

**RAJASTHAN ELECTRICITY REGULATORY COMMISSION, JAIPUR**

**Petition No. RERC 1541/19, 1542/19, 1543/19**

In the matter of approval of Aggregate Revenue Requirement and Tariff Petition of Jaipur Vidyut Vitran Nigam Ltd. (JVVNL), Ajmer Vidyut Vitran Nigam Ltd. (AVVNL) and Jodhpur Vidyut Vitran Nigam Ltd. (JdVVNL) for FY 2019-20.

**Coram:** **Shri Shreemat Pandey, Chairman**  
**Shri S.C. Dinkar, Member**  
**Shri Prithvi Raj, Member**

Petitioners: Jaipur Vidyut Vitran Nigam Ltd., Jaipur (**1541/19**)  
Ajmer Vidyut Vitran Nigam Ltd., Ajmer (**1542/19**)  
Jodhpur Vidyut Vitran Nigam Ltd., Jodhpur (**1543/19**)

**Date of Hearing:** 18.11.2019 to 22.11.2019

**Date of Order:** **06.02.2020**

**ORDER**

**Section-1: Background**

- 1.1 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 or Petitioners had filed petitions for approval of Aggregate Revenue Requirement (ARR) and tariff for FY 2019-20 on 06.08.2019 under section 62 & 64 of Electricity Act, 2003 read with RERC (Terms and Conditions for Determination of Tariff) Regulations, 2019.
- 1.2 JVVNL on 13.08.2019, AVVNL on 14.08.2019 and JdVVNL on 13.08.2019 filed the additional information relating to approval of ARR and tariff for FY 2019-20.

- 1.3 After examining the petitions, the Commission vide letter dated 20.08.2019 for JVVNL, AVVNL & JdVVNL pointed out the deficiencies observed in the petitions for FY 2019-20 and the Discoms were directed to clarify along with supporting documents.
- 1.4 JVVNL on 27.08.2019, AVVNL on 26.08.2019 & JdVVNL on 26.08.2019 & 27.08.2019 submitted replies to the deficiencies indicated by the Commission.
- 1.5 After examining the petitions and reply of aforesaid deficiencies, the Commission vide letter dated 23.09.2019 & 11.11.2019, pointed out additional deficiencies observed in the petitions for FY 2019-20, the Discoms were directed to clarify along with supporting documents.
- 1.6 JVVNL, AVVNL & JdVVNL on dated 27.09.2019, 30.09.2019 & 30.09.2019 respectively, filed the additional information relating to approval of ARR and tariff for FY 2019-20.
- 1.7 Further in response to letter dated 11.11.2019 Discoms have filed a separate Petition for determination of Additional Surcharge before the Commission on 07.01.2020, which shall be dealt separately.
- 1.8 As per Section 64(2) of the EA, 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 27.08.2019 allowed Discoms to publish the notice in the newspapers.
- 1.9 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 04.10.2019 for JVVNL, AVVNL & JdVVNL:

<b>Sr. No.</b>	<b>Name of Newspapers</b>	<b>JVVNL</b>	<b>AVVNL</b>	<b>JdVVNL</b>
(i)	Dainik Bhaskar	03.09.2019	01.09.2019	01.09.2019
(ii)	Times of India	01.09.2019	-	01.09.2019
(iii)	Rashtrdoot	03.09.2019	01.09.2019	03.09.2019
(iv)	Dainik Navjyoti	01.09.2019	02.09.2019	01.09.2019

<b>Sr. No.</b>	<b>Name of Newspapers</b>	<b>JVVNL</b>	<b>AVVNL</b>	<b>JdVVNL</b>
(v)	Hindustan Times	-	01.09.2019	-
(vi)	Rajasthan Patrika	01.09.2019	02.09.2019	01.09.2019

1.10 In all, 465 numbers of comments/suggestions were received on JVVNL petition and 469 numbers on AVVNL petition and 1451 numbers on JdVVNL petition from the stakeholders for 2019-20. The list of stakeholders is enclosed at **Annexure-A**.

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

1.12 Discoms have furnished the reply to Stakeholders as well as to Commission.

1.13 The public hearing in the matter was held as follows :-

<b>Discom</b>	<b>Date of Hearing</b>	<b>Address</b>
JdVVNL	18.11.2019	The Institution of Engineer (India), Jodhpur Local Centre, Gaurav Path, Near Hotel Radisson, Residency Road, Jodhpur
AVVNL	19.11.2019	Auditorium of Board of Secondary Education, Rajasthan, Jaipur Road, Ajmer
JVVNL	20.11.2019 to 22.11.2019	State Institute of Agriculture Management, Durgapura, Tonk Road, Jaipur

1.14 The list of stakeholders who have made oral submissions during the hearing is enclosed at **Annexure-B**

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

1.16 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.

- 1.17 As issues arising in all the petitions are common for all three Discoms and the Stakeholders have also made common submissions on all the petitions and hearings were held in the matter, the Commission, therefore, has decided to consider all the petitions together for FY 2019-20 and dispose them through this common order.
- 1.18 In this Order, Commission has considered ARR and tariff for FY 2019-20 of all the Discoms including the various proposals made keeping in view the RERC (Terms and Conditions for Determination of Tariff) Regulations, 2019 and norms prescribed therein, the earlier orders of the Commission, orders of the Hon'ble Supreme Court and Appellate Tribunal for Electricity.
- 1.19 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.
- 1.20 For ready reference, a list of abbreviations used in this order is placed at **Annexure – C** of this order.
- 1.21 All energy figures used in this order, unless stated otherwise, are in Million Units (MU).
- 1.22 For the purpose of representation, figures given in the tables are shown as rounded off. However, for calculation purpose, actual figures have been considered.
- 1.23 This order has been structured in five sections as given under:

**a) Section 1 – Background discussed in this part**

**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 and tariff determination of three Discoms.

### **c) Section 3 - ARR for FY 2019-20 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, depreciation etc. and decided the ARR of FY 2019-20 and also calculated 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 and revision in tariff for various categories which have been dealt in the order.

### **e) Section 5- Directives**

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

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

Large number of objections and views have been filed by the stakeholders. Some of them have made very relevant points for consideration and some are general in nature.

The Commission has looked into and considered each point raised by the Stakeholders and reply given by Discoms while issuing the order.

The issue wise submissions of the Stakeholders and Petitioners are discussed in brief, three parts as under:

- (1) Part I- General issues/ comments related to ARR & Tariff for FY 2019-20
- (2) Part II- ARR related issues/ comments
- (3) Part III- Tariff related suggestions/ observations

## **Part I – General issues/comments related to Aggregate Revenue Requirement (ARR) of FY 2019-20**

### **2.1 Filing of petition**

#### **2.1.1 Stakeholder's Comments:**

It was submitted that as per Regulation 6 of RERC Tariff Regulation 2019, Distribution licensee should file petition for approval of ARR and determination of tariff for ensuing year latest by 30<sup>th</sup> November, 2018. Discoms have not filed petition(s) on time, hence petition(s) be rejected. Further, Discoms be directed to file petition for 2020-21 by 30.11.2019 as per Regulation.

#### **2.1.2 Petitioner's Response:**

Discoms submitted that the ARR petition for FY 2019-20 was filed in November, 2018 based on Tariff Regulation 2014 but as applicability of Tariff Regulations, 2014, was ended on 31.03.2019, the Commission had to reject the petition. Based on the RERC Tariff Regulation 2019, which was notified in May, 2019, the Discoms filed the revised tariff petition for FY 2019-20 in August, 2019 for which extension was also sought.

#### **2.1.3 Commission's view:**

With regard to filing of ARR and Tariff petition, Commission observed that Regulation 6 of RERC Tariff Regulation, 2019 provides for filing of petition by 30<sup>th</sup> November. However, this Regulations has a proviso as under:

*Provided further that application for approval of ARR and determination of tariff for the first year of the Control Period, i.e., FY 2019-20 by every Generating Company in respect of each Generating Station/unit(s), Licensee and SLDC shall be filed within four weeks of notification of these Regulations in the official gazette:*

The aforesaid Regulation were notified in Gazette on 27<sup>th</sup> May, 2019. Thereafter, vide letter dated 22<sup>nd</sup> July, 2019, the Discoms have requested for extension of time for filing the ARR & Tariff Petition for FY 2019-20 till 8<sup>th</sup> August, 2019 which was granted by Commission. Accordingly, the Discoms have filed the petition on 06.08.2019 and the Commission do not find merit in the submission of the stakeholders.

## **2.2 Rajasthan Urja Vikas Nigam Limited (RUVNL)**

### **2.2.1 Stakeholder's Comments:**

1. It was submitted that Rajasthan Urja Vikas Nigam Limited (RUVNL) is not having any trading license and in case Discom purchase power from RUVNL they would be purchasing power from an un-authorized utility.
2. RUVNL is not a generating company. It is functioning as trader but no tariff are determined by the appropriate Commissions for a trader. The Commission cannot determine the tariff for power sold by a trader to a licensee.
3. It was submitted that cost towards trading margin should not be allowed.

### **2.2.2 Petitioner's Response:**

1. Discoms submitted that RUVNL has been formed by GoR in December 2015 to carry out power trading business of State power sector utilities. With the Government notification dated 18.07.2019 amendment has been made to Rajasthan Power Sector Reforms Transfer Scheme, 2000 according to which RUVNL has now attained a status of deemed licensee and all the PPAs/TSAs were transferred and vested with RUVNL. RUVNL will be purchasing power from different sources as per respective PPAs/TSAs and will be supplying to Discoms at the DBST rate.
2. Discoms submitted that as regards to the rate at which RUVNL will supply power to the Discoms. RUVNL will supply power from sources other than RVUNL & RVPNL at differential bulk supply rate (DBST) as has been submitted in the ARR/Tariff petition.
3. It was submitted that the coordination committee of Rajasthan energy companies in its meeting dated 31.03.2019 decided that RUVNL will charge 1 paisa per unit on the Energy purchased from "sources other than RVUNL" by it on the behalf of Discoms as trading margin. This will ensure sustainability and future readiness of RUVNL to manage huge cash flows pertaining to its operations. Further, any surplus income earned by RUVNL, after meeting its expenses, will be passed on to the Discoms at the end of the year. Thus, RUVNL will operate on No Profit-No Loss basis.



### 2.2.3 Commission's view:

#### **Commission has to deal with the following issues:**

#### **Issue 1: Rajasthan Urja Vikas Nigam Limited (RUVNL) is not having any trading license.**

The RUVNL has been formed by GoR in December, 2015 to carry out power trading business of State power sector utilities. Thereafter vide Government notification dated 18.07.2019 amendment has been made to Rajasthan Power Sector Reforms Transfer Scheme, 2000 according to which RUVNL has now attained status of a deemed licensee and all the PPAs/TSAs were transferred and vested with RUVNL. As per the scheme of formation of the RUVNL, the major purpose for which the government of Rajasthan has formed RUVNL was to make bulk purchases of energy for the State Distribution licensees for supply. With this sole objective, the notification has been issued by exercising powers under Electricity Act as well as Rajasthan Power Sector Reforms Transfer Scheme, 2000. Thus after the notification dated 18-07-019, RUVNL gets the status of deemed licensee. Even otherwise also since all the purchases made by the RUVNL is for State Distribution Licensee for supply of electricity to the consumers, there is nexus between the business of State distribution licensee and RUVNL and therefore the Commission can proceed with determination of tariff as per submission of Discoms.

#### **Issue 2: State Commission cannot determine the rate for power supply by a trading company to distribution licensee.**

It is observed that the Section 86 of Electricity Act, 2003, define the functions of State Commission regarding determination of wholesale or bulk or retail tariff as well as regulate electricity purchase and procurement process of distribution licensees from the generating companies or licensees or from other sources through agreements as under:

**Section 86. (Functions of State Commission):** --- (1) *The State Commission shall discharge the following functions, namely: -*

*(a) determine the tariff for generation, supply, transmission and wheeling of electricity, **wholesale, bulk or retail**, as the case may be, within the State:*

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(b) regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or **from other sources through agreements** for purchase of power for distribution and supply within the State;

**Further, the aforesaid matter is already settled in appeal no. 121 of 07 and 51 of 2009, the Hon'ble APTEL has held that the Commission is empowered to determine the bulk tariff. Relevant portion of the order is extracted below:**

“11. Let us now consider the second issue regarding jurisdiction of the State Commission. According to the Learned Counsel for the Appellant, the State Commission can exercise only those powers which have been conferred under Section 86 of the Act. No such power under the said Section has been conferred on the State Commission to determine the rate for power supply by the Appellant, a trading company, to the Respondent distribution licensee.

12. According to the Learned Counsel for the Respondent only the State Commission has the jurisdiction to determine the bulk supply rate in terms of Section 86 (1) (a) and (b) of the Electricity Act 2003.

13. On the issue of jurisdiction of the State Commission, it is noted that the PPA between UPSEB, the predecessor of the Appellant, and the Respondent dated 15.11.1993 provided for a tentative tariff of Rs. 1.66/kWh which was to be examined and revised by an independent authority after six months. The agreement did not provide for any methodology to determine the tariff. The State Commission was directed to determine the tariff by an interim order dated 31.3.2000 of Hon'ble Allahabad High Court in writ petition No. 1048/2000. Accordingly the State Commission determined the tariff by its order dated 05.02.2001 from FY 1993-94 to FY 1999-00. Since then the State Commission has been determining the bulk supply tariff. The tariff determined by the State Commission by its order dated 5.2.2001 was also affirmed by the Hon'ble High Court in its judgment dated 10.11.2005.

14. Let us now examine the status of the Appellant. The Appellant is one of the successors of UPSEB. All the PPAs of erstwhile UPSEB with central sector generating stations in which UP has been allocated a share and other generating stations rest with the Appellant. The Appellant is also the sole procurer of power from thermal and hydro power stations owned by the State generating companies for the distribution licensees. The Appellant is responsible for arranging bulk power supply to all the State owned distribution companies in the State.

15. There is no provision in the Electricity Act, 2003 for constitution of an entity responsible for procurement and bulk supply of electricity to the distribution licensees. Section 131 of the Electricity Act, 2003 provides for reorganization of the State Electricity Board and formation of State Transmission Utility, generating company, transmission licensee and distribution licensee. The Tariff Policy dated 6.1.2006, on the other hand, states that existing PPAs with the generating companies would need to be suitably assigned to the successor distribution companies. The PPAs have so far not been assigned to the successor distribution companies. The Appellant is aggregating the requirement of the distribution companies and procuring power on their behalf. Thus the bulk supply tariff of the Appellant which is the power purchase price of the distribution licensees has to be regulated by the State Commission under Section 86 (1) (b) of the Electricity Act, 2003.

16. To put the matter other way, the very claim of the Appellant that the Appellant has been discharging the function of a Trader, and as such it is free to have price fixed for bulk supply being unfettered by the law is wholly unacceptable. It is not the claim of the Appellant in the memorandum of Appeal that the Appellant's creation has been as a Trader in Electricity according to the Law. Though the function of the Appellant would prima-facie appear to be partaking the character of a Trading Company engaged in the business of trading of electricity, considered from the angle of history of the Organization of the Appellant it can hardly be said that the Appellant is an Electricity Trader within the meaning of Section 2(26) of the Electricity Act, 2003. The all-pervasive character of the UPSEB which was the creation of a statute, was initially fragmented on 4.1.2000 into companies for generation of electricity and for distribution and transmission. The function of distribution and transmission was vested with the Appellant Company. On 12.02.2003 because of further fragmentation the function relating to distribution was assigned to four Government owned distribution companies and later the function of transmission which was hitherto vested with the Appellant was also taken away from it, and consequently, the Appellant was assigned with the function of bulk supply to the distribution companies. Therefore, given the history of the evolution of the Organization, the Appellant's entity does not appear to be an Electricity Trader simpliciter. Its present function is no different altogether from one of the functions of its predecessors. An entity in the name and style of Uttar Pradesh Power Corporation Ltd. which is a Government Company has been created after unbundling the UPSEB only to supply power in bulk to different distribution companies and viewed in the light, the Appellant can hardly equate itself with a trader and claim freedom from the shackles of the law. Since the distribution companies which otherwise could be said to be

competent under the law to purchase power from the Central and State generating companies could not do so because of non-assignment with them of the existing PPA entered into between the erstwhile UPSEB and the generating companies, and since it is the Appellant alone with whom such assignment has been vested, the Appellant is exercising one of the functions of its predecessor-entity which was doubtlessly not exercising the function of a trader. Furthermore, in terms of PPA, tariff is to be determined by an independent authority and it is not a case that the Respondent No.2 has been procuring power from the Appellant through any competitive bidding process. Therefore, argument that in term of the PPA of 1993, the Appellant is still entitled to charge double the rates, is not acceptable.

17. The bulk supply tariff of the Appellant for supply to the four State owned distribution licensees is also determined by the State Commission and the same has not been challenged by the Appellant. Similarly, the bulk supply tariff determined by the State Commission for FY 2003-04 in September, 2003 and for FY 2004-05 in its order dated 18.02.2005 in respect of ARR/tariff of the Respondent has also not been challenged by the Appellant. It is not a case of the Appellant that in the impugned orders the rate determined by the State Commission is less than its bulk supply rate which is applicable to other State owned distribution licensees and the Appellant is suffering any loss on this account. The Appellant has challenged the impugned orders, where the cost of power purchased by the Respondent from other sources was adjusted in its bulk supply rate and surplus in ARR of the Respondent in a year was not passed on to the Appellant and adjusted in ARR of the Respondent for subsequent years. Further, the Appellant had not raised any objection to the notice given by the State Commission while disposing of the petitions of the Respondent for determination of ARR/tariff which culminated in the impugned orders.

18. Learned Counsel for Appellant has argued that the State Commission does not have jurisdiction to determine the tariff of a trader, which is the present status of the Appellant. It is true that Section 86 (1) (j) empowers the State Commission to fix the trading margin, if considered necessary. The Tariff Policy in Section 9.0 stipulates that the Appropriate Commission should monitor the trading transaction continuously and ensure that electricity traders do not indulge in profiteering in situation of power shortage and fixing of trading margin should be resorted to for achieving this objective. Thus, a trader is also not free to sell power at any rate as its trading margin may be fixed by the Appropriate Commission. However, this is not a case of promotion of market development in the State or procurement of power by the Respondent Company from a trading licensee through competitive bidding. The power is

being supplied by the Appellant to the Respondent as a successor of UPSEB against the Power Purchase Agreement with the Respondent distribution licensee. Admittedly, the procedure for determination of tariff has not been specified in the agreement. According to the PPA, the tariff is to be determined by an independent authority. The Hon'ble High Court had directed the State Commission to determine the tariff and since then the State Commission has been determining the tariff.

19. As stated above, the power supply by the Appellant to the Respondent distribution licensee cannot be categorized as a trading transaction. The supply by the Appellant is against the PPA as successor of UPSEB having control over all the PPAs with Central and State sector generating companies and others. The State Commission has not determined the purchase price of the Appellant and has ensured that the full cost of the Appellant is recovered. As stated above, the Appellant is aggregating the requirements of the distribution companies and procuring power on their behalf against the PPAs of central and State sector power stations resting with it as a successor of UPSEB. Thus the bulk supply tariff of the supply to the Respondent distribution licensee has to be regulated and determined by the State Commission under Section 86(1) (a) & (b) of the Electricity Act, 2003."

20. In view of above, we hold that the State Commission is empowered to determine the bulk supply tariff for supply of power by the Appellant to the Respondent distribution licensee."

In view of above, it is clear that State Commission is empowered under section 86 (1) (a) & (b) of the Electricity Act, 2003 to determine the bulk supply tariff for supply of power by the RUVNL to the distribution licensee.

### **Issue 3: State Commission should not allow trading Margin**

It is observed that the Section 86 of Electricity Act, 2003, define the functions of State Commission which inter alia includes fixing of the trading margin.

However, the stakeholders have submitted that as RUVNL is working on behalf of Discoms and managing power purchase for Discoms and Discoms are saving on its cost as such no separate margin or service charges should be allowed on this count. Commission has considered the issue appropriately while determining the ARR.

## **2.3 Differential Bulk Supply Tariff (DBST)**

### **2.3.1 Stakeholder's Comments:**

1. It was submitted that there is no Regulation for determination of DBST. Commission can only determine the tariff under section 62 for supply of electricity by a generating company to a distribution licensee, transmission of electricity, wheeling of electricity and retail sale of electricity.

### **2.3.2 Petitioner's Response:**

1. (i) Discoms submitted that Differential Bulk Supply Tariff (DBST) refers to a model of electricity supply known as Single Buyer Model where in there exists one buyer or company, which buys electricity from different generators as per the Power Purchase Agreements (PPAs). In case of Differential Bulk Tariff (DBST), the per unit cost of electricity procured is different for each Discom to which the single buyer sells. The differentiation is mainly because of varied sales, efficiency of Discom and consumer mix, i.e., the distribution utility with less revenue generating consumer mix would be charged the lower bulk supply tariff as compared to the DBST charged to the buyer having favourable consumer/ revenue mix. Gujarat and Odisha have been using DBST model since some time.  
  
(ii) The Discoms of Rajasthan have a varied consumer mix due to which the revenue generating capacity from retail supply tariff varies significantly from Discom to Discom. In addition, the state has been maintaining uniform retail supply tariffs due to which the profitability of the Discom is adversely affected majorly impacting JdVVNL due to higher share of Agricultural consumers. Thus, Rajasthan Discoms have proposed to adopt DBST in order to bring all the Discoms to a level playing field in terms of power purchase costs. In the initial phase, for all generating stations except state generating stations (under RVUN), the power procuring entity on behalf of Discoms will be Rajasthan Urja Vikas Nigam Limited (RUVNL). Therefore, for the said stations, the Discoms will procure power from RUVN on differential per unit costs (DBST). The Commission in its order dated 28.05.2018 had also highlighted the issue of consumer mix. The excerpts of order is presented below:

*"It is observed that Jodhpur Discom is showing highest deficit among*

*three Discoms because it is making highest sale to Agriculture Category though it purchases electricity at the same rate. Therefore, the State Govt. may consider to review allocation of existing PPA(s) among Discoms to provide benefit of low cost PPA(s) to Jodhpur Discom, which may reduce its input cost".*

- (iii) Discoms submitted that RUVNL has been formed by GoR in December, 2015 to carry out power trading business of state power sector utilities. With the government notification dated 18.07.2019 amendment has been made to Rajasthan power sector reforms transfer scheme, 2000 according to which RUVNL has now attained a status of deemed licensee and all the PPAs/TSAs were transferred and vested with RUVNL. RUVNL will be purchasing power from different sources as per respective PPAs/TSAs and will be supplying to Discoms at the DBST rate.

### **2.3.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them. As the Commission has already discussed in earlier paras, the State Commission is empowered to determine Bulk Supply Tariff and the Commission has further dealt with this issue under Section 3 of this Order.

## **2.4 Consumer Education and Awareness**

### **2.4.1 Stakeholder's Comments:**

1. It was submitted that Commission had approved Rs. 50 Lakh, in the ARR of 2016-17 for JVVNL as a dedicated component for consumer education. Thus, it is suggested that there is very low level of capacity within consumers and consumer organizations for regulatory participation in electricity sector, a provision of similar nature of fund could be made in the ARR for FY 2019-20.
2. It was also submitted that Discoms do not have any Consumer Forum or helpline number where information related to consumers connection, load extension, provision of Tariff Regulation, Standard of Performance can be obtained.

#### **2.4.2 Petitioner's Response:**

JVVNL submitted that they recognise the importance of consumer awareness and capacity building in order to enhance the efficacy of regulatory process. The Discoms are taking several steps towards the same which has already been submitted along with the compliance to directives along with the petition.

#### **2.4.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and reply of Discoms thereto. The Commission feels that Discoms should devote more resources for consumer awareness and directs to hold atleast one consumer campaign in each circle. The Commission further directs the Discoms to set up 24X7 Helpline/Helpdesk, where a consumer can call and ask for information related to address of the sub-division, connection/ load increase or related provision, standard of performance, Tariff Regulations and any other information related to consumers. Discoms are also directed to form fault removal team in rural areas along with urban areas.

### **2.5 Consumer Safety**

#### **2.5.1 Stakeholder's Comments:**

It was submitted that Discoms should ensure consumers safety before seeking any Tariff revision and compliance of order dated 07.03.2019, before finalizing the tariff.

#### **2.5.2 Petitioner's Response:**

Discom's submitted that they are complying with the prevailing safety norms to consumers as well to the employees of the Nigam. In this regard, Discoms are organising the training to the employees and Discoms are being organising the various safety programme with involvement of NGOs and local bodies including Panchyati Raj for creating awareness among general public towards safety. Further wide publicity through newspaper/audio & visual media general public are being made aware of the safety measures to be taken care of.



### **2.5.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and reply of Discoms thereto. The issue of compliance of direction are matter of True up petitions as per regulation 8(2)(d) of Regulations of 2019. Further, it is observed that as regards to compliance of order dated 07.03.2019, a petition no.1553/2019 is pending before the Commission under section 142 of the Electricity Act 2003. Therefore, it is not required to be decided during the tariff proceedings as a precondition, as a separate petition in the matter is pending before the Commission for its consideration.

## **Part II – Issues/comments related to Aggregate Revenue Requirement (ARR) of FY 2019-20**

### **2.6 Sales**

#### **2.6.1 Stakeholder's Comments:**

1. It was submitted that Discoms have submitted provisional sales figures for FY 2018-19 which is already over and the accounts have also been finalized of that year and as such Discoms may now provide the actual sales of FY 2018-19.
2. It was submitted that Discoms may provide the actual sales within the area of Discoms (excluding the franchisee area) and total sales to franchisee.
3. As per Audited Accounts, total sales of FY 2017-18 is 22355.69 MU, 15357.62 MU and 18639.39 MU for JVVNL, AVVNL and JdVVNL respectively. Whereas, in Table 1 of petition, it is 21978 MU, 15298 MU and 18504.59 MU respectively. Discoms may clarify the same.

#### **2.6.2 Petitioner's Response:**

1. Discoms submitted the category wise sales for FY 2018-19.
2. The Discoms submitted the details of sales for Discom area and sold to DF which is available in form 2.1 for FY 2017-18.
3. Discoms submitted that the sales for FY 2017-18 in Table 1 of the petition are at consumer level while sales in Audited Accounts are on actual basis at input level considering sales to franchisees and thus there is no discrepancy in sales.

#### **2.6.3 Commission's view:**

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

### **2.7 Distribution Franchise**

#### **2.7.1 Stakeholder's Comments:**

1. It was submitted that Discoms may clarify about the billing system of franchisee.

2. It was submitted that sales to distribution franchisees and revenue realisation from them needs to be considered separately as separate category.
3. It was submitted that it may be ensured that Discom recovers proper revenue from the franchisee.

### **2.7.2 Petitioner's Response:**

1. Discoms submitted that as per the DF agreement, the Discom will raise invoice on the DF for the energy supplied every month. Revenue for input energy is based on the input energy in the franchisee area given by the Discom, the annualised input rate applicable for the year as per the DF agreement and the indexation factor which is the ratio of ABR of the current month and ABR of base year.
2. Discoms submitted that sales at consumer level is provided as the Commission while approving ARR considers sales at final consumer level. Distribution franchisee of an area is an internal arrangement of Discom and the Commission sets the tariff at final consumer level considering the whole distribution area of the Discom.

### **2.7.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them and dealt with this issue later in this Order.

## **2.8 Temporary Connections**

### **2.8.1 Stakeholder's Comments:**

1. It was submitted that Discoms may furnish the information of the number of temporary connections and revenue received from such connections.
2. It is noted that revenue shown in Form No. 2.1 is in respect of permanent consumers and as such where the revenue of temporary connections has been accounted for, Discoms may clarify the same.

### **2.8.2 Petitioner's Response:**

1. Discoms submitted that details of Temporary connection consumers, sales, revenue has been provided by the petitioner to the stakeholder in the respective true up.

2. The Discoms submitted that the ARR and revenue for FY 2019-20 has been forecasted based on the Regulations and methodology approved by the Commission in its previous tariff orders and thus the Discoms have not forecasted Revenue from temporary connections.

### **2.8.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them and dealt with this issue in its True-Up Order dated 31.12.2019, Commission has already issued directions to Discoms to file separate information of category wise number of temporary connections, connected load, sales and revenue realization from them in next petition. Accordingly, Discoms should file the information separately in next petition.

## **2.9 Distribution Losses**

### **2.9.1 Stakeholder's Comments:**

1. It was submitted that Discoms have proposed distribution losses as 16%, 15% and 18% for JVVNL, AVVNL and JdVVNL respectively. It was submitted that the Discoms have obtained assistance under UDAY scheme and the important condition of such scheme is that Discoms need to achieve Distribution losses level of 15% by FY 2018-19. The three Discoms have failed to achieve the target fixed, and even now for FY 2019-20 they are proposing higher losses, than the target and the same should not be allowed. The Commission may allow the distribution losses of 15% only.
2. It was submitted that Discoms have been incurring a larger sum for capital works, stating to achieve reduction of losses, but no results are visible.
3. It was also submitted that a major cause of loss is theft which needs to be monitored and controlled.

### **2.9.2 Petitioner's Response:**

Discoms submitted that the losses trajectory taken by Discoms are at the realistic level. Discoms had taken and will take various measures such as Mukhya Mantri Vidyut Sudhar Abhiyan (MMVSA) (which provides 24\*7 uninterrupted and quality power supply, improves consumer services, enhances electrical safety and reduces AT&C losses), 100% feeder

metering, AMR metering for high value consumers, etc. to reduce the losses. Loss level also depend on line length, consumer mix etc which can be overcome over a period of time. The Discoms are committed to reduce losses below 15%.

### **2.9.3 Commission's view:**

1. The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them. Though the Discoms are taking up technical interventions to reduce the losses but the commercial losses including theft also needs to be checked aggressively and culprits should be punished in accordance with law. Discoms should also initiate penal action against the employees and officers, if they are found to be conspiring with the person making the theft.
2. The Commission feels that its high time when Discoms should come down heavily on persons making theft of electricity and to start with, Commission directs Discoms to carry out compulsory checking of meters installed at quarters of GSS, police station, public places and other Government colonies also.
3. Discoms are directed to take such initiative which will reduce the scope of theft like regular checking of theft prone installations at such intervals as has been found necessary in each case and also by taking adequate technical corrective steps, such as installation of tamper proof meters, etc. and shifting the meter outside the premises or on the pole, etc.
4. If need be, Discoms may take assistance of local administration/police administration in theft prone areas for getting additional Police force as per requirement.
5. Discoms are also directed to initiate a scheme of appreciation and reward, where a person who informs the Discoms of theft cases is being appreciated and rewarded. Discoms should also ensure that identity of such persons are kept confidential.
6. It is further directed that MD of each Discoms should adopt two circles where losses are highest, whereby Distribution losses of Discoms can be reviewed and monitored properly and can be reduced in a progressive

manner. Technical Director should also adopt one circle with third highest loss. Outcome of this measure should be reported to the Commission after six months of issue of the orders.

7. The Discoms should display feeder wise losses on its website and analyse the feeder wise losses for last 3 years and submit a report to the Commission for 25 % feeders where the losses were highest during last year along with action taken by the Discoms for reduction in losses.
8. Each feeder should be treated as a management and profit center and feeder manager should be made fully responsible for each feeder. In theft prone area metering should also be done at the level of Distribution transformer for identification of theft/commercial losses. It shall be the responsibility of the feeder manager to keep these meters in order.

## **2.10 Power Purchases**

### **2.10.1 Stakeholder's Comments:**

1. It was submitted that while showing power availability from different power stations Discoms have not shown power from Barsingsar and Kawai power station, the Discoms may clarify the same.
2. It was submitted that 355 MU of energy has been estimated from new stations of outside State, the name of such stations may be provided. Further, reasons for executing such PPA specifically when Rajasthan is already in surplus of power, may be stated by Discoms.
3. It was submitted that power purchase from STPS unit 7 and unit 8 have been considered for which expected date of COD be intimated.
4. It was submitted that Discoms may clarify about surplus and deficit position in Rajasthan.
5. It was submitted that no power purchase cost be considered in respect of those stations which have been assumed to be Commissioned in FY 2019-20 outside State.
6. It was submitted that Transmission & SLDC charges may be considered as determined by the Commission in respective order for FY 2019-20.

### **2.10.2 Petitioner's Response:**

1. Discoms submitted that Barsingsar power plant is shown as NLC (Nayveli Lignite) and Kawai power plant is shown as Adani Power in format 3.1 of the petition.
2. New station outside State are Tnda STPP Stage II, Meja TPS. Power purchase agreements have been executed with these stations to meet growing power demand in the State.
3. Discoms submitted that it is estimated that STPS will achieve COD by December, 2019 for unit 7 and February 2020 for unit 8.
4. Discoms submitted that they are in deficit during day time and purchase power from exchange during that time and are surplus during night time and sell power in exchange during that period. The Discoms in real time try to match demand of power with supply and back down stations when there is limited demand but station cannot be backed down after certain level. The bids of sale/purchase in the exchange have to be submitted one day before so one cannot forecast the demand and supply with 100% accuracy. The Discoms have estimated the surplus units for FY 2019-20 but the actual surplus power could be lower due to better power management and prices in the exchange.
5. Discoms submitted that power purchase from new sources outside the State should be allowed as Discoms have projected the power from new stations based on future demand of the consumers and state objective to provide 24x7 power supply to its consumers.
6. Discoms submitted that transmission and SLDC charges may be considered as determined by appropriate Commission's orders.

### **2.10.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them and dealt with this issue under Section 3 of this Order.

## **2.11 Gross Assets and Depreciation**

### **2.11.1 Stakeholder's Comments:**

1. It was submitted that information in respect of the additions as per Form D 3.6 during FY 2018-19 be provided.
2. It was submitted that information in respect of Gross Fixed Assets having completed 12 years life, their cumulative depreciation and balance depreciation and details of assets which have not completed 12 years be provided. It was also submitted that in case the Discoms do not supply the information as per requirement of Regulations, the Commission may disallow at least 3% of depreciation claimed by each Discom so that the Discoms will be compelled to obey the Regulations.
3. It was submitted that Discoms may clarify whether the depreciation in respect of Assets belonging to Discoms and transferred to Franchisee for use during agreement period, is being charged by the Franchisee concerned or by both the entities.
4. It was submitted that necessary justification for allowing the franchisee for retaining rent of the assets belonging to Discom when the concerned franchisee has not made any investment for those assets, may be provided by the Discoms.

### **2.11.2 Petitioner's Response:**

1. Discoms submitted that data for FY 2018-19 were based on provisional figures and not actuals as accounts were not finalized at the time of filing petition. The stakeholder may request for sharing of data when petition for True up of FY 2018-19 or Investment plan for FY 2020-21 are filed.
2. Discoms submitted that the information pertaining to ARR for FY 2019-20 has been submitted in the Petition along with the formats and replies to queries by the Commission. Discoms submitted that they have projected depreciation for FY 2019-20 based on RERC Tariff Regulation 2019 and given asset wise Gross Fixed Assets, depreciation during the year, cumulative depreciation and Net fixed assets for FY 2019-20.
3. Discoms submitted that they have not transferred assets to the Distribution franchisee, it has only given right to use the asset to the DF, therefore, the



depreciation is to be borne by the Discom and not by the DF.

4. Discoms submitted that CT-PT rent is retained by the DF but it is being received by the Discom by way of ABR received on the energy sold by the Discom to DF. The rent is implicitly included in the ABR received by the Discom.

### **2.11.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them and dealt with this issue under Section 3 of this Order.

## **2.12 O&M Expenses**

### **2.12.1 Stakeholder's Comments:**

1. It was submitted that Discoms have not provided the sales of franchisee separately therefore the normative O&M expenses should be allowed after excluding the sales of Distribution franchisee.
2. It was submitted that no reduction in O&M expenses is shown in the petitions even after carving out RUVNL from Discoms. As RUVNL is carrying out the function of power purchase, the cost of O&M should reduce or otherwise Discom should bear expenses of RUVN out of their O&M expense only.

### **2.12.2 Petitioner's Response:**

1. Discoms submitted that Distribution franchisee is just acting on the behalf of the Discom to serve the areas under it and this internal arrangement of serving these areas does not affect the fact that in the end Discoms is responsible to serve these areas to provide quality power supply. Discoms also submitted that while fixing the base price of ABR to grant the DF license the Discoms made its calculation based on the fact that RERC will allow the Discom to recover O&M expenses based on normative sales.
2. The coordination committee of Rajasthan energy companies in its meeting dated 31.03.2019 decided that RUVNL will charge 1 paisa/unit on the Energy purchased from "sources other than RVUNL" by it on the behalf of Discoms as trading margin. This will ensure sustainability and future readiness of RUVNL to manage huge cash flows pertaining to its operations. Further,

any surplus income earned by RUVNL, after meeting its expenses, will be passed on to the Discoms at the end of the year. Thus, RUVNL will operate on No Profit-No Loss basis.

### **2.12.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them and dealt with this issue under Section 3 of this Order.

## **2.13 Terminal Benefit**

### **2.13.1 Stakeholder's Comments:**

1. It was submitted that Discoms may clarify whether terminal benefit is included in the employee's expenses or whether proposed terminal benefit expenses are over and above normative O&M expenses.
2. It was submitted that whether terminal benefit is being deposited timely in the designated fund.

### **2.13.2 Petitioner's Response:**

1. Discoms submitted that it has calculated O&M and terminal benefit expenses as per norms for O&M expenses.
2. Discoms submitted that they have been making timely payments to the trust as per the availability of the resources and money. They had cash crunch in FY 2017-18 as GoR started charging Interest on Loans taken over under UDAY. Such a large deduction leads to cash deficit for other expenses. The Discoms are fully committed towards maintaining sufficient amount for terminal benefits and will increase its payment towards terminal benefits once more funds are available.

### **2.13.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them and dealt with this issue later in this Order.

## **2.14 Interest Liability of UDAY**

### **2.14.1 Stakeholder's Comments:**

1. It was submitted that Discoms have proposed charging 1/5<sup>th</sup> as expenses every year for 5 years and accordingly has considered the interest charges

for FY 19-20 for the Discoms. Copies of Govt. letters/ decisions, etc. by which interest charges of Rs. 7206 crores have been debited to the Discoms have not been supplied and in its absence its impact on UDAY is not ascertainable.

2. Interest on regulatory assets, as proposed to be recovered from the consumers, on account of Government of Rajasthan acting contrary to the objects and terms of the UDAY scheme, cannot be permitted to be recovered from the consumers.

#### **2.14.2 Petitioner's Response:**

Discoms submitted that the basic objective of the UDAY scheme was to relieve the Discoms of the huge interest burden they were carrying without passing on the same to the consumers. However, GoR has charged interest on loans taken over under UDAY. Rs. 7206 Cr. till FY 2018-19 and will charge interest in FY 2019-20 and FY 2020-21 also.

This interest burden by GoR has led to severe finance crunch in Discoms leading to outstanding balance of Power generators especially RVUNL. The Discoms had to take working capital loans to meet such sudden burden of interest.

The above interest burden has adversely impacted the financial health of the Discoms. Levy of the interest cost of FY 16 to FY 18 in one year also did not allow the Discoms to seek appropriate tariff hike to recover this cost in the respective years. Hence, the Discoms have staggered this interest cost in 5 years. Discom submitted that if the interest burden on the Discom due to UDAY is not allowed by the Commission to be passed on to the consumers, this will add on to the huge financial burden of Discom and make the financial health of the Discom even worse.

#### **2.14.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them and dealt with this issue under Section 3 of this Order.

### **2.15 Return on Equity**

#### **2.15.1 Stakeholder's Comments:**

1. It was submitted that despite tariff revision balance losses being more than

proposed return on equity, there will be no scope of utilisation of return on equity for the reasons given and proposed ROE will serve no useful purpose.

2. It was submitted that the Jaipur Discom has proposed an additional expenditure of Rs. 328 Crore during FY 2019-20 towards return on equity @5%. Since GOR is the only equity partner, this income shall go to the Government Treasury. The companies are still facing severe financial crisis and the consumers are in the process of being loaded with a very high tariff hike along with frequent levy of fuel surcharge. There is no rational of 5% ROE at this stage. This expenditure should be disallowed.

### **2.15.2 Petitioner's Response:**

Discoms submitted that till now they had not claimed Return on Equity as part of its tariff. At present, the Discoms are generating revenue to meet the power purchase and O&M expenses and are still left with a substantial revenue gap. Due to this, there is less scope for further investments in terms of system augmentation, adoption of new technology, etc. Thus, in order to meet such expenses the Discoms need to look for additional sources of revenue apart from sale of power to consumers. RoE would help the Discoms in meeting such requirements. As per norms, the Discoms are eligible for 16% RoE but the Discoms are claiming RoE of 5% to ensure that the consumers are not over burdened.

### **2.15.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them and dealt with this issue under Section 3 of this Order.

## **2.16 Interest on Term Loan**

### **2.16.1 Stakeholder's Comments:**

1. It was submitted that no interest should be allowed on loan obtained to meet revenue deficit, non-receipt of subsidy, for late payment surcharge and cost of power purchase due to non-achievement of approved targeted distribution losses.
2. It was submitted that no interest should be allowed on short terms loan obtained in excess of normative working capital.

### **2.16.2 Petitioner's Response:**

1. Discoms submitted that outstanding receivable occurs in every company in normal course of business. To meet cash gap of outstanding agricultural subsidy, the Discoms have to take loans to pay for the energy it has purchased.
2. Discoms submitted that it has calculated interest on loans and working capital based on RERC Tariff Regulations 2019 and methodology defined 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 Petitioner's response to them and dealt with this issue under Section 3 of this Order.

## **2.17 Security Deposit**

### **2.17.1 Stakeholder's Comments:**

1. It was submitted that interest on security deposited has not been provided by the Discoms. This is violation of Electricity Act and the orders of the Commission.
2. It was further submitted that whether the amount taken from the consumers as a security are utilized properly, if so, then even after having these funds, why the Discoms are suffering from a huge loss.

### **2.17.2 Petitioner's Response:**

1. Discoms submitted that interest is being given on the amount of security deposit.
2. Discoms assured that all revenue recovered from consumers is being utilized in a prudent manner and all expenses are passed on to the consumers after approval by the Commission. The consumer security amount and the interest on it forms a small component of the total ARR of Discoms and the use of the same will not be enough to meet the huge revenue gap of Discoms to the tune of Rs. 7000 Cr. at existing tariffs.

### **2.17.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and

Petitioner's response to them and dealt with this issue under Section 3 of this Order.

## **2.18 Subsidy**

### **2.18.1 Stakeholder's Comments:**

1. It was submitted that Discoms may provide a statement containing full details of subsidy received, or due from the State Govt., the consumers for whom it is directed along with Government Orders and showing how the subsidy is reflected in the current and proposed tariff applicable to those consumers.
2. It was submitted that whether the amount of subsidy was obtained and paid by State Government in advance in accordance to Regulation 13 of RERC Tariff Regulations, 2014 and section 65 of the Act.

### **2.18.2 Petitioner's Response:**

1. Discom submitted that details of subsidy provided by GoR to the relevant consumer have been provided in Form 2.5 of the formats along with the reference of the Government order. The current tariff and proposed tariff structure are exclusive of tariff subsidy provided by the government to the consumers. It is upto the government to increase the subsidy amount based on its assessment of the paying capacity and financial condition of consumers.
2. Discoms submitted that the subsidy provided by the government is received on monthly basis by the government.

### **2.18.3 Commission's view:**

1. As per Section 65 of Electricity Act, 2003 the State Government is required to pay amount of subsidy, in advance which shall be as specified in Regulation 13 of RERC Tariff Regulations, 2019. Accordingly, the Commission advises the Government of Rajasthan (GoR) to release the subsidy in advance in future. Alternatively, instead of paying subsidy to Discoms, the State Government can also plan for Direct Benefit Transfer Scheme.
2. It is also observed that Government of Rajasthan is not releasing the tariff subsidy timely to the Discoms against which Discoms have to borrow additional funds from the market, which further affects the already

deteriorated financial health of Discom. Accordingly, the Commission further advises the GoR to pay the interest on outstanding subsidy amount to the Discoms. It is made clear that the additional financial burden on Discoms due to delay in release of subsidy by the State Government shall not be passed on to consumers under any circumstances.

## **2.19 Average cost of supply and proposed tariff**

### **2.19.1 Stakeholder's Comments:**

It was submitted that average tariffs of some tariff categories are beyond  $\pm 20\%$  of average cost of supply as per revised tariff policy.

### **2.19.2 Petitioner's Response:**

Discoms submitted that the tariff hike in the petition is proposed in order to reduce the huge revenue gap of Discoms. There has been no hike in electricity tariffs since FY 2015-16. The revised tariff which was approved for the said year came into effect in September 2016. Thus, the revised tariff could not fetch the expected revenue for FY 2015-16. Due to inflation, cost of all goods and services is increasing every year but the Discom had not proposed any tariff hike since FY 2015-16 whereas the costs of Discom were increasing due to inflation and hence, the tariff hike proposed this year could not be avoided. Since, the costs of supplying electricity to consumers have been increasing year on year due to which the Discoms have been reeling under huge financial constraints. Discoms also submitted that the tariff proposal for FY 2019-20 has been prepared in order to meet the huge revenue gap of Rs. 7140 Cr for FY 2019-20 at existing tariffs. To meet the gap completely, a hike to the tune of 16% will be required. However, keeping the interests of consumers in mind, the Discoms have proposed a nominal hike of 11.82%. Even after the proposed tariff hike, the Discoms would be left with a revenue gap of Rs. 1966 Cr. Further, the tariff hike, if approved by the Commission, would be applicable for only a few months in FY 2019-20.

### **2.19.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them and dealt with this issue under Section 4 of this Order.

## **Part III- Tariff related suggestions/ observations related to Aggregate Revenue Requirement (ARR) of FY 2019-20**

### **Tariff Proposal**

#### **2.20 Domestic Category**

##### **2.20.1 Stakeholder's Comments:**

1. It was submitted that Gaushalas have been brought under Domestic Tariff from NDS, reasons for this have not been given.
2. Discoms have proposed to remove the Telescopic benefit for consumer having consumption above 500 units per month, the same may not be allowed as it causes a tariff shock.
3. It was submitted that with regard to BPL and Astha card holders and small Domestic (consumption upto 50 unit per month), Discoms have proposed subsidised tariff for these category; the copy of government direction for providing such subsidised tariff may be provided.

##### **2.20.2 Petitioner's Response:**

1. Discoms submitted that the petition filed by the Discoms is a proposal that is submitted to the Commission after taking into consideration all factors associated with the tariff structure and keeping in mind the interests of all stakeholders.
2. Discoms submitted that BPL and small domestic accounts for majority of consumers but contribute little revenue to the Discom. The Discom has not increased any tariff for these categories and has continued same tariff according to their paying capacity. These tariff are non subsidized tariff and it is upto the State Government to increase the subsidy or keep it at the same level.

##### **2.20.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them and dealt with this issue under Section 4 of this Order.



## **2.21 Non-Domestic category**

### **2.21.1 Stakeholder's Comments:**

1. It was submitted that "Hostels not covered under domestic tariff" have been deleted. Reasons for the same have not been provided and it has also not been mentioned where it has been included.
2. Further, Discoms have proposed to remove the Telescopic benefit for non-domestic consumer, the same may not be allowed.

### **2.21.2 Petitioner's Response:**

1. Discoms submitted that it has included Hostels run by the Government/Government recognized educational institutions, registered charitable institutions and those meant for students for bona fide residential uses, excluding transit hostels/working hostels under Domestic category and Transit/Working Hostels under NDS category.
2. Discoms submitted that the petition filed by the Discoms is a proposal that is submitted to the Commission after taking into consideration all factors associated with the tariff structure and keeping in mind the interests of all stakeholders.

### **2.21.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them and dealt with this issue under Section 4 of this Order.

## **2.22 Public street lighting**

### **2.22.1 Stakeholder's Comments:**

It was submitted that there are un-authorized street light points and also there are un-metered street light points. The Discoms may clarify their revenue assessment.

### **2.22.2 Petitioner's Response:**

Discoms submitted that the Commission has given tariff for PSL on lamp point or service connection basis. In case it is found during vigilance that the consumer is using more number of lamps than authorized then the

Discoms issued a directive to bill such un-authorized connection based on a methodology to avoid loss of revenue based on load and hours of supply to measure consumption of un-authorized supply.

### **2.22.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them. The Commission directs the Discoms to identify all unmetered street light points and ensure that no street light point exists without correct meter.

## **2.23 Agriculture Metered**

### **2.23.1 Stakeholder's Comments**

It was submitted that Discoms in existing & proposed fixed charges have added the words "Maximum Fixed charges per month per consumer" whereas no such words have been there in Commission's latest order dated 22.09.2016. It was also mentioned here that in the petitions for determination of tariff for FY 2015-16, Discoms had proposed the above addition. Commission in that order had deleted/disallowed said addition.

### **2.23.2 Petitioner's Response**

Discoms submitted that they have made inadvertent mistake in mentioning maximum fixed charges per month in the existing tariff and proposed tariff for agriculture category.

### **2.23.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them and dealt with this issue under Section 4 of this Order.

## **2.24 Agriculture Un-Metered Supply**

### **2.24.1 Stakeholder's Comments:**

1. It was submitted that Discoms have proposed maximum limit of fixed charges in existing and proposed tariff. There cannot be any limit in tariff charges, such addition has to be disallowed.

2. It was submitted that Discoms have proposed un-metered supply in respect of Flat Rate Agriculture Consumers and also proposed tariff for un-metered consumers. The Commission must take necessary action in accordance to section 55(3) of The Electricity Act, 2003 against Discoms on account of making default in complying the provisions of Act.

#### **2.24.2 Petitioner's Response:**

1. Discoms submitted that they have made inadvertent mistake in mentioning maximum fixed charges per month in the existing tariff and proposed tariff for agriculture category.
2. Discoms submitted that there is a decrease in the number of Flat rate agriculture consumers in FY 2019-20. There is continued decrease in remaining flat rate agriculture consumers. The Discoms are making best efforts to convert Flat consumers to Metered consumers. Considering the practical difficulty being faced by the Discoms from the resisting consumers, the Commission also provides the tariff for flat consumers acknowledging the difficulty faced by the Discoms in converting flat rate consumers into metered category.

#### **2.24.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them and dealt with this issue later in this Order.

### **2.25 Large Industries**

#### **2.25.1 Stakeholder's Comments:**

1. It was submitted that Metro Traction and all its related establishments have been added under the Large Industrial category but the related establishments have not been clarified, this may now be clarified by Discoms.
2. Major industries of Exports and Stone processing in Kota submitted for not to increase electricity rates as their Electricity cost is close to 20% of total cost.
3. It was submitted that the Commission should reject the proposed increase of the fixed charges for all category of Industries and instead Discoms should reduce fixed charge.

### 2.25.2 Petitioner's Response:

1. Discoms submitted that Metro and all its establishments are now categorized under large industry to avoid the confusion of metro traction load and load of its establishments.
2. (i) Discoms submitted that the tariff hike in the petition is proposed in order to reduce the huge revenue gap of Discoms. There has been no hike in electricity tariffs since FY 2015-16. The revised tariff which was approved for the said year came into effect in September 2016. Thus, the revised tariff could not fetch the expected revenue for FY 2015-16. However, the costs of supplying electricity to consumers have been increasing year on year due to which the Discoms have been operating under huge financial constraints.  
  
(ii) To meet the gap completely, a hike to the tune of 16% will be required. However, keeping the interests of consumers in mind, the Discoms have proposed a nominal hike of 11.82 %. Even after the proposed tariff hike, the Discoms would be left with a revenue gap of Rs. 1966 Crores. Further, the tariff hike, if approved by the Commission, would be applicable for only a few months in FY 2019-20. Thus, the revenue gap will be higher than Rs. 1966 Crores for FY 2019-20.  
  
(iii) Discoms further submitted that considering interest of Industrial consumers various measures have been considered, such as no hike proposed for energy charges for FY 2019-20, introduction of Time of Day (ToD) tariff for industries in order to avail 10% rebate for 6 hours during off peak hours, rebate of Rs. 0.55 & Rs. 0.85 per unit on incremental consumption for Medium as well as Large industrial consumers, and in order to promote industries, a special category in tariff structure for "Power Intensive Industries" with 10% reduction in the present tariff structure of large industrial consumers.
3. Discoms submitted that Rajasthan has no coal reserves and no vast sources of water to procure cheaper hydroelectricity, which increases the overall power purchase cost by Rs. 1/unit as compared to other States. Further cost of supply, physical conditions of the network and consumer mix varies in different States.

4. Discoms further submitted that the fixed charges are being revised in line with the guidelines of Ministry of Power (MoP) and the Commission, i.e., Fixed charges should be reflective of actual fixed cost of Discoms in their ARR. At present, the recovery from fixed charges for FY 2019-20 considering existing tariff is 13% of the total revenue projected for FY 2019-20, which is lower than the fixed cost of Discoms proposed for FY 2019-20 which is 52% of the total ARR. So, in order to balance the same, increase in fixed charges have been proposed. If the fixed charges are revised in order to make them reflective of the fixed costs of Discoms, a high increase in fixed charges would be required. In order not to give a tariff shock to consumers with high fixed charges, a lesser increase has been proposed.

### **2.25.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them and dealt with this issue under Section 4 of this Order.

## **2.26 Mixed Load**

### **2.26.1 Stakeholder's Comments:**

It was submitted that deletion of the clause regarding separation of mixed load has been suggested vide para 8.24 of the Petition by the Discom which should not be accepted.

### **2.26.2 Petitioner's Response:**

Discoms submitted that the petition filed by the Discoms is a proposal, after taking into consideration all factors associated with the tariff structure and keeping in mind the interests of all stakeholders.

### **2.26.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them and dealt with this issue under Section 4 of this Order.

## **2.27 Railway Traction**

### **2.27.1 Stakeholder's Comments:**

1. It was submitted that Jaipur Discom has not projected sales for railway traction, then why railway traction is included in Power intensive industry

category and how and in what manner it will give any revenue to the Discom.

2. It was further submitted that JVVNL may clarify why Discom has not proposed any recovery of fixed charges, and subsidizing the Railways. Discom may clarify the same.

#### **2.27.2 Petitioner's Response:**

1. JVVNL submitted that it is not generating any revenue from a large consumer like railways which is also power intensive consumer, it has included such consumer in Power intensive industries to supply such consumer electricity at competitive rate and bring it back in Discom's fold thus improving Discom revenue.
2. The Discom submitted that tariff for railways has two components – fixed charge and variable charge. Initially to bring the railway consumer back to the Discom, it has proposed rebate on fixed charge to the consumer, after taking into consideration all factors associated with the tariff structure and keeping in mind the interests of all stakeholders.

#### **2.27.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them and dealt with this issue under Section 4 of this Order.

### **2.28 Special Tariff for Industries:**

#### **2.28.1 Stakeholder's Comments:**

1. It was submitted that Discoms have not submitted any analysis report in respect of benefits to be achieved by allowing reduced tariff to Power Intensive Industries. It was further submitted that Discoms have not given any justification and basis for considering Textile Mills and Railway Traction as Power Intensive Industries. Discom should also give the reason of why other industries of such nature have not been considered in their category.
2. It was submitted that classification of Power Intensive Industries should be based on electrical and performance parameters like electricity

consumption per kVA of Demand or Load Factor and three shift operations with intensive man-power.

3. It was requested for inclusion of Calcium Carbonate & Lime, Calcium Carbide plant, Fertilizer plant, Cement Industry, Smelter Plants, Woven Sack Manufacturers, Stainless Steel, Forging units, etc. under Power Intensive Industry category.
4. It was submitted that small industries having load above 50 KVA may also be considered under Power Intensive category.

### **2.28.2 Petitioner's Response:**

1. Discoms submitted that the Discoms have conducted multiple discussion and deliberations about the inclusion of industries to be covered under the newly proposed tariff category namely "Power Intensive Industries". The primary objective of separately categorizing Power Intensive Industries is to incentivize such industries whose primary input cost is cost of electricity procured. Thus, a lower tariff would make the industries financially viable. Recognizing the high dependence of energy as primary input for industries like chloro-alkaline units, induction furnaces with rolling mills, textile industry, etc. several other States in the country like Punjab, Madhya Pradesh and Jammu & Kashmir are incentivizing such industries in their tariff structure.
2. Discoms further submitted that Promotion of industries is one of the key focus areas of the Government and Rajasthan Discoms are taking several measures to provide cost effective and reliable power to boost the growth of industries. There are several industries wherein the primary cost of the running the industry comprises of electricity cost. Rajasthan Discoms have observed that such industries are facing a stiff competition in the market and thus providing competitive tariff will go long way in growth of industries in the State. Discoms provide cross subsidization to some categories which is borne by other categories. If the Discom is not able to keep its profitable customers intact and sustain them in the long term then with the reduction in their power consumption and loss of revenue from these consumers will have to borne by Discom and other consumers. The Economic downturn is cyclic and this shall also pass but till that time the Discom has to protect its interest by making industry in its distribution area competitive so that stay relevant in present scenario and their power consumption increase rapidly

in economic upturn. The Discoms have to look at the complete power sector ecosystem and interest of all the stakeholder, in the long term.

### **2.28.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them and dealt with this issue under Section 4 of this Order.

## **2.29 Prompt Payment Rebate**

### **2.29.1 Stakeholder's Comments:**

1. It was submitted that Discoms have again proposed to modify the word "working days" with words "days", which should not be considered.
2. It was also submitted that consumers are not able to take the benefit of prompt payment rebate as the bills as well as message of bills are not received by them on time.

### **2.29.2 Petitioner's Response:**

Discoms submitted that there are instances wherein three holidays including Saturday and Sunday fall within the period of seven working days (quite likely in five day week scenario) and the total duration becomes ten days. This causes confusion as according to seven working days the entitlement for 0.15% while at the same time the consumers also becomes eligible for an incentive of 0.35% since having made payment before ten days.

### **2.29.3 Commission's view:**

1. The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them and directs that Discoms should ensure that Message/ bills are timely delivered to end consumer, which not only facilitates the consumers to avail prompt payment rebate but also improves the cash flow of Discoms. Discoms are also directed to furnish the quarterly report to the Commission indicating details of prompt payment rebate paid to consumers and indicating average minimum and maximum days taken by consumer after receipt of bills.
2. The Commission further directs Discoms that Discoms through meter readers



or by any other means should collect mobile number of every consumer within 3 months time from the date of issue of this order and prepare a data base for informing consumers regarding bills , schedule outages etc. from time to time. Compliance to this effect should be reported to the Commission.

3. As regards number of days, the Commission has considered the proposal of Discoms under Section 4 of this Order.

## **2.30 Definition of Industries**

### **2.30.1 Stakeholder's Comments:**

It was submitted that this point was also raised by the Discoms in their earlier petitions and review petition and both the times Commission has rejected this. Therefore, the proposal of Discoms may not be accepted.

### **2.30.2 Petitioner's Response:**

Discoms submitted that the applicability under each of the current schedules mentions a list of industries covered under the schedule. Any consumer having an industry not covered under the list of industries mentioned comes under Non-Domestic connection. This leads to consumer grievances. In order to reduce instances of such grievances and bring further clarity, the Discoms submitted that in addition to the list of industries, a generic definition of industry be provided. The Discoms also recommends that it be explicitly mentioned that the list provided in the schedule is indicative and not exhaustive. In many cases the field officials ask the consumers to apply under the NDS category as the type of industry for which the connection is applied for is not mentioned in the "Applicability" for industrial category.

### **2.30.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them and dealt with this issue under Section 4 of this Order.

## **2.31 Fixed Charges from LT domestic and Non-domestic categories based on current month's consumption**

### **2.31.1 Stakeholder's Comments:**

It was submitted that no change is required in methodology for recovering fixed charges for LT Domestic and NDS category as there is no difficulty to any consumer for arriving at the average of monthly consumption of previous financial year. Further, any change in the present practice will cause difficulty in ascertaining Fixed Charges in case of Prepaid Metering.

### **2.31.2 Petitioner's Response:**

Discoms submitted that the Consumers faces challenges in accurately assessing their fixed charges on the basis of current consumption in the bill. To remove this difficulty the Discoms proposed to charge fixed charges on the basis of respective billing month.

### **2.31.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them and dealt with this issue under Section 4 of this Order.

## **2.32 Change over from SIP to MIP category**

### **2.32.1 Stakeholder's Comments:**

It was submitted that when the consumer is to be charged on higher tariff on account of exceeding the load, then question of charging load surcharge should not arise. Charging, two types of charges for same fault would mean double penalty for one fault. Discoms may clarify the same.

### **2.32.2 Petitioner's Response:**

Discoms submitted that the meters currently installed are capable to record the maximum demand of the consumer thus there would not be any problem in implementation. As regards to the excess demand charge, the petitioner submits that in case the consumers feels that its demand would be more than 25 HP then it should permanently move towards MIP category and not take benefit of tariff of small industry below 25 HP.

### **2.32.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and

Petitioner's response to them and dealt with this issue under Section 4 of this Order.

### **2.33 Change over from LT to HT**

#### **2.33.1 Stakeholder's Comments:**

It was submitted that the proposed amendment is double penalty for one and the same fault.

#### **2.33.2 Petitioner's Response:**

Discoms requested to approve the change as proposed to reduce grievances of the consumers and increase ease of doing business.

#### **2.33.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them and dealt with this issue under Section 4 of this Order.

### **2.34 Change from MIP (HT) to LIP category:**

#### **2.34.1 Stakeholder's Comments:**

It was submitted that when consumer is billed under LIP category, no load demand surcharge is required to be levied for exceeding the load\demand of MIP category.

#### **2.34.2 Petitioner's Response:**

Discom requested to approve the change as proposed to reduce grievances of the consumer and increase ease of doing business.

#### **2.34.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them and dealt with this issue under Section 4 of this Order.

### **2.35 Rebate on incremental consumption**

#### **2.35.1 Stakeholder's Comments:**

It was submitted that when a separate tariff has been proposed in respect of Power Intensive Industrial category, then allowing additional rebate is not

justified. It was further submitted that allowing any additional rebate of Rs. 1.50 per unit for reduction in consumption from captive power plant is also not justified.

### **2.35.2 Petitioner's Response:**

Discoms submitted that they filed a petition based on Commission directive to utilize its surplus power and give rebate to consumers.

### **2.35.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them and dealt with this issue under Section 4 of this Order.

## **2.36 Time of Day**

### **2.36.1 Stakeholder's Comments:**

1. It was submitted that Peak hours requires to be reviewed as with solar generation increasing in the Rajasthan, solar generation will be available during peak hours.
2. It was submitted that the Discoms have only proposed 6 hours as off-peak hours for the State, where it ought to be much more. It was further submitted that the rebate for off-peak consumption ought to be much higher than 10% proposed by the Discom. Typically, ToD for peak supply is higher by a lesser margin than the rebate given for off-peak supply. Further, in case of continuous availability of surplus power only night time rebate may be allowed and no surcharge should be levied.

### **2.36.2 Petitioner's Response:**

1. Discoms submitted that the ToD tariff has been proposed to be introduced in the State for the betterment of industries on pilot basis and timings can be changed accordingly once the Discom receives actual data at the end of FY 2019-20.
2. Discoms submitted that at present, even after backing down stations as per merit order, the Discoms have surplus power in the night due to which the surplus power is being traded at Power Exchange wherein the cost of power sold is significantly lower than the cost of purchase of power. The

Discoms face the dynamic challenge of treating surplus power in an effective manner. Time of Day (ToD) tariff is a measure wherein a surcharge is levied on consumption of electricity during peak hours (where the demand of electricity is the highest from consumers) and a rebate is provided for consumption during off-peak hours. This will nudge the consumers to shift their consumption from peak hours to off-peak hours, thereby helping in flattening of the load curve.

### **2.36.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them and dealt with this issue under Section 4 of this Order.

## **2.37 Wheeling Charges**

### **2.37.1 Stakeholder's Comments:**

1. It was submitted that Wheeling charges in paisa/kWh have been worked out as per regulation 86 of Rajasthan Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2019. The Commission vide its orders dated 23.04.2019 has decided (vide para 20, 22 and 24) that for levy of wheeling charges relevant regulation is regulation 29 of RERC Open Access Regulation, 2016 which provides that wheeling charges shall be payable on the basis of capacity contracted or open access capacity utilised, whichever is higher. On account of wheeling charges specified in paisa/kWh, Commission has interpreted the provision in terms of energy. As per the Commission's decision and regulation 29, it is to be worked out in terms of capacity, i.e., Rs./kw/month, similar to transmission tariff. Wheeling Charges calculations thus requires to be modified.

It was further submitted that the Discoms have stated that wheeling charges have been worked out as per the Commission's order dated 19.09.2006. This order has been issued under RERC Open Access Regulations, 2004 which has been superseded by RERC Open Access Regulations, 2016 as such said order is not relevant. Further, open access contract demand is considered separate from HT power supply contract demand in RERC Open Access Regulation, 2004 while it is considered included within HT power supply contract demand on account of this

difference, methodology of Commission's order dated 19.09.2006 is not relevant.

2. It was submitted that most of the Discoms do not levy wheeling charges at 132KV level like Discoms of U.P., Karnataka, etc. Thus, proposing a wheeling charges of 4 paisa/unit for a 132KV consumer without any calculation or break-up and without considering the fact that OA consumers at 132KV are also HT consumers of Discoms (for which facility they are paying fixed charges as well), is unsustainable and cannot be approved by the Commission.
3. It was submitted that 400% increase in wheeling charges is exorbitant and Hon'ble APTEL in its various dictums has held that no category of consumers should be given a tariff shock. It was also submitted that wheeling losses should be re-assessed based on present field conditions.

#### **2.37.2 Petitioner's Response:**

1. Discoms submitted that the wheeling charges calculation is based on RERC (Terms and Conditions for Determination of Tariff) Regulations 2019 which were notified on 10<sup>th</sup> May 2019. The Discoms have followed the methodology specified under regulation 86.
2. Discoms submitted that at 132 kV level, the network is maintained by RVPNL. The Discoms bear the A&G expenses and expenses pertaining to metering and billing for consumers connected at this voltage level.
3. Discoms submitted that the petition filed by the Discoms is a proposal that is submitted to the Commission after taking into consideration all factors associated with the tariff structure and keeping in mind the interests of all stakeholders.

#### **2.37.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them and dealt with this issue under Section 4 of this Order. Commission further directs that wheeling losses be re-assessed based on field studies and detailed report in this regard should be furnished to the Commission.

## **2.38 Cross Subsidy Surcharge**

### **2.38.1 Stakeholder's Comments:**

1. It was submitted that the cross-subsidy surcharge proposed to be increased by the Discom is irrational, contrary to the Electricity Act and The National Tariff Policy and is erroneous.
2. It was submitted that as per provision of Tariff policy, the cross subsidy surcharge should be capped to 20% of the tariff.

### **2.38.2 Petitioner's Response:**

1. Discoms submitted that the Commission in its MYT Regulations 2019 has provided the methodology for calculation for Cross Subsidy Surcharge under regulation 90 and the Discoms have calculated the Cross-subsidy surcharge proposed for FY 2019-20 as per formula provided by the Commission.
2. Discoms submitted that the formula provided by the Commission does not mention any capping on the calculated Cross Subsidy Surcharge.

### **2.38.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them and dealt with this issue under Section 4 of this Order.

## **2.39 Additional Surcharge**

### **2.39.1 Stakeholder's Comments:**

It is submitted that there is mandatory requirement of filing a petition by the Discom for determining the rate of additional surcharge along with the tariff petition so as to correctly assess the likely extent of non-tariff income on account of additional surcharge.

### **2.39.2 Petitioner's Response:**

Discoms submitted that they have not filed separate petition -for additional surcharge as it does not intend to propose any change in the same. The additional surcharge was approved by the Commission in August 2016 of Rs. 0.80/kWh. The Petitioner does not envisage any change in the leviable additional surcharge. The additional surcharge is levied on account of fixed

charges paid by the Discoms to the generators towards capacity stranded due to consumers availing open access. Subsequently, Discoms have filed a separate petition for determination of Additional Surcharge which will be dealt separately.

### **2.39.3 Commission's view:**

The Commission has taken note of the comments of the Stakeholders and Petitioner's response to them and dealt with this issue under Section 4 of this Order.



### **Section-3: Annual Revenue Requirement**

#### **3. Annual Revenue Requirement for FY 2019-20:**

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 have worked out the energy sales for FY 2019-20 on the basis of past growth in consumers, connected load and energy sales. 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 2019-20 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 2019-20 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, an increasing trend in the energy sales has been observed in the previous years. The increase in sales is largely attributable to increase in consumers in rural areas owing to intensification efforts under RGGVY scheme (subsumed under DDUGJY), Saubhagya Scheme and increase in specific consumption of the existing consumers due to increasing supply hours and improving living standards. The Discoms expects the same trend in growth of sales to continue in the future.
- 3.6 For Non-Domestic category, Discoms stated that there has been increasing trend in last five years which is attributable to rapid urbanisation, increasing population and increase in commercial activities in the recent past. The Discoms expects the same trend in growth to continue in the future.
- 3.7 For Industrial consumers, the Discoms stated that there has been growth in sales in medium and large industrial categories in the recent past. Owing to the increase in purchase of power by industrial consumers via Open Access, reduction in industrial sales was witnessed during the previous years. However, the trend seems to have reversed since FY 2017-18 wherein a significant increase in sales was observed. This is primarily due to HT consumers returning to the Discom's fold from Open Access. The Discoms have estimated sales for such consumers with due consideration to the changing scenario.
- 3.8 For Public Water Works (PWW) category, Discoms stated that this category has shown substantial growth, however as all connections have now been metered and there are no new connections pending. However shifting of connections of Public Water Works (M) to Public Water Works (L) has also been observed. Therefore, while projecting sales for this category, the trend has been appropriately adjusted.
- 3.9 For Public Street Light (PSL), Discoms stated that this category has witnessed reduction in sales due to energy efficiency from installation of

LEDs.

- 3.10 With regard to bulk supply/ mixed load category, Discoms stated that a decreasing trend has been observed in the previous years which can be attributed to the shift in certain consumer groups such as mobile tower consumers and private institutions to non-domestic consumer category and others. However, after migration of such consumers, the sales has demonstrated marginally increasing trends. The Discoms expects this trend to continue.
- 3.11 A special category has been introduced, namely "Power Intensive Industries". The consumers are mainly industries with their primary input cost being the cost of electricity, like Textile mills, Induction Furnace using Mild steel scrap and Mild steel re-rolling mills, Chloro alkaline units, Railway traction. These consumers were present in Large Industries category but for projections FY 2019-20, the sales for this category has been projected separately. Thus, the sales of Large Industries category for FY 2019-20 has been reduced accordingly.
- 3.12 Discoms submitted that Railways has been given the status of deemed distribution licensee and has started procuring power for its requirement from sources other than the Discoms. As such no sales have been projected under the category of Electric Traction. The Discoms have proposed to include Railway traction in Power intensive industry category.

### **Energy Sales to Agriculture Metered (M) Consumers**

- 3.13 The energy sales for agriculture metered category have been estimated on the basis of the following factors:
- a) Existing consumers at the start of the Financial Year
  - b) Addition in the consumers during the Financial Year.
  - c) Consumers converted from 'Agriculture Flat' to 'Agriculture Metered' category.
  - d) Connected load per consumer.
  - e) Estimated specific energy consumption.
- 3.14 The connected load per consumer has been forecasted on the basis of the trend observed in previous years and the growth anticipated in connected load per consumer due to decrease in the water table. Therefore, for estimating the connected load per consumer, the Petitioner

has considered a nominal increase.

3.15 The Discoms submitted that, they have considered the specific consumption of 1786 kWh/kW/year for JVVNL, 1597 kWh/kW/year for AVVNL and 1714 kWh/kW/year for JdVVNL.

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

**Table 1: Agriculture (M) sales for FY 2019-20-JVVNL**

Particulars	Consumers (Nos.)	Connected Load per Consumer (kW)	Total Connected Load (kW)	Specific Consumption (kWh/kW/year)	Consumption (Sales) MU
Existing Consumers	501,139	7.53	3,774,031	1,786	6,741
New Consumers	20,000	7.53	150,618	1,786	230
Add: Converted from Flat Rate	4,000	7.63	30,124	1,945	93
<b>Total</b>	<b>525,139</b>				<b>7,064</b>

**Table 2: Agriculture (M) sales for FY 2019-20- AVVNL**

Particulars	Consumers (Nos.)	Connected Load per Consumer (kW)	Total Connected Load (kW)	Specific Consumption (kWh/kW/year)	Consumption (Sales) MU
Existing Consumers	456,437	6.67	3,046,697	1,597	4,866
New Consumers	25,000	5.85	146,373	1,786	213
Add: Converted from Flat Rate	5,000	10.78	53,876	1,945	107
<b>Total</b>	<b>486,437</b>				<b>5,185</b>

**Table 3: Agriculture (M) sales for FY 2019-20- JdVVNL**

Particulars	Consumers (Nos.)	Connected Load per Consumer (kW)	Total Connected Load (kW)	Specific Consumption (kWh/kW/year)	Consumption (Sales) MU
Existing Consumers	312,110	17.70	5,523,099	1,714	9,465
New Consumers	35,000	17.58	615,389	857	527
Add: Converted from Flat Rate	4,000	18.69	74,755	2,005	150
<b>Total</b>	<b>351,110</b>				<b>10,648</b>

**Energy Sales for Agriculture Flat Rate (FR) Consumers**

- 3.17 The energy sales for agriculture Flat rate category have been estimated on the basis of the following factors:
- Existing consumers at the start of the Financial Year
  - Consumers converted from 'Agriculture Flat' to 'Agriculture Metered' category.
  - Connected load per consumer.
  - Approved specific energy consumption.
- 3.18 For forecasting the connected load per consumer for FY 2019-20, the connected load of previous years has been considered for JVVNL, AVVNL and JdVVNL.
- 3.19 For projecting the sales for agriculture (flat) category for FY 2019-20, Discoms have considered the specific consumption of 1945 kWh/kW/year as approved earlier by the Commission.
- 3.20 Discoms indicated the following sale to the agriculture Flat Rate category :

**Table 4: Agriculture (FR) Sales for FY 2019-20 – JVVNL**

Particulars	Consumers (Nos.)	Connected Load per Consumer (kW)	Total Connected Load (kW)	Specific Consumption (kWh/kW/year)	Consumption (Sales) MU
Existing Consumers	19,961	7.63	152,325	2,165	330

Particulars	Consumers (Nos.)	Connected Load per Consumer (kW)	Total Connected Load (kW)	Specific Consumption (kWh/kW/year)	Consumption (Sales) MU
Less: Converted to Meter	4,000	7.53	30,124	1,945	93
<b>Total</b>	<b>15,961</b>				<b>237</b>

**Table 5: Agriculture (FR) Sales for FY 2019-20- AVVNL**

Particulars	Consumers (Nos.)	Connected Load per Consumer (kW)	Total Connected Load (kW)	Specific Consumption (kWh/kW/year)	Consumption (Sales) MU
Existing Consumers	28,066	10.78	302,416	1,952	590
Less: Converted to Meter	5,000	10.78	53,876	1,945	107
<b>Total</b>	<b>23,066</b>				<b>483</b>

**Table 6: Agriculture (FR) Sales for FY 2019-20- JdVVNL**

Particulars	Consumers (Nos.)	Connected Load per Consumer (kW)	Total Connected Load (kW)	Specific Consumption (kWh/kW/year)	Consumption (Sales) MU
Existing Consumers	35,286	18.69	659,449	1,952	1,287
Less: Converted to Meter	4,000	18.69	74,755	2,005	150
<b>Total</b>	<b>31,286</b>				<b>1,137</b>

**Total Energy Sales projected by Discoms:**

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

**Table 7: Total Energy Sales for FY 2019-20- Discoms' Projection (MU)**

Particulars	JVVNL	AVVNL	JdVVNL	Total
	Submission			
	FY 2019-20			
Domestic Service	5,646	3,831	3,559	13036
Non-Domestic Service	2,541	1,341	1,308	5190

Particulars	JVVNL	AVVNL	JdVVNL	Total
	Submission			
	FY 2019-20			
Public Street Light	174	96	98	368
Agriculture Metered Supply	7,064	5,185	10,648	22897
Agriculture Flat Rate Supply	237	483	1,137	1858
Small Industrial Service	337	277	219	833
Medium Industrial Service	857	878	715	2450
Large Industrial Service	5,736	3,638	1,758	11132
P.W.W.–Small	306	387	302	995
P.W.W.–Medium	31	37	103	171
P.W.W.–Large	327	288	554	1169
Mixed Load / Bulk Supply	191	119	406	716
Power Intensive Industry	1,587	1,172	38	2797
<b>Total</b>	<b>25,032</b>	<b>17,733</b>	<b>20,844</b>	<b>63,609</b>

### Commission's Analysis

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

- 3.22 Considering the approach followed in order dated 28.05.2018, the Commission has considered the 5 year CAGR (from FY 2013-14 to FY 2018-19) for all categories (except Agriculture, large Industry and PWW(M) in three Discoms, Small industry in AVVNL and JdVVNL, Public street light in JdVVNL).
- 3.23 While computing the aforesaid 5 year CAGR, the Commission has considered the sale From April' 18 to March' 19 for FY 2018-19.
- 3.24 The Commission observed that 5 year CAGR for large industrial consumers is 13.84.%, 11.24% and 8.68% in case of JVNL, AVVNL and JdVVNL respectively. It has been submitted that the Discoms have projected the sale for large industry on higher side as compared to previous year due to HT consumers returning to the Discom's fold from Open Access. However, CAGR calculated on the basis of such increase in particular years cannot form basis for further projections. Thus the Commission has adopted 7 year CAGR i.e. 8.20%, 8.65% and 5.47% for JVNL, AVVNL and JdVVNL for increase in sales projection instead of 5 year CAGR for large industry consumers. Further, power intensive category has been dealt separately in the tariff chapter of this order. For sales projections, the sales of power intensive category as furnished by Discoms have been merged with large industry category only.

- 3.25 Due to shift of consumers from Small industry category to medium industry category over the years, 5 year CAGR for Small Industry category is reflecting negative growth for AVVNL & JdVVNL. Therefore, for Small Industry category in AVVNL & JdVVNL, the Commission has projected the sale for FY 2019-20 at same level of FY 2018-19.
- 3.26 Further, in case of JdVVNL, 5 year CAGR for Public Street light & in case of three Discoms, 5 year CAGR for Public water works(M) have shown the negative growth. Thus, the Commission has projected the sale for FY 2019-20 at same level of FY 2018-19.
- 3.27 The category wise growth rate and energy sales for FY 2019-20 (except agriculture) are as given in the tables below:

**Table 8: Growth Rate and Energy Sale for FY 2019-20 - JVVNL**

Particulars	Energy Sale (MU) (Actual) FY 2018-19	3-Year CAGR	5-Year CAGR	7-Year CAGR	Growth Rate Adopted by Commission	Energy Sale (MU) Approved
Domestic	5,404	6.94%	7.51%	8.05%	7.51%	5,810
Non-Domestic	2,397	6.84%	8.79%	10.55%	8.79%	2,608
Public Street Light	172	-0.60%	3.81%	6.56%	3.81%	179
Small Industry	321	2.14%	3.23%	2.65%	3.23%	331
Medium Industry	811	3.30%	2.34%	3.50%	2.34%	830
Large Industry	6,657	24.92%	13.84%	8.20%	8.20%	7,202
Public Water Works (S)	304	10.02%	9.31%	4.87%	9.31%	333
Public Water Works (M)	30	-9.73%	-0.84%	2.35%	0.00%	30
Public Water Works (L)	324	7.68%	10.16%	12.39%	10.16%	357
Mixed Load / Bulk Supply	189	3.18%	3.28%	-9.01%	3.28%	195
<b>Total</b>	<b>16,609</b>					<b>17,875</b>

**Table 9: Growth Rate and Energy Sale for FY 2019-20 - AVVNL**

Particulars	Energy Sale (MU) (Actual) FY 2018-19	3-Year CAGR	5-Year CAGR	7-Year CAGR	Growth Rate Adopted by Commission	Energy Sale (MU) Approved
Domestic	3,653	5.23%	6.18%	8.13%	6.18%	3,879



Particulars	Energy Sale (MU) (Actual) FY 2018-19	3-Year CAGR	5-Year CAGR	7-Year CAGR	Growth Rate Adopted by Commission	Energy Sale (MU) Approved
Non-Domestic	1,254	7.68%	8.98%	13.60%	8.98%	1,367
Public Street Light	84	0.90%	6.72%	6.99%	6.72%	90
Small Industry	273	-1.44%	-0.26%	1.41%	0.00%	273
Medium Industry	854	2.00%	4.73%	4.86%	4.73%	894
Large Industry	4,373	23.54%	11.24%	8.65%	8.65%	4,751
Public Water Works (S)	359	11.29%	9.81%	8.87%	9.81%	394
Public Water Works (M)	36	-4.39%	-0.92%	0.47%	0.00%	36
Public Water Works (L)	264	14.48%	10.05%	8.42%	10.05%	291
Mixed Load / Bulk Supply	111	0.75%	2.94%	-11.17%	2.94%	115
<b>Total</b>	<b>11,260</b>					<b>12,088</b>

**Table 10: Growth Rate and Energy Sales for FY 2019-20 - JdVVNL**

Particulars	Energy Sale (MU) (Actual) FY 2018-19	3-Year CAGR	5-Year CAGR	7-Year CAGR	Growth Rate Adopted by Commission	Energy Sale (MU) Approved
Domestic	3,450	4.75%	6.30%	8.05%	6.30%	3,667
Non-Domestic	1,212	7.11%	7.66%	12.62%	7.66%	1,305
Public Street Light	97	-10.78%	-12.14%	-2.78%	0.00%	97
Small Industry	216	-2.56%	-0.63%	0.16%	0.00%	216
Medium Industry	675	3.35%	3.09%	5.01%	3.09%	696
Large Industry	1,633	11.35%	8.68%	5.47%	5.47%	1,722
Public Water Works (S)	287	3.58%	4.63%	4.31%	4.63%	301
Public Water Works (M)	99	-2.10%	-0.91%	-0.34%	0.00%	99
Public Water Works (L)	512	5.85%	7.53%	5.53%	7.53%	550
Mixed Load / Bulk Supply	392	3.74%	3.89%	-3.09%	3.89%	407
<b>Total</b>	<b>8,574</b>					<b>9,061</b>

### Agriculture Metered (M) Consumers

- 3.28 The Commission has accepted Discoms' submissions in respect of number of existing consumers, new consumers and consumers to be converted from flat rate to metered category.
- 3.29 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.
- 3.30 Accordingly, using the connected load, consumers and specific consumption as filed by Discoms the Commission worked out the sale to agriculture metered category for FY 2019-20 as follows:

**Table 11: Agriculture (M) sales for FY 2019-20-JVVNL**

Particulars	Consumers (Nos.)	Connected Load per Consumer (kW)	Total Connected Load (kW)	Specific Consumption (kWh/kW/year)	Consumption (Sales) MU
Existing Consumers	501,139	7.53	3,774,031	1,786	6,741
New Consumers	20,000	7.53	150,618	1,786	135
Add: Converted from Flat Rate	4,000	7.63	30,525	1,786	27
Total	525,139				6,903

**Table 12: Agriculture (M) sales for FY 2019-20 -AVVNL**

Particulars	Consumers (Nos.)	Connected Load per Consumer (kW)	Total Connected Load (kW)	Specific Consumption (kWh/kW/year)	Consumption (Sales) MU
Existing Consumers	456,437	6.67	3,046,697	1,597	4,866
New Consumers	25,000	6.67	166,874	1,597	133
Add: Converted from Flat Rate	5,000	10.78	53,876	1,597	43
Total	486,437				5,042

**Table 13: Agriculture (M) sales for FY 2019-20-JdVVNL**

Particulars	Consumers (Nos.)	Connected Load per consumer (kW)	Total Connected Load (kW)	Specific consumption (kWh/kW/year)	Consumption (Sales) MU
Existing Consumers	312,110	17.70	5,523,099	1,714	9,465
New Consumers	35,000	17.70	619,360	1,714	531
Add: converted from Flat rate	4,000	18.69	74,755	1,714	64
Total	351,110				10,060

**Energy Sales for Agriculture Flat Rate (FR) Consumers****Connected Load per Consumer & Specific Consumption for Flat Rate Consumers.**

- 3.31 The Commission has observed that the Discoms have considered the connected load per consumer of 7.63 KW for JVVNL, 10.78 KW for AVVNL and 18.69 KW for JdVVNL. The Commission has accepted connected load and number of consumers as filed by Discoms.
- 3.32 Further, the Commission has found that Discoms have not filed the specific consumption for flat rate consumers as approved by Commission in the earlier order for FY 2018-19, in case of JVVNL specific consumption of 2165 kWh/KW/year, AVVNL and JdVVNL specific consumption of 1952 kWh/KW/year respectively have been filed by Discoms. Thus for computing the Flat rate sales for FY 2019-20, the Commission has considered the specific consumption of 1945 kWh/KW/year as approved by Commission in the earlier Order.
- 3.33 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 to be in the metered category for 6 months and flat rate for 6 months.
- 3.34 Accordingly, the connected load, specific consumption and estimated sales for FY 2019-20 have been approved by the Commission.

**Table 14: Agriculture (FR) Sales for FY 2019-20 – JVVNL**

Particulars	Consumers (Nos.)	Connected Load per Consumer (kW)	Total Connected Load (kW)	Specific Consumption (kWh/kW/year)	Consumption (Sales) MU
Existing Consumers	19961	7.63	152325	1945	296
Less: Converted to Meter	4000	7.63	30525	1945	30
<b>Total</b>	<b>15961</b>				<b>267</b>

**Table 15: Agriculture (FR) Sales for FY 2019-20 – AVVNL**

Particulars	Consumers (Nos.)	Connected Load per Consumer (kW)	Total Connected Load (kW)	Specific Consumption (kWh/kW/year)	Consumption (Sales) MU
Existing Consumers	28,066	10.78	302,416	1,945	588
Less: Converted to Meter	5,000	10.78	53,876	1,945	52
<b>Total</b>	<b>23,066</b>				<b>536</b>

**Table 16: Agriculture (FR) Sales for FY 2019-20 – JDVVNL**

Particulars	Consumers (Nos.)	Connected Load per Consumer (kW)	Total Connected Load (kW)	Specific Consumption (kWh/kW/year)	Consumption (Sales) MU
Existing Consumers	35,286	18.69	659,453	1,945	1,283
Less: Converted to Meter	4,000	18.69	74,755	1,945	73
<b>Total</b>	<b>31,286</b>				<b>1,210</b>

**Conversion of Flat Rate (FR) Consumers**

- 3.35 The Commission observes that Discoms have slowed down in converting consumers from flat rate to metered category, which is a serious cause of concern. The Discoms submitted that more time may be required for conversion of flat rate category to metered category.

- 3.36 As per Section 55(1) of the Electricity Act 2003 no licensee shall supply electricity, after the expiry of two years from the appointed date, except through installation of a correct meter in accordance with the regulations to be made in this behalf by the Authority. Much time has elapsed since enactment of the Electricity Act but Discoms are still continuing with unmetered consumers. This is high time that Discoms should convert balance flat rate consumers. Accordingly, the Commission directs that Discoms should convert all flat rate agriculture consumers upto 31.03.2021 as conversion of flat rate consumers to metered category is in the interest of Discoms and would lead to reduction of commercial losses besides correct accounting of electricity consumption.
- 3.37 Discoms are also directed to furnish the sub division wise no. of Flat rate consumers along with their next petition along with reasons for not converting them to Metered category. If in converting the consumers in metered category, there is any law and order issue, Discoms may take the help of local/Police administration.
- 3.38 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.
- 3.39 It is further directed that whenever a flat rate consumer is disconnected due to default in payment or seeks voluntarily temporary disconnections, its connection on payment of dues should only be restored in metered category. Similarly, in case of applications for change in load, change in name or shifting etc connection should only be processed after converting the consumer to metered category.
- 3.40 The Government of Rajasthan may also consider to review the tariff subsidy to flat rate agriculture consumers so as to make these consumers shift to metered category.

### **Estimation of Energy Sales**

- 3.41 The Commission observes that from many years Discoms are computing the sales of flat rate agriculture consumer at Specific consumption of 1945 kWh/kW/year. Stakeholders have submitted that application of single specific consumption i.e. 1945 kWh/kW/year to each Discom needs to be reviewed under present circumstances as water level is not same for all

Discoms and it has also been depleted over the years.

- 3.42 It is also observed that the consumption in metered category is less than 1945 kWh//kw/year for all Discoms whereas Discoms are claiming sales of 1945 kWh//kw/year for flat rate category. Therefore, the Commission directs the Discoms to carry out a detailed study of actual specific consumption of three Discoms separately and submit the same to Commission along with the next ARR and Tariff Petition. This study should be supported by Feeder meter reading and total of meters installed at Agriculture Consumers. Based on the study submitted by Discoms, the Commission shall consider the appropriate figure of specific consumption and approve sales accordingly for the year 2020-21.

**Energy Sales as Approved by the Commission for All Categories**

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

**Table 17: Energy Sales approved by the Commission for FY 2019-20 (MU)**

Particulars	JVVNL	AVVNL	JdVVNL	Total
Domestic	5,810	3,879	3,667	13,355
Non-Domestic	2,608	1,367	1,305	5,279
Public Street Light	179	90	97	366
Agriculture (Metered)	6,903	5,042	10,060	22,004
Agriculture (Flat)	267	536	1,210	2,012
Small Industry	331	273	216	820
Medium Industry	830	894	696	2,420
Large Industry	7,202	4,751	1,722	13,675
Public Water Works (S)	333	394	301	1,027
Public Water Works (M)	30	36	99	166
Public Water Works (L)	357	291	550	1,198
Mixed Load / Bulk Supply	195	115	407	718
<b>Total</b>	<b>25,044</b>	<b>17,666</b>	<b>20,330</b>	<b>63,040</b>

## **Transmission and Distribution Losses**

### **Distribution Losses**

#### **Petitioners' Submission**

- 3.44 The Discoms have submitted that they intend to pursue the loss reduction programs initiated in previous years with increased use of technology. Information Technology, being a tremendous enabler, is the backbone of any complex socio-technical system, allowing to sense, discover, regulate, enforce, control and optimize the system. It can offer a framework for an efficient power system, providing the technical design of a future smart grid and help address the commercial and behavioural issues associated with it. Along with implementation of IT, business processes have also been re-designed to ensure improvement in commercial processes. Customer satisfaction has been kept as the focus while doing all such changes. The investments being made under various schemes are also expected to aid in the reduction of distribution loss.
- 3.45 The Discoms submitted that it is committed towards reduction of losses and therefore time bound targets have been set for each of the above listed activities. These initiatives have also been recognized at the highest levels and form a part of the landmark tripartite MoU signed under the UDAY scheme between the Discoms, the Central Ministry and the Rajasthan government. The achievement made under the targets set in UDAY scheme has only been possible owing to the relentless efforts put in by the Discoms.
- 3.46 In order to achieve operational efficiency and bring improvements, other steps like loss based load management, performance monitoring and management system, AMR metering for high value consumers, energy audit & accounting at feeder level, feeder segregation, etc. have already been initiated.
- 3.47 The Mukhya Mantri Vidyut Sudhar Abhiyan (MMSVA) was one such scheme which targeted the multifold objectives of:
- Providing 24\*7 uninterrupted and quality power supply
  - Improvement in consumer services
  - Enhancement of electrical safety, and
  - Reduction in AT&C losses.

### Commission's Analysis

- 3.48 For FY 2019-20, Discoms have projected distribution losses at higher side as compared to loss trajectory specified by the Commission for earlier years for which no reasons have been provided.
- 3.49 The Commission has observed during the last few years that inspite of clear directives for reduction of Distribution Losses, such losses have not been reduced to the level as approved by the Commission. This is evident from the Table given below for the period FY 2014-15 to FY 2018-19.

**Table 18: Distribution Losses of Discoms (%)**

YEAR	JVNL		AVVNL		JdVVNL	
	Approved	Actual	Approved	Actual	Approved	Actual
2014 - 15	16.09	30.46	17.65	26.08	15.13	24.29
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

- 3.50 From the above Table it is observed that none of the Discom has achieved the approved losses in any of the above past 5 years. Specially for the year 2018-19, Discoms themselves proposed the distribution losses as 15%, in line with UDAY Scheme, in the ARR Petition for FY 2018-19, and the same were approved by the Commission in its Order dated 28.5.2018. Discoms are making lot of investment under so many Schemes of Rajasthan and Central Government for reducing the AT&C losses but the results are not coming as required / approved.
- 3.51 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.
- 3.52 It is observed that the Government of India, with an objective to bring in financial discipline and improvement of Discom's efficiency, has formulated a financial restructuring plan namely "UDAY Scheme" subject to fulfillment of conditions. This scheme while restructuring the finances of the Discoms, has imposed several stringent conditions for improvement in



efficiency and target distribution loss. The “UDAY Scheme” has been accepted by the State of Rajasthan as well as the Discoms by signing of Memorandum of Understanding. Therefore, the Commission accepts the Discoms Distribution losses of 15% for FY 2019-20. Further, till the Discom achieve the 15% Distribution loss, the target losses shall be 15% during the current control period.

### **Collection Efficiency**

- 3.53 The Discoms have projected 100% collection efficiency for FY 2019-20. The Commission accepts the submission of Discoms as 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 has been approved to be the same as proposed.

### **Transmission Losses**

- 3.54 The Discoms have filed the intra-state and inter-state transmission loss of 4.25% and 3.15% respectively.

- 3.55 Whereas, the Commission has considered the intra-state transmission loss of 3.35% based on the RVPN Tariff order dated 31.01.2020 for FY 2019-20 and inter-state transmission loss of 3.15% as filed by the Discoms.

- 3.56 The levels of transmission losses as proposed by the Discoms and considered by the Commission for FY 2019-20 have been shown in the following table:

**Table 19: Levels of Transmission Loss (%)**

<b>Particulars</b>	<b>Proposed for FY 2019-20</b>	<b>Considered by Commission for FY 2019-20</b>
Intra-State Transmission Losses-Discoms	4.25%	3.35%
Inter-State Transmission Losses-Discoms	3.15%	3.15%

### **Energy Requirement as Approved vis-à-vis Petitioners' Submission**

- 3.57 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 2019-20 is given in the following table:

**Table 20: Energy Requirement for FY 2019-20 (MU)**

Particulars	JVVN		AVVN		JdVVN		Total	
	Proposed	Approved	Proposed	Approved	Proposed	Approved	Proposed	Approved
Energy Sales to Consumers (MU)	25,032	25,044	17,733	17,666	20,844	20,330	63,609	63,040
Distribution Loss (%)	16.00%	15.00%	15.00%	15.00%	18.00%	15.00%		15.00%
Add: Distribution Loss (MU)	4,768	4,419	3,129	3,118	4,576	3,588	12,473	11,125
Energy Required at Discoms Periphery (MUs)	29,800	29,463	20,862	20,784	25,419	23,918	76,082	74,165
Intra-State Transmission Losses (%)	4.25%	3.35%	4.25%	3.35%	4.25%	3.35%	4.25%	3.35%
Add: Intra-State Transmission Losses (MU)	1,323	1,021	926	720	1,128	829	3,377	2,571
Energy Requirement at Transco Periphery	31,123	30,484	21,788	21,504	26,548	24,747	79,459	76,735
Inter-State Transmission Losses (%)	3.15%	3.15%	3.15%	3.15%	3.15%	3.15%	3.15%	3.15%
Add: Inter-States Transmission Loss	322	407	230	275	283	330	835	1,012
<b>Gross Energy Requirement (MU)</b>	<b>31,445</b>	<b>30,892</b>	<b>22,018</b>	<b>21,779</b>	<b>26,830</b>	<b>25,077</b>	<b>80,293</b>	<b>77,747</b>

**Power Purchase Cost****Petitioners' Submission**

- 3.58 Discoms have projected energy availability for FY 2019-20 on the basis of estimated generation from existing stations and projected generation from new stations. For existing stations, the Discoms submitted that the power purchase quantum has been considered as per the actual energy received in previous years. The Discoms submitted that the existing power scenario and the power purchase has been accordingly projected considering the energy requirement and the merit order principles. While projecting energy availability from different sources for FY 2019-20, energy off take has been consciously reduced from stations with variable cost of more than anticipated selling price in exchange. The power purchase for FY 2019-20 from stations that will be available for part of the year has been computed based on capacity, PLF and Auxiliary consumption.
- 3.59 Discoms submitted that the assumption for PLF and Auxiliary Consumption for new stations has been considered as per historical trends and operating norms approved by the appropriate Commission. The power purchase from such new stations for the year has been computed after

duly considering the anticipated commercial operation date of these stations. 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.

- 3.60 Discoms submitted that the purchase from renewable energy sources has been projected based on the current contracted capacity from renewable sources and capacity coming up in FY 2019-20.
- 3.61 Summary of the power purchase quantum and cost as submitted by Discoms in their petitions are as under:

**Table 21: Power Purchase (MU) and Cost (Rs. Cr.) for FY 2019-20 – Submitted by Discoms**

Particulars	JVNL		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)	20,437	9,548	14,599	6,104	17,922	5,797
Power from RVUNL sources	11,008	4,745	7,419	3,198	8,909	3,840
RVPNL and SLDC charges	-	940.73	-	634	-	761
<b>Total Power Purchase</b>	<b>31,445</b>	<b>15,233</b>	<b>22,018</b>	<b>9,936</b>	<b>26,830</b>	<b>10,398</b>

#### **Transmission & SLDC Charges**

- 3.62 Discoms submitted that For FY 2018-19, the transmission charges have been taken as per provisional figures of FY 2018-19 and no further

escalation has been assumed while projecting transmission charges for FY 2019-20.

### **Trading Margin for RUVNL**

- 3.63 Discoms submitted that RUVNL will be managing power purchase cost of Discoms for sources other than RVUNL and RVPNL. The coordination committee Rajasthan energy companies in its meeting dated 31.03.2019 decided that RUVNL will charge 1 paisa on the Energy purchased from "sources other than RVUNL" by it on the behalf of Discoms as trading margin as under:

**Table 22: Trading Margin Claimed by Discoms (Rs. In Crore)**

<b>Particulars</b>	<b>JVVNL</b>	<b>AVVNL</b>	<b>JdVVNL</b>	<b>RAJASTHAN</b>
Trading margin (Paisa per unit)	1.00	1.00	1.00	1.00
Energy purchased from sources other than RVUNL	20,437	14,599	17,922	52,958
Trading Margin (Rs. Cr.)	20.44	14.60	17.92	52.96

### **Sale of Surplus power**

- 3.64 Discoms estimates the Rajasthan State to be in surplus power by 1114 MU and estimates RUVNL to sell surplus power at Rs 3.40 per/unit thereby earning Rs 379 Cr and reducing power purchase cost from sources other than RVUNL.

### **Differential Bulk Supply Tariff (DBST)**

- 3.65 Discoms submitted that they have proposed to adopt Differential Bulk Supply Tariff (DBST) in order to bring all the Discoms to a level playing field in terms of power purchase costs. In the initial phase, for all generating stations except from State generating stations (under RVUN & RVPNL), the power procuring entity on behalf of Discoms will be Rajasthan Urja Vikas Nigam Limited (RUVNL). Therefore, for the said stations, the Discoms will procure power from RUVNL on differential per unit costs (DBST). Thus the Discoms had estimated the energy procured from sources other than RVUNL and RVPNL for all three Discoms. However, to ensure seamless transition and not overburden RUVNL, power purchase from stations of RVUN and transmission from RVPN will be managed as is being done till date. Therefore, power purchase from RVUNL and transmission cost of RVPNL has been projected Discom wise.

3.66 The summary of methodology followed to determine DBST is as under.

- a) The total projected revenue at existing tariff, less revenue from sale of surplus power, is considered.
- b) All expenses, excluding power purchase cost, projected in ARR are taken.
- c) The costs towards power purchase from RVUN sources and Transmission Charges of RVPN is taken separately. This is added to the 'expenses other than power purchase cost' to arrive at 'Total Expenditure other than power purchase for sources other than RVUN & RVPNL'.
- d) The amount available with the Discoms towards power purchase is arrived at by subtracting the 'Total Expenditure other than power purchase for sources other than RVUN' from the total revenue projected. This is the amount that the Discoms will be able to pay towards procurement of power from RUVNL. The said amount is referred to as 'amount available for power purchase'.
- e) Power purchase cost including transmission charges from sources excluding RVUN and RVPN, as estimated by the Discoms, shall be taken into consideration. This shall be subtracted from the 'amount available for power purchase' to arrive at a surplus/(gap).
- f) The surplus/(gap) is allocated among the three Discoms in the ratio of their respective energy requirements (here the energy requirement is considered after taking into consideration approved T&D loss levels). Thus, the effective power purchase cost to be paid by the Discoms to RUVNL is arrived at.
- g) The effective power purchase cost divided by the approved energy requirement gives us the DBST in Rs/kWh.

**Table 23: DBST for power purchase from sources other than RVUN**

Sr. No.	Particulars	Unit	JVVNL	AVVNL	JdVVNL	Total
A.	Total Revenue (excluding receipts from sale of surplus power)	Rs. Cr.	19,257	13,614	13,980	46,851

Sr. No.	Particulars	Unit	JVVNL	AVVNL	JdVVNL	Total	
B.	Expenditure other than Power Purchase Cost	Rs. Cr.	6,780	5,646	5,999	18,425	
C.	Expenditure for RVUN	Rs. Cr.	4,745	3,198	3,840	11,783	
D.	Expenditure for RVPN	Rs. Cr.	941	634	761	2,336	
E=B+C +D	Total Expenditure other than power purchase for sources other than RVUN	Rs. Cr.	12,465	9,478	10,600	32,544	
F=A-E	Amount available with Discoms for power purchase from sources other than RVUN	Rs. Cr.	6,792	4,136	3,380	14,307	
G	Power purchase cost of sources other than RVUN (Net of Revenue from Sale of Surplus Power)	Rs. Cr.					21,448
H=F-G	Revenue Surplus / (Gap)	Rs. Cr.					-7,141
I	Energy requirement from sources other than RVUN	MU	20,437	14,599	17,922	52,958	
J	Allocation of Surplus / (Gap)	Rs. Cr.	(2,756)	(1,969)	(2,417)	(7,141)	
K	Allocated cost of power purchase from sources other than RVUN	Rs. Cr.	9,548	6,104	5,797	21,449	
<b>L=K/I* 10</b>	<b>DBST for power purchase from sources other than RVUN</b>	<b>Rs./kWh</b>	<b>4.67</b>	<b>4.18</b>	<b>3.23</b>	<b>4.05</b>	

### Commission's Analysis

- 3.67 While estimating energy availability and power purchase cost for FY 2019-20, the Commission has considered the generation from State and Central generating units based on the Seven months actual data for FY 2019-20 as submitted by the Discoms, which is further extrapolated for projection of FY 2019-20. Likewise, the position as per latest tariff orders has also been considered in working out power purchase cost, as discussed later in the order.
- 3.68 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 2019-20

### RVUN Stations

- 3.69 For RVUN generating stations, including KTPS (Unit 1-7) & STPS (Unit 1-6), RGTPS (Stage I & II ), Mahi, Chhabra (Unit 1-6) & Kalisindh (Unit 1&2), the Commission has considered the energy availability as per actual purchase from April 19 to October' 19 , i.e. 7 Month of FY 2019-20 , which is further extrapolated for 12 months to project the availability for FY 2019-20.
- 3.70 With regard to DCCCP, RGTPS 160 MW the actual generation till October 2019 is NIL therefore, the Commission has considered 9.39 MU's as filled by Discoms for DCCCP and 3 months of Discom's projection i.e. 125.63 MU's for RGTPS- 3. For MMH also the Commission has considered generation as per Discom's filling. Further for CTPP Unit 5 & 6, KaTPP 2 and RGTPS energy purchased has been considered as per expected availability from this station.
- 3.71 The fixed and energy charges for the aforesaid RVUN plants are as per RVUN Tariff order dated 18.12.2019 and 18.05.2018 for FY 2019-20.
- 3.72 Tariff of Mini/Micro (MMH) plants have been considered as per Regulation 57 of RERC Tariff Regulations, 2019.
- 3.73 The Commission has not considered the generation and cost of New Stations for STPS Unit 7&8 as the CoD has not been achieved till December, 2019.
- 3.74 Further with regard to CTPP Unit 5&6, the Per Unit cost has been considered as per Commission's interim order dated 01.05.2019.
- 3.75 The energy availability and cost of RVUN's generating stations as considered by the Commission have been shown in the table below:

**Table 24: Energy Availability (MU) and Cost (Rs. In Crore)- RVUN Stations for FY 2019-20**

Station	Energy Availability	Cost
KTPS(1 to 7)	5940	2342
STPS(1 to 6)	4938	2589
DCCPP	9	207
CTPP (1&2)	3318	1276
CTPP (3 & 4)	3111	1227

Station	Energy Availability	Cost
CTPP 5	2281	1210
CTPP 6	3403	1394
RGTP (1&2)	713	260
KaTPP#1	3749	1812
KaTPP#2	1196	958
RGTP 3	126	123
MAHI	162	55
MAHI MMH	1	0.26
MANGROL	2	1
STPS MMH	2	1
STPS Stage V (Unit 7 & 8)	0	0
<b>Total</b>	<b>28949</b>	<b>13456</b>

### Lignite based projects

- 3.76 The lignite based projects include Giral Lignite Power Limited, Rajwest Limited and Neyveli Lignite Corporation Limited. For Giral Unit 1 & 2, Commission is not considering any generation for FY 2019-20 as these Units are not functioning for long period of time. The availability for Rajwest and Neyveli has also been considered based on the 7 months actual for FY 2019-20, which is further extrapolated for 12 months for projection of FY 2019-20. The per unit charge for FY 2019-20 for Rajwest have been considered as per the Commission's interim Tariff order dated 01.05.2019.
- 3.77 The fixed and energy charges for Neyveli has been considered as per actual purchase for 7 months for FY 2019-20, which is further extrapolated for 12 months for projection of FY 2019-20.
- 3.78 The energy availability and total power purchase cost for Lignite based projects have been summarized in the table below:

**Table 25: Energy Availability (MU) and Cost (Rs. In Cr.)- Lignite Plants for FY 2019-20**

Station	Energy Availability	Total Cost
Rajwest	5231	2446
GLTPP	0	0
Neyveli Lignite Corporation Ltd	1251	428
<b>Total</b>	<b>6482</b>	<b>2874</b>



### **Nuclear Power Corporation of India Ltd. (NPCIL)**

- 3.79 The energy availability, fixed and energy charges of NPCIL has been considered as per actual purchase for 7 months for FY 2019-20 , which is further extrapolated for 12 months for projection of FY 2019-20.
- 3.80 The energy availability and total power purchase cost for NPCIL plants have been summarized in the table below:

**Table 26: Energy Availability (MU) and Cost (Rs. In Cr.)- NPCIL for FY 2019-20**

<b>Station</b>	<b>Energy Availability</b>	<b>Total Cost</b>
NPCIL	3125	1119

### **Partnership Projects (PP) and RFF**

- 3.81 The energy availability, fixed and energy charges of partnership projects and RFF has been considered as per actual purchase for 7 months for FY 2019-20, which is further extrapolated for 12 months for projection of FY 2019-20.
- 3.82 Energy availability and total power purchase cost for partnership projects have been summarized in the table below:

**Table 27: Energy Availability (MU) and Cost (Rs. In Cr.)- Partnership Projects for FY 2019-20**

<b>Station</b>	<b>Energy Availability</b>	<b>Total Cost</b>
Partnership Project	3437	192

### **NTPC, NHPC & Others**

- 3.83 The energy availability, fixed and energy charges of NTPC & NHPC has been considered as per actual purchase for 7 months for FY 2019-20, which is further extrapolated for 12 months for projection of FY 2019-20.
- 3.84 The energy availability, fixed and energy charges of Tehri, Koteshwar, Tala, Rampur, SJVNL, Teesta, Adani, Sasan, NVVN, Coastal Gujarat, Karcham Wangtoo, DB power and Maruti have been considered as per actual purchase for 7 months for FY 2019-20.
- 3.85 The energy availability and charges of Tnda STPP Stage II (2\*660 MW) has not been considered by Commission as till October, 2019 no power has been purchased from this station. For Meja TPS the energy availability and power purchase cost has been considered as per actual purchase for 7

months for FY 2019-20, which is further extrapolated for 12 months for projection of FY 2019-20.

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

**Table 28: Energy Availability (MU) and Cost (Rs. In Cr.)- NTPC & NHPC and Other Generating Stations for FY 2019-20**

Plants	Energy Availability	Total Cost
NTPC Stations	9122	3257
NHPC Stations	2410	640
SJVNL-NATHPA-JHAKRI	796	164
Rampur	227	79
Tehri Hydro	233	113
Koteshwar	106	50
Tala	65	14
NVVN BUNDLED	2314	1009
Coastal Gujarat	1967	608
Adani Power Rajasthan Ltd.	7421	3108
Sasan Power Ltd.	2855	405
Karcham Wangtoo	695	213
DB POWER	2085	1025
MARUTI	1243	422
Teesta	656	269
<b>Total</b>	<b>32195</b>	<b>11377</b>

#### **Non-Conventional Energy Sources**

- 3.87 The Commission has taken the availability from non-conventional energy sources to the extent of RPO requirement, i.e., 8.30% for wind, 6.00% for Solar and 0.70% for Bio-mass as per RERC (Renewable Energy Obligation) Regulation, 2007 as amended from time to time.
- 3.88 The availability has been considered as per RPO and the per unit cost has been considered as per actual of FY 2019-20.

**Table 29: Energy Availability (MU) and Cost (Rs. In Crore)- Wind, Solar & Biomass for FY 2019-20**

Plants	Energy Availability	Total Cost
Wind farms	5694	2858

<b>Plants</b>	<b>Energy Availability</b>	<b>Total Cost</b>
Solar	4116	1765
Biomass	480	342
<b>Total</b>	<b>10291</b>	<b>4965</b>

### **Short Term Sources**

- 3.89 After considering the energy available to Discoms based on their respective allocated shares, the Commission has estimated a surplus in energy availability.
- 3.90 The Petitioners estimated the Rajasthan state to be in surplus power by 1114 MU and estimated RUVNL to sell surplus power at Rs 3.40 per/unit thereby earning Rs 379 Cr and reducing power purchase cost from sources other than RVUNL.
- 3.91 Discoms have proposed to sell the surplus power at the rate of Rs. 3.40/unit. 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, for example, STPS variable charges of Rs. 3.60 per unit. In light of above fact, the Commission has considered the sale price of surplus power at Rs. 3.60/unit.
- 3.92 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. Accordingly, the Commission deems it proper to continue with the rate of Rs. 4/unit considered for this purpose in last year tariff order.

### **Differential Bulk Supply Tariff (DBST)**

- 3.93 It has been brought to the notice of the Commission that, though the Discoms have filled DBST in the proposal but its actual implementation may take some time.
- 3.94 Since Discoms have not provided the information regarding actual execution of DBST till now and more than 9 months have already been over therefore, Commission is not inclined to consider the DBST for FY 2019-

20. In view of the submission of stakeholders that any expenses on account of trading margin to RUVNL should be met by Discoms out of their O&M expense, the Commission has not considered any trading margin of 1paise/unit.

### Total Power Purchase Cost

- 3.95 Based on the above, the summary of source wise and Discom wise breakup of power purchase quantum and cost for 2019-20 as considered by the Commission for the three Discoms is given in the table below:

**Table 30: Energy Availability (MU) and Cost (Rs. In Cr.) for FY 2019-20**

Stations	JVNL		AVNL		JdVNL		Total	
	Units	Cost	Units	Cost	Units	Cost	Units	Cost
NTPC	3673	1312	2476	884	2973	1061	9122	3257
NHPC	971	258	654	174	786	209	2410	640
NPCIL	1258	451	848	304	1018	365	3125	1119
Tehri+Koteshwar+Tala	163	72	110	48	132	58	404	178
RVUN/ State Generation	13764	6404	9276	4316	11139	5183	34180	15902
Shared Projects	1494	117	883	34	1060	41	3437	192
NCES	4144	1999	2793	1347	3354	1618	10291	4965
SJVN and Rampur	412	98	278	66	333	79	1023	243
Other Stations	7318	2609	4932	1758	5923	2111	18174	6478
NVVN Bundled	932	406	628	274	754	329	2314	1009
<b>TOTAL</b>	<b>34129</b>	<b>13724</b>	<b>22878</b>	<b>9205</b>	<b>27472</b>	<b>11053</b>	<b>84479</b>	<b>33982</b>
Less/add: Short Term	<b>-3237</b>	<b>-1165</b>	<b>-1099</b>	<b>-396</b>	<b>-2395</b>	<b>-862</b>	<b>-6732</b>	<b>-2423</b>
Net power Purchase	30892	12559	21779	8809	25077	10191	77747	31559

### Transmission Charges

#### Petitioners' Submission

- 3.96 The details of the RVPN transmission and SLDC charges submitted by Discoms have been summarized in the table below:

**Table 31: Transmission Charges & SLDC Charges for 2019-20 (Rs. In Crore)**

Particulars	Discoms' submission			
	JVNL	AVNL	JdVNL	Total
RVPN Charges	935	630	757	2322
SLDC Charges	6	4	5	14
PGCIL & Other Charges	927	624	750	2301
<b>Total Transmission Charges</b>	<b>1867</b>	<b>1258</b>	<b>1511</b>	<b>4637</b>

### Commission's Analysis

- 3.97 The Commission has considered the RVPN and SLDC charges for FY 2019-20 as per RVPN ARR and Tariff order dated 31.01.2020 and PGCIL & other charges as per submission of Discoms.
- 3.98 The transmission & SLDC charges approved by the Commission for FY 2019-20 are as under:

**Table 32: Transmission Charges approved by the Commission for FY 2019-20 (Rs. In Crore)**

Particulars	JVVNL	AVVNL	JdVVNL	Total
RVPN Charges	1054	710	853	2617
SLDC Charges	10	6	8	24
PGCIL & Other Charges	927	624	750	2301
<b>Total Transmission Charges</b>	<b>1990</b>	<b>1341</b>	<b>1610</b>	<b>4941</b>

### Operation and maintenance Expenses

#### Petitioners' Submission

- 3.99 Discoms have estimated O&M expenses based on the O&M norms specified in RERC Tariff Regulations, 2019.
- 3.100 The O&M expenses projected by Discoms for FY 2019-20 have been summarized below:

**Table 33: Operation and Maintenance Expenses for FY 2019-20 (Rs. In Crore)**

Particulars	JVVNL's submission	AVVNL's submission	JdVVNL's submission	Total
Employee Costs	1202	851	1001	3053
Administrative & General Costs	163	115	135	413
Repairs & Maintenance Costs	261	195	176	632
Total O&M Costs	<b>1625</b>	<b>1162</b>	<b>1312</b>	<b>4098</b>
Less: Expenses to be Capitalized	228	188	262	678
<b>Net O&amp;M Costs charged to revenue</b>	<b>1397</b>	<b>974</b>	<b>1049</b>	<b>3420</b>

### Commission's Analysis

- 3.101 Commission has allowed O&M expenses in accordance with Regulation 82 of RERC Tariff Regulations, 2019.
- 3.102 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:  $k \times \text{GFAn-1} \times (1+\text{ER})$

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

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

3.103 Commission has considered the sales (inclusive of sale by DF) allowed for FY 2019-20 for projecting normative O&M expenses as the Commission has not made any separate projection for DF sale and while calculating revenue, category wise sales and consumers and full applicable tariff as per Commission's order has been considered. As the estimated sales for franchisee area and ABR are not available while making the projections, the Commission has considered the sales and revenue for the end consumer. However, while doing true up the Commission shall consider the sales of area excluding franchisee area for considering O&M expenses and actual revenue from sales to franchisee.

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

3.105 O&M expenses approved by the Commission for Discoms for FY 2019-20 have been summarized below:

**Table 34: Operation and Maintenance Expenses approved for FY 2019-20**  
(Rs. In Crore)

Particulars	Approved JVNL	Approved AVNL	Approved JdVNL	Total
Employee Costs	1202	848	976	3026
Administrative & General Costs	163	115	132	410
Repairs & Maintenance Costs	175	116	117	408
Total O&M Costs	<b>1540</b>	<b>1079</b>	<b>1225</b>	<b>3843</b>
Expenses to be Capitalized	216	174	245	635
<b>Net O&amp;M Costs charged to revenue</b>	<b>1324</b>	<b>905</b>	<b>980</b>	<b>3208</b>

## Terminal Benefit Expenses

### Petitioners' Submission

- 3.106 The Discoms have considered the terminal benefits for FY 2019-20 as per guidelines specified under AS-15 (Employee benefit). In accordance with the provisions of the AS-15 the Discoms have provided for the shortfall in the terminal benefits in respect to pension and gratuity each year.
- 3.107 The terminal benefit liability submitted by the Discoms for FY 2019-20 has been tabulated below:

**Table 35: Terminal Benefit Expenses for FY 2019-20 (Rs. In Crore)**

Particulars	JVVNL's submission	AVVNL's submission	JdVVNL's submission	Total
Terminal benefit Expenses	550	648	625	1823

### Commission's Analysis

- 3.108 The Commission has considered terminal benefit expenses for FY 2019-20 as submitted by Discoms. However, the Commission shall allow the payment made towards actuarial valuation liability in the true up of FY 2019-20 only to the extent of funds actually transferred to the designated Fund.

**Table 36: Terminal Benefit Expenses for FY 2019-20 (Rs. In Crore)**

Particulars	Approved JVVNL	Approved AVVNL	Approved JdVVNL	Total
Terminal benefit Expenses	550	648	625	1823

## Capitalization

### Petitioners' Submission

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

**Table 37: Capital Expenditure and Capitalization proposed for FY 2019-20 (Rs. In Crore)**

Particulars	JVVNL	AVVNL	JdVVNL
Capital Expenditure	1545	1370	1593
Capitalization	1771	1715	1891

### Commission's Analysis

- 3.110 Following the methodology adopted in ARR order for FY 2018-19, the Commission has considered 80% of the proposed capitalization in this ARR order as under:

**Table 38: Projected Capitalization Approved by the Commission for FY 2019-20 (Rs. In Crore)**

Particulars	JVVNL	AVVNL	JdVVNL	Total
Capitalization	1417	1372	1513	4302

### Interest on Loans and Finance Charges & Lease rental

#### Petitioners' Submission

- 3.111 To compute the interest on loan, Discoms have considered the Closing balance of normative loan for FY 2018-19 as the opening loan balance for FY 2019-20. Based on the normative investments for FY 2019-20, the total capitalisation has been considered. Further, total capitalisation during the year has been reduced by the amount of capitalisation done through consumer contribution projected to be received during the year. Discoms mentioned that the addition in consumer contribution results in addition to both CWIP and GFA. As such proportionate consumer contribution has been used while computing capitalisation through consumer contribution. 30% of the remaining capitalisation has been considered to be funded through equity and the balance amount has been considered as addition to long term loans during the year. 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 2019-20.
- 3.112 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).
- 3.113 The Discoms have projected interest on security deposit on the basis of average of actual security deposit per consumer in the previous two years as per audited accounts of FY 2017-18 and 2016-17 and the projected



growth in number of consumers. The interest rate has been considered as per the applicable RBI bank rate as on 1<sup>st</sup> April, 2018 i.e. 6.25% in accordance with the RERC Supply Code.

- 3.114 Discoms have projected the finance charges and other borrowing cost to be increased by 5% per annum from audited accounts for FY 2017-18.
- 3.115 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 2017-18 available with the Discoms.
- 3.116 The Discoms submitted that the core of the UDAY scheme was to relieve the Discoms of the huge interest burden they were carrying without passing on the same to the consumers. However, GoR has charged interest on loans taken over under UDAY Rs. 7206 crores till FY 2018-19. This sudden interest deducted by GoR has led to severe finance crunch in Discoms leading to outstanding balance of Power generators especially RVUNL. The Discoms had to take working capital loans to meet such sudden deduction of interest. Discoms, further submitted that Levy of the interest cost of FY 16 to FY 18 in one year also did not allow the Discoms to seek appropriate tariff hike to recover this cost in the respective years.
- 3.117 Discom wise Interest liability on UDAY loans is summarized below:

**Table 39: Interest on UDAY Loan Claimed by Discoms (Rs. In Crore)**

Particulars (Rs. Cr.)	JVVNL	AVVNL	JdVVNL	Rajasthan
Provision for FY 2015-16 to FY 2016-17	1,228	1,176	1,136	3,540
Provision for FY 2017-18	1,283	1,228	1,186	3,698
Provision for FY 2018-19	846	810	782	2,439
Provision for FY 2019-20 (estimated by Discoms)	428	495	330	1254
<b>Total</b>	<b>3,786</b>	<b>3,710</b>	<b>3,434</b>	<b>10,931</b>
Interest charged by Discoms in ARR in FY 2019-20 (1/5 of Total above)	757	742	687	2,186
<b>Actual Interest deducted by GoR till FY 2018-19</b>	<b>2,512</b>	<b>2,372</b>	<b>2,322</b>	<b>7,206</b>

- 3.118 Accordingly, the interest charges and finance charges for FY 2019-20 have been summarized in the table below:

**Table 40: Interest and Financing Charges for FY 2019-20 (Rs. In Crore)**

Sr. No.	Particulars	JVVNL	AVVNL	JdVVNL	Total
1	Opening balance of LTL	4262	4386	4622	13270
2	Capitalisation	1771	1715	1891	5377
3	Capital expenditure financed by Equity (2-4) *0.3	453	444	434	1331
4	Capital expenditure financed by Consumer Contribution and grants	262	235	457	953
5	Receipt of LTL for Capital expenditure (2-3-4)	1057	1036	1012	3105
6	Principal Repayment	1038	816	837	2691
7	Closing balance of LTL	4281	4606	4797	13684
8	Average LTL	4271	4496	4710	13477
9	Average Interest rate of LTL (%)	11.01%	10.53%	10.07%	
10	Interest Charges on LTL	470	473	460	1404
11	Interest on Security Deposit	74	62	45	181
12	Finance Charges & Lease Rental	109	106	129	344
13	Gross Interest Charges	<b>653</b>	<b>641</b>	<b>634</b>	<b>1928</b>
14	Interest Expenses Capitalized	47	173	22	242
15	Total Interest & Financing Charges	<b>606</b>	<b>468</b>	<b>612</b>	<b>1686</b>
16	Unfunded Gap	16523	14870	17081	48474
17	Average Interest rate of LTL (%)	11.01%	10.53%	10.07%	
18	<b>Interest liability on unfunded gap</b>	<b>1820</b>	<b>1566</b>	<b>1720</b>	<b>5106</b>
19	<b>Interest on loan taken over UDAY</b>	<b>757</b>	<b>742</b>	<b>687</b>	<b>2186</b>
20	<b>Total Interest &amp; Financing Charges</b>	<b>3183</b>	<b>2776</b>	<b>3019</b>	<b>8978</b>

### Commission's Analysis

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

- a) The closing balance of long-term loans for FY 2017-18 allowed in the true-up order of FY 2017-18, has been considered by the Commission as the opening balance of FY 2018-19.
- b) For the capitalization, capital expenditure financed by equity, capital expenditure financed by consumer contribution and grants, receipt of long term loan for capital expenditure and principal repayment for FY 2018-19 have been considered as per order dated 28.05.2018 to arrive at the opening balance of loan of FY 2019-20.

- c) Capitalization for FY 2019-20 has been considered as discussed in foregoing paragraphs. Since only 80% capitalization has been allowed by the Commission, the equity, 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 2019-20 have been reduced by the amount of consumer contribution, capital grants and equity received during the year.
- e) Repayment for FY 2019-20 has been considered equal to the depreciation allowed by the Commission for FY 2019-20.
- f) Unfunded Gap- For computing the carrying cost, the unfunded gap upto FY 2017-18 has been considered as per true up order dated 31.12.2019 and gap for FY 2018-19 has been considered as per ARR order 28.05.2018.
- g) The weighted average interest rate has been considered at 11.01%%, 10.53% and 10.07% as claimed by the Discoms.
- 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:  

It has been observed that out of total Loss of Rs. 98449 Crore, GoR has taken over the Losses of Rs. 62422 Crore under UDAY, therefore, the Discoms were left with unfunded gap of Rs. 36027 Crore as on 31.03.2016, whereas the Commission had Regulatory Gap of Rs. 51867 Crore as on 31.3.2016. Thus, the Regulatory Gap of Rs. 51867 Crore was reduced by 15840 Crore and accordingly the interest on unfunded gap was provided only upto Rs. 36027 from 01.04.2016. Since, in the instant petition, Discoms have submitted that the Government has started recovering the interest on loan taken over under UDAY as per provisions of agreement entered under UDAY. Therefore, the Commission has considered the Interest on UDAY Loan as under.
- j) For FY 2016-17 and 2017-18, interest rate have been considered as per true up of respective year whereas, interest rate for FY 2018-19 onwards have been considered as allowed for term loan. However

the commission shall consider the interest amount based on the actual rate of interest paid by the Discoms in the true up petitions of FY 2019-20 of Discoms.

**Table 41: Loan Balance for UDAY (Rs. In Crore)**

Sr. No.	Particulars	JVVNL	AVVNL	JdVVNL	Total
1.	Gap as on 31.03.2016, as approved in the True up Order for FY 2015-16	17,679	17,048	17,140	51,867
2.	Unfunded Gap, after takeover of Loan under UDAY as on 31.03.2016	12,499	11,513	12,015	36,027
3.	Reduction of unfunded Gap, Due to UDAY	<b>5,180</b>	<b>5,535</b>	<b>5,125</b>	<b>15,840</b>

3.120 Interest Computation on Reduced Unfunded Gap is as under:

**Table 42: Interest on UDAY Loan (Rs. In Crore)**

Particulars	JVVNL	AVVNL	JdVVNL	Total
Gap Reduced due to UDAY 31.03.2016	5,180	5,535	5,125	15,840
Interest for FY 2016-17	506	556	547	1,610
Gap as on 31.03.2017	5686	6092	5673	17,450
Interest for FY 2017-18	626	641	571	1,839
Gap as on 31.03.2018	6312	6733	6244	19,289
Interest for FY 2018-19	695	709	629	2,033
Gap as on 31.03.2019	7007	7442	6872	21,322
Interest for FY 2019-20	772	784	692	2,247
Gap as on 31.03.2020	7779	8226	7564	23,569
Interest on UDAY loan for FY 2019-20 Approved	2599	2690	2439	7729
Interest allowed in 5 installment	520	538	488	1546

3.121 In view of submission of the Discoms and to avoid tariff shock, the Commission has considered the payment of the accrued interest in five yearly installments and accordingly considered the 1/5<sup>th</sup> of the amount for FY 2019-20.

3.122 Based on the above, the approved interest and finance charges (with respect to the assets capitalized) approved for FY 2019-20 for the three Discoms have been summarized in the tables below:

**Table 43: Interest and Finance Charges Approved by the Commission for FY 2019-20**  
(Rs. In Crore)

Particulars	JVVNL	AVVNL	JdVVNL	Total
Opening balance of LTL (A)	6090	3129	3681	12900
Capitalization (B)	1417	1372	1513	4302
Capital expenditure financed by Equity (C)	362	355	344	1062
Capital expenditure financed by Consumer Contribution and grants (D)	209	188	365	763
Receipt of LTL for Capital expenditure E=(B-C-D)	845	829	803	2477
Principal Repayment(F)	757	549	535	1841
Closing balance of LTL, G=(A+E-F)	6178	3409	3949	13536
Average LTL, H=(A+G)/2	6134	3269	3815	13218
Average Interest rate of LTL (%) (I)	11.01%	10.53%	10.07%	
Interest Charges on LTL, J=(HXI)	676	344	384	1404
Interest on Security Deposit (K)	74	62	45	181
Finance Charges & Lease Rental (L)	109	106	129	344
Gross Interest Charges, M=(J+K+L)	<b>858</b>	<b>512</b>	<b>559</b>	<b>1929</b>
Interest Expenses Capitalized (N)	62	138	20	219
Total Interest & Financing Charges (O)	<b>796</b>	<b>374</b>	<b>539</b>	<b>1709</b>
unfunded Gap up to 18-19	<b>13577</b>	<b>12307</b>	<b>15603</b>	<b>41487</b>
Interest on Carry Forward Revenue Gap, Q=(PXI)	<b>1495</b>	<b>1296</b>	<b>1571</b>	<b>4362</b>
<b>Interest on loan taken over UDAY, X</b>	<b>520</b>	<b>538</b>	<b>488</b>	<b>1546</b>
Total Interest & Financing Charges after interest on carry forward Gap (O+Q+X)	<b>2812</b>	<b>2208</b>	<b>2598</b>	<b>7618</b>

### Interest on Working Capital

#### Petitioners' Submission

- 3.123 Discoms estimated their working capital requirement for FY 2019-20 as per Regulation 27(1) (3) of the RERC Tariff Regulations, 2019 and the same has been tabulated below:

**Table 44: Interest on Working Capital for FY 2019-20**  
(Rs. In Crore)

Description	JVVNL	AVVNL	JdVVNL	Total
O&M expenses (as per norms)	116	81	87	285
Maintenance Spare (as per norms)	210	146	157	513
Receivables (as per norms)	2492	1748	1881	6120
<b>Less:</b>				
Security Deposit of Consumers	1178	987	728	2893
Total Working Capital	1640	988	1398	4026

Description	JVVNL	AVVNL	JdVVNL	Total
Interest Rate (%)	11.83%	11.83%	11.83%	
<b>Interest on Working Capital</b>	<b>194</b>	<b>117</b>	<b>165</b>	<b>476</b>

3.124 The Petitioner has further submitted that it has considered the rate of interest as per the applicable SBI rate for first six months of FY 2018-19 plus 300 basis points, which works out to be 11.83%.

### Commission's Analysis

3.125 The normative working capital requirement along with interest thereon has been calculated as per regulation 27 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 11.83%.

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

**Table 45: Interest on Working Capital approved by the Commission for FY 2019-20**  
(Rs. In Crore)

Description	JVVNL	AVVNL	JdVVNL	Total
O&M expenses (as per norms)	110	75	82	267
Maintenance Spare (as per norms)	199	136	147	481
Receivables (as per norms)	2480	1785	2068	6333
<b>Less:</b>				
Security Deposit of Consumers	1178	987	728	2893
Total Working Capital	1611	1009	1569	4188
Interest Rate (%)	11.83%	11.83%	11.83%	
<b>Interest on Working Capital</b>	<b>190</b>	<b>119</b>	<b>186</b>	<b>495</b>

## Depreciation

### Petitioners' Submission

- 3.127 The Discoms have submitted that for computation of depreciation they have considered the specified rates as provided in the RERC Tariff Regulations, 2019 in Annexure-I based on Straight Line Method (SLM).
- 3.128 The Discoms have submitted the following Depreciation for FY 2019-20:

**Table 46: Depreciation for FY 2019-20 (Rs. In Crore)**

Particulars	JVVNL	AVVNL	JdVVNL	Total
Depreciation	1038	816	837	2691

### Commission's Analysis

- 3.129 Commission has considered depreciation based on the following consideration:
- The closing balance of depreciable assets allowed in the true up order for FY 2017-18 has been considered by the Commission as the opening balance for FY 2018-19.
  - The capitalization during the year, capital expenditure financed by consumer contribution & grants and depreciable assets added during the Year for FY 2018-19 has been considered as per order dated 28.05.2018 to arrive at the opening balance of loan of FY 2019-20.
  - Capitalization, consumer contribution and grants for FY 2019-20 has been considered as discussed earlier.
  - Depreciable assets for FY 2019-20 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 2017-18.

### Fixed Asset Register:

- 3.130 It is observed that as per section 7(2) of Rajasthan State Electricity Distribution Management Responsibility Act, 2016 the Distribution Licensees were to complete physical verification and prepare fixed assets register as per accounting standards prescribed under the Companies Act, 2013 within two years. Commission during previous years had directed the

Discoms to furnish fixed asset Register. However, till now Discoms have not filed the Fixed Assets Register before the Commission. Discoms are accordingly again directed to furnish Fixed Assets Register alongwith physical verification report in their next true up/ tariff filing.

3.131 Due to continuous non compliance of Commission directive, in the instant order the Commission has deducted 5% of approved depreciation. The same shall be reconsidered at the time of true up subject to filing of asset register by Discoms. However, if the Discoms fail to submit the Fixed Assets Register with next tariff filing, the Commission may consider to increase the percentage of deduction.

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

**Table 47: Depreciation allowed by the Commission for FY 2019-20 (Rs. In Cr.)**

Particulars	JVVNL	AVVNL	JdVVNL	Total
Depreciable Assets at the beginning of the Year (A)	14655	9962	10048	34665
Capitalization during the year (B)	1417	1372	1513	4302
less: Consumer Contribution and Capital Grants during the year (C)	209	188	365	763
Depreciable Assets added during the Year D=(B-C)	1208	1184	1148	3539
Depreciable Assets at the end of the Year (E= (A+D))	15863	11146	11195	38204
Average Depreciable Assets during the Year (F=(A+E)/2)	15259	10554	10622	36435
Average Depreciation Rate (G)	4.96%	5.20%	5.04%	
<b>Depreciation (F X G)</b>	<b>757</b>	<b>549</b>	<b>535</b>	<b>1841</b>
Approved Depreciation after reduction of 5% due to non submission of fixed assets register	<b>719</b>	<b>521</b>	<b>509</b>	<b>1749</b>

## Insurance Expenses

### Petitioners' Submission

3.133 Discoms have estimated the Insurance expenses for FY 2019-20 on the basis of net fixed assets subject to the ceiling specified in Regulation 25 of the RERC Tariff Regulations, 2019.



**Table 48: Insurance Expenses- Discoms submission for FY 2019-20 (Rs. in Cr.)**

Particulars	JVVNL's submission	AVVNL's submission	JdVVNL's submission	Total
Insurance charges	30	22	23	75

**Commission's Analysis**

- 3.134 Commission has allowed Insurance expenses in accordance with Regulation 25 of RERC Tariff Regulations, 2019.
- 3.135 To compute the insurance expenses on average Net Fixed Assets (NFA) as per aforesaid regulation, the Commission has considered the following:
- The closing Net Fixed Assets for FY 2018-19 is considered as opening balance as 1.04.2019.
  - The capitalization as discussed in above Para's have been added and depreciation during the year has been deducted from the above opening balance to arrive at closing balance.
- 3.136 Accordingly, the following insurance expenses have been computed on the average NFA.

**Table 49: Insurance Expenses Approved for FY 2019-20 (Rs. in Crore)**

Particulars	JVVNL's Approved	AVVNL's Approved	JdVVNL's Approved	Total
Insurance charges	30	21	21	72

**Return on Equity****Petitioners' Submission**

- 3.137 Discoms submitted that till now they had not claimed Return on Equity as part of its tariff. At present, the Discoms are generating revenue to meet the power purchase and O&M expenses and are still left with a substantial revenue gap. Due to this, there is less scope for further investments in terms of system augmentation, adoption of new technology, etc. Thus, in order to meet such expenses the Discoms need to look for additional sources of revenue apart from sale of power to consumers. RoE would help the Discoms in meeting such requirements.
- 3.138 The Discoms have submitted that for computation of Return on Equity they have considered the RERC Tariff Regulations, 2019.

3.139 The submission of the three Discoms with respect to Return on Equity has been tabulated below:

**Table 50: Return on Equity**

Sr. No.	Particulars	JVVNL	AVVNL	JDVVNL	Total
1.	Gross GFA	21838	16575	17563	55976
2.	30% of GFA	6551	4972	5269	16792
3.	Normative Equity	6551	4972	5269	16792
4.	Actual Equity	10195	9509	10096	29800
5.	Minimum of Normative or Actual Equity	6551	4972	5269	16792
6.	RoE % Considered	5.00%	5.00%	5.00%	
<b>7.</b>	<b>Return on Equity ( RoE )</b>	<b>328</b>	<b>249</b>	<b>263</b>	<b>840</b>

**Commission's Analysis**

3.140 It is observed that Discoms have claimed RoE at 5% of Equity base. However, Discoms have not furnished the approval of government for claiming the Return on Equity, therefore, the Commission has not allowed Return on Equity for FY 2019-20.

**Non-Tariff Income and Wheeling Charges**

**Petitioners' Submission**

3.141 Discoms have projected Non-Tariff Income for FY 2019-20 as per the norms in RERC Tariff Regulations, 2019.

3.142 Discoms submitted that the income from wheeling charges, cross subsidy surcharge and additional surcharge for FY 2019-20 have been considered as per income for FY 2018-19 as given below :

**Table 51: Non-Tariff Income for FY 2019-20 (Rs. In Crore)**

Particulars	JVVNL	AVVNL	JdVVNL	Total
Non-Tariff Income	437	386	372	1194
Income from Wheeling Charges, Cross Subsidy Surcharge and Additional Surcharge	58	64	36	158
<b>Total</b>	<b>494</b>	<b>450</b>	<b>408</b>	<b>1352</b>

**Commission's Analysis**

3.143 The Commission has considered the non-tariff income for FY 2019-20 excluding Deferred income from Government Grant.

3.144 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 52: Non-Tariff Income for FY 2019-20 (Rs. In Crore)**

Particulars	JVVNL	AVVNL	JdVVNL	Total
Non-Tariff Income	279	228	140	647
Income from Wheeling Charges, Cross Subsidy Surcharge and Additional Surcharge	58	64	36	158
<b>Total</b>	<b>337</b>	<b>293</b>	<b>176</b>	<b>805</b>

### Aggregate Revenue Requirement

#### Petitioners' Submission

3.145 The Annual Revenue Requirement for FY 2019-20 proposed by the three Discoms have been given in the table below:

**Table 53: Summary of ARR for FY 2019-20 – Discoms' submission (Rs. Crore)**

Sr. No.	Particulars	JVVNL	AVVNL	JdVVNL	Total
		Submission			
		FY 2019-20			
1	Power Purchase Cost	13366	8678	8887	30930
2	<b>Transmission Charges</b>				
	PGCIL & Others	927	624	750	2301
	RVPN	935	630	757	2322
	SLDC/RLDC	6	4	5	14
3	Operation & Maintenance Expenses	1397	974	1049	3420
4	Terminal Benefit	550	648	625	1823
5	Interest and Finance Charges	606	468	612	1686
6	Interest on unfunded gap	1820	1566	1720	5106
7	Interest on working Capital	194	117	165	476
8	Depreciation	1038	816	837	2691
9	Insurance charges	30	22	23	75
10	Return on Equity	328	249	263	840
11	Interest on Uday Loan	757	742	687	2186
12	Prior Period	61	44	16	121
13	<b>Aggregate Revenue Requirement</b>	<b>22013</b>	<b>15583</b>	<b>16397</b>	<b>53992</b>
14	Less: Non-Tariff Income	437	386	372	1194
15	Less: Cross Subsidy and Additional Surcharge	58	64	36	158

Sr. No.	Particulars	JVVNL	AVVNL	JdVVNL	Total
		Submission			
		FY 2019-20			
16	<b>Net Aggregate Revenue Requirement</b>	<b>21518</b>	<b>15133</b>	<b>15989</b>	<b>52640</b>

### Commission's Approval

3.146 Commission has approved the ARR for FY 2019-20 based on the items of expenditure discussed in the preceding sections and the same has been summarized in the table below:

**Table 54: Summary of ARR for all the three Discoms for FY 2019-20 – Approved by Commission (Rs. Crore)**

Sr. No.	Particulars	JVVNL	AVVNL	JdVVNL	Total
		Approved			
		FY 2019-20			
1	Power Purchase Cost	12559	8809	10191	31559
2	<b>Transmission Charges</b>				
	PGCIL & Other	927	624	750	2301
	RVPN	1054	710	853	2617
	SLDC/RLDC	10	6	8	24
3	Operation & Maintenance Expenses	1324	905	980	3208
4	Terminal Benefit	550	648	625	1823
5	Interest and Finance Charges	796	374	539	1709
6	Interest on unfunded gap	1495	1296	1571	4362
7	Interest on working Capital	190	119	186	495
8	Depreciation	719	521	509	1749
9	Insurance charges	30	21	21	72
10	Return on Equity	0	0	0	0
11	Interest on Uday Loan	520	538	488	1546
12	Aggregate Revenue Requirement	<b>20174</b>	<b>14573</b>	<b>16719</b>	<b>51465</b>
13	Less: Non-Tariff Income	279	228	140	647
14	Less: Cross Subsidy and Additional Surcharge	58	64	36	158
15	Net Aggregate Revenue Requirement	<b>19837</b>	<b>14280</b>	<b>16543</b>	<b>50660</b>

\*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

- 3.147 Discoms have projected the revenue based on energy sales forecasts for the period and the applicable retail tariff as per the RERC's Tariff Orders.
- 3.148 The revenue in FY 2019-20 from existing tariff as per Discoms' submission is as under:

**Table 55: Revenue from existing tariff for FY 2019-20– Discoms' submission**  
(Rs. Crore)

Particulars	JVVNL	AVVNL	JdVVNL	Total
	Submission			
	FY 2019-20			
Domestic Service	3,837	2,672	2,400	8,909
Non-Domestic Service	2,479	1,278	1,308	5,065
Public Street Light	124	82	86	292
Agriculture Metered Supply	3,502	2,566	5,295	11,363
Agriculture Flat Rate Supply	128	261	607	996
Small Industrial Service	258	214	172	644
Medium Industrial Service	710	733	608	2,051
Large Industrial Service	5,027	3,269	1,595	9,891
Power Intensive Industries	1,267	265	32	1,564
P.W.W. & S. Pumping –Small	217	29	197	443
P.W.W. & S. Pumping –Medium	24	232	79	335
P.W.W. & S. Pumping –Large	266	101	451	818
Mixed Load / Bulk Supply	153	940	323	1,416
<b>Total</b>	<b>17,992</b>	<b>12,642</b>	<b>13,154</b>	<b>43,787</b>

#### Subvention and Subsidy

- 3.149 Discoms have shown Subvention from State Govt. against electricity duty, subsidy against compounding charges for FY 2019-20 as under:

**Table 56: Subvention and subsidy for FY 2019-20**  
(Rs. Crore)

Particulars	JVVNL	AVVNL	JdVVNL	Total
	Submission			
	FY 2019-20			
Subvention from State Govt. against ED	738	505	410	1653
Subsidy against compounding charges	31	17	8	57
<b>Total Subsidy Amount</b>	<b>770</b>	<b>522</b>	<b>418</b>	<b>1710</b>

### Revenue Deficit

3.150 The revenue deficits submitted by Discoms for FY 2019-20 at the existing tariff have been provided in the table below:-

**Table 57: Revenue Deficit/Surplus at existing tariff for FY 2019-20 (Rs. Crore)**

Particulars	JVVNL	AVVNL	JdVVNL	Total
	Submission			
	FY 2019-20			
<b>Net Aggregate Revenue Requirement (A)</b>	<b>21,518</b>	<b>15,133</b>	<b>15,989</b>	<b>52,640</b>
<b>Revenue from Existing tariff (B)</b>	<b>17,992</b>	<b>12,642</b>	<b>13,154</b>	<b>43,788</b>
Subvention from State Govt. against ED	738	505	410	1,653
Subsidy against compounding charges	31	17	8	57
Total of subvention against ED and Subsidy (C)	770	522	418	1,710
<b>Deficit including Carrying cost D= (A-B-C)</b>	<b>(2,756)</b>	<b>(1,968)</b>	<b>(2,417)</b>	<b>(7,142)</b>

### Commission's Analysis:

3.151 Commission has calculated the revenue from existing tariff on the basis of consumer category wise energy sales approved by the Commission in this order for FY 2019-20 and retail tariff order dated 28.05.2018. The estimated revenue at existing tariff for different consumer categories for all the three Discoms for FY 2019-20 has been summarized in the table below:

**Table 58: Revenue from Existing Tariff for FY 2019-20- Approved by the Commission (Rs. Crore)**

Particulars	JVVNL	AVVNL	JdVVNL	Total
	Approved			
	FY 2019-20			
Domestic Service	3958	2727	2476	9,161
Non-Domestic Service	2562	1372	1297	5,230
Public Street Light	127	72	78	277
Agriculture Metered Supply	3425	2497	5054	10,976
Agriculture Flat Rate Supply	128	261	612	1,001
Small Industrial Service	255	211	171	637
Medium Industrial Service	697	730	584	2,012
Large Industrial Service	6064	4062	1526	11,651
P.W.W. & S. Pumping –Small	220	253	197	669
P.W.W. & S. Pumping –Medium	23	28	76	127
P.W.W. & S. Pumping –Large	284	231	442	957

Particulars	JVVNL	AVVNL	JdVVNL	Total
	Approved			
	FY 2019-20			
Mixed Load / Bulk Supply	158	96	319	573
<b>Total</b>	<b>17,901</b>	<b>12,539</b>	<b>12,830</b>	<b>43,270</b>

### ARR and Revenue

- 3.152 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 2019-20 at the existing tariff has been worked out.

**Table 59: Revenue Deficit/Surplus at existing tariff for FY 2019-20 – Approved by the Commission** (Rs. Crore)

Particulars	JVVNL	AVVNL	JdVVNL	Total
	Approved			
	FY 2019-20			
Net Aggregate Revenue Requirement (A)	19,837	14,280	16,543	<b>50,660</b>
Revenue from Existing tariff (B)	17,901	12,539	12,830	<b>43,270</b>
Subvention from State Govt. against ED	738	505	410	<b>1,653</b>
Subsidy against compounding charges	31	17	8	<b>57</b>
Total of subvention against ED and Subsidy (C)	770	522	418	<b>1,710</b>
<b>Deficit including Carrying cost D= (A-B-C)</b>	<b>(1,166)</b>	<b>(1,219)</b>	<b>(3,295)</b>	<b>(5,680)</b>
Add: Consumer Education	<b>0.50</b>	<b>0.50</b>	<b>0.50</b>	<b>1.50</b>
<b>Net Deficit including Carrying cost</b>	<b>(1,166)</b>	<b>(1,219)</b>	<b>(3,296)</b>	<b>(5,681)</b>

#### 4.1 Tariff proposal for FY 2019-20

4.1.1 Discoms have proposed revision of tariff which would lead to an additional revenue of Rs. 5175 crore during 2019-20 as follows:

**Table 60: Expected Additional Revenue as proposed by Discoms for FY 2019-20 (Rs.Crore)**

Particulars	Expected Additional Revenue
JVVNL	1,943
AVVNL	1,339
JdVVNL	1,893
<b>Total</b>	<b>5,175</b>

4.1.2 Considering a wide gap between average cost of supply and average realization, revision of tariff becomes a necessary measure.

4.1.3 Discoms have also proposed certain rationalization measures in order to facilitate better utilization of resources, economic pricing and better revenue management.

#### 4.2 Tariff Philosophy

4.2.1 While determining the tariff in this order, the Commission is guided by the principles stated in section 61 of the Electricity Act, 2003 and RERC (Terms and Conditions for Determination of Tariff) Regulations, 2019, which interalia provide the following:

- That the distribution and supply of electricity are conducted on commercial basis;
- Safeguarding of consumers' interest and at the same time, recovery of the cost of electricity in a reasonable manner;
- That competition, efficiency, economical use of resources, good performance, and optimum investment are encouraged;
- That the tariff progressively reflects the cost of supply of electricity, and also reduces cross subsidies in the manner specified by the Commission;
- That efficiency in performance is to be rewarded.

4.2.2 Section 62(3) of the Act provides that the Appropriate Commission shall not, while determining the tariff under this Act, show undue preference to any consumer of electricity but may differentiate according to the consumer's load factor, power factor, voltage, total consumption of



electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required.

- 4.2.3 The Regulations of the Commission as well as National Tariff Policy visualize cross subsidy to be in +/- 20% range of average cost of supply and this has been considered in the Order.
- 4.2.4 Therefore, while finalizing the tariff for different consumer categories, the Commission has given due consideration to the relevant provisions of the Act/Tariff Policy proposals of the licensees, comments of the Stakeholders, Commission's decision thereon and the position of cross subsidy.
- 4.2.5 The tariff has been determined for each category without considering any subsidy. The subsidy, if provided by the Govt., would result in reduced amount payable by consumer of such category. Further, the Government, if it provides subsidy, should pay such subsidy in advance as per RERC (Terms & Conditions for Determination of Tariff) Regulations, 2019.
- 4.2.6 There are various reasons for the accumulated losses including high Distribution losses. However, one of the main reasons for accumulation of losses is non increase in tariff for FY 2005-06 to FY 2010-11. Tariff for FY 2011-12 was also made effective in September 2011, thereafter, regular tariff increase were made till 2016. Since last three years no tariff increase has been made considering that Discoms will met the gap by improvement in efficiency and cost optimization. However, certain gap still remained and to meet the gap of these years, the Discoms had to resort to short terms loans at high interest every year.
- 4.2.7 Though Government of India and Government of Rajasthan have initiated UDAY Scheme to bridge gap and reduce the distribution losses to specified level but due to Discoms inefficiency, various targets including the distribution losses could not be achieved by the Discoms. The Government of Rajasthan has also recovered interest on unconverted loan given under UDAY from Rajasthan Discoms as discussed in ARR section.
- 4.2.8 The Commission, after truing up and disallowing excess losses and

expenditure beyond normative levels, has recognized cumulative unfunded gap of Rs. 41022 crore till FY 2017-18 and has allowed carrying cost for this gap along with gap of FY 2018-19 as determined vide ARR Order dated 28.05.2018.

- 4.2.9 For FY 2019-20, Discoms projected an ARR of Rs. 52640 Crore and net deficit of Rs. 7142 Crores after receipt of Govt. subsidy at existing tariff. After disallowing excess losses and considering other costs on normative basis, the Commission has determined the net ARR as Rs. 50660 Crores with a net deficit of Rs. 5681 Crores at existing tariff for the full year.
- 4.2.10 A lot of Stakeholders in their submissions have submitted that the tariff should not be increased as it is already high. However, the Commission has to consider the financial health of Discoms as it will affect Discoms' capacity to serve consumers. It is observed that major components of Discoms' cost are power purchase with transmission cost and interest on unfunded revenue gap. Without tariff increase, Discoms will not be able to pay generators for the power purchase or may default in service of debt and its repayment. Such a scenario would result in large power cuts and inability of Discoms to maintain Standards of Performance and quality of supply.
- 4.2.11 If the request of the Stakeholders for not increasing the tariff is considered and gap recognized by the Commission even for the FY 2019-20 is not filled at least partially, the Discoms will have to resort to more short term borrowings against this gap which will further add to their interest liability, and unfunded gap will increase exponentially like in previous years when tariff was not increased. It is also observed that last tariff was increased vide order dated 22.09.2016 and thereafter tariff was not increased and Discoms were supposed to take cost optimization and efficiency measures to reduce the cost. However, even after considering the losses and cost at normative level there is still a gap of Rs. 5681 crores in ARR of Discoms.
- 4.2.12 As discussed above, such non increase of tariff will continue to badly affect the capacity of Discoms to discharge their liability towards generators and for other services rendered to them which in turn will affect the interest of the consumers. Present tariff increase will be effective for only part of the year and even with this tariff increase, the revenue gap of

Discoms for FY 2019-20 will not be fully filled up. Looking to the present gap in ARR, financial position of Discoms and looking to the fact that the last tariff was revised in year 2016, tariff increase is inevitable at present.

- 4.2.13 Considering the financial and other relevant factors, the Commission has determined the new tariffs as discussed hereinafter. Category wise specific proposals of the Discoms and approval of the Commission are being discussed in the following paras.

### **Category Wise Tariff**

#### **4.3 Domestic Service (LT-1 and HT-1)**

- 4.3.1 Discoms have not proposed any increase in energy and fixed charges for BPL and small domestic consumers.
- 4.3.2 For general domestic consumers, Discoms have proposed to merge the existing slab of general domestic consumers having consumption in the slab of 0 to 50 units and 51 to 150 units per month to new slab of 0 to 150 units per month.
- 4.3.3 For new slab of general domestic consumers having consumption of 0 to 150 units per month, Discoms have proposed an increase in fixed charges from existing Rs. 200/connection/month to Rs. 230/connection/month. Change in energy charges for consumers having consumption in the slab of 0 to 150 units per month has been proposed to Rs. 5.75 per unit. Which reflects increase in tariff for consumers having consumption in the slab of 0-50 units per month (existing Rs. 3.85 per unit) and decrease in tariff for consumers having consumption in the slab of 51 to 150 units per month (existing Rs. 6.10 per unit).
- 4.3.4 For general domestic consumers having consumption in the slab of 151-300 units per month, Discoms have proposed an increase in fixed charges from existing Rs. 220 per month to Rs. 275 per month. Increase in energy charges has been proposed from existing Rs. 6.40 per unit to Rs. 7.35 per unit.
- 4.3.5 For general domestic consumers having consumption in the slab of 301 to 500 units per month, Discoms have proposed an increase in fixed charges from existing Rs. 265 per month to Rs. 345 per month. Increase in energy charges has been proposed from existing Rs. 6.70 per unit to Rs. 7.65 per unit.

- 4.3.6 For general domestic consumers having consumption above 500 units per month, Discoms have proposed an increase in fixed charges from existing Rs. 285 per month to Rs. 430 per month. Increase in energy charges has been proposed from existing Rs. 7.15 per unit to Rs. 7.95 per unit for entire consumption.
- 4.3.7 In case of HT domestic category, Discoms have proposed an increase in fixed charges from existing Rs. 190 per KVA of billing demand per month to Rs. 250 per KVA of billing demand per month. Increase in energy charges has been proposed from existing Rs. 6.15 per unit to Rs. 7.10 per unit.
- 4.3.8 Discoms submitted that the consumers face challenges in accurately assessing their fixed charges on basis of current consumption in the bill. As per existing tariff provisions the fixed charges are levied on the basis of average monthly consumption of previous financial year for LT domestic category. To remove this difficulty, Discoms have proposed to charge fixed charges as per the consumption recorded in the respective billing month. The same has been dealt by Commission separately in this order.
- 4.3.9 It has been observed that apart from BPL there is a sub-category namely "small Domestic" for which no increase has been proposed by Discoms. There are approximately 42 lakh consumers in this category. There are already 5 slabs in general domestic category and for consumers with 0-50 units consumption/month a lower tariff has already been provided. As such, in commission's view, there is no point in continuing with a separate sub-category called "small Domestic" with consumption upto 50 units/month. Moreover, Discoms are not able to recover its ARR fully. Accordingly, the Commission has marginally increased fixed charges for small Domestic category to Rs. 125/connection/month and directs Discoms to submit suitable proposals for merging this subcategory with general domestic consumers along with next tariff petition.
- 4.3.10 With regard to Discoms' proposal for removing telescopic tariff for consumption above 500 units per month, many of stakeholders have requested to continue with existing telescopic nature of tariff to avoid tariff shock to the consumers of the State. In view of above, the Commission is not inclined to accept the Discom's proposal of removing telescopic tariff for consumption above 500 units per month.

4.3.11 The existing tariff, proposed tariff and that approved by the Commission, considering the comments/suggestions received, are given in the following tables:

**Table 61: Existing and Proposed Tariff for Domestic Category for FY 2019-20**

Existing Tariff			Proposed Tariff		
Particulars	Energy Charges	Fixed Charges	Particulars	Energy Charges	Fixed Charges
<b>Domestic (DS/LT-1)</b>					
<b>BPL and Astha Card Holders*</b>					
Consumption up to first 50 units per Month	Rs. 3.50 per unit	Rs. 100 per connection per month	Consumption up to first 50 units per month	Rs. 3.50 per unit	Rs. 100 per connection per month
<b>Small Domestic (Consumption up to 50 units per month)**</b>					
Consumption up to first 50 units per month	Rs. 3.85 per unit	Rs. 100 per connection per month	Consumption up to first 50 units per month	Rs. 3.85 per unit	Rs. 100 per connection per month
<b>General Domestic – 1 (Consumption up to 150 units per month)</b>			<b>General Domestic – 1 (Consumption up to 150 units per month)</b>		
Consumption up to first 50 units per month	Rs. 3.85 per unit	Rs. 200 per connection per month	Consumption up to first 150 units per month	Rs. 5.75 per unit	Rs. 230 per connection per month
Consumption above 50 units and up to 150 units per month	Rs. 6.10 per unit				
<b>General Domestic – 2 (Consumption up to 300 units per month)</b>			<b>General Domestic – 2 (Consumption up to 300 units per month)</b>		
Consumption up to first 50 units per month	Rs. 3.85 per unit	Rs. 220 per connection per month	Consumption up to first 150 units per month	Rs. 5.75 per unit	Rs. 275 per connection per month
Consumption above 50 units and up to 150 units per month	Rs. 6.10 per unit				
Consumption above 150 units and up to 300 units per month	Rs. 6.40 per unit				
<b>General Domestic – 3 (Consumption up to 500 units per month)</b>			<b>General Domestic – 3 (Consumption up to 500 units per month)</b>		
Consumption up to first 50 units per month	Rs. 3.85 per unit	Rs. 265 per connection per month	Consumption up to first 150 units per month	Rs. 5.75 per unit	Rs. 345 per connection per month
Consumption above 50 units and up to 150 units per month	Rs. 6.10 per unit				
Consumption above 150 units and up to 300 units per month	Rs. 6.40 per unit				
Consumption above 300 units and up to	Rs. 6.70 per unit				
			Consumption above 150 units and up to 300 units per month	Rs. 7.35 per unit	
			Consumption above 300 units	Rs. 7.65 per unit	

Existing Tariff			Proposed Tariff		
Particulars	Energy Charges	Fixed Charges	Particulars	Energy Charges	Fixed Charges
500 units per month			and up to 500 units per month		
<b>General Domestic – 4 (Consumption above 500 units per month)</b>			<b>General Domestic – 4 (Consumption above 500 units per month)</b>		
Consumption up to first 50 units per month	Rs. 3.85 per unit	Rs. 285 per connection per month	For entire consumption per month	Rs. 7.95 per unit	Rs. 430 per connection per month
Consumption above 50 units and up to 150 units per month	Rs. 6.10 per unit				
Consumption above 150 units and up to 300 units per month	Rs. 6.40 per unit				
Consumption above 300 units and up to 500 units per month	Rs. 6.70 per unit				
Consumption above 500 units per month	Rs. 7.15 per unit				
<b>HT Domestic (DS/HT-1)</b>			<b>HT Domestic (DS/HT-1)</b>		
For contract demand above 50 kVA	Rs. 6.15 per unit	Rs. 190 per kVA of billing Demand per month	For contract demand above 50 kVA	Rs. 7.10 per unit	Rs. 250 per kVA of billing demand per month

*\*Government subsidy as per government order for BPL, Astha Card holders and Small Domestic consumers*

*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 units 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.*

*\*\*Subsidy is admissible only if consumption does not exceed 50 units in any month.*

**Table 62: Domestic Category (LT-1 and HT-1) -Approved tariff for FY 2019-20 (BPL, Astha Card Holders and Small Domestic having consumption upto 50 units per month)**

**BPL, Astha Card Holders and Small Domestic**

<b>Domestic Category</b>		
<b>Particulars</b>	<b>Approved Tariff</b>	
	<b>Energy Charges</b>	<b>Fixed Charges</b>
<b>BPL and Astha card Holders*</b>		
For consumption upto first 50 units per month	Rs. 3.50/ unit	Rs. 100/ connection / month
<b>Small Domestic*</b>		
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**

<b>Domestic Category</b>		
<b>Particulars</b>	<b>Approved Tariff</b>	
<b>General Domestic-1 (Consumption upto 150 units/month)</b>		
	<b>Energy Charges</b>	<b>Fixed Charges</b>
(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**

<b>Domestic Category</b>		
<b>Particulars</b>	<b>Approved Tariff</b>	
<b>General Domestic-2 (Consumption above 150 units and upto 300 units/month)</b>		
	<b>Energy Charges</b>	<b>Fixed Charges</b>
(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	Rs. 7.35/ unit	

Domestic Category	
Particulars	Approved Tariff
and upto 300 units per month	

### 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



## **Applicability for Domestic category:**

### **Petitioners' submission**

4.3.12 The Discoms have proposed the following applicability of Domestic tariff:

- Available to residential consumers for bona fide domestic uses i.e. lights, fans, radios, televisions, heaters, cookers, refrigerators, pumps, grinders and other domestic appliances.
- Also available to Education Centers meant for rehabilitation of mentally & physically handicapped persons, Kishore Grah Sanstha, Orphanages, Leper Homes & Yatimkhanas registered/recognized by the Social Welfare Department or any other Government Authority, Places of Public Worship having sanctioned connected load up to 5KW, Old People's Homes, Mother Teresa Homes, Moksh Dhams, Cemeteries, Grave Yards, Public Water Pyau offering drinking water to all persons free of cost,
- Hostels run by the Government/Government recognised educational institutions, registered charitable institutions, and those meant for students for bona fide residential uses, excluding transit hostels/working hostels.
- All Government run schools
- Gaushalas
- Dharamshalas within temple premises will be charged under Domestic category
- Farm houses for bona fide domestic use, Community Kitchens setup under Mid-Day Meal Programme of the Govt. of Rajasthan and also for Community Kitchens setup in accordance with guidelines issued by Rural Developments and Panchayat Raj Department for Mid-Day Meal Programme 2006.
- Also available to residential quarters/colonies belonging to any type of establishments for bona fide domestic uses as mentioned herein above provided where Discom's distribution system exists for releasing individual connections.
- In case of a single connection (other than Residential colony) having demand more than 50 KVA, the supply voltage will be as prescribed under Clause (b) "Character of Service" of this schedule. The billing in such cases shall be done like other consumers under this tariff schedule.

## **Commission's view**

4.3.13 It is observed that aforesaid changes in applicability of tariff are in public interest and for bringing in clarity . Therefore, the Commission accepts the aforesaid applicability of Domestic category with slight changes as under:

- Available to residential consumers for bona fide domestic uses i.e. lights, fans, radios, televisions, heaters, cookers, refrigerators, pumps, grinders and other domestic appliances.
- Also available to Education Centers meant for rehabilitation of mentally & physically handicapped persons, Kishore Grah Sanstha, Orphanages, Leper Homes & Yatimkhanas registered/recognized by the Social Welfare Department or any other Government Authority, Places of Public Worship having sanctioned connected load up to 5KW, Old People's Homes, Mother Teresa Homes, Moksh Dhams, Cemeteries, Grave Yards, Public Water Pyau offering drinking water to all persons free of cost.
- Hostels run by the Government/Government recognised educational institutions, registered charitable institutions, and those meant for students for bona fide residential uses, excluding transit hostels/working hostels.
- All Government run schools
- Recognized and registered Gaushalas
- Dharamshalas within premises of place of public worship will be charged under Domestic category
- Farm houses for bona fide domestic use, Community Kitchens setup under Mid-Day Meal Programme of the Govt. of Rajasthan and also for Community Kitchens setup in accordance with guidelines issued by Rural Developments and Panchayat Raj Department for Mid-Day Meal Programme 2006.
- Also available to residential quarters/colonies belonging to any type of establishments for bona fide domestic uses as mentioned herein above provided where Discom's distribution system exists for releasing individual connections.
- In case of a single connection (other than Residential colony) having demand more than 50 KVA, the supply voltage will be as prescribed under Clause (b) "Character of Service" of this schedule. The billing in such cases shall be done like other consumers under this tariff schedule.

#### **4.4 Non-Domestic Service (LT-2 & HT-2) :**

- 4.4.1 The fixed charges for consumers upto 5 KW of sanctioned connected load and having consumption upto 100 units per month, i.e., Rs. 230/connection/month have been proposed to be increased to Rs. 300/connection/month, whereas no increase in energy charges of above slab has been proposed i.e., it is kept at the same rate of Rs. 7.55 per unit.
- 4.4.2 Discoms have proposed to abolish the telescopic approach of billing to consumers for all slabs of Non Domestic category. Therefore, the existing slab of 0-100 units, 101 to 200 units, 201 units to 500 units and above 500 units per month have been changed to 0-100 units, 0-200 units, 0-500 units and above 500 units per month.
- 4.4.3 The fixed charges for consumers upto 5 KW of sanctioned connected load and having consumption upto 200 units per month, i.e., Rs. 230/connection/month have been proposed to be increased to Rs. 300/connection/month, whereas energy charges are revised to Rs. Rs. 8.00 per unit for entire consumption upto 200 units per month.
- 4.4.4 The fixed charges for consumers upto 5 KW of sanctioned connected load and having consumption upto 500 units per month, i.e., Rs 275/connection/month have been proposed to be increased to Rs. 440/connection/month, whereas energy charges are revised to Rs. 8.35 per unit for entire consumption upto 500 units per month.
- 4.4.5 The fixed charges for consumers upto 5 KW of sanctioned connected load and having consumption above 500 units per month, i.e., Rs 330/connection/month have been proposed to be increased to Rs. 660/connection/month, whereas energy charges are revised to Rs. 9.30 per unit for entire consumption.
- 4.4.6 The fixed charges for consumers above 5 KW of sanctioned connected load and having consumption upto 500 units per month in the slab of 0-100 units, 0-200 units and 0-500 units per month, i.e., Rs. 95/KW of SCL per month have been proposed to be increased to Rs. 190/ KW of SCL per month, whereas no increase in energy charges of above three slabs has been proposed but telescopic benefit will not available.

- 4.4.7 The fixed charges for consumers above 5 KW of sanctioned connected load and having consumption above 500 units per month have been proposed to be increased from Rs 105/KW of SCL per month or Rs.190 per kVA of Billing Demand per month (If SCL is more than 18.65 KW) to Rs. 210/KW of SCL per month or Rs. 380 per kVA of Billing Demand per month (If SCL is more than 18.65 KW), whereas increase in energy charges of above slab has been proposed from Rs. 8.80 per unit to Rs. 9.30 per unit.
- 4.4.8 The fixed charges for NDS/HT-2 of Rs. 190/KVA of billing demand per month have been proposed to be increased to Rs. 380/KVA of billing demand per month, whereas no increase in energy charges of above slab has been proposed.
- 4.4.9 Discoms submitted that the consumers faced challenges in accurately assessing their fixed charges on basis of current consumption in the bill. As per existing tariff provisions the fixed charges are levied on the basis of average monthly consumption of previous financial year for LT Non-domestic category. To remove this difficulty, Discoms proposes to charge fixed charges as per the consumption recorded in the respective billing month. The same has been dealt by Commission separately in this order.
- 4.4.10 With regard to Discom's proposal of removing telescopic tariff for consumption for various type of consumers, many of stakeholders have requested to continue with existing telescopic nature of tariff to avoid tariff shock to the consumers of the State. In view of above, the Commission is not inclined to accept the Discom's proposal of removing telescopic tariff.
- 4.4.11 The existing tariff, proposed tariff and that approved by the Commission, considering the comments/ suggestions received, are given in the following tables:

**Table 63: Existing and Proposed Tariff for Non-Domestic Category (LT-2 and HT-2) for FY 2019-20**

Existing Tariff			Proposed Tariff		
Particulars	Energy Charges	Fixed Charges	Particulars	Energy Charges	Fixed Charges
<b>Non-Domestic (NDS/LT-2)</b>					
<b>NDS up to 5 kW of SCL (Type 1) Consumption up to 100 units per month</b>			<b>NDS up to 5 kW of SCL (Type 1) Consumption up to 100 units per month</b>		

Existing Tariff			Proposed Tariff		
Particulars	Energy Charges	Fixed Charges	Particulars	Energy Charges	Fixed Charges
Consumption up to first 100 units per month	Rs. 7.55 per unit	Rs. 230 per connection per month	Entire Consumption up to 100 units per month	Rs. 7.55 per unit	Rs. 300 per connection per month
<b>NDS up to 5 kW of SCL (Type 2) Consumption up to 200 units per month</b>			<b>NDS up to 5 kW of SCL (Type 2) Consumption up to 200 units per month</b>		
Consumption up to first 100 units per month	Rs. 7.55 per unit	Rs.230 per connection per month	Entire Consumption up to 200 units per month	Rs. 8.00 per unit	Rs. 300 per connection per month
Consumption above 100 Units and up to 200 Units per Month	Rs. 8.00 per unit				
<b>NDS up to 5 kW of SCL (Type 3) Consumption up to 500 units per month</b>			<b>NDS up to 5 kW of SCL (Type 3) Consumption up to 500 units per month</b>		
Consumption up to first 100 units per month	Rs. 7.55 per unit	Rs. 275 per Connection per month	For entire consumption of upto 500 units per month	Rs. 8.35 per unit	Rs. 440 per connection per month
Consumption above 100 Units and up to 200 Units per Month	Rs. 8.00 per unit				
Consumption above 200 Units and up to 500 Units per Month	Rs. 8.35 per unit				
<b>NDS up to 5 kW of SCL (Type 4) Consumption above 500 units per month</b>			<b>NDS up to 5 kW of SCL (Type 4) Consumption above 500 units per month</b>		
Consumption up to first 100 units per month	Rs. 7.55 per unit	Rs. 330 per connection per month	For entire consumption per month	Rs. 9.30 per unit	Rs. 660 per connection per month
Consumption above 100 Units and up to 200 Units per Month	Rs. 8.00 per unit				
Consumption above 200 Units and up to 500 Units per Month	Rs. 8.35 per unit				
Consumption above 500 Units per Month	Rs. 8.80 per unit				
<b>NDS above 5 kW of Sanctioned Connected Load (LT Supply) Consumption above 500 units per month</b>					
Consumption up to first 100 units per month	Rs. 7.55 per unit	Rs. 95 per kW of Sanctioned Connected Load per month	Entire Consumption upto 100 units per month	Rs. 7.55 per unit	Rs. 190 per kW of Sanctioned Connected Load per month
Consumption above 100 Units and up to 200 Units per Month	Rs. 8.00 per unit		Entire Consumption upto 200 units per month	Rs. 8.00 per unit	
Consumption above 200 Units and up to 500 Units per Month	Rs. 8.35 per unit		Entire Consumption upto 500 units per month	Rs. 8.35 per unit	

Existing Tariff			Proposed Tariff		
Particulars	Energy Charges	Fixed Charges	Particulars	Energy Charges	Fixed Charges
Consumption above 500 Units per Month	Rs. 8.80 per unit	Rs. 105 per kW of Sanctioned Connected Load per month or Rs.190 per kVA of Billing Demand per month (If SCL is more than 18.65 KW)	For entire consumption per month	Rs. 9.30 per unit	Rs. 210 per kW of Sanctioned Connected Load per month or Rs.380 per kVA of Billing Demand per month (If SCL is more than 18.65 KW)
<b>Non Domestic (NDS/HT-2) (For Contract Demand over 50 kVA)</b>					
All units	Rs. 8.35 per unit	Rs.190 per kVA of Billing Demand per month	All units	Rs. 8.35 per unit	Rs.380 per kVA of Billing Demand per month

**Table 64: Non-Domestic Category (LT-2 and HT-2) –Approved tariff for FY 2019-20 NDS up to 5 kW of SCL**

**(NDS- Type1)**

Non-Domestic Category		
Particulars	Approved Tariff	
<b>LT-NDS(LT-2)</b>		
<b>Type1 (Consumption upto 100 units/month)</b>		
	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	
<b>LT-NDS(LT-2)</b>		
<b>Type 2 (Consumption above 100 units/month and upto 200 units/month)</b>		
	Energy Charges	Fixed Charges
Consumption upto first 100 units per month	Rs. 7.55 /unit	Rs. 300 / connection /

<b>Non-Domestic Category</b>		
<b>Particulars</b>	<b>Approved Tariff</b>	
<b>LT-NDS(LT-2)</b>		
<b>Type 2 (Consumption above 100 units/month and upto 200 units/month)</b>		
	<b>Energy Charges</b>	<b>Fixed Charges</b>
Consumption above 100 units and upto 200 unit per month	Rs. 8.50 /unit	month

**(NDS- Type 3)**

<b>Non-Domestic Category</b>		
<b>Particulars</b>	<b>Approved Tariff</b>	
<b>LT-NDS(LT-2)</b>		
<b>Type 3 (Consumption above 200 units and upto 500 units/month)</b>		
	<b>Energy Charges</b>	<b>Fixed Charges</b>
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)**

<b>Non-Domestic Category</b>		
<b>Particulars</b>	<b>Approved Tariff</b>	
<b>LT-NDS (LT-2)</b>		
<b>Type 4 (Consumption above 500 units/month)</b>		
	<b>Energy Charges</b>	<b>Fixed Charges</b>
Consumption upto first 100 units per month	Rs. 7.55 /unit	Rs. 460 / connection / month
Consumption above 100 units and upto 200 unit 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**

<b>Non-Domestic Category</b>		
<b>Particulars</b>	<b>Approved Tariff</b>	
<b>NDS above 5 KW of SCL (LT-2)</b>		
	<b>Energy Charges</b>	<b>Fixed Charges</b>
Consumption upto first 100 units per month	Rs. 7.55 /unit	Rs. 135/ KW of SCL / month

<b>Non-Domestic Category</b>		
<b>Particulars</b>	<b>Approved Tariff</b>	
<b>NDS above 5 KW of SCL (LT-2)</b>		
	<b>Energy Charges</b>	<b>Fixed Charges</b>
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 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**

<b>HT-NDS (HT-2)</b>	<b>Approved Tariff</b>	
<b>For contract demand over 50 kVA</b>	<b>Energy Charges</b>	<b>Fixed Charges</b>
All units	Rs. 8.85 /unit	Rs. 270/ kVA of Billing Demand per month

#### **Applicability for Non- Domestic Category:**

##### **Petitioners' Submission**

4.4.12 The Discoms have proposed the following applicability of Non- Domestic tariff:

- *This schedule shall include all categories which are not covered by other tariff schedules of Part-I i.e., DS/LT-1 PSL/LT-3 AG/LT-4 SP/LT-5 MP/LT-6 ML/LT-7 and includes supply of energy for light, fans, heating and power appliances in Commercial and Non-domestic establishments such as shops, business houses, places of public worship having sanctioned connected load above 5KW,*
- *All Dharamshalas excluding those which are a part of any temple's premises,*
- *Transit/Working Hostels, Hotels, restaurants, petrol pumps, service stations, garages, auditoriums, cinemas.*
- *Also applicable to educational institutions, hospitals, nursing homes, dispensaries and clinics which are not maintained and run by Government or agencies of the Government, all telephone service*



*operators (BSNL or otherwise), telephone/mobile exchanges/switches including attached offices, Radio Stations, Television Stations and their Transmitters (including those run by Government/Government undertakings), Wedding houses, Jojoba Cultivation, Nurseries etc. and such portion of residential premises used for the conduct of business or any other activity of these commercial and non-domestic establishments.*

- *Also offices of the Advocates not situated at their own residence.*

**Commission's view:**

4.4.13 With regard to change in applicability of tariff for Non Domestic category, the Commission is of view, the aforesaid changes provide more clarity to the Discoms consumers, Therefore, the Commission accepts the aforesaid applicability of Non-Domestic Category with slight changes as under:

- *This schedule shall include all categories which are not covered by other tariff schedules of Part-I i.e.,DS/LT-1 PSL/LT-3 AG/LT-4 SP/LT-5 MP/LT-6 ML/LT-7 and includes supply of energy for light, fans, heating and power appliances in Commercial and Non-domestic establishments such as shops, business houses, places of public worship having sanctioned connected load above 5KW,*
- *All Dharamshalas excluding those which are a part of place of public worship premises*
- *Transit/Working Hostels, Hotels, restaurants, petrol pumps, service stations, garages, auditoriums, cinemas.*
- *Also applicable to educational institutions, hospitals, nursing homes, dispensaries and clinics which are not maintained and run by Government or agencies of the Government, all telephone service operators (BSNL or otherwise), telephone/mobile exchanges/switches including attached offices, Radio Stations, Television Stations and their Transmitters(including those run by Government/Government undertakings), Wedding houses, Jojoba Cultivation, un-recognized and un-registered Gaushalas, Nurseries etc. and such portion of residential premises used for the conduct of business or any other activity of these commercial and non-domestic establishments.*
- *Also offices of the Advocates not situated at their own residence.*

#### 4.5 Public Street Lighting Service (LT-3)

- 4.5.1 Discoms have proposed to raise tariff for public street lighting for both areas with less than 1 lakh population and more than 1 lakh population.
- 4.5.2 Discoms have proposed an increase in fixed charges from Rs. 85/lamp point/month subject to a maximum of Rs. 850 per service connection per month to Rs.115/lamp point/month subject to a maximum of Rs. 1150 per service connection per month for areas with population less than 1 lakh and from Rs. 105/lamp point/month subject to a maximum of Rs. 2100 per service connection per month to Rs. 145/lamp point/month subject to a maximum of Rs. 2835 per service connection per month for areas with population greater than 1 lakh.
- 4.5.3 Discoms have also proposed an increase in energy charges from Rs. 6.55 per unit to Rs. 7.55 per unit for areas with population less than 1 lakh and from Rs. 7.05 per unit to Rs. 8.10 per unit for areas with population greater than 1 lakh.
- 4.5.4 The existing tariff, proposed tariff and that approved by the Commission, considering the comments/ suggestions received, are given in the following tables:

**Table 65: Existing and Proposed Tariff for Public Street Lighting (LT-3) Category for FY 2019-2020**

Existing Tariff			Proposed Tariff		
Particulars	Energy Charges	Fixed Charges	Particulars	Energy Charges	Fixed Charges
Population <1 Lakh	Rs. 6.55 per unit	Rs. 85 per Lamp point per month subject to a maximum of Rs. 850 per service connection per month	Population <1 Lakh	Rs. 7.55 per unit	Rs. 115 per Lamp point per month subject to a maximum of Rs. 1150 per service connection per month
Population ≥1 Lakh	Rs. 7.05 per unit	Rs. 105 per Lamp point per month subject to a maximum of Rs. 2100 per service connection per month	Population ≥1 Lakh	Rs. 8.10 per unit	Rs. 145 per Lamp point per month subject to a maximum of Rs. 2835 per service connection per month

**Table 66: Public Street Lighting (LT-3) Category-Approved Tariff for FY 2019-20**

<b>Particulars</b>	<b>Approved Tariff</b>	
<b>Public Street Lighting</b>	<b>Energy Charges</b>	<b>Fixed Charges</b>
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

#### **4.6 Agriculture Supply (LT-4)**

- 4.6.1 For agriculture metered consumers, Discoms have proposed to increase the existing energy charges from Rs. 4.75/unit to Rs. 5.55/per unit for agriculture consumers getting supply in block hours and from Rs. 6.05/unit to Rs. 7.10/unit for all others getting supply more than block hours. Further, Discoms have proposed an increase in the fixed charges from Rs. 15/HP/month of SCL to Rs. 30/HP/month of SCL for agriculture consumers getting supply in block hours and Rs. 30/HP/month of SCL to Rs. 60/HP/month of SCL for agriculture consumers getting supply more than block hours.
- 4.6.2 In addition to above, the Discoms submitted that Government of Rajasthan shall continue to provide adequate subsidy support to Agriculture Metered and Flat Rate category.
- 4.6.3 For flat rate consumers, the Discoms have proposed to increase energy charges from Rs. 635/ HP/month to Rs. 745/ HP /month for general consumers getting supply in block hours and from Rs. 765/ HP/month to 895/ HP/month for consumers getting supply more than block hours. Further, Discoms have proposed an increase in the fixed charges from Rs. 15/HP/month of SCL to Rs. 30/HP/month of SCL for agriculture consumers getting supply in block hours of flat rate consumers and Rs. 30/HP/month of SCL to Rs. 60/HP/month of SCL for agriculture consumers getting supply more than block hours.
- 4.6.4 The existing tariff, proposed tariff and that approved by the Commission, considering the comments/ suggestions received, are given in the following tables:

**Table 67: Agriculture Metered Category- Existing and Proposed Tariff for FY 2019-20**

Particulars	Energy Charges	Fixed Charges	Particulars	Energy Charges	Fixed Charges (FC)
(i) General (getting supply in block hours)	Rs. 4.75 per unit	Rs.15 per HP per Month of SCL	(i) General (getting supply in block hours)	Rs. 5.55 per 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. 6.05 per 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 per unit	Rs. 60 per HP per month of SCL

**Table 68: Agriculture Flat Rate Category- Existing and Proposed Tariff for FY 2019-20**

Existing Tariff			Proposed Tariff		
Particulars	Energy Charges	Fixed Charges	Particulars	Energy Charges	Fixed Charges
(i) General (getting supply in block hours)	Rs. 635 per HP per Month	Rs.15 per HP per month of SCL	(i)General (getting supply in block hours)	Rs. 745 per HP per Month	Rs.30 per HP per month of SCL
(ii) All others not covered under items (i) and getting supply more than block hours	Rs. 765 HP per Month	Rs.30 per HP per month of SCL	(ii)All others not covered under items (i) and getting supply more than block hours	Rs. 895 HP per Month	Rs.60 per HP per month of SCL

**Table 69: Agriculture (Metered and Flat Rate) (LT-4)- Approved Tariff for FY 2019-20**

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)	Rs. 7.10 /unit	Rs. 60 per HP per

Particulars	Approved Tariff	
and getting supply more than block hours		Month of SCL
<b>Flat/ Unmetered (AG/FR/LT-4)</b>		
(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

4.6.5 As already stated the tariff has been determined for each category without considering any subsidy. The subsidy, if provided by the Govt., would result in reduced amount payable by consumer of such category. Further, the Government, if it provides subsidy, should pay such subsidy in advance as per section 65 of the Electricity Act, 2003 and RERC (Terms & Conditions for Determination of Tariff) Regulations, 2019.

#### 4.7 Small Industries (LT-5)

4.7.1 Discoms have not proposed any increase in energy charges, i.e., it is same at Rs. 6.00 per unit for consumption upto 500 units per month and Rs. 6.45 per unit for consumption above 500 units per month.

4.7.2 The fixed charges have been proposed to be increased for consumers upto 500 units from Rs. 65/HP/month of sanctioned connected load to Rs.80/HP/month of sanctioned connected load and for consumers above 500 units Rs. 65/HP/month of sanctioned connected load to Rs.110/HP/month of sanctioned connected load.

4.7.3 The existing tariff, proposed tariff and that approved by the Commission, considering the comments/ suggestions received, are given in the following tables:

**Table 70: Small Industries (LT-5)-Existing and Proposed Tariff for FY 2019-20**

Existing Tariff			Proposed Tariff		
Particulars	Energy Charges	Fixed Charges	Particulars	Energy Charges	Fixed Charges
<b>Small Industrial Service (LT-5) (Load not exceeding 18.65 kW (25HP))</b>					
Upto 500 units	Rs. 6.00 per unit	Rs. 65 per HP per month of sanctioned connected load	Up to 500 units	Rs. 6.00 per unit	Rs. 80 per HP per month of sanctioned connected load

Existing Tariff			Proposed Tariff		
Particulars	Energy Charges	Fixed Charges	Particulars	Energy Charges	Fixed Charges
Above 500 units	Rs. 6.45 per unit	Rs. 65 per HP per month of sanctioned connected load	Above 500 units	Rs. 6.45 per unit	Rs. 110 per HP per month of sanctioned connected load

**Table 71: Small Industries (LT-5)- Approved Tariff for FY 2019-20**

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

**Applicability for Small Industry:**

4.7.4 The Discoms have also proposed the following applicability of Small industry tariff:

- This tariff shall be applicable to Small Industrial Consumers, Printing Presses, Government Lift Irrigation Projects, Cottage Industries (such as Zari making, Silver and Gold Wire drawing, Gem Stone polishing), Hatcheries, Water Supply by RIICO in RIICO Industrial Areas,
- Water Works for public Supply and Water Supply by Trusts/Local Bodies, Pumping Back Seepage Water by IGNP,
- Sewage treatment Plants and Reverse Osmosis (RO) plants
- Handicraft, Textile, Dyeing & Printing Industries, Cold Storage, Software units IT & IT enabled Service registered under Company's Act with aims and objects of IT or those registered with Industries Department of Govt. of Rajasthan for IT under IT & ITES Policy of GoR and Flour Mills, along with the associated lighting load subject to a maximum limit of 10% of the industrial load, and having aggregate connected load not exceeding (18.65 KW) 25 HP. (Including admissible lighting load).

**Commission's view:**

4.7.5 The Commission accepts the aforesaid applicability of tariff of Small Industry Category.

#### 4.8 Medium Industry (LT-6 and HT-3)

- 4.8.1 Discoms have not proposed any increase in energy charges, i.e., it is same at Rs. 7.00 per unit for (LT-6) & (HT-3).
- 4.8.2 For Medium Industrial LT-6 consumers, Discoms have proposed a hike in the fixed charges from Rs. 75/HP/month of sanctioned connected load or Rs. 165/ KVA/ month to Rs. 115/HP/month of sanctioned connected load or Rs. 230/ KVA/ month. In case of medium industries HT-3 consumers, the Discoms have proposed increase in fixed charges from Rs. 165/ KVA of billing demand/ month to Rs. 230/ KVA of billing demand/ month.
- 4.8.3 The Discoms also submitted that in a separate petition they have proposed a rebate of 0.55 per unit on energy charges for MIP (HT) category as a rebate on the yearly consumption in a financial year in excess of the consumption of the base year. The Discoms submitted to approve the petition filed by the Discoms for the rebate proposed on incremental consumption from the base year. The Commission has dealt with the same separately in this order.
- 4.8.4 The existing tariff, proposed tariff and that approved by the Commission, considering the comments/ suggestions received, are given in the following tables:

**Table 72: Existing and Proposed Tariff for Medium Industrial Service (LT-6 and HT-3) for FY 2019-20**

Existing Tariff			Proposed Tariff		
Particulars	Energy Charges	Fixed Charges	Particulars	Energy Charges	Fixed Charges
<b>Medium Industrial Service (LT-6 and HT-3)</b>					
Medium Industrial Service (LT-6)	Rs. 7.00 per unit	Rs. 75 per HP per month of sanctioned connected load or Rs. 165 per KVA of Billing Demand per month	Medium Industrial Service (LT-6)	Rs. 7.00 per 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 per unit	Rs. 165 per KVA of Billing Demand per month	Medium Industrial Service (HT-3)	Rs. 7.00 per unit	Rs. 230 per KVA of Billing Demand per month

**Table 73: Medium Industries (LT-6 and HT-3)- Approved Tariff for FY 2019-20**

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

**Applicability for Medium Industry:**

- 4.8.5 The Discoms proposed that the following consumers are to be included in the applicability of tariff:  
Sewage treatment Plants and Reverse Osmosis (RO) plants

**Commission's view:**

- 4.8.6 The Commission accepts the aforesaid addition in applicability of tariff of Medium Industry Category.

**4.9 Bulk Supply for Mixed Load (LT-7and HT-4)**

- 4.9.1 Under Bulk Supply for Mixed Load, Discoms have requested increase in fixed charges from Rs. 75 per HP per month of sanctioned connected load or Rs. 165 per KVA of Billing Demand per month to Rs. 105 per HP per month of sanctioned connected load or Rs. 215 per KVA of Billing Demand per month for LT-7 consumers. For HT-4 category also, Petitioners have sought an increase in fixed charges from Rs. 165 per KVA of Billing Demand per month to Rs. 215 per KVA of Billing Demand per month. Under both LT and HT category, Discoms have proposed an increase in energy charges from Rs. 7.00/ unit to Rs. 8.05/ unit as given in the table below.
- 4.9.2 The existing tariff, proposed tariff and that approved by the Commission, considering the comments/ suggestions received, are given in the following tables:



**Table 74: Existing and Proposed Tariff for Bulk Supply for Mixed Load Category (LT-7 and HT-4) for FY 2019-20**

Existing Tariff			Proposed Tariff		
Particulars	Energy Charges	Fixed Charges	Particulars	Energy Charges	Fixed Charges
<b>Bulk Supply for Mixed Load Category (LT-7 and HT-4)</b>					
Bulk supply for mixed load (LT-7)	Rs. 7.00 per unit	Rs. 75 per HP per month of sanctioned connected load OR Rs. 165 per KVA of Billing Demand per month	Bulk Supply for Mixed Load Service (LT-7)	Rs. 8.05 per unit	Rs. 105 per HP per month of sanctioned connected load OR Rs. 215 per KVA of Billing Demand per month
Bulk supply for Mixed load (HT-4)	Rs. 7.00 per unit	Rs. 165 per KVA of Billing Demand per month	Bulk Supply for Mixed Load Service (HT-4)	Rs. 8.05 per unit	Rs. 215 per KVA of Billing Demand per month

**Table 75: Bulk Supply For Mixed Load (LT-7 and HT-4)- Approved Tariff for FY 2019-20**

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/kVA of Billing Demand per month
Schedule ML/HT-4	Rs. 8.05/ unit	Rs. 215/kVA of Billing Demand per month

**Applicability for Bulk Supply for Mixed Load:**

4.9.3 The Discoms have proposed the following applicability of Bulk Supply for Mixed Load tariff:

- Available to Non Registered/ Un Recognized Orphanages, Leper Homes, Yatimkhanas, by Social Welfare Department or by any other Government Authority, Educational Institutions run by Government or Agencies of the Government, Railways, Public Gardens/Parks belonging to the Government/Local bodies, Cantonments, Defence establishments,
- EV charging infrastructures
- Aerodromes and Hospitals, Dispensaries, Clinics and Nursing Homes run by Government/Agencies of the Govt./Red Cross Societies for bona fide purpose of lighting, heating, pumping, industrial and street lighting up to a maximum demand of 50 KVA.

4.9.4 Discoms also proposed to delete the following clause from the applicability of Bulk supply for Mixed Load:-

**Note:** *“(iv) In case a particular type of load from this category is separated, the same shall be billed under the relevant category. In the remaining load if any one type of load is predominant that is 75% or more, the tariff applicable for the predominant load shall be made applicable. If, however, there is no predominant load the Bulk Supply for Mixed Load tariff shall be applied for the remaining load.”*

4.9.5 With regard to Discom's proposal of inclusion of EV charging infrastructures under Bulk supply for Mixed Load, the Commission has dealt with this separately and created a new category later in this order.

**Commission's view:**

4.9.6 The Commission approves the applicability for Bulk Supply of Mixed Load after deleting 'EV infrastructure' accordingly.

4.9.7 Further with regard to proposal of removing Note from the applicability of Bulk Supply for Mixed Load, the Discoms may file the proposal along with next tariff petition giving detailed justification.

**4.10 Large Industries (HT-5)**

4.10.1 Discoms have proposed increase in fixed charges from Rs. 185/ KVA of billing demand / month to Rs. 270/ KVA of billing demand / month. For energy charges, Discoms have not proposed any increase.

4.10.2 Discoms have also proposed to introduce a new tariff category namely "Power Intensive Industries for industries like Textile mills, Induction Furnace using Mild steel scrap and Mild steel re-rolling mills, Chloro alkaline units and railway traction with a view that there are several industries wherein the primary cost of running the industry comprises of electricity cost. Discoms have observed that such industries are facing stiff competition in the market and thus proving competitive tariff will go long way in growth of industries in the State, wherein the proposed tariffs will be as follows:

**Table 76: Tariff for Power Intensive Industries for FY 2019-20 Discom's Proposal**

Category	Energy Charge (Rs./unit)	Fixed Charge (Rs./KVA/month)
SCL above 150 HP &/or having Contract per Maximum Demand above 125 KVA	6.00	Rs. 350 per KVA of billing demand per month

**Table 77: Voltage wise energy charges for Power Intensive Industries for FY 2019-20 Discom's Proposal**

Proposed Tariff*		
Voltage Level	Energy Charges	Fixed Charges
11 kV	6.00	Rs. 350 per KVA of Billing Demand per month
33 kV	5.82	
132 kV	5.76	
220 kV	5.70	

**Rebate and Incentive**

- 4.10.3 Discoms have also proposed DSM measure to flatten the load curve i.e. Time of Day (ToD) tariff wherein a surcharge is levied on consumption of electricity during peak hours (where the demand of electricity is the highest from consumers) and a rebate is provided for consumption during off-peak hours for Large Industrial Consumers (HT-5) with SCL above 150 HP &/or having Contract Demand/Maximum Demand above 125 kVA & Power Intensive Industries are as under:

**Table 78: Time of Day (ToD) Tariff Proposed by Discoms**

Time of Day	Rebate/Surcharge on Energy Charges	Energy Charges Applicable (Rs/unit)
Peak Hours (0700 hours to 1100 hours)	Normal tariff +10%	8.03
Off-Peak Hours (0000 hours to 0600 hours)	Normal tariff - 10%	6.57

**Table 79: Time of Day (ToD) Tariff for Power Intensive Industries Proposed by Discoms**

Time of Day	Rebate/Surcharge on Energy Charges	Energy Charges Applicable (Rs/unit)
Peak Hours (0700 hours to 1100 hours)	Normal tariff +10%	6.60
Off-Peak Hours (0000 hours to 0600 hours)	Normal tariff - 10%	5.40

- 4.10.4 The Discoms also submitted that in a separate petition they have proposed

a rebate of 0.85 per unit on energy charges for large HT category as a rebate on the yearly consumption in a financial year in excess of the consumption of the base year. The Discoms requested to approve the proposal filed by the Discoms for the rebate proposed on incremental consumption from the base year and submitted that the same rebate may be extended to Power intensive industry.

4.10.5 The Discoms proposed a rebate on fixed charges of Rs. 350 per KVA of Billing Demand per month for Railway traction consumers. Thus, the railway traction consumers will need to pay only Energy charge as applicable in Power Intensive Industry category.

**Commission's view:**

4.10.6 With regard to Power Intensive category, the stakeholders have submitted that Discoms have not given any justification and basis for considering Textile Mills, Railway Traction, etc. as Power Intensive Industries. Discoms should also give the reason of why other industries of such nature have not been considered as such.

4.10.7 It is observed that many industries including the chemical & non-metallic minerals, alloy and stainless steel, smelter plants, cement industry and woven sack manufacturers etc. have requested to consider them under aforesaid power intensive unit. It has been objected by various stakeholder that the criteria to be covered under power intensive unit should be very clear. In absence of clarity, there will be ambiguity only and dispute regarding the inclusion under power intensive industry. In view of above, the Commission does not accept the Discom's proposal of power intensive category. However, in the aforesaid large industry category, Commission has introduced a new sub-category under large industrial category with Consumer having Billing demand of 1 MVA or more for the billing month and having load factor 50% or more for the billing month.

4.10.8 The Discoms' proposal of incremental consumption rebate, waiver-off of fixed charges for Railway and Time of Day (ToD) tariff have been separately dealt by the Commission later in this order.

4.10.9 The existing tariff, proposed tariff and that approved by the Commission, considering the comments/ suggestions received, are given in the following tables:

**Table 80: Large Industrial Category (HT-5) - Existing and Proposed Tariff for FY 2019-20**

Existing Tariff			Proposed Tariff		
Particulars	Energy Charges	Fixed Charges	Particulars	Energy Charges	Fixed Charges
<b>Large Industrial Service (HT-5)</b>					
SCL above 150 HP &/or having Contract per Maximum Demand above 125 KVA	Rs. 7.30 per unit	Rs. 185 per KVA of Billing Demand per month	SCL above 150 HP &/or having Contract per Maximum Demand above 125 KVA	Rs. 7.30 per unit	Rs. 270 per KVA of Billing Demand per month

4.10.10 Discoms have proposed the energy charges at different voltage levels as below:

**Table 81: Voltage wise energy charges for Large Industries category for FY 2019-20**

Proposed Tariff*		
Voltage Level	Energy Charges	Fixed Charges
11 kV	7.300	Rs. 270 per KVA of Billing Demand per month
33 kV	7.081	
132 kV	7.008	
220 kV	6.935	

\*Apart from the above said rebate, no other voltage rebate shall be applicable for Large Industrial category.

**Table 82: Large Industries (HT-5)- Approved Tariff for FY 2019-20**

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's 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

**Table 83: Voltage wise tariff\* approved for Large Industries category for FY 2019-20**

<b>Voltage wise Approved Tariff* for Consumer having SCL above 150 HP &amp;/or having Contract/Maximum Demand above 125 kVA</b>		
<b>Voltage Level</b>	<b>Energy Charges</b>	<b>Fixed Charges</b>
11 kV	7.300	Rs. 270 per KVA of Billing Demand per month
33 kV	7.081	
132 kV	7.008	
220 kV	6.935	
<b>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</b>		
<b>Voltage Level</b>	<b>Energy Charges</b>	<b>Fixed Charges</b>
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.

- 4.10.11 The existing load factor rebate of 0.15 Rs/unit 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 shall not be allowed. However, for other large industrial consumers the existing load factor rebate shall continue to prevail.
- 4.10.12 In this Order, the Commission has also introduced ToD rebate, Incremental consumption rebate and rebate for new HT connections. However, considering ToD rebate, Load factor rebate, Incremental consumption rebate and rebate for new HT connections, the average energy charges of all the units consumed by large industrial consumers shall not be less than below mentioned minimum tariff :

**Table 84: Minimum Energy Charges\***

<b>Voltage Level</b>	<b>Energy Charges</b>
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.

- 4.10.13 The Discoms are also directed to review the various rebates and incentive, as well as the tariff for newly created sub-category at regular intervals and file suitable proposals for revision, if need be.

### **Applicability for Large Industry:**

4.10.14 The Discoms have proposed the following applicability of Large industry tariff as under:

- Available to Large Industrial Power Consumers, Printing Presses, Government Lift Irrigation Projects, IOC/HPC etc.
- Sewage treatment Plants and Reverse Osmosis (RO) plants,
- Metro Traction and all its related establishments,
- Pumping stations, Hatcheries, Water Supply by RIICO in RIICO Industrial Areas and Water works for Public supply and Water Supply by Trusts/Local Bodies, Pumping Back Seepage water by IGNP, Handicraft, Textile, Dyeing & Printing Industries, Cold Storage, Software Units,
- Software, IT & IT enabled Service registered under Company's Act with aims and object of IT or those registered with Industries Department of Govt. of Rajasthan for IT under IT & ITES Policy of GoR and Flour Mills, having sanctioned connected load above 150 HP &/or having Contract Demand above 125 KVA. The consumer under this schedule, however, can keep his contract demand even below 125 KVA.

### **Commission's view:**

4.10.15 The Commission accepts the aforesaid applicability of tariff of Large Industry category.

## **4.11 Electric Vehicle Charging**

4.11.1 Discoms submitted that in the present scenario the consumer mix of Discoms is already skewed towards cross-subsidized consumers. Domestic category is meant to serve consumers who use electricity for running lights, fans and household appliances. EVs, as of today, are being used either for commercial purposes or by financially well off consumers. Including EV charging in Domestic category would add another group of cross-subsidized consumers which will add to the financial burden of the Discoms. Discoms have proposed that in various other States the EV charging stations are charged under Non-Domestic/Commercial category. As the charging stations would eventually be carrying out a commercial activity, the Discoms should also categorize EV charging stations under Non-domestic category similar to other States, but to provide incentive to EV charging stations the Discoms proposes to consider the same under Mixed load category which has lower tariff than Non-domestic category.

**Commission’s view:**

- 4.11.2 The Commission in its previous tariff order dated 28.05.2018 had directed the Discoms to include EV charging stations under Domestic tariff category.
- 4.11.3 Discoms after analysing tariff for Electric Vehicle Charging in the various States, such as Punjab, Delhi, Andhra Pradesh, HP, Maharashtra, Gujarat etc. submitted that aforesaid States are charging electric vehicle stations under Non Domestic/Commercial category. As the charging stations would eventually be carrying out a commercial activity, the Discoms further submitted that they should also categorize EV charging stations under Non-domestic category similar to other States. But to provide incentive to EV charging stations the Discoms have proposed to consider the same under Mixed load category which has lower tariff than Non-domestic category.
- 4.11.4 The Commission has also looked into the tariff determined by other Commissions and in order to promote the electric vehicle, Commission introduces the following new categories under Electric Vehicle Charging with concessional tariff as under :

**Electric Vehicle (EV) Charging Station (LT-8 and HT-6):**

**1. Public Charging Station**

- 4.11.5 The tariff applicable to public charging station will be as follows:

**Table 85: Public Charging Station Tariff**

<b>Category</b>	<b>Energy Charges</b>	<b>Fixed Charges</b>
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

**Time of Day (TOD) structure for Public Charging Station:**

- 4.11.6 During Off-peak Hours (2300 hours to 0600 hours) rebate of 15% for Public Charging Station shall be allowed as under:

**Table 86: ToD Rebate for Public Charging Station**

<b>Off peak hours</b>	<b>Rebate on EC</b>
11 pm - 6 am (7 hours)	15%



4.11.7 Voltage rebate, Load factor rebate, rebate for Incremental consumption and rebate for new HT connections shall not be applicable for this category. Other general terms and condition as applicable to industrial consumers shall also apply to EV charging station.

## **2. Other Consumers**

4.11.8 The consumers of other categories will be charged as per tariff applicable to their respective category or to say they need not to take a separate connection. They can charge Electric Vehicles within their respective connection, provided that load with EV charging does not exceed the Sanctioned connected/contracted load or demand as the case may be.

**Note:** In case connected load or contract demand exceeds the sanctioned connected load or contracted demand as the case may be, the consumer will be subject to penal provisions as per Tariff or Electricity Supply Code Regulations.

### **4.12 Railway Traction**

4.12.1 Discoms have proposed a rebate on fixed charges of Rs. 350 per KVA of Billing Demand per month for Railway traction consumers. Thus, the railway traction consumers will need to pay only Energy charge as proposed in Power Intensive Industry category.

#### **Commission's view:**

4.12.2 In this regard, stakeholders have raised their concern that when no fixed charges are to be recovered, then where the incidence of such non-recovery would be passed on.

4.12.3 Stakeholders have also submitted that in absence of recovery of any fixed charges, Railway Traction will be having a free hand to cause unlimited demand on the system and in such circumstances whether Discoms would be able to meet the situation.

4.12.4 Stakeholders also submitted that no justification have been given for non-charging demand charges from Railway Traction and the relevant provision for prescribing subsidised rate for Railway Traction.

4.12.5 In view of above, the Commission has not approved the Discom's proposal of not charging fixed charges from Railway Traction. Further, JVVNL may

hold a meeting with Railways and identify the ways through which traction load can again be shifted back as Discoms consumer and file a proposal in the next tariff petition, if need be. However, in view of different nature of traction load, the Commission deems it appropriate to make a separate category namely "Traction Load" and approves the following tariff.

**Table 87: Traction load Tariff (HT-7)**

Category	Energy Charges	Fixed Charges
Traction load (HT-7)	Rs. 5.70/ unit	Rs. 135/kVA/Month

- 4.12.6 Voltage rebate, ToD rebate, Load factor rebate, rebate for Incremental consumption and rebate for new HT connections shall not be applicable for this category. Other general terms and condition as applicable to large industrial consumers shall also apply to Traction load.
- 4.12.7 This tariff shall also be applicable for metro traction load subject to segregation of traction and NDS load. Till the time load is not segregated, the metro shall be continued to be covered under large industrial category.
- 4.12.8 JVVNL is also directed to convene a meeting within 2 months from the date of this order with representatives of Jaipur Metro for considering, afresh, various issues related to metro including segregation of load and possibility of sub metering etc. for segregation of load and furnish suitable proposals for revision in tariffs.

**Other Tariff Rationalization Measures**

**4.13 Time of Day (ToD) Tariff**

- 4.13.1 Discoms have proposed DSM measure to flatten the load curve i.e. Time of Day (ToD) tariff wherein a surcharge is levied on consumption of electricity during peak hours (where the demand of electricity is the highest from consumers) and a rebate is provided for consumption during off-peak hours for Large Industrial Consumers (HT-5) with SCL above 150 HP &/or having Contract Demand/Maximum Demand above 125 kVA & Power Intensive Industries are as under:

**Table 88: ToD Tariff for Large Industries for FY 2019-20**

Time of Day	Rebate/Surcharge on Energy Charges	Energy Charges Applicable (Rs/unit)
Peak Hours (0700 hours to 1100)	Normal tariff +10%	8.03

Time of Day hours)	Rebate/Surcharge on Energy Charges	Energy Charges Applicable (Rs/unit)
Off-Peak Hours (0000 hours to 0600 hours)	Normal tariff - 10%	6.57

4.13.2 Discoms submitted that at present, even after backing down stations as per merit order, the Discoms have surplus power in the night due to which the surplus power is being traded at Power Exchange wherein the cost of power sold is significantly lower than the cost of purchase of power. The average cost of power sold at Power Exchange by Rajasthan Discoms is Rs. 2.11 per unit in FY 2018-19 in the time period of 0000 hours to 0700 hours (off-peak hours). The net average cost of power procured for FY 2018-19 is Rs. 4.27 per unit. Thus, the Discoms bear a loss of Rs. 2.16 per unit on every unit of power sold during the same hours.

4.13.3 The Discoms further submitted that they face the dynamic challenge of treating surplus power in an effective manner. ToD tariff would help the consumers as well as the Discoms in the following ways:

- Introduction of ToD tariff with rebate during consumption of electricity in off-peak hours (time of surplus power), would benefit the consumers as they will avail a rebate of 10% on Energy Charges.
- At the same time, the Discoms would benefit as the generators would not face the trouble of frequent back-downs (which will lead to lower losses for generators) and the load curve of the State at large would tend to flatten.

**Commission's view:**

4.13.4 In this regard, stakeholders have submitted that Peak hours specified requires to be reviewed as with solar generation increasing in the Rajasthan, solar generation will be available during this period.

4.13.5 Stakeholders also submitted that the Discoms have only proposed 6 hours as off-peak hours for the State, where it ought to be much more. It is further submitted that the rebate for off-peak consumption ought to be much higher than 10% proposed by the Discoms.

4.13.6 The Commission observed that looking to power surplus scenario and back down position of State power plant, it is appropriate to introduce the ToD

Tariff in Rajasthan which will not only ensure that the load curve for the State is flattened but also improve the PLF of State power station and reduce the Discoms deficit on account of paying fixed charges for back-down of State power stations.

4.13.7 Accordingly, the Commission has introduced Time of Day (ToD) tariff wherein a rebate is being offered on consumption during off-peak hours. This is also meant to incentivise consumers to shift a portion of their loads from peak time to off-peak time or increase consumption during off peak time, thereby improving the system load factor and flatten the load curve. The ToD tariff is aimed at optimizing the cost of power purchase, which constitutes over 70% of the tariff charged from the consumers. It also assumes importance in the context of propagating and implementing DSM and achieving energy efficiency.

4.13.8 Introduction of higher peak hour tariff would have initially generated additional revenue which would have compensated for the reduction in revenue on account of lower tariff during off peak hours. However, during the hearing, it has been brought to the notice of Commission that even during the proposed peak hours, Discoms are having surplus energy hence Commission is of the view that no surcharge should be levied on using energy during proposed peak hours.

4.13.9 In the long run, this would provide signals to the consumers to shift consumption to off-peak hours wherever possible. Any loss of revenue to the utility on account of shifting of load from peak to off-peak hours in the long run would by and large get compensated by way of reduction of off-peak surplus to the extent of increase in off-peak demand.

4.13.10 The ToD Tariff would thus have immediate as well as long term benefits for both, consumers as well as the utility and contribute towards controlling the rise in power purchase costs.

4.13.11 In view of above, the Commission approves the off-peak Hours (2300 hours to 0600 hours) with a rebate of 15% for Large Industrial Consumers.

**Table 89: Time of Day (ToD) tariff**

Off peak hours	Rebate on EC
11 pm - 6 am (7 hours)	15%

4.13.12 It has also been observed that normally peak demand of power in

Rajasthan occurs in the months of December and January (in MW and MU), while at all India level, peak demand comes in the months of September and October (in MW and MU) (as per CEA- LGBR for the year 2019-20). In the view of this, it may not be always that during the peak periods in Rajasthan, rate of power in the power exchanges are high and during off peak hours in Rajasthan, rate in power exchanges are low. The average rate of power at exchange during FY 2018-19 was Rs. 4.26/unit (ranging from 3.14 to 6.50).

- 4.13.13 Discoms are, therefore, directed to 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 for FY 2020-21.

#### **4.14 Rebate on Incremental Consumption**

- 4.14.1 Discoms submitted that State of Rajasthan has surplus availability of power. Therefore there is a need to explore possibilities of increasing consumption by the Industrial sector while also making it competitive, so as to not only ensure increased utilization of the generating assets but also to give boost to industrialization in the State and "Make in India" initiative of Government of India.
- 4.14.2 Discoms further submitted that increase in consumption by the industrial sector not only leads to increased revenue for the Discoms but also increases employment opportunities in the State thereby leading to improved standards of living.
- 4.14.3 Moreover, the financial health of any Discoms is dependent on the revenue generated from sale of power to the consumers under the jurisdiction of the Discoms. Amongst the various categories of consumers, Industrial category is the section of consumers that contributes significantly to the revenue generation of the Discoms. Further, as these consumers are connected at high voltage level, the losses pertaining to such consumers are also less thereby reducing the cost to serve such consumers. Hence, if a Discom has a healthy base of such industrial consumers, it is bound to help the Discom in reducing the losses and maintaining a sustainable stream of revenue.
- 4.14.4 Discoms also submitted that considering the aforementioned facts, the Commission in its Tariff order for FY 2018-19 dated May 28, 2018 directed the

Discoms to consider providing an incentive of upto Rs. 1/unit to new industries being set up in State after 01.09.2018 for a period of first (5) year under its directive of "Ease of Doing Business".

4.14.5 Discoms vide a separate petition filed a separate proposal for allowing rebate and in current tariff petition also Discoms have made the proposal to consider the same as a part of current tariff petition.

4.14.6 As such, in order to attract the large industrial consumers to invest in the State and draw power from the Discoms for its operations, an incentive scheme is being proposed by the Discoms. Apart from the rebate for new industrial connections, Discoms have also proposed rebate for incremental consumption for existing industrial consumers and captive consumers as under.

4.14.7 The Proposal submitted by Discoms is as under:

**Rebate Scheme for Industrial Consumers-Proposed by Discoms**

**a. Applicability:**

*The rebate will be applicable to HT consumers under the MIP and LIP categories.*

**b. Rebate:**

**i. Consumers having a connection or taking a connection before 01.04.2019:**

*For the Medium HT and Large HT industrial consumers having a connection or taking a connection before 01.04.2019, a rebate of Rs 0.55 per unit and Rs. 0.85 per unit respectively in energy charges will be provided on the yearly consumption in a financial year in excess of the consumption of the base year. Base year for consumers existing as on 01.04.2017 shall be FY 2017-18. For consumers who took connection between 01.04.2017 and 31.03.2018, the base year shall be FY 2017-18 but the consumption of the base year shall be deemed to be the first full twelve months after the connection is taken. For consumers who take connection between 01.04.2018 and 31.03.2019, the base year shall be FY 2018-19 but the consumption of the base year shall be deemed to be the first full twelve months after the connection is taken. The rebate in a financial year after the base year shall be provided from the month normative consumption has been achieved.*

**ii. Consumers taking a connection between 01.04.2019 and 31.03.2020:**

For the Medium HT and Large HT industrial consumers taking a connection after 01.04.2019 for a new unit set up by a manufacturing enterprise set up by making a new investment in fixed assets, a rebate of Rs 0.55 per unit and Rs. 0.85 per unit respectively in energy charges will be provided on the yearly consumption. New connection merely on account of a change in ownership shall not qualify under this category.

**c. Period of rebate:**

The period of rebate shall be five years.

**d. Other rebates:**

Other rebates like power factor rebate, load factor rebate and voltage rebate will continue to be provided and computed on the tariff decided by the Commission.

*Example: If the connection is taken on 15.07.2017, the base year shall be FY 2017-18. Consumption of this year shall be the consumption in the months of August, 2017 to July, 2018 (lets say its 10 lakh units). If monthly consumption is 1 lakh units per month from April, 2018 till September, 2018 and 1.5 lakh units per month from October, 2018 to March, 2019, the total consumption in FY 2018-19 is 15 lakh units. The rebate shall be admissible on 5 lakh units. Since the consumption of 10 lakh units was achieved in the month of December, 2018 (cumulative consumption till December, 2018 is 10.5 lakh units), rebate will be due for the excess 0.5 lakh units in December, 2018 and 1.5 lakh units each in January, 2018, February, 2018 and March, 2018, totalling 5 lakh units. The rebate shall be available for a total of five years from FY 2018-19 to FY 2022-23.*

**Rebate Scheme for Captive Consumers**

**a. Applicability:**

Any consumer with a connection as on 01.04.2017 and having a captive power plant based on non-renewable source of energy will be applicable for rebate.

**b. Rebate:**

A rebate of Rs. 1.50 per unit will be given on the lower of increase in consumption from Discoms and reduction in consumption from captive

power plant over the base year of FY 2017-18.

*Example 1: There is no reduction in consumption from captive power plant but only incremental increase in consumption from Discom, hence a rebate of Rs 0.55 per unit or Rs. 0.85 per unit will be applicable as specified in the clause 1.*

*Example 2: The incremental consumption from Discom is due to the reduction of captive consumption by same quantum of units. The entire incremental consumption will attract a rebate of Rs 1.50 per unit.*

*Example 3: There is higher reduction in consumption from captive power plant as compared to incremental consumption from Discom. Then, incremental units consumed from the Discom, shall qualify for a rebate of Rs 1.50 per unit.*

*Example 4: There is lower reduction in consumption from captive power plant as compared to incremental consumption from Discom. Then, incremental units consumed from Discom up to reduction in captive consumption will qualify for a rebate of Rs. 1.50 per unit while incremental units over and above the reduction in captive consumption will qualify for a rebate of Rs. 0.55 or Rs. 0.85 per unit for Medium HT consumer or Large HT consumer as specified in the above clause 1.*

*Example 5: If there is reduction in captive consumption but no incremental consumption from the Discom, there shall not be any rebate due to absence of incremental consumption from Discom irrespective of reduction in captive consumption.*

**c. Period of applicability:**

This rebate is applicable till any further order.

**d. Other rebates:**

*Rebate of Rs 1.50 per unit for HT LIP consumers is inclusive of load factor rebate availed by the consumer on incremental consumption. Other rebates like power factor rebate and voltage rebate will continue to be provided and computed on the tariff decided by the Commission.*



- 4.14.8 The Discoms have requested to consider the aforesaid proposal with the Discoms ARR and Tariff petition for FY 2019-20.
- 4.14.9 In this regard, Stakeholders have welcomed the Discoms proposal of rebate on incremental consumption. Stakeholders have also stated that as the FY 2018-19 is already ended, therefore, the base year for computation of above rebate should be FY 2018-19 instead of FY 2017-18.
- 4.14.10 The Commission observed that looking to power surplus scenario and back down position of State power plants, it is appropriate to introduce the rebate on incremental consumption which will not only ensure that the load curve for the State is flattened, but also improve the PLF of State power station and reduce the Discoms' deficit on account of paying fixed charges for back-down of State power stations. It will also lead to growth in economy of the State.
- 4.14.11 It is also observed that increase in consumption by the industrial sector not only leads to increased revenue for the Discoms but also controls the surplus power scenario in Rajasthan as well as increase job and revenue of the State. Therefore, Commission has considered the Discom's proposal of incremental consumption for CPP, Medium and Large Industrial consumer and approved the rebate as under:

**(A) Rebate for Incremental Consumption for Existing HT Connections prior to 31.03.2019 Approved by the Commission:**

**a. Applicability:**

For MIP (HT) and LIP consumers.

**b. Period:**

Effective after issuance of this order, prospectively, till further order of the Commission.

**c. Base year:**

2018-19

- 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.

- 4.14.13 For any consumer who has taken connection in between FY 2018-19 such consumer shall be eligible for rebate on incremental consumption after completion of 12 months, the base months for calculation of incremental monthly consumption shall be the first 12 completed months.

**(B) Rebate for New HT Connections from 01.04.2019 Approved by the Commission:**

**a. Applicability:**

For MIP (HT) and LIP consumers.

**b. Period:**

Effective after issuance of this order, prospectively, till further order of the Commission.

- 4.14.14 A rebate of Rs. 0.55/unit and Rs. 0.85/unit in energy charges is applicable for new connection taken from 1<sup>st</sup> April, 2019 onwards for the consumption recorded, by a new unit set up by a manufacturing enterprise by making a new investment in fixed assets for MIP (HT) and LIP consumers respectively. This rebate shall be effective after issuance of this order, prospectively, till further order of the Commission. The newly setup manufacturing unit is required to furnish the certificate of date of commencement from the District Industries Center (DIC) as a proof of commencement of commercial operation.
- 4.14.15 However this rebate shall not be applicable for connections obtained by virtue of change in ownership in existing connection or by re-connection.
- 4.14.16 New connection on the permanently disconnected premises shall only be eligible for such rebate, if, the application for new service connection on such premises is received not before the expiry of six months from the date of its permanent disconnection.
- 4.14.17 The consumer availing this rebate shall not be entitled for the rebate of incremental consumption.

**(C) Rebate for Captive Power Plant Consumers:**

As provision for rebate for incremental consumption has already been made, the Commission does not accept the Discoms proposal of additional rebate for CPP.

#### **4.15 Definition of Industries**

- 4.15.1 Discoms have proposed to insert the following definition with the existing applicability in Small Industry, Medium Industry (LT and HT) and Large Industry (HT) categories for Retail Supply Tariff of Electricity as under:

*“Industry is an establishment which is engaged in processing of raw material and manufacturing of goods by using equipment operated from electricity.”*

#### **Commission’s view:**

- 4.15.2 With regard to definition of industry, the Commission in its last Order dated 28.05.2018 and as well as Review Order dated 12.10.2018 already stated that as the definition as existing is well settled and the Commission is of the view, that it does not require any change. Therefore, the Commission has not accepted the proposal of Discoms.

#### **4.16 Prompt Payment Rebate**

- 4.16.1 Discoms have proposed to modify the existing methodology of computing the prompt payment rebate of 0.15% on energy and fixed charges in the next bill if payment is received before seven (7) working days from the due date of the bill. This provision of rebate takes into account working days. Whereas, Discoms proposed that while computing the prompt payment rebate the word “working days” should be replaced with “days”.
- 4.16.2 Discoms also submitted that the benefit accrued out of improved cash flows of the Discoms is essentially used to avail rebate in power purchase bills by making prompt payments to generators. The rebate on payment to generators is applicable if payments are made within specified number of days of due date. This provision of rebate do not take into account working days. The Discoms had considered this while proposing the increased incentive of 0.35% on energy and fixed charges if bill payment is received before ten (10) days from the due date of the bill instead of 10 (ten) working days.
- 4.16.3 Discoms also submitted that the difficulties and confusion is/are being faced by the Discoms while computing the prompt payment rebate due to the above mentioned clause.

- 4.16.4 Discoms further submitted that there are instances wherein three holidays including Saturday and Sunday fall within the period of seven working days (quite likely in five day week scenario) and the total duration becomes ten days. This causes confusion as according to seven working days the entitlement for 0.15% while at the same time the consumers also becomes eligible for an incentive of 0.35% since having made payment before ten days of due date.
- 4.16.5 Accordingly, the Discoms have proposed to modify the prompt payment rebate clause to provide rebate of 0.15% on energy and fixed charges in the next bill if payment is received before seven (7) days from the due date of the bill and 0.35% on energy and fixed charges in the next bill if payment is received before ten (10) days from the due date of the bill.

**Commission's view:**

- 4.16.6 Looking at consumer's interest, Commission has accepted the proposal of Discoms.

**4.17 Fixed charges for LT Domestic and Non Domestic Category**

- 4.17.1 Discoms have proposed that the consumers faced challenges in accurately assessing their fixed charges on the basis of average monthly consumption of previous financial year. To remove this difficulty, the Discoms have proposed to charge fixed charges of LT domestic and Non-domestic category on the basis of consumption recorded in respective billing month.

**Commission's view:**

- 4.17.2 In this regard, the stakeholders have submitted to continue the existing approach of billing fixed charges based on consumption of previous financial year. As Fixed charges should be constant and not to vary in accordance to different slabs of consumers consumption. Further, many stakeholders have also stated that such proposal would defeat the very purpose of prepaid metering as such consumers will not be able to budget their monthly expenditure, therefore, Discoms proposal should not be accepted.
- 4.17.3 In view of above comments of stakeholders, the Commission do not approve the Discoms proposal of assessing fixed charges of LT domestic

and Non-domestic category on the basis of consumption recorded in respective billing month.

#### **4.18 Changeover from SIP to MIP category**

4.18.1 Discoms have proposed that *“If any consumer under SIP category exceeds his load more than 25 HP in any month, it shall be billed under MIP category for that month. Apart from this demand charges for the load recorded above sanction load will be recovered.”*

##### **Commission’s view:**

4.18.2 In this regard, stakeholders have submitted that Discoms have not made it clear as to in which way without vigilance checking it would be assessed/ found that the consumer's load is more than 25 HP.

4.18.3 Stakeholders further submitted that when the consumer is to be charged on higher tariff on account of exceeding the load, then question of charging load surcharge should not arise. Charging, two types of charges for same fault would mean double penalty for one fault which is not justified.

4.18.4 In view of above, the Commission observes that a consumer cannot be penalized twice for a fault and proposal of the Discoms is not accepted.

#### **4.19 Changeover from LT to HT Category**

4.19.1 The current provision of change over from LT to HT category is as follows:  
*“17) Changeover from LT to HT supply shall be effected if Maximum Demand as per MDI exceeds 50 KVA more than two times in a financial year. The consumer in such a case shall have to take supply on 11 KV within the period of two months from the notice to be issued by the Assistant Engineer concerned after the Maximum Demand has exceeded third time in a financial year, failing which his connection would be disconnected.”*

4.19.2 Discoms have proposed to modify the current provision of change from LT to HT category i.e.,:  
*“If the maximum demand of any LT consumer as per MDI exceeds 50 KVA in any month then apart from charging 3% transformational losses and transformer rent as applicable, the consumer shall have to pay demand surcharge for the demand recorded above the sanction load/demand for*

that month.”

**Commission’s view:**

- 4.19.3 In view of stakeholders comments, the Commission observes that a consumer cannot be penalized twice for a fault and proposal of the Discoms is not accepted.

**4.20 Changeover from MIP (HT) to LIP Category**

- 4.20.1 Discoms have submitted that presently, if MIP (HT) category consumer exceeds his demand more than 125 KVA in any month, then he is charged tariff for MIP (HT) category only. To overcome such recurring instances, the Discoms have proposed the following provision-

*“If any consumer under MIP (HT) category exceeds his demand more than 125 KVA in any month, apart from charging demand surcharge as applicable he shall be billed under LIP category in that month.”*

**Commission’s view:**

- 4.20.2 As discussed in above proposal of changeover of SIP to MIP category, the Commission does not approve the Discom’s proposal of changeover from MIP to LIP.

**4.21 Wheeling Charges**

- 4.21.1 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 2019-20 in line with the RERC regulations.

- 4.21.2 The Regulation 86 of the RERC (Terms and Conditions for Determination of Tariff) Regulations, 2019 has been summarized below:

*“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”*

4.21.3 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 90: Proposed Wheeling Charges for FY 2019-20**

<b>Wheeling charges for FY 2019-20</b>	
Wheeling Charges at 132 KV Voltage Level (Rs/kWh)	0.04
Wheeling Charges at 33 KV Voltage Level (Rs/kWh)	0.11
Wheeling Charges at 11 KV Voltage Level (Rs/kWh)	1.38

**Commission's view:**

4.21.4 With regard to wheeling charges, stakeholders submitted that Wheeling Charges in paisa/kWh have been worked out as per Regulation 86 of Rajasthan Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2019. Further, the Commission vide its orders dated 23.04.2019 has decided (vide para 20, 22 and 24) that for levy of wheeling charges relevant regulation is Regulation 29 of RERC Open Access Regulation, 2016 which provides that wheeling charges shall be payable on the basis of capacity contracted or open access capacity utilised, whichever is higher. On account of wheeling charges specified in paisa/kWh, Commission has interpreted the provision in terms of energy. As per the Commission's decision and Regulation 29, it is to be worked out in terms of capacity, i.e., Rs./kw/month, similar to transmission tariff. Wheeling Charges calculations thus requires to be modified.

4.21.5 Stakeholders further submitted that the Discoms have stated that wheeling charges has been worked out as per the Commission's order dated 19.09.2006. This order has been issued under RERC Open Access Regulations, 2004 which has been superceded by RERC Open Access Regulations, 2016 as such said order is not relevant. Further, open access contract demand is considered separate from HT power supply contract demand in RERC Open Access Regulation, 2004 while it is considered included within HT power supply contract demand on account of this difference methodology of Commission's previous order dated 19.09.2006 is not relevant.

- 4.21.6 Stakeholders also submitted that most of the Discoms do not levy wheeling charges at 132 KV level like Discoms of U.P., Karnataka, etc. Thus, proposing a wheeling charges of 4 paisa/unit for a 132 KV consumer without any calculation or break-up and without considering the fact that Open Access Consumers at 132 KV are also HT consumers of Discoms (for which facility they are paying fixed charges as well), is unsustainable and cannot be approved by the Commission. It was further submitted that 400% increase in wheeling charges is exorbitant and Hon'ble APTEL in its various dictums has held that no category of consumers should be given a tariff shock.
- 4.21.7 As has been discussed earlier, stakeholders have raised objections in respect of non-availability of data regarding voltage wise losses and absence of data for apportionment of wheeling charges supply voltage wise on the basis of fixed asset at each voltage level.
- 4.21.8 The Commission observes that the Discoms need to justify the proposed wheeling charges allocation specially for 132 kV and 11 kV where the charges are increasing by 300% or more and justification of methodology adopted for calculation of wheeling charges specially with regards to allocation made for 11 kV as over the years Discoms have moved towards LT less system and are creating HT infrastructure to cater to LT consumers also.
- 4.21.9 In view of above, the Commission is not in a position to proceed further on the proposal of Discoms regarding determination of wheeling charges and losses at various voltage levels and directs them to file a fresh petition for determination of wheeling charges and losses. Till the subsequent determination of wheeling charges and losses, the present wheeling charges and losses, being charged, shall continue to be charged.

## **4.22 Cross Subsidy Surcharge**

- 4.22.1 The Discoms have projected the cross-subsidy surcharge for FY 2019-20 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.”

4.22.2 Discoms submitted that categories of consumers for whom cross-subsidy surcharge is applicable are Large Industries, Mixed Load-HT, Non-Domestic-HT & Power intensive industries. The details of the existing and proposed tariff for said categories of consumers at different voltage levels is provided below:

**Table 91: Existing and Proposed Tariff for FY 2019-20**

Category	Existing Tariff (Rs./kWh) (T)			Proposed Tariff (Rs./kWh)		
	11 kV	33 kV	132 kV	11 kV	33 kV	132 kV
LIP	9.16	8.89	8.80	9.71	9.42	9.32
Mixed Load	8.06	7.82	7.73	9.42	9.14	9.05
NDS (HT)	10.37	10.06	9.96	12.39	12.02	11.90

4.22.3 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 2019-20. The details of the same are provided below:

**Table 92: Transmission and Distribution losses considered for cross-subsidy surcharge**

<b>Losses</b>	<b>11kV</b>	<b>33kV</b>	<b>132kV</b>
Distribution	12.6%	3.80%	0%
Transmission	6.24%	6.24%	6.24%
<b>Total</b>	<b>18.8%</b>	<b>10.0%</b>	<b>6.24%</b>

4.22.4 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%.

4.22.5 The Discoms submitted that Transmission Cost per unit has been considered as per the projected transmission cost and sales in ARR for FY 2019-20. The aggregate transmission and wheeling cost at different voltage levels has been summarized below:

**Table 93: Wheeling and Transmission Costs for FY 2019-20**

<b>Discom</b>	<b>Cost per unit (Rs/kWh)</b>	<b>11kV</b>	<b>33kV</b>	<b>132kV</b>
JVVNL	Wheeling cost	1.38	0.11	0.04
	Transmission cost	0.75	0.75	0.75
	<b>Total</b>	<b>2.12</b>	<b>0.85</b>	<b>0.79</b>
AVVNL	Wheeling cost	1.38	0.11	0.04
	Transmission cost	0.71	0.71	0.71
	<b>Total</b>	<b>2.09</b>	<b>0.82</b>	<b>0.75</b>
JdVVNL	Wheeling cost	1.38	0.11	0.04
	Transmission cost	0.73	0.73	0.73
	<b>Total</b>	<b>2.10</b>	<b>0.83</b>	<b>0.77</b>
RAJASTHAN	Wheeling cost	1.38	0.11	0.04
	Transmission cost	0.73	0.73	0.73
	<b>Total</b>	<b>2.11</b>	<b>0.84</b>	<b>0.77</b>

4.22.6 The per unit carrying cost of regulatory assets (element 'R') for FY 2019-20 has been determined on the basis of approved interest on unfunded gap by the Commission. The summary of carrying cost for FY 2019-20 is summarized below:

**Table 94: Carrying Cost of Regulatory Assets for FY 2019-20**

Discom	Interest on unfunded gap (Rs. Cr.)	Total Sales (MU)	Carrying Cost (Rs./unit)
JVVNL	1,436	25,032	0.57
AVVNL	1,349	17,733	0.76
JdVVNL	2,111	20,844	1.01
<b>RAJASTHAN</b>	<b>4,896</b>	<b>63,609</b>	<b>0.77</b>

4.22.7 Based on the above cost parameters, the cross-subsidy surcharge for FY 2019-20 as submitted by Discoms is as under:

**Table 95: Cross Subsidy Surcharge for FY 2019-20**

Category	Voltage (kV)	Existing Tariff (Rs./kWh)	Proposed 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)	CSS at Proposed Tariff (Rs./kWh)
LIP / Power Intensive Industries	132	8.80	9.32	3.85	6%	0.77	0.77	3.16	3.68
	33	8.89	9.42	3.85	10%	0.84	0.77	3.01	3.54
	11	9.16	9.71	3.85	19%	2.11	0.77	1.55	2.09
Mixed Load-HT	132	7.73	9.05	3.85	6%	0.77	0.77	2.09	3.41
	33	7.82	9.14	3.85	10%	0.84	0.77	1.93	3.26
	11	8.06	9.42	3.85	19%	2.11	0.77	0.44	1.81
NDS-HT	132	9.96	11.90	3.85	6%	0.77	0.77	4.32	6.26
	33	10.06	12.02	3.85	10%	0.84	0.77	4.18	6.14
	11	10.37	12.39	3.85	19%	2.11	0.77	2.76	4.78

**Commission's view:**

**Computation of Cross Subsidy Surcharge**

4.22.8 For the purpose of computation of Cross Subsidy Surcharge, 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 96: Calculation of “T”**

Particulars	Avg. Realisation per Unit (Rs./Unit)
Non Domestic Category (NDS)	10.81
Bulk Supply for Mixed Load (ML)	9.35
Large Industries (LIS)	8.88

(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. 4.02/unit.

(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 97: Transmission and Distribution losses considered**

Losses	11kV	33kV	132Kv
Distribution	12.60%	3.80%	0%
Transmission	4.61%	4.61%	4.61%
Total	<b>17.21%</b>	<b>8.41%</b>	<b>4.61%</b>

(4) **“D” (is the aggregate of transmission, distribution and wheeling charges applicable to the relevant voltage level):**

**Table 98: Transmission, Distribution and Wheeling Charges**

Cost per unit (Rs./kWh)	11 kV	33 kV	132 kV
Wheeling cost	0.32	0.11	0.01
Transmission cost	0.78	0.78	0.78
<b>Total</b>	<b>1.10</b>	<b>0.89</b>	<b>0.79</b>

(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 above forgoing paras.

**Table 99: Carrying Cost of Regulatory Assets**

<b>Interest on Unfunded Gap</b>	<b>Rs. in Crores</b>	<b>5,908</b>
Total Sales	(MU)	63,040
Carrying Cost	(Rs./unit)	0.94

- b. The stakeholder's have contended that CSS as may be determined shall not be more than existing CSS as law contemplates that CSS shall be progressively reduced rather than being increased. On the other hand, if the Discom's prayer is accepted, the CSS will increase rather than getting reduced.
- c. 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 2019-20. 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.,**

$$S = T - [C / (1 - L / 100) + D + R]$$

- 4.22.9 Based on the above discussions, the Cross Subsidy Surcharge payable by the open access consumers works out as below:

**Table 100: Cross Subsidy Surcharge as per RERC Tariff Regulations, 2019**

CATEGORY OF CONSUMER	VOLTAGE LEVEL	TARIFF (T)	WEIGHTED AVERAGE COST OF POWER (C)	SYSTEM LOSSES (L)	TRANSMISSION, 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	10.81	4.02	17.21%	1.10	0.94	3.91	2.16	2.16
	33 KV	10.49	4.02	8.41%	0.89	0.94	4.26	2.10	2.10
	132 KV	10.38	4.02	4.61%	0.79	0.94	4.43	2.08	2.08
MIXED LOAD/ BULK SUPPLY	11 KV	9.35	4.02	17.21%	1.10	0.94	2.45	1.87	1.87
	33 KV	9.07	4.02	8.41%	0.89	0.94	2.85	1.81	1.81
	132 KV	8.98	4.02	4.61%	0.79	0.94	3.03	1.80	1.80
LARGE INDUSTRIAL SERVICE	11 KV	8.88	4.02	17.21%	1.10	0.94	1.98	1.78	1.78
	33 KV	8.61	4.02	8.41%	0.89	0.94	2.39	1.72	1.72
	132 KV	8.52	4.02	4.61%	0.79	0.94	2.58	1.70	1.70

4.22.10 The Commission, in the matter of petition filed by M/s Jindal Saw Ltd for review of Commission's Order dated 01.12.2016, held that the consumer of 132 kV and above is to be treated as same whether he takes supply at 132 kV or at a higher voltage.

4.22.11 Accordingly, the Commission determines the following Cross Subsidy Surcharge payable 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 101: CSS as Approved by the Commission**

Category of Open Access Consumer	Voltage Level	Cross Subsidy Surcharge (Rs./Unit)
NON DOMESTIC SERVICE	11 KV	2.16
	33 KV	2.10
	132 KV and above	2.08
MIXED LOAD/ BULK SUPPLY	11 KV	1.87
	33 KV	1.81

Category of Open Access Consumer	Voltage Level	Cross Subsidy Surcharge (Rs./Unit)
	132 KV and above	1.80
LARGE INDUSTRIAL SERVICE	11 KV	1.78
	33 KV	1.72
	132 KV and above	1.70

4.22.12 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.

### 4.23 Additional Surcharge

4.23.1 After examining the petition, the Commission vide letter dated 23.09.2019 & 11.11.2019 pointed out that Discoms have not filed the petition for determination of Additional Surcharge and the Discoms were directed to clarify along with supporting documents and file suitable proposal for determination of Additional Surcharge.

4.23.2 Subsequently, Discoms filed the additional information on the aforesaid issues and submitted that:

*"The Discoms submitted that they have not filed for additional surcharge as it does not intend to propose any change in the same. The additional surcharge was approved by the Commission in August, 2016 of Rs. 0.80/kWh. The Discoms does not envisage any change in the leviable additional surcharge. The additional surcharge is levied on account of fixed charges paid by the Discoms to the generators towards capacity stranded due to consumers availing open access.*

*It is worthwhile to mention that due to increase in installed capacity, the effective fixed charge has only increased which would ultimately lead to increase in additional surcharge. However, considering the interests of the industries, the Discom has not proposed any revision in additional charges and requests the Commission to take a prudent view on the same."*

4.23.3 The Regulation 72 of RERC Tariff Regulation, 2019 requires as under:

*"A Distribution Licensee shall file a petition for determination of wheeling*

*charges and retail tariff along with its tariff petition complying with the provisions of Part II of these Regulations. The Distribution Licensee shall also include determination to Cross Subsidy Surcharge and Additional Surcharge in its Petition for determination of wheeling charges and retail tariff”.*

4.23.4 In view of above, the Commission has separately directed to file a separate petition for determination of Additional Surcharge, within 3 weeks of issuance of Order dated 09.12.2019. In compliance to aforesaid order, the Discoms on 07.01.2020 have filed the petition for Additional surcharge which will be dealt separately till then the existing additional surcharge shall continue.

#### **4.24 Parallel Operation Charges**

4.24.1 Regulation 93 of RERC Tariff Regulation, provides for Determination of parallel operation charges’ for parallel operation of the CPP with the grid separately, as per conditions stipulated under State Grid Code and Connectivity Regulations of Central Electricity Authority notified in accordance with sub-section (b) of Section 73 of the Act.

4.24.2 Appellate Tribunal in its judgment dated 12.09.2006 in appeal no.99 of 2006 has held as under:

*“11. The parallel operation is definitely a service that the second respondent renders to all the CPPs like the appellant. It is the contention of the appellant that no charges could be levied or collected for the said service. As rightly pointed out by Expert who appeared for the second Respondent, the parallel operation is a service which extend support to the system and at the same it causes voltage dip in the system, harmonics, injection, additional reactive power requirement etc. By parallel operation the CPP gains more and hence it is liable to pay the charges for service.”*

*“12. The contention that no charges at all is payable for parallel operation or transmission system cannot be sustained and such a claim is contrary to factual position. There is no escape of CPP to pay charges for parallel second respondent by which the CPP gains while the transmission system of the second respondent CSEB is affected apart from the admitted fact the transmission grid is strengthened by the power injected by CPP....”*



4.24.3 Appellate Tribunal again in the judgement dated 18.02.2011 in Appeal No. 120 of 2009 held as under:

*“The parallel operation is a facility in the nature of a Grid support to the captive power plant. The Captive power plant gets the following advantages owing to the parallel operation with the Grid:*

- I. The fluctuations in the load of CPP are absorbed by the utility grid in the parallel operation mode. This will reduce the stresses on the captive generator and equipments. The CPP can operate his generating units at constant power generation mode irrespective of his load cycle.*
- II. Absorption of harmonics.*
- III. Negative phase sequence current is generated by unbalance loads. The magnitude of negative phase sequence currents is much higher at the point of common coupling than at generator output terminal. This unbalance current is normally creates problem of overheating of the generators and other equipments of CPP, if not running in parallel with grid. When they are connected to the grid, the negative phase sequence current flows into the grid and reduces stress on the captive generator.*
- IV. Captive power plants have higher fault level support when they are running in parallel with the grid supply. Because of the higher fault level, the voltage drop at load terminal is less when connected with the grid.*
- V. The grid provides stability to the load of captive power plant to start heavy loads like HT motors.*
- VI. The variation in the voltage and frequency at the time of starting large motors and heavy loads, is minimized in the industry, as the grid supply acts as an infinite bus. The active and reactive power demand due to sudden and fluctuating load is not recorded in the meter.*
- VII. The impact created by sudden load throw off and consequent tripping of CPP generator on over speeding is avoided with the grid taking care of the impact.*

VIII. The transient surges reduce the life of equipment of CPP. In some cases, the equipment fails if transient is beyond a limit. If the system is connected to the grid, it absorbs the transient surges. Hence, grid enhances the life of CPP equipments.

18. In short, the gain to the Captive power plant is quite substantial in case there is grid support. Owing to the above said substantial gains to the captive power plant by operating in parallel with the grid, the parallel operation charges are levied from the captive power plant.

19. Therefore, the State Commission is empowered to deal with the question as to whether the levy of parallel operation charges is permissible or not”.

4.24.4 Parallel operation charges in other States are as under:

State	POC
Chhattisgarh	Rs. 21/KVA / month
Gujarat	Rs. 26.50/KVA/month
Madhya Pradesh	Rs. 20/KVA/month
Tamil Nadu	Rs. 30,000/month for each MW

4.24.5 In view of aforesaid benefits of Parallel Operation to the Captive Power Plant (CPP), the Commission is introducing the Parallel Operation Charges for all the CPP Consumers in the State. However it is clarified that levy of parallel operation charge is without prejudice to provisions of Regulations related to grid operation, DSM, Forecasting or open access and any injection/drawal shall be dealt in accordance with relevant Regulations. Accordingly, Commission approves the Parallel Operation Charges as under:

**Table 102: Parallel Operation Charges**

All CPP Consumers	Rs.20/- per KVA per month
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#### **4.25 Rebate on Pre-paid metering**

4.25.1 In order to promote pre-paid metering and to persuade consumers to shift to prepaid mode, the Commission revises the existing rebate on pre-paid metering from Rs. 0.10/unit to Rs. 0.15/unit. This will be applicable from the date of issue of this order.

#### 4.26 Approved tariff for FY 2019-20

4.26.1 In the light of discussions as above, the approved tariff for FY 2019-20 for different categories has been approved as discussed under relevant category and also appended with the order.

#### 4.27 Revenue due to tariff revision

4.27.1 Discoms while making the tariff proposal for FY 2019-20 have shown a combined deficit of Rs. 7142 Crores and proposed a tariff increase of Rs. 5175 Crores, leaving a deficit of Rs. 1967 Crores even after proposed tariff increase.

4.27.2 However, the Commission has re-worked out a deficit of Rs. 5681 Crores at existing tariff for FY 2019-20. Even after considering the full tariff increase, some gap will still remain.

4.27.3 Discoms are expected to generate additional revenue as given in the tables below for a 12 month period, due to revision of tariff allowed by the Commission by this order. This does not account for implication of any existing incentive/surcharge or rebates, whose implication may be same as existing. The impact of these as well as newly considered rebates shall be considered at the time of true up. Revenue has been calculated by the Commission at the tariff determined by it. If the State Govt. provides subsidy for any category of consumers in advance in the manner as specified in RERC (Terms & Conditions of Tariff) Regulations, 2019, the Discoms may apply the subsidised rate to that category.

4.27.4 Discom wise revenue at existing and revised tariff as approved by the Commission are as follows:

**Table 103: Jaipur Discom- Revenue at Existing & Revised Tariff for full year as Approved by the Commission for FY 2019-20 (Rs. crore)**

Consumer Categories	Revenue at Existing Tariff	Revenue at Revised Tariff	Increase Allowed
Domestic	3,958	4,454	495
Non-Domestic	2,562	2,801	239
Public Street Light	127	148	21
Agriculture (Metered)	3,425	4,085	660
Agriculture (Flat)	128	152	25
Small Industry	255	272	17

Consumer Categories	Revenue at Existing Tariff	Revenue at Revised Tariff	Increase Allowed
Medium Industry	697	751	54
Large Industry	6,064	6,278	214
Public Water Works (S)	220	224	5
Public Water Works (M)	23	24	1
Public Water Works (L)	284	294	11
Mixed Load	158	186	27
<b>Total</b>	<b>17,901</b>	<b>19,670</b>	<b>1,769</b>

**Table 104: Ajmer Discom- Revenue at Existing & Revised Tariff for full year as approved by the Commission for FY 2019-20 (Rs. Crore)**

Consumer Categories	Revenue at Existing Tariff	Revenue at Revised Tariff	Increase Allowed
Domestic	2,727	3,067	340
Non-Domestic	1,372	1,498	127
Public Street Light	72	85	13
Agriculture (Metered)	2,497	2,985	488
Agriculture (Flat)	261	312	50
Small Industry	211	226	15
Medium Industry	730	775	45
Large Industry	4,062	4,219	157
Public Water Works (S)	253	256	4
Public Water Works (M)	28	29	1
Public Water Works (L)	231	240	9
Mixed Load	96	113	17
<b>Total</b>	<b>12,539</b>	<b>13,805</b>	<b>1,266</b>

**Table 105: Jodhpur Discom- Revenue at Existing & Revised Tariff for full year as approved by the Commission for FY 2019-20 (Rs. crore)**

Consumer Categories	Revenue at Existing Tariff	Revenue at Revised Tariff	Increase Allowed
Domestic	2,476	2,776	301
Non-Domestic	1,297	1,409	112
Public Street Light	78	92	14
Agriculture (Metered)	5,054	6,038	984
Agriculture (Flat)	612	729	118
Small Industry	171	184	13
Medium Industry	584	627	43
Large Industry	1,526	1,645	120
Public Water Works (S)	197	200	4

Consumer Categories	Revenue at Existing Tariff	Revenue at Revised Tariff	Increase Allowed
Public Water Works (M)	76	79	3
Public Water Works (L)	442	460	18
Mixed Load	319	372	53
<b>Total</b>	<b>12,830</b>	<b>14,613</b>	<b>1,783</b>

#### 4.28 Cross Subsidy

- 4.28.1 As per Regulation 89 of RERC (Terms and Conditions for Determination of Tariff) Regulations, 2019, the average cost of supply and realization from a category of consumers shall form the basis of estimating the extent of cross subsidy and determination of tariff for that consumer category.
- 4.28.2 Regulation 89 of RERC (Terms & Condition of Tariff) Regulations, 2019 read with National Tariff Policy makes it evident that average cost of supply has to be the benchmark in assessing cross-subsidy from any consumer category. The National Tariff Policy states that SERC shall notify a road map with a target that tariff are within +/- 20% of average cost of supply. The Commission has also specified in its Tariff Regulations that the Commission shall endeavour to determine the tariff in such a manner that it progressively reflects the average cost of supply and the extent of cross subsidy to any consumer category is within maximum range of +/- 20% of average cost of supply.
- 4.28.3 Average cost of supply for the three Discoms as per ARR and sales considered by the Commission earlier in this order for FY 2019-20 are as under:

**Table 106: Average Cost of Supply for FY 2019-20**

Particular	JVVNL	AVVNL	JdVVNL	Total
Net ARR (Rs. In crore)	19,837	14,280	16,543	50,660
Sales (MU)	25,044	17,666	20,330	63,040
AVG. COS (Rs./Unit)	7.92	8.08	8.14	8.04

- 4.28.4 The Average Cost of Supply as filed by Discoms is Rs 8.28 per unit. The Commission has worked out Average Cost of Supply of Rs. 8.04 per unit. However, the actual impact will be visible at the time of consideration of future petition.

4.28.5 Based on revised tariff approved by the Commission, the following will be cross subsidy as under:

**Table 107: Cross Subsidy for FY 2019-20**

<b>Cross subsidy</b>	<b>JVVNL</b>	<b>AVVNL</b>	<b>JdVVNL</b>	<b>Rajasthan</b>
Domestic	-3.21%	-2.17%	-6.96%	-4.06%
Non-Domestic	35.58%	35.63%	32.71%	34.54%
Public Street Light	4.59%	16.34%	17.15%	10.64%
Agriculture (Metered)	-25.29%	-26.75%	-26.24%	-25.87%
Agriculture (Flat)	-27.93%	-28.06%	-25.91%	-26.22%
Small Industry	3.59%	2.51%	4.57%	3.43%
Medium Industry	14.35%	7.28%	10.72%	10.76%
Large Industry	10.05%	9.85%	17.42%	10.49%
Public Water Works (S)	-14.84%	-19.49%	-18.08%	-17.49%
Public Water Works (M)	0.85%	-1.17%	-2.63%	-1.08%
Public Water Works (L)	4.23%	1.95%	2.74%	3.29%
Mixed Load	20.00%	22.04%	12.28%	16.39%

#### **4.29 Revenue Deficit/Gap**

4.29.1 Discoms in their petition have shown a combined deficit of Rs. 7142 Crores FY 2019-20 respectively and tariff increase of Rs. 5175 Crore is proposed during FY 2019-20. The Discoms submitted that they have taken various initiatives to reduce the cumulative revenue gap and to improve overall efficiency such as Loss Reduction, Feeder Segregation, Billing efficiency, Network Strengthening, Cost Optimisation, Vigilance Drives, Private Sector Participation, Demand Side Management, Focus on customer service and other efficiency improvement measures.

4.29.2 Against the aforesaid deficit, Commission has approved the combined Deficit of Rs. 5681 Crore at existing tariff. Further, after the tariff revision the Commission has approved the surplus of Rs. 603 Crore and Rs. 46 Crore for JVVNL and AVVNL respectively and in case of JdVVNL the Commission has worked out revenue gap of Rs. 1513 Crore on annualized basis. However, the tariff will not be applicable for full year for FY 2019-20 therefore, situation of surplus will not arise for JVVNL and AVVNL and Gap will be higher for JdVVNL. However, even if in future year the surplus situation arises any surplus shall be adjusted against the accumulated revenue gap of previous years. Discoms should attempt to bridge the accumulated gap by taking measures for loss reduction, efficiency improvement and cost optimization. Further the Discoms should rework their DBST proposal 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 amongst Discoms.

4.29.3 Based on discussion held above, the estimated revenue increase for FY 2019-20, assuming revised tariff remains applicable for the full year, is Rs. 4817 Crore. As tariff revision approved by the Commission would be effective for a lesser period, the additional revenue on account of tariff revision would not be available for the full year and works out to be approximately Rs. 291 crore for JVVNL, Rs. 208 Crore for AVVNL, Rs. 293 Crore for JdVVNL and Rs. 792 Crore for all Discoms.

4.29.4 Before parting with the order the Commission would like to observe that Discoms are still not able to turnaround as envisaged under UDAY and also not able to achieve goals for improvement in performance as envisaged under UDAY as well as Rajasthan State Electricity Distribution Management Responsibility Act, 2016. The Commission has increased tariff in this order but with this increase the expectation of consumers for quality of supply and better consumer services also increases. The Commission shows its serious concern towards Discoms state of affairs and directs the Discoms to prepare the following comprehensive action plans for improvement in performance:

**(i) Loss Reduction Plan:**

A loss reduction plan indicating technical as well as administrative measures to be adopted clearly showing the milestones and responsibility at various levels, this plan shall also include plan for metering, billing, collection, segregation of losses and measures to be adopted for control of theft among other measures.

**(ii) New developments/Challenges:**

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.

**(iii) Financial Turnaround plan:**

A financial turnaround plan which shall contain the road map for financial turnaround showing likely expenses, revenues, availability and requirement of funds, need for tariff increase, plan for optimization of capital and

revenue expenses, need for improvement in operational parameters, restructuring of debts and initiative for cash flow improvement.

4.29.5 This tariff order shall come into force from 01.02.2020 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.

(Prithvi Raj)  
Member

(S.C. Dinkar)  
Member

(Shreemat Pandey)  
Chairman



## Section 5- Commission's Directives

- 5.1 The Commission in its last order dated 28.05.2018 issued certain directives/ measures for improvement in working of the Discoms. The submission of the Discoms on these is summarized below:

S. No.	Directives	Submission of Discoms
1.	<b>Changing Nature of Grid</b>	<p><b>JVVNL</b> : SCADA Project under RAPDRP Part-A was awarded to M/s Dongfang Electronics Co. Ltd. The present status of the SCADA project as on dated 09.08.2019 for Jaipur City for RTU installed is 78 Nos. and FRTU installed 600 Nos. and in Kota RTU installed 19 Nos. and FRTU 240 Nos.</p> <p><b>AVVNL : Real Time Data Acquisition System (RT-DAS)</b> The project covers installation of FRTUs for 799 nos. 11kV Feeders emanating from 198 Nos. 33/11kV sub-stations of IPDS towns (other than SCADA town). The objective is to improve SAIDI and SAIFI by obtaining / measuring outage data of these sub-stations. As on date of submission the bid for above projects was under process.</p> <p><b>JdVVNL : Real Time Data Acquisition System (RT-DAS)</b> The project covers installation of FRTUs for 787 nos. 11kV Feeders emanating from 179 Nos. 33/11kV sub-stations of IPDS towns (other than SCADA town). The objective is to improve SAIDI and SAIFI by obtaining / measuring outage data of these sub-stations. As on date of submission the bid for above projects was under process.</p>
2.	<b>Electrical Vehicle (EV)</b>	<p><b>JVVNL, AVVNL and JdVVNL</b> : As per directions of the Commission the EV charging stations have been covered under Domestic Category. In ARR &amp; Tariff petition for FY 2019-20 the proposal of covering the EV under Mixed Load category has been submitted for approval.</p>
3.	<b>Day time Supply of Electricity to Rural Consumer</b>	<p><b>JVVNL, AVVNL and JdVVNL</b> : Distributed generation and micro-grids working in tandem with the Grid supply is a great way to improve duration and reliability of supply. The option being explored is of funding the replacement of existing pump-sets with solar pump-sets to agriculture</p>

		<p>consumers. This will not only allow the consumers to get free day time power but may also lead to substantial savings in terms of power purchase cost for the Discom. Further, the excess energy can also be fed back into the grid allowing the consumers to earn a nominal incentive on the same and thereby ensuring that the water level is also not adversely affected. Other possible options are putting up large centralised solar plants each with a capacity of a few hundred MW or having distributed mini solar plants each with a capacity of 1-2 MW. Action is already initiated on this under KUSUM scheme.</p>
4.	<b>Saubhagya Scheme</b>	<p><b>JVVNL, AVVNL and JdVVNL</b> : Submitted the progress of Saubhagya Scheme.</p>
5.	<b>Safety Measures</b>	<p><b>JVVNL, AVVNL and JdVVNL</b> : A number of steps have been undertaken to enhance the focus on safety. Circle SEs have been directed to expedite pending enquiries to find out causes of accidents in the past and accordingly prepare action plans. The Discoms Co-ordination Forum in its meeting had already approved the specification of safety items and procedures for purchase thereof. Moreover it has also been decided to provide safety devices like insulated shoes, helmets and rubber hand gloves individually to each and every technical worker besides other safety devices like lineman safety belt, earthing chain, etc. which are being provided to technical workmen regularly. The workers have been directed to refuse to do work in absence of availability of adequate safety devices.</p> <p>Committee of senior officers has been constituted at circle level to carry out regular inspection of 33/11 kV sub-stations and provide practical training to workers at work place, check availability of safety devices and ensure their use by workers while performing work and initiate action against defaulters. A safety and training cell has been created and technical officers have been nominated as safety officers in each circle. Multiple training modules have also been developed and are imparted at various levels.</p> <p>Also regular awareness sessions are carried out for its employees and public as well. The Discom also uses</p>

		<p>various other platforms like advertising and social media in order to create awareness about the system among the consumers and educate them about the do's and don'ts related to electricity in order to avoid any mishaps or accidents.</p> <p>The Discoms are very much concerned about the safety of its workmen at workplaces and is taking every measure to ensure that no accidents occur in the Discom area.</p> <p><b>JVVNL &amp; AVVNL :</b> The Discoms submitted that danger plates have been fixed everywhere, guarding/fencing are provided and earthing is checked wherever necessary. Safety manuals in Hindi are being provided to the workmen.</p> <p>Discoms are Complying with the CEA (Measures relating to safety and Electricity Supply) Regulations, 2010 and CEA (Safety requirements for construction, operation and maintenance of electrical plants and electric lines) Regulation 2011.</p>
6.	<b>Release of Pending Connections</b>	<p><b>JVVNL :</b> The Discom is undertaking all efforts to release pending agriculture connection at the earliest. In FY 2018-19 Jaipur Discom has released 44209 nos agriculture connections &amp; for FY 19-20 there is a proposed target of 19848 nos of agriculture connections.</p> <p><b>AVVNL :</b> The Discom is undertaking all efforts to release pending agriculture connection at the earliest. In FY 2019-20, 12,394 agriculture connections have been released till July 2019 against target of 25,000 connections to be released in FY 2019-20.</p> <p><b>JdVVNL :</b> The Discom is undertaking all efforts to release pending agriculture connection at the earliest. As on 8 August 2019, 16368 pending connections have been released. By the end of FY 2019-20, 34175 agriculture connections are to be released.</p>

7.	<b>Standards of Performance (SoP) for Discom</b>	<b>JVVNL, AVVNL and JdVVNL</b> : Discoms adheres to the Standards of Performance (SoP) strictly. The half yearly SoP report of the period Oct-18 to March-19 has been submitted.
8.	<b>Metering, Billing and Collection</b>	<p><b>JVVNL</b> : Discom, under TN-64, had issued work order for implementation of “Revenue management System (Metering, Billing and collection) on SAAS(System as a service )Basis for five years to M/S BCITS Private Ltd. The Discom submits that for monitoring quality of supply and studying harmonics, a detailed study needs to be undertaken. A comprehensive set of parameters need to be considered for which data needs to be collected. The Discom has started working on the data collection process to gather data which were not recorded earlier. Further, the new list of data shall be standardized for all future purposes. The parameters which can be collected through feeders, such as voltage fluctuation, will be collected on sample basis.</p> <p><b>AVVNL</b> : The bills of high valued large industrial (LIP) consumers are being sent through mail. Order vide Comml AJ-750 dated 15.06.2018 has been issued for payment of HT (LIP) bills online/digital mode. Discom has installed meters for most of the flat rate consumers under its jurisdiction. However, despite continuous efforts the desired results are not achieved owing to the public agitation and resistance that the officials had to face during the process of conversion. The total number of flat rate consumers had been reduced to 28,066 Nos. as on March-19 from 32,231 Nos. as on March-18. They had been further reduced to 27,121 Nos. as on June-19. All efforts are being made to provide quality of supply to consumers. This is evident from the fact that average supply hours to all consumers, apart from agriculture category, lies around 22-23 hours. The supply to agriculture is in blocks of 6/6.5 hours.</p> <p><b>JdVVNL</b> : The Discom submitted that every effort is being done to improve the process of metering, billing and collection. IT implementations being carried in the area are important measures for the system betterment. The</p>

		<p>consumers in the Discom are cooperating which is a big positive sign for the Discom towards a progressive society. Average supply hours to all consumers, apart from agriculture category lies around 22-23 hours. The supply to agriculture is in blocks of 6/6.5 hours.</p>
9.	<b>Monthly Billing</b>	<p><b>JVVNL</b> : Jaipur Discom has started monthly billing in its jurisdiction.</p> <p><b>AVVNL and JdVVNL</b> : Discoms submitted that the implementation of monthly billing would not only require implementation of IT systems but also require realignment of business processes. LoA for development of software modules for Discoms have been awarded to NIC by JVJNL and is being done at a nominal cost.</p>
10.	<b>Arrears</b>	<p><b>JVVNL</b> : Discom is putting in its best efforts for the collection of outstanding arrears. The same is reflected in the lower level of outstanding as compared to the previous year. The outstanding on Government connections at the end of December-2018 stood at Rs 45305.27 (in lacs) which was reduced to Rs 40391.16 (in lacs) at the end of March-19. The total arrears of Discom at the end of December-2018 stood at Rs 284943.66 (in lacs) which was reduced to Rs 227624.60 (in lacs) at the end of March-19.</p> <p><b>AVVNL</b> : Discom is putting in its best efforts for the collection of outstanding arrears. The same is reflected in the lower level of outstanding as compared to the previous year. The outstanding on Government connections at the end of December-2018 stood at Rs 200.60 Cr. which was reduced to Rs 143.15 Cr. at the end of March-19. The total arrears of Discom at the end of December-2018 stood at Rs 1083.51 Cr. which was reduced to Rs 673.29 Cr. at the end of March-19.</p> <p><b>JdVVNL</b> : Discom is putting in its best efforts for the collection of outstanding arrears. The same is reflected in the lower level of outstanding as compared to the previous year. The outstanding on Government connections at the end of December-2018 stood at Rs 252.23 Cr. which was reduced to Rs 230.50 Cr. at the end of March-19. The total arrears of Discom at the end</p>

		of December-2018 stood at Rs 1568.85 Cr. which was reduced to Rs 1136.72 Cr. at the end of March-19.
11.	<b>Ease of doing Business</b>	<p><b>AVVNL</b> : In its endeavour of strengthening ease of doing business in its area a rebate to the industrial consumers has been proposed in current petition.</p> <p>Various orders have been issued for simplifying procedure for obtaining a new connection under ease of doing business.</p> <p><b>JVVNL and JdVVNL</b> : In its endeavour of strengthening ease of doing business in its area a rebate to the industrial consumers has been proposed in the current petition.</p>
12.	<b>Avoidance of Unnecessary Litigation</b>	<b>JVVNL &amp; JdVVNL</b> : Discoms have set up a grievance cell to address the problems related to connections, billing, metering etc to avoid unnecessary litigations.
13.	<b>Late Payment Surcharge</b>	<b>Discoms</b> : The Discoms are also making all bound efforts to cut down on its interest cost. In order to cut down on its Late Payment Surcharge amount the pendency period for payment of dues have also been reduced.
14.	<b>IT Initiatives</b>	<b>JVVNL, AVVNL &amp; JdVVNL</b> : The Discoms have submitted details of IT implementation on Smart Metering/AMI, AMR Based DT/Consumer Metering, ERP, Mobile App etc.

5.2 The Commission has noted compliance as submitted by Discoms. The Commission has also issued certain directives earlier in the order. Power sector is a vital sector and the Commission has consistently insisted upon Discoms for improvement in their performance and issued certain directions and advises in previous orders. After considering all these, the Commission feels that Discoms should also make more focused efforts on various aspects as discussed here under, besides earlier directions:

**Proper Reply to Stakeholders Comments:**

5.3 Many stakeholders have raised the concern that Discoms are not furnishing pin pointed reply to their comments, therefore, the Commission directs the Discoms to furnish the pin point replies while responding to the stakeholder comments. Discoms are also directed to issue acknowledgement of the

receipt of stakeholder comments , when received by them.

**Defective Meters and Transformers:**

- 5.4 It is observed that Discoms have huge number of Defective meters and Transformers. In this regard, Discoms must ensure that the defective meters and transformers failed in guarantee period are replaced by the concerned supplier. It is further directed that Discoms should form a committee, who will look into this matter closely and identify the meters and transformers failed within and without guarantee period and also identify the repairable and un-repairable meters and transformers.
- 5.5 With regard to defective meters, the 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.
- 5.6 The Discoms should continuously check the load on the transformers for overloading as well as unbalanced loads. Unbalanced loads should invariably be tested on transformers supplying single phase loads.

**Tariff for Jaipur Metro:**

- 5.7 The Commission directs the Discoms to have a meeting with representative of Jaipur Metro for considering various issues related to metro including bifurcation of Non Domestic Load and furnish proposals for revision in tariff.

**Proposed Investment Plan and Analysis:**

- 5.8 The Commission directs that, before taking up any investment, Discoms must check the need of the same in the first instance and look into cost benefit analysis thereafter. This will ensure that investments are prioritized and are made where they are really needed.
- 5.9 Though Discoms have made substantial investments in feeder improvement programme and feeder segregation programme, they have not reported the benefit desired. Therefore, the Commission requires Discoms to submit a detailed report in this regard within a period of three months for consideration of the Commission.

### **Quality of Service:**

- 5.10 The Standards of Performance have also been specified according to which Discoms shall provide services within time limits specified and these Regulation which also provides for complaint handling mechanism, payment of compensation and Minimum Overall Standards of Performance to be achieved by a Licensee. This has increased the expectations of the consumers of delivery of a quality and reliable supply. Though the Discoms are submitting regular information of compliance of Standards of Performance but the Commission feels that there is need for efficient monitoring of quality of service. Accordingly, the Commission directs that Discoms should carry out consumer satisfaction study w.r.t various parameters of Standards of Performance including handling of complaint, transformer failure, scheduled outages, voltage variation, replacement of meters and timely release of connections, etc. through an independent Agency or NGO's working in consumer field and make its report public and based on report suggest measures for improvement in next tariff petition. Discoms may also revisit into their manpower requirement for meeting the norms laid down in Standard for Performance for Distribution Licensees, Regulations, 2014, for better customer services.
- 5.11 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.
- 5.12 Discoms are also directed to form a Committee to review the working of contractors to whom certain substations have been outsourced. The Committee should look into the aspect that the contractor should provide sufficiently skilled staff in proper number so as to ensure safety of manpower, equipment, public and to ensure efficient operations.

### **Load/Demand based Billing:**

- 5.13 Commission from time to time in its various orders has stressed that Discoms should move towards demand based billing, so that the fixed tariff are charged and collected more scientifically. The Commission while moving towards goal of demand based billing for all categories of consumers has already allowed LT MIP consumers ,LT consumers of Non Domestic category



(NDS/LT-2) and Bulk supply for Mixed load category (ML/LT-7) having sanctioned connected load more than 18.65 KW (25HP) to opt for billing on the basis of demand. Now meters installed are having load/demand recording facility, the Commission desires to extend the facility of load/demand based billing to all categories of consumer during next financial year. So that the consumers will be billed based on their actual load/demand usage specially for fixed/demand charges. This step will also save precious time of field staff of the Discoms which they can utilize to curb theft and ensure better consumer services, instead of keep on checking the connected load of consumers. Which is an irritant to honest consumers. Accordingly, Discoms are directed to make detailed analysis in this regard and file suitable proposals for allowing demand/Load based billing along with suitable proposal for revision in fixed charges with the next tariff petition.

**Fuel Surcharge:**

- 5.14 Discoms are directed to place details of calculations of fuel surcharge and methodology for recovering it on their website before raising the claims so that the consumers are informed of it. The fuel surcharge calculation should be got verified from an independent auditor.

**Security Deposit:**

- 5.15 The Commission directs that at the end of every financial year the Discoms should furnish the details of statement of accounts to the consumers duly indicating the consumption, date of payment and amount thereof, the security held and interest payable and when it was paid , additional security, if any, required and due date of the same.
- 5.16 Security Deposit amount should be shown separately in the bills of consumers after due verification and that should be considered as sufficient proof if the consumer seeks refund.

**Metering, Billing and Collection:**

- 5.17 Commission has emphasised on Metering, Billing and Collection, three important commercial activities which is the financial backbone of Discom. Online billing and collection of payment is the need of the hour. Therefore, Discoms must focus on considering the smart/AMR metering, e-billing and e-Collection.

- 5.18 Discoms should focus on the activities, like installation of the new meters/replacement of the defective meters on war footing and introduce checks and balances for billing errors.
- 5.19 Revenue Audits should also be carried out to find out revenue leakages and loopholes must be plugged. Bills should be delivered timely so that consumers have sufficient time to deposit the same. Discoms should make maximum use of technology to reduce errors, minimize human intervention and increase customer satisfaction
- 5.20 The Discoms should have a long term metering plan in force keeping in view the requirement of meters for replacement, new connections, tariff rationalization measures (viz load based billing etc.) and communication requirement and should be ready to use smart meters wherever required.
- 5.21 Discoms should ensure that all feeder meters remain in healthy conditions and energy audit being carried out and Discoms make use of the results. For the energy audit to bring in discipline, the Discoms must understand that Metering, Billing and collection are the most important activities for their financial health and should divert proper investment and efforts towards Metering, Feeder Metering, Distribution Transformer Metering and Energy Audit etc.
- 5.22 Discoms are also directed to ensure that while purchasing meters of new technology, they should ensure its usability over the useful life and also choose communication protocol/software carefully.
- 5.23 Discoms are directed to clearly indicate the detailed break up of other debits, fuel surcharge and other miscellaneous charges shown in consumer electricity bills.

#### **Monitoring of Defective meters at Sub-Divisional Level**

- 5.24 Timely replacement of defective meters and assessment of Revenue for defective period is essential as it not only improves Revenue of Discoms but also it helps in reducing Distribution Losses. In this respect, Executive Engineer (O&M) to monitor position of defective meters Sub-Division wise on monthly basis in the following formats:

(a)

S. No.	Month	No. of Defective meters, at the beginning of the month	No. of meters replaced during the month	No. of new defective meters added during the month	Net Defective meters at the end of the month
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(b)

S. No.	Month	Assessment made in No. & Amount of replaced meters	Assessment made after more than 2 months	Responsibility of Person(s) responsible for such delay	Reasons if there were conditions beyond control
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There is a provision of giving 5% rebate to consumers on average bills if meter remains defective. The Discoms should ensure that they pass on this rebate to consumers. In case of non replacement of meter timely, suitable disciplinary action be taken against the concerned employee.

### **Sample Checking of Meter Readings by Officers**

- 5.25 It is seen that the Distribution Losses in some areas are quite high which may also be due to wrong / manipulated meter readings and thereby billing for less consumption, which reduces revenue of Discoms and increases Distribution losses. Such problem of incorrect meter reading can be solved to some extent by sample checking of the meter readings by Junior Engineers/ Assistant Engineers/ Executive Engineers and Superintendent Engineers and Zonal Chief Engineers, during their field visit. Discoms are directed to fix some targets in terms of numbers / percentage of total meter readings for these officers and on such checking if difference in meter reading is found, strict action be taken against defaulters.

### **Arrears:**

- 5.26 It is observed that arrears is a continuous phenomena, in recent years Discoms have shown good collection efficiency. However to ensure that arrear should not be accrued in future and to control this timely and prompt disconnection should be made of erring consumers and security should be forfeited immediately apart from taking other legal action for recovery of dues. Responsibility of officers for not making timely disconnection and recovery of arrear should be fixed and suitable action be taken against them. Discoms are also directed to review category wise

and age wise position of arrears and initiate a drive for recovery of arrears.

**IT implementation:**

5.27 Discoms in their petitions submitted that they are taking following steps towards IT implementation:

- 1. Improving efficiency of operations:** With reliable and real time data availability, it would be possible to carry out day to day operations more efficiently and take proactive measures instead of reactive.
- 2. Increased control at transaction level:** With IT penetrating to the lowest of levels, it would be possible to utilize the benefits of anywhere-anytime availability of data leading to better control at transaction level.
- 3. Enabling sustainable changes in operations:** Enabling the core business operations with information systems at the transaction level would help lay the foundation for sustainable reforms. It would ensure world-class practices and controls at the operations level and bring about sustainable improvements in the overall health of the utilities.
- 4. Enhancement in Safety and Reliability:** With real time monitoring and availability of anytime anywhere data, it is possible to predict tripping, outages, transformer failures, etc. and reduce the time taken to act thereby effectively managing the same.
- 5. Increased transparency and accountability** across the organisation.
- 6. Assistance in making timely strategic decisions:** The biggest advantage of Information Technology lies in the availability of reliable data which can be used for better asset management, investment prioritisation, network planning, etc.
- 7. Improved customer service / redressal system:** With Information Technology, there would be new consumer friendly avenues enabling faster interaction between the consumers and the Discom. Use of modern technologies will also ensure error free bill generation, faster delivery of bills, easier collection avenues, easier complaint registration and faster resolution which would ultimately lead to improvement in customer satisfaction.

In order to move towards being an advanced organization in terms of IT enablement, the Discoms submitted that they require additional systems in the future. As such, it is important to keep under consideration some of those systems while designing the overall IT strategy.

The following future projects have been identified for implementation in the long term:

- a) Pre-paid Metering** – it can help in better collection efficiency and revenue realization. Upfront receipt of payments will improve the cash flows of the utility.
- b) Load Forecasting System** – the system will be beneficial in planning of power purchases, network planning and optimization, demand side management etc.
- c) Demand Side Management** – The system will enable the utility to influence customer to use of electricity in ways that are mutually beneficial to the customer and the utility.
- d) RFID based Inventory Tracking** – for better management of inventory across the jurisdiction of Discom.
- e) Smart Grid Initiatives** – for real time monitoring and control of electricity distribution.

5.28 With regard to IT implementation, Discoms submitted that Work order for ERP implementation has been awarded, the ERP project covers modules like (a) Human Resource management system, (b) Finance & Accounting, (c) Work & Project management and (d) Material Management. Further, they have taken initiative for implementation of AMI/Smart metering for the consumers and work order had been awarded. With regard to AMR based DT/Consumer Metering, Discoms have taken initiative for implementation of AMR system for DT's & consumer on Infrastructure as a service basis. It will cover the villages having population of more than 5000. Other IT initiatives like Mobile applications- BIJLI Mitra app, designed for consumers, has various features like online payment facility and complaint registration and BIJLI prabhand app, designed for Discoms officials, to monitor the Revenue etc.

- 5.29 The Discoms submitted that they are taking every measure to change the existing system by IT implementation. However, since the number of consumers is very large (~50 lakhs) with a high revenue influx, changing things take time. The tendering processes themselves are time consuming, but for the benefit of the consumers, only the best services are chosen.
- 5.30 The Commission in its last orders also stressed on to implementation of Enterprise Resource Planning (ERP) systems for better and effective management and also noted that apart from use of website and online payment, the Discoms must develop and promote mobile applications for billing and collection as well as for customer complaints where consumer grievance can be addressed timely and expeditiously. Further, Discoms should accept online applications through its portal for release of new connections as well as other services. A tracking facility should also be provided. Accordingly, Discoms are directed to make a time bound programme for IT implementation clearly showing milestones and responsibilities of various officers. Discoms are directed to furnish quarterly reports in respect of IT implementation as it will not be possible for the Discoms to exercise effective control without implementation IT measures.

**Voltage Wise Cost of Supply:**

- 5.31 It has been observed by the Commission that with the current tariff petition, the Discoms have filed the voltage wise cost of supply in line with directions of Hon'ble APTEL. With the feeder metering, DT metering and segregation of feeders and energy audit, the Discoms should have computed the voltage wise cost of supply with more accuracy. Discoms are directed to furnish detailed calculation of voltage wise cost of supply with the next tariff filing.

**Segregation of AT&C Losses:**

- 5.32 The Discoms in UDAY Scheme have been targeted to achieve the loss level of 15% by FY 2018-19. The Discoms may look into the data of losses of Towns/Sub-Divisions furnished to the Commission and analyse the reasons wherever losses are more than 15% and take effective measures to reduce the losses to at least 15%. The Discoms should furnish a detailed report in this regard to the Commission on action taken with next tariff petition along with a time bound road map for aggregate technical and commercial loss

reduction and the status of energy accounting and auditing of all 33 KV feeders and 11 KV feeders along with consumer indexing and time bound metering of each category of consumers and Distribution Transformer level energy auditing. Along with the report, the Discom should also file the segregated AT&C losses.

**Avoidance of Unnecessary Litigation:**

- 5.33 The Commission in its last tariff order dated 28.05.2018, directed the Discoms to avoid unnecessary litigations regarding connections, billing, metering etc. During current proceedings also, it has been brought to notice of Commission that a large number of unnecessary litigation are pending against Discoms in various forums. The Discoms are directed to form a Committee to study the aspect of unnecessary litigation and take action to reduce unnecessary litigation.
- 5.34 It is observed that due to various legal proceeding, there is a stay on release of connections in certain areas. However, such areas have become theft prone areas. The Commission directs Discoms to take necessary steps for either taking legal recourse to allow them to release the connections in such areas or step up vigilance activities in such areas with help of local administration so as to avoid cases of theft/ unauthorised use.

**Internal Audit System:**

- 5.35 It is observed that internal control system do exist in Discoms but these are not being utilized in requisite manner. The Commission directs that both technical and financial internal audit should be conducted in a time bound manner for each subdivision and top management takes action on the reports of internal audit. Further, Discoms are also directed to carry out a third party audit of material used in various capital investments schemes and retrieval of old material during execution of these schemes.

**Audit Report:**

- 5.36 Many stakeholders have raised their concern about the adverse comments in audit report of Discoms. Discoms are directed to take those adverse comments mentioned by auditors seriously and take suitable measures to address the issues and ensure to improve their working accordingly.

### **Inventory Management:**

- 5.37 With regard to inventory, Discoms should set a critical level of inventory and optimize their purchases, so that working capital is not blocked due to unnecessary purchases and servicing of spares not affected due to short purchases. Further, Discoms should ensure that no material lies idle in the store beyond set level.
- 5.38 Discoms should keep proper record of scrap/ retrieved material.

### **Safety:**

- 5.39 Commission in its various orders have emphasized for compliance of CEA Safety Regulations. Therefore, Discoms should ensure compliance of CEA (Measures relating to Safety and Electricity Supply) Regulations, 2010 and CEA (Safety requirements for construction, operation and maintenance of electrical plants and electric lines) Regulations, 2011.

### **Chaupal/ Jan Sunwai:**

- 5.40 Discoms should focus on rural areas for better services. Discoms many conduct regular Chaupal/ Jan sunwai for redressal of their problems and consumer awareness.

### **Rationalisation of Power Purchase Cost:**

- 5.41 Discoms have to purchase power from various sources from cheaper to costlier sources. Discoms should ensure dispatch of power strictly on merit order principle. Merit order should be placed on the website of the Discoms.
- 5.42 The Commission hopes that the Discoms should bring in requisite improvement in their working and move towards providing better consumer services and achieving financial turnaround.

### **Summary of the Commission's Direction to Discoms:**

#### **Reduction of Losses and Control of Theft**

1. Each feeder should be treated as a management and profit center and feeder manager should be made fully responsible for each feeder.



2. Upload feeder wise losses on its website and analyse the feeder wise losses for last 3 years and submit a report to the Commission for 25 % feeders where the losses were highest during last year along with action taken by the Discoms for reduction in losses.
3. MD of each Discoms should adopt two circles where losses are highest, whereby Distribution losses of Discoms can be reviewed and monitored properly and can be reduced in a progressive manner. Technical Director should also adopt one circle with third highest loss. Outcome of this measure should be reported to the Commission after six months of issue of the orders.
4. Carry out compulsory checking of meters installed at quarters of GSS, police Station, public places and other Government colonies.
5. Take necessary initiatives to reduce the scope of theft like regular checking of theft prone installations.
6. Due to various legal proceeding, there is a stay on release of connections in certain areas. Initiate necessary steps for either taking legal recourse to allow them to release the connections in such theft prone areas or step up vigilance activities in such areas with help of local administration so as to avoid cases of theft/ unauthorised use.
7. Initiate a scheme of appreciation and reward, where a person who informs the Discoms about theft cases is being appreciated and rewarded.
8. Re-assess wheeling losses and furnish detailed report.
9. Discoms are directed to make loss reduction plan.
10. Furnish a detailed report of AT&C Losses.

### **Metering, Billing and Collection related**

11. 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.
12. Identify all unmetered street light points and ensure that no street light point exists without correct meter.

13. Discoms should ensure that Message/ bills are timely delivered to end consumer.
14. Carry out a detailed study of actual specific consumption of flat rate agriculture consumers of three Discoms separately and submit the same to Commission along with the next ARR and Tariff Petition. This study should be supported by Feeder meter reading and total of meters installed at Agriculture Consumers.
15. There is provision of giving 5% rebate to consumers on average bills if meter remains defective. The Discoms should ensure that they pass on this rebate to consumers. In case of non replacement of meter timely, suitable disciplinary action be taken against the concerned employee.
16. To fix some targets in terms of numbers / percentage of total meter readings for these officers and on such checking if difference in meter reading is found, strict action be taken against defaulters.
17. To review category wise and age wise position of arrears and initiate a drive for recovery of arrears.
18. To ensure that while purchasing meters of new technology, they should ensure its usability over the useful life and also choose communicate protocol/software carefully.

**General and ARR related Directions:-**

19. Furnish the pin pointed replies while responding to the stakeholders comments.
20. File separate information of category wise number of temporary connections, connected load, sales and revenue realization from them in next petition.
21. 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.
22. Furnish Fixed Assets Register along with physical verification report in next true up/ tariff filing.

23. 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.
24. Prepare a financial turnaround plan which shall contain the road map for financial turnaround showing likely expenses, revenues, availability and requirement of funds, need for tariff increase, plan for optimization of capital and revenue expenses, need for improvement in operational parameters, restructuring of debts and initiative for cash flow improvement.
25. Before taking up any investment, Discoms must check the need of the same in the first instance and look into cost benefit analysis.
26. To make a time bound programme clearly showing milestones and responsibilities of various officers regarding implementation of ERP.
27. Furnish detailed calculation of voltage wise cost of supply with the next tariff filing.
28. Set a critical level of inventory and optimize their purchases and ensure that no material lies idle in the store beyond the pre determined level.

#### **Consumer Service related**

29. Set up 24X7 Helpline/Helpdesk and hold at least one consumer campaign in each circle.
30. Separate Fault Removal Teams be also formed in rural areas as well.
31. Collect mobile number of every consumer within 3 months time from the date of issue of this order and prepare a data base for informing consumers regarding bills , schedule outages etc. time to time.
32. To place details of calculations of fuel surcharge and methodology for recovering it on website before raising the claims. The fuel surcharge calculation should be got verified from an independent auditor.
33. Furnish the details of statement of accounts to the consumers duly indicating the consumption, date of payment and amount thereof, the security held and interest payable and when it was paid , additional

security, if any, required and due date of the same, at the end of each financial year.

34. Security Deposit amount should be shown separately in the bills of consumers after due verification and that should be considered as sufficient proof if the consumer seeks refund.
35. To clearly indicate the detailed break up of other debits, fuel surcharge and other miscellaneous charges shown in consumer electricity bills.

### **Tariff Related**

36. Submit suitable proposals for merging Small Domestic category with General Domestic consumers along with next tariff petition.
37. To review the various rebates and incentive as well as the tariff for newly created sub-category at regular intervals and file suitable proposals for revision, if required.
38. 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 for FY 2020-21.
39. File a fresh petition for determination of wheeling charges.
40. Convene a meeting with representative of Jaipur Metro for considering various issues related to metro including bifurcation of Non Domestic Load and furnish proposals for revision in tariff in next petition.
41. File suitable proposals for allowing demand/Load based billing along with suitable proposal for revision in fixed charges with the next tariff petition.

### **Internal Audit, Training and Studies**

42. To form a Committee to review the working of contractors to whom certain substations have been outsourced specially with regards to deployment of skilled manpower and safety.
43. 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.

44. Discoms should carry out consumer satisfaction study w.r.t various parameters of Standards of Performance including handling of complaints, transformer failure, scheduled outages, voltage variation, replacement of meters and timely release of connections, etc.
45. Technical & financial internal audit should be conducted in a time bound manner for each subdivision and top management must take action on the reports of internal audit.
46. Carry out a third party audit of material used in various capital investments schemes and retrieval of old material during execution of these schemes.
47. Discoms are directed to take adverse comments of Auditors in Audit reports seriously and take suitable measures to address the issues and ensure to improve their working accordingly.

**Summary of the Commission's Advise to Government:**

1. the Commission advises the Government of Rajasthan (GoR) to release the subsidy in advance in future. Alternatively, instead of paying subsidy to Discoms, the State Government can also plan for Direct Benefit Transfer Scheme.
2. The Commission further advises the GoR to pay the interest on outstanding subsidy amount to the Discoms. It is made clear that the additional financial burden on Discoms due to delay in release of subsidy by the State Government shall not be passed on to consumers under any circumstances.
3. Government of Rajasthan is also advised to consider to review the tariff subsidy to flat rate agriculture consumers so as to make these consumers shift to metered category. Alternatively, instead of paying subsidy to Discoms, the State Government can also plan for Direct Benefit Transfer Scheme.

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## Annexure A

### JVVNL

1.	Kota Pashu Chikitsa Sangh Samiti Kota, Kota
2.	Rajeev Gandhi Nagar Resident Welfare Society
3.	Sh Pawan Dagdi
4.	Smt Rekha Choudhary
5.	Sh Gokul Dabariya
6.	Sh Gopesh Soni
7.	Sh Manoj Sihag
8.	Sh Kedar Nath Soni
9.	Sarraf Hotels Private Limited
10.	Sh Ankit Agrawal
11.	Sh Ghanshyam Sharma
12.	Samajik Vikas Samiti
13.	Sh Kailash Gupta
14.	United Council of Rajasthan Industries
15.	Sh Yewanti Kumar Boliya
16.	Shree Cement Ltd.
17.	Hotel Association of Jaipur
18.	Rajasthan Stainless Steel Re-Rollers Association
19.	Sh Ramesh Chand Sharma
20.	Sh Shahid Khan
21.	Sh Anil Bishnoi
22.	Sh Ravi Soni
23.	All Rajasthan Mineral Processors
24.	Samta Power
25.	Sh Shanti Prasad
26.	Sh P C Jain
27.	Nagrik Vikas Samiti Ward 75
28.	The Rajasthan Textile Mills Association
29.	Nitin Spinner Limited
30.	National Anti Corruption and Anti Atrocity Organisation Tiger Force
31.	Nikhil Agarwal and Others
32.	Lords Chloro Alkali Limited
33.	Sh Damodar Prasad Chirania

34.	Synergy Steels
35.	Sh Om Prakassh
36.	Meel Hotel (P) Ltd.
37.	Technocrats & Managers Society Of Advanced Learning & Gramothan
38.	Rajasthan Steel Chamber
39.	Rajasthan Nagrik Manch
40.	CREDAI Rajasthan
41.	Sh Mahendra Singh
42.	Yagyavalkya Institute of Technology
43.	Tulsi Palace Resort Pvt. Ltd.
44.	DCM Shriram Ltd.
45.	Smt Pushpa Kumari
46.	Jaipur Chamber of Commerce & Industry
47.	Foundry Owner's Association
48.	Chora Rasta Vyapar Mandal, Jaipur
49.	Jaipur Vyapar Mahasangh, Jaipur
50.	Sarv Samaaj Sangharsh Samiti
51.	Sri Balaji Forgings Pvt. Ltd.
52.	Shree Balaji Furnaces (P) Pvt.
53.	Mani Mahesh Ispat Pvt. Ltd.
54.	Sh Subhash Chandra Sharma
55.	Sh Akhilanand Bhargava
56.	Committee for Protecion of Public Properties
57.	Rastriya Loktantrik Party
58.	Sh Raghvendra Kumar Rawat
59.	Sh Chand Behari Lal Goyal
60.	Ek Pahal Nirman Ki Aur
61.	The Employers Association of Rajasthan
62.	Civil Rights Society
63.	Vyas Plastomates
64.	Bask Research Foundation, Jaipur
65.	Ramayana Ispat Private Limited
66.	Sh Balveer Singh Sankhla
67.	Sh Mohan Lal Prajapat
68.	Sh Kailash Chand Saini

69.	Sh Kuldeep Verma
70.	Federation of Rajasthan Hotel Association
71.	Jaipur Metro Rail Corporation Ltd
72.	Rajasthan State Road Transport Company
73.	Vidhyadhar Nagar Khudra Fal Sabji Vikreta Vikas Samiti
74.	Sh Sunil Gupta
75.	Sutlej textile and Industries Limited
76.	Jagdamba TMT Mills LTD.
77.	Sh Mukesh Jain
78.	Rudraksh Tradelinks Ltd
79.	Sh Gyan Chand Jain
80.	Hotel & Restaurent Association of Rajasthan
81.	Pinkcity Buildhome Pvt. Ltd.
82.	Vikas Samiti
83.	Sh Mahendra Kumar Saboo
84.	Sh Dharm Deo Agarwal
85.	Step By Step Shiksha Samiti
86.	Shree Shyam Alkalies & Chemicals
87.	Rajasthan Association of Tour Operators
88.	Rajasthan Bijali Workers Federation (AITUC)(Total 218 Nos.)
89.	Sh Babu Lal Mehra
90.	Sh Sukh Mahendra
91.	Sh Rajesh Jangid
92.	Sh Rajender Prashad
93.	Sh Om Singh Panwar
94.	Sh Harlal Kumawat
95.	Sh DeepakMehta
96.	Sh Jitesh Vaishnav
97.	Pagaria Trading Company
98.	Sh Praveen Pareek
99.	Sh Uttam Kumar
100.	Sh Balwinder Singh
101.	Tech Baba Jugaad
102.	Sh Omprakash Sharma
103.	Sh Chandrajat Chaudhary



104.	Sh Lal Krishna Swami
105.	Sh Jugal Vishnoi
106.	Sh Abhishek Singh
107.	Sh Shaukin Khan
108.	Sh Saurabh Singh
109.	Sh Veerendra Singh Rathore
110.	Sh Satya
111.	Sh Ramprakash Yogi
112.	Sh K R Sharma
113.	Sh Lekhraj Puniya
114.	Sh Santosh Atude
115.	Sh Lal Chand Prajapat
116.	Sh Yaseen Khan
117.	Sh Janak Singh Naruka
118.	Sh Anil Setia
119.	Sh DevKumar Bahariya
120.	Sh Suresh Chand Menariya
121.	Sh Harveer Singh
122.	Sh Guman Singh
123.	Sh Harmeet Singh
124.	Sh Mukesh Goyal
125.	Sh Hanuman Prasad Choudhary
126.	Sh Sangram Singh
127.	Sh Manit Mishra
128.	Sh Balram Legha
129.	Sh Ishwar Singh Ranawat
130.	Sh Mani Ram
131.	Sh Nepal Singh Rathore
132.	Sh Chhajuram Tundwal
133.	Sh Hanuman Kumar
134.	Sh Anil
135.	Sh Jagdish Chhipa
136.	Rajasthan Woven Sack Manufacturers Association
137.	Dr Shiv Kumar Mishra
138.	Sh Narendra Kumar Tak

139.	The Rajasthan Solar Association
140.	Sh Mahendra Soni
141.	Sh Jasdeep Singh
142.	Rajasthan Pradesh Niji College Sangh
143.	Sh G L Sharma
144.	Sh Pradeep Kumar
145.	Sh Praveen Sisodia
146.	Sh Mehboob Khan
147.	Sh Bhadar Ram Jangir
148.	Sh Jitendra Singh
149.	Sh Prahlad Choudhary
150.	Sh Bhajan Kambhoj
151.	Sh Gyan Singh
152.	Sh Bhajan Lal Saharan
153.	Sh Parmendra Bhadauriya
154.	Sh Sanjeev Kumar
155.	Sh Jasvinder Singh
156.	Sh Lalit Mohan Lal
157.	Sh Narayan Lal
158.	Sh Kailash Bhatia
159.	Sh Dev Patodia
160.	Sh Fateh Lal Suthar
161.	Sh Ram Pal
162.	Sh Balu Singh
163.	Sh Somay Natani
164.	Sh Gajanand Rawat
165.	Sh Sandeep Yadav
166.	Sh Yogiraj Yadav
167.	Sh Kartar Singh
168.	Sh Shrey Jain
169.	Sh Pushpdayal Nagar
170.	Sh Ved Prakash Poonia
171.	Sh Sandeep Sahu
172.	Sh Sanjay Gurjar
173.	Sh Jeetendra Singh Parmar

174.	Sh Gyanmal Prajapat
175.	Sh Pawan Kumar
176.	Sh Bharat Prajapat
177.	Sh Yashwant Pal
178.	Sh Baba Sanju
179.	Sh B N Yogi
180.	Sh Manak Chand Nogia
181.	Vision World Jaipur
182.	Sh Ramdev Danga
183.	Sh Mahipal Tandi
184.	Sh Shahajad Mohammad
185.	Sh Mukesh Bishnoi
186.	Rajasthan Vikas Morcha
187.	Consumer Legal Help Society
188.	Sh Kailash Chandra Agarwal
189.	Sh Mohd. Arif
190.	Sh Ramesh Sodhani & Jaipur Citizen
191.	Sh Suresh Biban
192.	Sh Ambar Gurung
193.	Sh Laxmilal
194.	Sh Padma Sharma
195.	Hadoti Kota Stone Industries Association
196.	Sh Chhotu Soni
197.	R K Puram Vikas Samiti
198.	Sh Gajraj Hada
199.	Sh Manvee Goyal
200.	Sh Sanjeev Sharma
201.	Sh Ramesh Lohar
202.	Sh Radhy Shyam Swami
203.	Sh Rajendra Mehta
204.	Sh Jeetu Kumar
205.	Sh Mahaveer Singh
206.	Sh Himanshu Jain
207.	Sh Girish Jain
208.	Sh Pankaj Tiwari

209.	Shree Agencies Pvt. Ltd.
210.	Smt Sujata Meena
211.	Sh Rahul Sharma
212.	Sh S K Sharma
213.	Sh Rajendra Mali
214.	Sh Nitin Agarwal
215.	Jansewak
216.	Sh Sampat Dhakar
217.	Sh Satyanarayan Kumawat
218.	Sh Dishant Singh
219.	Sh Dayaram Soni
220.	Rubal Tholia
221.	Sh Pankaj Kumar
222.	Sh Nitin Kumar
223.	Sh Sandeep Sharma
224.	Alwar Chamber Of Commerce & Industry
225.	Smt Manju Narula
226.	Matsya Udyog Sangh
227.	Alwar Automobile Component Mers. Society
228.	Laghu Udyog Bharti
229.	CUTS International
230.	Maruti Colony Vikas Samiti Sanganer
231.	Comminist Party Of India (M)
232.	Smt Veena Devi
233.	Punjabi Samaj Vikas Sanstha
234.	Sh Vinod Meena
235.	Sh Manoj Verma
236.	rupeshd1729@gmail.com
237.	Sh Praveer Agarwal
238.	Sh Naresh Kumar Sharma
239.	Upbhokta Margdarshan Samiti 'UMAS' Jodhpur
240.	Gumanpura Dukandar Sangh
241.	Friends Association Rajasthan
242.	RIICO Paryavaran Industrial Area Association Society
243.	Hotel And Restaurant Association

244.	The SSI Association Kota
245.	PRAYAS
246.	Sh Kailash Chand Verma
247.	Sh Gulab Chand Rajoriya & Others
248.	Sh. Ved Prakesh Sharma, Rajasthan Bijali Workers Federation (AITUC)

### **AVVNL**

1.	Nagaur Gems & Jewellery Industries Association
2.	Sh D. K. Sharma
3.	Saith Anandram Jaipuriya Hospital
4.	Shree Rajasthan Syntex Limited
5.	Sh Yewanti Kumar Boliya
6.	Rajasthan Stainless Steel Re-Rollers Association
7.	Mineral Grinding Plant Association, Rajsamand
8.	All Rajasthan Mineral Processors
9.	Makrana RIICO Area Marble Association
10.	Samta Power
11.	Dr. Prakash Chandra Kanthaliya
12.	Sh Shanti Prasad
13.	The Rajasthan Textile Mills Association
14.	Nitin Spinner Limited
15.	Zila Marble Cutter Association Rajsamand
16.	St. Paul's Sr. Sec. School
17.	Sh Damodar Prasad Chirania
18.	Mewar Chamber Of Commerce & Industry
19.	Mahendra Singh
20.	Shiva Education & Research foundation
21.	Shri Pragya Kundan Vallabh Mahila Chikitsalay
22.	Central Academy
23.	Udaipur Chambers of Commerce & Industry
24.	Vedanta Transforming Elements
25.	The Employers Association of Rajasthan
26.	Sh Kailash Chand Saini
27.	Sh Kuldeep Verma
28.	Rudraksh Tradelinks Ltd
29.	Hotel & Restaurant Association of Rajasthan
30.	Suvidha Spinners Private LTD.
31.	Chittorgarh Laghu Marbles Udyog Sansthan LTD.
32.	JK Cement LTD.
33.	Shree Gayatri Minerals

34.	Sh S C Kothari
35.	Amrit 2 Minchem
36.	Maruti Minerals Kareda Rajsamand
37.	Mahesh Minerals
38.	Aashirwad Ceramics
39.	Krishna Minerals
40.	Pawan Minerals
41.	Devdhara Minerals
42.	Beawar Industries (Total 267 Nos.)
43.	Beawar Individuals (Total 107 Nos.)
44.	Dhanlaxmi Minerals
45.	Kanhaiya Minerals
46.	Rajlaxmi Minchem
47.	Rajasthan Woven Sack Manufacturers Association
48.	The Ajmer Industrial Estate Association
49.	Maa Nirmala Minerals
50.	Chaudhary Charan Singh Grameen Vikas Sansthan
51.	Sh G L Sharma
52.	Bright Minerals
53.	Hari Minerals
54.	Vaibhav Minerals
55.	Raghav Minchem
56.	Alankar Mines and Minerals
57.	Bholenath Minerals
58.	Radhika Minerals
59.	Shree Kanhaiya Minerals
60.	Jai Laxmi Minerals
61.	Riddi Siddhi Minchem
62.	Sanwariya Minerals
63.	Shree Ram Minerals
64.	Consumer Legal Help Society
65.	Sh Kailash Chandra Agarwal
66.	Shree Nath Minichem
67.	Sh Mohd. Arif
68.	Raghav Minerals
69.	Anand Minerals
70.	Charbhuj Minerals & Marble
71.	Annant Minchem Pvt. Ltd.
72.	Hotel Owners Association
73.	Pooja Minerals

74.	Raj Prasad Minerals
75.	Guru Kripa Minerals
76.	Shivam Minerals
77.	Laxmipati Minerals
78.	Sh Alok Mathur
79.	Synthetic Weaving Mills Association
80.	Bhilwara Textile Trade Federation
81.	Amrit Minerals
82.	J K Khanij
83.	Marble Gangsaw Association, Rajsamand
84.	Laghu Udyog Bharati, Bhilwara
85.	Kaladwas Chamber of Commerce of Industries, Udaipur
86.	Pawanputra Minerals
87.	Ajmer Merwara Gan Parishad
88.	Upbhokta Margdarshan Samiti 'UMAS' Jodhpur
89.	Mahalaxmi Marble & Minerals
90.	Mewar Minerals
91.	Rajlaxmi Minchem
92.	Manohar Minerals
93.	Gegal Industrial Association
94.	Chetna Minerals Industries
95.	Laghu Udyog Bharti, Rajsamand
96.	Aahta Mohalla Khari Kui Vyaparik Association
97.	Ajmer Hotel Association

#### **JdVVNL**

1.	Paramsant Mastana Shah Bilochistani Dharmarth Chikitsalaya and Saikshnik Lok Nyas
2.	Sh D. K. Sharma
3.	Sh Yewanti Kumar Boliya
4.	Shree Cement Ltd.
5.	Rajasthan Stainless Steel Re-Rollers Assosciation
6.	All Rajasthan Mineral Processors
7.	Samta Power
8.	Sh Shanti Prasad
9.	Sh Virendra Singh S/o Mohan Singh
10.	The Rajasthan Textile Mills Association
11.	Nitin Spinner Limited
12.	Chemical & Mineral Industries Pvt. Ltd.

13.	Sh Damodar Prasad Chirania
14.	Mahendra Singh
15.	The Employers Association of Rajasthan
16.	Sh Kailash Chand Saini
17.	Sh Kuldeep Verma
18.	Rudraksh Tradelinks Ltd
19.	Hotel & Restaurent Association of Rajasthan
20.	World Renewal Spiritual Trust
21.	Shri Jain Shwetamber Nakoda Paraswnath Tirth
22.	Prajapita Brahma Kumaris Ishwariya Viswa Vidyalaya
23.	Sh Surendra Jain
24.	HPCL Rajasthan Refinery LTD.
25.	Vidhya Bharti Rajasthan
26.	Laghu Udhog Bharti
27.	Bask Research Foundation, Jaipur
28.	Global Hospital & Research Centre
29.	Sh Chandrashekhar Prajapat
30.	Bijli Upbhokta Sangharsh Samiti C/O Shailendra Kumar (Total 838 Nos.)
31.	Rajasthan Woven Sack Manufacturers Association
32.	Sh G L Sharma
33.	Rajasthan Kesari
34.	Marudhara Industries Association
35.	Consumer Legal Help Society
36.	Sh Kailash Chandra Agarwal
37.	Sh Mohd. Arif
38.	CVK Solar Enterprises Pvt. Ltd.
39.	Upbhokta Margdarshan Samiti 'UMAS' Jodhpur
40.	JanJagran Samittee Pracharak
41.	Surendra Sodh, Bijli Upbhokta Sangharsh Samiti (Total 574 Nos.)



## Annexure – B

1. Jaipur Metro Rail Corporation Ltd. (JVVNL)
2. Sh Balveer Singh Sankhla (JVVNL)
3. Sh Mohan Lal Prajapat (JVVNL)
4. Ek Pahal Nirman Ki Aur (JVVNL)
5. Sh Ghanshyam Sharma (JVVNL)
6. Sh Mahendra Kumar Saboo (JVVNL)
7. Sh P C Jain (JVVNL)
8. Sh Akhilanand Bhargava (JVVNL)
9. Sh Sunil Gupta (JVVNL)
10. Sh Kailash Chandra Agarwal (JVVNL)
11. Nagrik Vikas Samiti Ward 75 (JVVNL)
12. Dr. Shiv Kumar Mishra (JVVNL)
13. Bask Research Foundation, Jaipur (JVVNL, JdVVNL)
14. CREDAI Rajasthan (JVVNL)
15. Rajasthan Nagrik Manch (JVVNL)
16. Hotel Association of Jaipur (JVVNL)
17. Sarraf Hotels Private Limited (JVVNL)
18. Hotel & Restaurent Association of Rajasthan (JVVNL)
19. Sh Damodar Prasad Chirania (JVVNL)
20. Samta Power (JVVNL)
21. Sh Dharm Deo Agarwal (JVVNL)
22. Sh Mohd. Arif (JVVNL)
23. Sh Kuldeep Verma (JVVNL)
24. Sh Ramesh Chand Sharma (JVVNL)
25. Rajeev Gandhi Nagar Resident Welfare Society (JVVNL)
26. Yagyavalkya Institute of Technology (JVVNL)
27. Suttlej textile and Industries Limited (JVVNL)
28. The Rajasthan Solar Association (JVVNL)
29. Shree Cement Ltd. (JVVNL)
30. The Rajasthan Textile Mills Association (JVVNL)
31. Rajasthan Steel Chamber (JVVNL)
32. DCM Shriram Ltd. (JVVNL)
33. Jaipur Chamber of Commerce & Industry (JVVNL)
34. Lords Chloro Alkali Limited (JVVNL)
35. Synergy Steels (JVVNL)
36. Sri Balaji Forgings Pvt. Ltd. (JVVNL)
37. Shree Balaji Furnaces (P) Pvt. (JVVNL)
38. Mani Mahesh Ispat Pvt. Ltd. (JVVNL)
39. Ramayana Ispat Private Limited (JVVNL)
40. Jagdamba TMT Mills Ltd. (JVVNL)
41. Hadoti Kota Stone Industries Association (JVVNL)

42. Step By Step Shiksha Samiti (JVVNL)
43. Laghu Udyog Bharti (JVVNL)
44. Rajasthan Stainless Steel Re-Rollers Association (JVVNL, JdVVNL)
45. Sarv Samaaj Sangharsh Samiti (JVVNL)
46. Sh G.L. Sharma (JVVNL)
47. Rajasthan Woven Sack Manufacturers Association (JVVNL)
48. AITUC (JVVNL)
49. Matsya Udyog Sangh (JVVNL)
50. Consumer Legal Help Society (JVVNL)
51. Upbhokta Margdarshan Samiti 'UMAS' Jodhpur (JVVNL, JdVVNL)
52. PRAYAS (JVVNL)
53. CUTS (JVVNL)
54. Sh Anil Bishnoi (JVVNL)
55. Sh Ankit Agrawal (JVVNL)
56. Sh Mani Mishra (JVVNL)
57. Sh Ved Prakash Poonia (JVVNL)
58. Miss Johana (with Ved Prakash Ji) (JVVNL)
59. Rudraksh Tradelinks Ltd. (JVVNL)
60. Sh Shanti Prasad Ji (JVVNL)
61. Sunil Gupta (JVVNL, JdVVNL)
62. Sh Akhilanand Bhargava (JVVNL)
63. Ms Neeru Singh (JVVNL)
64. Sh Kaushal Kishore (JVVNL)
65. Sh Bharat Vedi (JVVNL)
66. Sh Ramavatar Vijay (JVVNL)
67. Sh Puranchand Bhandari (JVVNL)
68. Sh T.N.Sharma (JVVNL)
69. Sh Abdul (JVVNL)
70. Sh Dinesh Sharma (JVVNL)
71. Sh Ramgopal Kashyap (JVVNL)
72. Sh Kamlesh Saxena (JVVNL)
73. Sh Pawan (JVVNL)
74. Sh Mohan Lal Sharma (JVVNL)
75. Sh Bhagwan Singh (JVVNL)
76. Sh Sanjay Singh (JVVNL)
77. Sh Sunil Aggarwal (JVVNL)
78. Sh Subhash Chand Sharma (JVVNL)
79. Sh Akhilanand Bhargava (JVVNL)
80. Sh Ramesh Chand Sharma (JVVNL)
81. Sh Panchulal Suiwal (JVVNL)
82. Sh Ved Prakash Sharma (JVVNL)
83. Sh Suresh Kashyap (JVVNL)
84. Sh K.N. Purnni (JVVNL)

85. Sh Ajay (JVVNL)
86. Sh D.S. Aggarwal (JVVNL, AVVNL)
87. Sh V.K. Gupta (JVVNL)
88. Sh Naveen Maheshwari (JVVNL)
89. Sh Ashish Wasy (JVVNL)
90. Sh Karanjeet Singh (JVVNL)
91. Sh Ghanshyam Sharma (JVVNL)
92. Sh Sunil Gupta (JVVNL)
93. Sh Manish Jain (JVVNL)
94. Sh Pankaj Gurjar (JVVNL)
95. Sh S.C. Kothari (AVVNL)
96. Saith Anandram Jaipuriya Hospital (AVVNL)
97. Shiva Education & Research Foundation (AVVNL)
98. Shri Pragya Kundan Vallabh Mahilla Chikitsalay (AVVNL)
99. Hotel Owners Association (AVVNL)
100. Ajmer Hotel Association (AVVNL)
101. Beawer Laghu Udhog Sangh along with 374 nos. Objectors (AVVNL)
102. Nagaur Gems & Jewellery Industries Association (AVVNL)
103. Makrana RIICO Area Marble Association (AVVNL)
104. Udaipur Chambers of Commerce & Industry (AVVNL)
105. Mewar Chamber of Commerce & Industry (AVVNL)
106. Nitin Spinner Limited (AVVNL)
107. Vedanta Trasforming Elements (AVVNL)
108. Suvidha Spinners Private Ltd. (AVVNL)
109. Chittorgarh Laghu Marbles Udyog Sansthan Ltd. (AVVNL)
110. J.K. Cement Ltd. (AVVNL)
111. Shree Gayatri Mnerals (AVVNL)
112. Laxmipati Minerals (AVVNL)
113. Bhilwara Textile Trade Federation (AVVNL)
114. Laghu Udyog Bharti, Bhilwara (AVVNL)
115. Gegal Industrial Association (AVVNL)
116. Aahta Mohalla Khari Kui Vyaparik Association (AVVNL)
117. Amrit 2 Minchem (AVVNL)
118. Maruti Minerals kareda (AVVNL)
119. Mahesh Minerals (AVVNL)
120. Aashirwad Ceramics (AVVNL)
121. Krishna Minerals (AVVNL)
122. Devdhara Minerals (AVVNL)
123. Alankar Mines and Minerals (AVVNL)
124. Bholenath Minerals (AVVNL)
125. Radhika Minerals (AVVNL)
126. Jai Laxmi Minerals (AVVNL)
127. Riddi Siddhi Minchem (AVVNL)

128. Shree Ram Minerals (AVVNL)
129. Raghav Minerals (AVVNL)
130. Charbhuj Minerals & Marble (AVVNL)
131. Anand Minerals (AVVNL)
132. Pooja Minerals (AVVNL)
133. Raj Prasad Minerals (AVVNL)
134. Guru Kripa Minerals (AVVNL)
135. Pawanputra Minerals (AVVNL)
136. Manohar Minerals (AVVNL)
137. Deepak Minerals (AVVNL)
138. Devkripa Minerals (AVVNL)
139. Virendra Singh (JdVVNL)
140. Sh Surendra Jain (JdVVNL)
141. Janjagran Samiti Pracharak (JdVVNL)
142. Paramsant Mastana Shah Bilochistani Dharmarth Chikitsalaya and Saikshnik Lok Nyas (JdVVNL)
143. Prajapita Brahma Kumaris Ishwariya Viswa Vidyalaya (JdVVNL)
144. Global Hospital & Research Centre (JdVVNL)
145. World Renewal Spiritual Trust (JdVVNL)
146. Shree Jain Swetamber Nakoda Parshwanath Tirth (JdVVNL)
147. Sh Yewanti Kumar Bolia (AVVNL, JdVVNL)
148. M/s Chemical & Mineral Industries Pvt. Ltd. (JdVVNL)
149. Marudhara Industries Association (JdVVNL)
150. Bijli Upbhokta Sangharsh Samiti along with 1412 nos. Objectors (JdVVNL)
151. Jodhpur handicrafts Association (JdVVNL)

<b>List of abbreviations</b>		
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.
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
EA, 2003	:	Electricity Act, 2003
ED	:	Electricity Duty
ERP	:	Enterprise Resource Planning
EV	:	Electric Vehicle
FR	:	Flat Rate
FY	:	Financial Year
GFA	:	Gross Fixed Assets
GoR	:	Government of Rajasthan
GLTPP	:	Giral Lignite Thermal Power Plant
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
LT	:	Low Tension
LTL	:	Long-Term Loans
MMH	:	Mini Micro Hydro
ML	:	Mixed Load

<b>List of abbreviations</b>		
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
POC	:	Parallel Operation Charges
PP	:	Partnership Projects
PPA	:	Power Purchase Agreement
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
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

<b>List of abbreviations</b>		
TSA	:	Transmission Service Agreement
T&D	:	Transmission & Distribution
UDAY	:	Ujwal Discom Assurance Yojana
UPSEB	:	Uttar Pradesh State Electricity Board

**Annexure -D**

**Approved Tariff for FY 2019-20**

**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			Domestic Category		
Particulars	Existing Tariff		Particulars	Approved Tariff	
	Energy Charges	Fixed Charges		Energy Charges	Fixed Charges
<b>BPL and Astha card Holders*</b>					
For consumption upto first 50 units per month	Rs. 3.50/ unit	Rs. 100/ connection / month	For consumption upto first 50 units per month	Rs. 3.50/ unit	Rs. 100/ connection / month
<b>Small Domestic*</b>					
For consumption upto first 50 units per month	Rs. 3.85/ unit	Rs. 100/ connection / month	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			Domestic Category		
Particulars	Existing Tariff		Particulars	Approved Tariff	
<b>General Domestic-1 (Consumption upto 150 units/month)</b>			<b>General Domestic-1 (Consumption upto 150 units/month)</b>		
	Energy Charges	Fixed Charges		Energy Charges	Fixed Charges
(i) For consumption upto first 50 units per month	Rs. 3.85/ unit	Rs. 200/ connection / month	(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. 6.10/ unit		(ii) For consumption above 50 units and upto 150 units per month	Rs. 6.50/ unit	

**General Domestic-2**

Domestic Category			Domestic Category		
Particulars	Existing Tariff		Particulars	Approved Tariff	
<b>General Domestic-2 ( Consumption above 150 units and upto 300 units/month )</b>			<b>General Domestic-2 ( Consumption above 150 units and upto 300 units/month )</b>		
	Energy Charges	Fixed Charges		Energy Charges	Fixed Charges
(i) For consumption upto first 50 units per month	Rs. 3.85/ unit	Rs. 220/ connection / month	(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. 6.10/ unit		(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. 6.40/ unit		(iii) For consumption above 150 units and upto 300 units per month	Rs. 7.35/ unit	



### General Domestic-3

Domestic Category			Domestic Category		
Particulars	Existing Tariff		Particulars	Approved Tariff	
General Domestic-3 (Consumption above 300 and upto 500 units/month)			General Domestic-3 (Consumption above 300 and upto 500 units/month)		
	Energy Charges	Fixed Charges		Energy Charges	Fixed Charges
(i) For consumption upto first 50 units per month	Rs. 3.85/ unit	Rs. 265/ connection / month	(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. 6.10/ unit		(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. 6.40/ 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. 6.70/ unit		(iv) For consumption above 300 units and upto 500 units per month	Rs. 7.65/ unit	

### General Domestic-4

Domestic Category			Domestic Category		
Particulars	Existing Tariff		Particulars	Approved Tariff	
General Domestic-4 (Consumption above 500 units/month)			General Domestic-4 (Consumption above 500 units/month)		
	Energy Charges	Fixed Charges		Energy Charges	Fixed Charges
(i) For consumption upto first 50 units per month	Rs. 3.85/ unit	Rs. 285/ connection / month	(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. 6.10/ unit		(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. 6.40/ 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. 6.70/ 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. 7.15/ unit		(v) For consumption above 500 units per month	Rs. 7.95/ unit	

### Domestic Category (HT-1)

Domestic Category			Domestic Category		
Particulars	Existing Tariff		Particulars	Approved Tariff	
HT – Domestic (HT-1)			HT – Domestic (HT-1)		
	Energy Charges	Fixed Charges		Energy Charges	Fixed Charges
For contract demand over 50 KVA	Rs. 6.15/ unit	Rs. 190 per kVA of Billing Demand per month	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			Non-Domestic Category		
Particulars	Existing Tariff		Particulars	Approved Tariff	
<b>LT-NDS(LT-2)</b>			<b>LT-NDS(LT-2)</b>		
<b>Type1 (Consumption upto 100 units/month)</b>			<b>Type1 (Consumption upto 100 units/month)</b>		
	<b>Energy Charges</b>	<b>Fixed Charges</b>		<b>Energy Charges</b>	<b>Fixed Charges</b>
Consumption upto first 100 units per month	Rs. 7.55 /unit	Rs. 230/ connection / month	Consumption upto first 100 units per month	Rs. 7.55 /unit	Rs. 300/ connection / month

**(NDS- Type2)**

Non-Domestic Category			Non-Domestic Category		
Particulars	Existing Tariff		Particulars	Approved Tariff	
<b>LT-NDS(LT-2)</b>			<b>LT-NDS(LT-2)</b>		
<b>Type 2 (Consumption above 100 units/month and upto 200 units/month)</b>			<b>Type 2 (Consumption above 100 units/month and upto 200 units/month)</b>		
	<b>Energy Charges</b>	<b>Fixed Charges</b>		<b>Energy Charges</b>	<b>Fixed Charges</b>
Consumption upto first 100 units per month	Rs. 7.55 /unit	Rs. 230/ connection / month	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. 8.00 /unit		Consumption above 100 units and upto 200 unit per month	Rs. 8.50 /unit	

**(NDS- Type 3)**

Non-Domestic Category			Non-Domestic Category		
Particulars	Existing Tariff		Particulars	Approved Tariff	
<b>LT-NDS(LT-2)</b>			<b>LT-NDS(LT-2)</b>		
<b>Type 3 (Consumption above 200 units and upto 500 units/month)</b>			<b>Type 3 (Consumption above 200 units and upto 500 units/month)</b>		
	<b>Energy Charges</b>	<b>Fixed Charges</b>		<b>Energy Charges</b>	<b>Fixed Charges</b>
Consumption upto first 100 units per month	Rs. 7.55 /unit	Rs. 275/ connection / month	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. 8.00 /unit		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. 8.35 /unit		Consumption above 200 unit and upto 500 unit per month	Rs. 8.85 /unit	

**(NDS- Type 4)**

Non-Domestic Category			Non-Domestic Category		
Particulars	Existing Tariff		Particulars	Approved Tariff	
<b>LT-NDS(LT-2)</b>			<b>LT-NDS(LT-2)</b>		
<b>Type 4 (Consumption above 500 units/month)</b>			<b>Type 4 (Consumption above 500 units/month)</b>		
	<b>Energy Charges</b>	<b>Fixed Charges</b>		<b>Energy Charges</b>	<b>Fixed Charges</b>
Consumption upto first 100 units per month	Rs. 7.55 /unit	Rs. 330/ connection / month	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. 8.00 /unit		Consumption above 100 units and upto 200 units per month	Rs. 8.50 /unit	

Non-Domestic Category			Non-Domestic Category		
Particulars	Existing Tariff		Particulars	Approved Tariff	
Consumption above 200 units and upto 500 units per month	Rs. 8.35 /unit		Consumption above 200 units and upto 500 units per month	Rs. 8.85 /unit	
Consumption above 500 unit per month	Rs. 8.80 /unit		Consumption above 500 unit per month	Rs. 8.95 /unit	

### NDS Above 5 kW of SCL

Non-Domestic Category			Non-Domestic Category		
Particulars	Existing Tariff		Particulars	Approved Tariff	
NDS above 5 KW of SCL (LT-2)			NDS above 5 KW of SCL (LT-2)		
	Energy Charges	Fixed Charges		Energy Charges	Fixed Charges
Consumption upto first 100 units per month	Rs. 7.55 /unit	Rs.95/ KW of SCL / month	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. 8.00 /unit		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. 8.35 /unit		Consumption above 200 units and upto 500 units per month	Rs. 8.85 /unit	
Consumption above 500 units per month	Rs. 8.80 /unit	Rs. 105/ KW of SCL / month Or Rs. 190 per kVA of Billing Demand per month (If SCL is more than 18.65 KW)	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)	Existing Tariff		HT-NDS (HT-2)	Approved Tariff	
For contract demand over 50 kVA	Energy Charges	Fixed Charges	For contract demand over 50 kVA	Energy Charges	Fixed Charges
All units	Rs. 8.35 /unit	Rs.190/ kVA of Billing Demand per month	All units	Rs. 8.85 /unit	Rs.270/ kVA of Billing Demand per month

### PUBLIC STREET LIGHTING (LT-3)

Particulars	Existing Tariff		Particulars	Approved Tariff	
Public Street Lighting	Energy Charges	Fixed Charges	Public Street Lighting	Energy Charges	Fixed Charges
Population <1 Lakh	Rs. 6.55/ unit	Rs. 85/ Lamp point/ month subject to a maximum of Rs. 850 /service connection/month	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. 7.05/ unit	Rs. 105/ Lamp point/ month subject to a maximum of Rs. 2100 /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		Existing Tariff		Particulars		Approved Tariff	
Metered (AG/MS/LT-4)				Metered (AG/MS/LT-4)			
Agriculture Supply		Energy Charges	Fixed Charges	Agriculture Supply		Energy Charges	Fixed Charges
(i) General (getting supply in block hours)		Rs. 4.75 /unit	Rs.15 per HP per Month of SCL	(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. 6.05 /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)				Flat/ unmetered (AG/FR/LT-4)			
(i)General (getting supply in block hours)		Rs. 635 HP /Month	Rs.15 per HP per Month of SCL	(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. 765 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		Existing Tariff		Particulars		Approved Tariff	
Small Industrial Service (LT-5) (Load not exceeding 18.65 kW (25HP))		Energy Charges	Fixed Charges	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. 65/ HP/ month of sanctioned connected load	Upto first 500 units		Rs.6.00/ unit	Rs. 80/ HP/ month of sanctioned connected load
Above 500 units		Rs.6.45/ unit	Rs. 65/ 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	Existing Tariff		Particulars	Approved Tariff	
	Energy Charges	Fixed Charges		Energy Charges	Fixed Charges
Medium Industrial Service (LT-6)	Rs. 7.00/ unit	Rs. 75 per HP per month of sanctioned connected load or Rs. 165 per kVA of Billing Demand per month	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. 165/ 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	Existing Tariff		Particulars	Approved Tariff	
	Energy Charges	Fixed Charges		Energy Charges	Fixed Charges

Particulars	Existing Tariff		Particulars	Approved Tariff	
	Energy Charges	Fixed Charges		Energy Charges	Fixed Charges
Schedule ML/LT-7	Rs. 7.00/ unit	Rs. 75 per HP per month of sanctioned connected load OR Rs. 165 per kVA of Billing Demand per month	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. 7.00/ unit	Rs. 165/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	Existing Tariff		Particulars	Approved Tariff	
	Energy Charges	Fixed Charges		Energy Charges (on whole consumption)	Fixed Charges
SCL above 150 HP &/or having Contract/Maximum Demand above 125 kVA (HT-5)	Rs. 7.30/ unit	Rs. 185/ kVA of Billing Demand per month	(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	
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\* (Refer Para 4.10.12)

Voltage Level	Energy Charges
11 kV	6.000
33 kV	5.820

Voltage Level	Energy Charges
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

#### **TRACTION LOAD (HT-7) (Approved Tariff)**

Category	Energy Charges	Fixed Charges
Traction load (HT-7)	Rs. 5.70/ unit	Rs. 135/kVA/Month

#### **PARALLEL OPERATION CHARGES FOR CPP:**

All CPP Consumers	Rs.20/- per KVA per month
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#### **CROSS SUBSIDY SURCHARGE**

Category of Open Access Consumer	Voltage Level	Cross Subsidy Surcharge (Rs./Unit)
NON DOMESTIC SERVICE	11 KV	2.16
	33 KV	2.10
	132 KV and above	2.08
MIXED LOAD/ BULK SUPPLY	11 KV	1.87
	33 KV	1.81
	132 KV and above	1.80
LARGE INDUSTRIAL SERVICE	11 KV	1.78
	33 KV	1.72
	132 KV and above	1.70

The Commission has also approved ToD Tariff and various rebates for certain category of consumers. For details relevant paras may be referred.

#### **General Note:**

1. All existing provisions which are not modified by this order, shall continue to be in force.

## Annexure E

Power Purchase Quantum and Cost for FY 2019-20				JVVNL				AVVNL				JdVVNL			
Source of Power (Station wise)	Net Generation (MU)	Total Annal Fixed charges (Rs. Cr.)	Variable Cost (Rs./ unit)	Net Generation (MU)	Total Fixed Cost (Rs. Cr.)	Total Variable Cost (Rs. Cr.)	Total Cost JVVNL (Rs. Cr.)	Net Generation (MU)	Total Fixed Cost (Rs. Cr.)	Total Variable Cost (Rs. Cr.)	Total Cost AVVNL (Rs. Cr.)	Net Generation (MU)	Total Fixed Cost (Rs. Cr.)	Total Variable Cost (Rs. Cr.)	Total Cost JdVVNL (Rs. Cr.)
<b>NTPC</b>															
ANTA GTPS	30	43	4.15	12	17	5	22	8	12	3	15	10	14	4	18
AURIYA GTPS	28	28	4.00	11	11	5	16	8	8	3	11	9	9	4	13
Bhadla	434	0	5.00	175	0	87	87	118	0	59	59	141	0	71	71
DADRI GTPS	116	31	4.21	47	12	20	32	32	8	13	22	38	10	16	26
FGUTPS-I	47	14	4.36	19	6	8	14	13	4	6	10	15	5	7	11
FGUTPS-II	35	26	5.51	14	10	8	18	10	7	5	12	12	8	6	15
FGUTPS-III	29	21	5.15	12	8	6	14	8	6	4	10	10	7	5	12
F.S.T.P.S	43	6	3.38	17	3	6	8	12	2	4	6	14	2	5	7
K.H.S.T.P.S. I	109	18	2.14	44	7	9	17	30	5	6	11	36	6	8	14
K.H.S.T.P.S. & II	465	82	2.03	187	33	38	71	126	22	26	48	151	27	31	57
RHIND STPS	595	56	1.34	240	22	32	55	162	15	22	37	194	18	26	44
RIHAND II	553	46	1.34	223	18	30	48	150	12	20	32	180	15	24	39
RIHAND III	805	118	1.37	324	47	44	92	219	32	30	62	262	38	36	74
SINGUARLI	1662	136	1.39	669	55	93	148	451	37	63	100	542	44	75	120
Singrauli Hydel	2.93	0	5.04	1	0	1	1	1	0	0	0	1	0	0	0
TALCHAR STPS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KHPS-I	530	98	2.57	213	40	55	94	144	27	37	64	173	32	44	76
NCTPS 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NCTPS 2	5	0	8.07	2	0	2	2	1	0	1	1	2	0	1	1
FGUTPS IV	128	78	4.55	52	31	23	55	35	21	16	37	42	25	19	44
NSM BUNDLED	3466	240	2.91	1396	97	406	502	941	65	273	339	1130	78	328	407
Tinda STPP Stage II (2*660 MW)	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0
Meja TPS	37	24	3.30	15	10	5	15	10	6	3	10	12	8	4	12
<b>Total NTPC</b>	<b>9122</b>	<b>1065</b>		<b>3673</b>	<b>429</b>	<b>883</b>	<b>1312</b>	<b>2476</b>	<b>289</b>	<b>595</b>	<b>884</b>	<b>2973</b>	<b>347</b>	<b>714</b>	<b>1061</b>
<b>NHPC</b>															
TANAKPUR HEP	72	12	1.66	29	5	5	10	19	3	3	6	23	4	4	8
SALAL HEP	153	9	0.61	62	4	4	7	41	2	3	5	50	3	3	6
CHAMERA-I	712	42	1.11	287	17	32	49	193	11	22	33	232	14	26	40
CHAMERA-II	163	12	0.97	66	5	6	11	44	3	4	7	53	4	5	9
CHAMERA-III	169	29	2.07	68	12	14	26	46	8	9	17	55	10	11	21
URI HEP	298	25	0.82	120	10	10	20	81	7	7	13	97	8	8	16
URI HEP II	200	43	2.33	80	17	19	36	54	12	13	24	65	14	15	29
DHOUGANGA	181	18	1.19	73	7	9	16	49	5	6	11	59	6	7	13
DULHASTI	279	52	2.66	112	21	30	51	76	14	20	34	91	17	24	41
PARBATI III	113	32	1.64	45	13	7	20	31	9	5	14	37	10	6	16
SEWA II	72	16	2.09	29	6	6	12	19	4	4	8	23	5	5	10
<b>Total NHPC</b>	<b>2410</b>	<b>289</b>		<b>971</b>	<b>116</b>	<b>141</b>	<b>258</b>	<b>654</b>	<b>78</b>	<b>95</b>	<b>174</b>	<b>786</b>	<b>94</b>	<b>114</b>	<b>209</b>
<b>STATE GEN. &amp; OTHER</b>															
<b>RVUN</b>															
KTPS(1 to 7)	5940	500	3.10	2392	201	742	943	1612	136	500	636	1936	163	600	763
STPS(1 to 6)	4938	812	3.60	1988	327	715	1043	1340	220	482	703	1609	265	579	844
DCCPP	9	201	6.34	4	81	2	83	3	55	2	56	3	66	2	67
CTPP (1&2)	3318	485	2.38	1336	195	319	514	900	132	215	346	1081	158	258	416
CTPP (3 & 4)	3111	485	2.38	1253	195	299	494	844	132	201	333	1014	158	242	400
CTPP 5	2281	725	2.13	918	292	196	487	619	197	132	329	743	236	158	394
CTPP 6	3403	669	2.13	1370	269	292	561	924	182	197	378	1109	218	236	454
GLTPP 1 & 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RGTP(1&2)	713	60	2.80	287	24	80	105	193	16	54	71	232	20	65	85
KaTPP#1	3749	796	2.71	1510	321	409	730	1017	216	276	492	1222	260	331	591
KaTPP#2	1196	635	2.71	482	256	130	386	325	172	88	260	390	207	106	312
RGTP 3	126	88	2.80	51	35	14	49	34	24	10	33	41	29	11	40
MAHI	162	51	0.30	65	20	2	22	44	14	1	15	53	16	2	18
MAHI MMH	1	0	4.16	0	0	0	0	0	0	0	0	0	0	0	0
MANGROL	2	0	4.16	1	0	0	0	1	0	0	0	1	0	0	0
STPS MMH	2	0	4.16	1	0	0	0	0	0	0	0	1	0	0	0
SIPS Stage V (Unit 7 & 8)	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total RVUN</b>	<b>28949</b>	<b>5508</b>		<b>11658</b>	<b>2218</b>	<b>3201</b>	<b>5419</b>	<b>7857</b>	<b>1495</b>	<b>2157</b>	<b>3652</b>	<b>9434</b>	<b>1795</b>	<b>2590</b>	<b>4385</b>
<b>Rajwest</b>	<b>5231</b>	<b>1139</b>	<b>2.50</b>	<b>2106</b>	<b>459</b>	<b>527</b>	<b>985</b>	<b>1420</b>	<b>309</b>	<b>355</b>	<b>664</b>	<b>1705</b>	<b>371</b>	<b>426</b>	<b>797</b>
<b>NPCIL</b>															
NAPP	335	0	3.20	135	0	43	43	91	0	29	29	109	0	35	35
RAPP-I&II	1013	0	3.49	408	0	142	142	275	0	96	96	330	0	115	115
RAPP-III&IV	1088	0	3.49	438	0	153	153	295	0	103	103	354	0	124	124
RAPP-V&VI	689	0	4.05	278	0	113	113	187	0	76	76	225	0	91	91
<b>Total NPCIL</b>	<b>3125</b>	<b>0</b>		<b>1258</b>	<b>0</b>	<b>451</b>	<b>451</b>	<b>848</b>	<b>0</b>	<b>304</b>	<b>304</b>	<b>1018</b>	<b>0</b>	<b>365</b>	<b>365</b>

Power Purchase Quantum and Cost for FY 2019-20				JVVN				AVVN				JdVVN			
Source of Power (Station wise)	Net Generati on (MU)	Total Annal Fixed charges (Rs. Cr.)	Variable Cost (Rs./ unit)	Net Generati on (MU)	Total Fixed Cost (Rs. Cr.)	Total Variable Cost (Rs. Cr.)	Total Cost JVVN (Rs. Cr.)	Net Generati on (MU)	Total Fixed Cost (Rs. Cr.)	Total Variable Cost (Rs. Cr.)	Total Cost AVVN (Rs. Cr.)	Net Generation (MU)	Total Fixed Cost (Rs. Cr.)	Total Variable Cost (Rs. Cr.)	Total Cost JdVVN (Rs. Cr.)
<b>SHARE PROJECTS</b>															
BBMB(BHAKRA,DEHAR&PONG)	2971	0	0.42	1196	0	51	51	806	0	34	34	968	0	41	41
CHAMBAL/SATPURA	283	0	0.00	114	0	0	0	77	0	0	0	92	0	0	0
RFF	183	0	3.60	183	0	66	66	0	0	0	0	0	0	0	0
<b>Total Shared Projects</b>	<b>3437</b>	<b>0</b>		<b>1494</b>	<b>0</b>	<b>117</b>	<b>117</b>	<b>883</b>	<b>0</b>	<b>34</b>	<b>34</b>	<b>1060</b>	<b>0</b>	<b>41</b>	<b>41</b>
<b>OTHERS</b>															
TEHRI	233	45	2.93	94	18	27	46	63	12	18	31	76	15	22	37
KOTESHWAR	106	26	2.34	43	10	10	20	29	7	7	14	35	8	8	16
Tala	65	0	2.16	26	0	6	6	18	0	4	4	21	0	5	5
<b>Total Others</b>	<b>404</b>	<b>71</b>		<b>163</b>	<b>28</b>	<b>43</b>	<b>72</b>	<b>110</b>	<b>19</b>	<b>29</b>	<b>48</b>	<b>132</b>	<b>23</b>	<b>35</b>	<b>58</b>
SJVNL-NATHPA-JHAKRI	796	69	1.19	320	28	38	66	216	19	26	45	259	23	31	53
Rampur	227	35	1.94	91	14	18	32	62	9	12	21	74	11	14	26
<b>Total SJVNL</b>	<b>1023</b>	<b>104</b>		<b>412</b>	<b>42</b>	<b>56</b>	<b>98</b>	<b>278</b>	<b>28</b>	<b>38</b>	<b>66</b>	<b>333</b>	<b>34</b>	<b>45</b>	<b>79</b>
<b>Other</b>															
Neyveli Lignite Corporation Ltd	1251	272	1.25	504	109	63	172	340	74	42	116	408	89	51	140
Aravali Power Co. Pvt. Ltd.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coastal Gujarat	1967	235	1.90	792	95	150	245	534	64	101	165	641	77	121	198
Adani Power Rajasthan Ltd.	7421	1194	2.58	2988	481	771	1252	2014	324	519	844	2418	389	624	1013
Sasan Power Ltd.	2855	45	1.26	1150	18	145	163	775	12	98	110	931	15	117	132
Karcham Wangtoo	695	87	1.82	280	35	51	86	189	24	34	58	227	28	41	69
MPPMCL	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0
DB POWER	2085	659	1.76	840	265	147	413	566	179	99	278	679	215	119	334
MARUTI	1243	242	1.45	501	97	73	170	337	66	49	115	405	79	59	138
Teesta	656	113	2.37	264	45	63	108	178	31	42	73	214	37	51	88
<b>Total IPP/UMPP</b>	<b>18174</b>	<b>2846</b>		<b>7318</b>	<b>1146</b>	<b>1463</b>	<b>2609</b>	<b>4932</b>	<b>772</b>	<b>986</b>	<b>1758</b>	<b>5923</b>	<b>928</b>	<b>1184</b>	<b>2111</b>
<b>NVVN Bundled</b>	<b>2314</b>	<b>224</b>	<b>3.39</b>	<b>932</b>	<b>90</b>	<b>316</b>	<b>406</b>	<b>628</b>	<b>61</b>	<b>213</b>	<b>274</b>	<b>754</b>	<b>73</b>	<b>256</b>	<b>329</b>
<b>NCES</b>															
Wind farms	5694	0	5.02	2293	0	1151	1151	1545	0	776	776	1856	0	931	931
Solar	4116	0	4.29	1658	0	711	711	1117	0	479	479	1342	0	575	575
Biomass	480	0	7.12	193	0	138	138	130	0	93	93	157	0	111	111
<b>Total NCES</b>	<b>10291</b>	<b>0</b>		<b>4144</b>	<b>0</b>	<b>1999</b>	<b>1999</b>	<b>2793</b>	<b>0</b>	<b>1347</b>	<b>1347</b>	<b>3354</b>	<b>0</b>	<b>1618</b>	<b>1618</b>
<b>Total</b>	<b>84479</b>	<b>11245</b>		<b>34129</b>	<b>4528</b>	<b>9196</b>	<b>13724</b>	<b>22878</b>	<b>3052</b>	<b>6153</b>	<b>9205</b>	<b>27472</b>	<b>3665</b>	<b>7389</b>	<b>11053</b>
<b>short term</b>	<b>-6732</b>	<b>0</b>	<b>3.60</b>	<b>-3237</b>	<b>0</b>	<b>-1165</b>	<b>-1165</b>	<b>-1099</b>	<b>0</b>	<b>-396</b>	<b>-396</b>	<b>-2395</b>	<b>0</b>	<b>-862</b>	<b>-862</b>
	<b>77747</b>			<b>30892</b>	<b>4528</b>	<b>8030</b>	<b>12559</b>	<b>21779</b>	<b>3052</b>	<b>5757</b>	<b>8809</b>	<b>25077</b>	<b>3665</b>	<b>6526</b>	<b>10191</b>