme of appreciation and reward, where a employee who perform best in the organization is being appreciated and rewarded. Such scheme shall ultimately enhance the motivation level and improve overall working of Discoms.	**JVVNL:** The Discom officially recognizes and felicitates its best performing employees on occasion of 15th August and 26th January, regularly. **AVVNL:** At present on days of National Importance on the basis of meritorious performance of employees under all categories viz. from Chief engineer to Helper-II/Class-IV employees, the certificate of appreciation is awarded to acknowledge the best efforts on Discom/Zone/Circle level. Further the employees who are putting in special/additional/innovative efforts for reducing losses and achieving cent per cent revenue realization/vigilance targets etc. also being awarded apart from above. The MD Discom also by exercising his due diligence selects 4 to 5 officers/employees for awards under "Surprised Category". **JdVVNL:** The scheme of appreciation where a employee who perform best in the organization is already existing. Weekly appreciation is updated on notice board. These are some categories in which appreciation is done on Discom level, Best engineer, Best circle, best sub-division, Best sub-division, Best feeder in charge, Officials where least number of transformer burnt, Officials of least theft area, officials of area of least energy drawl, officials during theft detection are appreciated on regular basis. It is also submitted that the Discom officially recognizes and felicitates its best performing employees on occasion of 15th August and 26th January regularly.
Technical & financial internal audit should be conducted in a time bound	**JVVNL:** Revenue audit is being carried out through outsourced agencies since 2013 onwards to cope up the pendency of revenue audit. Presently, revenue audit for all ***sub-divisions up to 2017-18 has been completed***. The same for FY 2018-19 is expected to be completed by March 2022.

Directive	Submission
manner for each subdivision and top management must take action on the reports of internal audit.	Revenue audit for various sub-divisions for the year ***2019-20 and 2020-21 is under progress***. As such, all possible efforts are being made to complete the revenue audit in a timely manner. Further, regarding various irregularities pointed out during audit of sub-divisions, directions to concerned have also been issued from time to time to plug in the revenue leakages. Position of Technical and Revenue audit conducted during FY 20-21 and FY 21-22 is as under: <table><tr><td>Particulars</td><td>Year</td><td>No. of sub-divisions to be audited as per plan</td><td>Audit Conducted</td><td>Undercharges pointed</td><td>Amount realized</td></tr><tr><td rowspan="2">Technical Audit</td><td>2020-21</td><td>32</td><td>36</td><td>9.80 Lacs</td><td>30.38 Lacs</td></tr><tr><td>2021-22 (Up to Nov'21)</td><td>32</td><td>27</td><td>5.20 Lacs</td><td>1.25Lacs</td></tr><tr><td rowspan="2">Revenue Audit</td><td>2020-21</td><td>101</td><td>131</td><td>1,980.31 Lacs</td><td>2,270.03 Lacs</td></tr><tr><td>2021-22 (Up to Nov'21)</td><td>126</td><td>102</td><td>1,546.23 Lacs</td><td>2,605.54 Lacs</td></tr></table> **<u>Action Taken on reports:</u>** • <u>Technical Audit:</u> 146 Nos. & 7 No. charge sheet/show cause notices have been issued for the technical audit during FY 2020-21 and FY 2021-22 (up to November 2021) respectively. Further, it is also intimated that out of 210 sub-divisions, approximately 36 (exact number mentioned in table above) different sub-divisions are audited in each financial year by the available audit parties and various complaints are also forwarded by the Management to enquire the same with the existing audit parties and accordingly 38 Nos. & 7 enquiries have also been carried out during FY 2020-21 and FY 2021-22 (up to November 2021) respectively.

Directive	Submission
	• <u>Revenue Audit</u>: Under charges pointed out along with other irregularities has been intimated to the unit officer to debit the undercharges into concerned consumer account and to furnish reply/compliance of other irregularities and disciplinary action against 06 No. & 60 No. defaulting officers/officials has also been taken regarding irregularities found during FY 2020-21 and FY 2021-22 (up to November 2021) respectively. **AVVNL:** To control expenses and plug revenue leakages, internal Audit wing is carrying out Audit of Revenue subdivisions as well as expenditure audit including CLRC works in Circle offices as detailed hereunder for FY 2020-21 & FY 2021-22: <u>FY 2020-21</u> A. Revenue Audit: Revenue audit has been conducted by Internal Audit Party (IAP) and due to insufficient manpower through outsourcing by CA firms/Cost Accountants/Societies. During FY 2020-21 Revenue audit in respect of 159 S/Ds was got completed and 2743.14 lacs were detected as under charges from 3494 Statement of Spot debit (SOSDs). B. Expenditure Audit: During the period 01.04.2020 to 31.03.2021, Expenditure Audit in respect of 07 circles were completed. In the above audit, Rs. 239.21 lacs were assessed as recovery. Further w.e.f. 01.04.2021 to 31.08.2021, 115 paras involving amount of 14.17 lacs were found as recoverable. C. Technical Audit: During FY 2020-21 Technical and Safety Audit of 17 units got completed. During the audit 1655.35 lacs was assessed as under charges. Further during the period 01.04.2020 to 31.03.2021 Rs 57.88 lacs were verified and cleared in 11 units. In Technical and safety audit, 14 units were audited, and 1178.22 lacs were assessed on account of under charges during the period of 01.04.2020 to 31.03.2021. <u>FY 2021-22</u>

Directive	Submission
	A. Revenue Audit: Revenue audit has been conducted by Internal Audit Party (IAP) and due to insufficient manpower through outsourcing by CA firms/Cost Accountants/Societies. During FY 2021-22 Revenue audit in respect of 188 S/Ds was got completed and 2776.56 lacs were detected as under charges from 3316 Statement of Spot Debits (SOSDs). B. Expenditure Audit: During the period 01.04.2021 to 31.03.2022, Expenditure Audit in respect of 07 circles were completed. In the above audit, Rs. 113.09 lacs were assessed as recovery. C. Technical Audit: During FY 2021-22 Technical and Safety Audit of 20 units got completed. During the audit 666.73 lacs was assessed as under charges. Further during the period 01.04.2021 to 31.03.2022 Rs 91.43 lacs were verified and cleared in 12 units. **JdVVNL:** Discom is carrying out Revenue and Technical audit of each subdivision. For completion of Revenue audit in time bound manner; in addition of Internal Audit Parties, **50 CA Firms are also empaneled through NIT in FY 2020-21.** As a result, R**evenue Audit of FY 2019-20 for all subdivisions is already completed**, Revenue Audit for the FY 2020-21 shall be completed up to March 2023. Revenue Audit for FY 2021-22 is completed for **48 subdivisions** and it is running for **66 subdivisions** at present against the total of 185 subdivisions. **Technical audit of 52 subdivisions has been completed from FY 2020-21** to current financial year 2022-23. Needful efforts are being made to conduct Technical Audit in time bound manner. Expenditure audit is also being conducted for all the circle offices and at present all the circle offices audit for FY 2019-20 is already completed and for FY 2020-21. It would be completed before September. Any serious irregularity noticed during the Internal Audit then the matter is separately enquired and submitted to Higher Management for necessary disciplinary action against the defaulting Officer/ Officials.

Directive	Submission
	In addition of above, Internal Audit wing is regularly reporting its progress to Board of Directors and Audit committee and the same is being reviewed by them.
Carry out a third-party audit of material used in various capital investments schemes and retrieval/disposal of old material during execution of these schemes.	**JVVNL:** The reports of material used in various schemes are being collected. In this context, it is intimated that the M/s. Voyants Solutions Pvt. Ltd. (VSPL), Gurugram, Haryana. (Third party concurrence evaluation agency) has been authorized by the Power Finance Corporation, New Delhi (PFC) for field quality inspection under IPDS scheme and M/s. Feedback Infra Pvt. Ltd, Gurgaon, Haryana has been appointed as Project Management Agency (PMA) at circle level for quality assurance, inspection and monitoring of DDUGJY and IPDS scheme under Jaipur Discom against TN-356. DDUGJY and Saubhagya schemes have been completed recently which are rural electrification schemes of Central Govt. and REC Ltd. is its nodal agency. To ensure quality of material and of infra created under the schemes, REC Ltd., appointed the M/S Voyants Solutions Pvt. Ltd, Gurugram for DDUGJY scheme and M/S Cabcon India Ltd., for Saubhagya as REC Quality Monitors(RQM) i.e. Third-party concurrence evaluation agency for these schemes. The appointed RQM agency, conducted inspection of key materials at manufacturer works and also infra created as per REC norms and furnished their reports. The defects observed by RQM in infra are uploaded on REC on-line quality monitoring portal **"Sakshya"** which are online diverted to the respective turn-key contractor and compliance of same are back uploaded on the portal. Nodal Agency REC Ltd. frequently gets inspected material and infra as per their convenience to be aware with the ground reality of works. Further, at Jaipur Discom level, a quality control wing is also constituted, headed by the Additional Chief Engineer (Trg.,Saf. & QC) ,JPD, Jaipur, who also check quality of infra of these schemes and intimate defects, if any ,for attending the same.

Directive	Submission
	Further, multi-level inspection of material and of infra created under DDUGJY and Saubhagya Scheme have been done to ensure the project execution in accordance with the approved bidding documents /tender specification. Material retrieved by the firms under IPDs scheme are being checked by the concerned PMA and Executive Engineer(DDUGJY) and thereafter has been deposited through proper MCNs to concerned store. **AVVNL:** A check on the works being awarded along with all the associated details in order to iron out the shortcomings observed is being carried out by the work awarding and executing authority of the Discom. **JdVVNL:** The DDUGJY and SAUBHAGYA Schemes have been completed recently which are rural electrification schemes of Central Government and REC Ltd., appointed M/s RECPDL for DDUGJY Scheme and Cabcon India Ltd., for SAUBHAGYA as REC Quality monitors (RQM), i.e., third party concurrence evaluation agency for these schemes. Further, in compliance of guidelines of these schemes, M/s Medhaj Techno Concept Pvt. Ltd., Lucknow has been appointed as Project Management agency (PMA) for quality assurance, inspection and monitoring of these schemes. The appointed RQM agency conducted inspection of key materials at manufacturer work and also infra created as per REC norms and furnished their reports. Since, these schemes were for new infra creation works, therefore, hardly any old material is retrieved during execution of these schemes. The norms of inspection of material and works are submitted**.** The defects observed by RQM in infra are uploaded on REC Quality Assurance Portal "SAKSHAYA" which are online diverted to the respective turnkey contractor and compliance of same are back uploaded on portal.

Directive	Submission
	Nodal Agency REC Ltd. frequently gets inspected material and infra as per their convenience to be aware with the ground reality of works. Further, at Jodhpur Discom level, a quality control wing is also constituted, headed by the Additional Chief Engineer (S&T-CSS) Jodhpur, who also check quality of infra of these schemes and intimate defects, if any ,for attending the same. Further submitted that multi-level inspection of material and of infra created under DDUGJY and Saubhagya Scheme have been done to ensure the project execution in accordance with the approved bidding documents /tender specification. Material retrieved by the firms under IPDs scheme are being checked by the concerned PMA and Executive Engineer (DDUGJY) and thereafter has been deposited through proper MCNs to concerned store.
Discoms are directed to take adverse comments of Auditors in their Audit reports seriously and take suitable measures to address the issues and ensure to improve their working accordingly.	**JVVNL:** All the comments by the Auditor are given proper consideration and action is taken accordingly. The Discom has also appointed a third-party (M/s Kalani and Co.) to address the adverse comments of the Auditors and advise the Discom on the same. **AVVNL:** There is no adverse opinion given by the statutory auditors in their report on the annual accounts for the FY 2020-21. It is further stated that with respect to the qualifications of the statutory auditors, necessary directions have been issued to the concerned for corrective action. **JdVVNL:** Discom is very serious about the adverse comments made by various Auditors either Internal or external and taking necessary suitable measures to redress the same and ensuring that such lapses will not occur in future. The efforts have been started to minimize the adverse comments. Further, a common consultant i.e., Kalani& Co. for all the three Discoms has also being appointed to impart necessary consultancy to minimize the adverse comments raised vide 172 dt.1.6.22 by Chairman Discoms.

Directive	Submission
	Further, vigorous efforts are being made this year i.e. 2021-22 for reconciliation of different heads and corrective measures have also been taken so that adverse comments may be minimized.
The Commission directs that a report on the performance of the franchisees by independent auditor for FY 19-20 & FY 20-21 be furnished to the Commission and should also be made part of next ARR & Tariff and true up filing.	**JVVNL:** The quarterly reports are presently in a provisional/ draft stage, as the independent auditor (M/s KPMG) is yet to finalize the ABR figures for FY 2019-20 and FY 2020-21.. **AVVNL**: The quarterly reports are presently in a provisional/ draft stage, as the independent auditor is yet to finalize the ABR figures for FY 2019-20 and FY 2020-21. **JdVVNL:** M/s CRISIL Limited, an S&P Global company has provided the audit reports for FY 2019-20. A copy of quarterly audit report for FY 2019-20 is submitted**.** NIT for appointment of independent auditor was published on Date 18/11/2021 under TN-03/21. Bid opening date was 20/12/2021, However, no bids were received. Nine times extension date was given for bid submission. The last date of bid submission was 30/05/2022 and bid opening date was 31/05/2022. No, bid was submitted. Further, the tender was cancelled and new tender for independent Auditor for Audit Operation of Distribution Franchisee in Bikaner City is to be floated by Discom.
<u>Safety and Training</u>	
Discoms should ensure the compliance of CEA (Measures relating to safety and Electric Supply) Regulations, 2010 and CEA (Safety requirements for construction, operation and maintenance of electrical plants and electric lines)	**JVVNL, AVVNL & JDVVNL:** Discoms are committed towards providing a reliable and quality supply to its consumers without compromising the safety of its workmen and public in general. It strives its best to ensure the compliance of CEA (Measures relating to safety and Electric Supply) Regulations, 2010 and CEA (Safety requirements for construction, operation and maintenance of electrical plants and electric lines) Regulation 2011. Further, Jaipur Discom also submitted that an order was also issued in this regard by the office of MD (Jaipur Discom), directing the Discom officials to strictly comply to

Directive	Submission
Regulation 2011. If Discoms need to spend any additional amount for compliance of the Safety Regulations, the same can be claimed through ARR.	the mentioned CEA Regulations. Directions have also been issued to maintain information regarding associated parameters in the prescribed formats. A copy of the same has been submitted.
Discoms are also directed to run a program for skill development, imparting training, refresher training to new entrants, Engineers, Administrative and financial personnel, technical workmen and the executives for improving their services. Discoms should come with a plan for training for all of its employees within 3 months of this Order and furnish the status of same quarterly to the Commission.	**JVVNL:** The Safety and other related trainings for the employees are being conducted at all circle Headquarters of JVVNL. The SE(Training) is responsible for organizing Capacity Building Program for technical workmen & ministerial employees at divisional level. The training institute is already operating at JMC Building opposite Ram Mandir, where time to time training of officers/officials is conducted. Further, an Induction Training (classroom) of 10 days for 33 JENs is planned from 04.07.2022. Apart from this, safety related trainings for the employees are also conducted at Circle Headquarters of JVVNL. Further, draft Training Policy has been proposed before Coordination Committee and same is under pipeline. The details of various trainings have been submitted. **AVVNL:** The Safety related trainings for the employees are being conducted at all circle Headquarters of AVVNL. The CE (Safety & Training) is responsible for organizing Capacity Building Program for technical workmen & ministerial employees at divisional level. Apart from this, safety related trainings for the employees are also conducted at Circle Headquarters of AVVNL. Training and safety program conducted for Officers/Employees of Ajmer Discom in FY 2021-22 are submitted in which total number of 161 engineers have attended the above training and safety program. Furhter 10 Nos. training and safety program was conducted by Discom engineers at

Directive	Submission
	division level which was attended by 1058 no. of employees of cadre "C&D". In Both the training and safety program total no. of 1219 (161+1058) officers/employees has been trained on various safety issues. The details of induction training programs carried out in last few years as under: 1. New AENs were recruited in the year 2017. All these officers were provided induction training from 16.02.2017 to 26.03.2017 at IICM, RIPA, Jaipur, PMI, Noida and field visit. Subsequent to that they were posted in sub divisions. Relevant orders in this respect are submitted. 2. New JENs were recruited in the year 2017 & 2018. All these officers were provided 6 days practical training in the respective zones assigned to them. The training orders issued in this respect are submitted. 3. New Personnel Officers, Accounts Officers, Junior Accountants were also recruited in the year 2017 & 2018. All these officers were provided induction training during various time periods at RICEM, Jaipur, JMC Building, Jaipur and at Ajmer. The training orders of all such officers are submitted. 4. New Technical Helpers were also recruited in the year 2018. In the appointment order of such technical helpers it was invariably mentioned that after joining each technical helper will be provided a practical training at circle level for at least 2 week period and a certificate to this effect is to be issued jointly by training providing officer& concerned employee which is mandatory for issuing the first salary bill. The copy of appointment order and a sample certificate is submitted. 5. No new recruitment was done in year 2019 & 2020. 6. New recruitments of technical and ministerial cadre were processed in 2021and some of the new recruitees joined in March-22 itself. Action plan for providing induction training to such new recruitees of all cadres is submitted. **JdVVNL:** As per MoA (2020-21) with REC -IPMT and

Directive	Submission
	compliance of RERC guidelines, where time to time trainings of officers/officials are conducted at training hall, New Powerhouse, Jodhpur. Trainings regarding Operation and Maintenance of Distribution Transformers, Prevention of Failures and Repairs, DTR's, Training Programmed online Training Module, Safety accident Prevention and Disaster Management. The details of various trainings are submitted.
It is the duty of the Discoms to ensure that safety tools/ devices are made available to each and every worker and training has been imparted to each and every technical worker/officer of the Discom. They should also provide a copy of safety manual in Hindi to each and every workmen and officer. Danger plates should be affixed everywhere, guarding/fencing should be provided wherever it is required and earthing and other protection should be checked /provided as per safety Regulations. Every circle officer should ensure that each line, plant or	**JVVNL**: Discom is very serious and particular towards the safety and in this regard safety tools along with minimum 2 no. earthing are being provided to the technical worker. Further SE(Quality Control &Safety) is responsible for: • Complying with safety norms /provisions &various rules /regulations in force • Ensuring availability of safety devices & other amenities and • Ensuring use of safety devices & other amenities by the technical workmen. • Carrying out the inspection of Sub-stations & other works places to check the availability & use of safety devices • Assessment of the Circle-wise requirement of Safety items & ensure prompt procurement through MM wing and delivery in the field. Discom is providing danger plates, guarding/fencing, wherever required. Earthing and other protection are also being checked /provided as per Safety Regulations. All Zonal CE(O&M) of JVVNL have been directed to comply with the CEA Safety Regulations in their area by Director (Tech.), Jaipur Discom Discom has provided the safety manual in Hindi to each workman and officer. Further, same is also available on the Nigam website for online access. **AVVNL:** Ajmer Discom is very serious and particular towards the safety and in this regard safety tools are being provided to the technical worker. Further SE (Quality Control& Safety) is responsible for:

Directive	Submission
meter is checked from safety point of view as per the periodicity decided by the Discoms in accordance with safety Regulations. System of line patrolling must be followed vigorously and complaints related to safety must be given overriding priority. If need be, the Discoms may review their staffing pattern and working appropriately.	• Complying with safety norms /provisions & various rules /regulations in force • Ensuring availability of safety devices & other amenities and • Carrying out the inspection of Sub-stations & other works places to check the availability & use of safety devices • Assessment of the Circle-wise requirement of Safety items & ensure prompt procurement through MM wing and delivery in the field. Ajmer Discom is providing danger plates, guarding/fencing, wherever required. • Earthing and other protection are also being checked /provided as per Safety Regulations. All Zonal CE (O&M) of AVVNL have been directed to comply with the CEA Safety Regulations. Ajmer Discom is providing the safety manual in Hindi to each workman and officer after the Training. Further, same is also available on the Nigam website for online access. Safety items/ equipment/ tools are being purchased yearly/ biyearly as per the requirement received from all the circle offices and made available to workers. During last three years following safety items are purchased/ issued by the Nigam. In addition to providing of safety tools to the technical worker, Discom has initiated a one to one communication with Feeder In-charges in every subdivision by the concerned sub divisional officer on every Tuesday of the week. During this meeting every feeder in charge is supposed to take a safety oath that work will be undertaken taking all safety precautions. They are also motivated and directed for taking safety related complaints on priority. All the safety equipment's available with them are physically checked and requirement of any safety equipment is ensured to be fulfilled. **JdVVNL:** Jodhpur Discom is very serious and particular towards safety. In compliance of Commission directives

Directive	Submission
	regarding Danger plates, guarding /fencing Discom has already issued several directions to Superintending Engineer (DC/CC/O&M/IT) of all circles and ensure 100% guarding, fencing and earthing within 6 months. Regular periodic maintenance of all equipment and lines is carried out by Discom. Discom has provided the safety manual in Hindi to each workman and officer. Further, same is also available on the Nigam website for online access. The brief of safety devices bought by Discom in last three years is submitted**.**
Commission directs that Discoms should carry out campaign to identify high risk points and rectify them again and furnish the report to the Commission within 45 days of this order. It should be noted that removal of hazardous points is an on-going process and should not be stopped. Therefore, Discoms are directed to organize such campaign regularly and submit report and submit a certificate regarding compliance of CEA Safety Regulations by Discoms to the	**JVVNL**: During FY 2021-22, 1,40,628 nos. high risk points have been identified and attended to. During FY 2022-23 (till June), JVVNL has identified 72,809 high risk points out of which 43,111 such points have been attended to. These high risk points pertain to: • Guarding not provided on road crossing • Lines not having clearance as per CEA Regulations • Earthing not provided on single phase transformer • Long spam where intermittent pole is to be erected • Lines having loose wire/ improper sag • Titled poles • Stay insulator not provided • LT pillar box/ Distribution box open • Exposed UG cable cut • Water logging near the transformer/ pillar box It is further submitted that the Feeder In charge also report 25-point information to JEN/ AEN for further action which included information on such high risk points. **AVVNL:** During FY 2021-22 (till Feb 15, 2022), 115861nos. high risk points have been identified and attended to. These high risk points pertain to: • Guarding not provided on road crossing • Lines not having clearance as per CEA Regulations • Earthing not provided on single phase transformer • Long spam where intermittent pole is to be erected

Directive	Submission
Commission on half yearly basis.	• Lines having loose wire/ improper sag • Titled poles • Stay insulator not provided • LT pillar box/ Distribution box open • Exposed UG cable cut • Water logging near the transformer/ pillar box Identification & rectification of high risk points is adopted as a continuous process and as on date1,15,861 Nos. of high risk points have been identified and 1,09,402 Nos. (94.43%) have been rectified. For creating safety awareness a whole week program from 22 to 28th April, 2022 was carried out across pan Discom area. As per the directive of the Commission the complete details of fatal & non-fatal accidents occurred in Discom area during FY 2021-22 along with action taken in such cases is submitted for kind perusal of the Commission. The Discom submitted that zero tolerance policy is adopted in accident cases. **JdVVNL***:* Electrical accident resulting in loss of human life, animal property has become a serious issue which needs to be addressed by the department on top Priority. Jodhpur Discom, therefore on identification of such high risk point on campaign basis and rectify them has taken several remedial measures. The progress done is sent to Superintending Engineer (PPM), JdVVNL on weekly basis by E-mails every Monday and the Executive engineer (MIS), JdVVNL compile the progress of the work. These high risk points pertain to: • Guarding not provided on road crossing • Lines not having clearance as per CEA Regulations • Earthing not provided on single phase transformer • Long spam where intermittent pole is to be erected • Lines having loose wire/ improper sag • Titled poles • Stay insulator not provided • LT pillar box/ Distribution box open • Exposed UG cable cut • Water logging near the transformer/ pillar box

Directive	Submission
	The latest information of High-risk points identified/attended up to 20.06.2022 is submitted
<u>Monetization of Discom's Assets</u>	
It has been brought to the notice of the Commission that there is huge potential of earning additional revenue by the Discoms from optimum use of its assets which may include poles, land and buildings etc. While poles can be used to lay communication cable and rent can be earned from land/buildings. Discom may also set up EV Charging Stations, Buildings can be used for advertisement hoardings and setting up of ATMs and such other uses. The Discoms may even earn additional revenue from advertisement on its Portal/Apps. Parts of unused lands at commercial location may be	**JVVNL:** All possibilities of creating additional revenue streams are being explored by the Discom. The Discom acknowledges that proper and diversified utilization of its existing assets is one key option that can create additional revenue for the Discom. Accordingly, one such option explored by the Discom, is regarding the nature of cables allowed to be laid on the electric poles and its associated rental charges. Presently, only laying of optical fiber-based telecom network cables on existing electric poles for 4G communication is allowed. A proposal for allowing laying of Coaxial TV cables/Communication Cable and to reconsider the existing rental charges and security deposit for use of Discom's Poles by other agencies was discussed upon and approved in the 29th Coordination Committee Meeting. As per the approval in the Coordination Committee meeting, office of SE (Commercial), Jaipur Discom has issued an order in this regard (submitted). Also, MD (Jaipur Discom), has issued an order, copy submitted, for recovery of pole rental charges from the agencies utilizing Discom's poles for laying of cables. **The agencies utilizing Discom's poles for 4G network/broadband services shall be asked to provide details of poles in use, which shall be verified by AEN (O&M),** and accordingly, recovery of the pole rental charges for actual number of poles being utilized by various agencies for the period up to 31.03.2022 shall be ensured. Details of number of poles, in JVVNL, utilized by various

<table>
<tr><th>Directive</th><th>Submission</th></tr>
<tr><td>considered for sale to local bodies.</td><td rowspan="2">agencies for laying of aerial cable:
<table>
<tr><th colspan="2">2018-19</th><th colspan="2">2019-20</th><th colspan="2">2020-21</th></tr>
<tr><th>No of poles</th><th>Amount deposited (RsLacs)</th><th>No of poles</th><th>Amount deposited (RsLacs)</th><th>No of poles</th><th>Amount deposited (RsLacs)</th></tr>
<tr><td>32853</td><td>436.34</td><td>70496</td><td>1244.72</td><td>74979</td><td>1409.77</td></tr>
</table>
AVVNL: All possibilities of creating additional revenue streams are being explored by the Discom. The Discom acknowledges that proper and diversified utilization of its existing assets is one key option that can create additional revenue for the Discom.
Accordingly, one such option explored by the Discom, is regarding the nature of cables allowed to be laid on the electric poles and its associated rental charges. Presently, only laying of optical fiber-based telecom network cables on existing electric poles for 4G communication is allowed. A proposal for allowing laying of Coaxial TV cables/Communication Cable and to reconsider the existing rental charges and security deposit for use of Discom's Poles by other agencies was finalized and order has been issued in this regard vide Comml AJ- 851 dated 21.02.2022.
The Discom further submits the sub division wise details of poles used for laying of cables and revenue assessed & realized, during FY 2022-23 has submitted.
JdVVNL: All possibilities of creating additional revenue streams are being explored by Discom.

One possibility explored by Discom to create additional revenue was through advertisement in generated Bills to consumer. A tender was floated by Discom regarding this, a copy of floated tender is submitted and a new sample Bill is also submitted which clearly indicates the placement of advertisement in generated Bill.
Further, Discom is planning to utilize the spare land available at 22 number of 33/11 KV sub-stations for installation of Solar power Generation Plant for
</td></tr>
<tr><td>The Commission has made a provision in this regard in Supply Code and also directed Discoms vide True-up order dated 27.09.2021 to ensure optimum use of its assets, mainly focusing on revenue from communication cable on poles. However, Discoms are not able to explore full potential of revenue from optimum utilization of their assets, due to inaction on their part, though, Communication cables on poles are clearly visible everywhere and can be easily identified and measured by field officers.</td></tr>
</table>

Directive	Submission
	reducing cost of power purchase by Discom. • Discom is in the process of floating a tender for identifying and monetizing assets. • In regard of Fixing of pole rental charges and interest free security amount for laying of OFC, Coaxial TV Cables Communication Cables on existing electric poles of Discoms (33 kV/11 kV/LT), The rental charges for laying of OFC, Coaxial TV Cable/ communication cables on Discoms poles was reviewed in the 29th Coordination Committee meeting held on dated 30.12.2021, wherein it has been decided that revised rental charges and security deposit for use of Discoms poles by various agencies for laying of OFC, Coaxial TV Cable/ communication cables. • The office order regarding Fixing of Pole and Rental charges is submitted**.** Accordingly, one such option explored by the Discom, is regarding the nature of cables allowed to be laid on the electric poles and its associated rental charges. Presently, only laying of optical fiber-based telecom network cables on existing electric poles for 4G communication is allowed. A proposal for allowing laying of Coaxial TV cables/Communication Cable and to reconsider the existing rental charges and security deposit for use of Discom's Poles by other agencies was discussed upon and approved in the 29th Coordination Committee Meeting. All ZCE's Jodhpur Discom have issued and order for survey and recovery of pole rental charges from the agencies utilizing Discom's poles for laying of cables. **The agencies utilizing Discom's poles for 4G network/broadband services shall be asked to provide details of poles in use, which shall be verified by AEN (O&M),** and accordingly, recovery of the pole rental charges for actual number of poles being utilized by various agencies for the period up to 31.03.2022 shall be ensured.

<table>
<tr><th>Directive</th><th>Submission</th></tr>
<tr><td></td><td>Latest Details of number of poles, in JdVVNL, utilized by various agencies for laying of aerial cable:

<table><tr><th colspan="2">Upto 29/06/2022</th></tr><tr><td>No of poles</td><td>Amount deposited (Rs Cr.)</td></tr><tr><td>27516</td><td>4.42</td></tr></table></td></tr>
<tr><td>The Commission express its displeasure over the inaction on the part of Discoms. In Commission's view, the revenue from communication cables on poles shall be substantial and be easily realized by Discoms which alongwith other revenue from monetization of assets will substantially improve financial health of Discoms. Accordingly, the Commission directs that;

1. Discoms</td><td>JVVNL: Possibilities of opening up new avenues for revenue generation is one aspect that the Discom is focusing on in near future. Discussion and deliberations are being done regarding exploring such options of additional revenue.

1. The Discom is exploring all options of identifying its assets which can be monetized in one way or other. In this regard, for optimum use of its poles, office of SE (Commercial), Jaipur Discom has issued an order (submitted). Also, MD (Jaipur Discom), has issued an order, attached as submitted, for recovery of pole rental charges from the agencies utilizing Discom's poles for laying of cables. The agencies utilizing Discom's poles for 4G network/broadband services shall be asked to provide details of poles in use, which shall be verified by AEN (O&M), and accordingly, recovery of the pole rental charges for actual number of poles being utilized by various agencies for the period up to 31.03.2022 shall be ensured.
2. MD, Jaipur Discom has issued an order (submitted) imparting strict directions to all Zonal Chief Engineers and Superintending Engineers to ensure completion of voltage wise (33kV, 11kV, 220/440 volt) assets register</td></tr>
</table>

Directive	Submission
should identify its assets properly such as Land, Buildings, Poles and any useful assets which can be monetized and explore full potential of its assets subject to safety norms. 2. Discoms should digitalize Assets Register and asset mapping should be made compulsory upto JEN level. MD of Discom shall be personally responsible for digitization of assets by each JEN level within 1 month. Thereafter, the assets mapping should be done instantly on go live basis. 3. The MD of Discoms are personally directed to implement the concept of asset monetization and issue	for the assets created till date which should be regularly updated. Also, CAO (FM-W&M), Jaipur Discom has been made the nodal officer in overall monitoring of maintaining assets register under the supervision of Director (Technical), Jaipur Discom. Directions have been imparted that all such records shall be digitized as required by the Commission as well. Further, possibilities are also being explored to hire the services of third-party agencies for digitization of Discom's assets. 3. In the case of revenue loss, disciplinary action was initiated against 1153 nos. officials in the last 3 years. **AVVNL:** Possibilities of opening up new avenues for revenue generation is one aspect that the Discom is focusing on in near future. Discussion and deliberations are being done regarding exploring such options of additional revenue. In this regard, SE (IT) has been nominated as nodal officer for mapping and digitalization of the assets and Chief safety Officer has been nominated for ascertaining the statutory safety norms for the assets to be monetized vide order no. 2962 dated 05.01.2022. A meeting on 27.01.2022 was held in order to initiate the process. The key points deliberated upon are as under: 1 Monetization of Asset a. Deliberated upon identifying spare land availability in substation of the Discom for setting up a solar plant/EV charging units/any commercial activity subject to legal aspects/bindings/constraints on use of land for purpose other than that for it was specifically allotted by the concerned authorities. b. Buildings: Using buildings and its adjacent premises for advertisements/hoardings subjects to legal provisions of using it for the same being a government property.

Directive	Submission
necessary guidelines to institute a transparent mechanism for identification of the assets, measurement and verification of revenue and create necessary accounting framework within one month parallel to the above exercise of digitalization of Asset Register and thereafter submit quarterly compliance report in this regard indicating action taken and circle wise revenue realised. 4. In case of revenue loss due to connivance or negligence of staff of Discoms necessary disciplinary action be taken against the erring officers.	2 Digitalization of asset For achieving the desired result, implementation of ERP asset management module is must. An ERP module is already under developing stage and it was deliberated upon identifying the activities which are not covered in present ERP assets management module. **JdVVNL:** Possibilities of opening up new avenues for revenue generation is one aspect that the Discom is focusing on in near future. Discussion and deliberations are being done regarding exploring such options of additional revenue. Presently, Revenue from use of poles is booked. Further, monetization of full potential of its assets subject to safety norms is being explored. Official Performa and letters are issued from Chief Controller of Accounts to several departments regarding identification of assets for monetization subject to safety norms. Further, full potential of lands, buildings and poles are being explored. The Zonal Chief Engineer is given the responsibility to collect all the details of spare land with their papers. They shall examine legal aspect whether the land could be monetized or otherwise. The spare land which could be monetized shall therefore be evaluated in terms of best commercial usage. A letter regarding identification of assets and monetization of assets is also issued as stated earlier. **Buildings-** The SE(Civil) shall collect the details of buildings which could be monetized by way of advertisement hoardings, solar plants or else. **Poles and Lines-** the Circle Superintending Engineers shall collect the details of poles which could be monetized so

Directive	Submission
	far. The details will be exhaustive i.e., Number of poles , cable laid with length, revenue generated, and date of installation etc., should be collected at JEn. Level. Circle SE's will also collect the details of lines in city areas where advertisement hoardings could be installed subject to safety norms. **Digitization of assets-** The concept of digitization has been very deliberately discussed by the officials. For achieving desired the desired results implementation of ERP asset management module is must. Accordingly, SE(IT) was advised to see whether the ERP modules currently developed by RISIL covers complete digitization of assets or otherwise. The SE(IT) shall trace out the activities which are not covered in present ERP assets management module. The SE(IT) is also advised to digitize the Fixed Asset Register at the earliest. Further, CAO (IA), Jodhpur Discom has been made the nodal officer in overall monitoring of maintaining assets. Directions have been imparted that all such records shall be digitized as required by the Commission as well. Minutes of meeting conducted by Discom officials regarding monetization of assets is submitted**.**
The Commission also directs Discoms to improve the internal audit and revenue audit system so as to control the expenses and plug revenue leakages and create proper accounting system commensurate with information sought by the Commission.	**JVVNL**: Presently, revenue audit for all sub-divisions up to 2017-18 has been completed. The same for FY 2018-19 to FY 2020-21 is expected to be completed shortly. As such, all possible efforts are being made to complete the revenue audit in a timely manner. Further, regarding various irregularities pointed out during audit of sub-divisions, directions to concerned have also been issued from time to time to plug in the revenue leakages. It is also intimated that in order to control expenses, timely expenditure audit is being carried out. The Discom already has a proper procedure/accounting system in place. Position of Technical and Revenue audit conducted during FY 20-21 and FY 21-22 is as under:

Directive	Submission
	(table and text below)

Particulars	Year	No. of sub-divisions to be audited as per plan	Audit Conducted	Undercharges pointed	Amount realized
Technical Audit	2020-21	32	36	9.80 Lacs	30.38 Lacs
	2021-22 (Up to Nov'21)	32	27	5.20 Lacs	1.25 Lacs
Revenue Audit	2020-21	101	131	1,980.31 Lacs	2,270.03 Lacs
	2021-22 (Up to Nov'21)	126	102	1,546.23 Lacs	2,605.54 Lacs

AVVNL: To control expenses and plug revenue leakages, internal Audit wing is carrying out Audit of Revenue subdivisions as well as expenditure audit including CLRC works in Circle offices.

JdVVNL: In Compliance of Directives, necessary efforts are regularly being made to improve the Internal and Revenue audit system.

Presently, the company has established and maintained adequate internal controls over the financial reporting and preparation of financial statements in accordance with accounting principles generally accepted (GAAP) in India. The Company has an Internal Control System commensurate with the size, scale, complexity of company's operations and nature of the business. The Internal Audit Manual in which scope, functioning, periodicity & methodology for conducting internal audit is prescribed is constantly being followed by the company. Internal audit parties are conducting detailed cash audit, revenue audit of all billing sections, expenditure audits of work orders issued by various wings, establishment claims, store sections & compliance of various circulars issued and other technical matters.

Directive	Submission
	The company's internal control system is supported by laid out systems, self-monitoring mechanism. Appropriate actions are taken by the management to correct deficiencies as they are identified. The yearly progress of Internal Audit Wing is periodically reviewed by the Audit Committee & Board of Directors. Internal audit wing of Discom is constantly reviewing the internal audit in time bound manner; for which 50 CA firms are also empanelled to carry out the revenue audit of sub-divisions. Resultantly, revenue audit of all the sub-division for FY 2019-20 is already completed and revenue audit of 158 sub-divisions (i.e, 92 completed and 66 running) for FY 2020-21 either completed or will be completed by December 2022, remaing 27 revenue audit fir FY 2020-21 will be completed by March 2023. Further, revenue audit of 66 sub-divisions (i.e., 4 completed and 62 running) for FY 2021-22 either in hand or completed as on date. The assessment raised in various audits during the FY 2021-22 is as follows; • For Revenue Audit: Rs. 8765.75 lacs • For Expenditure Audit: Rs. 665.1 lacs • For technical Audit: Rs. 93.03 lacs
MoD –Merit Order Dispatch: Discoms should ensure dispatch of power strictly on merit order principle. Merit order should also be placed on the website of the Discoms.	**JVVNL, AVVNL &JdVVNL**: RUVNL makes power purchase on behalf of the Discoms. It is ensured by RUVNL that the principles of merit order dispatch are duly followed. Also, same is displayed on the Discom's website. Further, in order to streamline the MoD principles and to remove various difficulties being faced by the Discom, a separate Petition has been filed before the Commission for issuing guidelines around the MoD process.

Directive	Submission
<u>Parallel Operation Charges:</u> Regarding Parallel Operation Charges, Discoms are directed to conduct a scientific study and furnish an appropriate proposal based on the study within two months of issuance of this order.	**JVVNL**: The Discom is in the process of appointing a third-party agency for conducting the scientific study as required since the Discom doesn't has in-house expertise to carry out the study. **AVVNL &JdVVNL:** The Discom is in the process of appointing a third-party agency for conducting the scientific study as required. The Tender Document for the same shall be floated shortly.
<u>Other Directions</u>	
The Discoms should also prepare and furnish the duly audited scheme wise actual expenditure incurred by them at the time of filing the true up petition for FY 2020-21	**JVVNL, AVVNL and JdVVNL**: Presently GoR while releasing equity for various capex works to the Discom does not provide scheme wise bifurcation and only the lump sum amount is released. In order to comply with the directive of the Commission, office of ***Director (Finance) Jaipur Discom, has already sent a request letter to Sr. Dy. Secretary, Energy Department, GoR to provide scheme wise equity released by GoR from FY 2016-17 to FY 2020-21***. The said letter is submitted for reference. The Discom would be able to provide the desired scheme wise information of grant, equity and loan to the Commission once the breakup from GoR is made available.
MES has requested for special slab for them, as per the MoD's communication dated 09.08.2021, a special tariff slab at par or lower than	**JVVNL, AVVNL & JdVVNL**: Presently, Military stations are covered under Mixed Load Tariff category. As per the prevailing tariff orders, the tariff for HT-Mixed Load tariff is: • Energy Charge – Rs. 8.05/unit • Fixed charge – Rs 215/kVA of billing demand Whereas for HT-Domestic Services, the tariff is: • Energy Charge – Rs. 7.15/Unit • Fixed Charge – Rs. 250/kVA of billing demand

Directive	Submission
that applicable to domestic consumers be created for the Armed Forces as conveyed earlier vide OM dated 15.02.2021. This will assist the Armed Forced to utilise the Defense revenue Budget in reinforcing the security related infrastructure of our country. Discoms may consider the submission of MES and file suitable proposal with the next tariff petition.	There is no significant variation in the tariff for Mixed Load and HT-DS category.
The Discoms should ensure the compliance of schemes and try to achieve the targets as set under the scheme thereby receiving the optimum grant support from GoI.	**JVVNL, AVVNL &JdVVNL:** The Discom has noted the directive of the Commission and shall prudently work to ensure the compliance of schemes and try to achieve the targets as set under the schemes in order to receive the grant support from GoI.
It is further observed that accounting of scheme wise expenditure is pre-requisite for	**JVVNL, AVVNL &JdVVNL:** Already maintaining records of scheme-wise expenditure, as the same is also shared with the Commission in the prescribed Investment Plan formats along with the Truing up as well as ARR Petitions.

<table>
<tr><th>Directive</th><th>Submission</th></tr>
<tr><td>effective control over capital expenditure. This will avoid any mismatching and accounting under wrong heads. The accounting of expenses should be under respective schemes and care should be taken while booking of expenses under the appropriate head. Discom should ensure that they maintain and submit information in requisite formats.</td><td></td></tr>
<tr><td>It has been observed that centrally sponsored scheme comprises funding from GOI/GOR and the resources of Discoms as per funding pattern of the schemes. Release of funds under the schemes from GOI/GOR is subject to the fulfillment of various conditions as stipulated in the guidelines of such scheme. Therefore, Discoms should</td><td>JVVNL & JdVVNL: It shall ensure all efforts are made to complete the works as per the timelines and specifications of the scheme and ensure release of entire funds from GoI/GoR as per prescribed funding pattern.

AVVNL: The Discom submitted that it shall ensure all efforts are made to complete the works as per the timelines and specifications of the scheme and ensure release of entire funds from GoI/GoR as per prescribed funding pattern.

The Discom further submits the scheme wise grant and funds released status as under:

<table>
<tr><th rowspan="2">S.No</th><th rowspan="2">Scheme Name</th><th rowspan="2">Sanctioned Date</th><th colspan="3">Grant Released (INR Cr)</th></tr>
<tr><th>Up to 31.03.2021</th><th>During FY 2021-22</th><th>Total</th></tr>
<tr><td>1.</td><td>12th Plan</td><td>27.09.2013</td><td>316.08</td><td>47.01</td><td>363.09</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Directive</th><th>Submission</th></tr>
<tr><td>ensure release of entire funds from GOI/GOR as per prescribed funding pattern.</td><td>
<table>
<tr><td>2.</td><td>DDUGJY</td><td>21.03.2016</td><td>393.78</td><td>48.32</td><td>442.10</td></tr>
<tr><td>3.</td><td>Sobhagya</td><td>16.01.2019</td><td>170.99</td><td>25.95</td><td>196.94</td></tr>
<tr><td>4.</td><td>Add DDUGJY: Post Sobhagya</td><td>13.07.2021</td><td>364.51</td><td>-</td><td>364.51</td></tr>
<tr><td rowspan="2">5.</td><td rowspan="2">KUSUM C</td><td rowspan="2">03.10.2019</td><td>17.48</td><td>-</td><td>17.48 (GOI)</td></tr>
<tr><td>7.71</td><td>9.77</td><td>17.48 (GOR)</td></tr>
</table>
</td></tr>
<tr><td>The Commission in its various orders has stressed on the need of Compliance of CEA (Measures relating to Safety and Electric Supply) Regulations, 2010 and CEA (Safety requirements for construction, operation and maintenance of electrical plants and electric lines) Regulations, 2011 and to ensure safety for its workmen, Public and Livestock.

The Commission has many times stated that if Discoms need to</td><td>JVVNL, AVVNL & JdVVNL: Discom is committed towards providing a reliable and quality supply to its consumers without compromising on the safety of its workmen and public in general. It strives its best to ensure the compliance of CEA (Measures relating to safety and Electric Supply) Regulations, 2010 and CEA (Safety requirements for construction, operation and maintenance of electrical plants and electric lines) Regulation 2011.

The JdVVNL further submits that, Training of 68 accounts personnel (Jr. Accountant) has been done of newly recruited Jr. Accountant batch of year 2018 and 2022.

Amount of Rs.1.87 crore (against budget allotted of Rs.2.94 crore) has been spent in 2020-21 for safety expenses and 6.10 lac (against budget allotted of Rs.49.88 lac) has been spent in 2020-21 for Training Expenses, the budget allotted for 21-22 for safety and devices and Training Expenses is Rs.3.28 crore and 52.92 lac respectively.</td></tr>
</table>

Directive	Submission
spend any money for compliance of the Safety Regulations, the same can be claimed through Investment Plan/ARR and the Commission reiterate that is willing to consider any additional amount spent on training of employees and for compliance of Safety Regulations.	
Discoms have not proposed any specific investment on account of compliance of safety Regulation. The Commission directs the Discoms to file the details of additional amount, if any, spent over and above O&M expenses towards safety compliance in next True up petition for FY 2020-21 and also furnish separate proposal of additional investment towards safety Compliance, if need be, in ARR for FY 2022-23.	**JVVNL, AVVNL & JdVVNL:** The Discom notes the directive of the Commission and shall submit requisite details for additional expenditure for compliance of Safety Regulations, if required.

Directive	Submission
As per RERC (Investment Approval) Regulation, 2006 Distribution Licensee can spend upto 1% of its Investment Plan on institutional strengthening. The Discoms can accordingly plan for training program & refresher program for all its employees and officers. Discoms should come up with a plan for training for all of its existing as well as new employees within 3 months of this Order and furnish the status of same quarterly to the Commission.	**JVVNL & AVVNL**: Presently, trainings are being provided by in-house Discom officers who are well versed with the subject and have significant experience of working in the required field. For such in-house trainer, no additional cost is being presently incurred by the Discom. In case, the Discom avails the services of any external agency for the purpose of imparting training to the Discom employees and officers, it shall request the Commission for the approval of its cost. **JdVVNL:** The Discom submitted that as per MoA(2021-22) with REC -IPMT and Compliance of RERC guidelines various trainings are being provided at Discom .The Discom submitted that presently, trainings are being provided by in-house Discom officers who are well versed with the subject and have significant experience of working in the required field. In case, the Discom avails the services of any external agency for the purpose of imparting training to the Discom employees and officers, it shall request the Commission for the approval of its cost.
Grant on release of New Agriculture Connection under RE Works: It is brought to the notice of Commission that 50% of difference between actual expenditure incurred on release of new connection	**JVVNL, AVVNL &JdVVNL:** The Discom notes the directive of the Commission. 50% of the difference between actual expenditure incurred on release of new connection and amount deposited by consumer is **provided as equity contribution** by GoR to Discoms. The GoR while issuing "equity" for a particular financial year has clearly mentioned the term "equity" being released with respect to capital expenditure incurred for that financial year. It is persistently following up with the GoR for release of the desired equity amount for agriculture connections.

Directive	Submission
and amount deposited by consumer shall be given by GoR to Discoms. The Commission has considered it as a grant as it is a part of consumer contribution which would have to be borne by consumer, if Government had not provided aforesaid 50% grant support.	
To file details of scheme wise equity, grant and loan while filing the next true up petition.	**JVVNL, AVVNL &JdVVNL:** Presently GoR while releasing equity for various capex works to the Discom does not provide scheme wise bifurcation and only the lump sum amount is released. In order to comply with the directive of the Commission, office of ***Director (Finance) Jaipur Discom, has already sent a request letter to Sr. Dy. Secretary, Energy Department, GoRto provide scheme wise equity released by GoR from FY 2016-17 to FY 2020-21***. The Discom would be able to provide the desired scheme wise information of grant, equity and loan to the Commission once the breakup from GoR is made available.
It is observed that JVVNL and AVVNL	**JVVNL:** 1. A separate accounting code for proper accounting

Directive	Submission
in response to query of the Commission submitted that revenue from rent received towards lying of optical fiber based telecom cable on electric poles for 4G communication network is included in miscellaneous revenue and could not be bifurcated, further JdVVNL submitted that such revenue from 4 circles only, which is not acceptable to Commission, therefore, Discoms are directed to: 1. Create a separate accounting head for "revenue from use of assets" in its account, which may further be bifurcated in sub heads i) revenue from use of poles and ii) revenue from use of other assets. 2. Furnish the	of ***"Revenue from Assets" has already been incorporated*** in the list of Accounting Code Heads. Also, in compliance to the directive, Chief Accounts Officer (FM-W&M) has issued an Office Order for inserting different accounting heads to the chart of accounts. "***Code 62.803 for Pole Rent"*** has been created as per the said order. The office of Chief Accounts Officer (FM-W&M) has issued another Order for inserting a new accounting head "***62.811 – Revenue from use of other Assets***" in the chart of accounts. 2. Circle-wise and sub-division details of revenue from pole rental for FY 2020-21 and FY 2021-22 submitted 3. The necessary directions have been imparted to circle SEs to verify location wise number of poles though Sub-divisional office before issuing approval to agencies to utilize the Discom poles on rental basis. Also, MD (Jaipur Discom), has issued an order, copy submitted, for recovery of pole rental charges from the agencies utilizing Discom's poles for laying of cables. The agencies utilizing Discom's poles for 4G network/broadband services shall be asked to provide details of poles in use, which shall be verified by AEN (O&M), and accordingly, recovery of the pole rental charges for actual number of poles being utilized by various agencies for the period up to 31.03.2022 shall be ensured. **AVVNL:** 1. In compliance to the directive, new accounting codes have been issued vide order no. AVVNL/CAO (AB&MM)/AO (ATB)/D.2869 dated 12.10.2021 for recording of transactions related to "revenue from use of poles" and "revenue from use of other assets". 2. The circle wise information for FY 2020-21 is submitted.

Directive	Submission
circle-wise information indicating number of poles used/cable length and revenue therefrom. 3. Make sub-division wise assessment of poles being used for laying communication cables and other purposes and work out the likely revenue from use of these. Thereafter, likely revenue be matched with actual revenue and internal audit systems be placed to ensure proper revenue on this account.	3. The Discom collects the charges from the companies on the basis of their requests and application for using the Discom's poles for laying communication cables and any other purpose, which make it difficult for Discoms to project or estimate the future usage of poles and revenue assessment. It is also submitted that Discom also directed all the circle for focusing on recovery of rent from the companies using the Discoms poles. Discom has issued Comm AJ 592 dated 17.09.2015 and letters to all circles via letter no. D 1356 dated 27.07.2021. **JdVVNL:** **1.** New Separate accounting code for proper accounting transactions related to booking of revenue from use of poles and revenue from use of assets are incorporated in the chart of accounting **code heads 62.362** as Revenue from use of poles and **62.363** as revenue from use of other assets. **2.** The circle-wise information indicating number of poles Upto is submitted. **3.** The necessary directions have been imparted to Circle Superintending Engineers to collect the details of poles. The details will be exhaustive i.e., Number of poles, cable laid with length, revenue generated, and date of installation etc., should be collected at JEn. Level. Circle SE's will also collect the details of lines in city areas where advertisement hoardings could be installed subject to safety norms.
Discoms are again directed to keep a separate account of interstate and intrastate losses and give bifurcation while filing next true up petitions.	**JVVNL, AVVNL &JdVVNL**: The Discom has **already formulated a Committee** which includes concerned officials from JVVNL, RUVNL and RVPNL in order to comply with the directive of the Commission regarding having a separate account of inter and intra state transmission losses. The Committee, after a thorough analysis, has submitted its report for the appraisal of the Senior Management of the Discom. The findings of the report, once approved by the Senior Management, shall be submitted before the Commission.

Directive	Submission
	One of the key findings of the Committee was that the RVPN considers Intra State Transmission Losses as loss incurred in transmission of energy between the State periphery and Discoms periphery, **excluding the auxiliary consumption of GSS.** However, the said methodology is not in consonance with the RERC Tariff Regulations, 2019. As per RERC MYT Regulations, 2019: *"Transmission Loss means the energy losses in the transmission system of a transmission Licensee including auxiliary* power *consumption in the sub-station for the purpose of air-conditioning, lighting, battery charging, accessories of substation equipments, etc., and shall be accounted for separately;"* Due to the above, there is an impact of ~0.05% in the intra-state transmission loss which, presently, is part of Discom's disallowances in the Tariff Order. **The Discom prays to the Commission to consider such auxiliary consumption as part of RVPN's transmission loss.** Moreover, during the course of public hearings on RVPN's tariff Petition, it was pointed out that **RVPN's loss are bound to increase in FY 22 and FY 23 owing to two-block supply. The Commission is requested to consider the same while approving the energy requirement of the Discom.**
Discoms are required to indicate any liability to be discharged by	**JVVNL**: In compliance to the directive issued by the Commission, separate accounting codes have been inserted in the Chart of Accounts for FY 2020-21. The details of which is as under:

Directive	Submission
government or to be paid by government such as tariff subsidy, capital subsidy, grants towards consumer contribution, any liability arising due to government directives and policy directives etc. as receivable in their audited accounts separately. The Commission finds that amount of grant towards consumer contribution receivable against release of agriculture connection, has not been accounted for. In view of above, Discoms are directed to account for amount of grant towards consumer contribution receivable against release of connection to certain categories from Govt. or any other state or	(table below)

Code	Description
55.106	Grant for Consumer Contribution
55.501	Deferred Grant for Consumer Contribution
28.601	Grant receivable from Govt. towards Consumer Contribution
64.501	Deferred Revenue-Grant for Consumer Contribution

AVVNL: In compliance to the directive issued by the Commission, separate accounting codes have been inserted in the Chart of Accounts for FY 2020-21. The details of which is as under:

Code	Description
55.106	Grant for Consumer Contribution
55.501	Deferred Grant for Consumer Contribution
28.601	Grant receivable from Govt. towards Consumer Contribution
64.501	Deferred Revenue-Grant for Consumer Contribution

JdVVNL: The amount of grant towards consumer contribution receivable against release of connection to certain categories from govt. or any other Central scheme is already booked in separate account head under Account code 64.422 under CCSL head mentioned in the books of accounts under point 3(k) of Significant Accounting Policies.

Directive	Submission
central scheme under separate head of account from FY 2021-22 onwards. Further, if Discoms raise any loan due to non-payment of subsidy/grant by government, the interest liability on such loan shall not be passed on to the consumer of the State.	

Directives to Discoms:

Power sector is a vital sector and the Commission has consistently insisted upon Discoms for improvement in their performance and issued certain directions in previous orders.

The Commission has noted compliance as submitted by Discoms. Considering the submissions of the stakeholders, discussions in this order, directives issued earlier, compliance of directives furnished by Discoms, the Commission issues following follow up as well as fresh directives to Discoms for compliance and has also issued some useful advice to Govt. of Rajasthan for consideration.

1. Voltage wise Losses:

As regards the voltage wise sales and losses the Commission observed that the Discoms have submitted the voltage wise sales but they have not submitted the voltage wise losses stating that the necessary infrastructure is yet to be put in place and requested for more time.

The Commission notes the submission and holds that with present infrastructure, losses for 33 kV can be easily ascertained and with feeder metering in place the losses at 11KV feeders can also be ascertained up to a certain extent. The Discoms may work out these losses.

Discoms further submitted that they are taking a sample study. The Commission accordingly directs that sample study of voltage wise losses be carried out for at least 2 nos. 33/11KV urban and 2 nos33/11 KV rural substations by an independent third party and associated lines representing proper sample for each circle. Voltage wise losses for the circle should be extrapolated based on that data and scientific methods. The concerned circle officers shall be made responsible for ensuring that the study is completed in time. Thereafter the losses at Discoms' level be projected. The data report of such study be furnished to the Commission within four months of the order and based on that the Commission may consider fixing voltage wise losses.

2. Conversion of Flat Rate consumers:

As regards the conversion of flat rate consumer, JVVNL, AVVNL and JdVVNL indicated that they have converted 4000, 24,034 and 490 number of consumers respectively in FY 2021-22. Further, as on 31st March 2022 the JVVNL and JdVVNL have reported 8804 and 30090 flat rate consumer respectively. Whereas AVVNL has submitted that it has converted all consumers and it has not projected any sales from flat rate category as on 31st March 2022. The Commission appreciates the efforts of AVVNL.

In the last order the Commission directed to convert all flat rate consumers by 31st March 2022. However JVVNL and JDVVNL have not been able to achieve the target and requested for more time for conversion. The Commission shows its strong displeasure towards it and decides to reduce **ARR by Rs. 10 Crore each for JVVNL and JDVVNL on this account**. The Commission further, directs JVVNL and JdVVNL to convert balance flat rate consumers by 31st March 2023, positively. In case of non compliance, the Commission may further consider to increase the amount of deduction.

The Commission has also noted that Discoms have reported large number of consumers with defective meters in agriculture category where energy is being assessed on the norms applicable for Flat Rate consumers. As per the information submitted by Discoms for FY 22, the % of defective meter/Total Ag metered consumers is 18%, 27% and 47% respectively for JVVNL,AVVNL and JdVVNL and energy assessment against these defective meters is disproportionately higher . This tantamounts to shifting to flat rate despite having incurred expenses on putting meters on consumers. Commission shows its strong displeasure towards it and directs Discoms to take necessary action to ensure that all meters remain in working condition and directs all Discoms to restrict the ratio of defective agriculture meters to total meters to maximum 10% within next one year and submit the status of compliance with next ARR/Tariff Petition.

The Commission earlier directed Discoms to carry out a detailed study of actual specific consumption of Flat Rate Consumers for three Discoms separately and submit the same to Commission. However, the said report was not submitted to the Commission and on the other hand high number of consumers with defective meters are being billed on the basis of flat rate norms which in Commission's view is not a correct practice.

To curb any malpractices the Commission also directs that while working out the consumption of Agriculture consumer with defective meters, Discoms will take the actual specific consumption of consumers having working meters for FY 2022-23 onwards. JVVNL and JdVVNL shall adopt the same specific consumption of working meters for assessing energy for flat rate consumers.

3. Medium term business plan:

Commission in the earlier ARR order had directed Discoms to prepare a medium-term business plan indicating likely impact and strategy to deal with electric vehicles, distributed generation, prosumers and influx of renewable energy and other related trends of power sector. The Commission has observed that Discoms have requested to allow them to submit a medium-term business plan along with the next tariff petition. Accordingly, the Commission directs the Discoms to submit medium term business plan along with next Tarff petition.

The Commission has also noted the submission of Discoms as regards stranded capacity and appreciates the submission that thermal capacity cannot be ignored completely. However this does not bar Discoms to make requisite action plan for progressively optimizing the burden of the capacity charges. The same may be incorporated in medium term plan where a resource adequacy study should also be made which captures all type of sources including need for Battery Energy Storage System and pumped hydro Storage.

The Commission in its earlier orders has stressed on the need of availing low cost renewable energy from utility scale plants as well as decentralized generation to the maximum extent which will be a win-win situation for consumer, utilities and Developers. The Discoms must focus on 3D's i.e. Decarbonisation, Decentralization and Digitalization in order to have a successful medium term strategy.

Decentralized Renewable Energy has multi-pronged benefits be it Roof Top Solar or schemes like KUSUM . If schemes like KUSUM are properly implemented they can prove beneficial to Discoms as well as consumers. KUSUM C-feeder level solarisation has provisions of 30% Central Financial Assistance and flexibility for optimal sizing and location of the plant with option to go in RESCO mode . If this is properly implemented it may prove to be a game changer for Rajasthan which is having high Agriculture consumption. This will not only provide cheap distributed energy during day time but will also enable Discoms to have a feeder level monitoring as profit Centre. Recently RERC has approved a pilot project under this Scheme for JVVNL wherein it has also given certain directions to the JVVNL. Jaipur Discom should furnish compliance report of these directions along with next ARR/Tariff Petition.

All Discoms must seriously consider to implement the KUSUM Scheme and furnish a report indicating progress in each sub component of KUSUM Scheme and compliance status of directions of the Commission alongwith next tariff Petition.

4. **Free Solar Power for Rajasthan Discoms**:

The State of Rajasthan is blessed with immense solar radiation intensity in India, and it has unutilized low-cost land available in abundance. Due to its geographical conditions, the domestic as well as the foreign companies are getting attracted to the Rajasthan State to set up their solar power plants even for supplying power outside the State to the entities other than the State DISCOMs.

On the other hand the power being supplied in the State is one of the costliest in the country mainly due to distance from coal mines and lack of hydro resources . The huge solar potential of the State can be harnessed as the Rajasthan State is favorably placed to become the largest provider of solar power at a competitive cost .

The Commission in exercise of its power under Section 86(2) of the Electricity Act,2003, advised the State Government recently vide letter dated 30.05.2022 ,that it may examine and consider to notify that Interstate solar power projects supplying power outside Rajasthan shall supply ten percent (10%) of such electricity free of cost to the State Government for use of the State DISCOMs for supplying it to the consumers of the State or may take up the matter with Central Government to frame rules in this regard.

If it is implemented it is likely that approx. 3937.5 MU [=10% of (75% of 30x10^3x1.75)] of solar power worth Rs 787.5 Cr. (@Rs 2 per unit) will become available annually to the State free of cost. The arrangement as above shall provide the benefits of availability of cheaper green power to the above extent without making any investment towards this and there will be no requirement of purchase of the costlier power to this extent by the State and will thus, improve the overall financial health of the State DISCOMs and in turn, will lead to the reduction

in tariff for the consumers of the State. It may ultimately result in lower tariff for industries and boost in industrial development and employment generation in the State.
Accordingly, the Commission directs the Discom to take up the matter with the State Government for issue of necessary notification regarding 10% free power in accordance with law

5. Sub category wise information

The Discoms are directed to file separate information of sub category wise sales, No. of consumers and connected load as per tariff structure approved by the Commission i.e. (a.) Consumers having Billing demand of 1 MVA or more for the billing month and having load factor 50% or more for the billing month and (b.)Consumers having SCL above 150 HP or having Contract/Maximum Demand above 125 kVA (HT-5)".The Discoms are also directed to modify their accounting system in accordance with Commission's order every time the Commission revises the tariff structure or creates new categories/sub-categories.

6. Implementation of IT and ERP:

As regards ERP and IT implementations the Commission notes that the desired progressis not achieved and Discom have been submitting more or less a standard reply.

In earlier paras the Commission has stressed the need to adopt Digitalization. The IT implementation is required for Data collection, reporting and analysis which ultimately affects proper decision making and implementation of various projects.

The Discoms are again directed to constitute a high-level committee for problem solving and to look into the progress of IT implementation. Expert from IT sector may also be inducted in that Committee.

It has been brought to the notice of the Commission that under RDSS also, a separate grant is available to Discoms for IT implementation and cost towards billing module, data management/analytics, AI etc., therefore, the Discoms should ensure that targets and benchmark of RDSS are achieved, so that Discoms can avail full grant available to them under RDSS.

7. Voltage Wise Cost of Supply:

The Commission notes that Discoms are furnishing Voltage wise cost of supply as per dispensation given in judgment of Hon'ble APTEL. However, they are again directed to submit Voltage wise cost of supply based on actual voltage wise losses and sales in the next year ARR and Tariff Petition for FY 2023-24.

8. Reduction in Interest Rate

In the previous year's order Discoms were directed to renegotiate with banks and financial institutions (Including REC and PFC) for availing the loan at a lower interest rate to possible extent. The Commission has noted the compliance report submitted by Discom.

Jodhpur Discom submitted that on request of JdVVNL, REC vide its letter dt. 18.01.2022 reduced ROI to 10.15% by giving benefit of 50bps on all sanctioned/ documented schemes for the FY 2021-22. Further, for FY 2022-23, REC conceded to Jodhpur Discom's request and vide its letter dt. 06.06.2022 has given interest rebate of 50 bps over the present applicable interest rate and reduced its rate to 9.75% p.a. against all schemes sanctioned in FY 22-23. Further, PFC has also been requested by Chairman, Discoms vide letter dt.26.05.2022 to reduce ROI to 9.50% p.a. in respect of MTL. The proposal is under consideration in PFC.

It is observed that JdVVNL has negotiated the interest terms and is availing benefits of lower rate of interest. The Commission understands that similar negotiation have been carried out by other Discoms too. The Commission appreciates the efforts made by JdVVNL and directs all Discoms to continue their efforts to renegotiate with banks and financial institutions (Including REC and PFC) not only for availing the loan at a lower interest rate for scheme sanctioned in current year but also for swapping of existing loans.

9. Claim of subsidy from GOR due to directive regarding Bi Monthly billing :

Discoms were directed to claim the interest on additional working capital requirement from the Government of Rajasthan on account of GoR announcement in the previous budget for BPL, domestic consumers having consumption upto 150 units and agriculture consumers billing system would be based on bi-monthly instead of monthly basis.

It is observed that Discoms have not complied with the above direction of Commission and submitted that they are claiming interest on working capital on normative basis. The Commission in its order has allowed the interest on normative basis, however. This does not dilute the direction of the Commission. Had the Discoms continued with monthly billing their cash flow would have been much better and overall interest cost would have been reduced.

Therefore, the Commission again directs Discoms to compute the impact of additional working capital requirement on the interest of working capital and claim the same from the Government of Rajasthan and furnish the compliance to the Commission with next ARR/Tariff Petition.

10. Format of documents for placing on website

During the hearing many stakeholders stated that petitions placed on the website of Discoms are not in proper searchable format, and requested to remove difficulty faced by them. The Commission directs that the Discoms should place the files in word /Excel/pdf in readable/searchable format along with signed copy in PDF format on its websites for convenience of stakeholders.

The Commission also directs to invariably place the replies to data gap and other additional submission made by Discom during the proceeding of ARR/tariff and True up petitions on their website.

11. Fixed Asset Register

The Commission appreciates the efforts of Discoms in making Fixed Asset Register. However it was observed that information of rate of depreciation, voltage wise assets, the reconciliation of same with scheme wise capitalization and spreading of depreciation over the useful life of the assets after a period of 12 years from date of commercial operation have not been provided. As such the petitioners have not submitted the information of fixed assets register to the full satisfaction of Commission.

Accordingly, Discoms should furnish the complete updated Fixed Asset Register for all circles upto FY 2021-22 in soft copy along with hard copy with executive summary duly reconciled with audited accounts within 6 months from the issue of this order, showing details required as per RERC Tariff Regulations. Latest progress in this regard should also be submitted alongwith next tariff petition.

12. Special Audit:

It is observed that regarding direction of Commission to carry out special audit of Investment made by Discoms in all circles, only AVVNL has issued an order constituting a special committee to conduct a special audit of the investment made by Ajmer Discom in Ajmer City Circle, whereas JVVNL and JdVVNL have made no efforts. The Commission again directs to carry the special internal audit in all the circles starting with circles mentioned in ARR order dt. 24.11.21 to justify the investment made and furnish a detailed report to the Commission along with next ARR and Tariff petition**.** Discom should also issue internal guidelines for field officers indicating steps to exercise prudence while proposing/executing investments.

13. Reduction of Losses –adoption of circles by MD and Director(Tech)

Commission noted that in compliance to the earlier directive of the Commission, MD, JVVNL, had adopted Bharatpur and Dholpur, MD AVVNL, had adopted Nagaur circle and MD JDVVNL had adopted Jodhpur& Bikaner District Circle.

Commission observed that only AVVNL has furnished the data of losses and revenue realized in the above circle, the JVVNL and JdVVNL have not furnished such information. Therefore, all MDs are directed to furnish the information of Losses and revenue realized in the three(3) circles with highest losses adopted by their MD/Director also indicating interventions made and outcome in terms of reduction of losses, on quarterly basis to the Commission.

During the course of hearing, MD of Ajmer Discoms has informed that they have taken one high Loss 33/11KV GSS as a model and made necessary intervention and converted it into ideal 33/11kv GSS. In view of above action by AVVNL, Commission directs all the Discoms to study the model and issue directions to replicate the model at all GSS.

14. Industrial Feeders

As regards industrial feeders with more than 5%losses, the Commission has noted that AVVNL and JVVNL have only one feeder which falls in this category whereas JDVVNL has 23 feeders with losses more than 5%. Discoms are directed to submit ,along with next tariff petition, the list of industrial feeders with losses more than 5% for FY 2020-21 and 2021-22 ,name of responsible officer , efforts done by concerned Superintending Engineer for reduction in losses and action taken as against the concerned officer.

Discoms should also furnish an action plan to ensure that losses are brought down to 5% in all the industrial feeders.

15. Energy Audit

The Commission notes the submission of Discoms regarding energy audit and observes that the desired result from the efforts mentioned by Discoms are not visible and management of Discom needs to be more serious about energy audit.

The Commission directs that all feeder meters must be maintained properly with accurate reading and if a feeder meter remains defective for more than one billing cycle, necessary action may be taken against the Officer/Official responsible for it. The Discom should furnish compliance report to this effect with next tariff petition.

Discoms are also directed to furnish the report being submitted by it to Bureau of Energy Efficiency (BEE) and place the same on their website and also the analysis of the circle wise energy audit data and subsequent action taken based on that data and result thereof alongwith next Tariff petiton.

16. Merit Order Dispatch

The Discoms while making power purchase should strictly follow the Merit Order Dispatch. The Discoms are also directed to monitor the availability of generating plants and pay fixed charges in accordance with provision of Regulations of appropriate Commission.

17. 2 Block Supply

The Commission is of the view that the works related to two block supply scheme should be funded through grant from Government of Rajasthan and accordingly, the Discoms are directed to approach the Government of Rajasthan to provide the grant for such capital expenditure. The same shall be examined at the time of true up based on actual data filed by the Discoms.

18. RDSS

Discoms are directed to achieve the target set under RDSS and fulfill all conditions and reap maximum benefit of RDSS.

19. Revision of rebate

The Discoms are directed to review their ToD rebate and other rebate structure and methodology and file suitable proposal with the next year ARR Petition. The study of ToD rebate and surcharge structure may be carried out through reputed agencies.

20. ToD Tariff

Discoms have not carried out a study as directed by the Commission. However, the Commission has appointed M/s Prayas (Energy Group), Pune for conducting independent study of ToD tariff design in Rajasthan. Therefore, Commission directs Discoms to appoint nodal officers for providing necessary data and coordinating with M/s Prayas to complete the study within the stipulated time frame.

21. Terminal benefit

Discoms should deposit the amount of terminal benefits in accordance with approval given by the Commission and also submit a plan to meet their liability towards terminal benefit with next ARR/Tariff Petition.

22. Action Plan for Metering

Installation of smart meters will help in improving billing efficiency and assist in undertaking data analytics. Discom have installed some smart meters as part of IPDS and NSGM schemes of GoI and for the remaining consumers, the Discoms plans to install smart meters under the RDSS scheme as per phases stipulated in the scheme. The Central Electricity Authority vide notification dated 23rd May 2022 has also notified a time line for smart Metering. The Discoms have submitted that they have prepared an action plan and have taken approval of the State Government. However, In this regard Discoms are directed to ensure that high losses and low collection efficiency area are prioritized keeping in view the practical difficulties and Cost benefit analysis of investment. Discoms should report the progress, investment made and benefits/savings accrued from Smart meter imitative alongwith next ARR/Tariff Petition.

As far as pre-paid Metering is concerned, the Commission directs Discom to issue guidelines for smooth operationalization of pre-paid Metering in the State with the approval of the Commission in accordance with the Supply Code Regulations.

23. Technical &Financial Audit

Discoms are directed to continue conducting Technical & financial internal audit in a time bound manner for each subdivision and top management should take action on such reports of internal audit.

Commission observed that AVVNL has not furnished the detailed information regarding Technical & Financial Audit as filed by JVVNL and JDVVNL. AVVNL should also furnish the information as filed by JVVNL and JDVVNL.

Discoms are also directed to prepare a Manual indicating type of errors, malpractices observed during these audits, procedure to avoid them and provide a copy of the same to the Discoms' officers.

24. Third Party Audit-

Commission in last ARR order directed Discoms to Carry out a third-party audit of material used in various capital investments schemes and retrieval/disposal of old material during execution of these schemes, the reply furnished by Discoms is not satisfactory, therefore, the Discoms should submit the requisite information including the circle wise details of shortfall of material, retrieval/disposal of old material during execution of these schemes and action taken.

25. Franchisee

Discoms are directed to finalize the report on the performance of the franchisees by independent auditor within 3 months and furnish the same alongwith next year ARR & Tariff petition and also place the same on the website.

26. Skill Development and Training

As per RERC (Investment Approval) Regulation, 2006 Distribution Licensee can spend upto 1% of its Investment Plan on institutional strengthening.

It is observed that Discoms have not furnished any expenditure on account of skill development and Training, separately, therefore the Discoms are directed to incur at least 1% of total capex on the skill development and training of staff and intimate the same to the Commission in the True up for FY 2022-23.

27. Compliance with safety Regulations and High risk points:

Discoms should ensure the compliance of CEA (Measures relating to safety and Electric Supply) Regulations, 2010 and CEA (Safety requirements for construction, operation and maintenance of electrical plants and electric lines) Regulation 2011. If Discoms need to spend any additional amount for compliance of the Safety Regulations, the same can be claimed through ARR.

Identifying the high risk points is continuous exercise, Discoms should analyse the causes of high risk points and issue guidelines for the rectification of such high risk points for filed officers.

During the hearing the MD of Jaipur Discom has informed that causes of all accidents are examined by a committee of Discom's officers, which further report to the circle SE, in this matter the Commission directs the Discoms that apart from Discoms officers, an independent member (outside Discoms) should also be included as member of aforesaid committee.

28. Monetization of Discom's Assets

The Commission has noted compliance of the Discoms with regard to direction of the Commission on Monetization of Discoms Assets submitted alongwith additional information as well as oral submission during the hearing., and holds that mere issue of orders or holding of meetings is not enough and the matter calls for serious action at the level of MD and field officers. Accordingly the Discoms are directed to take following action:

- Circle wise no of poles and cables be reported along-with their income In case income is shown as zero, the concerned Assistant Engineer should furnish an affidavit within three months of date of issue of this order to the concerned SE that he has checked all his area and no poles or assets are being used by Telecom operators, cable operators etc. or for any other purpose . Concerned SE then depute an internal audit team to verify the claim and take necessary action if some misreporting is found. Concerned SE shall be personally responsible for monitoring the income from monetization of Discoms asset in his circle. Commission will also get such claim verified through independent agency/consultant.

The Discoms may accordingly comply with the directions given vide order dt. 24.11.21. MD of Discoms are again personally directed to implement the concept of asset monetization and institute a transparent mechanism for identification of the assets, measurement and verification of revenue and create necessary accounting framework and thereafter submit quarterly compliance report in this regard indicating action taken and circle wise revenue realised.

29. Digitalization of Assets Register

Commission in the last ARR order directed Discoms to Digitalize Assets Register for assets mapping, in this regard only JVVNL had sought time extension, however it is observed that Discoms have not complied with the directives. Discoms are again directed to Digitalize Assets Register for the purpose of Asset Monetization and assets mapping within 3 months.

30. Parallel Operation Charges:

It is observed that Discoms are losing revenue on account of parallel operation charges. MD of each Discoms must personally look into it and carry out a study and furnish requisite proposal alongwith next ARR and Tariff petition. It may be noted that Discoms have to explore all possible revenue sources as the Commission may not allow any increase in Regulatory Assets in future.

31. Scheme wise expenditure: grant-equity

Discoms were directed to furnish the scheme wise loan, grant and equity. However Discoms have informed that GoR is not providing the information of equity and grant separately, therefore, the Discoms should take up the matter with the GoR. The GoR is also advised to provide the scheme-wise break up of equity and grant while releasing the funds towards any scheme in future.

32. Intrastate and inter State Losses

The Commission has many times directed the Discoms that they should file the information of inter and intra state losses separately, however all Discoms have failed to file the same. Therefore, the Commission is taking this matter very seriously and again directs the Discoms to comply with the above Direction in next true up petition positively, otherwise the Commission will take an adverse view of the same.

33. Mode of Payments

During the hearing, few of the stakeholders raised the concern about non acceptance of cheque towards payment of electricity bill by Consumers to Discoms in contravention to Regulations framed by the Commission.

Commission directs the Discoms to comply with the following regulation of RERC (Electricity Supply Code and Connected Matters) Regulations, 2021:

"In respect of energy bill payments, i.e., monthly power supply charges upto and inclusive of Rs 10,000/- or such other limit as may be notified by the Commission from time to time may be made by cash or cheque or Demand Draft or any electronic mode. Payments above the amount notified shall be made by a cheque or Demand Draft or electronic mode only"

Discoms are also directed to review/withdraw any orders issued by them in contravention to Regulations of the Commission and submit the compliance within one month.

34. Agriculture connections in urban areas

During the hearing, stakeholders raised the concern about Agriculture connections in urban areas which are used for non domestic or commercial purpose. In this regard Discoms are directed to initiate a drive to check usage of such connections and if it is found that such connections are being used for purpose other than agriculture their category be changed under appropriate category and necessary action for malpractice be taken as per provisions of the Act. The concerned Assistant Engineer should be made responsible to complete this drive by 30th November 2022 and compliance be reported to the Commission along with next ARR/Tariff petition.

35. Interest on Security Deposit

As per RERC (Electricity Supply Code and Connected Matters) Regulations, 2021the Discoms are required to pay interest on security deposit (SD) of the Consumer at the Bank Rate prevailing as on 1st April of the Financial Year and the accrued interest on security deposit for each financial year shall be credited to the consumer's account latest by July end of the subsequent financial year and be adjusted against the consumption charges. Stakeholders have apprehension that Discoms are not paying interest to them whereas as per submission of Discoms they are paying interest in accordance with the Regulations .As such for information of consumers Discoms are directed to send a communication by e-mail or SMS to the consumer regarding amount of interest on security deposit being credited and adjusted in their bills of July every year.

36. Details of various debit/credit on the bill

The Commission in previous order directed the Discoms to clearly indicate the detailed break up of other debits, fuel surcharge and other miscellaneous charges shown in consumer's electricity bills, to which the Discoms replied that these details are available in bills available online. However, it has been observed that though the bill shows the amount of total debit or credit but detailed breakup under various subheads is not provided to consumers. The Discoms are accordingly directed to create separate codes for each type of debit or credit and mention amount against each subhead in the bills available online. e.g.
D0001-fuel surcharge-XXXX CR001-Interest on Security Deposit-Rs. XX
D0002-Debit due to audit-XXXX CR0002- other credit-XX

<u>Commission's Advice to Government</u>

37. The State Government, as the principal owner of the Discoms, is advised to constitute a task force to monitor performance of Discoms and to take corrective measure to improve their operational efficiency and financial management.

38. The Government of Rajasthan (GoR) has approved participation of Discoms in RDSS and to take maximum benefit of the Scheme it is imperative that the State fulfills the Pre-Qualification Criteria. The Commission accordingly advises the Government of Rajasthan (GoR) to ensure

(i) That DISCOMs do not create new Regulatory Assets in latest tariff determination cycle. [First evaluation would take place in FY 2022-23].
(ii) 100% payment of subsidy for the previous year and advance payment of subsidy up to current period in line with section 65 of EA2003 EA 2003 and wipe out the remaining subsidy amount by the end of the project period.
(iii) All Government Departments/ Attached Offices/ Local Bodies/ Autonomous Bodies/ Boards/Corporations have made 100% payment of current electricity dues.

39. Government of Rajasthan is again advised to consider to review the tariff subsidy to flat rate agriculture consumers so as to make these consumers shift to metered category and also ask Discom to review and propose for abolition of flat Rate Tariff .

40. Government of Rajasthan (GoR) may consider to waive off the additional interest being charged by it on UDAY loans.

41. The Government may suitably reallocate PPAs or provide additional subsidy to Jodhpur Discom so as to bring all the Discoms to a level playing field in terms of power purchase cost so as to remove differentiation in gap due to adverse consumer mix and climatic conditions.

42. State Government, as per Section161 (2)(b) of the Electricity Act, 2003 may ask the Electrical Inspector or any other agency to inquire and report to it (i) cause of accident and (ii) the manner and extent to which the rules and regulations pertaining to safety are being complied by the Discoms or any other utility. State Government may also monitor the compliance of CEA Safety Regulations and issue necessary directions to Discoms & Electrical Inspector whenever required for ensuring safety.

43. GOR may provide cheap land and facilitate Discoms by providing additional financial assistance under feeder solarization of KUSUM C and work out innovative model to handle plants under KUSUM C as feeder level monitoring units /profit centers. This model has a huge potential of reduction in power purchase cost of Discoms as well as reduction in subsidy bill of Discoms in long term.

44. Government of Rajasthan (GoR) in view of Commissions advise u/s 86(2) rendered vide letter dated 30.5.22 may examine and consider to notify that Interstate solar power projects supplying power outside Rajasthan shall supply ten percent (10%) of such electricity free of cost to the State Government for use of the State DISCOMs for supplying it to the consumers of the State or may take up the matter with Central Government to frame rules in this regard.

Annexure A

Sr. No.	NAME	DISCOMS
1	BASK Research Foundation	JVVNL, AVVNL
2	Prayash Energy Group	JVVNL, AVVNL, JdVVNL
3	Triveni Protein and Food Products	JVVNL, AVVNL, JdVVNL
4	The Rajasthan Textile Mills Association	JVVNL, AVVNL, JdVVNL
5	Sh. Shanti Prasad	JVVNL, AVVNL, JdVVNL
6	Sh. B.M. Sanadya, Samta Power	JVVNL, AVVNL, JdVVNL
7	Sh. D. D. Agarwal	JVVNL, AVVNL, JdVVNL
8	Sh. Y. K. Bolia	JVVNL, AVVNL, JdVVNL
9	Sh. G. L. Sharma	JVVNL, AVVNL, JdVVNL
10	Shree Cement Limited	JVVNL
11	Sh. D. P. Chirania	AVVNL, JdVVNL
12	Mewar Chamber of Commerce & Industry	AVVNL
13	Sh. Hastimal Chaurdia, Samta Power	AVVNL
14	Udaipur Chamber of Commerce & Industry	AVVNL
15	Marble Gangsaw Association, Rajsamand	AVVNL
16	Sh. Dinesh Gupta, Beawar	AVVNL
17	Sh. D. S. Agarwal	JVVNL, AVVNL, JdVVNL
18	Sh. Rakesh Kumar Parmar	JVVNL

Annexure – B

Sr. No	Name
1	Sh. Bhaskar A. Sawant, Chairman Discoms, for Petitioners.
2	Sh. A K. Gupta, Advisor Energy, GoR.
3	Sh. Ajit Saxena, Managing Director, JVVNL for Petitioner.
4	Sh. N. S. Nirwan, Managing Director, AVVNL for Petitioner.
5	Sh. Pramod Tak, Managing Director, JdVVNL for Petitioner.
6	Sh. Manideep Gudela for Bask Research Foundation.
7	Ms. Ann Josey for Prayas Energy.
8	Sh. D. D. Agarwal
9	Sh. B. M. Sandhya for Samta Power.
10	Sh. D. S. Agarwal for Rudraksh Energy.
11	Sh. Y. K. Bolia
12	Sh. Hastimal Chordia
13	Sh. R. K. Jain for Mewar Chamber of Commerce & Industry.
14	Sh. Y. K. Bolia for Udaipur Chamber of Commerce & Industry.
15	Sh. Ravi Sharma for Marble Gangshaw Association.
16	Sh. V. K. Gupta for Rajasthan Textile Mills Association.
17	Sh. G. L. Sharma
18	Sh. D. P. Chirania
19	Sh. Dinesh Gupta
20	Sh. Rakesh Parmar

Annexure- C

List of abbreviations		
A&G	:	Administrative and General Expenses
AMR	:	Automatic Meter Reading
APTEL	:	Appellate Tribunal for Electricity
ARR	:	Aggregate Revenue Requirement
AT & C	:	Aggregate Technical and Commercial
AVVNL	:	Ajmer Vidyut Vitran Nigam Ltd.
BAU	:	Business as Usual
CAGR	:	Compound Annual Growth Rate
CEA	:	Central Electrical Authority
CPP	:	Captive Power Plants
CSEB	:	Chhattisgarh State Electricity Board
CTPP	:	Chhabra Thermal Power Plant
DCCPP	:	Dholpur Combined Cycle Gas based Thermal Power Plant
DF	:	Distribution Franchisee
DISCOM	:	Distribution Company
DSM	:	Demand Supply Management
EA, 2003	:	Electricity Act, 2003
ED	:	Electricity Duty
ERP	:	Enterprise Resource Planning
EV	:	Electric Vehicle
FR	:	Flat Rate
FRBM	:	Fiscal Responsibility and Budget Management
FY	:	Financial Year
GFA	:	Gross Fixed Assets
GoR	:	Government of Rajasthan
GLTPP	:	Giral Lignite Thermal Power Plant
HPO	:	Hydro Power Purchase Obligation
HT	:	High Tension
JdVVNL	:	Jodhpur Vidyut Vitran Nigam Limited
JVVNL	:	Jaipur Vidyut Vitran Nigam Limited
KTPS	:	Kota Thermal Power Station
KW	:	Kilo Watt
KWH	:	Kilo Watt Hour
KVA	:	Kilo Volt Ampere
LED	:	Light Emitting Diode

List of abbreviations		
LT	:	Low Tension
LTL	:	Long-Term Loans
MMH	:	Mini Micro Hydro
ML	:	Mixed Load
MoU	:	Memorandum of Understanding
MU	:	Million Unit
MW	:	Mega Watt
NCES	:	Non Conventional Energy Sources
NDS	:	Non Domestic Supply
NFA	:	Net Fixed Assets
NHPC	:	National Hydro Power Corporation
NLC	:	Neyveli Lignite Corporation
NPCIL	:	Nuclear Power Corporation
NTPC	:	National Thermal Power Corporation
NVVN	:	NTPC Vidyut Vyapar Nigam
O&M	:	Operation & Maintenance
PGCIL	:	Power Grid Corporation of India Ltd.
PLF	:	Plant Load Factor
PMA	:	Project Management Agency
POC	:	Parallel Operation Charges
PP	:	Partnership Projects
PPA	:	Power Purchase Agreement
PSERC	:	Punjab State Electricity Regulatory Commission
PWW	:	Public Water Works
RAPDRP	:	Restructured Accelerated Power Development & Reform Programme
RBI	:	Reserve Bank of India
RERC	:	Rajasthan Electricity Regulatory Commission
RGGVY	:	Rajiv Gandhi Grameen Vidyutikaran Yojana
RGTPS	:	Ramgarh Gas Thermal Power Station
RLDC	:	Region Load Dispatch Centre
RoE	:	Return on Equity
RPO	:	Renewable Purchase Obligation
RUVNL	:	Rajasthan Urja Vikas Nigam Ltd.
RVPN	:	Rajasthan Vidyut Prasaran Nigam
RVUN	:	Rajasthan Vidyut Utpadan Nigam

List of abbreviations		
R&M	:	Repairs & Maintenance
SCL	:	Sanctioned Connected Load
SERC	:	State Electricity Regulatory Commission
SIP	:	Small Industrial Power
SLDC	:	State Load Dispatch Centre
SLM	:	Straight Line Method
STPS	:	Suratgarh Thermal Power Station
TSA	:	Transmission Service Agreement
T&D	:	Transmission & Distribution
UDAY	:	Ujwal Discom Assurance Yojana
UPSEB	:	Uttar Pradesh State Electricity Board

Approved Tariff for FY 2022-23 Annexure D

Tariff for Retail Consumers

DOMESTIC CATEGORY (LT-1 and HT-1)

(BPL, Astha Card Holders and Small Domestic having consumption upto 50 units per month)

BPL and Small Domestic

Domestic Category		
Particulars	**Approved Tariff**	
	Energy Charges	**Fixed Charges**
BPL and Astha card Holders*		
For consumption upto first 50 units per month	Rs. 3.50/ unit	Rs. 100/ connection / month
Small Domestic*		
For consumption upto first 50 units per month	Rs. 3.85/ unit	Rs. 125/ connection / month

**Note: The BPL and Astha card Holder domestic tariff shall be exclusively applicable to individual consumer person and shall not be applicable to any institution. In case any BPL, Astha Card Holder and Small Domestic consumers has consumed more than 50 unit per month in any billing cycle, the consumer will be charged as per the applicable tariff of the respective slab under the LT-I domestic category for the additional units consumed.*

General Domestic-1

Domestic Category		
Particulars	**Approved Tariff**	
General Domestic-1 (Consumption upto 150 units/month)		
	Energy Charges	**Fixed Charges**
(i) For consumption upto first 50 units per month	Rs. 4.75/ unit	Rs. 230/ connection / month
(ii)For consumption above 50 units and upto 150 units per month	Rs. 6.50/ unit	

General Domestic-2

Domestic Category		
Particulars	**Approved Tariff**	
General Domestic-2 (Consumption above 150 units and upto 300 units/month)		
	Energy Charges	**Fixed Charges**
(i) For consumption upto first 50 units per month	Rs. 4.75/ unit	Rs. 275/ connection / month
(ii)For consumption above 50 units and upto 150 units per month	Rs. 6.50/ unit	
(iii)For consumption above 150 units and upto 300 units per month	Rs. 7.35/ unit	

General Domestic-3

Domestic Category		
Particulars	**Approved Tariff**	
General Domestic-3 (Consumption above 300 and upto 500 units/month)		
	Energy Charges	**Fixed Charges**
(i) For consumption upto first 50 units per month	Rs. 4.75/ unit	Rs. 345/ connection / month
(ii)For consumption above 50 units and upto 150 units per month	Rs. 6.50/ unit	
(iii)For consumption above 150 units and upto 300 units per month	Rs. 7.35/ unit	
(iv)For consumption above 300 units and upto 500 units per month	Rs. 7.65/ unit	

General Domestic-4

Domestic Category		
Particulars	**Approved Tariff**	
General Domestic-4 (Consumption above 500 units/month)		
	Energy Charges	**Fixed Charges**
(i) For consumption upto first 50 units per month	Rs. 4.75/ unit	Rs. 400/ connection / month
(ii)For consumption above 50 units and upto 150 units per month	Rs. 6.50/ unit	
(iii) For consumption above 150 units and upto 300 units per month	Rs. 7.35/ unit	
(iv)For consumption above 300 units and upto 500 units per month	Rs. 7.65/ unit	
(v)For consumption above 500 units per month	Rs. 7.95/ unit	

Domestic Category (HT-1)

Domestic Category		
Particulars	**Approved Tariff**	
HT – Domestic (HT-1)		
	Energy Charges	**Fixed Charges**
For contract demand over 50 KVA	Rs. 7.15/ unit	Rs. 250 per kVA of Billing Demand per month

NON-DOMESTIC CATEGORY (LT-2 & HT-2)
NDS up to 5 kW of SCL
(NDS- Type1)

Non-Domestic Category		
Particulars	**Approved Tariff**	
LT-NDS(LT-2)		
Type1 (Consumption upto 100 units/month)		
	Energy Charges	**Fixed Charges**
Consumption upto first 100 units per month	Rs. 7.55 /unit	Rs. 300/ connection / month

(NDS- Type2)

Non-Domestic Category		
Particulars	**Approved Tariff**	
LT-NDS(LT-2)		
Type 2 (Consumption above 100 units/month and upto 200 units/month)		
	Energy Charges	**Fixed Charges**
Consumption upto first 100 units per month	Rs. 7.55 /unit	Rs. 300/ connection / month
Consumption above 100 units and upto 200 unit per month	Rs. 8.50 /unit	

(NDS- Type 3)

Non-Domestic Category		
Particulars	**Approved Tariff**	
LT-NDS(LT-2)		
Type 3 (Consumption above 200 units and upto 500 units/month)		
	Energy Charges	**Fixed Charges**
Consumption upto first 100 units per month	Rs. 7.55 /unit	Rs. 380/ connection / month
Consumption above 100 units and upto 200 unit per month	Rs. 8.50 /unit	
Consumption above 200 unit and upto 500 unit per month	Rs. 8.85 /unit	

(NDS- Type 4)

Non-Domestic Category		
Particulars	**Approved Tariff**	
LT-NDS(LT-2)		
Type 4 (Consumption above 500 units/month)		
	Energy Charges	**Fixed Charges**
Consumption upto first 100 units per month	Rs. 7.55 /unit	Rs. 460/ connection / month
Consumption above 100 units and upto 200 units per month	Rs. 8.50 /unit	
Consumption above 200 units and upto 500 units per month	Rs. 8.85 /unit	
Consumption above 500 unit per month	Rs. 8.95 /unit	

NDS Above 5 kW of SCL

Non-Domestic Category		
Particulars	**Approved Tariff**	
NDS above 5 KW of SCL (LT-2)		
	Energy Charges	**Fixed Charges**
Consumption upto first 100 units per month	Rs. 7.55 /unit	Rs.135/ KW of SCL / month
Consumption above 100 units and upto 200 units per month	Rs. 8.50 /unit	

Non-Domestic Category		
Particulars	**Approved Tariff**	
NDS above 5 KW of SCL (LT-2)		
	Energy Charges	**Fixed Charges**
Consumption above 200 units and upto 500 units per month	Rs. 8.85 /unit	
Consumption above 500 units per month	Rs. 8.95 /unit	Rs. 150/ KW of SCL / month Or Rs. 270 per kVA of Billing Demand per month (If SCL is more than 18.65 KW)

NDS –Contract Demand Over 50 kVA

HT-NDS (HT-2)	Approved Tariff	
For contract demand over 50 kVA	**Energy Charges**	**Fixed Charges**
All units	Rs. 8.85 /unit	Rs.270/ kVA of Billing Demand per month

PUBLIC STREET LIGHTING (LT-3)

Particulars	Approved Tariff	
Public Street Lighting	**Energy Charges**	**Fixed Charges**
Population <1 Lakh	Rs. 7.55/ unit	Rs. 115/ Lamp point/ month subject to a maximum of Rs. 1150 /service connection/month
Population =>1 Lakh	Rs. 8.10/ unit	Rs. 145/ Lamp point/ month subject to a maximum of Rs. 2835 /service connection/month

AGRICULTURE (Metered and Flat Rate) (LT-4)

Particulars	Approved Tariff	
Metered (AG/MS/LT-4)		
Agriculture Supply	**Energy Charges**	**Fixed Charges**
(i) General (getting supply in block hours)	Rs. 5.55 /unit	Rs.30 per HP per Month of SCL
(ii)All others not covered under items (i) and getting supply more than block hours	Rs. 7.10 /unit	Rs.60 per HP per Month of SCL
Flat/ unmetered (AG/FR/LT-4)		
(i)General (getting supply in block hours)	Rs. 745/ HP /Month	Rs.30 per HP per Month of SCL
(ii)All others not covered under items (i) above and getting more than block hour supply	Rs. 895/ HP /Month	Rs.60 per HP per Month of SCL

SMALL INDUSTRIES (LT-5)

Particulars	Approved Tariff	
Small Industrial Service (LT-5) (Load not exceeding 18.65 kW (25HP)	**Energy Charges**	**Fixed Charges**
Upto first 500 units	Rs.6.00/ unit	Rs. 80/ HP/ month of sanctioned connected load
Above 500 units	Rs.6.45/ unit	Rs. 110/ HP/ month of sanctioned connected load

MEDIUM INDUSTRIES (LT-6 and HT-3)

Particulars	Approved Tariff	
	Energy Charges	**Fixed Charges**
Medium Industrial Service (LT-6)	Rs. 7.00/ unit	Rs. 115 per HP per month of sanctioned connected load or Rs. 230 per kVA of Billing Demand per month
Medium Industrial Service (HT-3)	Rs. 7.00/ unit	Rs. 230/ kVA of Billing Demand per month

BULK SUPPLY FOR MIXED LOAD (LT-7 and HT-4)

Particulars	Approved Tariff	
	Energy Charges	**Fixed Charges**
Schedule ML/LT-7	Rs. 8.05/ unit	Rs. 105 per HP per month of sanctioned connected load OR Rs. 215 per kVA of Billing Demand per month
Schedule ML/HT-4	Rs. 8.05/ unit	Rs. 215/kVA of Billing Demand per month

LARGE INDUSTRIES (HT-5)

Particulars	Approved Tariff	
	Energy Charges (on whole consumption)	**Fixed Charges**
(A) SCL above 150 HP &/or having Contract/Maximum Demand above 125 kVA	Rs. 7.30/ unit	Rs. 270/ kVA of Billing Demand per month
(B)Consumer having Billing demand of 1 MVA or more for the billing month and having load factor 50% or more for the billing month	Rs. 6.30/ unit	Rs. 270/ kVA of Billing Demand per month

VOLTAGE-WISE TARIFF APPROVED* FOR LARGE INDUSTRIES CATEGORY

Voltage wise Approved Tariff* for Consumer having SCL above 150 HP &/or having Contract/Maximum Demand above 125 kVA		
Voltage Level	**Energy Charges**	**Fixed Charges**
11 kV	7.300	Rs. 270 per KVA of Billing Demand per month
33 kV	7.081	

Voltage wise Approved Tariff* for Consumer having SCL above 150 HP &/or having Contract/Maximum Demand above 125 kVA		
Voltage Level	**Energy Charges**	**Fixed Charges**
132 kV	7.008	
220 kV	6.935	
Voltage wise Approved Tariff* for Consumer having Billing demand of 1 MVA or more for the billing month and having load factor 50% or more for the billing month		
Voltage Level	**Energy Charges**	**Fixed Charges**
11 kV	6.300	Rs. 270 per KVA of Billing Demand per month
33 kV	6.111	
132 kV	6.048	
220 kV	5.985	

**No other voltage rebate shall be applicable for Large Industrial category.*

MINIMUM ENERGY CHARGES*

Voltage Level	Energy Charges
11 kV	6.000
33 kV	5.820
132 kV	5.760
220 kV	5.700

*No other voltage rebate shall be applicable for Large Industrial category

ELECTRIC VEHICLE CHARGING STATION (LT-8 and HT-6) (Approved Tariff)

Category	Energy Charges	Fixed Charges
Public charging station (LT-8)	Rs. 6.00/ unit	Rs. 40/ HP/ month of sanctioned connected load
Public charging station (HT-6)	Rs. 6.00/ unit	Rs. 135/kVA/Month

ToD Rebate and Surcharge (Applicable on Large Industries and Electric Vehicle Charging Stations)

Off peak hours	Rebate on EC
12 am - 6 am (6 hours)	7.5%
Peak hours	**Surcharge on EC**
6 am to 10 am (4 hours)	5%

TRACTION LOAD (HT-7) (Approved Tariff)

Category	Energy Charges	Fixed Charges
Traction load (HT-7)	Rs. 5.70/ unit	Rs. 135/kVA/Month

Other Tariff:

Wheeling Charges for	FY 2022-23
Wheeling Charges at 132 KV and above Voltage Level (Rs/kWh)	**0.01**
Wheeling Charges at 33 KV Voltage Level (Rs/kWh)	**0.16**
Wheeling Charges at 11 KV Voltage Level (Rs/kWh)	**0.77**

Cross Subsidy Surcharge

Category of Open Access Consumer	Voltage Level	Cross Subsidy Surcharge (Rs./Unit) FY 2022-23
NON DOMESTIC SERVICE	11 KV	2.31
	33 KV	2.24
	132 KV and above	2.22
MIXED LOAD/ BULK SUPPY	11 KV	1.95
	33 KV	1.89
	132 KV and above	1.87
LARGE INDUSTRIAL SERVICE	11 KV	1.82
	33 KV	1.77
	132 KV and above	1.75

Additional Surcharge

Additional Surcharge (Rs./kWh)	**0.70**

General Note:

1. All existing provisions which are not modified by this order, shall continue to be in force.

2. This tariff order shall come into force from the date of issue of this order and remain in force till the next tariff order of the Commission.

Annexure E

Power purchase details for FY 2022-23

	Rajasthan			JVVNL				AVVNL				JdVVNL			
Plants	Net Generation (MU)	Total Annual Fixed charges (Rs. Cr.)	Variable Cost (Rs./unit	Net Generation (MU)	Total Annual Fixed charges (Rs. Cr.)	Variable Cost (Rs. Cr)	Total Cost JVVNL (Rs. Cr.)	Net Generation (MU)	Total Annual Fixed charges (Rs. Cr.)	Variable Cost (Rs. Cr)	Total Cost AVVNL (Rs. Cr.)	Net Generation (MU)	Total Annual Fixed charges (Rs. Cr.)	Variable Cost (Rs. Cr)	Total Cost JdVVNL (Rs. Cr.)
NTPC															
FGUTTPS –II	140	26	3.94	56	10	22	33	38	7	15	22	46	8	18	26
FGUTPP III	100	21	3.70	40	8	15	23	27	6	10	16	33	7	12	19
FGUTPP IV	359	77	3.25	145	31	47	78	97	21	32	53	117	25	38	63
F.S.T.P.S	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0
K.H.S.T.P.S. I	153	18	2.58	62	7	16	23	42	5	11	16	50	6	13	19
K.H.S.T.P.S. & II	640	83	2.44	258	33	63	96	174	22	42	65	209	27	51	78
RHIND STPS	694	55	1.49	279	22	42	64	188	15	28	43	226	18	34	52
RIHAND II	621	48	1.45	250	19	36	55	169	13	24	37	202	16	29	45
RIHAND III	865	118	1.46	349	48	51	98	235	32	34	66	282	39	41	80
SINGUARLI	1976	133	1.51	796	54	120	174	536	36	81	117	644	43	97	141
KHPS-I	332	98	2.45	134	40	33	72	90	27	22	49	108	32	27	59
Singuarli- Hydel	5	0	5.04	2	0	1	1	1	0	1	1	2	0	1	1
TANDA-II STPS	404	79	2.84	163	32	46	78	110	21	31	53	132	26	37	63
NCTPS 1	20	1	3.88	8	0	3	3	5	0	2	2	7	0	3	3
NTPC BHADLA-II (Solar)	435	0	5.00	175	0	88	88	118	0	59	59	142	0	71	71
NTPC NSM-BUNDLED	3446	266	3.00	1388	107	416	523	935	72	281	353	1123	87	337	423
NTPC – MEJA	377	87	2.44	152	35	37	72	102	23	25	48	123	28	30	58
Total NTPC	**10567**	**1109**		**4255**	**447**	**1036**	**1483**	**2868**	**301**	**698**	**999**	**3444**	**361**	**839**	**1200**
NHPC	**0**	**0**		0	0										
TANAKPUR HEP	49	10	1.62	20	4	3	7	13	3	2	5	16	3	3	6
SALAL HEP	98	8	1.74	40	3	7	10	27	2	5	7	32	3	6	8
CHAMERA-I	374	37	1.14	150	15	17	32	101	10	12	22	122	12	14	26
CHAMERA-II	131	16	1.01	53	6	5	12	36	4	4	8	43	5	4	9
CHAMERA-III	110	27	1.97	44	11	9	20	30	7	6	13	36	9	7	16
URI HEP	261	25	1.29	105	10	14	24	71	7	9	16	85	8	11	19
URI HEP II	182	38	2.75	73	15	20	35	49	10	14	24	59	12	16	29
DHOLIGANGA	117	17	1.21	47	7	6	13	32	5	4	8	38	6	5	10
DULHASTI	232	64	3.11	93	26	29	55	63	17	20	37	76	21	24	44
PARBATI III	66	33	1.54	27	13	4	18	18	9	3	12	22	11	3	14
SEWA II	7	1	2.85	3	0	1	1	2	0	1	1	2	0	1	1
Total NHPC	**1628**	**277**		**655**	**111**	**115**	**226**	**442**	**75**	**77**	**152**	**530**	**90**	**93**	**183**
SJVNL															

Nathpa-Jhakri	531	68	1.14	214	27	24	52	144	18	16	35	173	22	20	42
Rampur	216	39	1.55	87	16	13	29	59	11	9	20	70	13	11	24
Total SJVNL	**747**	**107**		**301**	**43**	**38**	**81**	**203**	**29**	**26**	**55**	**243**	**35**	**31**	**66**
IPP/UMPP															
NEYVELI LIGNITE CORPORATION LTD	1437	331	1.08	579	133	62	196	390	90	42	132	468	108	50	158
NVVN BUNDLED POWER	2378	236	3.77	958	95	361	456	645	64	243	307	775	77	292	369
COASTAL GUJARAT	396	46	1.58	160	19	25	44	108	13	17	30	129	15	20	35
ADANI POWER RAJASTHAN LIMITED	8030	1110	2.79	3234	447	902	1349	2179	301	608	909	2617	362	730	1092
SASAN POWER LTD	3040	45	1.29	1224	18	158	176	825	12	106	118	991	15	128	142
PTC DB	2238	519	1.69	901	209	153	361	607	141	103	244	729	169	124	293
KARCHAM WANGTOO (PTC)	435	83	1.67	175	33	29	62	118	22	20	42	142	27	24	51
PTC Maruti	1475	255	1.76	594	103	105	207	400	69	71	140	481	83	85	168
PTC (TEESTA)	466	145	2.67	188	58	50	109	126	39	34	73	152	47	41	88
SKS	486	0	2.88	196	0	56	56	132	0	38	38	159	0	46	46
TOTAL IPP/UMPP	**20381**	**2769**		**8208**	**1115**	**1901**	**3016**	**5532**	**752**	**1281**	**2033**	**6642**	**903**	**1538**	**2441**
NPCIL															
NAPP	328	0	2.99	132	0	40	40	89	0	27	27	107	0	32	32
RAPP-I &II	1207	0	3.34	486	0	163	163	328	0	110	110	393	0	132	132
RAPP-III &IV	988	0	3.34	398	0	133	133	268	0	90	90	322	0	108	108
RAPP-V & VI	651	0	3.92	262	0	103	103	177	0	69	69	212	0	83	83
Total NPCIL	**3174**	**0**		**1278**	**0**	**438**	**438**	**861**	**0**	**295**	**295**	**1034**	**0**	**354**	**354**
Others															
TEHRI	235	46	2.00	95	19	19	37	64	13	13	25	77	15	15	30
KOTESHWAR	99	23	2.30	40	9	9	18	27	6	6	12	32	7	7	15
TALA THROUGH PTC (BHUTAN)	42	0	2.16	17	0	4	4	11	0	2	2	14	0	3	3
Total Others	**375**	**69**		**151**	**28**	**32**	**59**	**102**	**19**	**21**	**40**	**122**	**22**	**26**	**48**
STATE GEN. & OTHER															
RVUN															
KTPS(1 to 7)	6406	468	3.39	2580	189	873	1062	1739	127	589	716	2088	153	707	859
STPS(1 to 6)	3502	516	4.22	1410	208	595	803	950	140	401	541	1141	168	482	650
SSCTPP (7)	3162	657	2.73	1273	265	347	612	858	178	234	412	1030	214	281	495
SSCTPP (8)	3162	618	2.73	1273	249	347	596	858	168	234	402	1030	201	281	482
CTPP (1-4)	4519	559	3.05	1820	225	555	780	1226	152	374	525	1473	182	449	631
CTPP (5&6)	5663	849	2.37	2280	342	540	882	1537	230	364	595	1845	277	437	714
RGTP(1,2 & 3)	1418	129	2.92	571	52	167	219	385	35	112	147	462	42	135	177
KaTPP#1 & 2	6942	1034	2.95	2795	416	825	1242	1884	281	556	837	2262	337	668	1005
MAHI	190	35	0.00	77	14	0	14	52	10	0	10	62	11	0	11
MAHI MMH	1	0	4.16	0	0	0	0	0	0	0	0	0	0	0	0
MANGROL	7	0	4.16	3	0	1	1	2	0	1	1	2	0	1	1
STPS MMH	1	0	4.16	0	0	0	0	0	0	0	0	0	0	0	0
Total RVUN	**34973**	**4865**		**14083**	**1959**	**4252**	**6211**	**9492**	**1320**	**2865**	**4186**	**11398**	**1585**	**3441**	**5026**
GLTPP	0	0	0.00	0	0	0		0	0	0	0	0	0	0	0

RAJWEST POWER LIMITED	**6646**	**1130**	**2.50**	**2676**	**455**	**669**	**1124**	**1804**	**307**	**451**	**758**	**2166**	**368**	**541**	**910**
SHARE PROJECTS															
BBMB(BHAKRA,DEHAR&PONG	2181	0	0.58	878	0	51	51	592	0	34	34	711	0	41	41
CHAMBAL	301	0	0.00	121	0	0	0	82	0	0	0	98	0	0	0
Total Shared Projects	**2482**	**0**		**999**	**0**	**51**	**51**	**673**	**0**	**34**	**34**	**809**	**0**	**41**	**41**
R.F.F.	**186**	**0**	**3.85**	**186**	**0**	**72**	**72**	0	0	0	0	0	0	0	0
NCES															0
Wind Farms	7882	0	5.04	3174	0	1599	1599	2139	0	1077	1077	2569	0	1294	1294
Solar	7629	0	3.13	3072	0	963	963	2070	0	649	649	2486	0	779	779
Biomass	866	0	7.35	349	0	256	256	235	0	173	173	282	0	207	207
Total NCES	**16377**	**0**		**6595**	**0**	**2818**	**2818**	**4445**	**0**	**1899**	1899	**5337**	**0**	**2281**	2281
Total	**97536**	**10325**		**39389**	**4158**	**11420**	**15578**	**26421**	**2802**	**7648**	**10451**	**31726**	**3365**	**9184**	**12549**
Short Term	-4249	0	4.22	-4560	0	-1924	-1924	825	0	348	348	-514	0	-217	-217
Net	**93287**	**10325**	4.22	**34829**	**4158**	**9496**	**13654**	**27246**	**2802**	**7997**	**10799**	**31212**	**3365**	**8967**	**12332**