RAJASTHAN ELECTRICITY REGULATORY COMMISSION JAIPUR

Petition Nos. RERC 1284/17 and 1309/17

In the matter of approval of:

(i) Investment Plan of Rajasthan Rajya Vidyut Prasaran Nigam Limited for FY 2018-19 (Petition No. 1284/17);

(ii) ARR and determination of tariff for FY 2018-19 for recovery of Transmission and SLDC Charges and True up of ARR for FY 2016-17 of Rajasthan Rajya Vidyut Prasaran Nigam Limited (Petition No. 1309/17).

Coram: **Sh. Vishvanath Hiremath, Chairman**

Sh. R. P. Barwar, Member

Sh. S. C. Dinkar, Member

Petitioner : M/s Rajasthan Rajya Vidyut Prasaran Nigam Ltd. (RVPN)

Respondent(s) : 1. Jaipur Vidyut Vitran Nigam Ltd. (JVVNL)

2. Ajmer Vidyut Vitran Nigam Ltd. (AVVNL)

3. Jodhpur Vidyut Vitran Nigam Ltd. (JdVVNL)

Date of hearing : **24.04.2018**

Date of Order : **03.05.2018**

ORDER

Section – 1: General

1.1 Rajasthan Rajya Vidyut Prasaran Nigam Ltd. (RVPN) has filed Petition No. RERC/1284/17 dated 24.11.2017 under Regulation no. 4 of RERC (Investment Approval) Regulations, 2006 for approval of Investment

Plan for Financial Year (FY) 2018-19.

1.2 RVPN has also filed Petition No. RERC/1309/17 dated 27.12.2017 for approval of Annual Revenue Requirement (ARR) for FY 2018-19 and for True-up for FY 2016-17 under Section 62 read with Section 64 of Electricity Act, 2003 and Regulation 6 & 8 of Tariff Regulations 2014 with the following prayers:

(1) Determine cumulative surplus/deficit on Truing-up of Annual Revenue Requirement for FY 2016-17 based on Audited Accounts of RVPN for FY 2016-17 for carry forward to ARR for FY 2018-19 under Regulation 8(6) of Rajasthan Electricity Regulatory Commission (RERC) Tariff Regulations, 2014;

(2) Approve revenue requirements for FY 2018-19 based on the information furnished in the petition and attached formats;

(3) Approve firm recovery of fixed monthly transmission charges from Discoms on the basis of % allocation and for Open Access Consumers on the basis of actual capacity in Rs/kW/ Month and Paisa/kWh as the case may be;

(4) Approve the tariff for recovery of transmission charges for Collective Power Exchange Transactions and charges for inter-State short term open access customer on per kWh basis for FY 2018-19;

(5) Approve the revenue requirement for State Load Dispatch Centre (SLDC) function by RVPN for FY 2018-19;

(6) Approve SLDC Charges for FY 2018-19 and recovery of same from Discoms and other long term users and Open Access Consumers on monthly basis;

(7) Allow furnishing of additional data and information and/or modification of the information submitted;

(8) And pass such other and further orders as are deemed fit and proper in the facts and circumstances of the case.

1.3 The Commission conveyed the data gaps found in the Petitions to RVPN on 11.01.2018, 29.01.2018 and 20.03.2018. RVPN in response has filed the reply vide its letters dated 30.01.2018, 07.02.2018, 27.03.2018 and 28.03.2018.

1.4 As required under Section 64 (2) of the Electricity Act, 2003, the Commission allowed RVPN to publish notices with salient features of the petition inviting comments/ suggestions from Stakeholders in the newspapers. RVPN accordingly had published the abridged petition in the following newspapers on the dates shown as under:

Table 1: Publication of Public Notices

Name of Newspaper	Date of Publication
Petition No. 1284/17	
Danik Bhaskar	11.02.2018
Danik Navjyoti	10.02.2018
The Times of India	11.02.2018
Petition No. 1309/17	
Danik Bhaskar	11.02.2018
Danik Navjyoti	10.02.2018
The Times of India	11.02.2018

1.5 The petitions were also placed on the RVPN and Commission's website. The last date for submission of comments/suggestions on Petition No. 1284/17 was kept as 07.03.2018 and the last date for submission of comments/suggestions on Petition No. 1309/17 was 07.03.2018.

1.6 The comments/suggestions have been received on the petitions from the following Stakeholders:

Table 2: Comments/Suggestions received on the Petitions

Petition No.1284/17
(1) M/s Rudraksh Energy
(2) Sh. G.L. Sharma
(3) M/s The Rajasthan Textile Mills Association
(4) M/s Rajasthan Steel Chambers
(5) Sh. B.M. Sanadhya
(6) Jaipur Vidyut Vitran Nigam Limited

Petition No.1309/2017
(1) M/s Rudraksh Energy
(2) Sh. Shanti Prasad
(3) Sh. G.L. Sharma
(4) M/s The Rajasthan Textile Mills Association
(5) M/s Rajasthan Steel Chambers
(6) Sh. B.M. Sanadhya
(7) Jaipur Vidyut Vitran Nigam Limited

1.7 As the approval of Investment Plan will have a direct impact on ARR and Tariff of RVPN, the Commission decided to take up the petition for approval of Investment Plan for FY 2018-19 along with ARR and Tariff Petition.

1.8 The public hearing in the matter was held on 24.04.2018.

1.9 During the public hearing, the Officers representing the Petitioner appeared and reiterated the submissions made in the Petitions and prayers made therein. The Stakeholders also presented their views on the Petitions. The list of Stakeholders and representatives of the Petitioner/ Respondents present during the hearings is enclosed to this order as **Annexure.** In exercise of the powers conferred under Sections 62, 64 and other provisions of the Electricity Act, 2003, read with RERC (Terms and Conditions for Determination of Tariff) Regulations, 2014, RERC (Investment Approval) Regulations, 2006 and other enabling Regulations, the Commission has carefully considered the submissions of the Petitioner and the suggestions/objections submitted by the various Stakeholders. The Commission has passed the following Order.

1.10 This Order has been structured in 7 sections, as under:

Section – 2: Summary of Objections / Comments / Suggestions and RVPN's Response on Investment Plan for FY 2018-19, Truing-up for FY 2016-17 and ARR for Transmission and SLDC Function for FY 2018-19

A. Investment Plan

(1) Actual vs. Approved Investment Plan

2.1 The petitioner shall provide the actual expenditure incurred during FY 2014-15, FY 2015-16, FY 2016-17 and FY 2017-18 (up to January 2018) vis-à-vis the approved Investment Plan by the Commission. The petitioner shall also indicate the actual expenditure incurred for, purchase of testing equipment, metering equipment, Information Technology (IT) / software, protection equipment, RMU of equipment's & protection/ Power Line Carrier Communication (PLCC) schemes and capacitor installation in the last three financial years and also in FY 2017-18 (up to January 2018).

RVPN's Response

2.2 The petitioner submitted the Investment approved by the Commission vis-a-vis actual expenditure incurred during FY 2014-15, FY 2015-16, 2016-17 and 2017-18 (up to January 2018) in respect of Investment Plan as follows :-

Table 3: Investment Approved Vis-a Vis Actual Expenditure as submitted by RVPN (Rs. Crore)

FY	Investment approved by Commission	Actual expenditure incurred
2014-15	1,539	1,776
2015-16	2,025	2,080
2016-17	2,138	2,076
2017-18	2,033	1,541.38 (Up to January 2018)

(2) Justification for Capacity Addition

2.3 The petitioner shall provide detailed justification for addition of new lines, substations and transformer capacity, as the peak demand is constant for the past 3 years.

2.4 The petitioner shall clarify as to why it is undertaking task with negative net present value.

2.5 The petitioner shall submit the source of funding and the rationale behind the proposed capital expenditure of Rs. 15.00 Crore in SLDC business for FY 2018-19.

RVPN's Response

2.6 As regards, justification for adding transmission lines, the petitioner submitted that the for 400 kV evacuation system (1630 MVA, 740 Circuit kilo meter (ckt-km), 2 Nos. 400 kV Grid Sub-Station (GSS) at Jodhpur (New location) and Jaisalmer-2 (total 1630 MVA & ATS of 740 ckt-km) with associated transmission system (ATS) lines has been proposed to evacuate the Power from the New Solar and Wind Power Plants in Jaisalmer, Barmer & Jodhpur Districts.

2.7 Further, the petitioner submitted that no new inter-connections at the existing 2x315 MVA, 400/220 GSS at Jodhpur (Surpura) is feasible, therefore, a new 400 kV GSS (viz. Jodhpur (new) is essential' in the area.

2.8 The petitioner submitted that LILO of 400 kV Single Circuit (S/C) Jodhpur-Merta line & Akal- Jodhpur (new) have been planned to provide 400 kV connectivity to proposed 400 kV GSS Jodhpur (New).

2.9 As regards, 220 kV & 132 kV system (1015 MVA, 627 ckt-km), the petitioner submitted that the justification of 220 kV & 132 kV system has already been given in Form-2 of Investment plan petition 2018-19. However, these systems have been planned for system strengthening in case of 220 kV and improvement of system parameter, Loss reduction and Load Catering in case of 132 kV system in the area.

2.10 The petitioner also submitted that the augmentation (1500 MVA) has been proposed for Catering of load & system redundancy.

2.11 As regards, no increase in peak demand the petitioner submitted that although, the overall peak demand of Rajasthan has not increased considerably in previous years, it has increased in some area whereas it has reduced in some other areas. New transmission system has been proposed in the areas of increased demand to keep the system parameters within the range prescribed by the Commission to cater the increase in Demand and for system strengthening etc.

2.12 Further, the petitioner submitted that some of the schemes have been sanctioned with negative NPV because these are required to cater the City load / system stability/ reducing the load of associated lines. By creation of these schemes although there are no tangible benefits in the losses but there is benefit in other system parameters viz. improvement in voltage profile / redundancy / reactive power management.

2.13 The petitioner submitted that as far as source of funding for Investment in SLDC is concerned, RVPN will finance the investment from the financial institution offering the lowest rate of interest at the time of requirement of funds.

(3) Disparity in Physical Targets

2.14 The petitioner has proposed an Investment Plan of Rs. 1,480 Crore in the Investment Plan Petition, while the same has been mentioned as Rs. 1,465 Crore in ARR petition, moreover there are few variations in physical targets as mentioned in Form 1 of the Investment Plan Petition and that mentioned in ARR Petition (such as Line length of 220 kV line has been mentioned as 310 ckt-km in Investment Plan, while it its mentioned as 230 ckt-km in ARR Petition and additions of transformation capacity is mentioned as Nil in Investment Plan petition, while it is mentioned as 2,645 MVA in ARR Petition). The petitioner shall clarify these discrepancies and accordingly submit the revised petition.

<u>RVPN's Response</u>

2.15 The variation in physical targets for FY 2018-19 as shown in the table of para 5 of Form 1 "Write up on Investment Proposal for the year 2018-19" and in Form 4 "Abstract of Physical & Financial Targets & Achievements" are typographical mistakes. The petitioner has corrected 310 ckt-km in place of 230 ckt-km in Para-5, table of Form - 1, and 640 MVA, 3 Nos. in place of 800 MVA, 4 nos. in the table of Form No. 4. The petitioner has also supplied revised Form no. 4 along with Data Gap of Investment Plan 2018-19.

(4) Cost benefit Analysis

2.16 The stakeholder pointed out that there are ~ 100 schemes, which commissioned in FY 2017-18 and still the petitioner has proposed to incur capital expenditure of Rs. 55 Crore in FY 2018-19. As per clause 4(9) of the RERC (Investment Approval) Regulations, 2006 these should be treated as separate schemes and the petitioner should submit detailed cost benefit analysis, justification and other requirements as per the Regulations to justify such huge additional capital expenditure on already commissioned projects.

2.17 As per para 7 of Form 1 of the investment Plan petition, it seems that around 48% of the schemes are as per Discoms requirements and are not meeting the Cost Benefit Analysis. The investments in these schemes are not justified without any load growth and in the absence of load flow study report. Meanwhile, the Commission may allow only a part of the proposed capital plan provisionally, till detailed scrutiny would be done.

RVPN's Response

2.18 In a project some of the works viz. additional transformer (As per plan) and miscellaneous balance Electrical and Civil works are to be executed as per system requirement. Hence, as soon as the rated transformers at GSS and its associated line get completed, the said project is declared as commissioned. Therefore, the date of commissioning of any project is not the cut-off date of any project. Some provision has been kept for the balance works (like additional transformer depending on growth of load in the area, pending Civil works etc.) which are capital in nature and required to be included in the present Investment Plan.

2.19 The petitioner submitted that apart from the schemes mentioned in Form 1 Para 7 of investment plan, considerable investment has been proposed for new schemes to be identified, system development schemes such as STOMS, Communication Back Bone - STNAM, Renewable Energy Integration, etc.

2.20 As regards, no increase in peak demand, the petitioner submitted that although, the overall peak demand of Rajasthan has not increased considerably in previous years, it has increased in some area whereas it has reduced in some other areas. New transmission system has been proposed in the areas of increased demand to keep the system parameters within the range prescribed by the Commission to cater the increase in Demand and for system strengthening, etc.

(5) Loss Reduction Schemes

2.21 As per clause 2 (3) of the Investment Approval Regulations 2006, loss reduction scheme shall be initiated at the request of the concerned Discoms, however the petitioner in a few cases had set up 132/33 kV instead of 132/11 kV transformer as requested by the Discoms leading to, additional requirement of 33/11 kV Transformer, which results in higher transmission Losses, duplication of efforts and wastage of precious resource of the State. Therefore, the Commission shall direct the petitioner to strictly adhere to the Discoms requirement before setting up 132/33 kV substation.

2.22 The petitioner is to clarify its position on restoration time of faults as well as to inform its policy of keeping mandatory spares.

RVPN's Response

2.23 The new 132 kV GSS are invariably being constructed by RVPN as per the proposals submitted by all Discoms. These proposals include improvement in various technical parameters viz. improvement of Voltage Regulation, Distribution Loss, Loss reductions on existing 33 kV feeders after proposing new 132 kV Substation. The proposal also indicates details of new 33 kV feeders emanating from newly proposed 132 kV Substation. There is no case where the Discom has demanded a new 132/11 kV Substation and RVPN has constructed a 132/33KV Substation.

2.24 As regards, restoration of faults RVPN submitted that it always tries to restore the supply after attending the faults in the system. For the restoration, necessary spares/ equipment are readily available in the stores/ field offices, which are utilised in attending the fault. However, there are some cases where special manpower, tools, skills, equipment/ spares are required to attend the fault which take some more time like in the case of Malviya National Institute of Technology, Jaipur (MNIT) where 132 kV cable has been damaged due to underground drilling by Indian Oil Corporation Limited (IOCL).

(6) Capitalization of Assets

2.25 The Capitalization of Assets should be based on the commissioning of lines and substation, it should not be based on allocation ratio, 30%, 50% and 20% in 1st 2nd and 3rd year respectively as submitted by the petitioner, as the transmission asset can only be put to use when it is commissioned.

RVPN's Response

2.26 The petitioner submitted that it is a continuous process and the tariff petition has been filed as per the Tariff Regulations.

(7) Clearances

2.27 The petitioner shall also clarify whether the necessary clearances such as Right of way, forest clearance, Railway crossing permission etc., have been obtained with respect to the proposed schemes in the Investment Plan.

RVPN's Response

2.28 The petitioner submitted that since the formats of the Investment Plan Petition are prescribed by the Commission, specific information in respect of progress of projects, under execution, such as mentioned in the observation could not be detailed with the petition.

(8) Submission of Scheme-wise details

2.29 The petitioner shall provide the amount of proposed investment with regard to each scheme. i.e, power evacuation schemes, load reduction schemes, system strengthening scheme, etc.

2.30 In respect of each scheme the petitioner shall provide, the hard cost, the interest element during construction period and proposed completion period. Further, in case a scheme is proposed to be completed in phased manner, the petitioner shall indicate the phasing of completion of such schemes, the period of each phase as well as the total cost of each phase (hard cost and the interest element), the Cost benefit ratio of schemes not earmarked for evacuation purpose.

2.31 As regards creation of new 132 kV Substations, the petitioner shall also indicate the expected load at each substation after commissioning, the location of substation (urban or rural area), and its distance from the existing substations.

2.32 The petitioner shall indicate the expected load reduction on 132 kV and 220 kV side, owing to the proposed additional 220 kV and 400 kV substations.

2.33 The scheme for evacuation of Power from Banswara SCTPS, was dropped in the year 2016. However, the petitioner has included this scheme in the Investment Plan. Moreover, as per page 51 of the petition the petitioner has mentioned that approval for the said scheme was taken from TSPCC in 2010. Subsequently, the petitioner dropped this evacuation plan in 2016, but still the works are being shown under this scheme. The petitioner need to clarify whether this position has been brought to the notice of TSPCC and whether revised sanction/approval has been obtained from TSPCC for such works.

2.34 The petitioner shall intimate the expected completion period for each schemes proposed in the investment Plan.

RVPN's Response

2.35 The scheme wise amount of the proposed for Investment during FY 2018-19 in major heads is detailed in Form-4 at S. No. "A" named as Particulars/ Source of funding (Rs. In lacs).

2.36 The detailed project report of each individual scheme is invariably sent to RERC indicating hard cost, IDC, total cost with IDC, Phasing of the schemes (if applicable), approximate completion period for calculation of IDC etc. However, the total estimated cost, year of start, expected completion schedule and NPV of each of the scheme included in Investment Plan for FY 2018-19 have already been mentioned in Form-2.

2.37 The desired details viz. proposed load on the 132 kV Substation, its distance from existing Extra High Voltage (EHV) GSS of RVPN, length of transmission line, existing and proposed system parameters, savings are being indicated in the DPR of 132 kV Substations and these are some major parameters for consideration of sanction of new 132 kV GSS as per guidelines circulated by RERC.

2.38 As the complete transmission system is an integrated system, creation of new 400 kV GSS for evacuation purpose, will reduce the loading on transmission lines terminating/ emanating to/ from existing 220 kV GSSs and so on in case of creation of new 132 kV GSSs.

2.39 The following projects of Banswara Super Crtical TPS scheme had been preponed due to delay in Banswar Super Critical TPS such as :

(i) 400 kV Double Circuit (D/C) Ajmer - Bhilwara – Chittorgarh line along with 400 kV GSS at Chittorgarh are essential in order to connect 400/220 kV GSS Bhilwara in the ring and enhance the reliability of power supply under outage of important 400 kV or 220 kV lines in that area. 400 kV D/C Ajmer - Bhilwara – Chittorgarh line will also strengthen the power evacuation system of Kalisindh TPS, Kawai SCTPS & Chhabra TPS.

(ii) Early commissioning of 400/220 kV GSS at Jodhpur (New location) has been proposed as no new inter-connections at the existing 2x315 Mega-volt-ampere (MVA), 400/220 kV GSS at Jodhpur (Surpura) is feasible, therefore, a new 400 kV GSS is essential in the area. Under Jodhpur City EHV Network Strengthening Scheme-I, from proposed 400/220 kV GSS Jodhpur (New), 2 Nos. 220 kV interconnections for 220 kV GSS Barli and Jhalamand has been proposed ,further, to provide 400 kV connectivity to proposed 400 kV GSS Jodhpur (New), LILO of 400 kV S/C Jodhpur-Merta line has been planned. Accordingly, aforesaid transmission scheme has been delinked from the Banswara SCTPS and remaining projects had been dropped on 07.01.2016. This had been approved in 10th meeting of TSPCC held on 08.12.2016.

2.40 As regards, completion period for each proposed schemes, the petitioner submitted that the year of start and tentative commissioning target of each of the project have been mentioned in Form-2. Also the ideal/ tentative commissioning period of projects have been mentioned in Para-3 of Form-1, of Investment Plan petition for FY 2018-19, but deviation from the standard, may be due to unavoidable circumstances at field offices.

(9) Assessment of Capacity for Renewable Energy

2.41 The stakeholder referred to Para 89 of Commission's order dated 25.10.2012, wherein the Commission had directed the Petitioner to avoid idling of Transmission capacity on account of variation in RE capacity assumed to come up and the actual capacity commissioned, and submitted that whether such situation has been examined by the petitioner.

2.42 The petitioner shall submit the details of the assessed vis a vis actual commissioned capacity of Renewable Energy Projects from FY 2013-14 to FY 2017-18.

RVPN's Response

2.43 The petitioner stated that the schemes for new Solar and Wind power plants in Western & South-Eastern Rajasthan (Estimated Cost Rs. 3,040 Crore), have been dropped. According RVPN has withdrawn an investment of 764 Crores from investment plan for FY 2017-18.

2.44 Further, the petitioner submitted that the capacities of RE projects assessed and actually commissioned are being governed by Rajasthan Renewable Energy Corporation Limited (RRECL).

(10) Information regarding Completed Schemes

2.45 The stakeholder submitted that the petitioner shall clarify as to why the completed schemes such as 400 kV D/C Phagi-Ajmer line of 213 ckt-km, installation of 2*315 MVA GSS at Babai , installation of 1500 MVA pooling sub-station at Ramgarh etc., which have been mentioned as commissioned in FY 2017-18, have been included in the investment Plan.

2.46 As regards, of the completed schemes, the petitioner shall also submit the date of Commissioning, the actual cost of completion vis-a-vis the original cost segregated in hard cost and the interest during construction, the actual time taken for completion, etc.

RVPN's Response

2.47 The petitioner submitted that the Column no. 8 only indicate the physical target in FY 2017-18. It does not give any information about completion/ commissioning of any work indicated in Column 1. Hence, all works as in observation are on-going works in FY 2017-18. Further, Form-2 provides the detail of projects, included in Investment Plan for FY 2018-19, for previous year and for current year as prescribed by the Commission.

2.48 The petitioner submitted that the date of Commissioning is Indicated in column 4, Form-2, if any. As regards, cost of completed scheme the petitioner submitted the stated works are on-going in nature and expenditure accountability is still going- on.

(11) TSPCC Approval

2.49 The stakeholder submitted that the petitioner shall justify as to why the schemes such as upgradation of existing 132 kV S/C and D/C section of 132 kV to 220 kV between Heerapura to Nallah Power House etc., have not been mentioned in the list of TSPCC approved schemes.

2.50 The stakeholder has sought the copy of approval of TSPCC in respect of additional 1x 1,500 MVA 765/400 kVA transformer at Baran Pooling Substation.

RVPN's Response

2.51 The petitioner submitted that the project under observation was sanctioned on dated 31.01.2008 i.e., before constitution of TSPCC (26.03.2009) in requirement of clause 4.8 of RERC (Rajasthan Electricity

Grid Code) Regulation 2008.

2.52 Thereafter, some more EHV schemes have been approved by TSPCC in its 11th meeting held on 16.11.2017, which has been included in the Investment Plan petition for FY 2018-19.

2.53 The petitioner clarified that the installation of additional 1x1500 MVA, 765/ 400 kV transformer at Baran Pooling Substation was approved by TSPCC in its 2nd meeting dated 22.06.2010 and the MoM of the said meeting were supplied by RVPN in its reply to Data Gap of Investment Plan 2014-15 vide letter no.153 dated 08.05.2014.

(12) Others

2.54 The stakeholder congratulated the petitioner for the recently initiated 5-S part of Quality Management System and hoped that the petitioner should keep sufficient provisions in the annual investment plan for implementation of TPM/TQM.

2.55 The stakeholder submitted that the petitioner's management and the Commission should verify the present state of affairs of the investment made by the petitioner in the past. The stakeholder while drawing the attention on the proposed investment in Automation/SCADA stated that several existing 220 kV GIS GSS and other SCADA are still non-operational and the proposed STNAMS and STOMS should not meet similar fate.

2.56 The stakeholder mentioned the 400 kV D/C Jodhpur (New)-Udaipur line with 400/220 kV GSS at Udaipur power evacuation scheme was dropped in the petitioner's BOD meeting held on 07.01.2016. The stakeholder has sought information on the technical scenario leading to drop this scheme.

2.57 The stakeholder has sought justification for unapproved system and expenditure in respect of power evacuation system of Kalisindh TPS, Kawai SCTPS and Chhabra TPS, which has said to be taken care by 765 kV system from Anta to Phagi and the proposed 400 kV D/C line from 765 kV GSS Phagi to Ajmer.

2.58 The stakeholder has sought the information as to whether the new 132 kV Grid substations are being installed on the request of the concerned Discoms and has sought the requests so made by the Discoms.

2.59 The stakeholder has sought the list of substations created for reduction of transmission losses and the information of transmission losses prior to installation of these substations and after the installation of these substations. Further, the petitioner should submit information about the savings in Lakh units in the past three financial years, on account of loss reduction schemes.

2.60 The stakeholder referred to Para 7.1(6) of the Tariff Policy 2016 and submitted that petitioner should clarify as to why it has not undertaken competitive bidding for the present well as future investments.

2.61 The stakeholder sought clarification from the petitioner with respect to its submission in the previous year, wherein the petitioner had stated that a load of 18,603 Megawatts (MW) has been assessed for the proposed transmission system, and the same was considered for designing power evacuation system for Wind and Solar in the whole state. As per the statement of the petitioner, the stakeholder has inferred that a total capacity of 37,206 MW was assessed, while as per 18th Electric Power Survey (EPS) it comes out to be 19,692 MW, and for the same the stakeholder has sought clarification.

<u>RVPN's Response</u>

2.62 The petitioner under Quality Management System has stated that as per the 5S program initiated by RVPN all the Grid Substation are planned to be Scrap free and accordingly as on 15.03.2018 around 94% GSS have been made scrap free.

2.63 The petitioner submitted that the 400 kV D/C Jodhpur (New)-Udaipur line with 400/220 kV GSS at Udaipur power evacuation scheme was envisaged for evacuation of power from proposed Banswara SCTPS (IPP) (2X660MW). Since proposed Banswara SCTPS (IPP) is not expected in near future, therefore, the above project has been dropped. Similarly the 400 kV/ 220 kV GSS at Udaipur has also been dropped for the same reason.

2.64 The petitioner submitted that the apart from strengthen power evacuation from the said TPS, the 400kV D/C Ajmer-Bhilwara-Chittorgarh line along with the 400 kV GSS at Chittorgarh is also essential for connecting 400/220 kV GSS Bhilwara in the ring as well as to enhance the reliability of power supply under outage of important 400/220 kV lines in that area. The new 132 kV substations are being sanctioned/created as per the requirement/ request of DISCOMs. A number of proposals have been sent by the DISCOMs for creation of new 132 kV substation in their area. These 132 kV proposals are prepared as per the loading conditions on 33 kV system and future load growth in the area and are supported by a detailed study based on the system technical parameters viz. Voltage Regulation, Demand Loss, Annual Energy Savings in the system after creation of substation.

2.65 All the details such as network of DISCOM for which new substation are being proposed to be created, from which transmission line/ system is presently getting supply and what are the transmission losses at present and will be after the installation of new substation are clearly mentioned in the Detailed Project Report (DPRs) of each project, which are invariably been sent for the perusal of the Commission. Some important parameters are also mentioned in the petitions submitted by the RVPNL to the Commission. These parameters are being considered are % Voltage Regulation (VR), % Distribution Loss (DL), Annual Energy Loss (AEL), Installed capacity of 33/11kV transformers, feeder lengths, Annual Energy Savings, proposed load on the substation, etc.

2.66 As regards with competitive bidding, it is submitted that the petitioner is executing various projects through Competitive bidding viz Turnkey projects, PPP projects, procurement of material and labour contract, etc.

2.67 As regards with load assessment the petitioner submitted that there is no load of Wind and solar Generators, these generators only supply power to the load connected in the system. The petitioner further submitted that it has considered a total load requirement (including capacity requirement for evacuation of power from wind and solar power generators), as 18,603 MW (not 37,206 MW) as per 18th EPS, for RVPN transmission system.

B. True up of 2016-17

(13) Separate Petitions for Transmission and SLDC

2.68 The stakeholder mentioned the requirement of filing of separate Petitions for Transmission and SLDC Functions. However, the petitioner is not filing separate Petitions for Transmission and SLDC Functions. The petitioner has been discharging the functions of SLDC only because the Government has not established a separate SLDC for the purpose of exercising the powers and discharging the functions under Part V of the Electricity Act, 2003. The Commission may kindly issue directions to the petitioner to file separate Petitions each for Transmission and SLDC function in future.

RVPN's Response

2.69 The petitioner submitted that the issue has already been discussed and decided in Tariff Order dated 14.08.2015 for the petition FY 2014-15.

(14) Audited Accounts

2.70 The stakeholder submitted that Section 41 of the Electricity Act, 2003 provides that the transmission licensee is to maintain separate accounts for each of its business undertakings so as to ensure that the transmission business neither subsidies in any way such business undertakings nor encumbers its transmission assets in any way to support such business. Further, the license granted to the petitioner by the Commission also states for maintenance of separate accounts. However, the petitioner has not been maintaining separate accounts for Generation, SLDC and Transmission. Further, the Audited Accounts as submitted by the petitioner have been stated as Standalone Accounts, however, are inclusive of Share Projects, SLDC Charges, etc. and there is no proper segregation of expense and revenue. Para 2(b) and 2(c) of the CA's Report at Page 251 of the Petition states that an amount of Rs. 107.76 Crore being Capital Work in Progress (CWIP) of Share Projects are included in CWIP and an amount of Rs. 328.82 Crore being proportionate share of PPE (Gross Block) are included in Gross Block, therefore, complete details in respect of these heads are not available. Therefore, the Annual Accounts submitted by the petitioner cannot be considered as submitted for Transmission Utility alone. The Petitioner has failed to maintain separate accounts for each of the functions in disregard of the statutory provisions of the Electricity Act, 2003 and also directions of the Commission. Further, the basis of segregation of accounts as mentioned in Note 39.5 is also not made available in the Petition/Accounts. The petitioner may provide duly audited separate accounts for Transmission and SLDC business.

RVPN's Response

2.71 As regards, separate Accounts for Transmission and SLDC, RVPN submitted that the Standalone Financial Statements have been prepared by combining three segments of RVPN i.e. Transmission, SLDC and Generation. Segment wise information is also prepared in compliance of Indian AS 108 and the same is available at Note No. 39 of Audited Annual Accounts of RVPN. The Annual Accounts of RVPN have been audited by the Statutory Auditors as well as C&AG. The separate Annual Accounts for SLDC (duly certified by statutory auditors) have already been submitted already to the Commission.

(15) Adoption of In AS-101

2.72 The petitioner has submitted that difference in the closing balance and the opening balance of Gross Fixed Assets (GFA) for FY 2015-16 and FY 2016-17 respectively is on account of first time adopting of Indian Accounting standards -101 with effect from 1.4.2017. However, no such difference /adjustment has been observed in form TTU-3, therefore RVPN is requested to elaborate the same.

RVPN's Response

2.73 The petitioner has submitted that the Para 1.7 of the Tariff Petition explains the first time adoption of Indian Accounting Standards. According to Indian AS, net value (Gross Value-Depreciation) of all the property, plant and equipment are to be shown in assets register, earlier the same was shown at Gross Value. The liability of Superannuation fund has been created in books at net value

(Obligation-Net Present Value of Plan Assets).

(16) Operation and Maintenance (O&M) expenses

2.74 The stakeholder suggested that the norms for O&M expenses seems very liberal, as the petitioner has requested the Commission to allow Normative O&M Expense of Rs. 950.57 Crore, against the actual O&M Expense of Rs. 409.41 Crore, which is not justified. It seems that this huge difference is mostly on account of Nil provision for terminal benefits. Further, as per Audited Accounts there has been a reduction of Rs. 181.80 Crore in Employee expense as compared to that of previous year mainly due to reduction in terminal benefits. The contribution to superannuation liability has been reduced from Rs. 227.75 Crore to Rs. 21.48 Crore. Further, as per the explanation provided in para 34.4, as against superannuation liability of Rs. 1,496.04 Crore as per the actuarial valuation report (which appears to be the net liability of pension fund based on total liability of Rs. 3,758.99 Crore less plan assets of Rs. 2,281.40 Crores), a liability of Rs 1,974.30 Crore exists (including an amount of Rs. 904 Crore towards pension liability). A liability of Rs. 478.26 Crore has also been kept towards future additional provisions likely with implementation of 7th Pay Commission. Therefore, this difference of Rs. 441.50 in normative and actual O&M expenses must be considered towards bridging the liability of Rs. 1,974.30 Crore for pension fund, and only then the projected deficit of Rs. 150 Crore for FY 2016-17 shall be allowed to be carried forward.

2.75 The stakeholder highlighted that the petitioner has submitted that under Admin & other expenses, bad debts of Rs 295.82 Crore has been considered and the same is appearing in their Annual Accounts for FY 2016-17. This amount has been stated as written off, such total amount written off from the Discoms works out only as Rs 280.00 Crore. The petitioner should clarify this difference. Further, the petitioner has nowhere mentioned the reasons for non-recovery of these receivables and the period for which these relate. The detailed information regarding these receivables must be provided. Further, the data provided by the petitioner in Form TTU 1 as submitted is not reliable, as segregation shows Audited O&M expenses are Rs 708.12 Crore, however Form TTU1 shows Rs 950.57 Crore.

2.76 Further, in respect of the claim of O&M expenses of Rs. 950.57 Crore, the petitioner is required to submit the list of transmission lines with ckt-km length added during the FY 2016-17, with their date of commissioning and also state whether these lines have been energised at their design rated voltage or at a lower voltage.

2.77 The stakeholder suggested that the Commission should pass an order /directive to deposit the surplus amount of Rs. 541.16 Crore, on account of variation in actual and normative O&M expense to Gratuity fund, and this contribution should be over and above the regular contribution.

RVPN's Response

2.78 The petitioner submitted that the Tariff petition has been filed as per the Tariff Regulations. Accordingly, any gain/loss on account of normative parameters are to be borne by the petitioner. This is allowable as per norms of RERC.

2.79 As regards pension funds, the petitioner submitted that the Commission had allowed O&M expenses as a part of revenue to be recovered from Discoms, which has not been paid by the Discoms to the petitioner and thus the said amount could not be deposited in pension trust. The amount already allowed is yet to be received from Discoms and thus due to shortage of funds could not be deposited in trust fund. However, Rs. 172.00 Crore has already been deposited in FY 2016-17.

2.80 As regards, Bad debt of Rs. 295.82 Crore, RVPN has submitted the detailed break up as follows: -

Table 4: Detailed Break up of Bad Debt Written off FY 2016-17 as submitted by RVPN (Rs. Crore)

Particulars	JVVNL	JDVVNL	AVVNL	RVUN	Total
Bad Debts Written off	112.00	89.60	78.40	-	280.00
Unreconciled old balances upto 31.03.2016	6.83	1.71	7.07	0.10	15.71
Impairment Loss of Pink City & Lake City	--	-	-	-	0.11

Particulars	JVVNL	JDVVNL	AVVNL	RVUN	Total
Total	**118.83**	**91.31**	**85.47**	**0.10**	**295.82**

2.81 The above figures have also been disclosed at Note No. 9.2, 16.3 and 10.3 respectively of the Audited Annual Accounts of RVPN for the year 2016-17.

2.82 As regards, reliability of form TTU-1, with respect to audited O&M Expenses, RVPN submitted that the actual O&M expenses were Rs. 409.41 Crore for FY 2016-17, while it has claim O&M expenses as per Norms issued by RERC amounting to Rs. 950.57 Crore. RVPN further submitted the detailed break up of segregated O&M expense as follow: -

Table 5: Segregated O&M Expenses for FY 2016-17 as submitted by RVPN (Rs. Crore)

Particulars	Transmission	SLDC	Generation	Total
R&M expenses	57.46	0.11	75.81	133.38
Employee Costs	472.11	11.07	65.54	548.72
Admin. & Gen. Expenses	100.24	1.21	5.88	107.33
Less:- Capitalization of O&M	(220.40)	-	-	(220.40)
Total	**409.41**	**12.39**	**147.23**	**569.03**

2.83 The petitioner also submitted the list of transmission lines with ckt-km length added during this financial year i.e. 2016-17 with their date of commissioning as sought by the stakeholder.

(17) Capitalisation

2.84 The petitioner may furnish the reasons and details of the Excess Capitalisation (Rs. 453.96 Crore) during Truing up of FY 2016-17 against the approved Investment. Further, the petitioner may furnish following information with regard to Capitalisation of Rs. 2,591.96 Crore, namely:

- List of Transmission Lines with their date of Commissioning.
- List of new GSS and MVA capacity installed with date of Commissioning.

- List of newly installed Feeder bays.
- The Complete cost structure showing IDC separately indicating original cost is required for prudence check.
- RVPN may also indicate against each term if the same have the approval of TSPCC and if so, the reference TSPCC meeting may also be provided.

<u>RVPN's Response</u>

2.85 The capitalization is not in excess but is transferred from CWIP to Fixed Assets. The capitalization plan approved is the amount of expenditure to be incurred on capital works. Therefore, it is to be compared with total addition CWIP i.e. Rs. 1,929.42 Crores.

2.86 RVPN submitted that it has provided the desired information regarding, list of Transmission Lines, List of new GSS, Feeder Bays. The desired list of transformers installed for augmentation of capacity of the existing GSS with their capacity with name of GSS where it has been done has also being provided.

(18) Depreciation

2.87 The Stakeholder submitted that depreciation cannot be calculated as the petitioner has not submitted the details of the assets. In response the petitioner has replied that they have followed the methodology as specified by RERC. However, the stake holder further submitted that there are several other issues as follows:-

- There is a calculation error in determining the depreciation.
- The depreciation of Rs. 0.28 Crore is claimed on O&M spares.
- The depreciation claimed in column 8 of the True-up form does not match with the total GFA.

2.88 It is also submitted by the stakeholders that the Petitioner has capitalised the assets in excess of approved plan without providing justification. Also, the admissible depreciation for FY 2016-17 works out as Rs. 511.19 Crore.

<u>RVPN's Response</u>

2.89 The depreciation for the year 2016-17 has been charged as per methodology notified vide RERC (Terms & Conditions for determination of Tariff) Regulations, 2014. Accordingly, fixed assets register has also been prepared which is voluminous so the same has already been submitted to Commission in soft copy (CD).

2.90 In view of implementation of Indian AS and policy adopted by RVPN, O&M spares parts having useful life more than one year and having value one lac or more have been shown in assets register and depreciation have been charged day-wise on individual asset separately. The note of depreciation erroneously stated as zero may be read as 5.28%.

2.91 Further, the petitioner submitted that the deprecation has been charged day-wise on individual assets and the same has been calculated as per methodology notified vide RERC (Terms & Conditions for determination of Tariff) Regulations, 2014 and hence cannot be matched grossly.

(19) Interest on Loan

2.92 As per form TTU 4.1 and Form TTU 4.2 the normative interest rate is 10.65% as against the audited value of 7.86%. As per RERC Tariff Regulations, the rate on interest shall be weighted average rate of interest calculated on the basis on actual loan portfolio and the interest on loan shall be calculated on normative average loan of the year by applying the weighted average rate of interest. The weighted average Interest rate cannot have wide variation from audited figure, therefore the petitioner shall indicate calculations for the both rate of interest.

2.93 The petitioner shall provide scheme wise Interest rate on its borrowing for FY 2016-17 and the same shall be reflected in the annual accounts from FY 2017-18 onwards.

2.94 The stakeholder has highlighted that there is a deviation in total interest expenses including short term loans in forms (Rs. 909.06 Crore) w.r.t P&L Accounts (Rs. 878.41 Crore) submitted by the petitioner. The sum of Rs. 9,434.20 Lac being interest of capital work in progress is capitalized. The petitioner may submit justification for the same.

2.95 The stakeholder suggested that the Commission shall disallow the interest element on Loans and Advances given by RVPN to its subsidiaries.

RVPN's Response

2.96 The petitioner submitted that the Commission has already allowed 10.86% rate of interest in their true-up order for FY 2015-16 and in light of decreasing trend of interest rate, it has been assumed lesser from previous year i.e. 10.65% for true-up.

2.97 The petitioner further submitted that the Annual Accounts of RVPNL are being prepared as per the Companies Act, 2013 and impacting of Indian AS, which is issued by ICAI. There is no such requirement to provide the scheme-wise loan with rate of interest as per the Companies Act, 2013.

2.98 The justification of Capitalization of interest of capital work in progress has already been disclosed at Item No. 5 "Borrowing Costs" of the Significant Accounting Policies.

2.99 As regards, Interest element of loans and advances to the subsidiaries, the petitioner submitted that these companies are wholly owned subsidiary companies of RVPN and they have been incorporated for development of EHV transmission lines and GSS being integral part of transmission network of RVPN.

(20) Interest on Working Capital:

2.100 The petitioner shall provide the rate of Interest on Short Term Borrowing of Rs. 85 Crore from Power Finance Corporation Ltd. (PFC) for FY 2016-17.

RVPN's Response

2.101 RVPN submitted that the Annual Accounts have being prepared as per Company Act, 2013 and impacting of Indian AS which issued by ICAI. There is no such requirement to reflect the ROI in Annual Accounts. However, the same is provided as requested. The STL had taken on interest @ 10.50% per annum.

(21) Return on Equity

2.102 The petitioner shall reduce the RoE for FY 2016-17 from 12% to a nominal RoE of 2% as sought by the petitioner of FY 2018-19, to reduce the burden on the consumer in the state.

2.103 The return on equity shall be calculated on Net Equity, after taking into consideration the other equity component (i.e. Rs. 1,300.03 Crore for FY 2016-17) of the total equity at the beginning of the year rather than gross equity at the beginning of the year.

2.104 The stakeholder stated that the petitioner should submit detailed reasons behind its claim of Return on equity as the petitioner has submitted that RoE has been considered based on the Commission's order dated 27.10.2016. Further, the petitioner should also clarify following issues with regard to RoE:-

- The percentage rate of return, as the same is not submitted by the petitioner.
- Information on assets retired or replaced is required to be submitted.

RVPN's Response

2.105 The petitioner submitted that it has claimed RoE only as 2% for 2018-19. As regards, RoE computation on net Equity rather than Gross Equity, RVPN submitted that other equity contains capital reserve, accumulated losses and share application money pending allotment. This is requirement of Indian AS. The details of the same are at note no. 18 of Annual Accounts for FY 2016-17.

2.106 RoE for FY 2016-17 and FY 2017-18 has already been approved by Government of Rajasthan (GoR) vide dated 17.01.2018 and 20.12.2017 respectively.

2.107 The petitioner has submitted that no asset has been retired/ replaced during FY 2016-17.

2.108 The details with respect to rate of return are available at point 3.27 of petition.

(22) Insurance Expenses

2.109 The stakeholder submitted that the petitioner may submit relevant documents in support of its claim with regard to the insurance charges. Further, the stakeholder also highlighted that this amount cannot be used with regard to the vehicles being used, as insurance of vehicles is part of O&M expenses and hence, it is not admissible.

RVPN's Response

2.110 Insurance charges have been separately claimed as per regulation 25 of RERC Tariff Regulations 2014, wherein it has allowed as separate component to be claimed on actual basis as is not part of O&M expenses as stated in the objection.

(23) Revenue for FY 2016-17

2.111 The revenue receipts for FY 2016-17 as indicated at table 7 of the petition, does not match with the revenue as indicated in revenue and expenditure statement of audited accounts i.e., Notes 30 and 31. Further, the stakeholder stated that revenue from partnership projects need to match with their expenses. Accordingly, reconciliation details to be provided by the petitioner.

2.112 The revenue from Open Access Consumers for FY 2016-17 has been mentioned as Rs. 158.38 Crore at table 31 of the ARR petition (excluding revenue of 50.38 Crore from interstate transmission line users), which is less than the revenue as mentioned in form TTU12, the petitioner shall clarify the same.

2.113 The stakeholder highlighted that the value submitted (Rs. 2,320 Crore) as the revenue received from Discoms is incorrect; the correct amount is Rs. 2,670.09 Crores. The petitioner should submit the correct amount.

RVPN's Response

2.114 As regards, reconciliation of revenue from Partnership Projects RVPN submitted that the same has already been shown under note No. 39.5 of the Audited Standalone Financial Statements of RVPN for the

Financial Year 2016-17, however, the reconciliation of revenue and expenses of generation cost/Partnership projects is as under:

Table 6: Reconciliation of revenue and expenses of generation cost/Partnership projects as submitted by RVPN (Rs. Crore)

Particulars	Amount
(A) Revenue	
Revenue from Common Pool	51.99
Revenue of Generation Cost	109.69
Other Income	4.00
Total Revenue (A)	**165.68**
(B) Expenses	
Generation of Power	8.11
Repair and Maintenance	75.81
Employee Cost	65.54
Administration and General Expenses	5.88
Depreciation	2.60
Interest and Finance Charges	7.74
Total Expenses (B)	**165.68**
Net Profit/(Loss) (C=A-B)	**-**

2.115 As regards, revenue from Open Access Consumer, the petitioner submitted that the TTU-12 total is wrong instead of Rs. 138.14 Crore it is Rs. 156.83 Crore. Table 31 is not reflecting the Long-Term Open Access (LTOA) of Rs. 76.73 Crore and LTOA has already shown in Table No. 7.

2.116 The claim of the petitioner as revenue from Discoms is correct. The difference of Rs. 384.07 Crore is an adjustment from receivables and could be considered as reduction from revenue as revenue from transmission tariff in any case could be lesser or more than amount allowed by the Commission and thus rightly booked by petitioner.

(24) System Availability Incentive

2.117 The stakeholder highlighted that the petitioner has requested the Commission to allow Rs. 48.79 Crore as incentive for achieving high system availability i.e., above 98%. However, the petitioner has not mentioned the actual system availability. The stakeholder further suggested that the actual system availability should be verified by SLDC for claiming Incentive.

2.118 The stakeholder further submitted that the petitioner is required to supply calculations sub-station wise and integrated for all sub-stations for calculating the incentive with regard to higher availability then the normative.

RVPN's Response

2.119 RVPN submitted that the actual availability is 99.87% which has also been displayed on RERC website in SOP for 2016-17. The availability of transmission system is being worked out (in accordance with RERC instructions/provisions) for all the substations at the circle level and which is compiled at the corporate level. The overall availability so worked out is communicated by RVPN to the Commission every year. RVPNL submitted that the transmission system actual availability is 99.87% as against the normative availability of 98%.

(25) Transmission Losses

2.120 The petitioner has indicated that actual transmission losses during FY 2015-16 and FY 2016-17 were 3.89% and 3.35% respectively, which were much lower than as approved by the Commission. The stakeholder appreciated the efforts of the petitioner for achieving the same and hope to keep it further reducing in future also. The stakeholder has requested that the petitioner should provide the computation for arriving at actual transmission losses of 3.35% in FY 2016-17 along with the quantum of energy input at State's periphery and energy supplied to the Discoms and has also sought that the transmission losses should be verified by the SLDC.

RVPN's Response

2.121 The petitioner submitted that the figure of loss 3.89% has been anticipated in advance, however loss on actual basics will be considered. RVPN further, submitted that the Transmission losses in a system depends on the flow of power which changes from time to time on account of various factors such as seasonal load and generation also backing down of generating plants and getting power through Power Exchange etc. However, all measures are being taken from time to time to reduce the losses.

(26) Transmission Capacity Requirement

2.122 As per Form TTU 12 the transmission capacity utilization for FY 2016-17 has been mentioned as 9,762 MW and 538 MW by Discoms and LTOA consumer respectively and no capacity requirement has been mentioned for short term and medium term open access, which seems incorrect as the capacity Requirement of the Discoms as indicated in the form is substantially lower than 12,538 MW as approved by the Commission is previous tariff order and the petitioner shall clarify the same. The stakeholder further submitted that open access power procurement availed by Railways as deemed licensee with effect from January 2017, would lead to reduction Transmission requirement of Discoms and an increase in Transmission requirement of Open Access consumers, which will result in changes in MW allocations of Discoms and Open Access as well as the transmission charges

<u>RVPN's Response</u>

2.123 The petitioner submitted that Medium Term Open Access was granted to Railways in the month of April, 17 and during Jan 2017 to March 2017 these transaction were under Short-Term Open Access (STOA) and the revenue of the same is included in head IEX at Sr. No. 2 of TTU-12.

(27) Others

2.124 The stakeholder submitted that the petitioner should clarify the details of the expenditure of Rs. 8.30 Crore with regard to other items.

2.125 The petitioner should not consider income tax as part of ARR as the same is to be recovered directly from the beneficiaries.

2.126 The stakeholder stated that the Table 39.5 on pages 233 and 234 of the Petition (pages 54-55 of the audited accounts) states as 'Disclosure as per Indian AS 108 Operating Segments'. It has been further stated that the Company has two reportable segments – Transmission and Generation. Further, under the heading of 'Identification of Operating

Segments', it has been mentioned that, 'the Chief Operating Decision Maker monitors the operating results of these business segments separately for the purpose of making decisions about resource allocation and performance assessment'. In this regard, the petitioner is required to submit the identity of such authority and also authorisation made by RVPN. As per stakeholder's understanding, the allocation of the resources are being made by the appropriate Commission, i.e. RERC for Transmission and SLDC and Central Electricity Regulatory Commission (CERC) for Generation. Therefore, the question of having any other Chief Operating Decision Maker does not arise.

2.127 The stakeholder has sought information from the petitioner as under:

- List of voltage-wise transmission lines (with length in ckt-km), sub-stations (with installed capacity in MVA), transformers (with augmentation capacity, GSS and MVA capacity) commissioned during FY 2014-15, FY 2015-16 and FY 2016-17 with date of commissioning;
- Completed cost of each line, GSS and transformer commissioned as above, included segregation of such cost into hard cost (further segregated into debt, equity and grant) and interest during construction period;
- List of transformers (with voltage ratio and capacity) burnt during FY 2014-15, FY 2015-16, FY 2016-17 and FY 2017-18 including information regarding date of burning/becoming unserviceable; completed cost of such transformer on date of installation segregated into debt, equity and grant; accumulated depreciation on the date of burning; date of removal from the site; date of making the transformer available for disposal; details of transformer (with voltage ratio and capacity) installed for replacement with completed cost of such replacement transformer;
- List of retired transmission lines, transformers, bays, etc. with their voltage, capacity and date of retirement; completed cost of such transformer on date of installation segregated into debt, equity and grant; accumulated depreciation on the date of burning; date of removal from the site; date of making the transformer available for

disposal; details of transformer (with voltage ratio and capacity) installed for replacement with completed cost of such replacement transformer;

2.128 The petitioner should supply copy of TSA executed with the Discoms and long term open access consumers, indicating the contracted capacity in each case. In case, there is no TSA, then the contracted capacity as agreed may be supplied. If there is nothing, then the basis of assumption of contract demand may be explained.

2.129 The stakeholder has sought information from the petitioner in respect of Note 2 as per para 232 of Commission's Order dated 27.10.2016, regarding the following:

- Copy of State Government's Letter No. F. 20(6) Energy/2010/Pt.2 dated 13.01.2015;
- Solar Power Projects from which 50% transmission charges have been recovered in FY 2016-17 with amount so recovered;
- Whether these Solar Projects have executed any Power Purchase Agreement (PPA) for sale of electricity to Discoms for their RPO compliance and copy of their PPA with Discoms;
- Whether 50% concession transmission tariff has also been allowed to such Solar Projects who don't supply power to Rajasthan Discoms but some other entity and the list of such Solar Projects with the transmission charges recovered in FY 2016-17;
- Whether these Solar Projects to whom 50% concession transmission tariff has also been allowed have been set up under competitive bidding process;

2.130 The stakeholder stated that the Commission's Order dated 27.10.2016 has been against the provisions of Section 65 of the Electricity Act, 2003 and thus inoperative. The petitioner may state how they have allowed the 50% concessional transmission tariff to above Solar Projects.

RVPN's Response

2.131 The petitioner submitted that the expenditure towards other items amounting to Rs 8.30 Crore consists of Rs. 2.58 Crore towards, Misc.

Losses and write offs, Rs. 3.58 Crore towards Bad debt write offs (Computed as 0.25% of trade receivable) and Rs. 2.22 Crore towards ULDC/ Northern Regional Load Dispatch Centre (NRLDC)/VAR charges.

2.132 As regards, Income tax, the petitioner submitted that it has kept a small provision of Rs. 2.0 Crore towards income tax, however actual income tax will be charged for the beneficences.

2.133 As regards, Chief Operating decision maker, the petitioner submitted that the Board of Directors of RVPN is Chief Operating decision maker and Segregation of the Transmission, SLDC and Generation is made on the basis of actual incomes and expenditures of the segment itself. Segment wise information prepared in compliance of Indian AS 108 and the same is available at Note No. 39 of Audited Annual Accounts of RVPN.

2.134 The petitioner has provided the list of transmission lines, new Grid Sub-stations and transformers installed for augmentation of capacity of the existing GSS with their capacity with name of GSS, where it has been done. Further, all the associated EHT bays are commissioned on the date of commissioning of line/ Grid Sub-stations. The petitioner further stated that no transmission line has been upgraded from lower to higher voltage.

2.135 The petitioner submitted that despite of its regular pursuance and direction from the Commission, the TSA has not yet been executed by Discoms. For tariff purposes the peak demand is being considered.

2.136 The petitioner has enclosed the copy of the State Government's order dated 13.01.2015. As regards, information regarding Solar Power Projects from which 50% transmission charges have been recovered, the petitioner submitted that the applicability of the above directions of Govt. of Rajasthan is only for those solar power projects, which are commissioned during 01.04.2015 to 31.03.2018 only.

2.137 As regards, allowance of 50% concession on Transmission charges, the petitioner submitted that billing has been done in line with the orders of the Commission.

(28) Status of Compliance of Directives

2.138 The stakeholders highlighted that the petitioner was directed to recover the outstanding amount from AVVNL in earlier Orders and submit the status to the Commission. The petitioner shall be required to submit details of such recoveries made from AVVNL.

2.139 The stakeholders also observed the status of compliance report of directions of the Commission as submitted by the petitioner in respect of the following:

- Deposit of Rs. 381.90 Crore in Pension Trust
- Information regarding category-wise assets, rates and depreciation, segregation of assets in less 12 years old, more than 12 years old and remaining assets which have reached 90% depreciation, etc.
- Refund of surplus of Rs. 384.07 Crore and Rs. 25.85 Crore towards Transmission and SLDC functions respectively
- The stakeholder has stated that the petitioner has not complied with any of the directions made by the Commission.

<u>RVPN's Response</u>

2.140 The petitioner submitted that the matter is under regular pursuance with AVVNL and amount as and when received shall be intimated to the Commission. The amount receivables from the State Govt. will be adjusted in future against the Dividend and interest as conveyed by the State Govt. vide letter dated 18.05.2016.

2.141 As regards, deposit of Rs. 381.90 Crore in Pension Trust, RVPN submitted that the Commission had allowed O&M expenses as a part of revenue to be recovered from Discoms, which has not been paid by the Discoms to RVPN and thus the said amount could not be deposited in pension trust. The amount already allowed is yet to be received from Discoms and thus due to shortage of funds could not be deposited in trust fund. However, Rs. 172.00 Crore has already been deposited in FY 2016-17.

2.142 As regards, segregation of assets in less than 12 years and more than 12-year-old RVPN, submitted that the depreciation for the year 2016-17 has been charged as per methodology notified vide RERC (Terms & Conditions for determination of Tariff) Regulations, 2014. Accordingly, Fixed Assets Register has also been prepared, which is voluminous so the same has already been submitted to the Commission in CD.

2.143 As regards, refund of surplus of Rs. 384.07 Crore and Rs. 25.85 Crore towards Transmission and SLDC, RVPN stated that the same has been disclosed at Note No. 10 & 30 of the Audited Annual Accounts of RVPN for the year 2016-17.

(29) True –up of ARR of SLDC for FY 2016-17

2.144 The petitioner shall clarify, the variation in Admin and other expenses as mentioned in the segregated SLDC accounts and as mentioned in page No 233 wherein these expenses have been mentioned as Rs. 1.19 Crore and Rs. 1.21 Crore respectively.

2.145 The stakeholder submitted that in the order dated 27.10.2016, the Commission had approved O&M charges by escalating the O&M charges of FY 2014-15 by 5.85% there by approving O&M charges of Rs. 11.72 Crore, however as per escalation these expenses comes out to be Rs. 11.072 Crore instead of 11.72 and accordingly the petitioner has claimed benefit of such error.

2.146 The stakeholder submitted that Interest on working capital should be allowed on normative basis by correcting the mistakes.

2.147 The petitioner may supply the NRLDC charges with the copy of relevant documents.

2.148 The stakeholder highlighted that the petitioner should justify the depreciation with regard to transmission portion in detail.

2.149 The petitioner should also submit information regarding the retired and replaced assets.

2.150 The stakeholder has sought information with regard to Long Term and Short Term Open Access consumers.

<u>RVPN's Response</u>

2.151 RVPN submitted that the Actual Administrative & General Expenses of

SLDC for the FY 2016-17 as per Audited Accounts is Rs. 118.86 lakhs. The difference of Rs. 2.54 lakhs is due to adjustment of Prior-Period Expenses under this head as per IND-AS reporting.

2.152 The petitioner submitted in point no. 6.6 of the said order dated 27.10.2016, the Commission had in principal approved the O&M expenses as Rs. 11.72 Crore subject to truing up of FY 2016-17 after escalating the O&M Expenses approval in true up of FY 2014-15 @ 5.85% per annum i.e. on the amount of Rs. 10.46 Crore for the year 2014-15 which comes to Rs. 11.72 Crore after escalating it for next two years i.e. 2015-16 & 2016-17 (i.e. Rs. 11.072 Cr. For FY 2015-16 & Rs. 11.72 Cr. For FY 2016-17).

2.153 As regards, Interest on working capital the petitioner submitted that there is no erroneous mistake in O&M Expenses as approved by the Commission hence the interest on working capital claimed in the petition may be treated as correct.

2.154 As regards copies of NRLDC charges, RVPN submitted that various types of bills i.e. AMC, Optical Fibre, Rajasthan's share in Bhakra Beas Management Board (BBMB), etc., was booked in the head of NRLDC charges. The copies of such bills as sample are submitted by the petitioner.

2.155 The petitioner submitted that the depreciation has been charged day-wise on individual assets and the same has been calculated as per methodology notified vide Rajasthan Electricity Regulatory Commission (Terms & Conditions for determination of Tariff) Regulations, 2014 and hence cannot be matched grossly. Further, the petitioner also submitted that the interest during construction has been included in capital cost of vehicles purchased 15-20 years ago due to oversight but presently no IDC has been calculated on the vehicles.

2.156 The petitioner has submitted that it has not retired / reduced any asset in FY 2016-17.

2.157 The petitioner has submitted the list of LTOA. The petitioner further submitted that STOA is allowed as and when it is requested, after examining Technical Feasibility and there is no certainty/regularity regarding the duration of such STOA as it varies from customer to customer.

C. ARR for FY 2018-19 - Transmission

(30) Operation and Maintenance (O&M) expenses

2.158 The petitioner has proposed O&M expenses of Rs. 1,242.11 Crore, which is substantially higher as compared to the actual O&M expenses of Rs 409.41 Crore for FY 2016-17. In this regard, the Commission is requested to allow only reasonable O&M expenses.

2.159 The petitioner has projects O& M expense of Rs. 1,241.18 Crore for FY 2018-19, however it has not mentioned the contribution towards superannuation funds, out of the total amount of Rs. 1,241.18 Crore, hence the petitioner is requested to kindly indicate the projected contribution towards superannuation funds, which shall also be mentioned in the tariff order.

2.160 The stakeholder submitted that the O&M expenses are worked out based on estimated additions in the ckt-km length of transmission lines to be completed in FY 2018-19. Similar is the position in respect of MVA capacity and No. of bays as well. This results O&M claims to be on the higher side. The petitioner may submit justification for the same.

2.161 The stakeholder highlighted that as per the tariff regulations, 2014, O&M expenses shall be in respect of existing lines or sub stations or transmission system and not for such lines to be added during the financial year. Therefore, additions of lines, MVA capacity and feeder bays would be taken care in true-up petitions. The O&M expenses were on the lower side in the past than the normative basis.

RVPN's Response

2.162 The petitioner submitted that the O&M Expenses has been worked out as per Tariff Regulations. Further, the petitioner has submitted that superannuation fund is considered under O&M expenses, besides this, no additional contribution has been considered.

(31) Interest on Loan

2.163 The petitioner has taken loan at a very high rate such as loan from PFC, World Bank and Housing and Urban Development Corporation (HUDCO) at 12%, 11% and 11% respectively, while the currently prevalent interest rate in market is quite low. The Commission shall direct the petitioner to refinance these loans at a cheaper rate, or to the rate comparable to the Rural Electrification Corporation Ltd. (REC) loan of Rs. 4,550 Crore at 9.25%. The petitioner shall submit detail of Unidentified/Others Loan amounting to Rs. 918 Crore at such high rate of 10.65%.

2.164 The petitioner shall submit the detailed justification with supporting documents for projecting such high rate of interest on loan for FY 2018-19 as compared to actual interest rate for FY 2016-17 increasing the rate of interest for FY 2018-19.

2.165 The petitioner shall submit detailed justification for projecting the financing charges of Rs. 95 Crore for FY 2018-19.

RVPN's Response

2.166 The petitioner has submitted that it is obtaining loan at the minimum rate of interest in the market. However, the same loan was taken at the cheapest rate of interest at the time loan was taken. The loan received from the REC amounting to Rs. 277.39 Crore @ 9.50% p.a. and Rs. 129.75 Crore @ 9.75% p.a. The remaining balance amount may be received upto March-2018. The rate of interest in FY 2016-17 is calculated based on weighted average interest rate on actual interest paid in FY 2016-17. For FY 2018-19, interest rate is based on projected interest to be paid.

2.167 As regards, Projection of financial charge, RVPN has submitted that the guarantees commission charges amounting to Rs. 95.00 Crore including GST is to be paid to the GoR.

(32) Depreciation

2.168 The stakeholder submitted that the petitioner has not been complying with the regulations of supplying the segregation of Assets within 12 years and above 12 years old depreciated assets upto 90%. Further, no additions are assumed for FY 2018-19 may be considered and the unauthorised capitalisation of Rs. 453.96 Crore in FY 2016-17 may also not to be considered.

RVPN's Response

2.169 The depreciation has been claimed as per the methodology notified vide Rajasthan Electricity Regulatory Commission (Terms & Conditions for determination of Tariff) Regulations, 2014 and there is no excess capitalization in FY 2016-17 (refer para 13.10).

(33) Insurance Charges:

2.170 The stakeholder highlighted that the petitioner has estimated Rs. 0.55 Crore towards Insurance charges, but for the true-up order, no documentary proof has been provided. It is assumed that the insurance charges are being claimed with regard to operating vehicles. Hence, these charges are not admissible.

RVPN's Response

2.171 The petitioner has submitted that insurance charges have been separately claimed in line with Regulation 25 of RERC Tariff Regulations, 2014. However, it is a separate component to be claimed on actual basis, as it is not the part of O&M as stated in the objection.

(34) Miscellaneous Expenses

2.172 The petitioner should submit detailed justification for projection of Rs. 20 Crore as per Format T-7 of ARR petition. The stakeholder further submitted that these miscellaneous expenses should not be include in ARR petition, rather these should be included in the true up of relevant year.

2.173 The stakeholder submitted that as per Regulation 64 of the RERC Tariff Regulations, 2014 "other item" do not form a part of ARR, however the petitioner has mentioned Rs 20 Crore towards other item in Table 31 of the petition.

RVPN's Response

2.174 The petitioner submitted that the other expenses are part of ARR as per the format provided by the Commission. The petitioner further submitted that the provision of Rs 20 Crore has been kept considering the past experience, however the actual will be allowed when truing up petition will be filed.

(35) Retired Assets

2.175 The stakeholder sought the list of assets retired or replaced during FYs 2014-15, 2015-16, 2016-17 and 2017-18 with their completed cost on the date of their installation segregation as loan and equity, as the same is required for making deductions of equity from the present equity.

RVPN's Response

2.176 The petitioner has submitted that assets retired or replaced shall not be assessed in advance. Moreover, retired assets are replaced and thus no reduction can be done to equity.

(36) Unitary Charge

2.177 The stakeholder submitted that these charges are in line with the Investment plan petition for 2018-19; hence, the Commission may disallow these charges in the instant Petition, as it is not in line with regulations 60 of the Tariff Regulations, 2014.

2.178 The petitioner has proposed Rs. 53 Crore under the head Unitary charges, however there were no such provision in FY 2016-17 and FY 2017-18, hence the petitioner shall provide details and justification for such unitary charges.

2.179 The unitary charge/ incentive consisting of Rs. 30 Crore payable to M/S KEC international for timely completion of Bikaner-Sikar Line, and Rs. 22.60 Crore payable to Adani Transmission for Suratgarh-Bikaner line have been considered as expense, while as per Form 7 of the investment Plan these lines are mentioned as PPP-6 and PPP-7 under VGF, awarded through competitive bidding, therefore, if these incentives are towards construction of lines , these shall be considered as capital expenditure and not as unitary charge/incentive.

2.180 The stakeholders submitted that unitary expenditure should not be included as an expense in ARR for FY 2018-19 as it is implicitly included in the initial capital expenditure of the respective lines itself as the early commissioning of the assets leads to savings in interest cost for the petitioner, thereby no impact on the initial project cost for the petitioner.

RVPN's Response

2.181 The 400 kV D/C Suratgarh-Bikaner line is scheduled to be completed/commissioned in July, 2018 and RVPN have to pay unitary charges of the same during FY 2018-19. As such provision of unitary charges has been made in the petition.

2.182 The petitioner submitted that out of two lines, one has been commissioned on 04.12.2017 and other is expected to be commissioned during FY 2018-19. The unitary charges as claimed in the Petition have been approved by the Commission under Section 63 of the Electricity Act, 2003. The same has been arrived through bidding process. The petitioner further submitted that since these charges are through the bidding process the cost of the assets cannot be capitalised.

(37) Others

2.183 Investment for addition of capacity from renewable energy sources over and above the Renewable Purchase Obligation (RPO) shall be borne by the petitioner only.

2.184 The stakeholder submitted that the petitioner has delayed on various instances in replacing the 11 kV switchgear due to non-availability. Further, the petitioner took considerable amount of time in rectification of faulty transmission lines/ cables. The 132 kV cable from Indira Gandhi Nagar to Malviya Nagar has been lying faulty for quite some time and this in turn has been the hampering the services of the Discoms.

2.185 The Commission shall direct the petitioner to provide details of the spares being maintain, and to carry out work pertaining to replacement of faulty assets (lines and equipment's) in a time bound manner.

2.186 The petitioner is only installing the 132/33 kV transformer on its 132 kV GSS, leading to, additional requirement of 33/11 kV Transformer to be installed by the Discoms, which results in higher transmission Losses.

2.187 Due to non-availability of space/bay, the petitioner refuse its responsibility to provide bay at 132/33 kV for providing connection to HT consumers of the Discoms, resulting in delay in providing connections to HT consumers resulting in huge revenue loss to Discoms. The petitioner should keep sufficient space to provide the bay to the Discoms as and when the requirement arises and the additional cost for the same can be charged to the Discoms.

2.188 The stakeholder requested the Commission to appoint an independent agency to carry out an audit of functioning of SLDC. The petitioner has submitted Annual Accounts for the FY 2016-17, but details of cash records has not been provided by the petitioner in line with the Companies Act, 2013 and RERC Tariff Regulations, 2014.

<u>RVPN's Response</u>

2.189 In response to query regarding investment for addition of capacity from renewable energy sources over and above the Renewable Purchase Obligation (RPO), the petitioner submitted that it carries out infrastructure developments on the bases of the future requirement and the need for system strengthening and RVPN is charging the tariff from the beneficiaries for such infrastructure development. RVPN further submitted that it has no separate provision for bearing such expenses as mentioned.

2.190 The petitioner further submitted that the stakeholder shall indicate the specific cases wherein the petitioner has taken more time in restoring the system and during that period DISCOM have suffered, so as the petitioner can take remedial measures for future. The petitioner further submitted, that in case there is no supply made available on account of maintenance, the same period should be excluded.

2.191 As regards, non-installation of 132/11 kV, the petitioner submitted that the main function of STU is to Develop and Maintain Extra High Tension system and accordingly O&M charges, etc. are allowed.

2.192 As regards, delay in release of connection due to non-availability of bays, the petitioner submitted that no specific case for delay/refusal has been mentioned by the stakeholder. However, there is a demand from the respective DISCOM the availability of additional bay/requirement of land for it and spare capacity in the substation, etc. are examined, which takes some time.

2.193 In response to the query regarding independent audit of SLDC, the petitioner has submitted that the Statutory Auditors as well as C&AG have audited the Annual Accounts of RVPN (including SLDC). The separate annual accounts for SLDC (duly certified by Statutory Auditors) have already been submitted to the Commission.

(38) Revenue Requirement

2.194 The stakeholder has submitted that the petitioner requested the Commission to allow Rs. 3,022.93 Crore as against the actual/audited expenditure of Rs. 2,783.94 Crore, and accordingly has also requested the Commission to allow a net gap of Rs. 150 Crore. However, as per the actual/audited Expenditure and Revenue there is a profit of Rs 88.76 Crore, as against the loss of Rs. 150 Crore as submitted by the petitioner. In this regards the Commission shall only allow the expenditure limited to the actual/audited account amount or to the amount approved in order dated 27.10.2016, as it will make Tariff for FY 2018-19 quite high, and this additional burden on Discoms will ultimately pass on to the consumers.

RVPN's Response

2.195 The petitioner submitted that the tariff Petition is filed as per RERC Tariff Regulations, 2014 and accordingly any gain/Loss on account of certain parameters are to be on petitioner's Account.

(39) Revenue from Short Term Open Access Consumers

2.196 The stakeholder submitted that the application of Additional Surcharge with effect 1.5.2016 and a substantial increase in Cross Subsidy Surcharge vide Commission's order dated 1.12.2016, had a damping effect on inter-state open access drawl in FY 2016-17, while the full impact of increase in Open Access charges is expected to be realized in FY 2017-18. Therefore, considering the impact of these charges the revenue from Open Access Consumers for FY 2018-19 would be substantially lower than the revenue of Rs. 125.41 Crore in FY 2016-17, hence the petitioner shall justify the projected revenue of Rs. 300 Crore for FY 2018-19.

RVPN's Response

2.197 The petitioner has submitted that the Revenue Receipts from STOA up to January 2018 amounting to Rs. 190.00 Crore has already been realized. Further, it is submitted that as per the past trend of revenue realisation, sum of Rs. 300 Crore has been proposed for next year.

(40) Transmission Tariff

2.198 The stakeholder highlighted that the transmission tariff proposed by the petitioner is quite high as compared to the Transmission tariff for FY 2017-18.

2.199 In order to incentivize the Discoms having better load management, load factor and to ensure the least possible under/over recovery, the transmission tariff shall be based on the capacity contracted/agreed with monthly transmission charges paid on provisional basis based on the contracted/ agreed capacity and sum of contracted/agreed capacity in line with regulation 67(2), instead of the proposed recovery of transmission charges from Discoms as fixed monthly transmission charges based on transmission tariff.

2.200 The stakeholder submitted that in spite of refunding the surplus O&M expenses to the Discoms, the transmission tariff remains on higher side that results in higher rate of charges for the consumers of the state.

RVPN's Response

2.201 The petitioner submitted that the tariff has been worked out as per the RERC Tariff Regulations, 2014.

(41) Transmission Losses

2.202 The stakeholder submitted that the petitioner has projected increase in transmission loss from 3.35% in FY 2016-17 to 3.89% FY 2017-18 as well as projected transmission loss of 3.89% for FY 2018-19 which is not justified, considering the investments made by the petitioner in the loss reduction schemes. Such increase in transmission loss shall not be allowed and the transmission loss target shall be reduced further.

2.203 The stakeholder further submitted that with substantial augmentation in the transmission system, there should be a further reduction in transmission losses and the transmission loss for FY 2018-19 shall be less than 3.35%. The Commission shall specify at least 0.1% improvement in transmission losses for FY 2018-19 and hence a transmission loss target for 3.25% for FY 2018-19.

2.204 The petitioner should reduce intra-State Transmission Loss (%) target to 3.35% or lower, as even after proposing a capital expenditure of Rs. 2,032 Crore and Rs. 1,465 Crore for FY 2017-18 and FY 2018-19 respectively, such increase in transmission loss target is not justified.

RVPN's Response

2.205 The petitioner has submitted that it has anticipated the transmission loss of 3.89% for FY 2018-19, however loss on actual basics will be considered. Transmission losses in a system depends on the flow of power which changes from time to time on account of various factors such as sessional load and generation, also backing down of generating plants and getting power through Power Exchange, etc. However, all measures are being taken from time to time to reduce the losses.

(42) Energy Consumption and Transmission Capacity

2.206 The stakeholder submitted the actual peak demand during last four FYs has always been lower than the peak demand projected by the petitioner. The actual peak demand for FY 2015-16 and FY 2016-17 was substantially lower than the peak demand approved by the Commission, moreover the estimated peak demand for FY 2017-18 as approved by the Commission is higher than the peak demand expected as per Energy Assessment Committee (EAC) Report. The projected peak demand for FY 2018-19 is similar to peak demand of FY 2014-15, which clearly indicate that the load growth /peak demand is not increasing as projected during the last 3-4 years, while about 12,000 MVA capacity has been added in the last 3 years, with about 4,100 MVA capacity proposed to be added in FY 2018-19. With peak demand not increasing such high addition of transformation capacity is not required, only essential capacity as required for new generation station shall be added.

2.207 The petitioner has submitted the actual energy transmitted in RVPN system for FY 2016-17 as 71,293 MU as against the approved 82,273 MU, which indicates that the actual energy transmitted in the RVPN network for FY 2017-18 would be around 76,000 MU only. In this regard the petitioner shall intimate the actual energy consumption during April 2017 to January/February 2018 so that the energy requirement for FY 2018-19 can be projected accordingly.

2.208 The stakeholder sought the copy of minutes of meetings of 18th meeting of EAC held on 6-10-2017 from the petitioner. The stakeholder submitted that there is a difference in the assumed contracted capacity during FY 2018-19 as per minutes of 18th meeting of EAC dated 6-10-2017 (20127 MW) and the para 3.4 table 18 (11697 MW). The petitioner should submit the reasons for the shortage.

2.209 The stakeholder sought the actual peak for FY 2017-18. The stakeholder further sought the basis of MW allocation between Discom and LTOA consumers.

2.210 The stakeholder further sought the basis of MW allocation between Discom and LTOA consumers.

RVPN's Response

2.211 RVPN submitted that FY 2017-18 has not yet completed and although, the overall Peak Demand of Rajasthan has not considerably increased in previous years but it has increased in some area whereas it is reduced in some other areas. New transmission system has been proposed in the areas of increased demand to keep the system parameters within the range prescribed by RERC/ to cater the increase in Demand and for system strengthening etc.

2.212 As regards, actual energy transmitted in RVPN system during April 2017 to Jan /Feb 2018, RVPN has submitted the actual energy Transmitted in RVPN system from April 2017 to February 2018.

2.213 As regards, Copy of Minutes of 18th Meeting of Energy Assessment Committee of EAC Report, RVPN submitted that it has already provided the Copy along with the Tariff Petition.

2.214 In response to query regarding excess energy requirement, RVPN states that it has considered energy requirement as EAC Report. RVPN further, clarified that the figure of 11,697 MW is the peak demand and not the contracted demand. For tariff purpose peak demand has been considered.

2.215 RVPN submitted that since FY 2017-18 is yet to be completed, the peak demand is not yet available. RVPN further submitted that MW allocation between LTOA and Discoms is based on actual LTOA.

(43) Inter-State Power Evacuation

2.216 The cost of the infrastructure for interstate power evacuation shall not be borne by the Discoms, rather it should be shared by the entire region under PoC charges. The petitioner shall accordingly, submit the details of capacity being utilised for inter-State power evacuation, the capital expenditure being planned for inter-State evacuation of power, accordingly the reduction on account of interest on loan, depreciation etc., shall be passed on to the Discoms.

RVPN's Response

2.217 The petitioner submitted that whenever the state transmission system is utilized for transmitting the inter-State power the transmission charges as determined by CERC are credited to Discom.

(44) ARR and Recovery of SLDC charges for FY 2018-19

2.218 The stakeholder submitted that the petitioner should justify the investment details with the relevant documents.

2.219 The stakeholder submitted that as per the methodology followed by the Commission for determination of O&M in its order dated 27.10.2016, O&M expense for FY 2018-19 comes out to be Rs 12.405 Crore instead of Rs 13.21 Crore as projected by the petitioner.

2.220 The stakeholder submitted that since, the petitioner has not submitted the details of GFA, segregated in less than 12 years, and more than 12 years, the Commission shall limit the depreciation to Rs 0.75 Crore as submitted by the petitioner for FY 2016-17.

2.221 The stakeholder submitted that the petitioner has projected Rs. 20 Crore towards Operational Expense for FY 2018-19, which is almost twice the actual Operational Expenses of Rs 10.08 Crore for FY 2016-17, accordingly the Commission shall only allow operational expenses up to 15 Crore.

2.222 The stakeholder sought the information on revenue to be received from Long Term Open Access Consumers as well as Short Term Open Access Consumers.

2.223 The stakeholder highlighted the surplus revenue in the Past three year and submitted that this higher expenditures lead to higher recovery from DISCOMs, which results in higher ARR of Discoms that is not justifiable.

2.224 The stakeholder submitted that SLDC should provide the details of entity wise unscheduled interchange charges. SLDC was supposed to set up infrastructure to finalise the UI accounts of Intra-State entities as per the Commission's Intra-State ABT Regulations, which has not been set up till now. The Commission should direct the SLDC to complete the long pending process, finalise the UI accounts and provide the details.

RVPN's Response

2.225 The petitioner submitted that it has proposed a provision of Rs 15 Crore, as considering the technical requirement of the system, certain systems are to be installed and hence a provision of Rs 15 Crore has been made.

2.226 The petitioner further submitted that the O&M Expenses after escalating @ 5.85% per annum works out to approx. Rs. 13.21 Cr. for the FY 2018-19 (i.e. Rs. 12.405 Cr. for FY 2017-18 and Rs. 13.21 Cr. for FY 2018-19).

2.227 The petitioner also submitted that the depreciation for the year 2016-17 has been charged as per methodology notified vide Rajasthan Electricity Regulatory Commission (Terms & Conditions for determination of Tariff) Regulations, 2014. Accordingly, Fixed Assets Register has also been prepared which is voluminous so the same has already been submitted to Commission in CD.

2.228 As regards, operational expense, the petitioner submitted that the Commission in its order dated 26.05.2017 had itself approved Rs. 19.05 Crore. For the FY 2017-18, hence, projection of Rs. 20 Crore is justified.

2.229 The petitioner submitted that the basis on which the projection has been made is submitted in Form S10 of the petition. The detail of revenue to be received from Open Access Consumers (both Long-term & Short-term Consumers) will be submitted at the time of truing up for the FY 2018-19.

2.230 As regards, surplus revenue in past three years the Commission is allowing the charges on normative basis, which could be more than actuals. The petitioner submitted that the Infra structure for calculating the DSM charges for all the entities is ready. Preparation of DSM charges for state generators & IPPs has already started. As regard RE Generators which is under process shall be started as and when their QCA are finalised.

Commission's Views on Issues Raised by Stakeholders

2.231 The Commission has taken note of all the comments/suggestions/ observations of the Stakeholders both in writing as well as during the course of hearing and RVPN's responses to them. The Commission has attempted to capture all the comments/suggestions/observations. However, in case any comment / suggestion / observation is not specifically elaborated, it does not mean that the same has not been considered. The Commission has considered all the issues raised by the Stakeholders and RVPN's response on these issues while carrying out the detailed analysis of Investment Plan for FY 2018-19, True Up petition for FY 2016-17, ARR and Tariff for FY 2018-19 in accordance with applicable RERC Regulations as detailed in the subsequent Sections of the Order.

Section – 3: Analysis of Truing-up of ARR for Transmission and SLDC Function for FY 2016-17

3.1 RVPN has submitted the Petition for Truing-up of ARR for FY 2016-17 for Transmission and SLDC functions on the basis of Audited Accounts for FY 2016-17.

3.2 The Commission observes that RVPN has submitted Annual Accounts for SLDC function duly certified by its statutory auditor for the purpose of Truing up. Further, RVPN has submitted the segregated statement for all the three functions, i.e., Transmission, SLDC and Shared Generation Projects and the Commission has considered the RVPN submissions.

3.3 The Commission is of the view that Audited Annual Accounts form an important basis for the purpose of verification of the expenses / income for the year under consideration. Therefore, the Commission has relied on the information provided under the various schedules of the Audited Annual Accounts of RVPN for FY 2016-17 and information furnished in the various replies for the purpose of Truing-up of the ARR for Transmission function and SLDC function.

Transmission Function

Operation and Maintenance (O&M) Expenses

3.4 RVPN has submitted computation of normative O&M Expenses as Rs. 950.57 Crore. The actual O&M Expenses incurred by RVPN as per audited accounts are Rs. 409.41Crore as under:

Table 7: Break-up of Actual O&M Expenses of Transmission for FY 2016-17 (Rs. Crore)

S. No.	Particulars	Audited Accounts FY 2016-17
1	Repairs & Maintenance (R&M) Expenses	57.46
2	Employee Costs	
A	Employee cost of current year	442.28
B	Provision due to actuarial valuation liability for leave encashment	29.83
C	**Total Employee Cost**	**472.11**
3	Administrative & General (A&G) Expenses	100.24
4	Less: Capitalization of O&M Expenses	(220.40)

S. No.	Particulars	Audited Accounts FY 2016-17
5	**Net O&M Expenses (1+2+3-4)**	**409.41**

3.5 RVPN has claimed normative O&M Expenses as Rs. 950.57 Crore. The detailed working of normative O&M Expenses as per Regulation 65 of Tariff Regulations, 2014 as submitted by the Petitioner are as under:

Table 8: Normative O&M Expenses submitted by the Petitioner for FY 2016-17

Particular	Circuit Basis (Ckt-km)				MVA Basis	Feeder bay basis				Total (Rs. Crore)
	765 kV	400 kV	220 kV	132 kV		765 kV	400 kV	220 kV	132 kV	
Opening Balance	425.50	3,628.67	13,724.56	16,180.13	68,036.50	22	83	691	2,452	
Addition during FY 2016-17	-	308.66	696.24	590.92	4,516.00	6	8	39	111	
Deletion during FY 2016-17	-	-	-	-	-	-	-	-	3	
Closing Balance	425.50	3,937.33	14,420.80	16,771.05	72,552.50	28	91	730	2,560	
Average during the Year	425.50	3,783.00	14,072.68	16,475.59	70,294.50	25	87	710.50	2,506	
Rates for FY 2016-17 (Rs. Lakh / ckt-km / MVA / Bay)	1.76	1.11	0.44	0.26	0.68	103.01	68.67	9.57	6.50	
Normative O&M Cost for FY 2016-17 (Rs. Crore)	**7.48**	**41.95**	**61.50**	**42.51**	**480.81**	**25.75**	**59.74**	**67.98**	**162.84**	**950.57**

3.6 The Commission has noted that actual O&M Expenses amounting to Rs. 409.41 Crore is approx. 43% of the O&M Expenses claimed by the petitioner .

3.7 The Commission also noted that the Petitioner has capitalised O&M Expenses to the tune of Rs. 220.40 Crore, which is approx. 41% of the total Employee costs (excluding terminal benefits) and A&G Expenses (there is no capitalisation of R&M Expenses). In this regard, the Commission noted the statement under Sr. No. 3 'Capital Work-in-Progress' under 'B. Significant Accounting Policies' in Notes to Financial Statements of the Audited Accounts for FY 2016-17 as under.

"To uniform the method of capitalization at circle level and direction offices, the company has decided to capitalize its employees cost and administration & general expenses at the rate of 50% of employees cost (excluding terminal benefits) and administration & general expenses

respectively incurred by the T&C circles, Civil circle and Zonal Chief Engineer (T&C) offices and at the rate of 100% of M&F division."

3.8 The Commission is of the view that this ad-hoc methodology of capitalisation of O&M Expenses is not correct, especially when majority of the new construction works undertaken by the Petitioner are outsourced. This has unduly reduced O&M Expenses on one side and inflated the capitalisation or addition to Gross Fixed Assets on the other. During the Public Hearing process, the Petitioner also accepted that this ad-hoc methodology of capitalising O&M Expenses is no longer relevant and they are revising the policy w.e.f FY 2017-18, to arrive at a realistic figure in this regard.

3.9 The Commission is of the view that despite the fact the Tariff Regulations, 2014 provides for allowing O&M Expenses as per norms, irrespective of the actual expenditure, the huge difference between the normative amount of Rs. 950.57 Crore and actual expenditure of Rs. 409.41 Crore cannot be ignored. There is no reason why such huge normative O&M Expenses needs to be approved, when the actual O&M Expenses are only 43% (approx.) of the normative figure. The purpose of allowing normative O&M Expenses, without any sharing of gain/loss on account of variation against the actuals, is to encourage bringing in efficiency in the performance of the Petitioner. However, the Commission cannot allow the Petitioner to derive significant benefits from O&M Expenses by availing normative O&M Expenses and not actually incurring even half of the said normative O&M Expenses.

3.10 Regulation 94 of the Tariff Regulations, 2014 provides for dealing with circumstances wherein the Commission may deviate from the provisions of these Regulations by providing reasons for such deviation. The relevant clause is reproduced as under:

"94. Deviation from provisions of these regulations

The Commission may deviate from any of the provisions contained in these Regulations on a suo-motu basis having regard to the circumstances of the case:

Provided that the reasons for such deviation shall be recorded in writing."

3.11 In the light of the above, the Commission has decided to deviate from the Tariff Regulations, 2014 while approving O&M Expenses and consider the actual O&M Expenses for truing up for FY 2016-17. However, realising the issue of incorrect methodology adopted for capitalisation of O&M Expenses, the Commission has modified the same by considering only 10% of the gross Employee Costs (excluding terminal benefits) and A&G Expenses towards capitalisation amounting to Rs. 54.25 Crore, as against the capitalisation amount of Rs. 220.40 Crore. This has resulted in increase in O&M Expenses from Rs. 409.41 Crore to Rs. 575.56 Crore, which is shown in the table below.

Table 9: Break-up of Actual O&M Expenses of Transmission for FY 2016-17 (Rs. Crore)

S. No.	Particulars	Audited Accounts FY 2016-17	Approved for Truing Up
1	Repairs & Maintenance Expenses	57.46	57.46
2	Employee Costs	472.11	472.11
3	Administrative & General Expenses	100.24	100.24
4	**Gross O&M Expenses (1+2+3)**	**629.81**	**629.81**
5	Less Capitalizations of O&M Expenses	(220.40)	(54.25)
6	**Net O&M Expenses (4 - 5)**	**409.41**	**575.56**

3.12 Further, the Commission has observed in Financial Statements that, the Petitioner has not created any additional liability in respect of superannuation fund. The Commission is of the view that the available surplus provision towards superannuation may not be sufficient to meet the impact of implementation of 7th Pay Commission and may result in additional burden on the Petitioner in future years. Therefore, the Commission directs the Petitioner to deposit an amount of Rs. 100.00 Crore in the superannuation fund towards terminal liability benefits in anticipation of additional liability on account of implementation of 7th Pay Commission. In view of above the Commission approves an additional amount of Rs. 100.00 Crore in the O&M Expenses for FY 2016-17, over and above the Net O&M Expenses of Rs. 575.56 Crore worked out in the above table.

3.13 Accordingly, the Commission has approved the O&M Expenses of Rs.

675.56 Crore (Rs. 575.56 Crore + Rs. 100.00 Crore) as shown below.

Table 10: Approved O&M Expenses for FY 2016-17 (Rs. Crore)

Particulars	Approved in Tariff Order	As per Petition	Audited Accounts	Approved for Truing Up
O&M Expenses	941.46	950.57	409.41	675.56

3.14 The Commission in its order dated 26.05.2017 in the matter of approval of ARR and determination of tariff for FY 2017-18 for recovery of Transmission and SLDC Charges and True up of ARR for FY 2015-16 has directed the petitioner to deposit an amount of Rs. 453.56 Crore to the Leave Encashment & Pension fund. The same has not been deposited by the petitioner. The Commission directs the petitioner to deposit the aforesaid amount in addition to the pending amount, as per earlier orders, not deposited till now.

3.15 The difference of Rs. 166.15 Crore between the O&M Expenses capitalised as per audited accounts (Rs. 220.40 Crore) and the allowed O&M Expenses capitalised (Rs. 54.25 Crore), would be deducted from the capitalisation of fixed assets (under the head of Plant & Machinery) for FY 2016-17 as reflected in the subsequent paras.

Capitalization:

3.16 RVPN in its petition has submitted that actual asset capitalized in FY 2016-17 is Rs. 1,514.49 Crore.

3.17 The Commission in its verification found out that the actual capitalization as per Annual Accounts for FY 2016-17 was Rs. 2,591.64 Crore instead of Rs. 1,514.49 Crore as submitted by RVPN. Further in response to Commission's query seeking clarification on capitalization amount, RVPN also confirmed the same. In actual capitalization for FY 2016-17, the Commission has decided to reduce the difference in O&M Expenses capitalization amounting to Rs. 166.15 Crore, as discussed in detail under the head 'O&M Expenses'. Accordingly, the Commission has approved the revised Capitalization as Rs. 2,407.65 Crore after adjusting the deductions of Rs. 3.71 Crore and grants of Rs. 14.13 Crore.

The details of Capitalization approved is as follows:

Table 11: Approved Capitalisation for FY 2016-17 (Rs. Crore)

Particular	Approved for Truing Up
Capitalisation as per Audited Accounts	2,591.64
Less: Difference on account of O&M Expenses capitalization	166.15
Revised Capitalisation	2,425.49
Deduction during year	3.71
Consumer Contribution and Grants	14.13
Net Revised Capitalisation	**2,407.65**

Source of Funding

3.18 The Commission has observed that the Equity component added by the Petitioner during the FY 2016-17 is less than the normative percentage of 30%, as mentioned in the Regulation 19 of RERC (Terms and Conditions of Tariff) Regulations, 2014. The relevant extract of Regulation 19 of Tariff Regulations, 2014 is reproduced as under

"...Where equity employed is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30% and the balance amount shall be considered as loan. Where actual equity employed is less than 30%, the actual equity shall be considered."

3.19 Therefore, in line with the above said provision of Tariff Regulations, 2014 for the purpose of computation of tariff, the Commission has decided to approve the Equity addition as submitted by the petitioner, and the Commission has accordingly computed Debt Equity ratio as per the revised capitalization. The Debt and Equity components for FY 2016-17, as submitted by the Petitioner and approved by the Commission is summarized as below:

Table 12: Debt-Equity Ratio for FY 2016-17 (Rs. Crore)

Particular	Petition	Approved for Truing Up
Net Capitalisation (revised)	1,500.36	2,407.65
Debt (Balancing Figure)	1,305.81	2,213.10
Equity	194.55	194.55
Debt Ratio (%)	**87.03%**	**91.92%**
Equity Ratio (%)	**12.97%**	**8.08%**

Depreciation:

3.20 RVPN has claimed Rs. 731.18 Crore as depreciation charges for the purpose of Truing up, as against the approved figure of Rs. 681.80 Crore in response to Commission's specific query seeking segregated summary of depreciation separately on fixed assets for less than 12 years, more than 12 years and no depreciation, RVPN has responded by stating that depreciation has been calculated at the rates/useful life and methodology notified vide RERC (Terms and Conditions for Determination of Tariff) Regulations, 2014. RVPN further submitted detailed circle wise asset register, which was of no use to the Commission for the purpose of truing up.

3.21 The Commission considers that the approval for Depreciation should be as per the provisions of RERC Tariff Regulations, 2014. For the assets with useful life exceeding 12 years, the rate of depreciation will have to be spread over balance useful life as per Regulations. Thus, rate of depreciation for such asset cannot be charged at normal rate (say 5.28%) but will have to be considered at lower rate (say, 1.16%) spread over balance useful life. Further, the depreciation cannot be allowed in case the Assets wherein accumulated depreciation has reached 90%. Thus, computation of depreciation in accordance with provisions specified under the Regulations would require detailed information about asset-wise break-up of GFA, accumulated depreciation, date of commissioning, completed useful life, balance useful life etc.

3.22 However, in the absence of such information, allowing depreciation as claimed by Petitioner would also not be appropriate since it amounts to acknowledging that no Asset has completed useful life of 12 years. This will lead to allowing excess depreciation than that what is allowable as per provisions of Tariff Regulations, 2014.

3.23 Hence, based on the available information, the Commission has recomputed the depreciation on the average balance of GFA for FY 2016-17, less balances of GFA for FY 2004-05 (12 years prior to FY 2016-17) at the depreciation rates as per Annexure 1 of the Tariff Regulation, 2014, for estimating asset base less than 12 years old. On the average balance of GFA as on FY 2004-05, the Commission has computed depreciation at a lower rate considering balance depreciation spread over the useful life of the respective asset class. The depreciation amount by applying this methodology works out to Rs. 698.83 Crore.

3.24 Accordingly, the Commission approves the allowable depreciation amount for FY 2016-17 as Rs. 698.83 Crore. The Commission is of the view that the Petitioner should provide relevant information as per the stipulated regulatory provisions of the Tariff Regulations, 2014, i.e., summary of category-wise assets at original cost, rates and their respective depreciation amount, segregated into less than 12 years old, more than 12 years old and remaining assets that have reached the accumulated depreciation of 90% as per norms while filing Petition in future. Therefore, the depreciation charges approved by the Commission for Truing Up of FY 2016-17 are as under:

Table 13: Depreciation Charges approved for Truing up of FY 2016-17 (Rs. Crore)

Particulars	Approved in Tariff Order	As per Petition	Approved for Truing Up
Depreciation	681.80	731.18	698.83

Interest and Finance Charges:

3.25 RVPN has claimed Rs. 854.32 Crore as interest and finance charges excluding interest on working capital requirement, as against the interest and finance charges of Rs. 805.46 Crore as approved in the Tariff Order for FY 2016-17 dated 27.10.2016.

3.26 The Commission has analyzed the computation submitted by RVPN, and found out that RVPN had erroneously considered the capitalization as Rs. 1,514.49 Crore instead of Rs. 2,591.96 while computing the normative interest and finance charges, which has resulted in lower rate of Interest on Loan and Financial Charge. The Commission has reworked the computation by taking revised capitalization amounting to Rs. 2,407.65 Crore (capitalisation as per Annual Accounts adjusted by the difference in capitalisation on account of reduced capitalisation of O&M Expenses), net of deductions and consumer contribution, and accordingly has computed the normative interest and finance charges as per Regulation 21 of Tariff Regulation, 2014. As regards opening loan for FY 2016-17, the Commission has considered the closing long-term loan approved in the true-up for FY 2015-16.

3.27 Based on the information submitted by the Petitioner, the share of debt equity component has been worked out in Table 12 as 91.92% : 8.08% i.e, the equity ratio is less than the normative ratio of 30%. In accordance with Regulation 19, the debt-equity ratio should be considered as 70% : 30%, or the actual equity percentage whichever is less. Accordingly, the Commission has considered actual Debt Equity ratio for Interest on Loan and return on equity for Truing up purposes for FY 2016-17. Furthermore, the portion of capitalization financed through consumer contributions has been separated.

3.28 The allowable depreciation for the FY 2016-17, has been considered as normative loan repayment. Based on the interest amounts and loan balances as per Audited Accounts of FY 2016-17, average interest rate has been computed to be 10.38% in accordance with the submission of the Petitioner. The Commission has considered other finance charge for FY 2016-17 as per Audited Accounts.

3.29 Considering the above, the net interest and finance charges on long term loans are as under:

Table 14: Approved Interest on Long Term Loans for FY 2016-17 (Rs. Crore)

Particular	Reference	Approved for True Up
Opening Loan Balance	**A**	**6,782.24**
Capitalisation during the year	B	2,425.49
Deductions during the year	C	3.71
Consumer Contribution & Grants	D	14.13
Net Capitalisation during the year	E=B-C-D	2,407.65
Loan Addition (1-Equity%)	F=E x (1-Equity%)	2,213.10
Less: Repayment (Depreciation allowable for the FY)	G	698.83
Closing Loan Balance	**H=A+F-G**	**8,296.51**
Average Loan	I = Average (A,H)	7,539.37
Weighted Average Rate of Interest	J	10.38%

Particular	Reference	Approved for True Up
Interest on Long Term Loans	**K=I x J**	**782.84**
Other Finance Charges	L	78.65
Total Interest of Long Term Loans	**M=K+L**	**861.48**

3.30 The Commission has not further deducted the Interest capitalized from the Interest on Loan, similar to that by the Petitioner, as the above computation is on the normative loan balances amount, as against the Petitioner's computation on actual loan balances and therefore, there is no need for further deduction of capitalized interest from interest on normative loan component worked out on the already capitalized fixed assets.

3.31 As the total Interest on Long Term Loans is based on Audited Accounts for RVPN for FY 2016-17, the Commission has reduced the amount of interest and finance charges pertaining to operations for SLDC and Partnership functions. Therefore, the net interest and finance charges approved by the Commission are shown in the table below:

Table 15: Net Interest and Finance Charges allocated to the Transmission Function for FY 2016-17 (Rs. Crore)

Particulars	Derivation	Amount
Total Interest on Long Term Loans	A	861.48
SLDC Interest Charges	B	0.82
Partnership Interest Charges	C	7.74
Net Transmission Interest and Finance Charges	**D = (A-B-C)**	**852.93**

Interest on Working Capital:

3.32 As per audited accounts, RVPN has indicated actual interest on working capital as Rs. 15.44 Crore as against Rs. 55.48 Crore approved in Tariff Order for FY 2016-17 dated 27.10.2016. RVPN in its True-Up Petition has submitted the normative interest on working capital as Rs. 54.74 Crore.

3.33 Regulation 27 of the Tariff Regulations, 2014 stipulates that:

"27. Interest charges on working capital
(1) The amount of normative working capital shall cover:
....

2. Transmission
(i) Operation and maintenance expenses for one month; plus
(ii) Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 65; plus
(iii) Receivables equivalent to one and a half (1½) months of transmission charges calculated on target availability level;
Less
Amount held as security deposits from Users except security deposits held in the form of Bank Guarantees;
.....
(2) Rate of interest on working capital to be computed shall be on normative basis and shall be 250 basis points higher than the average Base Rate of State Bank of India prevalent during first six months of the year previous to the relevant year. The interest on working capital shall be computed on normative basis notwithstanding that the generating company or licensee has not taken working capital loan from any outside agency. The variation in the interest amount on account of actual vis-a-vis normative interest rate on normative working capital shall be shared in the ration of 50:50 between the generating company/licensee and the beneficiary."

3.34 Accordingly, for the purpose of calculating interest on working capital, the Commission has considered weighted average SBI base rate of 9.76% prevalent during first six months of FY 2015-16 plus 250 basis points, in lines with the Tariff Regulations, 2014. The weighted average rate of interest thus works out to 12.26% and the same has been considered for computation of Interest on Working Capital for Truing-Up of FY 2016-17. The Normative interest on working capital is as under:

Table 16: Normative Interest on Working Capital approved by the Commission (Rs. Crore)

S. No.	Particulars	Approved in Tariff Order	As per Petition	Approved
1	O&M Expenses (1 Month)	78.46	79.21	56.30
2	Maintenance Spares (15% of O&M Expenses)	141.22	142.59	101.33
3	Receivables on Target Availability (1.5 Months)	308.72	342.73	309.65
4	Less: Amount held as Security Deposit	76.03	100.65	100.65
5	**Total Working Capital**	**452.37**	**463.88**	**366.63**
6	Normative Interest Rate	12.26%	11.80%	12.26%
7	**Interest Amount at Normative Interest Rate**	**55.48**	**54.74**	**44.96**

3.35 Regulation 27(2) of the Tariff Regulations, 2014, stipulates sharing of variation in interest rate and not the interest amount. However, the petitioner has claimed sharing of difference in actual interest paid at Rs. 15.44 Crore vis-a-vis normative interest as per Tariff Regulations, 2009. In the Petition, the petitioner has neither submitted the weighted average interest rate paid on working capital loan availed during the financial year, nor it has worked out the difference in interest amount on account of actual vis-a-vis the normative interest rate to be shared as per Tariff Regulations, 2014.

3.36 Subsequently, on Commission's query, the petitioner submitted the break-up of actual working capital interest amounting to Rs. 15.44 Crore from two sources. Based on the information submitted by the petitioner, the Commission worked out the weighted average interest rate on the actual working capital loan as 9.91% and accordingly sharing of gains on interest on working capital has been computed in accordance with Regulation 27(2).

3.37 The working of interest on working capital, after sharing of gains on account of variation, as approved by the Commission for Truing up is summarized as under:

Table 17: Interest on Working Capital approved by the Commission for Truing up of FY 2016-17 (Rs. Crore)

Particulars	Normative	Actual	Gain/ (Loss)	50% Sharing	Net Entitlement
Approved Interest Rate for Truing up (%)	12.26%	9.91%	2.35%	1.17%	
Approved amount for Truing up (Rs. Crore)	44.96	36.35*	8.61	4.31	40.65

**Interest amount worked out on normative working capital on actual interest rate*

3.38 Accordingly, the amount of interest on working capital to be approved for the true-up works out to Rs. 40.65 Crore.

Return on Equity:

3.39 RVPN submitted that the actual Return on Equity works out to Rs. 470.68

Crore for FY 2016-17 vis-a-vis the approved RoE of Rs. 421.53 Crore vide Tariff Order dated 27.10.2016. However, while truing-up, RVPN has claimed RoE amounting to Rs. 421.53 Crore only, as approved by the Commission in Tariff Order dated 27.10.2016.

3.40 As regards opening equity for FY 2016-17, the Commission has considered closing equity in pursuance to True-up of FY 2015-16 as per Commission's Order dated 26.05.2017 and Capitalisation & Equity for FY 2016-17 as discussed in earlier paras under 'Capitalisation' and 'Source of Funding'. The Commission observed that the Petitioner has claimed RoE at 12.00%, instead of 15.50% approved in the Tariff Regulations, 2014. As per the Tariff Regulations, 2014 and the matter regarding debt-equity ratio already discussed in detail, the Commission has computed RoE for FY 2016-17 as Rs. 427.65 Crore, and the same has been approved for Truing Up of FY 2016-17. The Return on Equity as approved by the Commission is as under:

Table 18: Return on Equity approved by the Commission for Truing up of FY 2016-17 (Rs. Crore)

S. No.	Particulars	Approved in Tariff Order	As per Petition	Approved for True Up
1	Equity at the beginning of the year	3,411.16	3,825.09	3,466.50
2	Capitalisation during the year	1,557.16	1,514.49	2,425.49
3	Deduction during the year	0.00	0.00	3.71
4	Less: Consumer Contribution and Grants	274.67	13.97	14.13
5	Net Capitalisation	1,282.49	1,500.52	2,407.65
6	Equity portion of Capitalisation	203.13	194.55	194.55
7	Equity at the end of the year	3,614.29	4,019.64	3,661.05
8	Average Equity	3,512.73	3.922.37	3,563.78
9	Rate of Return	12.00%	12.00%	12.00%
10	**Total Return of Equity**	**421.53**	**470.68**	**427.65**

Income Tax Provision:

3.41 The Petitioner has made a provision towards Income Tax amounting to Rs 2.00 Crore in the audited accounts for FY 2016-17, which the Commission has accepted.

Other Expenses:

3.42 The Petitioner has claimed an amount of Rs. 8.30 Crore as Other Expenses for FY 2016-17, which includes Bad Debts Written off amounting to Rs. 3.50 Crore (as 0.25% of trade receivables), ULDC /NRLDC/VAR charges of Rs. 2.22 Crore and Miscellaneous losses and write-offs amounting to Rs. 2.58 Crore, pursuant to Regulation 26 of the Tariff Regulations, 2014 , the provision for bad debts can be up to 0.25% of the receivables. The relevant proviso is reproduced herein as under:

> *"**26. Bad and doubtful debts***
> *The Commission may consider a provision for writing off of bad and doubtful debts up to 0.25% of receivables subject to writing off of bad and doubtful debts in the previous year in accordance with the procedure laid down by the Licensee or Generating Company."*

3.43 The amount of closing balance of Receivables as per Audited accounts of FY 2016-17 is Rs. 1,398.56 Crore. Therefore, the allowable bad and doubtful debts, in accordance with Regulation 26 mentioned above works out to Rs. 3.50 Crore only.

3.44 The Commission has considered ULDC / NRLDC / VAR charges as submitted by RVPN, however the Commission has only allowed Rs. 3.50 Crore for Bad debt written off and other Miscellaneous losses and write-offs in line with Regulation 26 i.e, as 0.25% of trade receivables, accordingly the Commission has approved the Other Expenses as Rs. 5.71 Crore, as under:

Table 19: Other Expenses for FY 2016-17 (Rs. Crore)

Particulars	Approved in Tariff Order	As per Petition	Approved for True up
Miscellaneous Loss and Write offs		2.58	3.50
Bad debts written-off/provided for		3.50	
NLDC/ULDC/VAR charges		2.22	2.21
Total	**10.00**	**8.30**	**5.71**

Incentive for System Availability:

3.45 RVPN has claimed incentive amounting to Rs. 48.79 Crore for FY 2016-17 from Discoms and Long Term Open Access Consumers on achieving annual availability above the target availability of 98%, subject to maximum availability of 99.75% as per Standards of Performance of RVPN for the FY 2016-17, in accordance with Tariff Regulations, 2014. The incentive is admissible over and above the ARR and hence, the Commission has not included the same in computing the ARR. The Commission approves the incentive for achieving system availability above the target availability for FY 2016-17 as under:

Table 20: Approved Incentive on achieving Availability above the Target Availability for FY 2016-17 (Rs. Crore)

Particulars	Actual	Ceiling Limit as per Regulation	Normative Target	Incentive claimed	Incentive Approved
Average System Availability	99.75%	99.75%	98.00%	48.79	44.24

3.46 The above incentive shall be paid to RVPN by Discoms and Long Term Open Access Customers.

RVPN's Revenue for FY 2016-17

3.47 The Commission, in its Order dated 27.10.2016, had approved Net Transmission charges to be recovered from Discoms and Long-Term Open Access Customers amounting to Rs. 2,431.81 Crore (Rs. 154.37 / kW / Month x 13,128 MW).

3.48 The Petitioner has submitted an amount of Rs. 2,411.79 Crore (Rs. 2,320.74 Crore from Discoms, Rs. 76.93 Crore from Long-Term Open Access Customers and Rs. 14.13 Crore towards Revenue Subsidy and Grant) towards Revenue from Transmission Charges. The Commission has accepted the same as submitted by Petitioner.

3.49 Besides this, the Petitioner has also submitted Income from Short-Term and Medium-Term Open Access as Rs. 156.83 Crore, which the Commission has accepted.

Non-Tariff Income and Income from Other Business

3.50 The Petitioner has submitted Non-Tariff Income and Income from Other

Business amounting to Rs. 72.34 Crore and Rs. 1.56 Crore respectively. The Commission, after verifying the figures from the Audited Accounts for FY 2016-17, has approved Non-Tariff Income and Income from Other Business amounting to Rs. 72.34 Crore and Rs. 1.56 Crore respectively. Besides, the petitioner has also submitted Income from Inter-State Users as Rs. 50.38 Crore, which the Commission has verified from the Audited Accounts for FY 2016-17.

True-up of Transmission Function of RVPN for FY 2016-17

3.51 Based on the above analysis and data provided by RVPN, truing up of Transmission function for FY 2016-17 is summarized as under:

Table 21: Summary of True-up of Transmission Function for FY 2016-17 (Rs. Crore)

S. No.	Particulars	Approved In Tariff Order	As per Petition	Approved after True Up
Expenditure				
1	Operation & Maintenance Expenses	941.46	950.57	675.56
2	Depreciation	681.58	731.18	698.83
3	Interest on Long-term Loans	795.79	854.32	852.93
4	Interest on Working Capital	55.48	54.74	40.65
5	Insurance Charges	0.55	0.29	0.29
6	Other Expenses	10.00	8.30	5.71
7	**Total Revenue Expenditure**	**2,484.86**	**2,599.40**	**2,273.97**
8	Return on Equity	421.53	421.53	427.65
9	Income tax provision	0.00	2.00	2.00
10	**Total Expenditure**	**2,906.39**	**3,022.93**	**2,703.62**
11	Less: Non-Tariff Income	125.00	72.34	72.34
12	Less: Income from short/ medium term open access	131.79	156.83	156.83
13	Less: Income from Other Business (Miscellaneous Income)	-	1.56	1.56
14	**Aggregate Revenue Requirement**	**2,649.60**	**2,792.19**	**2,472.89**
15	Truing up for FY 2014-15 –Surplus	179.80	179.80	179.80
16	Income from Inter-State Users	37.98	50.38	50.38
17	**Net Aggregate Revenue Requirement**	**2,431.82**	**2,562.01**	**2,242.71**
18	Revenue from Discoms		2,320.74	2,320.74
19	Revenue from Long-Term Open Access		76.93	76.93
20	Revenue Subsidy & Grant		14.13	14.13
21	**Total Revenue**		**2,411.79**	**2,411.79**
22	**Surplus / (Gap) = Total Revenue – Net ARR**		**(150.22)**	**169.08**

3.52 After considering the revenue from Transmission Tariff, Open Access and Other Income, the Commission has approved a Surplus of Rs. 169.08 Crore, as against a deficit of Rs. 150.22 Crore claimed by the Petitioner, on account of Truing-up of Transmission function for FY 2016-17, which has been considered while approving the ARR and tariff for FY 2018-19.

SLDC Function

RLDC Fee and Charges:

3.53 RVPN has submitted RLDC Fee and Charges, which is the payment made to NRLDC on account of operation and recovery of annualized fixed charges as Rs. 10.08 Crore. Pursuant to the SLDC Audited Accounts Statement for FY 2016-17, the Commission observed that the RDLC charge as per Annual Account comes out to be Rs. 9.43 Crore. However, in its reply to data gaps, RVPN submitted that the total NRLDC charge of Rs. 10.08 Crore also includes prior period expense of Rs. 64.46 Lakhs. Accordingly, the Commission has approved the RLDC Fee and Charges as Rs. 10.08 Crore.

Table 22: RLDC Fee and Charges approved by the Commission for Truing up of FY 2016-17 (Rs. Crore)

Particulars	Approved in Tariff Order	As per Petition (audited)	Approved in True Up
RLDC Fee and Charges	18.14	10.08	10.08

Interest on Working Capital:

3.54 RVPN has claimed a normative entitlement of Interest on Working Capital as Rs. 0.64 Crore. The Commission has computed the normative interest on working capital at the weighted average rate of interest of 12.26% in accordance with Regulation 27(2) of the Tariff Regulations, 2014. The computation of normative interest on working capital by the Commission is as under:

Table 23: Normative Interest on Working Capital approved by the Commission (Rs. Crore)

Particulars	Reference	Approved
O&M Expenses (1 month)	A	1.03

Particulars	Reference	Approved
Maintenance Spares	B=O&M Expenses*15%	1.85
Receivables	C= One and a half months of SLDC charges	2.85
Less: Amount held as security deposits	D	0.31
Total Working Capital	**E=A+B+C-D**	**5.43**
Interest Rate	F	12.26%
Interest on Working Capital	**G=E x F**	**0.67**

3.55 Regulation 27(2) of the Tariff Regulations, 2014 stipulates that:

"Rate of interest on working capital to be computed shall be on normative basis and shall be 250 basis points higher than the average

Base rate of State Bank of India prevalent during first six months of the year previous to the relevant year. The interest on working capital shall be computed on normative basis not withstanding that the generating company or licensee has not taken working capital loan from any outside agency. The variation in the interest amount on account of actual vis-a-vis normative interest rate on normative working capital shall be shared in the ratio of 50:50 between the generating company/licensee and the beneficiary"

3.56 Regulation 27(2) of the Tariff Regulations, 2014, stipulates sharing of variation in interest rate and not the interest amount. In the Petition, the petitioner has neither submitted the weighted average interest rate paid on working capital loan availed during the financial year, nor it has worked out the difference in interest amount on account of actual vis-a-vis the normative interest rate to be shared as per Tariff Regulations, 2014.

3.57 Subsequently, on Commission's query, the petitioner submitted the break-up of actual working capital interest amounting to Rs. 15.44 Crore from two sources. Based on the information submitted by the petitioner, the Commission worked out the weighted average interest rate on the actual working capital loan as 9.91% and accordingly sharing of gains on interest on working capital has been computed in accordance with Regulation 27(2).

3.58 The working of interest on working capital, after sharing of gains on account of variation, as approved by the Commission for Truing up is summarized as under:

Table 24: SLDC True Up of Interest on Working Capital for FY 2016-17 (Rs. Crore)

Particulars	Normative	Actual	Gain/ (Loss)	50% Sharing	Net Entitlement
Approved Interest Rate for Truing up (%)	12.26%	9.91%	2.35%	1.17%	
Approved amount for Truing up (Rs. Crore)	0.67	0.54*	0.13	0.06	0.60

**Interest amount worked out on normative working capital on actual interest rate*

Return on Equity:

3.59 RVPN has submitted Rs. 0.13 Crore as Return on Equity for True Up of FY 2016-17, which has been approved by the Commission.

Table 25: Return on Equity approved by the Commission for True up of FY 2016-17 for SLDC function (Rs. Crore)

Particulars	Approved in True Up
Equity at the beginning of the year	1.07
Equity Addition during the year	0.00
Equity at the end of the year	1.07
Average Equity	1.07
Total Return on Equity @ 12%	**0.13**

Depreciation:

3.60 RVPN has submitted Rs. 0.75 Crore as depreciation amount for True Up of FY 2016-17 vis-a-vis Rs. 3.74 Crore as approved in the Tariff Order dated 27.10.2016.

3.61 Pursuant to the audited accounts of SLDC submitted by RVPN, the Commission approves Rs. 0.75 Crore as the depreciation amount for SLDC function in its true up of FY 2016-17.

Table 26: Depreciation approved by the Commission for True up of FY 2016-17 for SLDC function (Rs. Crore)

Particulars	Approved in Tariff Order	As per Petition	Approved in True Up
Depreciation	3.74	0.75	0.75

Operation & Maintenance (O&M) Expenses:

3.62 RVPN submitted Rs. 12.28 Crore as O&M Expenses incurred for SLDC function for true up of FY 2016-17 against Rs. 11.72 Crore as approved in the Tariff Order dated 27.10.2016. RVPN submitted that it has considered Employee Expenses amounting to Rs. 11.07 Crore, Administrative & General Expenses amounting to Rs. 1.19 Crore and Repair & Maintenance Expenses amounting to Rs. 0.03 Crore as a part of O&M Expenses.

3.63 Further, in reply to the data gaps raised by the Commission, RVPN submitted that it had erroneously mentioned the Repair & Maintenance Expenses as Rs. 0.03 Crore instead of Rs. 0.11 Crore, as mentioned in the Audited Accounts. Accordingly, keeping in view the submission made by RVPN and pursuant to the SLDC Audited Accounts for FY 2016-17, the Commission approves the O&M Expenses for SLDC function as Rs. 12.37 Crore for true up of FY 2016-17.

Table 27: O&M Expenses approved by the Commission for True Up of 2016-17 SLDC Function (Rs. Crore)

Particulars	Approved in Tariff Order	As per Petition	Approved in True Up
O&M Expenses	11.72	12.28	12.37

Revenue from SLDC Charges:

3.64 The Commission, in its Order dated 27.10.2016, had approved Net SLDC charges to be recovered from Discoms amounting to Rs. 9.40 Crore (59.66 paisa/kW/Month x 13,128 MW).

3.65 The Petitioner has submitted an amount of Rs. 8.97 Crore from Discoms, towards Revenue from SLDC operation charges, the Commission has accepted the same as submitted by Petitioner.

3.66 Besides, the petitioner has also submitted that it has recovered Rs. 0.39 Crore, Rs. 0.18 Crore and Rs 6.63 Crore from Long-Term Open Access Consumers, Short Term Open Access Consumers and power exchanges respectively towards revenue from SLDC Charges. The Commission has accepted the same as submitted by Petitioner.

3.67 Based on the above analysis, Audited Accounts and data provided by RVPN, Truing up of SLDC function for FY 2015-16 is summarized as under:

Table 28: Summary True-up of SLDC Function for FY 2016-17 (Rs. Crore)

S. No.	Particulars	Approved in Tariff Order	As per Petition	Approved in True Up
Expenses				
1	**Operating Expenses**			
A	Employee expenses	10.21	11.07	11.07
B	Admin and General Expenses	1.38	1.19	1.19
C	Repair and Maintenance Expenses	0.13	0.03	0.11
D	Interest on Working Capital	0.43	0.64	0.60
E	RLDC Fee and Charges	18.14	10.08	10.08
2	**Capital expense components**			
A	Depreciation	3.74	0.75	0.75
B	Interest and finance charges on term loan	3.66	0.90	0.82
C	Return on equity	1.58	0.13	0.13
D	Income Tax provision	-	-	-
3	**Total Revenue Expenditure**	**39.27**	**24.78**	**24.75**
4	Less: Non-Tariff income	1.63	1.99	1.99
5	Less: Income from other business	0.21	-	-
6	**Aggregate Revenue Requirement**	**37.43**	**22.80**	**22.76**
7	Truing up for Surplus of FY 2014-15	28.03	28.03	28.03
8	**Net Aggregate Revenue Requirement**	**9.40**	**(5.23)**	**(5.27)**
9	Revenue from Discoms for SLDC Charges		8.97	8.97
10	Revenue from Long Term Open Access Consumers		0.39	
11	Revenue from Short Term Open Access Consumers		0.18	7.20
12	Revenue for Power Exchanges		6.63	
13	Prior period Credit		-	-
14	**Total Revenue**		**16.17**	**16.17**
15	**Surplus / (Gap)**		**21.40**	**21.44**

3.68 The Surplus on account of Truing-up of SLDC function for FY 2016-17 as approved by the Commission is Rs. 21.44 Crore as against Rs. 21.40 Crore as submitted by Petitioner, which has been considered while approving the ARR of SLDC function for FY 2018-19.

Section – 4: Analysis of Investment Plan for FY 2018-19

4.1 RVPN has submitted the Investment Plan for FY 2018-19 for approval of the Commission as under:

Table 29: Details of the Investment Plan submitted (Rs. Crore)

Sl. No.	Head	Outlay (Tentative)
1	Generation (Shared Generating Projects)	20
2	Transmission Works including SLDC function	1,480
	Total	**1,500**

4.2 The Commission sought details of various proposed Investment Schemes, as well as the progress of ongoing schemes from the petitioner. The Commission also sought the actual expenditure incurred by the petitioner under certain heads during the last few years. Accordingly, based on the information received and past performance of the petitioner, the Commission has approved the Investment Plan for FY 2018-19 as under:

Table 30: Investment Plan – Proposed vs Approved for FY 2018-19 (Rs. Crore)

S. No.	Particulars	Petition	Approved
1	Ongoing Schemes (765, 400, 220 and 132) kV	527.10	527.10
2	New Schemes (765, 400, 220 and 132) kV	166.90	166.90
3	Carried Over Liabilities of Closed Schemes	30.00	20.00
4	220 kV Bus Bar Protection Scheme	10.00	10.00
5	PSDF Funded Schemes		
i	STOMS	15.00	8.50
ii	STNAM	250.00	225.00
iii	RE Integration - Real Time Data Acquisition System	75.00	25.00
iv	RE Integration - Reactive Compensation Elements	50.00	25.00
6	Capacitor Banks	16.00	16.00
7	Augmentation (EAP & Plan)/(Upgradation)	220.00	150.00
8	Replacement of old, damaged and obsolete Assets	50.00	-
9	SLDC	15.00	15.00
10	SAP	18.00	18.00
11	Others	12.00	-
12	Old Miscellaneous Works	10.00	-
13	Allocation by CCOA - Admin, Building, Vehicles	15.00	-
	Total	**1,480.00**	**1,206.50**

4.3 As may be seen in the table above, the Commission has approved lower investment under 'Carried Over Liabilities of Closed Schemes', as the petitioner has spent much lesser amount in the past years under this head. Regarding, the 'PSDF Funded Scheme', the Commission has approved the investment based on the petitioner's own submission w.r.t the progress of the scheme. In case of proposed investment under the head 'Augmentation (EAP & Plan)/(Upgradation)', the Commission has again reduced the approved figure considering the past performance of the petitioner. Further, regarding the proposed investments amounting to Rs. 50 Crore under the head 'Replacement of old, damaged and obsolete Assets', the Commission has not approved any investment, considering the same to be part of R&M Expenses. Similarly, for investments under the heads 'Others', 'Old Miscellaneous Works' and 'Allocation by CCOA' has not been approved by the Commission, due to non-submission of any specific scheme / information in the matter.

4.4 Accordingly, as against a total proposed Investment Plan of Rs. 1,480.00 Crore by the petitioner, the Commission has approved an amount of Rs. 1,206.50 Crore. The Commission further state that in case the actual/ tentative investment under any of the broad headings is likely to exceed the approved limits, the same need to be immediately brought to the notice of the Commission with necessary information and justifications for prior approval. The Commission may consider approval such additional investment based on the merits of the case.

Table 31: Approved Investment Plan for FY 2018-19 (Rs. Crore)

Particulars	Proposed in Petition	Approved
Transmission Function	1,465.00	1,191.50
SLDC Function	15.00	15.00
Total	**1,480.00**	**1,206.50**

4.5 As regards the Investment Plan for shared generation projects, the Commission in its Order dated 11.12.2013, while approving RVPN's Investment Plan for FY 2013-14, has clarified that the shared generation projects in which the ownership belongs to various states fall under the purview of Central Electricity Regulatory Commission (CERC). Therefore, the Commission in this Order has not examined the Investment Plan for shared generation projects.

Section – 5: Analysis of ARR for Transmission Function for FY 2018-19

Transmission System Capacity

RVPN's Projections:

5.1 RVPN has projected a total capacity of 11,697 MW to be handled by its transmission system during FY 2018-19. Out of this, 11,146 MW has been allocated for the three Discoms and 551 MW for long term open access customers.

5.2 RVPN, in its Petition, has submitted the energy requirement of Discoms for FY 2018-19 as 80,467 MU and for open access consumers as 3,760 MU. Accordingly, RVPN has projected total energy to be handled by its transmission system during FY 2018-19 as 84,227 MU. RVPN has also submitted the status of year-wise energy flow approved in Tariff Orders and actual energy flow during FY 2013-14 to FY 2016-17 in the RVPN system as under:

Table 32: Actual Energy Transmission on RVPN System as submitted by RVPN (MU)

Energy Estimates	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17
Energy Transmitted on system in RVPN as per ARR order	54,615	66,895	73,810	82,273
Actual Energy in RVPN system	60,475	67,442	71,389	71,293

Commission's Analysis:

5.3 The Commission observes that as per Tariff Regulations, 2014, the capacity contracted/agreed with Transmission System Users shall form the basis for determination of Transmission Tariff. However, RVPN has not yet entered into Transmission Service Agreement (TSA) with Discoms to ascertain the contracted capacity. Furthermore, RVPN has submitted a considerably lower Transmission capacity as compared to the previous year.

5.4 The Commission had sought clarification for the basis of such lower transmission capacity projections for Discoms. In its reply, RVPN submitted that it had projected the transmission capacity on the basis of EAC Report.

5.5 The Commission is of the view that such substantial reduction in Transmission Capacity requirement for the purpose of determination of Transmission Tariff and recovery of transmission ARR is not justified. In the absence of such TSA, as well as considering the fact that FY 2018-19 is the last year of Control Period, the Commission is of the view that revision in basis for ascertaining transmission capacity pricing (if necessary) can be undertaken with proper study for future Control Period, and accordingly, the Commission has decided to consider the same transmission capacity for Discoms as considered while determination of transmission tariff for FY 2017-18.

5.6 Accordingly, the approved transmission capacity and energy to be handled by RVPN during FY 2018-19, for the purpose of tariff determination is as under:

Table 33: Approved Transmission Capacity and Energy Handled for FY 2018-19

Particulars	Reference	As per Petition	Approved by Commission
Transmission Capacity (Discoms) (MW)	A	11,146	12,528
Transmission Capacity (Long Term Open Access) (MW)	B	551	551
Total Transmission Capacity (MW)	C=A+B	11,697	13,079
Energy Handled by RVPN (MU)		84,227	84,227

5.7 The Commission directs the petitioner to expedite the finalisation of TSA with the Discoms and submit the duly executed TSA to the Commission.

<u>Transmission Losses</u>

<u>RVPN's Projections:</u>

5.8 As against its actual transmission losses for FY 2016-17 as 3.35%, RVPN has projected transmission losses at 3.89% for FY 2018-19, stating that owing to backing down of various generation units in the State, the losses are expected to increase. RVPN has also submitted the transmission losses for preceding two years, i.e., for FY 2016-17 and FY 2017-18 as under:

Table 34: Transmission Losses as submitted by RVPN

Year	Intra-State Transmission Loss specified in ARR Order (%)	Actual Intra-State Transmission Loss (%)
FY 2016-17	4.11%	3.35%
FY 2017-18	3.89%	3.89%

Commission's Analysis:

5.9 The Commission opines that, with a significant amount of investments made by the Petitioner in system augmentation and improvement, and also being able to achieve actual transmission loss levels of 3.35% in FY 2016-17, the projected transmission loss level at 3.89% is on higher side. Therefore, the Commission has considered it appropriate to approve the transmission losses of 3.35% for FY 2018-19.

Capitalization

5.10 The Investment Plan furnished by RVPN proposes works of Rs. 1,480 Crore to be executed in FY 2018-19, including Rs. 1,465 Crore for Transmission and Rs. 15 Crore for SLDC. RVPN has proposed to capitalise the same amount as proposed to be invested during FY 2018-19.

5.11 The Commission has approved investment plan amount of Rs. 1,191.50 Crore for transmission function in FY 2018-19, as discussed in detail under Section 4 of this Order. The progress of asset addition by RVPN during the previous three financial years as per audited accounts reveals that the Gross Fixed Assets (GFA) addition for RVPN has been as follows:

Table 35: Asset Capitalization (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	Average of Last 3 FYs
Approved in Investment Plan Order	1,539	2,025	2,138	1,901
Actual investment done	1,776	2,080	2,076	1,977
Capitalisation as per Audited Accounts (Transmission Function)	1,086	1,509	2,592	1,729

5.12 It can be seen from the above table that during FY 2014-15 and FY 2015-16, the actual asset capitalization has been lower than that approved by the Commission in the respective Tariff Orders. However, the actual capitalisation in FY 2016-17 has been higher than the capitalisation approved by the Commission in Tariff Order for FY 2016-17. Further, the Commission has observed that the average of capitalization during FY 2014-15 to FY 2016-17 works out to Rs. 1,729 Crore, which is much higher than the investment approved by the Commission for FY 2018-19. Therefore, the Commission has decided to approve capitalisation at same level as per the approved Capitalisation amount corresponding to approved Investment Plan for Transmission Function of Rs. 1,191.50 Crore for FY 2018-19 as under:

Table 36: Asset Capitalization approved for FY 2018-19 (Rs. Crore)

Particulars	Petition	Approved
Capitalisation	1,465.00	1,191.50

Source of Funding

5.13 The petitioner has submitted that the proposed investment of Rs. 1,465.00 Crore shall be funded by Rs. 365.30 Crore of Grant, Rs. 296.00 Crore of Equity and Rs. 803.70 Crore of Debt. However, the Commission has approved a lower investment and capitalisation amount of Rs. 1,191.50 Crore. Considering the proposed level of Grant and Equity, i.e. Rs. 365.50 Crore and Rs. 296.00 Crore, the balancing figure of Debt works out to Rs. 530.20 Crore. The summarised working of sources of funding is shown as under:

Table 37: Funding Sources for FY 2018-19 (Rs. Crore)

Particulars	Petition		Projection	
	Rs. Crore	%	Rs. Crore	%
Total Capital Expenditure	1,465.00		1,191.50	
Less: Grant	365.30		365.30	
Net Capitalisation funded through Debt and Equity	1,099.70	100.00%	826.20	100.00%
Debt (Balancing Figure)	803.70	73.08%	530.20	64.17%
Equity	296.00	26.92%	296.00	35.83%

5.14 The Commission has observed that the Equity component so arrived at during the FY 2018-19 is more than the normative percentage of 30%, as mentioned in the Regulation 19 of RERC (Terms and Conditions of Tariff) Regulations, 2014. The relevant extract of Regulation 19 of Tariff Regulations, 2014 is reproduced as under

"...Where equity employed is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30% and the balance amount shall be considered as loan. Where actual equity employed is less than 30%, the actual equity shall be considered."

5.15 Therefore, in line with the above said provision of Tariff Regulations, for the purpose of computation of tariff, the Commission has decided to cap the Equity addition at 30% of Net capitalisation, i.e. Rs. 247.86 Crore and consider the balance amount of equity as Normative Debt. Accordingly, the Normative Debt and Equity components for FY 2018-19, as worked out by the Commission is summarized as below:

Table 38: Normative Debt-Equity for FY 2018-19 (Rs. Crore)

Particulars	For ARR	
	Rs. Crore	%
Total Capital Expenditure	1,191.50	
Less: Grant	365.30	
Net Capitalisation funded through Debt and Equity	826.20	100.00%
Debt	578.34	70.00%
Equity	247.86	30.00%

<u>Transmission Network Expansion for FY 2018-19</u>

<u>RVPN's Projections:</u>

5.16 The following table summarizes the physical transmission network to be put to use during FY 2018-19 as projected by RVPN.

Table 39: Physical Transmission Network to be put to use during FY 2018-19 as projected by RVPN

S. No.	Particulars	Unit	FY 2018-19 (Projected)
1	**Addition of new Transmission Lines**		
a	765kV Lines	ckt-km	-

S. No.	Particulars	Unit	FY 2018-19 (Projected)
b	400kV Lines	ckt-km	740
c	220kV Lines	ckt-km	310
d	132kV Lines	ckt-km	317
2	**Addition of new Sub-Stations**		
a	765kV Sub-Station (Nos/MVA)	Nos.	- / -
b	400kV Sub-Station (Nos/MVA)	Nos.	2/1630
c	220kV Sub-Station (Nos/MVA)	Nos.	3/640
d	132kV Sub-Station (Nos/MVA)	Nos.	15/375
3	**Addition of Transformer Capacity**		
a	Addition of new Transformer Capacity	MVA	2,645
b	Augmentation of Transformer Capacity	MVA	1,500
c	Total Addition of Transformer Capacity	**MVA**	4,145
4	**No. of Feeder Bays added**		
a	765kV	Nos.	0
b	400kV	Nos.	20
c	220kV	Nos.	39
d	132kV	Nos.	80

Commission's Analysis:

5.17 The Commission observes that RVPN has projected the details about physical asset addition in terms of transmission line (ckt-km), MVA capacity, and number of bays for FY 2018-19, on the basis of proposed capitalization during the year. While, approving the Investment Plan for FY 2018-19, the Commission has not made any deduction in either the ongoing or new Schemes consisting of physical assets. Therefore, for the purpose of computation of O&M Expenses, the Commission has considered the same physical asset addition as submitted in the Petition.

Operation and Maintenance (O&M) Expenses

RVPN's Projection:

5.18 In the Tariff Regulations, 2014, norms for operation and maintenance (O&M) expense have been specified on the basis of ckt-km, MVA capacity, and feeder bay for different voltage levels. RVPN, in its Tariff Petition, has submitted the following asset addition on the basis of ckt-km, MVA capacity and feeder bays during FY 2018-19 and accordingly, O&M expense has been projected.

Table 40: Physical Transmission Network to be put to use during FY 2018-19 for computation of O&M Expenses as projected by RVPN

S. No.	Particular	FY 2018-19 (Projected)
1	**Circuit Basis**	
A	Op. Balance of ckt-km	
	765 KV	0
	400 KV	425.50
	220 KV	5,117.33
	132 KV	14,749.42
B	Addition of ckt-km during year	17,117.05
	765 KV	-
	400 KV	740.00
	220 KV	310.00
	132 KV	317.00
2	**MVA Basis**	
A	Op. Balance of MVA Capacity	78,477
B	Addition of MVA Capacity during year	4,145
3	**Feeder bay basis**	
A	Op. Balance of Feeder bay	
	765 KV	28
	400 KV	136
	220 KV	782
	132 KV	2,638
B	Addition of Feeder bay during year	-
	765 KV	-
	400 KV	20
	220 KV	39
	132 KV	80

5.19 On the basis of above physical network capacity addition, RVPN has projected following O&M Expense for FY 2018-19:

Table 41: Projected O&M Expenses by RVPN for FY 2018-19 (Rs. Crore)

Particulars	FY 2018-19 Projected
O&M cost for transmission lines (ckt-km)	199.43
O&M cost for substation (MVA)	617.12
O&M cost for feeder bays (Nos)	425.56
Total O&M Expenses	**1,242.11**

Commission's Analysis:

5.20 The Commission has considered the actual physical asset addition approved in the previous section of Truing-up for FY 2016-17 as base, and physical asset addition in FY 2017-18 as per Form T-2 of the Tariff Petition submitted by RVPN and estimated addition in FY 2018-19, the Commission has approved the O&M Expenses as under:

Table 42: Projected O&M Expenses approved by the Commission for FY 2018-19 (Rs. Crore)

Particulars	Projected	Approved
O&M cost for transmission lines (ckt-km)	199.43	199.43
O&M cost for substation (MVA)	617.12	616.82
O&M cost for feeder bays (Nos)	425.56	425.56
Total O&M Expenses	**1242.11**	**1,241.81**

Depreciation

RVPN's Projections:

5.21 RVPN has projected Rs. 733.80 Crore as depreciation charges for FY 2018-19. RVPN submitted that depreciation has been charged based on the depreciation rates and methodology as specified in RERC Tariff Regulations, 2014. Projection of RVPN for FY 2018-19 are presented in the table below:

Table 43: Depreciation Charges submitted by RVPN for FY 2018-19 (Rs. Crore)

Particulars	FY 2016-17 (Actual)	FY 2017-18 (Estimated)	FY 2018-19 (Projected)
Depreciation	731.18	701.45	733.80

Commission's Analysis:

5.22 For computing the depreciation for FY 2018-19, the Commission has considered the closing GFA of True-up Order for FY 2016-17, as opening GFA for FY 2017-18 and closing GFA of FY 2017-18 as opening GFA for FY 2018-19. Further, the Commission has approved the capitalization for FY 2018-19 as Rs. 1,191.50 Crore. The average depreciation rate as per Petitioner's claim works out to 4.40%. Applying the same rate on average GFA balance for FY 2018-19 works out to Rs. 840 Crore (approx.), which would be much higher than what is claimed by the

Petitioner. This huge difference in GFA balance is on account of Indian AS adopted by the petitioner, wherein the Net Block of Fixed Assets, with some minor adjustments has been considered as Gross Block w.e.f 01.04.2015. Therefore, for the time being, the Commission has considered depreciation as Rs. 733.80 Crore, for the purpose of computation of ARR for FY 2018-19 and the detailed scrutiny shall be undertaken at the time of truing up.

Table 44: Depreciation Charges approved by the Commission for FY 2018-19 (Rs. Crore)

Particulars	As per Petition	Approved
Opening GFA as on 1st April, 2017 (closing GFA from the Petition for FY 2016-17)	13,931.26	17,195.92
Add: Addition during FY 2017-18	2,012.54	1,475.99*
Closing GFA for FY 2017-18 (Opening GFA as on 1st April, 2018)	15,943.80	18,671.91
Add: Addition during FY 2018-19	1,465.00	826.20*
Closing Balance of GFA for FY 2018-19	17,408.80	19,498.11
Average GFA for FY 2018-19	16,676.30	19,085.01
Depreciation	**733.80**	**733.80**
Depreciation Rate (%)	4.40%	3.84%

**Capitalisation Net of Capital Grants*

<u>Interest and Finance Charges</u>

<u>RVPN's Projections:</u>

5.23 RVPN has projected the interest and finance charges of Rs. 873.75 Crore for FY 2018-19.

<u>Commission's Analysis:</u>

5.24 The Commission has considered a normative approach as per Regulation 19 of Tariff Regulations, 2014. As regards Opening loan for long-term loan pertaining to GFA for FY 2018-19, the Commission has considered closing long-term loan pertaining to GFA of FY 2016-17 as opening for FY 2017-18 and further, closing long-term loan pertaining to GFA of FY 2017-18 as opening loan for FY 2018-19.

5.25 As the equity addition percentage submitted by the Petitioner for FY 2018-19 is more than 30% of the investment approved by the Commission, therefore, the Commission has capped equity percentage at 30% and the remaining equity has been considered as normative debt for the purpose of tariff determination. The same has already been discussed under the heading 'Source of Funding' earlier in this Section.

5.26 Hence, 30.00% of the capitalisation (net of capital grants) approved has been considered to be financed through equity contribution and balance 70.00% has been considered to be financed through debt or loan. Allowable depreciation for the financial year has been considered as normative loan repayment.

5.27 The following table summarises the long-term loans workings for FY 2017-18 and FY 2018-19, as submitted by the Petitioner as well as the normative loan workings done by the Commission for the purpose of computing interest on long-term loans for FY 2018-19.

Table 45: Computation of Long-Term Loans (Rs. Crore)

Particulars	Reference	Petitioner's Submission		Approved	
		FY 2017-18 (Provisional)	FY 2018-19 (Projected)	FY 2017-18 (Estimated)	FY 2018-19 (Approved)
Opening Loan balance	A	10,212.03	11,138.10	8,296.51	8,711.80
Capitalisation during the year	B			1,557.00	1,191.50
Deductions during the year	C			-	-
Grants	D			81.01	365.30
Net Capitalisation during the year	E=B-C-D	1,915.52	1,083.69	1,475.99	826.20
Loan Addition	F=E x Debt %	1,627.52	787.69	1,187.99	578.34
Less: Repayments (Depreciation allowable for that year)	G	701.45	733.80	772.70	733.80
Closing Loan Balance	**H=A+F-G**	**11,138.10**	**11,191.99**	**8,711.80**	**8,556.34**

5.28 The Commission has considered the weighted average interest rate of 9.78%, as projected by the Petitioner, for estimating the interest charges for FY 2018-19.

5.29 RVPN submitted that the Finance Charges include the Guarantee charges, Commitment Charges, Stamp duty, Registration Fees, Legal Charges, etc. RVPN further submitted that taking into account these charges the Finance Charges for FY 2017-18 and FY 2018-19 have been projected at Rs. 90.00 Crore and Rs 95.00 Crore respectively. The increase in finance charges is mainly due to increase in guarantee charges from 0.5% (concessional rate) to 1% as conveyed by Energy Department vide their Letter No. F.13 (27) Energy/2013 dated 10.06.2016.

5.30 The Commission has considered the finance charges proportionate to the loan addition proposed by the Petitioner and approved by the Commission. The Commission has not further deducted the Interest capitalized from the Interest on Loan, similar to that by the Petitioner, as the above computation is on the normative loan balances as against the Petitioner's computation on actual loan balances and therefore, there is no need for further deduction of capitalized interest from interest on normative loan component worked out on the proposed capitalized fixed assets net of grants.

5.31 Accordingly, the workings of interest on long-term loans for FY 2018-19 as submitted by the Petitioner and approved by the Commission is shown as under:

Table 46: Approved Consolidated Interest and Finance charges for FY 2018-19 (Rs. Crore)

Particulars	Reference	Petitioner's Submission	Approved by Commission
Opening Loan balance	A	11,138.10	8,711.80
Loan Addition	B	787.69	578.34
Less: Repayments (Depreciation allowable for that year)	C	733.80	733.80
Closing Loan Balance	**D=A+B-C**	11,191.99	8,556.34
Average Loan	E=Average (A,D)	**11,165.04**	**8,634.07**
Weighted average rate of interest	F	9.78%	9.78%
Interest on Long Term Loans	G = E x F	1,091.64	844.18
Other Finance Charges	H	95.00	69.75
Total Interest on Long Term Loan	**I = G + H**	**1,186.64**	**913.93**
Less: Interest Capitalised	J	312.89	-
Interest and Finance Charges (Net of Capitalisation)	**K = I - J**	**873.75**	**913.93**

5.32 As the net interest and finance charges computation cover consolidated working for transmission function and partnership generation projects, the Commission has allocated the interest and finance charges between Transmission function and partnership generation projects. For the partnership generation part, the interest and finance charge have been considered on the same level of FY 2016-17, i.e., Rs. 7.74 Crore as shown in the table below:

Table 47: Approved Interest and Finance charges for FY 2018-19 (Rs. Crore)

Particulars	Reference	Approved
Total Interest and Finance Charges on Long-Term Loans	A	**913.93**
Partnership Projects Interest and Finance Charges	B	7.74
Net Transmission Interest and Finance Charges	**C = A – B**	**906.19**

Working Capital and Interest on Working Capital

RVPN's Projections:

5.33 RVPN has projected the interest on working capital as Rs. 60.19 Crore for FY 2018-19. RVPN has further submitted that working capital has been calculated as per norms and Interest rate has been considered at 11.45% for FY 2018-19 as per Tariff Regulations, 2014.

Commission's Analysis:

5.34 The Commission has computed the interest on working capital in accordance with the provisions of Tariff Regulations, 2014. As regards interest rate, the Commission has considered SBI base rate of 9.05% existing during first six months of previous year plus 250 basis points as per Tariff Regulations, 2014. The average rate of interest thus works out to 11.55% for FY 2018-19. Accordingly, the Working Capital Requirement and Interest on Working Capital as approved by the Commission for FY 2018-19 is as under:

Table 48: Approved Interest on Working Capital for FY 2018-19 (Rs. Crore)

Particulars	Reference	Petitioner's Submission	Approved by Commission
O&M Expenses (1 month)	A	103.51	103.48
Maintenance Spares	B=O&M Expenses x 15%	186.32	186.27
Receivables on target availability	C= One and a half months of transmission charges	346.59	309.27

Particulars	Reference	Petitioner's Submission	Approved by Commission
Less: Amount held as security deposits	D	110.72	110.72
Total Working Capital	**E = A+B+C-D**	**525.70**	**488.31**
Interest Rate	F	11.45%	11.55%
Interest on Working Capital	**G = E x F**	**60.19**	**56.40**

Other Expenses

RVPN's Projections:

5.35 RVPN submitted the other expenses as Rs 73.00 Crore are on account of the miscellaneous expenses amounting to Rs. 20.00 Crore which are not recovered during the financial year and the Unitary Charges amounting to 53.00 Crore. RVPN submitted that as the nature of expenses and trend of which cannot be ascertained and hence, the expenses under other items have been kept same as for previous year.

Commission's Analysis:

5.36 Looking to the past experience, the Commissions approves the Other Expenses as Rs. 73.00 Crore as under:

Table 49: Approved Other Expenses for FY 2018-19 (Rs. Crore)

Particulars	Petitioner's Submission	Approved by Commission
Other Expenses	73.00	73.00

Return on Equity (RoE)

RVPN's Projections:

5.37 RVPN submitted that the Return on Equity for FY 2018-19 has been considered as 2.00% instead of 15.50% as per in the Tariff Regulations 2014. RVPN has submitted Rs. 89.11 Crore as RoE for FY 2018-19.

Commission's Analysis:

5.38 Tariff Regulations, 2014 stipulate RoE at the rate of 15.50%. Relevant extract from the Regulation is reproduced below:

*"**20. Return on Equity***

…

(2) Return on equity shall be computed at the base rate of 15.5% for

Generating Companies and Transmission Licensees, and at the base rate of 16% for distribution licensees."

5.39 The Petitioner has claimed RoE @ 2.00% instead of 15.50% admissible as per Tariff Regulations, 2014. Accordingly, the Commission has approved the same rate of RoE as claimed by the Petitioner.

5.40 As regards opening equity for FY 2018-19, the Commission has considered closing equity in pursuance to True up for FY 2016-17 in the Audited Accounts as opening equity for FY 2017-18 and the closing equity of FY 2017-18 has been considered as opening equity of FY 2018-19. The summarised workings are shown in the table below:

Table 50: Computation of Equity (Rs. Crore)

Particulars	Reference	Petitioner's submission		Commission	
		FY 2017-18 (Provisional)	FY 2018-19 (Projected)	FY 2017-18 (Provisional)	FY 2018-19 (Projected)
Equity at the beginning of the year	A	4,019.64	4,307.64	3,661.05	3,949.05
Net Capitalisation	B	2,012.54	1,465.00	1,459.98	826.20
Equity portion of capitalisation	C = B x Equity %	288.00	296.00	288.00	247.86
Equity at the end of the year	D = A+C	4,307.64	4,603.64	3,949.05	4,196.91

5.41 The Commission approves Return on Equity for FY 2018-19 as Rs. 81.46 Crore vis-a-vis Rs. 89.11 Crore as claimed by RVPN. The same is shown as under:

Table 51: Approved Return on Equity for FY 2018-19 (Rs. Crore)

Particulars	Reference	Petitioner's Submission	Approved by Commission
Equity at the beginning of the year	A	4,307.64	3,949.05
Net Capitalisation	B	1,465.00	826.20
Equity portion of capitalisation	C = B x Equity %	296.00	247.86
Equity at the end of the year	D = A+C	4,603.64	4,196.91
Average Equity	**E = (A+D)/2**	**4,455.64**	**4,072.98**

Particulars	Reference	Petitioner's Submission	Approved by Commission
Rate of RoE considered	F	2.00%	2.00%
Total Return on Equity	**G = E x F**	**89.11**	**81.46**

Non-Tariff Income

RVPN's Projections:

5.42 RVPN projected Rs. 150.00 Crore as Non-Tariff Income for FY 2018-19 on account of miscellaneous receipts, sale of scrap, Interest on loans and advances from employees, suppliers & Contractors, rebate for early payment, etc.

Commission's Analysis:

5.43 The Commission has considered the non-tariff income for FY 2018-19 as Rs. 150.00 Crore as submitted by RVPN.

Table 52: Approved Non-Tariff Income for FY 2018-19 (Rs Crore)

Particulars	Petitioner's Submission	Approved by Commission
Non-Tariff Income	150.00	150.00

Revenue from Short Term Open Access

RVPN's Projections:

5.44 RVPN submitted that the revenue has been assessed assuming allocated open access capacity for future year. The recovery of transmission charges from collective power exchange transactions and Inter-State Short Term Open Access based on kWh energy is difficult to estimate accurately and included in total revenue from open access consumers.

Table 53: Revenue from Short Term Open Access Consumers (Rs. Crore)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19
	RERC Order dt 27-10-2016	Actual	Approved	Estimated	Projected
Revenue from Short Term Open Access Consumers	131.79	156.83	300.00	300.00	300.00

Commission's Analysis:

5.45 Pursuant to the Petitioners submission for the true up tariff Petition, the Petitioner has submitted revenue from short-term open access during FY 2016-17 as Rs. 156.83 Crore. Now, the Petitioner has projected an amount of Rs. 300 Crore for FY 2017-18 and FY 2018-19. The Commission accordingly approves Revenue from short-term open access for FY 2018-19 as Rs. 300.00 Crore.

Aggregate Revenue Requirement

RVPN's Projections:

5.46 RVPN considered a deficit of Rs. 150.22 Crore in True up of FY 2016-17 and has considered the same in its submission of ARR. Considering this deficit on account of true-up for FY 2016-17, RVPN has projected the ARR of Rs. 2,772.74 Crore for transmission function for FY 2018-19.

Commission's Analysis:

5.47 Based upon the detailed analysis of various components as stipulated in the above paragraphs, the Commission approves the ARR for FY 2018-19 as under.

5.48 RVPN in the True up petition for FY 2016-17 has projected a deficit of Rs. 150.22 Crore. The Commission observes that after final True up for FY 2016-17, there is a surplus of Rs 169.08 Crore. The Commission finds it appropriate to approve the surplus of Rs. 169.08 Crore and considers the same while computing the ARR for FY 2018-19.

5.49 Accordingly, the Commission approves an ARR of Rs. 2,474.13 Crore vis-à-vis Rs. 2,772.74 Crore as submitted by RVPN for FY 2018-19.

Table 54: Approved Summary of ARR for Transmission Function for FY 2018-19 (Rs. Crore)

S. No.	Particulars	Petitioner's Submission	Approved by Commission
1	Operation & Maintenance Expenses	1,242.11	1,241.81
2	Depreciation	733.80	733.80
3	Interest and finance charges on Long	873.75	906.19

S. No.	Particulars	Petitioner's Submission	Approved by Commission
	Term Loans		
4	Interest on Working Capital & Financial Charges	60.19	56.40
5	Insurance charges	0.55	0.55
6	Other Item	73.00	73.00
7	**Total Revenue Expenditure (1 to 6)**	**2,983.41**	**3,011.75**
8	Return on Equity	89.11	81.46
9	**Aggregate Revenue Requirement (7+8)**	**3,072.52**	**3,093.21**
10	Less: Non-Tariff Income	150.00	150.00
11	Less: Income from STOA	300.00	300.00
12	True-up of FY 2016-17 Surplus / (Gap)	(150.22)	169.08
13	**Net Revenue Requirement (9-10-11-12)**	**2,772.74**	**2,474.13**

Incentive for System Availability

5.50 As incentive is admissible over and above the ARR upon demonstration of actual transmission system availability exceeding the normative transmission system availability at the end of the year, therefore, the effect of incentive has not been considered by the Commission in this ARR. The same may be recovered by RVPN as per Regulations during the truing up of FY 2018-19.

Transmission Tariff for FY 2018-19

RVPN's Projections:

5.51 RVPN has projected the transmission tariff for FY 2018-19 as follows:

Table 55: Projected Transmission Charges for FY 2018-19

Particulars	Petition
Revenue Requirement (Rs. Crore)	2,772.74
Less: Revenue from Inter State Transmission Lines (Rs. Crore)	50.00
Net Revenue Requirement from Transmission Tariff (Rs. Crore)	2,722.74
Transmission Capacity for Discoms (MW)	11,146.00
Transmission Capacity for Open Access (MW)	551.00
Total transmission by RVPN, MW	11,697.00
Transmission Tariff (Rs./kW/Month)	193.98
Transmission Charges to be recovered from Discoms (Rs. Crore)	2,594.48

Particulars	Petition
Revenue recovery from Long Term Open Access (Rs. Crore)	128.26

Commission's Analysis:

5.52 The Commission has specified transmission tariff in terms of network usage based upon contracted/allotted capacity considered in Tariff Order for FY 2017-18 at 12,528 MW and 551 MW for Discoms and long term open access customers respectively, aggregating to 13,079 MW, as per the provisions of Regulation 66(1)(b) of the Tariff Regulations, 2014. The transmission tariff for Discoms and long term open access transactions works out as Rs. 154.45/kW/month. This tariff shall also be applicable for customers availing medium term open access.

5.53 The gross energy requirement of Discoms and long-term open access customers for FY 2018-19 has been shown as 80,467 MU and 3,760 MU respectively by the Petitioner. Considering the aggregate energy requirement of 84,227 MU and net transmission charges amounting to Rs. 2,424.13 Crore (Rs. 2,424.13 Crore Less Rs. 50 Crore towards revenue from inter-State transmission lines), the transmission tariff for use of State transmission system in inter-State short-term open access bilateral transactions and collective power exchange transactions are approved as 28.78 paisa/kWh.

5.54 Accordingly, the approved transmission tariff for the FY 2018-19 is as under:

Table 56: Approved Transmission Tariff for FY 2018-19

Sr. No.	Particulars	Unit	Approved by Commission
1	Net Transmission charges to be recovered from Discoms and Long Term Open Access customers	Rs. Crore	2,474.13
2	Less: Revenue from Inter State transmission Lines	Rs. Crore	50.00
3	Net Revenue Requirement From Transmission Tariff	Rs. Crore	2,424.13
4	Approved Transmission capacity for Discoms	MW	12,528
5	Long Term Open Access customers	MW	551
6	Total Transmission Capacity	MW	13,079
7	**Transmission Tariff for Discoms and Long Term Open Access customers**	**Rs./kW/Month**	**154.45**

Sr. No.	Particulars	Unit	Approved by Commission
8	**Transmission Tariff for Medium Term Open Access customers**	**Rs./kW/Month**	**154.45**
9	**Transmission Tariff for intra-state Short Term Open Access customers**	**Rs./kW/Day**	**5.08**
10	Energy Requirement for Discoms in FY 2018-19	MU	80,467
11	Energy Requirement for Long Term Open Access customers in FY 2018-19	MU	3,760
12	**Transmission tariff for use of State transmission system in inter-State Short Term Open Access bilateral transactions and collective power exchange transactions**	**paise/ kWh**	**28.78**
13	Transmission Charges to be recovered from Discoms during FY 2018-19	Rs. Crore	2,322.00

Section – 6: Analysis of ARR for SLDC Function for FY 2018-19

6.1 In order to ensure smooth real time system operations, the Electricity Act, 2003, provides for SLDC to be a separate entity, operated by a competent agency notified by the State Government. The State Transmission Utility will operate the SLDC till the time a separate entity is notified for this purpose. The GoR has entrusted RVPN with this responsibility in Rajasthan.

SLDC Capitalisation

6.2 RVPN has proposed capital investment and capitalisation of Rs. 15.00 Crore in its Petition towards SLDC function for FY 2018-19. In its forms submitted along with Investment Plan Petition, RVPN has submitted this investment plan as 'Automation/ SCADA solutions, RTU's/ BCU's, related primary equipment up-gradation, communication interfaces/ channels (under ULDC, up-gradation of existing S/S)'. The Commission approves capitalisation of Rs. 15 Crore as submitted by RVPN. In reply to the query raised by the Commission regarding asset capitalized during FY 2017-18 SLDC has submitted that it has placed an order of Rs. 5.75 Crore for the purchase of RTUs and its execution is under progress, while the rest of the work is likely to be slipped in FY 2018-19.

O&M Expenses

RVPN's Projections:

6.3 RVPN has projected the O&M expenses of Rs. 13.21 Crore for FY 2018-19.

Commission's Analysis:

6.4 RVPN has submitted the O&M expenses as Rs. 13.21 Crore, which includes Employee Expenses as Rs.12.30 Crore, Administrative & General Expenses as Rs. 0.88 Crore, Repair & Maintenance Expenses as Rs. 0.024 Crore for FY 2018-19. Pursuant to the Regulation 24(3) of Tariff Regulations, 2014, the O&M Expenses shall be escalated by 5.85% each year from the start of Control Period, i.e., FY 2014-15. The relevant extract is reproduced as under:

*"**24. Operation & Maintenance expenses***

...

(2) Normative O&M expenses allowed at the commencement of the

Control Period (i.e. FY 2014-15) under these Regulations shall be escalated at the rate of 5.85% per annum for each year of the Control Period.
...”

6.5 The Commission had approved O&M expenses as Rs. 10.46 Crore (Employee Expenses Rs. 9.11 Crore, A&G Expenses Rs. 1.23 Crore and R&M Expenses Rs. 0.12 Crore) as per the SLDC Accounts statement while truing up for FY 2014-15. Hence, in line with the Regulations, the Commission in principle approves the O&M expenses as Rs. 13.13 Crore (Employee Expenses Rs. 11.44 Crore, A&G Expenses Rs. 1.54 Crore and R&M Expenses Rs. 0.15 Crore) after escalating the O&M expenses approved in true up of FY 2014-15 @5.85% per annum, which shall be subject to truing up of FY 2018-19.

Table 57: Approved O&M Expenses for FY 2018-19 (Rs. Crore)

Particulars	As per Petition	Approved by Commission
O&M Expenses	13.21	13.13

Depreciation

RVPN’s Projections:

6.6 RVPN has projected the depreciation charges of Rs. 2.16 Crore for FY 2018-19. RVPN further submitted that the depreciation charges have been computed as per the provisions of Tariff Regulations, 2014.

Commission’s Analysis:

6.7 The Commission has considered capitalization for FY 2018-19 as Rs. 15.00 Crore as submitted by the Petitioner. For computing the depreciation, the Commission has considered the closing GFA for FY 2016-17 as opening GFA for FY 2017-18 and closing GFA of FY 2017-18 as opening GFA for FY 2018-19. The Commission has considered the average depreciation rates of 3.80% as submitted by RVPN for FY 2018-19. Accordingly, depreciation worked out for FY 2018-19 is as under:

Table 58: Approved Depreciation for FY 2018-19 (Rs. Crore)

Particulars	As per Petition	Approved by Commission
Depreciation	2.17	2.17

Interest and Finance Charges

RVPN's Projections:

6.8 RVPN has projected the interest and finance charges for FY 2018-19 as Rs. 2.68 Crore.

Commission's Analysis:

6.9 The Commission has considered capitalisation for FY 2018-19 as Rs. 15.00 Crore as submitted by RVPN and corresponding loan addition as Rs. 13.00 Crore. The Commission worked out interest on the weighted average interest rate of 10%, worked out on the basis of submissions of RVPN. Accordingly, the Commission has worked out and approved interest and finance charges for FY 2018-19 as under:

Table 59: Approved Interest and Finance Charges for FY 2018-19 (Rs Crore)

Particulars	As per Petition	Approved by Commission
Total Interest and Finance Charges	2.68	2.37

Working Capital and Interest on Working Capital

RVPN's Projections:

6.10 RVPN has projected the interest on working capital as Rs. 0.60 Crore for FY 2018-19. RVPN has further submitted that working capital has been calculated as per norms and interest rate has been considered as 11.55% as per Tariff Regulations, 2014.

Commission's Analysis:

6.11 The Commission has computed interest on working capital in accordance with the provisions of Tariff Regulations, 2014. As regards interest rate, the Commission has considered SBI base rate of 9.05% existing during first six months of FY 2016-17 plus 250 basis points as per Tariff Regulations, 2014. The Commission observed that the Petitioner has worked out the Maintenance Spares component @ 20% of O&M Expenses. However, the Commission has considered Maintenance Spares @ 15% of O&M Expenses as per norms specified in the Tariff Regulations, 2014. Therefore, working capital requirement and interest on working capital for FY 2018-19 is as under:

Table 60: Approved Interest on Working Capital for FY 2018-19 (Rs. Crore)

Particulars	Reference	As per Petition	Approved by Commission
O&M Expenses (1 month)	A	1.10	1.09
Maintenance Spares	B	2.64	1.97
Receivables	C= One and a half months of SLDC charges	1.91	1.84
Less: Amount held as security deposits	D	0.40	0.40
Total Working Capital	**E=A+B+C-D**	**5.25**	**4.51**
Interest Rate	F	11.45%	11.55%
Interest on Working Capital	**G=E x F**	**0.60**	**0.52**

RLDC Fee and Charges

RVPN's Projections:

6.12 RVPN has projected the expenses on account of RLDC fee and charges of Rs. 20.00 Crore for FY 2018-19. RVPN also stated that it is paying NRLDC on account of operation and recovery of annualized fixed charges for the Unified Load Dispatch Centre (ULDC) scheme.

Commission's Analysis:

6.13 The Commission observes that the payment is made to NRLDC on account of operation and recovery of annualized fixed charges for the Unified Load Dispatch Centre (ULDC) scheme, on which the licensee has no control. Considering the projected expenses to be in line with the approved RLDC fee and charges for FY 2017-18, the Commission approves the expenses for FY 2018-19 as under:

Table 61: Approved RLDC Fee and Charges for FY 2018-19 (Rs. Crore)

Particulars	As per Petition	Approved by Commission
RLDC Fee and Charges	20.00	20.00

Return on Equity

RVPN's Projections:

6.14 RVPN submitted that RoE for FY 2016-17 has been considered @ 12.00%

and for FY 2018-19 @ 2.00% instead of 15.50% as per Tariff Regulations, 2014.

Commission's Analysis:

6.15 The Petitioner has claimed Rs. 0.08 Crore as return on equity. The Commission has approved return on equity as under:

Table 62: Approved Return on Equity for FY 2018-19 (Rs. Crore)

Particulars	Reference	FY 2017-18 (Estimated)	FY 2018-19 (Approved)
Equity at the beginning of the year	A	1.07	3.07
Capitalisation during the year	B	20.00	15.00
Deduction during the year	C	-	-
Less: Consumer Contribution	D	-	-
Net Capitalisation	E = B-C-D	20.00	15.00
Equity portion of capitalisation	F = E x Equity %	2.00	2.00
Equity at the end of the year	G = A + F	3.07	5.07
Average Equity	H = (A+G)/2		4.07
RoE Considered	I		2.00%
Total Return on Equity	**J = H x I**		**0.08**

Aggregate Revenue Requirement (ARR) for SLDC

RVPN's Projections:

6.16 RVPN has projected the ARR of SLDC function for FY 2018-19 as under:

Table 63: Projected ARR of SLDC Business for FY 2018-19 (Rs. Crore)

S. No.	Particulars	As per Petition
1	**Expenses**	
a)	**Operating Expenses**	
i)	Employee expenses	12.30
ii)	Administrative and General Expenses	0.89
iii)	Repair and Maintenance Expenses	0.02
iv)	Interest on Working Capital	0.60
v)	RLDC & NRLDC Fee and Charges	20.00
b)	**Capital expense components**	
i)	Depreciation	2.17

S. No.	Particulars	As per Petition
ii)	Interest and finance charges on term loan	2.68
iii)	Return on equity	0.08
c)	Income Tax provision	-
2	**Total Revenue Expenditure (a+b+c)**	**38.74**
3	Less: Non-Tariff income	1.89
4	Less: Income from other business	0.21
6	True-up of FY 2016-17 Surplus/ (Gap)	21.40
7	**Aggregate Revenue Requirement**	**15.24**

Commission's Analysis:

6.17 The Commission has considered the Non-tariff income of Rs. 1.89 Crore and the income from short-term open access consumers of Rs. 0.21 Crore, as projected by the Petitioner.

6.18 RVPN submitted that there is a Surplus of Rs. 21.40 Crore in its true up Petition of FY 2016-17, against which the Commission has worked out a Surplus of Rs. 21.44 Crore in True-up for FY 2016-17.

6.19 Hence, based on the detailed analysis of various components, the Commission approves the ARR for SLDC function for FY 2018-19 as follows:

Table 64: Approved Summary of ARR for SLDC Function for FY 2018-19 (Rs. Crore)

S. No.	Particulars	As per Petition	Net Entitlement
1	**Expenses**		
a)	**Operating Expenses**		
i)	Employee expenses	12.30	11.44
ii)	Administrative and General Expenses	0.89	1.54
iii)	Repair and Maintenance Expenses	0.02	0.15
iv)	Interest on Working Capital	0.60	0.52
v)	RLDC Fee and Charges	20.00	20.00
b)	**Capital expense components**		
i)	Depreciation	2.17	2.17
ii)	Interest and finance charges on term loan	2.68	2.37

S. No.	Particulars	As per Petition	Net Entitlement
iii)	Return on equity	0.08	0.08
c)	Income Tax provision	-	-
2	**Total Revenue Expenditure (a+b+c)**	**38.74**	**38.27**
3	Less: Non-Tariff income	1.89	1.89
4	Less: Income from other business	0.21	0.21
6	True-up of FY 2015-16 Surplus/ (Gap)	21.40	21.44
7	**Aggregate Revenue Requirement**	**15.24**	**14.74**

6.20 The recovery of SLDC Expenses for FY 2018-19 shall be as under:

Table 65: Approved SLDC Expenses for FY 2018-19

Particulars	Approved by Commission
Net Revenue Requirement for SLDC Operations to be recovered from Discoms and Long Term Open Access Customers (Rs. Crore)	14.74
Contracted capacity for Discoms and Long Term Open Access Customers (MW)	13,079
SLDC Charges for Discoms and Long Term OA Transactions (Paise/kW/Month)	93.89
SLDC Charges for Medium Term OA Transactions (Paise/kW/Month)	93.89
SLDC Charges for Short Term OA Transactions (Paise/kW/Day)	3.13

Section -7: Applicability:

7.1 The Tariff determined vide this Order shall be effective from 1st April, 2018 and shall remain in force till next order of the Commission.

7.2 The Transmission and SLDC Charges as determined under this Order for Discoms would be shared amongst them in proportion to their contracted/allotted capacity for the FY 2018-19. Further, in case of short term open access transactions, there shall be no retrospective adjustment of transmission and SLDC charges.

7.3 Copy of this Order may be sent to the Petitioner, Respondents, Objectors, Central Electricity Authority (CEA) and Government of Rajasthan.

(S.C. Dinkar)	**(R. P. Barwar)**	**(Vishvanath Hiremath)**
Member	**Member**	**Chairman**

Annexure

List of Stakeholders and Representatives of the Petitioner/Respondents present during the hearing

1.	Shri O. P. Bansal	SE (NPP&RA) – RVPN
2.	Shri Manish Saxena	CCOA- RVPN
3.	Ms Anju Sultania	CAO(A/C&wm) – RVPN
4.	Ms. Shilpi Bharagava	Senior A.O. (B&R) – RVPN
5.	Shri Jai Singh Rao	Sr. AO - RVPN
6.	Shri Nitesh Kr. Garg	AAO - RVPN
7.	Shri Umesh Gupta	SE (Regulations) - JVVNL
8.	Shri S. T. Hussain	SE(RA)-Discoms
9.	Shri A. K. Singhal	XEN - RUVNL
10.	Shri A. K. Bissa	XEN - RVPN
11.	Ms Urvashi Goswami	AEN- RVPN
12.	Shri Rajendra Sharma	AEN-RVPN
13.	Shri D. S. Agarwal	Consultant- RTMA, Rudraksh Energy
14.	Shri G. L. Sharma	Stakeholder
15.	Shri B. M. Sanadhya	Director, SAMTA Power
16.	Shri C. M. Jain	Consultant- RVPN
17.	Shri Roshan Lal Surana	Consultant-RVPN
18.	Shri Lalit Chaturvedi	Idam Infra, Consultant to the Commission
19.	Shri Abhishek Dixit	Idam Infra, Consultant to the Commission