ODISHA ELECTRICITY REGULATORY COMMISSION
PLOT NO. 4, CHUNOKOLI, SHAILASHREE VIHAR,
BHUBANESWAR-751021
****

Present: **Shri U. N. Behera, Chairperson**
Shri A. K. Das, Member
Shri S. K. Parhi, Member

CASE NO. 71 OF 2018

DATE OF HEARING : 06.02.2019

DATE OF ORDER : 29.03.2019

IN THE MATTER OF: **An application for approval of Aggregate Revenue Requirement and determination of Transmission Tariff for FY 2019-20 filed by OPTCL under Sections 62, 64 and all other applicable provisions of the Electricity Act, 2003 read with Regulations of the OERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2014 and OERC (Conduct of Business) Regulations, 2004 for the year 2019-20.**

O R D E R

M/s. Odisha Power Transmission Corporation Limited, Bhubaneswar, (in short "OPTCL") the present petitioner, undertakes Intra State transmission business in the State. It has been notified as the State Transmission Utility (STU) under Section 39(1) of the Act with effect from 01.04.2005 vide Govt. notification dated 09.06.2005. By virtue of the second Proviso to Section 14 of the Electricity Act, 2003 (hereinafter referred to as "the Act") OPTCL has been a deemed Transmission Licensee under the Act. OPTCL is now governed by License Conditions set forth in OERC (Conduct of Business) Regulations, 2004, at Appendix 4B issued under section 16 of the Act and as modified by OERC by its Order dated 27th October 2006.

PROCEDURAL HISTORY (PARA 2 TO 9)

2. As per OERC (Conduct of Business) Regulations, 2004 and OERC (Terms and Conditions for Transmission Tariff) Regulations, 2014, licensees/deemed licensees are required to file their Aggregate Revenue Requirement within 30th November in each year in the prescribed formats. OPTCL as a deemed licensee had submitted its

ARR application for FY 2019-20 before the Commission on 30.11.2018, which was registered as Case No 71 of 2018. After due scrutiny and admission of the matter, the Commission directed OPTCL to publish its ARR & Transmission tariff application in the approved format in the leading and widely circulated English and Odia daily newspapers one each. The matter was also posted in the Commission's website in order to invite objections/views from the intending objectors. The Commission had also directed the applicant to file its rejoinder to the objections filed by the various objectors and to serve copies on them.

3. Accordingly, OPTCL published the said public notice in the leading English and Odia dailies in one issue each. The Commission issued individual notice to the applicant, objectors and to the Govt. of Odisha represented by Department of Energy to send their authorized representative to take part in the tariff proceedings.

4. In response to the aforesaid public notice of the applicant, the Commission received 8 numbers of objections/suggestions from the following persons/ associations/ institutions/ organizations.

(1) Sri M.V. Rao, M/s Ferro Alloys Corporation Ltd., GD.2/10, Chandrasekharpur, Bhubaneswar-751023, (2) Utkal Chamber of Commerce & Industry Ltd. (UCCI), N-6, IRC Village, Nayapalli, Bhubaneshwar- 751015, (3) Sri Ananda Kumar Mohapatra, Power Analyst, S/o-Jachindra Nath Mohapatra, Plot No. 639/1021, Laxmi Vihar, Basuaghai, Badagada, Tankapani Road, Ps-Badagada, Bhubaneswar, DistKhurda-751002, (4) M/s Swain & Sons Power Tech Pvt. Ltd., At-K-8/82, Kalinga Nagar, Ghatikia, Bhubaneswar751029, (5) M/s. Confederation of Captive Power Plant, Odisha (CCPPO), N-3-160, IRC Village, Nayapalli, Bhubaneswar-751015, (6) North Odisha Chamber of Commerce and Industry (NOCCI), Ganeswarpur Industrial Estate, Januganj, Balasore-756019, (7) Shri Ramesh Ch. Satpathy, Secretary, National Institute of Indian Labour, Plot No.302(B), Beherasahi, Nayapalli, Bhubaneswar-751012, (8) R.P. Mahapatra, Retired chief engineer & Member (Gen.), erstwhile OSEB, Plot no.- 775(P), Lane-3, Jayadev Vihar, Bhubaneswar-75113. All the above named objectors/their representatives, along with the representative of Dept. of Energy, GoO were present during tariff hearing and their written submissions were taken on record and also considered by the Commission.

5. The applicant submitted its reply to issues raised by the various objectors and also to the queries of the Commission made during the hearing.

6. In exercise of the power under Section 94(3) of the Electricity Act, 2003 and to protect the interest of the consumers, the Commission appointed WISE, Pune as Consumer Counsel for objective analysis of the licensee's Aggregate Revenue Requirement and the proposal for Determination of Transmission Tariff for FY 2019-20. The Consumer Counsel presented his views in the hearing.

7. The date for hearing was fixed as 06.02.2019 at 11.00 AM and it was duly notified in the leading newspapers mentioning the list of the objectors. The Commission also issued individual notices to the applicant, objectors and the Government of Odisha through Department of Energy informing them about the date & time of hearing, Department of Energy was requested to send the Government's authorized representative to take part in the proceeding.

8. In its consultative process, the Commission conducted a public hearing at its premises on 06.02.2019 and heard the Applicant, Objectors, Consumer Counsel and the Representative of the Dept. of Energy, Government of Odisha at length.

9. The Commission convened the State Advisory Committee (SAC) meeting on 20.02.2019 at 3.00 PM at its premises to discuss about the Aggregate Revenue Requirement applications and tariff proposals of licensees for FY 2019-20. The Members of SAC, Special Invitees, the Representative of DoE, Govt. of Odisha actively participated in the discussion and offered their valuable suggestions and views on the matter for consideration of the Commission.

OPTCL's ARR & TARIFF PROPOSAL FOR FY 2019-20 (PARA 10 TO 42)

10. As per the Regulation 53 (1) at Chapter VIII of OERC (Conduct of Business) Regulations, 2004 and Clause 19.3 of License Conditions of OPTCL read with Regulation 5.2 of the OERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2014, OPTCL is required to submit its Aggregate Revenue Requirement (ARR) application for the ensuing year before OERC for approval by 30th November each year. In compliance to the above, OPTCL has submitted its Aggregate Revenue Requirement & Transmission Tariff application for FY 2019-20 for approval of the Commission.

Categorization of Open Access Customers

11. All the customers seeking open access to OPTCL Transmission System are classified under two categories:

a. Long Term Open Access Customers (LTOA Customers)

A Long Term Open Access Customer means a person availing or intending to avail access to the Intra-State Transmission System for a period of 25 years or more. Based on such premise, four DISCOMs, NALCO & IMFA happen to be the long term customers of OPTCL.East Coast Railway (ECoR) has applied to OPTCL for grant of connectivity and LTOA/MTOA of OPTCL's intra-state network for drawal of power to 29 TSSs of Railway located in Odisha, OPTCL has filed one petition before the Commission on 26.10.2016 in the above matter. OPTCL has prayed therein inter alia to acknowledge ECoR as a "Deemed Distribution Licensee" and declare them as the fifth DISCOM. In the above premises, OPTCL in the present ARR application for FY 2019-20 has projected the demand of ECoR separately (as furnished by each DISCOM) as one LTOA Customer

b. Short Term Open Access Customers (STOA Customers)

Open access customers other than Long Term Customer(s) are classified as Short Term Customer(s). The maximum duration that a Short Term Customer can avail open access to the Intra-State Transmission is one year with condition to re-apply after expiry of the term.

Formulation and Computation of Transmission Charges:

12. The Commission has framed OERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2014 (hereinafter called "OERC Regulations, 2014) for determination of Intra-State Transmission Tariff which has been published in Extra Ordinary issue of the Odisha Gazette on 04.12.2014. The said Regulations are effective from 04.12.2014 and are to be followed by the Transmission Licensee while formulating its ARR and Transmission Tariff application.

OPTCL has formulated its present ARR & Transmission Tariff application for FY 2018-19 as per the provisions under OERC Regulations, 2014. Regulation 5 of the OERC Regulations, 2014 specifies the Procedure for Tariff Determination and

Regulation 8 specifies the Principles for Determination of ARR. As per the Regulation 8.1, the ARR for the Transmission Business for each year shall contain the following items:

(a) Operation and Maintenance expenses;

(b) Interest and Financial Charges;

(c) Depreciation;

(d) Return on Equity;

(e) Income Tax;

(f) Deposits from Transmission System Users;

(g) Less: Non-Tariff Income

(h) Less: Income from Other Business as specified in these Regulations

The various costs involved for carrying out transmission business by OPTCL for FY 2019-20 while formulating the ARR and Transmission Tariff have been categorized under the following heads:

I. Fixed Cost

1) Operation & Maintenance (O & M) Expenses

2) Interest and Financial Charges

3) Depreciation

4) Return on Equity

II. OTHERS:

1) Incentive for System Availability

DETAILS OF FIXED COST:

O&M Expenses:

13. Taking into account the proposed expenditure towards Employee Cost including Terminal Benefits, Administrative and General (A&G) Expenses, Repairs and Spares (R&M Expenses), GCC and CSR expenses, OPTCL has proposed sum of Rs. 571.24 Cr. under the head of O&M expenses for FY 2019-20.

Salaries, Wages, Pension Contribution and Other Employee Costs

14. OPTCL submitted that, presently (as on 01.11.2018) the no. of employees of OPTCL is 3038. A significant number of posts are lying vacant in different ranks affecting organizational performance. Therefore, it plans to fill the vacancies in a phased manner and has accordingly initiated the recruitment process. In the meantime some additional manpower has been inducted and more will be recruited in coming years.

15. The employee cost details include salaries, dearness allowance, other allowances, stipend, reimbursement of medical expenses, house rent, leave travel concession, honorarium, Ex-gratia and misc. expenses, staff welfare expenses, wage revision arrear etc.

16. OPTCL has proposed Rs. 421.99 Cr towards Employee Cost, Terminal Benefits and possible impact of 7th Pay Commission including that for FY 2019-20. The details are given below:

Table 1
Employee Cost Proposed by OPTCL for FY 2019-20 (Rs. Cr)

Employee cost including Salary, Dearness Allowance etc.	226.89
Terminal Benefit Liability of Employees and Existing Pensioners	172.96
7th Pay Commission Impact for Existing Employees (40%)	35.28
Less: Capitalization	13.14
Total	**421.99**

Administrative and General (A&G) Expenses

17. OPTCL has proposed Rs. 28.07 Cr towards A&G Expenses for FY 2019-20. The A&G Expenses include property related expenses, communication, professional charges, conveyance and travelling, SLDC charges, licensee fee and material related expenses.

Repair and Maintenance (R & M) Expenses

18. The R&M works of OPTCL are taken up in different streams namely O&M, Telecom, Civil Works and Information Technology (IT). The proposed R&M Expenses for FY 2019-20 is Rs.115.22 Cr , as shown in the Table below:

Table 2
Repairs and Maintenance Expenses for FY 2019-20 (Rs.Cr)

Particulars	OERC Approval (FY 2017-18)	OERC Approval (FY 2018-19)	Projection (FY 2019-20)
(i) O&M	**124.97**	**111.00**	102.63
(ii) Telecom			2.10
(iii) Civil Works			7.67
(iv) Information Technology			2.82
Total R & M Expenses			**Rs. 115.22 Cr.**

19. As on 01.04.2018, OPTCL owns 140 nos. grid sub-stations of different voltage classes and EHT transmission lines of 13,441.908 ckt. km. as shown in the Table below:

Table-3
Sub-station and line details of OPTCL

Sub-Station and Line Details		
400/220kV S/S	1	
400/220/132/33kV S/S	2	
220/132/33kV S/S	20	
220/33kV S/S	8	
220/132kV S/S	1	
132kV Sw. Stn.	20	
132/33kV S/S	85	
132/33/25kV S/S	1	
132/33/11kV S/S	2	
Total No. of Sub-Stations	**140**	
Voltage Level	**Lines (ckt. km.)**	**Bays**
400kV	1133.404	35
220kV	5922.812	310
132kV	6385.692	875
33kV		1033
25kV		2
11kV		18
TOTAL	**13,441.908**	**2273**

The status of the transmission assets of OPTCL as submitted in the performance review held during December 2018 is as follows:

Table-4

	As on 31.03.2018	As on 30.11.2018
No. of grid S/S	140	144
EHT Line ckt. KM	13441.908	13756.513
Transformation Capacity (MVA)	17461	18476

Expenses related to auxiliary energy consumption in the sub-stations

20. The auxiliary energy consumption in the sub-stations for the FY 2014-15, FY 2015-16, FY 2016-17, FY 2017-18 and FY 2018-19 (up to Sept-18) are 10.75 MU, 12.19 MU, 12.55 MU, 14.19 MU and 8.15 MU respectively. It is estimated that the auxiliary energy consumption for the FY 2019-20 will be about 20 MU. Based on the approved average BSP rate for the FY 2018-19 i.e. 276.66p/u, OPTCL proposes Rs. 5.53 Cr towards auxiliary energy consumption in the sub-stations.

Other miscellaneous expenses, statutory levies and taxes (except corporate income tax)

21. **Grid Coordination Committee (GCC) Expenses:** OPTCL proposes Rs. 0.43 Cr towards annual GCC Expenses for FY 2019-20 in line with the Chapter-11 (2)(1) of the Orissa Grid Code (OGC) Regulations 2006.

Interest and Financial Charges

Interest on Loan

22. OPTCL in its ARR application has proposed Rs.41.01 Cr. as interest on loan for FY 2019-20.

Interest on Working Capital

23. As per the Regulation 8.26 of OERC Regulations, 2014, the rate of interest for working capital shall be on normative basis and shall be equal to the SBI Base Rate plus 300 basis points as on 1st January of the preceding year for which tariff is determined: provided that in case of STU (OPTCL) the Commission shall determine the quantum of working capital if needed depending on the cash flow position of the licensee and shall allow interest on the same. OPTCL submitted that the Commission has not allowed interest on working capital on the ground that OPTCL has a revenue surplus i.e. the gap between revenue receipts and revenue payments.

In view of the above observations, OPTCL has not proposed any amount under the head interest on working capital. However, OPTCL has requested to allow the same in future years based on cash flow position of OPTCL.

Rebate

24. OPTCL projected 2% rebate amounting to Rs.17.23 Cr. which is calculated based on the projected ARR for the FY 2019-20.

New projects

25. OPTCL proposes to spend Rs.915.49 Cr. during FY 2019-20 towards Capital Expenditure (CAPEX) on new projects in different streams of activities like O&M, Telecom, IT, Construction and Civil Works and construction

Depreciation

26. The Gross Fixed Assets at the beginning of the FY 2019-20 is estimated as Rs.5981.02 Cr. (Rs.5376.12 Cr. as on 01.04.18 + Rs. 604.90 Cr. projected addition during FY 2018-19). For 2019-20, Depreciation is estimated as Rs. 186.03 Cr. which includes Rs.1.30 Cr. towards cost of premium/rent on leasehold land.

Return on Equity

27. At the time of de-merger of GRIDCO effective from 1.4.2005, the equity share capital of OPTCL was stated at Rs. 60.07 Cr. Through infusion of additional capital by the state government, the paid up equity capital of OPTCL has increased to Rs. 690.07 Cr as on 31.03.2018 as per the Audited Account. Government of Odisha has committed to provide funds of Rs. 250 Cr. as equity over the five year period FY 2017-18 to FY 2021-22 i.e. Rs. 50 Cr. annually. As per the Annual Plan Budget of Dept. of Energy, Govt. of Odisha for the FY 2018-19, budget provision of Rs. 45 Cr. has been made under the scheme Share Capital Investment in OPTCL which is likely to be received shortly. Besides, GoO has already released Rs.55 Cr. as equity capital under the Smart Grid Scheme. The total Equity as on 31.03.2019 will be Rs.790.07 Cr. Accordingly, OPTCL proposes Return on Equity (RoE) of Rs. 113.15 Cr. for FY 2019-20 @ 15.5% as per clause 8.28 of Regulations, 2014 on Rs. 730 Cr. (790.07-60.07) i.e. on opening balance of FY 2019-20.

Income tax

28. As per the Regulation 8.43 of OERC Regulations, 2014, Income tax of the Transmission Licensee shall be recovered from the beneficiaries. As per the Audited Accounts for the FY 2017-18, OPTCL has made provision of Rs.3.01 Cr as Income Tax. The same amount of Rs. 3.01Cr. has been proposed for FY 2019-20. However,

difference if any, as per the Regulation 8.43 and 8.44, shall be adjusted during the true up exercise based on audited accounts.

Transmission cost

29. Considering the proposed cost / expenses under different heads, the Transmission Cost of OPTCL for FY 2019-20 is worked out as Rs.931.67 Cr.

Other Costs & Receipts

Incentive for system availability:

30. The Regulation 6.4 of OERC Regulations, 2014 specifies the "Operational Norm" applicable for transmission system for recovery of full annual transmission charge by the Transmission Licensee. The Normative Annual Transmission System Availability Factor (NATAF) shall be 98.50% for AC system for recovery of full Annual Transmission Charges. OPTCL has filed the calculation of Transmission System Availability Factor (TAFY) for the year 2017-18 as 99.98%. The computation and the TAFY figure have been verified and certified by SLDC. In accordance with the formula prescribed in Regulation 6.5, OPTCL has worked out incentive of Rs. 9.60 Cr. towards system availability for the year 2017-18 using approved ARR figure of Rs. 639.40 Cr. for the said year. Hence, OPTCL proposes Rs. 9.60 Cr towards Incentive for System Availability to be allowed in the ARR for FY 2019-20.

Miscellaneous receipt:

31. OPTCL submitted that earnings from Supervision charges are drastically reduced as the applicant industries are less, hence during the balance period of FY 2018-19 the receipt from such charges would not be appreciable. In line with the trend of revenue earnings during FY 2018-19, OPTCL has proposed Rs. 80 Cr. for FY 2019-20 under the Miscellaneous Receipt from different sources.

SUMMARY OF ARR PROPOSED BY OPTCL FOR FY 2019-20

32. Considering all the proposed expenses and receipts as explained in foregoing paragraphs, OPTCL has filed its Aggregate Revenue Requirement of **Rs.861.27 Cr** for FY 2019-20 for approval of the Commission. Details are shown in the table below:

Table-5
Summary of Aggregate Revenue Requirement of OPTCL for FY 2019-20

ITEMS	**Proposal for OPTCL FY 2019-20**	
A) FIXED COST		
1. O&M Expenses		**571.24**
(i) Employees Cost including Terminal Benefits	421.99	
(ii) A&G Cost	28.07	
(iii) R&M Cost	115.22	
(iv) Expenses related to auxiliary energy consumption	5.53	
(v) Other misc. expenses, statutory levies and taxes (GCC)	0.43	
2. Interest & Financial Charges		**58.24**
(i) Interest on Loan Capital	41.01	
(ii) Interest on Working Capital	0.00	
(iii) Rebate	17.23	
3. Depreciation		**186.03**
4. Return on Equity		**113.15**
5. Income Tax		**3.01**
Sub-Total (A)		**931.67**
B) Others		
Incentive for system availability		**9.60**
Total Trans. Cost (A+B)		**941.27**
C) Less Misc. Receipts		**80.00**
D) ARR to be recovered from LTOA Customers i.e. **OPTCL's Aggregate Revenue Requirement**		**861.27**

Transmission loss

33. OPTCL submitted that the transmission loss is purely a technical loss and dependant on the location of generation sources, system configuration and power flow at different load centres. Further, the expected increase in power flow in its transmission network due to implementation of various Central & State sponsored projects will contribute to increase in the transmission loss. OPTCL has been able to reduce the transmission loss year over year by commissioning a number of new transmission projects and adopting innovative schemes under Master Maintenance Plan during last few years. The actual transmission loss in the OPTCL's transmission system from April'18 to September'18 is 3.29% against Commission's approval of 3.00% for FY 2018-19. OPTCL expects the loss level to remain around 3.30% in the current year. Accordingly, OPTCL proposes 3.25% transmission loss during FY 2019-20

OPTCL revenue receipt and deficit in the proposed ARR for FY 2019-20

34. OPTCL has projected the recent realistic demand projection of all four DISCOMs plus Railway totalling 27952 MU for FY 2019-20. OPTCL envisages 200MU energy

to be transacted in DISCOMs 33kV & 11kV network for which OPTCL is not entitled to receive any transmission charge as per Commission's order. Hence, total MU to be transmitted in OPTCL network gets reduced to 27752 MU (27952-200) from the total demand projection of DISCOMs and Railways.

During FY 2019-20, OPTCL will earn revenue from the LTOA Customers in the following manner:

i. By charging the rate applicable on DISCOMs and Railways for wheeling of 27752 MU.

ii. By charging the rate applicable on CGPs like IMFA & NALCO for supply of 10 MU Emergency Power & Back-up Power to their CGPs and load centres located at different places.

iii. By charging the rate applicable on other LTOA customer like IMFA & NALCO for wheeling of their surplus power of 600 MU from their CGPs to load centres located at different places.

The revenue to be earned by OPTCL from wheeling of 28362 MU (27752+600+10) at the existing transmission tariff of 25 P/U will be Rs. 709.05 Cr.

Excess/Deficit of Revenue Requirement:

35. OPTCL has projected revenue deficit of Rs.152.22 Cr. considering the ARR proposed and the revenue to be earned from wheeling of 28362 MU at the existing transmission tariff of 25 P/U.

Proposal for revision of Transmission Tariff/ Wheeling Charges

36. OPTCL submitted that as the same cannot be met from the existing transmission tariff of 25 P/U; Therefore OPTCL has requested the Commission for approval of :

1. Aggregate Revenue Requirement of Rs.861.27 Cr.
2. Recovery of Transmission Charge @ 30.37 P/U.
3. Transmission Loss for wheeling as 3.25% on energy drawl

Open Access Charges

37. Besides these Charges, the Open Access customers are also required to pay charges as determined by the Commission as per provisions under OERC (Determination of

Open Access Charges) Regulations 2006. OPTCL has proposed that the Open Access charges for FY 2019-20 as shown in table below.

Table-6
Open Access Charges Proposed by OPTCL for FY 2019-20

DETAILS	In Rs. Per Unit approach
Net Aggregate Revenue Requirement (Rs. Cr.)	**861.27**
Proposed Energy to be transmitted in OPTCL Network (MU)	**28362**
Proposed Transmission Tariff (P/U)	**30.37**
Power Flow (Equivalent of 28362 MU) in MWs	**3238**
Long term Open Access Charges in terms of Rs./MW/Day	**7287**
Short term Open Access Charges in terms of Rs./MW/Day	**1822**

Reactive energy charges

38. OPTCL had proposed in its ARR application 3 paise/KVArh for FY 2018-19 to be approved provisionally pending finalisation of the charges in the Case No. 50/2017. Since during FY 2019-20, there is no plan to install Capacitor Banks at any other grid S/S, OPTCL proposes that 3paise/KVARh may be approved provisionally as Reactive Energy Charges for FY 2019-20.

Rebate

39. On payment of monthly bill, the Open Access Customer shall be entitled to a rebate of 2% of the amount of the monthly bill (excluding arrears), if full payment is made within two working days (excluding holidays under N.I. Act) of the presentation of the bill and 1% of the amount if paid within 30 days of the presentation of the bill.

Delayed Payment Surcharge

40. The monthly charges as calculated above together with other charges and surcharge on account of delayed payments, if any, shall be payable within 30 days from the date of bill. If payment is not made within the said period of 30 days, delayed payment surcharge at the rate of 1.25% per month shall be levied pro-rata for the period of delay from the due date, i.e. from the 31st day of the bill, on the amount remaining unpaid (excluding arrears on account of delayed payment surcharge).

Duties and Taxes

41. The Electricity Duty levied by the Government of Odisha and any other statutory levy/ duty/ tax/ cess/ toll imposed under any law from time to time shall be charged over and above the tariff.

CAPEX for New Projects

42. In addition to this petition for approval of ARR, OPTCL has proposed to spend Rs.915.49 crore towards Capital Expenditure (CAPEX) on new projects in different streams of activities like O&M, Telecom, IT, Construction and Civil Works during FY 2019-20. The summary proposals of OPTCL for CAPEX are shown below.

Table-7
Projected CAPEX for FY 2019-20 as proposed by OPTCL

Particulars	Amount (Rs. Cr.)
(i) Telecom Wing	**56.97**
(ii) Existing Assets (O&M Wing)	**57.08**
(iii) Information Technology (IT Wing)	**14.00**
(iv) Civil Wing	**45.96**
(v) New Transmission Projects (Construction Wing)	**741.48**
Total Capital Expenditure [(i)+(ii)+(iii)+(iv)+(v)]	**Rs. 915.49 Cr.**

VIEWS OF CONSUMER COUNSEL, ON TRANSMISSION TARIFF PROPOSAL OF OPTCL FOR FY 2019-20 (PARA 43 TO 47)

43. The Licensee was allowed in the beginning of the hearing to give a power point presentation regarding its ARR and tariff application for the FY 2019-20. World Institute of Sustainable Energy (WISE), Pune appointed as Consumer Counsel put up queries and objections regarding ARR and tariff filing of OPTCL. The objectors also placed their views before the Commission.

Analysis of the Proposal by Consumer Counsel

44. WISE acting as Consumer Counsel had analysed the application of the licensee and important observations are presented below.

Annual Revenue Requirement

45. OPTCL has projected its revenue requirement for FY 2019-20 at about 30.51% more than that approved for FY 2018-19. In FY 2018-19, the total ARR was increased by 3.21% from approved ARR of FY 2017-18.

46. It includes the increase in Employee Cost (17.09%) R&M Cost (3.80%), A&G cost (6.16%), interest on loan capital (2.01%), depreciation (27.92%) and incentive (92.00%). The comparative figures of components of ARR are given in the table below.

Table-8

Comparative Annual Revenue Requirement of OPTCL (Rs. Crore)

Particulars	Approved FY 2017-18	Approved FY 2018-19	Proposed FY 2019-20	Increase % 17-18 vs 16-17	Increase % 18-19 vs 17-18	Increase % 19-20 vs 18-19
Employees Cost incl. Terminal Benefits	304.5	360.4	421.99	4.08%	18.36%	17.09%
A&G Cost	25.6	26.44	28.07	3.81%	3.28%	6.16%
R&M Cost	124.97	111	115.22	13.00%	-11.18%	3.80%
Expenses related to auxiliary energy consumption			5.53			
Other misc. expenses, statutory levies and taxes(GCC+ CSR)	0.99	1.14	0.43	1.02%	15.15%	-62.28%
Interest on Loan Capital	46.56	40.2	41.01	-21.14%	-13.66%	2.01%
Interest on Working Capital	0	0	0			
Rebate	12.8	13.2	17.23	2.40%	3.12%	30.53%
Depreciation	130.76	145.43	186.03	28.89%	11.22%	27.92%
Return on Equity Including Income Tax	70.15	73.91	113.15	13.09%	5.36%	53.09%
Incentive for system availability	5	5	9.6	0.00%	0.00%	92.00%
Total	**721.33**	**776.72**	**941.27**	**7.85%**	**7.68%**	**21.19%**
Less Misc. Receipts	81.94	116.77	80	79.89%	42.51%	-31.49%
ARR to be recovered from LTOA Customers i.e. OPTCL's Aggregate Revenue Requirement	639.4	659.95	861.27	2.59%	3.21%	30.51%
Transmission Charges (P/U)	25	25	30.37	0.00%	0.00%	21.48%

47. The significant increase in all expenses as mentioned above would impose excessive burden on the general consumers of the state, as this would be passed on to the ultimate users through GRIDCO and DISCOMs. Transmission loss should be fixed at

a reasonable level. Therefore, there is a need to review the following expenses for the benefit of the consumers:

Employee cost incl. terminal benefits and pension, R&M expenses, A&G expenses, Interest on new loan to be disbursed to OPTCL and old state govt. Loans, depreciation, RoE and Interest on working capital.

VIEWS OF OBJECTORS ON TRANSMISSION TARIFF APPLICATION OF OPTCL FOR FY 2019-20 (PARA 48 TO 88)

Transmission Loss

48. OPTCL has not yet identified the areas where loss is maximum, so as to formulate action plans for loss reduction. OPTCL should inform the methodology adopted to estimate the transmission loss for every year.

49. OPTCL should have under taken energy audit of lines and sub-stations to know the quantum of transmission loss in the system. Proposing the transmission loss arbitrarily without giving the breakup of the losses in different feeders and equipments of transmission system is not appropriate. The Standard of performance of OPTCL transmission system should be monitored by third party auditor to assess the actual performance. The transmission Loss may be capped at 3%, the objectors added.

50. As the load growth in last few years has not been substantial and a number of 132kV, 220 kV lines have been commissioned; OPTCL should have achieved transmission losses of 2.5% by now. Hence it is requested not to allow transmission losses more than 2.5% at least from this year onwards.

51. One of the objectors submitted that OPTCL is not planning for strengthening the transmission system to reduce the losses. The Commission may direct a proper study, through independent agency to determine actual transmission loss.

52. One of the objector stated that OPTCL should have achieved transmission loss of 2.5% by now as per commitments given to consumers.

53. OPTCL should have achieved transmission losses of 2.5% by now as per commitments given to consumer. Further many CGPs have been synchronized and distributing additional power in local area. Further a number of 132 kV, 220kV lines have been commissioned. Hence, the Commission is requested not to allow transmission losses more than 2.5% at least from this year onwards.

Human Resource Expenses/ Employee Cost

54. Some objectors proposed that OPTCL may submit the audited balance sheet, P/L Statement along with auditor report for FY 2018-19. Till then the commission may consider manpower cost of FY 2018-19 and approve it for FY 2019-20. They also proposed that the Commission may direct OPTCL to submit an action plan for recruiting the sanctioned strength of 4998.

55. Another objector submitted that the Commission may direct OPTCL to submit an action plan for recruiting the sanctioned strength and filling up the Director level posts.

56. They added that, while performance of OPTCL is poor because of inefficiency, it is not wise to go for new recruitments and hence proposal to add new manpower as well as expenditure on account of 7th pay commission may be rejected.

A&G expenses

57. One objector sought OPTCL to justify why they have always crossed the approved expenses without obtaining necessary consent from the Commission.

58. Another objector sought commission to take 4.64% escalation rate for computation of A&G for FY 2019-20 and reject the plea of 4.80% escalation

Interest on loan capital

59. Out of projected interest on loan capital only State Govt loan (Rs.0.26 crore) and Govt. of Odisha Bond (Rs.26 crore) may not be considered as interest on loan as per earlier tariff orders. Interest on new loan, during 2019-20 is anticipated and may be trued up as per audited accounts pertaining to that period. There is now significant reduction in Interest rates due to demonetization, hence Commission may consider lower interest on Loan Capital of OPTCL, and also OPTCL may switch loans to lower interest rates.

Depreciation

60. The huge increase in depreciation is due to artificial increase in capital base which is based on proposed expenditure to be made during year 2019-20. Objectors requested not to allow any capitalization unless the work is completed and commissioning has been declared.

61. Few objectors submitted that No depreciation should be calculated on the projected cost of Rs. 668.86 Crore to be spent in FY 2019-20. Depreciation cost for FY 2019-20 be approved accordingly.

R&M expenses

62. According to Regulation 8.15 and 8.16 of Transmission Tariff Regulations the R&M expenses would be allowed at the rate of 2.5% of Gross Fixed Assets. But from 2011-12 onwards the actual assets addition is much below than the projected. Hence it is submitted that projected assets should not be considered for computation, rather actual assets may be considered.

63. Objectors submitted that OPTCL is providing equipment of capital nature under R&M costs. The O&M expenses should, vide clause 8.2(c) of the OERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2014 include only the repairs and maintenance and not replacement of major equipments.

64. OPTCL should carry out 'Comprehensive Renovation' activities which will prevent sudden and total breakdown of the system. 'Comprehensive Renovations' refers to carrying out remaining life assessment of all equipments and replacement required for life extension.

O&M Expenses

65. Objectors submitted that OPTCL has to produce why funds allotted for O&M are not fully utilized.

Return on Equity

66. At present only Rs. 400 Crore equity has been received by OPTCL from state government till date. Hence RoE to be calculated on Rs.400 Crore @15.5% and accordingly may be approved accordingly by the Commission.

Incentive for System Availability

67. Transmission system availability should be fixed at minimum value of 99% above which OPTCL will be eligible for incentive instead of 98%. OPTCL has proposed to use incentive amount to increase motivation level of employees which is against last year's commission's direction. Further, as per The OERC (Terms & Conditions for Determination of Transmission Tariff) Regulations, 2014 this is not revenue required by OPTCL and hence may not be approved.

Miscellaneous receipt

68. Actual revenue earned from wheeling, STOA, STU charges is much lower than approved figure. OPTCL is requested to submit the details of further scrutiny and prudence check. Also OPTCL is requested to submit detail note on various projects implemented by its PMU, supervision charges (6%) payable by government and actual received.

Annual Revenue Requirement and Transmission Charges

69. One objector submitted that considering the energy to be handled as 32654 MU as approved by OERC in case of LTDF for the period FY 2015-16 to FY 2023-24 vide order dated 3.05.2016 and business plan submitted by OPTCL, approved by OERC vide order dated 30.07.2016 in case no. 05/2016, the transmission charges of 30.37 P/U should not be considered.

70. One objector submitted that ARR for FY 2018-19 was approved at Rs. 659.95 crore against proposed Rs. 990.65 Crore. The proposed tariff is very high and will adversely affect the RST resulting in huge burden on consumers. Hence, the ARR of OPTCL for FY 2019-20 be approved accordingly through a prudence check and based on submission made.

71. The Commission may critically examine the proposal of OPTCL and reduce Transmission Charges for FY 2019-20.

72. Another submission was that the Commission may allow the transmission charges of 20 P/U for FY 2019-20.

Open access charges

73. OPTCL has given the proposal to consider the LT transmission charges and ST transmission charges considering Net Proposed Transmission Cost (NPTC) which is erroneous; instead this may be corrected as Net Approved Transmission Cost as per OERC (Determination of Open Access Charges) Regulations 2006.

74. OPTCL's proposal to equate STOA and LTOA charges contravenes the Open Access regulations. In STOA the transmission availability is not guaranteed and same is allotted if there is margin available in system. Hence STOA charges should always be lower than LTOA.

Other Issues

75. Sum Objectors submitted that, application submitted by OPTCL are supported by falsified- facts/figures/data.

76. One of the objectors prayed that each year's truing up exercise and business plan approval should be carried out by the Commission through a process of public hearing.

77. The Commission may also crosscheck the annual rate of failure and burning out of DTRs and initiate proper investigation about purchase of substandard DTRs as deemed fit.

78. The Commission may direct OPTCL to give an undertaking through Affidavit that they would supply quality power at proper voltage to all the consumers of the State, which has not been supplied during FY 2018-19 and that all lines and substations are well equipped to give quality power supply and evacuate the entire state quota from IPPs and CGPs during FY 2019-20.

79. OPTCL to produce the status report of the list of overloaded lines and sub stations of the state and file an affidavit before the commission that all lines and substation are well equipped to give quality power supply and evacuate all state quota from the IPPs and CGPs during FY 2019-20.

80. OPTCL has to produce details of S/s being constructed and connected to the grid for better voltage.

81. OPTCL has to produce the status report about the joint venture companies formed by OPTCL to evacuate power inside the State of Odisha.

82. Unless sufficient reason exists, the inflation in cost due to delay should not be allowed.

83. OPTCL should produce the status report on the list of the overloaded lines in the substations of the state.

84. OPTCL to produce the details of expenditure in different schemes of Govt. of India/Govt. of Odisha for line and S/s development.

85. Tariff determination should be necessarily guided by the Electricity Act'2003 stating Multi-Year Tariff (MYT) Principles in addition to the other guidelines to give an element of certainty and thereby re-implement MYT principle that a mandate of ACT & Policies in determining tariff, charges, fees etc.

86. The Commission may pass transmission loss after auditing and due scrutiny instead of proposed high transmission loss @3.25%.

87. The Commission to initiate necessary actions to distinguish between Gross block of assets into grants and Non- grants assets to make electricity sustainable for the interest of the state.

88. The Commission to take necessary expeditious action to regulate the gross electricity units (kWh) being transmitted in the electricity infrastructure and give target to OPTCL for expediting the work of commissioning of new lines, improving efficiencies and ensuring the quality and reliability of supply of electricity.

REJOINDER BY OPTCL TO THE QUERY OF OBJECTORS (PARA 89 TO 168)

89. In response to the views of objectors on the ARR and Tariff Application of OPTCL for 2019-20, OPTCL had filed rejoinders for the same. The response of OPTCL has been broadly classified into the following issues.

Transmission Loss

90. The Table below indicates the transmission loss approved by the Commission for the last 10 years vis-à-vis actual transmission loss occurred in OPTCL's EHT network is given in the table below.

Table-9
Transmission loss in OPTCL network

Year	OERC Approval	Actual
2007-08	5.00%	4.82%
2008-09	4.50%	4.52%
2009-10	4.00%	4.11%
2010-11	4.00%	3.93%
2011-12	3.90%	3.88%
2012-13	3.80%	3.84%
2013-14	3.80%	3.79%
2014-15	3.75%	3.73%
2015-16	3.75%	3.67%
2016-17	3.70%	3.58%
2017-18	3.50%	3.34%

91. The detailed calculation of Transmission Loss of 3.34% for 2017-18 and 3.29% for the period April to September'18 (1st 6 months of FY 2018-19) in OERC approved format T-6 have been enclosed with the ARR application at pages 121-122 respectively. The transmission loss has been estimated on the basis of energy flow

data. Based on the present trend, OPTCL has proposed the Transmission Loss of 3.25% for the ensuing year 2019-20.

92. The transmission loss is purely a technical loss and is a function of real time injection of power by a number of generators, system configuration and power flow requirements at different load centres. Thus, OPTCL has no control over the same at any point of time. The transmission system of OPTCL operates as an integral part of the Eastern Regional Grid to serve the internal demand of the State as well as to carry out import and export of power depending upon the system demand. In view of the increasing demand for power at an accelerated pace due to ongoing industrialization and implementation of central & state sponsored schemes like DDUGJY, BGJY, BSVY, 24x7 Power For All etc. in Odisha, there will be increased flow of power in the OPTCL transmission network contributing to increased transmission loss.

93. Over the years OPTCL has been continuously undertaking construction of new lines & sub-stations, up-gradation of capacity of the existing system, installation of capacitor banks for strengthening of the transmission infrastructure with an objective of meeting the future demand, reliability as well as quality of power supply and reduction of transmission loss. As a result, the transmission loss is gradually reducing over the years as evident from the data on transmission loss shown in the above Table.

94. OPTCL would like to further submit that the transmission loss in OPTCL system is one of the lowest in the country compared to other transmission utilities.

95. OPTCL proposes **3.25%** transmission loss during FY 2019-20. Hence, OPTCL does not agree with the suggestion of the Objector to ensure transmission with loss < 3%.

Steps taken for Energy Audit

96. OPTCL has already installed 619 nos. 0.2s accuracy class, ABT Compliant Energy Meters at identified points to meet the requirement of Energy Auditing as well as Billing. Monthly data enables OPTCL to assess the individual transmission element wise losses (i.e. across Power Tfr., Auto Tfr. & EHT lines etc.). Sub-station wise energy flow calculations are carried out and accordingly remedial action is taken. However, discrepancies in respect of Metering Convention & Accuracy Class of Instrument Transformers are identified at certain locations and are being sorted out. By measuring the quantum of flow of energy in lines and substations, improvement in

the system is monitored on monthly basis with respect to previous baseline data acquisitioned.

Human Resource Expenses/ Employee Cost

97. OPTCL has projected Rs.421.99 Cr. as Employee Cost for FY 2019-20. The item-wise details of employee cost is furnished in Finance format F-10 (page-166) of the ARR application.

98. For FY 2019-20, OPTCL has claimed Rs. 35.28 Cr. towards 40% of 7^{th} Pay Commission arrear for existing employees. Apart from that, OPTCL has proposed the Dearness Allowance (DA) of 13% against approved 7% for FY 2018-19. With annual increment of the existing employees and induction of new employees, the corresponding expenditures related to the Basic Pay, DA, HRA etc. will increase proportionately. Therefore, the proposal of OPTCL is quite realistic and justified.

99. The recruitment plan of OPTCL upto 2018 has been approved by Govt. of Odisha. However, OPTCL has phased the recruitment and planned to fill the vacancies. The recruitment status of OPTCL in 2018-19 is given in the table below:

Table-10
Recruitment Status of OPTCL in FY 2018-19

Designation	No of Posts advertised	Posts filled up
MT-Electrical	100	99

The tentative recruitment plan of OPTCL for 2018-19 is submitted below:

Table-11
Tentative recruitment Plan of OPTCL for FY 2018-19

Sl. No.	Designations	No of Posts to be filled up
1	Jr. MT (Jr. Manager)	28
2	MT (Asst. Manager)	124
3	JMOT(EL)	151
4	JTTT (Telecom)	18
5	Office Asst. (Gr III) (Trainee)	13

100. However, the recruitment will be done as per the actual requirement and in a phased manner both in Executive and Non-Executive category.

101. OPTCL has already submitted the Audited Annual Accounts for FY 2017-18 along with the Statutory Auditors Report to the commission in its compliance to OERC queries.

A & G Expenses

102. The actual expenditure as per audited accounts is always higher than the OERC approved figures. The table, given below, indicates the A&G expenses for the last 8 years.

Table-12
A & G Expenses for last 8 years (Rs. Crore)

Year	OERC Approval	Actual (Audited)
2010-11	18.00	33.81
2011-12	18.00	20.81
2012-13	21.25	22.48
2013-14	22.39	146.17
2014-15	24.01	45.48
2015-16	24.37	39.82
2016-17	24.66	61.68
2017-18	25.60	57.35

103. This is due to the fact that year over year, new sub-stations and lines are added to the OPTCL network for which the field office establishment expenses increase.

104. The Commission allows A&G expenses considering an escalation (rate of inflation as measured by WPI) over the approved amount of previous year. This is not adequate.

105. The projection towards A&G expenses includes communication, professional charges, conveyance, travelling, License Fees, Watch and Ward expenses etc. As per audited accounts for FY 2017-18, the details of A&G expenses are as under:

Table-13
Details of A&G Expenses (Audited Accounts FY 2017-18)

Sl. No.	A&G & Other Expenses	Rs. Cr.
1	Power and fuel consumed	1.75
2	Hire charges on vehicle	7.96
3	Legal and professional fees	1.89
4	Rent	2.00
5	Watch and ward expenses	2.62
6	License and other fees	1.94
7	Rates and taxes	0.10
8	Insurance charges	0.03
9	Fees and subscription	0.11
10	Advertisement for tenders	0.53
11	Corporate social responsibility expenses	0.55
12	Impairment loss recognised on non-financial assets	6.49
13	Impairment loss recognised on financial assets	2.62
14	Impairment loss recognised on PPE	2.97
15	Net loss on theft of material and others	2.20

Sl. No.	A&G & Other Expenses	Rs. Cr.
16	Travelling expenses	2.55
17	Communication expenses	0.75
18	Office maintenance charges	1.07
19	Rebate to consumers	11.84
20	Writing off of Receivable /Advances	0.98
21	Auditors remuneration and out-of-pocket ex.	0.12
22	Other General expenses	6.28
Total		**57.35**

106. OPTCL has proposed the A&G Cost for FY 2019-20 as Rs.30.72 Cr. excluding rebate and other provisions [(F-12), page 168 of ARR application]. However, OPTCL has claimed Rs.28.07 Cr. based on Regulation 8.14 of OERC Transmission Tariff Regulations, 2014 and principle adopted by the Commission in earlier years ARR orders.

Interest on Loan Capital

107. The projection towards interest on loan capital is very much realistic as it is based on facts and evidential documents that need full consideration.

108. The loans proposed to be availed from Bank of India, Union Bank of India & JICA are in respect of various projects which have been approved by the Commission.

109. Accordingly, an amount of Rs. 855.73 Cr. has been proposed as CAPEX for FY 2019-20. For financing the above CAPEX and loan already availed, OPTCL proposes Rs.41.01 Cr. towards interest on loan capital for FY 2019-20 based on Regulation 8.24 of OERC Transmission Tariff Regulations, 2014.

110. The interest rate of the bank is computed based on Marginal Cost of fund based Lending Rate (MCLR) as per the RBI guidelines.

111. The interest rate on REC and PFC loan has been furnished in page 169 to 171 of the ARR application. As the difference between loan with higher interest and loan with lower interest is not substantial, the switching over option is not viable at present due to pre-exit clause as per the loan agreement with REC and PFC; where OPTCL has to pay Prepayment Premium @2.50%, Loss of Tax benefit u/s 36(1)(viii) of the I T Act, GST @18% etc.

112. In view of the above, OPTCL does not agree with the views of the objector and request the commission to allow Rs.41.01 Cr. as interest on loan capital .

Depreciation

113. The Commission has approved depreciation of Rs. 145.43 Cr. for FY 2018-19 as per the rate prescribed in the OERC Transmission Tariff Regulations, 2014. For FY 2019-20, OPTCL has projected depreciation of Rs.186.03 Cr. based on the audited accounts for FY 2017-18 considering the depreciation rate as prescribed under Tariff Regulations, 2014 and projected additions thereto during FY 2018-19. OPTCL does not agree with the contention of the objector that the projected depreciation is high due to artificial increase of capital base. Further, no depreciation has been claimed on any capital assets unless it is completed and put in use.

114. In view of the above, the Commission is requested to allow Rs.186.03 Cr. towards Depreciation as proposed by OPTCL.

Repair and Maintenance (R&M) Expenditure

115. OPTCL intends to keep its transmission system available to the highest possible % of time in a year by undertaking preventive and proper maintenance of its lines and grid sub-stations for which Rs. 115.22 Cr. is proposed towards R&M expenses during FY 2019-20.

116. OPTCL in its ARR application (page 11-16) has submitted in detail regarding R&M expenses to be undertaken in different streams of activities. The details of procurement of materials / expenditure incurred towards R&M works in respect of different streams already carried out during April to Nov-2018 have been submitted to the Commission in compliance with Commission's Query No.3.

117. Year wise OERC approval and actual expenditure towards R&M for the period from 2013-14 to 2018-19 (up to Nov'18) are given in the Table below. The actual figures are as per audited accounts up to FY 2017-18. For FY 2018-19 (up to Nov'18), the figures are based on cash flow statement. In FY 2018-19 (till Nov' 18), OPTCL has already incurred more expenditure compared to the approved amount of Rs.111.00 Cr.

Table-14
R&M expense of OPTCL (approved and actual)

Financial Year	OERC Approved (Rs. Cr.)	Actual (Rs. Cr.)
2013-14	60.00	70.20
2014-15	93.00	100.31
2015-16	108.00	113.35
2016-17	110.59	149.53
2017-18	124.97	137.83
2018-19 (Apr-Nov'18)	111.00	115.00 (prov.)

118. From the above it is observed that OPTCL has been effectively utilizing the R&M amounts approved by OERC. Hence the concern raised by the Objector is not appropriate.

119. As per Regulation 8.15 of the OERC Transmission Tariff Regulations, 2014, R&M Expenses would be 2.50% of Gross Fixed Assets. The said Regulation 8.15 doesn't specify anything about the interpretation of the Objector that assets added from "2011-12 onwards" are to be considered for calculation of 2.50%. However, this Regulation does not apply to OPTCL.

120. For OPTCL Regulation 8.16 is applicable. This Regulation is reproduced below: "In case of STU (OPTCL), the Commission shall allow R&M expenses basing on past trend and requirement of the licensee in this regard after prudence check". It is reiterated that no depreciation or R&M Cost have been claimed on any capital assets unless it is completed and put in to use.

121. Hence, the projection towards R&M expenses is very much realistic as it is based on facts and evidential documents that need full consideration.

122. On the basis of present load flow profile, years of service and requirement of capacity enhancement in view of future load growth as well as n-1 contingency, OPTCL has planned for comprehensive renovation of identified lines with uprating of conventional ACSR conductors to HTLS conductors, which involve substantial cost. These projects have been proposed by OPTCL as Capital Works. Similarly, the proposals under 'Conversion of existing SC lines to DC lines' scheme are also proposed under Capital Works category.

For EHT Lines

- Anti-corrosive Painting/Recouping of towers and replacement of missing tower members
- Repair/Replacement of vibration dampers, repair sleeves, armour rods, mid-span joint, conductors, double jumpering of towers, PG clamps, checking of nuts and bolts etc. during annual maintenance work
- Strengthening of earthing system
- Disc Insulator replacement by Long Rod Insulators
- Conversion of SC lines to DC lines for load sharing

For sub-station equipment

- Earth resistance measurement and renewal of earthing system wherever necessary
- Condition monitoring of equipment such as tan delta measurement, thermo-vision scanning, anti-corrosive painting of sub-station equipment at sub-stations in coastal areas
- Protection system study by engaging outside agency like CPRI
- Painting of transformers, structures, Red/Yellow/Blue painting of equipment
- Conversion of traditional isolators to motorized ones
- Sub-station bus bar conversion from single bus to twin bus
- Periodical check-up and routine maintenance of sub-stations

123. As regards Comprehensive Renovation of Grid Substations, OPTCL has envisaged ‘Conversion of AIS (Air Insulated Substation) to GIS (Gas Insulated Substation)’ for certain old, but important Grid Substations. The GIS Substations are planned to be constructed in separate sites within same premises with phase wise transfer of loads within minimum shutdown schedules. These GIS projects will be proposed under the Capex Plan in view of substantial cost involvement.

124. Further, proposals like augmentation of installed capacity at existing sub-stations through procurement of new transformers, addition of bays against the requisitions of DISCOMs are also covered under the Capex Plan as assets are to be added in the transmission system through implementation of these schemes.

125. As the cost involvement for the sub-station specific requirement of equipment is not substantial, the same is proposed under the R&M Plan.

126. To ensure quality as well as competitive price for these sophisticated equipment, OPTCL takes the bulk procurement action against the consolidated requirement of the total system and executes installation of the same at different grid sub-stations through separate contracts in order to avoid delay.

Return on Equity (RoE)

127. As on date, OPTCL has received Rs. 730.00 Cr. from Govt. of Odisha towards Equity Share Capital. The details regarding the dates of receipt and sanction orders of the State Govt. up to the date 24.05.2018 are mentioned in the ARR application.

128. The copies of the sanction orders towards subsequent infusion amounting to Rs.45 Cr. have been furnished at Annexure-7 in compliance with the The Commission's Query No.16 (page 76-86). The projection of Rs.113.15 Cr. (@15.50% post-tax) towards RoE is based on Regulation 8.29 of OERC Transmission Tariff Regulations, 2014. Hence, the projection towards RoE is very much realistic which needs full consideration.

129. It is further submitted that the The Commission had allowed Rs. 62.00 Cr. towards RoE @ 15.5% on the equity base of Rs. 400 Cr. in the ARR for FY 2017-18. OPTCL doesn't agree with the contention of the Objector to calculate the RoE on Rs.400 Cr.

Incentive for System Availability

130. OPTCL has proposed an amount of Rs. 9.60 Cr. towards incentive for system availability following Regulation 6.5 of OERC Transmission Tariff Regulations, 2014. The Commission may consider OPTCL's proposal in this regard. The details of expenditure made by OPTCL towards R&M works in respect of O&M Wing during FY 2018-19 (04/18 to 12/18) have already been furnished in the compliance to OERC queries against Query No. 3 (page 8-9) which includes the incentive amount approved by the Commission.

131. OPTCL does not agree with the suggestion of the Objector as this is contrary to the provisions of OERC Regulations.

Miscellaneous Receipts

132. The income from sale of tender paper is not considered as income but utilized against the cost of advertisement for the respective tender. Hence, it is not directly attributable to income.

133. OPTCL could have generated more revenue towards transmission charges on account of STOA and Power Trading through Energy Exchange if the STOA and LTOA rates would have been equal. The higher revenue thus earned could have benefited the consumers of Odisha. The current projection towards Misc. Income is in line with the

present trend and existing rates. However, if there is any surplus/deficit, the same would be considered in truing up exercise.

134. OPTCL is implementing no. of projects for both Transmission and Distribution sectors like ODSSP, ODAFF, SCRIPS, DRPS, RRCP, SMART GRID, DRC, DDUGJY, IPDS, GPS Survey etc. with financial assistance from the State Govt. as well as Central Govt. It may be noted that ODRPS, DHQ are not being executed by OPTCL. Odisha Power Sector Improvement Project is not funded by JICA or by Govt. GoO has agreed to provide 6% Project Management Cost (PMC) in case of ODSSP scheme and 2.5% in case of ODAFF.

135. OPTCL has to incur cost on setting up the project office, manpower, contingencies and project related administrative expenses as well as fees payable to Project Management Consultants from this PMC. Hence, PMC is not the same as Supervision Charges. There are no PMC on the other State Govt. sponsored schemes. Similarly, Central Govt. will provide 0.5% as PMC for implementation of IPDS and DDUGJY schemes only. It is estimated that this amount will be insufficient. However, State Govt. has agreed to provide the extra amount beyond 0.5%.

136. Therefore, the assumption of huge amount receivable from State Govt. @ 6% of the Project Cost under Misc. Income is not tenable. In view of reducing revenue trend from Supervision Charges and uncertainty involved in revenue generation from other sources as well, OPTCL expects the Misc. Receipts of Rs.80.00 Cr. during FY 2019-20.

Aggregate Revenue Requirement

137. The projections made by OPTCL as per the OERC Transmission Tariff Regulations, 2014 are very much realistic which need full consideration.

Transmission Charges

138. The proposed transmission tariff 30.37 p/u is derived considering the energy demand projection of DISCOMs and the ARR figure arrived by OPTCL justifying component wise projection as per OERC Transmission Tariff Regulations, 2014.

139. The total energy to be handled in OPTCL network during FY 2019-20 was 32654MU as per approved LTDF (OERC order dated 03.05.2016 in Case No. 32/2015) and Business Plan order dated 30.07.2016 in Case No. 05/2016. Subsequent to the said

orders, OPTCL filed the LTDF application for the period FY 2017-18 to FY 2026-27 on 30.06.2018 (Case No. 41/2017) and meanwhile the Commission has disposed of the above case vide order dated 15.01.2019 in which the Commission has approved 27020MU as the demand of all DISCOMs during FY 2019-20.

140. OPTCL filed the ARR application for FY 2019-20 on 30.11.2018 considering DISCOMs demand of 27952MU as per realistic energy demand projections made by the DISCOMs at that time. Hence, OPTCL does not agree with the views of the Objector.

Open Access & Charges

141. In the Table-25 (page 37 of ARR application), the derivation for LT and ST Open Access charges have been done assuming the proposed numbers. The Commission may determine those charges based on approved figures.

142. OPTCL submitted in the present ARR application (page 37) regarding filing of an application by OPTCL before the The Commission on 27.11.2017 for amendment of existing OERC Open Access Regulations, 2005 and 2006 by introducing MTOA, fixing higher transmission charges for STOA and MTOA customers than LTOA customers and making these Regulations compatible with CERC Connectivity & Open Access Regulations.

143. The Commission would take up the said application in due course and the present Objector may put forth its views then. In the present ARR application, the Open Access charges have been proposed by OPTCL as per the existing Open Access Regulations only.

144. As per the Clause 2.2.3(i) of the Guideline & Procedure for reservation of Transmission / Distribution Capacity for Short Term Open Access Customers, while processing the applications, SLDC shall seek the consent of each of the DISCOM / STU involved in the transaction where required in “FORMAT-2", specified in the above said procedure.

145. Accordingly, SLDC seeks technical clearance from the STU i.e. OPTCL in approved format. OPTCL issues technical clearance after due examination of the application. Hence, there is absolutely no delay on the part of OPTCL in issuing technical clearance for open access transaction.

Reactive energy charges

146. As per Regulation 4 (5) (i) under Chapter-II (CHARGES FOR OPEN ACCESS) of the Regulations 2006, the Commission shall separately determine charges for KVArh consumption from the grid in terms of paise /unit and the Open Access Customers shall pay the same.

147. In compliance with the direction of the Commission's order dated 23.03.2017 passed in Case No. 64/2016 (ARR order for FY 2017-18), OPTCL has filed its application before the Commission registered as Case No. 50/2017 for determination of Reactive Energy Charges for FY 2016-17 and FY 2017-18. For FY 2018-19 & FY 2019-20, OPTCL proposed the same Reactive Energy Charges as proposed earlier to be approved provisionally in its respective ARR applications. The details are submitted in page-38 of the present ARR application for FY 2019-20.

148. Hence rejection of the proposal of OPTCL with regard to Reactive Energy Charges as suggested by the Objector is not just and proper.

Other Issues

Minimum & Maximum Voltage levels

149. The power flow in the OPTCL network is dependent on diversified geographical conditions, load trajectory, different generation scenarios and unpredictable renewable generations, transients due to varying industrial loads and harmonic injections by traction loads throughout the year. The minimum/maximum voltages shown against the sub-stations do not indicate the general voltage profile relating to those sub-stations. Those are the instantaneous value occurring once in a year due to above stated reasons.

150. However, installation of reactors at 400kV Bus of Meramundali, Mendhasal and New Duburi sub-stations is under progress. OPTCL has already commissioned 275 MVAr 33kV capacitor banks in 20 sub-stations to balance VAR injection affecting the system voltage. Further, upgradation of Single Circuit (S/C) line to Double Circuit (D/C) line and re-conductoring /uprating of old lines are being undertaken and OLTC operation of transformers is carried out during peak and off-peak hours to regulate system voltage as per requirement.

151. OPTCL is planning and implementing substantial number of projects under the categories outlined below to strengthen its transmission system for ensuring quality,

adequacy & reliability of power supply in the State. 92 nos. of new transmission projects (lines & sub-stations) were approved in the 12th Plan period (2012-13 to 2016-17) & part of 13th Plan period (2017-18 to 2018-19).

152. "Conversion of S/C Lines to D/C Lines'' and "Conversion of Radial System to Ring System" for redundancy in the supply system as well as for meeting the future load growth.

153. Augmentation of Installed Capacity at existing sub-stations keeping in view the additional load requirement projected for different years. The augmentation plan is inclusive of the n-1 & n-2 contingency conditions. In FY 2017-18, 489 MVA transformation capacity has been added at 13 sub-stations. Similarly, in FY 2018-19 till date, 552.5 MVA has been added at 13 sub-stations.

154. Uprating of conductors in the stressed EHT lines from conventional ACSR to state-of-the-art HTLS (High Temperature Low Sag) conductor.

155. Installation of 33kV Capacitor Banks for improvement of voltage profile at identified sub-stations. Till date, 275MVAr has been added at 20 sub-stations.

156. The Transmission System Availability figures attained by OPTCL over the last five years are: 99.89% (2012-13), 99.96% (2013-14), 99.95% (2014-15), 99.96% (2015-16), 99.97% (2016-17) and 99.98% (2017-18). The Commission has acknowledged this achievement of OPTCL.

157. OPTCL is continuously monitoring the load growth and accordingly planning its Transmission System. In order to improve system availability, quality of power and reliability, measures are taken for new/augmentation of lines and substations.

158. OPTCL raises transmission charge bills on long-term customers (DISCOMs, NALCO & IMFA) at the per unit rate approved by the Commission by transmitting/wheeling power from the generating stations including CGPs and state share of power from IPPs to load centres/destination of use by long-term customers. Hence, revenue earned by OPTCL from exclusive use of above lines cannot be ascertained.

159. OPTCL submitted a perspective Transmission Plan till the end of 12th Plan period (up to FY 2016-17) and got the Commission's approval vide Case No.79/2012. The Commission vide order dated 30.07.2016 in Case No. 05/2016 has approved the 5-year revised Business Plan of OPTCL (FY 2014-15 to FY 2018-19). The updated

Transmission Plan for the said 5-year period is embedded in the Revised Business Plan. Further, OPTCL filed an application before the Commission (Case No. 18/2017) seeking approval to the balance period of 13^{th} Plan (FY 2019-20 to FY 2021-22) and the Commission has concluded the process of hearing the above application. Order is awaited. This has been done taking into account the perspective Transmission Plan developed by CEA.

160. The perspective transmission plan up to FY 2018-19 has already been approved by the Commission and approval of the transmission plan for the balance period of 13^{th} plan (FY 2019-20 to FY 2021-22) is awaited. In these perspective transmission plans, the action plan for drawal of Odisha share as well as the evacuation of surplus power from IPPs have been taken care of.

161. As per decision of the State Govt., two Joint Venture Companies (JV) namely M/s Kalinga Bidyut Prasaran Nigam Pvt. Ltd. (KBPNL- promoted by OPTCL & POWERGRID) & M/s. Neelachal Power Transmission Company Pvt. Ltd. (NPTCL- promoted by OPTCL & MCL) were formed for implementing intra-state transmission system in the state of Odisha. Both these Joint Venture Companies could not start any commercial operation as they have not obtained the Intra-State transmission Licence from OERC. Now both the JV Companies are under winding-up process.

162. OPTCL has managed to extend alternative power supply during interruptions, even though some of them are attributed to the faults occurring in the HT / EHT systems owned by other utilities connected with OPTCL system. Substantial steps have been taken to minimise interruptions in the transmission system. Substantial tangible steps have been taken by OPTCL to address issues of line constraints.

163. Work has been completed for conversion of S/C Lines D/C Lines for 132kV New Bolangir-Patnagarh ckt. and 132kV Jajpur Road-Anandpur ckt., which has improved the loading capacity. Work has been in progress for conversion of S/C Lines to D/C Lines for 132kV Akhusingh-Paralakhemundi ckt., 132kV New Bolangir-Sonepur ckt. & 132kV Paradeep-Jagatsinghpur which can further improves the loading capacity.

164. 400kV Meramundali-IBTPS line has been energised, 400kV Meramundali-Lapanga line has been energised, 400kV Meramundali-New Duburi DC line has been energised, 220kV Atri-Pandiabil and Pandiabil-Samagara lines have been energised.

165. A number of schemes like "Conversion of Radial to Ring System", "Conversion of S/C Lines to D/C", "Uprating of Conductors" etc. have been planned by OPTCL for enhancement of capacity as well as reliability of the transmission system.

166. The contention of the objector that the audited data of OPTCL for the FY 2016-17 excludes the revenue component of SLDC and unaccountable in the financial statement is purely imaginary and unjustified. Commission has directed that the entire balance amount approved in SLDC's ARR and remaining unspent shall be transferred and deposited in the "SLDC Development Fund". Accordingly, any surplus derived from the SLDC operation has been transferred to SLDC Development Fund.

Delay in Project Execution

167. The main reasons of delay in completion of few projects (Sub-station & line work) are mentioned below:

- The ongoing and the newly awarded projects are executed with a particular scheduled completion period varying from 24 to 36 months from the date of award of the contract.
- The scheduled completion period in respect of a project is fixed based on the length of the associated line with the proposed sub-station.
- Delay in completion of the associated line work is attributed to delay in completion of the entire project awarded on turnkey basis.
- Delay in obtaining advance possession of sub-station land also is one of the primary causes for delay in the completion of project. Some allotted land is being cancelled due to implementation of new law for verification of land records (forest land) in HAL & SABIK.
- Acute RoW problems are encountered during construction of the line.
- Non-availability of clear corridor for construction of the line due to gap between survey and execution requiring change in route alignment during execution.
- Court cases filed by the land owners at different locations of the line during construction and status-quo maintained on the disputed land by the Court.
- Delay in getting statutory clearances such as forest clearance etc.

168. Due to the above reasons, although the sub-station work is completed in all respect within the schedule period, commissioning of the sub-station in all respect gets delayed due to delay in completion of the line work. Further, projects are taken up as per the transmission plan and business plan of OPTCL approved by the Commission which creates a gap between work-in-progress and completion, ultimately leading to inflation in cost. Nevertheless, OPTCL with its experience & expertise in project management and contract not only handles a large number of projects under different schemes but also always monitors and aims to complete within the time schedule to avoid time and cost over-run.

OBSERVATION OF THE STATE ADVISORY COMMITTEE (SAC) (PARA 169)

169. The Commission convened the State Advisory Committee (SAC) meeting on 20.02.2019 at 3.00 PM at OERC. The Members of SAC deliberated on different issues related to power sector and the Annual Revenue Requirement of various licensees. Some members pointed that the proposal of increase of transmission tariff by about 21% is primarily due to the increase in employee cost including terminal benefits, depreciation, RoE etc. There should not be any increase in transmission tariff, if the reduction in loss is factored in the ARR proposed for FY 2019-20 by OPTCL. Further, the State Transmission System should be capable enough to draw the State share from IPP's and for seamless integration of solar and wind generators coming up in the state. There should be adequate investment in technology, training etc. in SLDC, since the return on investment in SLDC is guaranteed in the coming years. In response to that OPTCL submitted that the improvement in system operation and loss reduction measures have been undertaken by implementing the emerging technologies like Sub-station Automation System, digitization of grids by using Bay Control Units, Protection system improvement using bus-bar protection & event logger, up-rating of conductors from ACSR to HTLS etc. Everything is mapped and all operational actions are being taken in a co-ordinated and efficient manner by OPTCL.

VIEWS OF GOVT. OF ODISHA ON TARIFF ISSUES (PARA 170)

170. Govt. of Odisha communicated its views on the issues involving Transmission Tariff for the year 2019-20 vide their letter No. 2283 dated 12.03.2019 which is stated as follows:

Keeping in abeyance of Up-Valuation of assets:

Regarding the issue of up-valuation of assets pertaining to OPTCL, Generators and other licensees, the Government for the time being agrees with the views of the Commission to keep in abeyance the up-valuation of assets like previous years. Considering the prevailing situation, the Govt. agrees to extend the status-quo on up-valuation till FY 2019-20.

Further, the State Govt. has submitted that the projects like Radial to Ring Conversion Project (RRCP) to reduce interruption, Disaster Resilient Power System (DRPS) to protect transmission & Distribution infrastructure from natural disaster, technology like Supervisory Control and Data Acquisition (SCADA) for system automation and use of optical fibre composite overhead ground wire in place of earth wire for better network communication have been implemented for the benefit of the people.

COMMISSION'S VIEWS AND ORDER (PARA 171 TO 256)

171. The Commission had notified OERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2014. As per the said Regulation, the controllable and non-controllable costs have been defined under Regulation 6.3 which is valid till 31st March, 2019. Now, in exercise of power conferred under Regulation 9.1 of above Transmission Regulation, 2014 the Commission extend the same until further order.

172. Therefore, the Commission while approving ARR and transmission tariff of OPTCL for the FY 2019-20, shall be guided by the principles as laid down in OERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2014 and also shall be guided by the provisions of the Tariff Policy as well as other Statutory Notifications and Directives with due consideration of State specific need of Odisha.

173. OPTCL has inherited a transmission network from GRIDCO on as is where is basis. Continuous up-gradation and regular repair & maintenance are required to keep the network in a safe and operational condition and to meet the growing requirements of DISCOMs' demand as well as to fulfil the expectation of the Commission and consumer on quality of supply, performance standards and availability of transmission network. In view of this, the Commission, over the past several years, has been approving a significant amount of Capital Investment proposals for installation of New Grid substations for availability of adequate Transmission network and is also

allowing significant amount of R&M expenses for encouraging the Licensee to undertake regular and adequate maintenance.

174. The tariff policy notified by the Ministry of Power on dated 28.01.2016 stipulates that in transmission the following objectives should be achieved:

(i) Ensuring optimal development of the transmission network ahead of generation with adequate margin for reliability and to promote efficient utilization of generation and transmission assets in the country;

(ii) Attracting the required investments in the transmission sector and providing adequate returns.

175. Para 7.2(2) of Tariff Policy states that it is desirable to move to a system of loss compensation based on incremental losses as present deficiencies in transmission capacities are to overcome through network expansion. Necessary studies are to be conducted to establish the allowable level of system loss for the network configuration and the capital expenditure required to augment the transmission system and reduce system losses. Since additional flows above a level of line loading lead to significantly higher losses, CTU/STU should ensure upgradation of transmission systems to avoid the situations of overloading.

176. Further, Para 7.3(1) of Tariff Policy states that the financial incentives and disincentives should be implemented for the CTU and the STU around the Key Performance Indicators (KPI) for these organizations. Such KPIs would include efficient Network Construction, System Availability and Loss Reduction. All available information, particularly information on available transmission capacity and load flow studies should be shared with intending users by the CTU/STU and the load dispatch centres.

Computation of Transmission Loss for FY 2019-20

177. The transmission system of OPTCL operates as an integral part of the Eastern Regional Grid to serve the internal demand of the State as well as carry out import and export of power depending upon the system demand under the overall supervision of the Eastern Regional Load Dispatch Centre in accordance with the GRIDCODE. Transmission loss, therefore, has been determined on the basis of principle of 'As the System Operates'.

178. OPTCL submitted that the transmission loss is purely a technical loss and dependent upon the location of generation sources, system configuration and power flow requirements at different load centres. Further, in view of the increasing demand for power due to ongoing industrialisation and implementation of central and state sponsored schemes like RGGVY, DDUGJY, BGJY, 24X7 Power For All, IPDS etc. in Odisha, there will be increase in the flow of power in the OPTCL transmission network contributing to increased transmission loss. Over the year, OPTCL has been able to reduce the transmission loss by commissioning a number of new transmission projects and adopting innovative schemes under Master Maintenance Plan. The actual transmission loss in the OPTCL's transmission system from April'18 to September'18 is 3.29% against Commission's approval of 3.00% for FY 2018-19. In view of this trend of transmission loss level, OPTCL expects the loss level to remain around 3.30% in the current year. Accordingly, OPTCL has proposed 3.25% transmission loss during FY 2019-20.

179. The approved and actual transmission loss for the year 2012-13 to 2018-19 is furnished in the table below:

Table–15

FY	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Approved (%)	3.80	3.80	3.75	3.75	3.70	3.50	3.00
Actual audited (%)	3.84	3.79	3.73	3.67	3.58	3.34	3.29 (Provisional for April 18 to Sept 19)

180. Some objectors have suggested for identification of maximum loss prone areas and conduct energy audit to know the quantum of loss in the system. Some objectors suggested that OPTCL should inform the methodology adopted for estimation of transmission loss and formulate action plan for loss reduction. Further, in the meantime, a lot of investment has been made by OPTCL for installation of many new Grid substations and up-rating/up-gradation of lines/substations, so the transmission loss of its intra state system should have reduced. We agree with the views of Objectors that in the mean time OPTCL has installed number of new Grid Substations and has undertaken up gradation of lines and Substations. OPTCL has also undertaken various loss reduction measures by implementing the Substation Automation System, digitisation of Grids by using Bay control units, uprating of conductors from ACSR to

HTLS, etc. Further, the Commission in its Business plan order vide case No. 05/2016 dated 30.07.2016 had approved the Transmission loss as 3.00% during the year 2018-19 basing on submission of OPTCL. Therefore, the increase in transmission loss due to increase in the flow of power in the OPTCL transmission network is not acceptable. Further, OPTCL has not yet filed its Business Plan for the next control period beginning from FY 2019-20 as mandated under OERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2014.

181. It is observed that OPTCL has not achieved the loss target approved by the Commission FY 2018-19. OPTCL in its submission has submitted that the approved loss level could not be achieved due to ongoing industrialisation and implementation of Central & State sponsored schemes like RGGVY, DDUGJY, BGJY, 24X7 Power For All, IPDS etc. in Odisha. In view of the above the Commission consider the submission of objectors as well as OPTCL and approves 3.00% as transmission loss for FY 2019-20 which is same as that of FY 2018-19. Further, the Commission directs that OPTCL should continuously monitor the operation of the transmission system, prevent overloading wherever possible by suitable measures and take up innovative action for improving system loading of the existing network. Effort should be made by OPTCL to reduce the loss further.

Execution of Projects

182. Objectors have submitted that OPTCL should have full control over its transmission system to meet the power flow requirement of the State. Further, substations of OPTCL should be well equipped to give quality power supply and evacuate the entire state quota from IPPs and CGPs. OPTCL is not completing the projects approved by the Commission within the approved time frame, some being inordinately delayed due to poor monitoring mechanism and absence of accountability in OPTCL. They mentioned that the strategy of OPTCL in execution of Projects is not synchronised with downstream network expansion of the State. In some cases downstream infrastructure of DISCOMs is not ready to receive power from OPTCL network. The Commission directs OPTCL to co-ordinate with DISCOMs for evacuation of power from new/augmented grid s/s and to build their own downstream distribution lines. Prior discussion with the DISCOMs is required before submission of transmission project for approval of OERC to avoid idle investments being made due to non-

completion of inter-linking transmission/ distribution lines/networks and consequent tariff implications.

183. OPTCL has submitted that the delayed execution of projects and cost & time overrun thereto are primarily due to severe RoW issues and Court cases. The Commission also directs OPTCL to clear outstanding issues before incurring any expenditure in consultation with local elected representatives and District Administration to resolve the local RoW issues. Local/ regional benefits of better quality of supply should be informed to the public through mass communication.

184. The Commission directs that dependable, effective mass communication along with the augmentation of substation capacity, uprating of lines, Substation Automation System (SAS) etc. should be carried out by OPTCL in a time bound manner for effective utilisation of resources and service delivery. OPTCL should regularly monitor the progress of all its on-going projects to avoid delay.

185. As per OGC-2015, SCADA communication facilities should be made available in every 220 KV s/s by OPTCL. The Commission vide its order dt.02.11.2010 had allowed for provision of SCADA in balance 220 KV s/s to route the data of various generators/ industries/CGPs/IPPs etc. connected or going to be connected with OPTCL. Further, OPTCL has taken up actions for provision of SCADA interface points at vital 132 /33 KV grid s/s including laying of OPGW cables. The Commission directs OPTCL to provide the list of substations where SCADA infrastructure facility is available for smooth flow of data/information to SLDC and also seamless integration of upcoming users.

System Interruptions due to Major Incident:

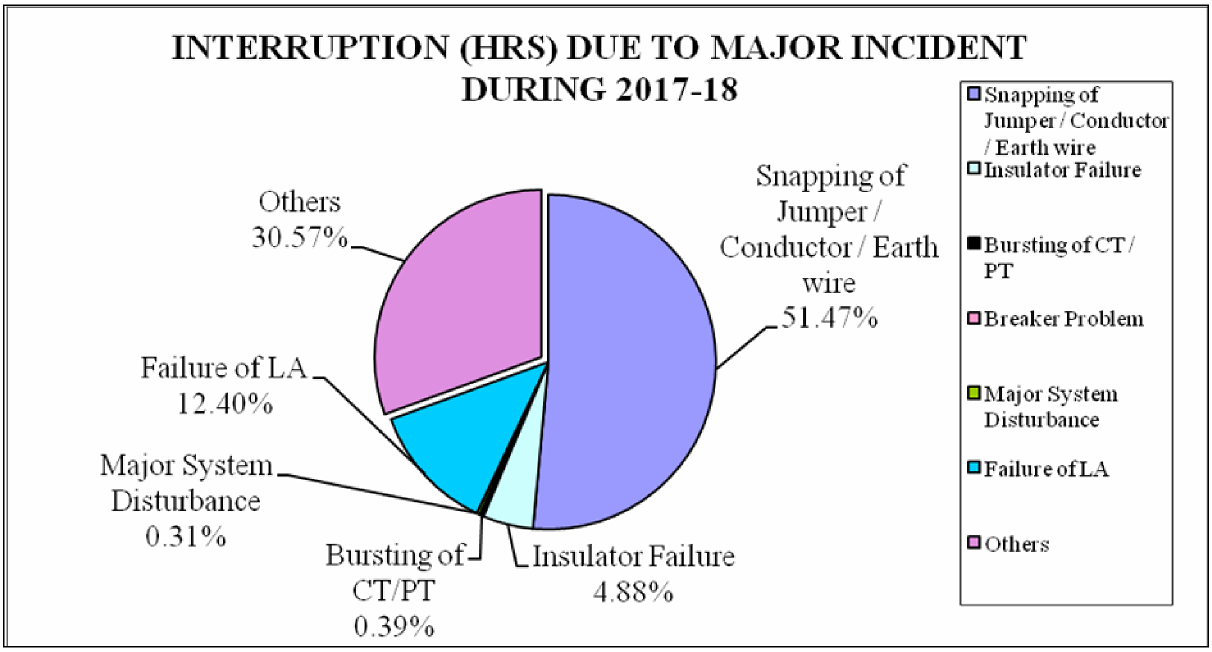
186. OPTCL's system has faced aggregated annual interruptions varying from 27 minutes to 75 hours on different categories of faults such as conductor/jumper/earth wire snapping, insulator failure, bursting of Current Transformer/Potential Transformer, breaker problem, system disturbance, Lightening Arrester failures and others. However, OPTCL has claimed that it has arranged to maintain power supply from other nearby transmission facilities without resorting to total power failure. OPTCL has submitted that even in case of generation failure they have tried to maintain uninterrupted power supply by resorting to alternative arrangement. All these events have forced OPTCL for restricting the load by 87.50, 82.50 and 13 hours during the

second, third and fourth quarter respectively for the FY 2017-18 on rotation basis. OPTCL claimed that there was no black out experienced in the State during the FY 2017-18. Duration of interruption in the year is given in table below:

Table - 16
Interruption due to Major Incident

Incident	Duration of Interruption	No. of Interruption	Percentage
Snapping of Jumper / Conductor / Earth wire	75:38:00	56	51.47
Insulator Failure	7:10:00	29	4.88
Bursting of CT / PT	0:34:00	8	0.39
Breaker Problem	0:00:00	0	0.00
Major System Disturbance	0:27:00	4	0.31
Failure of LA	18:13:00	21	12.40
Others	44:55:00	70	30.57
The duration of interruption indicated above is the sum total of interruptions occurred at different areas(S/s) during the year. However there was no total blackout experienced for the State during the year 2017-18.			

187. The duration of interruption indicated above is the sum total of interruptions occurred at different areas (S/s) during the year. However there was no total blackout experienced during the year 2017-18 in the state as claimed by OPTCL.



188. It is observed that during FY 2017-18 the daily peak demand touched at 4515 MW maximum on dt.29.03.2018 and a minimum of 3171 MW on dt.23.11.2017. The peak

demand of 4515 MW in 2017-18 is about 410 MW higher than the peak demand experienced during the previous year 2016-17 (4105 MW). The total energy drawl is 25392 MU in FY 2017-18 against 24273 MU in FY 2016-17, which indicates the enhancement in electricity demand of around 1119 MU in the State. It is observed that during FY 2016-17 the daily peak demand touched at 4105 MW maximum on dt.29.08.2016 and a minimum of 3269 MW on dt.25.05.2016. In OPTCL system, the EHT voltage, as per Regulations 3(1)(b) of Central Electricity Authority(Grid Standards) Regulations, 2010 should be in the range 122-145 kV for voltage at 132 kV, 198-245 kV for voltage at 220 KV and 380-420 kV for 400 kV level. OPTCL has however experienced 197 kV minimum and 247 kV maximum in its 220 kV system and 108 kV minimum and 147 kV maximum in its 132 kV system. The maximum and minimum voltage levels at different major GRID substations of OPTCL are given in table below:

Table – 17

Sl. No.	Name of the 220/132 kV Grid Sub-station	ANNUAL	
		Maximum Voltage in kV	Minimum Voltage in kV
1	Jaynagar	243	218
2	Theruvali	241	203
3	Bhanjanagar	239	212
4	Chandaka	235	206
5	Narendrapur	247	197
6	Joda	240	212
7	Tarkera	243	211
8	Budhipadar	234	215
9	Duburi	239	218
10	Balasore	238	209
11	Meramundali	233	220
12	Bidanasi	244	215
13	Katapalli	236	206
14	Bhadrak	241	200
15	Paradeep	238	208
16	Bolangir	232	208
17	Mendhasal	236	207

Sl. No.	Name of the 220/132 kV Grid Sub-station	ANNUAL	
		Maximum Voltage in kV	Minimum Voltage in kV
1	Cuttack	140	114
2	Berhampur	147	110
3	Puri	136	108
4	Khurda	137	120

189. OPTCL is advised to take suitable remedial measures to improve the voltage profile and monitor the reactive drawl of DISCOMs from its grid S/s and take corrective

action such as drawal of excessive reactive load at low voltage condition in grid S/S. On-line Tap Changer of the Power Transformers should be in healthy condition and all the field engineers and staff should be continuously trained to operate OLTC during peak and low load condition of the day.

190. OPTCL should find out latest technical methods for effective utilization of existing level transmission system to increase power transfer capacity and reliability. OPTCL is required to develop appropriate system to ensure power supply without interruptions in any part of the State and ISGS of Eastern Region. The Commission expects OPTCL to plan O&M and R&M activities with provision of advanced metering /protection/communication system with modern automation. Further, as a part of O&M activity, OPTCL should upgrade the overloaded grid S/Ss in consultation with DISCOMs.

191. As an important function of the licensee all major incidents affecting any part of the transmission system should be reported to the Commission in accordance with the provisions of Condition 9.3 of Transmission License Condition and consequent instruction dt.03.01.2007. No such report has been received from OPTCL during this year. The Commission directs OPTCL to report all the major incidents in the year 2018-19 for which any part of the transmission system is affected within three months.

192. OPTCL, after conducting system studies, should take necessary action to uprate ACSR conductors to HTLS conductors, wherever required. Further, OPTCL should find out the latest technical methods for effective utilization of existing/proposed higher level transmission system by upgrading the existing substations/transmission lines and equipments to increase power transfer capacity and avoid RoW problem. Strengthening of the existing network, multi voltage level and multi circuit transmission lines may also be considered for the purpose.

193. The Commission has analysed the application of OPTCL for Aggregate Revenue Requirement (ARR) for FY 2019-20 according to OERC (Terms and Conditions for Determination of Transmission Tariff) Regulation, 2014. As per Regulation 8.1, the ARR for Transmission Business for each year shall contain the following items.

i. Operation and Maintenance expenses
ii. Interest and Financial Charges
iii. Depreciation

iv. Return on Equity
v. Income Tax
vi. Deposits from Transmission System Users
vii. Less: Non Tariff Income

Less: Income from other business as specified in these Regulations.

Operation and Maintenance Expenses

194. Operation and Maintenance expenses include (1) Salary, Wages, Pension contribution and other employee costs. (2) A & G expenses (3) Repair & Maintenance cost (4) Expenses related to auxiliary energy consumption in the substation for the purpose of air conditioning, lighting, technical consumption etc., and (5) other miscellaneous expenses, statutory levies and taxes.

195. OPTCL has claimed an amount of Rs.421.99 crore for FY 2019-20 under Salary, Wages, Pension contribution and other employee costs. While projecting the employees cost, the petitioner has considered the following assumptions:-

i. The Basic Pay plus Grade Pay (GP) has been projected as per the 7th pay recommendations. OPTCL effected the 7th pay recommendations and wage Board revisions with effect from June 2018. Accordingly the Basic Pay for FY 2018-19 has been projected at Rs.161.18 cr and after considering the number of employees with 3% hike in the annual increment the Basic pay for FY 2019-20 is projected at Rs. 168.11 cr.

ii. OPTCL has notified to release 40% of arrear amount arising out of pay revision of Executives and Non-Executives of OPTCL for the period from 01.01.2016 and 01.04.2015 respectively. The arrear impact of 7thPay Revision on salary for the period from 01.01.2016 to 31.05.2018 and wage revision from 01.04.2015 to 31.05.2018 works out to **Rs.88.22 Cr**. Accordingly OPTCL has proposed **Rs. 35.28 Cr**. towards 40% towards arrear pay (40% of Rs. 88.22 Cr.).

iii. The DA rate for the FY 2019-20 is proposed to be around 13% (average).Accordingly the DA for FY 2019-20 has been projected at **Rs.21.85Cr.**

iv. Presently the rate of HRA for Executives is 18-20% on pre-revised pay and for Non-Executives is 18-20% on revised pay. Accordingly, OPTCL has projected **Rs.15.65 Cr.**HRA for FY 2019-20.

v. OPTCL has submitted that the Executives and Non-executives are entitled to get Medical Allowance @ 5% on pre-revised pay and revised pay respectively. Accordingly, OPTCL has projected **Rs.3.70 Cr.** for FY 2019-20 towards Medical Expenses including projection of **Rs.1.04 Cr.** towards reimbursement of medical expenses.

vi. Under staff welfare expenses, OPTCL has projected Rs. 2.45 Cr. towards Uniform, Liveries, GIS, Sports, Recreations & Cultural Activity, Hospital Expenses etc. for FY 2019-20.

vii. OPTCL has submitted that at present, it is functioning with 61% approximately of manpower against sanctioned strength. For smooth functioning, OPTCL has engaged personnel in different streams through outsourcing. Accordingly, **Rs.2.71 Cr.** has been proposed towards payment to outsourced personnel.

viii. OPTCL has proposed **Rs.2.98 Cr**. towards stipend for the new recruitees for the FY 2019-20 as detailed in the following table:

Table–18

Year	**Post**	**No. of Candidates Recruited/to be Recruited**	**Stipend per person per month (Rs.)**	**Total stipend per month (Rs. Lakh)**	**Remarks**
2018-19	Asst. Manager	111	24000	26.64	Rs.18000/- pm till July 2018
	Jr. Manager	10	18000	1.80	Rs.12000/- pm till July 2018
	JMOT(EL)	3	10000	0.30	
	Office Assistant (Gr.III)	8	12000	0.96	
	Total	**132**		**29.70**	
2019-20	Asst. Manager	13	24000	3.12	
	Jr. Manager	18	18000	3.24	
	Office Assistant (Gr.III)	13	12000	1.56	
	JMOT(EL)	151	10000	15.10	
	JTTT (Telecom)	18	10000	1.80	
	Total	**213**	**-**	**24.82**	
	Total stipend for FY 2019-20 = Rs. 2.98Cr.				

ix. OPTCL proposes **Rs.9.44 Cr**. towards Bonus, Other allowances (Shift, Handicap, City, ABT etc.), LTC, Honorarium, Ex-gratia, Conveyance (both allowance and reimbursement) etc. for FY 2019-20.

Basic Pay

196. OPTCL in the reply to queries of the Commission reported that they implemented the 7th pay recommendations wef June 2018 and the actual cash outflow on Basic Pay + GP from june 2018 to November 2018 (for a period of 6 month) was Rs.80.66 crore averaging Rs. 13.44 crore per month. The Basic pay and GP for FY 2018-19 as submitted has been extrapolated to arrive at Basic pay for FY 2019-20 including 7th pay recommendations. The said calculation is shown in the following table:

Table – 19

(Rs in Crore)

Cash outgo	**OPTCL**
Basic+GP drawn in 06/2018	12.88
Basic+GP drawn in 07/2018	13.38
Basic+GP drawn in 08/2018	13.35
Basic+GP drawn in 09/2018	13.69
Basic+GP drawn in 10/2018	13.69
Basic+GP drawn in 11/2018	13.67
Avg Basic Pay + GP	13.44
Pro-rated for FY 2018-19	161.32

197. OPTCL has submitted that a significant number of posts are lying vacant in different ranks due to retirement, death, promotion etc. as a result of which functioning of the organization has been seriously affected. OPTCL plans to fill the vacancies in a phased manner and has accordingly initiated the recruitment process. In the meantime, some additional manpower has been inducted and more will be recruited in coming years.

In order to cater to the increasing demand of power, several new grid sub-stations and transmission lines have been commissioned and many others are at different stages of implementation. The increased transmission infrastructure requires adequate competent personnel in Technical, Finance, HRD, IT and other relevant streams. Govt. of Odisha has already approved the organizational restructuring proposal of OPTCL. Revised Organization Restructuring & Manpower Assessment has been implemented with effect from 01.01.2014 in OPTCL to meet the needs of important activities of the transmission utility like Project Implementation, O&M, Telecom, Finance and IT support etc. With notification of Organization Structure & Manning Norm, recruitment of Degree & Diploma Engineers has been started.

198. OPTCL has accordingly submitted that during 2017-18, 334 numbers of employees have been inducted and regularised. Similarly during 2018-19, 121 numbers of employees have been inducted who would be regularised during 2019-20. The commission after such analysis allows the number of employees in the ARR in the following manner.

Table -20
Information on number of Employees (Approved)

No. of employees as on 01.04.2018	2793
Add :- New employees inducted during FY 2017-18 regularized in FY 2018-19	334
Less:- Retired/to be retired/VRS/Expired/Resigned during FY 2018-19	202
No. of employees as on 01.04.2019	2925
Average no. of employees for the FY 2018-19	2859
Add:-New employees inducted during FY 2018-19 will be regularized in FY 2019-20	121
Less:-To be Retired during 2019-20	181
No. of employees as on 01.04.2020	2865
Average no. of employees for the FY 2019-20	2895

199. The average number of employees during FY 2018-19 and FY 2019-20 works out to 2859 and 2895 respectively as shown in the above table. The calculated prorated Basic Pay of Rs. 161.32 crore for FY 2018-19 is factored with the average number of employees for 2018-19 and 2019-20 considering retirement and inductions and enhanced at the rate of 3% for calculating basic pay for 2019-20. The basic pay for FY 2019-20 is accordingly determined and approved as under:-

Table – 21

(Rs. in crore)

Pro-rated for FY 2018-19	161.32
Approved for FY 2019-20	**168.25**

200. The OPTCL implemented the 7th Pay Commission recommendations from June 2018 and the arrear impact on such revision for the period from 01.01.2016 to 31.05.2018 and wage revision from 01.04.2015 to 31.05.2018 was worked out to Rs. 88.32 crore. OPTCL has proposed to allow Rs. 35.28 crore which is 40% of such amount in the ARR. The commission as per the Government of Odisha notification allows 40% of the arrear on account of 7th pay revision and approves Rs. 35.28 crore towards arrears.

201. The claim from OPTCL has been made on the basis of 7th Pay Commission of State Govt. Some objectors expressed apprehensions over genuineness of the expenditures in past years and sought audited balance sheet, profit and loss Statement and other information to consider the employees cost as claimed. The Consumer Counsel WISE has submitted that per employee cost has risen in the past years. Considering employee cost with terminal benefits (after capitalization), per employee cost for OPTCL comes out to Rs.14.42 lakh for the FY 2019-20 while it was Rs.12.90 lakh for FY 2018-19 and Rs.9.91 lakh for FY 2017-18.

202. The Commission also observes that present employees cost constitutes 55.19% (Rs.422.15 Cr.) and related A & G cost another 3.50% (Rs.26.80 Cr.), totalling to 58.69% of net ARR proposed, with present strength of the staff. At present the Commission allows employees cost as a pass through. As a result any addition of manpower in any grade without prudence check by OPTCL shall add to the ARR and consequential impact on tariff to be levied from consumers of the state in a rising trend.

203. Employees cost is a controllable cost and is a component of total O&M expenses. Rising employee cost also inflates the A&G cost. Therefore, arbitrary growth in employees cost and A&G cost is likely to have pressure and impact on tariff. Since no norms have been prescribed for employees cost and is a pass through, the Commission may not allow indiscreet rise of employee cost in tariff fixation at some stage. Considering all these issues the Commission feels that any upward increase shall be on the basis of prudent check from time to time. The Commission, therefore, approves Rs.168.25 crore towards Basic Pay for FY 2019-20.

Dearness Allowance:

204. The Govt of Odisha implemented the 7th Pay Commission recommendation with effect from 1.1.2016. Accordingly, DA was also changed as per the 7th pay recommendations and the following table shows the notified DA by Govt of Odisha and projected DA thereof for FY 2019-20.

Table – 22

Effective Date	Rate	Status
01.01.2016	nil	Approved By GoO
01.07.2016	2%	Approved By GoO
01.01.2017	4%	Approved By GoO
01.07.2017	5%	Approved By GoO

Effective Date	Rate	Status
01.01.2018	7%	Approved By GoO
01.07.2018	9%	Approved By GoO
01.01.2019	11%	Projected
01.07.2019	13%	Projected
01.01.2020	15%	Projected

205. As per the above table the DA rate for FY 2019-20 is assumed to be 13%.

House Rent Allowance

206. House rent allowance has been allowed as provided in the actual un-audited account for the year 2016-17 since there is no provision of increment in the 7th pay Commission recommendations and the HRA would be a fixed amount equalling to the amount received on the date of implementation of 7th pay recommendations. The Commission accordingly approves the HRA of Rs. 15.65 crore as proposed by the OPTCL.

Stipend for new contractual recruitment

207. Under this head OPTCL claimed an amount of Rs.2.98 crore for the FY 2019-20 as detailed in table below:

Table - 23
Stipend for new recruitment

YEAR	Post	No. of Candidates Recruited/to be Recruited	Stipend per person per month (Rs.)	Total stipend per month (Rs. Lakh)	Remarks
2018-19	Asst. Manager	111	24000	26.64	Rs.18000/- pm till July 2018
	Jr. Manager	10	18000	1.80	Rs.12000/- pm till July 2018
	JMOT(EL)	3	10000	0.30	
	Office Assistant (Gr.III)	8	12000	0.96	
	Total	**132**		**29.70**	
2019-20	Asst. Manager	13	24000	3.12	
	Jr. Manager	18	18000	3.24	
	Office Assistant (Gr.III)	13	12000	1.56	
	JMOT(EL)	151	10000	15.10	
	JTTT (Telecom)	18	10000	1.80	
	Total	**213**	**-**	**24.82**	
	Total stipend for FY 2019-20 = Rs. 2.98Cr.				

208. The Commission allows Rs. 2.98 crore towards stipend for new recruitments. OPTCL should follow State Govt models on contractual appointment as a State Govt. entity.

209. Medical reimbursement and all other items such as outsourced engagement, LTC, honorarium, ex-gratia and staff welfare expenses have been accepted by the Commission appropriately.

Terminal Benefit including NPS

210. OPTCL has made provision towards terminal liabilities based on the report of independent actuary M/s Charan Gupta Consultants Pvt. Ltd., Noida. During the period from FY 2005-06 to FY 2018-19, OPTCL has made provision of Rs. 2217.20 Cr. towards corpus fund of Terminal Liabilities(Pension, Gratuity and Leave Encashment) based on the Actuarial Valuation. OPTCL has further submitted that from FY 2005-06 to FY 2018-19 the Commission has allowed total Rs. 2052.08 Cr. and the present gap is Rs. 165.12 Cr which has been projected as terminal liability for the FY 2019-20. Besides, OPTCL has projected Rs.7.84 Cr. towards employer's matching contribution for employees who have joined under NPS and Non-Pensionary Category.

211. In reply to the query of the Commission, OPTCL has submitted the cash outflow statement towards terminal liabilities up to November, 2018. As per the statement an amount of Rs.121.29 crore has been disbursed towards terminal benefits (Pension, Gratuity and Leave Encashment) during 8 months of the FY 2018-19. The commission is of the opinion that since 7th pay recommendations was implemented from June 2018 its impact on the cash outflow towards terminal liabilities cannot be ascertained from the present cash flow statement. The Commission therefore provisionally allows the amount of Rs 165.12 crore for FY 2019-20 as proposed by the OPTCL. Besides the above, an amount of Rs.7.84 crore towards NPS is allowed for FY 2019-20.

212. With the above observations the amount of employees cost as proposed by the petitioner and approved by the Commission is given in the following table:

Table-24
Approved Employees Cost for FY 2019-20 (Rs. crore)

Sl No	Particulars	FY 2018-19 Approved	FY 2019-20 Proposed	FY 2019-20 Approved
A	**Salary & Allowances**			
1	Basic Pay and Grade Pay	151.29	168.11	168.25
2	Dearness Allowance	10.59	21.85	21.87
3	House Rent Allowance	9.00	15.65	15.65
4	Other Allowance	0.63	1.36	1.36
5	Bonus	0.01	0.01	0.01
6	Stipend for New Recruitment	5.50	2.98	2.98
7	Arrear Salary for 7th Pay Commission		35.28	35.28
	Sub-total (A)	**177.02**	**245.24**	**245.40**
B	**Additional Employee Cost**			
1	Out Sources Engagement	3.09	2.71	2.71
	Sub-total (B)	**3.09**	**2.71**	**2.71**
C	**Other Employee Cost**			
1	Medical Expenses (allowance + Reimbursement)	2.90	3.70	3.70
2	Leave Travel Concession	0.46	0.60	0.60
3	Honorarium	0.15	0.09	0.09
4	Ex-gratia	5.00	5.00	5.00
5	Staff Welfare Expenses	4.50	2.45	2.45
6	Miscellaneous	-	2.38	
	Sub-total (C)	**13.01**	**14.22**	**11.84**
D	**Terminal Benefits**	146.99	165.12	165.12
1	Pension			
2	Gratuity			
3	Leave Salary			
4	Other (including contribution to NPS)	9.01	7.84	7.84
5	Arrear pension for 7th Pay Commission	**21.12**		
	Sub-total (D)	**177.12**	**172.96**	172.96
E	**Total Employees Cost (A+B+C+D)**	**370.24**	**435.13**	**432.91**
F	Less: Employees Cost Capitalized	9.84	13.14	13.14
G	**Net Employee Cost (E- F)**	**360.40**	**421.99**	**419.77**

Repair & Maintenance Expenses

213. The OPTCL has submitted that the R&M works are undertaken in different streams namely O&M, Telecom, Civil Works and Information Technology (IT). The OPTCL has projected a sum of Rs. 115.22 cr towards R&M expenses and the summary of proposed R&M Expenses under these four heads is given in the following table:

Table-25

(Rs. Cr.)

Particulars	OERC Approval (FY 2017-18)	OERC Approval (FY 2018-19)	Projection (FY 2019-20)
(i) O&M	**124.97**	**111.00**	102.63
(ii) Telecom			2.10
(iii) Civil Works			7.67
(iv) Information Technology			2.82
Total R&M Expenses			**115.22**

214. The OERC (Terms and Conditions for Determination of Transmission Tariff) Regulations at Regulations 8.15 and 8.16 provides the following with regard to determination of Repairs and Maintenance (R&M)

'Repair and Expenses would be allowed at the rate of 2.5% of Gross Fixed Assets (GFA) only on assets owned by the transmission company, for each year of the control period.'

'In case of STU(OPTCL) the Commission shall allow Repair and maintenance expenses basing on the past trend and requirement of the licensee in this regard after prudence check.'

As per the submission in the ARR Form F-17, the opening balance of the Gross block as on 1-4-2019 is shown as Rs. 5981.02 crore. The Commission after scrutiny of the audited accounts for the FY 2017-18 and further additions of assets during FY 2018-19 approves the assets as shown in the following table:

Table – 26

(Rs. in crore)

Transmission Assets	Deemed Cost as on 01.04.2018 (Audited)	Addition during FY 2018-19	Cost as on 01.04.2019 (Approved)	Up valuation effect	Pre-upvalued value of assets as on 01.04.2019
Free Hold Land	57.21	4.52	61.73		61.73
Lease Hold Land	39.55	3.37	42.92	5.64	37.28
Buildings	62.4	7.19	69.59	1.35	68.24
Plant and Machinery (other civil works)	17.93	1.60	19.53	1.58	17.95
Plant and Machinery	1925.81	236.78	2162.59	70.87	2091.72
Plant and Machinery (By Beneficiary)	184.28	180.48	364.76	193.28	171.48
Plant and Machinery: (Lines, Cables and Network)	1170.37	167.2	1337.57	451.29	886.28
Vehicles	1.10	0.19	1.29	0.44	0.85
Furniture, Fixture	4.28	0.45	4.73	1.20	3.53
Office Equipment& Others	25.04	2.99	28.03	2.21	25.82
Capital stores and spares	1.48	0.12	1.60		1.60
Grand Total	**3489.45**	**604.89**	**4094.34**	**727.86**	**3366.48**

215. As per the OERC Transmission regulation, the R&M expenses are allowed at the rate of 2.5% on opening GFA. The Pre-up valued value of assets as on 01.04.2019 is assessed at Rs.3366.48 crore. Accordingly the R&M expenses are calculated at Rs.84.16 crore. In addition to normal R&M expenses, the commission after analysis of past trend and in terms of regulation allows additional R&M of Rs.31.06 crore. Therefore the total R&M approved is Rs.115.22 crore for FY 2019-20 as proposed by the OPTCL.

Administration & General Expenses

216. For the FY 2019-20, the petitioner has proposed an amount of Rs. 28.07 Crore under the head Administration & General Expenses. Item-wise break up of expenses is given in table below:

Table-27

PARTICULARS	(Rs. Cr.)
Approved forFY 2018-19	22.09
Escalation as per WPI upto Oct-18(4.88%)	1.08
A&G for FY 2019-20	**23.17**
Add: Licence Fees	1.90
Add: Inspection Fees	2.20
Add: SLDC Charges	0.80
Total A&G Expenses for FY 2019-20	**Rs. 28.07 Cr.**

217. As per the OERC Regulation, the Commission shall allow A&G expenses by giving an escalation factor equal to WPI over the amount approved by the Commission in the previous year.

218. Therefore, the Commission allows escalation of 2.76% (rate of inflation measured by WPI for the period up to Jan 2019) over the approved amount of previous year. The calculation for determining the A&G expenses is given in table below:

Table - 28

(Rs. Crore)

Normal A&G approved during 2018-19	22.09
Escalation as per WPI (up to jan'2019)	2.76%
Normal A&G for 2019-20	22.70
Add licensee fees to Commission	1.90
Add: Inspection fees	2.20
SLDC charges	0.75
Total A&G Expenses approved for FY 2019-20	**27.55**

219. The Commission approved an amount of Rs.27.55 crore towards A&G expenses for the FY 2019-20. The Commission also directs OPTCL to keep the A&G cost under control and in comparison to business volume.

Interest and financial charges

A. Interest on loan

220. OPTCL has projected Interest on loan at Rs.41.01Cr. for FY 2019-20. Details of interest on loan capital is shown in following table:

Table-29

Projection for Interest on loan for FY 2019-20(Rs. Cr.)							
		Rate of Interest	**Principal as on 01.04.19**	**Loan to be received (FY 19-20)**	**Loan to be redeemed (FY 19-20)**	**Interest payment (FY 19-20)**	**Total Payment (FY 19-20)**
A	**Govt. Loans**						
	State Govt.(CRF)	0.00%	15.00			0.00	0.00
	GoO Bonds	13.00%	400.00			0.00	0.00
	Sub-Total		**415.00**			**0.00**	**0.00**
B	**Institutional Loans**						
	Bank of India	9.33% (Avg.)	77.37	10.00	6.75	6.94	13.69
	REC Loan	12.02% (Avg.)	206.57		25.45	24.11	49.56
	PFC Loan	12.03%(Avg.)	44.40		6.74	5.18	11.92
	Union Bank of India	8.10%	39.13	11.30		3.67	3.67
	JICA	0.80%	60.00	210.00		1.11	1.11
	Sub-Total		**427.56**	**231.30**	**38.95**	**41.01**	**79.96**
C	**Grand Total**		**842.56**	**231.30**	**38.95**	**41.01**	**79.96**

221. The Commission in the last tariff order had allowed interest on loan availed from Bank of India, REC, PFC for capital works only up to 31.03.2017. Interest on the Government loans are not allowed as per earlier orders in the ARR. This year OPTCL has submitted (in Form F-3) that the anticipated receipt of loan during FY 2017-18 would be total to the tune of Rs. 231.30 crore. Such details are given in the above table.

222. The loan position submitted above by OPTCL was analysed on the basis of the audited accounts for FY 2017-18 available with the Commission. On scrutiny following details have emerged on the actual up-to date loans.

Table-30

	Projection for Interest on loan for FY 2019-20(Rs. Cr.)						
		Rate of Interest	Principal as on 01.04.19	Loan to be received (FY 19-20)	Loan to be redeemed (FY 19-20)	Interest payment (FY 19-20)	Total Payment (FY 19-20)
A	**Govt. Loans**						
	State Govt.(CRF)	0.00%	15.00			0.00	0.00
	GoO Bonds	13.00%	400.00			0.00	0.00
	Sub-Total		**415.00**			**0.00**	**0.00**
B	**Institutional Loans**						
	Bank of India	9.33%(Avg.)	77.37	10.00	6.75	6.94	13.69
	REC Loan	12.02%(Avg.)	206.57		25.45	24.11	49.56
	PFC Loan	12.03%(Avg.)	44.40		6.74	5.18	11.92
	Union Bank of India	8.10%	39.13	11.30		3.67	3.67
	JICA	0.80%	60.00	210.00		1.11	1.11
	Sub-Total		**427.56**	**231.30**	**38.95**	**41.01**	**79.96**
C	**Grand Total**		**842.56**	**231.30**	**38.95**	**41.01**	**79.96**

223. The amount proposed to be availed during 2019-20 has not been considered for calculation of interest. OPTCL shall make effort to reduce interest cost through swapping of loan wherever possible.

224. Source wise break up on loan as on 31.03.2019 and 31.03.2020, average rate of interest on the above loan and the amount of interest determined and approved for 2019-20 is given in table below:

Table–31

(Rs. Crore)

Source	Average rate of interest (%)	Loan as on 31.03.2019	Anticipated Payment (FY 2019-20)	Loan as on 31.03.2020	Average Loan amount	Interest amount allowed
Bank of India	9.33	77.37	6.75	70.62	74.00	6.90
REC	12.02	206.57	25.45	181.12	193.85	23.30
PFC	12.03	44.40	6.74	37.66	41.03	4.94
Total		**328.34**	**38.94**	**289.4**	**308.87**	**35.14**

225. The Commission allows Rs.35.14 crore towards interest on Loan for FY 2019-20.

B. Interest on Working Capital

OPTCL has not proposed any amount under the head interest on working capital

Depreciation

226. OPTCL has estimated the Gross Fixed Assets at the beginning of the FY 2019-20 at **Rs.5981.02Cr.** (Rs.5376.12Cr. as on 01.04.18+Rs.604.90Cr. projected addition during FY 2018-19). For 2019-20, Depreciation is accordingly estimated as **Rs.186.03Cr.** which includes Rs.1.30 Cr. towards cost of premium/rent on leasehold land. The detailed Statement of Fixed Assets and block-wise computation of depreciation as proposed is shown in the following table:

Table-32

(Rs. Cr.)

Transmission Assets	**OERC Depreciation Rate as per Regulations, 2014**	**Gross Fixed Assets as on 01.04.2019**	**Addition during FY 2019-20**	**Depreciation for FY 2019-20**
Free Hold Land		61.74	4.81	-
Lease Hold Land		46.10	3.59	1.30
Buildings	3.34%	98.21	7.66	3.29
Electrical Installation		3.18	0.25	0.14
Plant and Machinery (Other Civil Work)	3.34%	21.85	1.70	0.73
Plant and Machinery	5.28%	3312.88	339.26	92.56
Plant and Machinery (By Beneficiary)	0.00%	53.67	71.63	-
Plant and Machinery: (Lines, Cables & Network)	5.28%	2335.21	236.21	84.27
Vehicles	9.50%	2.64	0.21	0.12
Furniture, Fixture	6.33%	6.17	0.48	0.31
Office Equipment& Others	6.33%	37.77	2.94	3.31
Capital stores and spares		1.60	0.12	-
Grand Total		**5981.02**	**668.86**	**186.03**

227. OPTCL has proposed Rs.186.03Cr towards depreciation for the FY 2019-20. The commission in its tariff orders allows depreciation on the historical costs of the assets without considering the effect of up valuation. The Govt. of Odisha in successive years has also communicated to keep in abeyance the effect of up valuation of assets from the ARR calculation. In line with the same principle, the Commission considers the calculation of depreciation on the pre up valued assets. The Commission has accordingly derived the effect of up-valuation in RST order for FY 2018-19, which is shown in the following table:

Table-33

(Rs. Crore)

Transmission Assets	Assets as on 31.03.2016 as per audited report (up valued)	Assets as on 31.03.2016 as approved by commission (pre-upvalued)	Difference (Up valuation effect)
Free Hold Land	34.46		
Lease Hold Land	26.75	55.57	5.64
Buildings	87.70	86.35	1.35
Electrical installation	1.39		1.39
Plant and Machinery (other civil works)	8.88	8.69	0.19
Plant and Machinery	1903.18	1832.31	70.87
Plant and Machinery (By Beneficiary)	193.28		193.28
Plant and Machinery: (Lines , Cables and Network)	1953.76	1502.47	451.29
Vehicles	2.09	1.65	0.44
Furniture, Fixture	4.51	3.31	1.20
Office Equipment& Others	25.66	23.45	2.21
Total	4241.66	3513.80	727.86

228. The depreciation is allowed on the opening asset value after deducting the upvaluation effect. As per the rate prescribed in the OERC Transmission Regulation 2014 the depreciation is calculated. A statement of Fixed Asset (pre-upvalued) and block wise computation of depreciation allowed for FY 2019-20 given in the following table :

Table - 34

(Rs. Crore)

Transmission Assets	Deemed Cost as on 01.04.2018 (Audited)	Addition during FY 2018-19	Cost as on 01.04.2019 (Approved)	Up valuation effect	Pre-upvalued value of assets as on 01.04.2019	OERC Depreciation Rate as per Regulations, 2014	Depreciation (Approved for the FY 2019-20)
Free Hold Land	57.21	4.52	61.73		61.73	0.00%	0.00
Lease Hold Land	39.55	3.37	42.92	5.64	37.28	0.00%	0.00
Buildings	62.4	7.19	69.59	1.35	68.24	3.34%	2.28
Plant and Machinery (other civil works)	17.93	1.60	19.53	1.58	17.95	3.34%	0.60
Plant and Machinery	1925.81	236.78	2162.59	70.87	2091.72	5.28%	110.44
Plant and Machinery (By Beneficiary)	184.28	180.48	364.76	193.28	171.48	0.00%	0.00
Plant and Machinery:	1170.37	167.2	1337.57	451.29	886.28	5.28%	46.80

Transmission Assets	Deemed Cost as on 01.04.2018 (Audited)	Addition during FY 2018-19	Cost as on 01.04.2019 (Approved)	Up valuation effect	Pre-upvalued value of assets as on 01.04.2019	OERC Depreciation Rate as per Regulations, 2014	Depreciation (Approved for the FY 2019-20)
(Lines, Cables and Network)							
Vehicles	1.10	0.19	1.29	0.44	0.85	9.50%	0.08
Furniture, Fixture	4.28	0.45	4.73	1.20	3.53	6.33%	0.22
Office Equipment& Others	25.04	2.99	28.03	2.21	25.82	6.33%	1.63
Capital stores and spares	1.48	0.12	1.60		1.60	0.00%	0.00
Grand Total	**3489.45**	**604.89**	**4094.34**	**727.86**	**3366.48**		**162.06**

229. Accordingly, Commission approves an amount of Rs.162.06 crore towards depreciation for the FY 2019-20.

Return on Equity

230. OPTCL has proposed an amount of Rs.113.15 crore during FY 2019-20 as per clause 8.28 of Regulation, 2014 on equity share capital of Rs.730.00 crore @ 15.5%.

231. As per the Regulation 8.28 of OERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2014, return on equity shall be computed on pre-tax basis @15.5% to be grossed up as per Clause (2) of this Regulation. The amount of equity infused by State Govt. till the date of filing application amounts to Rs.685 crore. The sanction order and date of Govt. fund as filed by OPTCL is given in table below:

Table–35

Sl. No.	Sanction Order No. and Date	Amount (Rs.cr.)
1	1.R&R-I-01/2009-3560 dt.25.03.09	23.04
2	2.R&R-I-01/2009-2003 dt.24.02.09	0.01
3	3.R&R-I-01/2009-9464 dt.11.09.09	5.00
4	4.R&R-I-01/2009-4826 dt.01.06.10	20.00
5	5.R&R-I/73/2010-2438 dt.23.03.2011	51.95
6	6.R&R-6/12-685 dt.31.01.2012	1.00
7	7.R&R-6/12-690 dt.31.01.2012	39.00
8	8.R&R-6/12-695 dt.31.01.2012	3.00
9	9.R&R-6/12-629 dt.22.01.2013	25.76
10	10.R&R-6/12-634 dt.22.01.2013	16.60

Sl. No.	Sanction Order No. and Date	Amount (Rs.cr.)
11	11.R&R-6/12-624 dt.22.01.2013	7.64
12	12.R&R-6/12-5693 dt.18.07.2013	29.19
13	R&R-6/12-5698 dt.18.07.2013	11.97
14	R&R-6/12-5703 dt.18.07.2013	8.84
15	R&R-69/14-10445 dt.29.12.2014	10.50
16	R&R-69/14-10450 dt.29.12.2014	27.50
17	R&R-69/14-10455 dt.29.12.2014	12.00
18	R&R-69/14-6823 dt.06.08.2015	19.68
19	R&R-69/14-6818 dt.06.08.2015	17.22
20	R&R-69/14-6813 dt.06.08.2015	20.03
21	BT(P)-15/15-10291 dt.21.12.2015	0.07
22	R&R-69/14-5364 dt.18.7.2016	10.00
23	R&R-69/14-5369 dt.18.7.2016	20.00
24	R&R-69/14-5374 dt.18.7.2016	20.00
25	BT(P)-04/2018/En-1786 dt. 26.02.18	15.00
26	BT(P)-04/2018/En-1791 dt. 26.02.18	20.00
27	BT(P)-04/2018/En-1796 dt. 26.02.18	15.00
28	R&R -54/2015/En-5458 dt. 23.06.15	20.00
29	R&R -54/2015/En-737 dt. 28.01.16	10.00
30	R&R -54/2015/En-4348 dt. 07.06.16	20.00
31	R&R -54/2015/En-466 dt. 17.01.17	60.00
32	R&R -17/2017/En-2895 dt. 22.04.17	20.00
33	R&R -17/2017/En-10216 dt. 27.12.17	50.00
34	R&R -40/2018/En-3902 dt.28.04.2018	15.00
35	R&R -40/2018/En-4632 dt.24.05.2018	40.00
	Total	**685.00**

232. The Commission allows return at the rate of 15.5% on the equity value of Rs.685 crore amounting to Rs.106.18 crore**.** The Commission approves the same as a pass through in the ARR of 2019-20.

233. Further, OPTCL has proposed an amount of Rs.3.01 Crore towards income tax for 2019-20. The Commission allows the actual income tax expenses of Rs.3.01 crore booked in the audited accounts by OPTCL for FY 2017-18 as a pass through in the ARR of 2019-20.

Expenses relating to auxiliary energy consumption in the s/s

234. OPTCL has claimed an amount of Rs.5.53 crore under this head for FY 2019-20. The Commission do not consider the same as a pass through in the ARR since as per Regulation 8.5 of OERC (Terms & Conditions for determination of Transmission

Tariff) Regulation, 2014 the charges for auxiliary energy consumption in the sub-station for the purpose of air conditioning, lighting and consumption in other equipment shall be borne by the transmission licensee/STU and included in the operation and maintenance expenses.

Other miscellaneous expenses

235. (a) Grid Co-ordination Committee Expenses: OPTCL has claimed an amount of Rs.0.43 crore under the head GCC expenses for the FY 2019-20. In reply to the Commissions querry OPTCL submitted that they have incurred expenditures of Rs.0.53 crore and Rs. 0.46 crore towards GCC activities for FY 2017-18 and FY 2018-19(up to December 2018) respectively. Therefore, the Commission allows an amount of Rs.0.43 crore towards GCC expenses for the year 2019-20 as proposed by OPTCL with stipulation that this provision should be treated as a controllable expense.

Payment of SLDC Charges

236. Based on CERC (Fees and Charges of Regional Load Despatch and Other related matters) Regulations, 2009 and OERC (Fees and Charges of SLDC and other Matters) Regulation, 2010, the Commission approved the ARR for SLDC for FY 2019-20 wherein it has been determined that OPTCL has to Pay 10% of SOC to SLDC. Accordingly, OPTCL will pay an amount of Rs.0.75 crore per annum to SLDC towards System Operation Charges for FY 2019-20. The details of SOC are available in the ARR of SLDC approved in Case No.72 of 2018. The said amount of Rs.0.75 crore is allowed in the A&G expenses of OPTCL to be recovered through its Transmission Tariff.

Incentive for system availability

237. OPTCL in its submission has claimed an incentive of Rs.9.60 crore to be passed in the ARR of FY 2019-20 as the system availability of OPTCL Transmission Network for FY 2017-18 was 99.98%, which is more than Normative Annual Transmission System Availability Factor (NATAF) of 98.5%. The OPTCL system availability of 99.98% has been duly checked and certified by SLDC.

238. The Commission examined the relevant provision of Act & Regulations on payment of incentive to OPTCL. As SLDC has verified the System Availability of 99.98% during FY 2017-18 and is expected to maintain NATAF more than 98.5% during FY

2018-19, pending verification, the Commission approves an amount of Rs.5.00 crore as an incentive in the ARR of OPTCL for FY 2019-20 with a rider that this incentive amount approved by the Commission should be spent in the Grid substations only where the EHT voltage is not within (-) 12.5% of the normative voltage level at 220 kV /132 kV continuously suffering from low voltage.

Rebate

239. As per Regulation 8.49 of OERC Regulation, 2014 a rebate of 2% is to be allowed by the transmission licensee in case the payment is received within 2 working days. Similarly, as per the Regulations, 8.50 a rebate of 1% is to be allowed by the transmission licensee in case the payment is received after 2 working days and within a period of 30 days. Accordingly OPTCL has projected an amount of 17.23 crore towards rebate for FY 2019-20. The Commission approves an amount of Rs.14.12 crore towards rebate as a pass through in the ARR.

Miscellaneous Receipts

240. OPTCL has proposed an amount of Rs.80 crore towards miscellaneous receipt from inter-state wheeling, short term Open Access & STU charges, Bank interest, sale of Scraps and other Misc. Receipts. OPTCL in its submission stated the item-wise details in the table as follows.

Table-36

Source	Rs. in Cr.
Inter-State Wheeling	9.66
Short-Term Open Access& STU Charges	35.00
Bank Interest	10.00
Sale of Scraps	15.00
Other Misc. Receipts	10.34
Total	**80.00**

241. The analysis of miscellaneous receipts was made by analysis of the audited balance sheet for FY 2016-17 and 2017-18. The following table represents such income from other receipts received by OPTCL for these two years:

Table-37

Revenue from operations and other Income (Audited) (Rs. in Cr.)

Revenue from operations	2016-17	2017-18
Long-term Open Access Charges	631.71	598.5
Short-term Open Access Charges	33.70	20.86
Wheeling Charges	12.82	14.98
Supervision Charges	2.58	19.9

Revenue from operations	2016-17	2017-18
System Operation Charges	6.48	6.08
Market Operation Charges	1.62	1.69
Scheduling Charges	2.45	2.28
Registration Fees	0.02	0.25
Application Fee	0.92	0.77
Revenue from operations (A)	**692.3**	**665.31**
Other Income		
Interest from Bank deposits	34.58	19.21
Interest on loans to employees & suppliers	1.9	2.17
Interest from advances to suppliers	0.01	0.18
Interest on Income Tax refund	0.58	3.7
Deferred income for asset received from customer	66.49	47.48
Net gain/(loss) on disposal of property, plant etc.	6.77	4.87
Provision written back	12.86	33.81
Employee Trust provision withdrawn	7.95	23.43
Supervision charges of ODSSP Work	29.87	32.14
Other miscellaneous income	17.6	8.44
Total other Income(B)	**178.61**	**175.43**

242. The commission examined the other receipts earned by the OPTCL in the shape of 'Revenue from operations' and 'Other income'. Out of the various heads under which OPTCL earns other receipts the commission has excluded income from few heads while computation of miscellaneous income considered. These heads are Long term open access charges, income relating to SLDC charges, loans to employees, income tax refund, deferred income, disposal of property, plant, provision written back, employee trust provision withdrawn etc. The Commission after exclusion of income from such heads arrived at the miscellaneous Income for the years 2016-17 and 2017-18 which is shown in the following table:

Table-38

(Rs. Cr)

Miscellaneous Income (Approved)		
	2016-17	**2017-18**
Short-term Open Access Charges	33.70	20.86
Inter-state Wheeling Charges	9.17	9.66
Supervision Charges	2.58	19.90
Interest from advances to suppliers	0.01	0.18
Interest from Bank deposits	34.58	19.21
Supervision charges of ODSSP Work	29.87	32.14
Net gain/(loss) on disposal of property, plant etc.	6.77	4.87
Other miscellaneous income	17.6	8.44
Total other Income(B)	**134.28**	**115.26**
Approved for FY(2019-20) (Avg)	**124.77**	

243. The average of such miscellaneous income for years 2016-17 and 2017-18 (as shown in the above table) is computed at Rs. 124.77 crore which is approved as miscellaneous income for the FY 2019-20.

244. The commission in its order dated 3.07.2018 in case no. 5/2018 carried out the true up of OPTCL upto FY 2016 -17. In the said order the commission has allowed a surplus of Rs. 582.62 crore upto 31.03.2017. The Commission is of opinion that the surplus available to the OPTCL may be utilised to offset against the ARR to keep the transmission charges at a reasonable level. The commission accordingly allows Rs. 57.00 crore as true up to be adjusted in the ARR of 2019-20.

Transmission Cost

245. OPTCL in its ARR application has considered demand projection of all four DISCOMs totalling 27952 MU for FY 2019-20. It envisages 200 MU of energy to be transacted in DISCOMs 33kV & 11 kV network, OPTCL is not entitled to receive any transmission charge as per Commission's order on this. Hence, total MU to be transmitted in OPTCL network for DISCOMs is reduced to 27752 MU. Further, OPTCL has proposed 610 MU towards wheeling to industries from CGP & direct sale to CGP by GRIDCO. The Commission scrutinized the proposal of OPTCL and the total energy to be transmitted in the OPTCL system is estimated at 28270 MU for FY 2019-20, the details of which are mentioned in the table below:

Table – 39

Details of Energy for Transmission	Proposed by OPTCL (MU)	Approved by OERC (MU)
Total Demand of DISCOM	27952	27840
Less energy transmitted in 33KV & 11 KV network	200	200
Energy Transmitted for DISCOM	27752	27640
Wheeling to industries from CGPs	600	600
Sale to CGPs by GRIDCO	10	30
Total	**28362**	**28270**

246. The details of expenses proposed by OPTCL and approved by the Commission for FY 2019-20 towards transmission charges are depicted in table below:

Table – 40

ARR Proposed and Approved for OPTCL for 2019-20

ITEMS	Approved for 2018-19	Proposed for 2019-20	Approved for 2019-20
Employees Cost including Terminal Benefits	360.40	421.99	419.77
R&M Cost	111.00	115.22	115.22

ITEMS	Approved for 2018-19	Proposed for 2019-20	Approved for 2019-20
A&G Cost	26.44	28.07	27.55
Interest and financial charges	40.20	41.01	35.14
Depreciation	145.43	186.03	162.06
Return on Equity	69.75	113.15	106.18
Income Tax	4.16	3.01	3.01
Interest on Working Capital	-	-	-
Sub-Total	**757.38**	**908.48**	**868.93**
Special Appropriation			
Pass Through Expenses			
Contingency Reserve			
Other miscellaneous expenses (Aux.)	-	5.53	-
GCC Expenses , statutory levies & taxes	1.14	0.43	0.43
Incentive for system availability	5.00	9.60	5.00
Rebate	13.20	17.23	14.12
Total	**776.72**	**941.27**	**888.48**
Less Misc. Receipts	116.77	80.00	**124.77**
Less: Surplus True up			**57.00**
Annual Revenue Requirement to be recovered from LTOA Consumers (i.e. DISCOMs & CGPs)	**659.95**	**861.27**	**706.71**
No. of Units to be handled	26,400.00	28,362.00	28,270.00
Transmission Charges (Paise/Unit) (Rounded)	**25.00**	**30.37**	**25.00**
Expected Revenue from LTOA Customers		709.05	706.75
Deficit		**(152.22)**	0.04

TARIFF DESIGN

Transmission Tariff

247. OERC Transmission Tariff Regulation 2014 stipulates that the Transmission Tariff payable by the Beneficiaries of the Transmission System shall be designed to recover the Aggregate Revenue Requirement approved by the Commission for each year of the Control Period. The transmission Tariff shall be computed as follows:

ARR/ Total Energy handled in the Transmission System of the Licensee.

248. The Commission has followed the same principle of Postage Stamp Method as in earlier years for determination of Transmission Charges of OPTCL system. Accordingly, the Transmission Charges have been worked out at 25.00 paisa per unit which shall be applicable for transmission of power at 400 kV/220 kV/132 kV over OPTCL's EHT Transmission Lines and Sub-stations and shall be payable by the DISCOMs. It will also be applicable for the purpose of transmission of energy from a CGP to its industries located at a separate place(s) within the State.

249. The Commission has notified the Intra-state Open Access Regulations, 2005 under Section 42 (2) of the Electricity Act, 2003.Consumers availing both long term & short term open access shall be required to pay the transmission charges for use of the Transmission Lines and Substations of OPTCL. The estimated energy for transmission in OPTCL's system is 28270 MU with an average demand of 3227 MW. The net transmission cost as indicated in the table above is Rs.706.71 crore. Accordingly, the LTOA charges work out to a rounded sum of Rs.6000.00/MW/day or Rs.250/MWh. The long term open access customer availing Open Access under relevant Regulations of OERC shall pay Rs.6000.00/MW/Day (Rs.250/MWh) towards transmission charges. In accordance with OERC Regulation, 2005, the short term open access customers shall pay at the rate of 25% of the long-term open access charges. Accordingly the Commission approves the rate of Rs.1500.00/MW/day (Rs.62.50/MWh) for STOA customers. This will be in addition to other charges in accordance with Open Access Regulations, 2005 & 2006.

Transmission Loss for Wheeling

250. OPTCL had proposed that out of the energy supplied to transmission licensee, 3.25% shall be deducted towards transmission loss and balance is liable to be delivered at delivery point at 400kV/220kV/132kV. The Commission has approved the transmission loss of 3.00% for wheeling for FY 2019-20.

Reactive Energy Charges:

251. OPTCL in its ARR application submitted that the Commission in Para 262 of the ARR & Transmission Tariff order dated 23.03.2017 for FY 2017-18 (Case No. 64/2016) had directed OPTCL to submit the applications for determination of reactive energy charges for FY 2016-17 and 2017-18 within 31.07.2017. In compliance with such direction, OPTCL has filed its application before the Commission on 03.08.2017 for determination of Reactive Energy Charges for FY 2016-17 and FY 2017-18, which was registered as case no 50 of 2017. The charges have been worked out @ 3 paise/KVArh for FY 2016-17 & also for FY 2017-18. Further, OPTCL in its ARR for FY 2018-19 had proposed @ 3 paise/KVArh for FY 2018-19. OPTCL in its ARR application for FY 2019-20 submitted that since there is no plan to install capacitor bank at any other grid substations, reactive energy charges of @ 3 paise/KVArh for FY 2019-20 may be provisionally approved.

The Commission in its order dated 05.02.2019 in case no. 50 of 2017 in the matter of reactive energy charges has directed as follows:

"The Commission is of the view that the provisional reactive energy charges of 3 paise/KVArH as allowed in ARR 2018-19 order continue for time being till a final justification is submitted by OPTCL in consultation with the stakeholders. OPTCL is further directed to constitute a committee with representative from OPTCL, DISCOMs, SLDC and other stakeholders and furnish a report covering all the parameters and progress for final determination of charges within six months. Meanwhile, M/s. OPTCL shall pursue appropriate metering and software implementation for all the substations and inter-connection points under its control for proper accounting of reactive energy".

In view of the above observation the Commission provisionally approves reactive energy charges @ 3 paise/KVArh for FY 2019-20. However, the above direction of the Commission should be complied by OPTCL in a time bound manner.

Transmission Charge Payment Mechanism

252. The Commission vide Para 372 & 373 in Transmission Tariff order 2010-11 had stated the principle to be followed for payment of Transmission Charges of OPTCL. The said principle followed for the past Financial Years for payment of monthly SLDC Charges to SLDC & Transmission Charge to OPTCL shall also be followed for the Year 2019-20.

Rebate

253. For payment of bills through a letter of credit or NEFT/RTGS or by payment in cash within two working days (except holidays under N.I. Act) from the presentation of bill, a rebate of 2% on current bill shall be allowed. If the payments are made by a mode other than through a letter of credit but within a period of one month of presentation of bills by the Distribution Licensee, a rebate of 1% shall be allowed.

Late Payment Surcharge

254. In case payment of bills by the licensees is delayed beyond a period of 30days from the date of receipt of bill, a late payment surcharge at the rate of 1.25% per month shall be levied by OPTCL on the unpaid amount.

255. The transmission tariff approved as above in respect of OPTCL will become effective from 01.06.2019 and shall continue to remain in force until further orders.

256. The application of OPTCL in Case No. 71 of 2018 is disposed of accordingly.

Sd/-	Sd/-
(S. K. PARHI)	**(U. N. BEHERA)**
MEMBER	**CHAIRPERSON**