ODISHA ELECTRICITY REGULATORY COMMISSION
BIDYUT NIYAMAK BHAWAN
PLOT NO. 4, CHUNOKOLI, SHAILASHREE VIHAR, CHANDRASEKHARPUR, BHUBANESWAR-751021

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

CASE NO. 77 OF 2017

DATE OF HEARING : 08.02.2018
DATE OF ORDER : 22.03.2018

In the Matter of: **An application for approval of Aggregate Revenue Requirement and determination of Transmission Tariff for FY 2018-19 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 2018-19.**

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) u/S. 39(1) of the Act with effect from 01.04.2005. By virtue of the 2nd Proviso to S.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 u/S.16 of the Act, 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. OPTCL had submitted its ARR application for 2018-19 on 30.11.2017. After due scrutiny and admission of the matter, the Commission directed OPTCL to publish its ARR& Transmission tariff application in the leading and widely circulated in English language in one issue each of a daily English and Odia daily newspaper

and in Odia language in one issue of daily Odia newspaper. The matter was also posted in the Commission's website in order to invite objections/views. The Commission had also directed the applicant to file its rejoinder to the objections and to serve a copy of the same on them.

3. Accordingly, OPTCL published the said public notice in leading daily English and Odia newspapers. 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 ensuing tariff proceedings.

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

(1) Sri G.N. Agrawal, Convenor-cum-Gen. Secy, Sambalpur District Consumers Federation, Balajee Mandir Bhawan, Khetrajpur, Sambalpur-768003,(2) Shri M.V.Rao, M/s. Ferro Alloys Corporation Limited, GD-2/10, Chandrasekharpur, Bhubaneswar-751023,(3) Shri Ramesh Ch. Satpathy, Secretary, National Institute of Indian Labour & President Upobhokta Mahasangha, Plot No.302(B), Beherasahi, Nayapalli, Bhubaneswar-751012,(4) Sri Ananda Kumar Mohapatra, Power Analyst, S/o-Jachindranath Mohapatra, Plot No. L-II/68, SRIT Colony, Budharaja, Ps-Ainthapali, Dist-Sambalpur-768004,(5) M/s. Adhunik Metaliks Limited, IPICOL House, 3rd Floor, Annexe Building, Janapath, Bhubaneswar-751022,(6) North Odisha Chamber of Commerece and Industry (NOCCI), Ganeswarapur Industrial Estate, Januganj, Balasore-756019, (7) M/s. Visa Steel Limited(VSL), Kalinganagar Industrial Complex, At VISA House,11 Ekamra Kanan, Nayapalli,Bhubaneswar-751015, (8) M/s Swain & Sons Power Tech Pvt. Ltd., At-K-8/82,Kalinga Nagar, Ghatikia, Bhubaneswar-751003, (9) Shri R. P. Mahapatra, Retd. Chief Engineer & Member (Gen.), Plot No-775 (P), Lane-3, Jayadev Vihar, Bhubaneswar-751013. All the above named objectors/their representatives along with the representative of Dept. of Energy, GoO were present during tariff hearing and their written submission filed by them 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 Determination of Transmission Tariff proposal for FY 2018-19. The Consumer Counsel presented his views in the hearing.

7. The date for hearing was fixed as 08.02.2018 at 11.00 AM and it was duly notified in the leading newspaper mentioning the list of the objectors. The Commission also issued individual notice to the applicant, objectors and the Government of Odisha (through Department of Energy) informing them about the date time of hearing and requested the Government to send authorized representative to take part in the proceeding.

8. In its consultative process, the Commission conducted a public hearing at its premises on 08.02.2018 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 20.02.2018 at 10.30 AM at its premises to discuss about the Aggregate Revenue Requirement applications and tariff proposals of licensees for FY 2018-19. The Members of SAC, Special invitees, Representative of DoE, Govt. of Odisha actively participated in the discussion and offered their valuable suggestions and views for consideration of the Commission.

OPTCL's ARR & TARIFF PROPOSAL FOR FY 2018-19 (PARA 10 TO 43)

10. As per Regulation 53 (1) at Chapter VIII of OERC (Conduct of Business) Regulations, 2004 and under Clause 19.3 of License Conditions of OPTCL, the deemed licensee is required to submit its Aggregate Revenue Requirement (ARR) application for the ensuing year before OERC for approval by 30th November each year. Under Regulation 5.2 of the OERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2014. OPTCL has submitted its Aggregate Revenue Requirement & Transmission Tariff application for FY 2018-19 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, for which, OPTCL has filed one petition before the Commission on 26.10.2016. OPTCL has prayed therein inter alia to acknowledge ECoR as a "Deemed Distribution Licensee" and declare them as the fifth DISCOM. Based on the above premise, OPTCL in the ARR application for FY 2018-19 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 has been followed by the Transmission Licensee while formulating its ARR and Transmission Tariff application.

13. 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

14. The various costs involved for carrying out transmission business by OPTCL for FY 2018-19 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:

15. 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 Rs. 609.42 Cr. under the head of O&M expenses for FY 2018-19.

Salaries, Wages, Pension Contribution and Other Employee Costs

16. OPTCL has submitted that, presently (as on 31.03.2017) the no. of employees of OPTCL is 3077. A significant number of posts are lying vacant in different ranks affecting organizational performance. Therefore, it plans to fill up the vacancies in a phased manner and accordingly the recruitment process has been initiated.

17. 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.

18. OPTCL has proposed Rs. 419.57 Cr towards Employee Cost, Terminal Benefits and possible impact of 7th Pay Commission including for FY 2018-19. The details are given below:

Table -1
Employee Cost Proposed by OPTCL for FY 2018-19 (Rs.Cr)

Employee cost including Salary, Dearness Allowance etc.	224.64
Terminal Benefit Liability of Employees and Existing Pensioners	156.00
7^{th} Pay Commission Impact (Existing & Pensioners)	48.77
Less: Capitalization	9.84
Total	**419.57**

Administrative and General (A&G) Expenses

19. OPTCL has proposed Rs. 27.23 Cr towards A&G Expenses for FY 2018-19. 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

20. 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 2018-19 is Rs.156.19 Cr as shown in the Table below:

Table - 2
Repairs and Maintenance Expenses for FY 2018-19 (Rs.Cr)

Particulars	OERC Approval (FY 2016-17)	OERC Approval (FY 2017-18)	Projection (FY 2018-19)
(i) O&M	**110.59**	**124.97**	137.51
(ii) Telecom			1.86
(iii) Civil Works			13.50
(iv) Information Technology and Other			3.32
Total R&M Expenses			**Rs. 156.19 Cr.**

R&M Expenses Related to O&M

21. As on 01.04.2017, OPTCL owns 132 nos. grid sub-stations of different voltage classes and EHT transmission lines of 13,071.463ckt. km. as shown in the Table below:

Table-3

Sub-Station and Line Details	
400/220kV S/S	1
400/220/132/33kV S/S	2

220/132/33kV S/S	19	
220/33kV S/S	7	
220/132kV S/S	1	
132kV Sw.Stn.	20	
132/33kV S/S	79	
132/33/25kV S/S	1	
132/33/11kV S/S	2	
Total No. of Sub-Stations	**132**	
Voltage Level	**Lines (ckt. km.)**	**Bays**
400kV	1129.434	35
220kV	5911.208	298
132kV	6030.821	823
33kV		976
25kV		2
11kV		18
TOTAL	**13,071.463**	**2152**

Expenses related to auxiliary energy consumption in the sub-stations

22. The auxiliary energy consumption in the sub-stations for the FY 2014-15, FY 2015-16, FY 2016-17 and FY 2017-18 (up to Sept-17) is 10.75MU, 12.19 MU, 12.55 MU and 9.17 MU respectively. It is estimated that the auxiliary energy consumption for the FY 2018-19 will be about 20 MU. OPTCL proposes **Rs. 5.59 Cr** towards auxiliary energy consumption in the sub-stations.

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

23. **Grid Coordination Committee (GCC) Expenses:** Under (GCC) expenses, OPTCL proposes **Rs. 0.88 Cr** towards annual GCC Expenses for FY 2018-19 in line with the said provisions.

Interest and Financial Charges

Interest on Loan

24. OPTCL in its ARR application has proposed Rs.94.46 Cr as interest on loan for FY 2018-19.

Interest on Working Capital

25. OPTCL has estimated Interest on Working Capital as Rs.230.08 Cr for FY 2018-19. The interest on working capital for one-month receivable works out to Rs.27.84 Cr. considering interest rate of 12.10%. OPTCL proposes Rs.13.92 Cr towards interest on working capital for 15 days on receivable.

Rebate

26. OPTCL has proposed 2% rebate amounting to **Rs.19.81 Cr.** which is calculated based on the projected ARR for the FY 2018-19.

Depreciation

27. The deemed cost of the assets at beginning of FY 2018-19 is estimated as Rs.3683.25 Cr. (Rs.3069.90 Cr. as on 01.04.17 + Rs.613.35 Cr.: projected addition during FY 2017-18). For 2018-19, depreciation is estimated as Rs.217.91 Cr. which includes Rs.0.66 Cr. towards cost of premium/rent on leasehold land. OPTCL prays the Commission to allow Rs. 217.91 Cr towards depreciation in the ARR for FY 2018-19 in order to repay the loan availed for CAPEX in time.

Return on Equity

28. After de-merger of GRIDCO on 1.4.2005, the equity share capital of OPTCL was Rs. 60.07 Cr. Through infusion of additional capital by the state government, the paid up equity capital of OPTCL has become Rs. 460.07 Cr as on 31.03.2017 (as per the Provisional Account). Government of Odisha has committed to provide Rs. 250 Cr. as equity between FY 2017-18 to FY 2021-22 i.e. Rs. 50 Cr. annually. Till date OPTCL has received Rs. 400.00 Cr. Accordingly, OPTCL proposes Return on Equity (RoE) of Rs. 69.75 Cr. during FY 2018-19 @ 15.5% on Rs. 450.00 Cr. (Rs. 510.07 Cr - Rs. 60.07 Cr) i.e. on opening balance of FY 2018-19.

Income tax

29. As per the Regulation 8.43 of OERC Regulations, 2014, Income tax of the Transmission Licensee shall be recovered from the beneficiaries. The Commission in the ARR of 2017-18, vide para 245, has allowed the actual tax expenses Rs.8.15 Cr. booked in the audited accounts for FY 2015-16 which is also claimed by OPTCL in the ARR application of FY 2017-18. OPTCL has projected Rs. 6.07 Cr. for the FY 2018-19 towards Income Tax under section 115JB of Income Tax Act, 1961.

Transmission cost

30. Considering the proposed cost / expenses under different heads, the Transmission Cost of OPTCL for FY 2018-19 has been worked out as **Rs.1031.35 Cr.**

Other Costs & Receipts

Incentive for system availability:

31. 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 2016-17 as 99.97%. 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. 9.30 Cr. towards system availability for FY 2016-17 using approved ARR figure of Rs.623.25 Cr. Hence, OPTCL proposes Rs. 9.30 Cr towards Incentive for System Availability to be allowed in the ARR for FY 2018-19.

Miscellaneous receipt:

32. OPTCL has submitted that during 1st six months of FY 2017-18, miscellaneous receipt from different sources is about Rs. 20.64 Cr. In line with the trend of revenue earning during FY 2017-18, OPTCL expects the miscellaneous receipt of Rs. 50.00 Cr during FY 2018-19.

Summary of ARR proposed by OPTCL for FY 2018-19

33. Considering all the proposed expenses and receipts as explained in foregoing paragraphs, OPTCL has filed its Aggregate Revenue Requirement of **Rs.990.65 Cr** for FY 2018-19 for approval. Details are shown in the table below:

Table - 4
Summary of Aggregate Revenue Requirement of OPTCL for FY 2018-19

ITEMS	Proposal for OPTCL FY 2018-19	
A) FIXED COST		
1. O&M Expenses		**609.42**
(i) Employees Cost including Terminal Benefits	419.57	
(ii) A&G Cost	27.23	
(iii) R&M Cost	156.19	
(iv) Expenses related to auxiliary energy consumption	5.59	
(v) Other misc. expenses, statutory levies and taxes (GCC)	0.88	
2. Interest & Financial Charges		**128.19**
(i) Interest on Loan Capital	94.46	
(ii) Interest on Working Capital	13.92	

ITEMS	Proposal for OPTCL FY 2018-19	
(iii) Rebate	19.81	
3. Depreciation		**217.91**
4. Return on Equity		**69.75**
5. Income Tax		**6.07**
Sub-Total (A)		**1031.35**
B) Others		
Incentive for system availability		**9.30**
Total Trans. Cost (A+B)		**1040.65**
C) Less Misc. Receipts		**50.00**
D) ARR to be recovered from LTOA Customers i.e. **OPTCL's Aggregate Revenue Requirement**		**990.65**

Transmission loss

34. The actual transmission loss in the OPTCL's transmission system from April'17 to September'17 is **3.38%** against Commission's approval of 3.50% for FY 2017-18. OPTCL expects the loss level to remain around 3.40% in the current year. Accordingly, OPTCL proposes **3.25%** transmission loss during FY 2018-19.

OPTCL revenue receipt and deficit in the proposed ARR for FY 2018-19

35. OPTCL has taken the realistic demand projection of all four DISCOMs plus Railways totalling 26561 MU for FY 2018-19. OPTCL envisages 200 MU of energy to be transacted in 33kV & 11 kV network of the DISCOMs, for which OPTCL is not entitled to receive any transmission charge (as per Commission's order). So, OPTCL would bill for 26361 MU through their network for meeting requirement of DISCOMs. Further, OPTCL will handle 610 MU towards emergency sale to CGPs and wheeling to Industries from CGPs. So total energy handled through OPTCL system comes to 26971 MU. OPTCL will be having revenue deficit of Rs. 316.37 Cr considering the ARR proposed and the revenue deficit accruing from wheeling of 26971 MU at the existing transmission tariff of 25 P/U.

Proposal for revision of Transmission Tariff/ Wheeling Charges

36. OPTCL submitted that as the deficit 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.990.65 Cr.
2. Recovery of Transmission Charge @ 36.73P/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 Charges) Regulations 2006. The proposed open access charges of OPTCL for FY 2018-19 are shown in the table below.

Table- 5
Open Access Charges Proposed by OPTCL for FY 2018-19

DETAILS	In Rs. Per Unit approach
Net Aggregate Revenue Requirement (Rs. Cr.)	**990.65**
Proposed Energy to be transmitted in OPTCL Network (MU)	**26971**
Proposed Transmission Tariff (P/U)	**36.73**
Power Flow (Equivalent of 26971 MU) in MWs	**3079**
Long term Open Access Charges in terms of Rs./MW/Day	**8815**
Short term Open Access Charges in terms of Rs./MW/Day	**2204**

Reactive energy charges

38. The Reactive energy charges have been worked out by OPTCL as **3 paise/KVARh** based on the investment of Rs. 8.9224 Cr. made by OPTCL for procurement and installation of 275 MVAR Capacitor Banks at 20 grid sub-stations. Since during FY 2018-19, there is no plan to install Capacitor Banks at any other grid S/S, OPTCL proposes that **3 paise/KVARh** may be approved provisionally as Reactive Energy Charges FY 2018-19.

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.

Additional Submissions by OPTCL

East Coast Railway (ECoR) application to OPTCL

42. 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 premise, OPTCL in the present ARR application for FY 2018-19 has projected the demand of ECoR separately (as furnished by each DISCOM) as one LTOA Customer.

CAPEX for New Projects

43. In addition to this petition for approval of ARR, OPTCL has proposed to spend Rs.1142.55 crore towards Capital Expenditure (CAPEX) on new projects in different streams of activities like O&M, Telecom, IT, Construction and Civil Works during FY 2018-19. The summary proposal of OPTCL for CAPEX are shown below.

Table - 6

Particulars	Amount (Rs. Cr.)
(i) Telecom Wing	65.29
(ii) Existing Assets (O&M Wing)	39.55
(iii) Information Technology (IT Wing)	29.56
(iv) Civil Wing	52.83
(v) New Transmission Projects (Construction Wing)	955.32
Total Capital Expenditure [(i)+(ii)+(iii)+(iv)+(v)]	**Rs.1142.55 Cr.**

VIEWS OF CONSUMER COUNSEL, ON TRANSMISSION TARIFF PROPOSAL OF OPTCL FOR 2018-19 (PARA 44 TO 48)

44. 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 2018-19. 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

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

Annual Revenue Requirement

46. OPTCL has projected its revenue requirement for FY 2018-19 at about 54.94% more than that approved for FY 2017-18. In FY 2017-18, the total ARR was increased by 2.59% from approved ARR of FY 2016-17.

47. It includes the increase in Employee Cost (37.79%) R&M Cost (24.98%), A&G cost (6.37%), interest on loan capital (102.88%), depreciation (66.65%) and incentive (86.00%). The comparative figures of components of ARR are given in the table below.

Table - 7
Comparative Annual Revenue Requirement of OPTCL (Rs. Crore)

	Approved FY 2016-17	Approved FY 2017-18	Proposed FY 2018-19	Increase % 16-17 vs 15-16	Increase % 17-18 vs 16-17	Increase % 18-19 vs 17-18
Employees Cost incl. Terminal Benefits	292.55	304.5	419.57	-4.15%	4.08%	37.79%
A&G Cost	24.66	25.6	27.23	1.19%	3.81%	6.37%
R&M Cost	110.59	124.97	156.19	2.40%	13.00%	24.98%
Expenses related to auxiliary energy consumption	0	0	5.59			
Other misc. expenses, statutory levies and taxes(GCC+ CSR)	0.98	0.99	0.88	-19.67%	1.02%	-11.11%
Interest on Loan Capital	59.04	46.56	94.46	44.25%	-21.14%	102.88%
Interest on Working Capital	0	0	13.92			
Rebate	12.5	12.8	19.81	-0.87%	2.40%	54.77%
Depreciation	101.45	130.76	217.91	-5.61%	28.89%	66.65%
Return on Equity Including Income Tax	62.03	70.15	75.82	19.06%	13.09%	8.08%
Incentive for system availability	5	5	9.3	0.00%	0.00%	86.00%
Total	668.8	668.8	1040.68	1.81%	0.00%	55.60%
Less Misc. Receipts	45.55	45.55	50	75.19%	0.00%	9.77%

	Approved FY 2016-17	Approved FY 2017-18	Proposed FY 2018-19	Increase % 16-17 vs 15-16	Increase % 17-18 vs 16-17	Increase % 18-19 vs 17-18
ARR to be recovered from LTOA Customers i.e. OPTCL's Aggregate Revenue Requirement	623.25	639.4	990.68	-1.22%	2.59%	54.94%
Transmission Charges (P/U)	25	25	36.73	0.00%	0.00%	46.92%

48. The significant increase in all expenses as mentioned above would impose excessive burden on the general consumers of the state. Transmission loss should be fixed at a reasonable level. Therefore, there is a need to review the following expenses:

Employee cost including 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 2018-19 (PARA 49 TO 93)

Transmission Loss

49. OPTCL have 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.

50. OPTCL should have undertaken 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 should be adopted as 3%.

51. As the load growth in last few years has not been substantial and 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.

52. 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.

53. One objector submitted that the Commission may allow transmission loss @1.50% (national level of transmission loss as done by PGCIL).

Human Resource Expenses/ Employee Cost

54. Some objectors proposed that OPTCL may submit the audited balance sheet, P/L Statement and along with auditor report for FY 2016-17. Till then the commission may consider manpower cost as adopted in FY 2017-18 and approve for FY 2018-19. Hence Employee Cost for FY 2018-19 may be approved at Rs. 346.01 Crore.

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 7^{th} 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 submitted that WPI index for electricity fell by 0.8 i.e. 0.74% from its base value at Jan 2017. Hence the Commission may allow only 0.74% reduction and A&G expenses may be approved at Rs. 25.31 Crore.

Interest on loan capital

59. Out of projected interest on loan capital, State Govt. loan (Rs.0.26 crore) and Govt. of Odisha Bond (Rs.26 crore) may not be considered for interest on loan as per earlier tariff orders. Interest on new loan, during 2018-19 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 and hence the Commission may approve to the extent of Rs. 68.02 Crore towards Interest on Loan Capital.

60. Few objectors submitted that there is now significant reduction in interest rates due to demonetization; hence the Commission may consider lower interest on loan capital of OPTCL and also OPTCL may swap loans to lower interest rates.

Depreciation

61. The huge increase in depreciation is due to artificial increase in capital base which is based on proposed expenditure to be made during year 2018-19. Objectors requested not to allow any capitalization unless the work is completed and commissioning has been declared.

62. Few objectors submitted that no depreciation should be calculated on the projected cost of Rs. 888.84 Crore to be spent in FY 2018-19. Depreciation may be approved below Rs.130.76 crore i.e. at Rs. 100 Crore for FY 2018-19.

R&M expenses

63. 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. R&M expenses may be approved at Rs. 79.45 Crore for FY 2018-19 against proposed Rs. 156.19 Crore.

64. 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.

65. 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

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

Return on Equity

67. At present only Rs. 350 Crore equity has been received by OPTCL from state government till date. Hence, RoE is to be calculated on Rs.350 Crore @15.5% and accordingly may be approved at Rs. 52.70 Crore for FY 2018-19.

Interest on working capital

68. Transmission charges is the first charge being recovered from monthly BSP bill of DOSCOMs. There is no need for working capital as OPTCL has surplus fund available with it. So, interest on working capital may be disallowed.

Incentive for System Availability

69. 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, this revenue is not required by OPTCL and hence may not be approved.

Miscellaneous receipt

70. Actual revenue earned from wheeling, STOA, STU charges is much lower than approved in 2015-16. 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.

71. One objector submits that; the commission may calculate 'Misc. Receipts' @ Rs. 120 Crore) and pass the same for FY 2018-19.

Annual Revenue Requirement and Transmission Charges

72. One objector submitted that ARR for FY 2018-19 may be approved at Rs 527.51 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. Considering energy to be handled as 26003 MU as approved by OERC in case of LTDF for the period FY 2015-16 to FY 2023-24 the transmission charges would be 16.76 P/U.

73. The Commission may critically examine the proposal of OPTCL and reduce Transmission Charges to 23 P/U for FY 2018-19.

74. Another submission was that the Commission may allow the transmission charges of 20 P/U for FY 2018-19.

Open access charges

75. 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.

76. 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.

Reliability Support Charge for Connectivity

77. One objector submitted that there is no such provision in the Transmission Tariff Regulation and against the spirit of The Electricity Act 2003; hence the proposal should be rejected.

Other Issues

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

79. 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.

80. OPTCL should try to harness state's share power from Machhkund Hydro Electric Project.

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

82. 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 2017-18. All lines and substations are well equipped to give quality power supply and evacuate all the state quota from IPPs and CGPs during FY 2018-19.

83. OPTCL to submit the details of CGPs generating power in Odisha and their action plan to monitor all there CGPs.

84. OPTCL has to produce details of S/s already being constructed and connected to the grid for better voltage. S/s and lines have not yet replaced since 10 years, expenditure

on above under different schemes and overloaded lines and S/s. OPTCL has to produce the details of lines and S/s connected to different IPPs and evacuates all the power inside the State of Odisha

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

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

87. OPTCL should produce the status report on the list of the overloaded lines in a substation of the state.

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

89. The Commission to verify the incentive claimed by OPTCL for Transmission system availability factor (TAFY) before granting it

90. The Commission to examine the Govt. Electrification program 'Saubhagya Scheme' and power cut situation of current year and issue necessary direction for reliable power supply.

91. The Commission has to determine the expenditure to be allowed at the beginning of the year on the controllable and non- controllable expenses and take into account legitimate increases on account of growing GFA (R&M expenses are a % of value of Fixed assets), on account of inflation, etc.

92. 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.

93. OPTCL should implement the 3T policy in the power management/ administration of Odisha. Commission to issue necessary directions to the licensees to discharge duties and responsibilities of each licensee to avoid any allegation and cross allegation for the interest of the state.

REJOINDER BY OPTCL TO THE QUERY OF OBJECTORS (PARA 94 TO 178)

94. In response to the views of objectors on the ARR and Tariff Application of OPTCL for 2018-19, OPTCL had filed rejoinders for the same. The response of OPTCL has been broadly classified into the following issues.

Transmission Loss

95. 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 - 8
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%

96. The detailed calculation of Transmission Loss of 3.58 % for 2016-17 and 3.38% for the period April to September'17 (1st 6 months of FY 2017-18) in OERC approved format T-6 has been enclosed with the ARR application. 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 2018-19.

97. 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.

98. 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.

99. 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.

100. OPTCL proposes **3.25%** transmission loss during FY 2018-19. Hence, OPTCL does not agree with the suggestion of the Objector to ensure transmission with loss < 3%.

Steps taken for Energy Audit

101. OPTCL has already installed 619 nos. 0.2s accuracy class, ABT Compliant Energy Meters at identified points to meet the requirement for Energy Auditing as well as Billing. Monthly data enables OPTCL for assessing 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

102. OPTCL has projected Rs. 419.57 Cr. towards Employee Cost in the ARR application which is based on actual cost incurred in FY 2016-17 & FY 2017-18, facts and evidential documents. Besides, impact of 7th Pay Commission w.e.f. 01.01.2016 is also considered while estimating the projection for FY 2018-19.

103. 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 2017-18 is given in the table below:

Table - 9
Recruitment Status of OPTCL in FY 2016-17

Designation	No of Posts to be filled up	Posts filled up
MT-Electrical	100	100
MT-HRD	14	07
MT-IT	7	6
MT-CIVIL	4	2
MT-JR-IT	3	1

<table>
<tr><th>Designation</th><th>No of Posts to be filled up</th><th>Posts filled up</th></tr>
<tr><td>MT-JR-CIVIL</td><td>2</td><td>2</td></tr>
<tr><td>JMOT</td><td>150</td><td>150</td></tr>
<tr><td>MT (Fin) & MT-JR (Fin)</td><td>25</td><td rowspan="2">In process</td></tr>
<tr><td>Office Assistant Grade-III</td><td>60</td></tr>
<tr><td>TOTAL</td><td>365</td><td></td></tr>
</table>

104. The tentative recruitment plan of OPTCL for 2018-19 is submitted as per the details given in the table below.

Table - 10
Tentative Recruitment Plan FY 2017-18

Sl. No.	Designation	No. of posts to be filled up
1	MT-JR (Jr. Manager)	28
2	MT (Asst. Manager)	124
3	JMOT (EL.)	151
4	JTTT (Telecom)	18
5	Office Assistant (Grade-III)	13

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

106. As regards to filling up the vacant Director Posts, the posts of Director (Project) & Director (Operation) in OPTCL have been filled up since 09.10.2017.

107. OPTCL has submitted the Audited Annual Accounts for FY 2016-17 along with the Statutory Auditors Report to the Commission on 29.01.2018.

108. In view of the above, OPTCL does not agree with the projection of Rs.346.01 Cr. made by the Objector due to non-availability of Audited Accounts of OPTCL for FY 2016-17.

A & G Expenses

109. The actual expenditure as per audited accounts is always higher than the OERC approved figures. The table, give below, indicates the A&G expenses for the last 7 years.

Table - 11
A & G Expenses (Rs. Crore)

Year	OERC Approval (Rs. Cr.)	Actual (Audited) (Rs. Cr.)
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

110. 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.

111. 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.

112. 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 2016-17, the details of A&G expenses are as under:

Table - 12
Details of A&G Expenses (Audited Accounts FY 2016-17)

Sl. No.	A&G & Other Expenses	Rs. Cr.
1	Power and fuel consumed	1.55
2	Hire charges on vehicle	7.43
3	Legal and professional fees	1.94
4	Rent	2.73
5	Watch and ward expenses	2.12
6	License and other fees	1.72
7	Rates and taxes	0.23
8	Insurance charges	0.03
9	Fees and subscription	0.05
10	Advertisement for tenders	0.71
11	Corporate social responsibility expenses	0.88
12	Impairment loss recognized on non-financial assets	0.06
13	Impairment loss recognized on investments	0.01
14	Net loss on theft of material and others	3.10
15	Travelling expenses	2.80
16	Communication expenses	0.77
17	Office maintenance charges	0.96
18	Rebate to consumers	11.22
19	Writing off of Receivable /Advances	19.53
20	Other expenses	3.84
Total		**61.68**

113. OPTCL has proposed the A&G Cost for FY 2018-19 as Rs.33.95 Cr. excluding rebate and other provisions [(F-12), page 168 of ARR application]. However, OPTCL has claimed Rs.27.23 Cr. based on Regulation 8.14 of OERC Transmission Tariff Regulations, 2014 and principle adopted by the Commission.

114. Further, as per Regulation 8.14 of OERC Transmission Tariff Regulations, 2014, the escalation factor is equal to WPI over the amount approved by the Commission in the previous year. Here the WPI means WPI of whole commodities not for a particular

item. The nature of expenditure booked under A& G expenses cannot be linked to any particular commodity like electricity.

115. The WPI as on January, 2017 was 112.06; whereas, WPI as on 31st October, 2017 was 115.05. Considering the average monthly increment over the corresponding previous year the escalation is calculated as (+) 3.576.

116. In view of the above, OPTCL does not agree with the projection of Rs. 25.31 Cr made by the Objector.

Interest on Loan Capital

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

118. Till date State Govt. has not granted any relaxation and waiver on the interest on Bonds. OPTCL has been making provision towards interest on State Govt. Loan Bonds from FY 2011-12 onwards and is liable to pay the same if the State Govt. demands.

119. The loans proposed to be availed from REC/PFC/Commercial Banks are in respect of various projects which have been approved by the Commission. Accordingly, an amount of Rs.1145.01 Cr. has been proposed as CAPEX for the FY 2018-19. For financing the above CAPEX and loan already availed, OPTCL proposes Rs.94.46 Cr. towards interest on loan capital for FY 2018-19 based on Regulation 8.24 of OERC Transmission Tariff Regulations, 2014.

120. The interest rate of the bank is computed based on Marginal Cost of fund based Lending Rate (MCLR) as per the RBI guidelines. Hence, demonetization cannot directly be linked with reduction of interest rate. The interest rate on REC and PFC loan has already been furnished in the Page 169 to 171 of 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.

121. Further, the loan may not be available at the MCLR rate but the commercial bank will charge MCLR plus spread which may vary upto 6%. In view of the above, OPTCL does not agree with the projection of Rs. 68.02 Cr. made by the Objector.

Depreciation

122. The Commission has approved depreciation of Rs.130.76 Cr. for FY 2017-18 computing at Pre-92 rate as per GoI notification dated 31.01.1992. For the FY 2018-19, OPTCL has projected depreciation of Rs.217.91 Cr. based on the audited accounts for FY 2016-17 considering the depreciation rate as prescribed under OERC Transmission Tariff Regulations, 2014 and taking into account up-valued asset base and projected additions thereto during FY 2017-18. 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.

123. Hence, the Objector's contention to approve the depreciation of Rs. 100 Cr. does not merit consideration.

Repair and Maintenance (R&M) Expenditure

124. 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.156.19 Cr. is proposed towards R&M expenses during FY 2018-19.

125. For OPTCL, Regulation 8.16 is applicable. For FY 2017-18, OERC has allowed Rs.124.97 Cr. against which OPTCL has already incurred expenditure of Rs.142 Cr. Hence, OPTCL's proposal needs full consideration by the Commission. OPTCL does not agree with the projection of Rs. 79.45 Cr. made by the Objector.

126. Year wise OERC approval and actual expenditure towards R&M for the period from FY 2013-14 to FY 2017-18 are given in the table below. The actual figures are as per audited accounts up to the year 2016-17. For the FY 2017-18, the figures are based on cash flow statement.

Table – 13
R&M Expenditure (Rs. Cr.)

Financial Year	OERC Approved	Actual
2013-14	60.00	70.20
2014-15	93.00	100.31
2015-16	108.00	111.51
2016-17	110.59	146.53
2017-18(till Nov'2017)	124.97	72.74 *(provisional)*

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

128. For FY 2017-18, OERC has allowed Rs.124.97 Cr. against which OPTCL has already incurred expenditure to the tune of Rs.72.74 Cr. till Nov-2017. The details of procurement of R&M materials along with execution already carried out up to Nov-17 have been submitted to the Commission in compliance with Commission's Query No. 26. Hence, OPTCL's proposal needs full consideration by the Commission which is just and realistic.

129. 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.

130. OPTCL very much appreciates the suggestions of Objector on life extension of assets. However, for enhancement of life span of existing EHT lines and sub-station equipment, following measures are being carried out in a phased and planned manner:

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

131. 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.

132. 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.

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

134. 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.

Interest on Working Capital

135. Interest on Working Capital may be allowed as per norms specified in Regulation 8.25 of OERC Transmission Tariff Regulations, 2014. OPTCL does not agree with the suggestion of the Objector as this is contrary to the provisions of OERC Regulations.

136. Hence, the projection towards Interest on Working Capital of Rs. 13.92 Cr. for FY 2018-19 is very much realistic which needs full consideration. OPTCL does not agree with the contention of Objector for not allowing any amount under this head.

Return on Equity (RoE)

137. As on date, OPTCL has received Rs.400.00 Cr. from Govt. of Odisha towards Equity Share Capital. Further, Rs.50.00 Cr. will be received from the State Govt. shortly. The projection Rs.69.75 Cr. (@15.50% post-tax) towards RoE is based on Regulation 8.29 of OERC Transmission Tariff Regulations, 2014.

138. Commission has allowed Rs.62.00 Cr. towards RoE @ 15.5% on the equity base of Rs.400 Cr. in the ARR Order for FY 2017-18.

139. OPTCL does not agree with the contention of the Objector projecting Rs. 52.70 Cr. towards RoE as this is contrary to the provisions of said Regulations. Hence, the projection towards RoE is very much realistic which needs full consideration.

Incentive for System Availability

140. OPTCL has proposed an amount of Rs. 9.30 Cr. towards incentive for system availability above 98.50% following Regulation 6.5 of OERC Transmission Tariff Regulations, 2014.

141. The Reliability Surcharge leviable for individual HT/EHT category of DISCOM Consumers availing supply through dedicated feeders is calculated basing on the availability of concerned feeders only whereas the System Availability of OPTCL is calculated taking into account the entire EHT network of the State which spans over 13,071.463 ckt. km.

142. OPTCL is planning and implementing action plans like upgradation of sub-station capacity, uprating of conductors from ACSR to HTLS, conversion from SC to DC and installation of capacitor banks as outlined below to strengthen its transmission system for ensuring quality, adequacy & reliability of power supply in the State of Odisha.

143. The above actions of OPTCL are aimed at eradicating low voltage and transformer overloading problems for supplying quality power across the State. Commission may consider OPTCL’s proposal in this regard. OPTCL does not agree with the suggestion of the Objector as this is contrary to the provisions of OERC Regulations.

Misc. Receipts

144. 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.

145. 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.

146. 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. Till date OPTCL has not received any amount towards PMC from the State Govt. Therefore, the assumption of huge amount receivable from State Govt. @ 6% of the project cost under Misc. Income is not tenable.

147. 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.50.00 Cr. during FY 2018-19. The Objector's contention to consider Rs.120 Cr. under this head is not justified.

148. OPTCL has made arrangement to source Odisha share power from the IPPs which is supplied to consumers of the state through DISCOMs. Balance IPP power is exported through PGCIL (CTU) network to outside buyers under appropriate agreements executed by the IPP with the concerned buyers. About 9,500 MW installed generation capacity belong to industries with CGPs. Their surplus power, if required, is also supplied to state consumers through OPTCL/DISCOM network. Hence, Objector's contention that OPTCL has failed to make business out of surplus power generation in Odisha is not acceptable and hence need not be considered.

Aggregate Revenue Requirement

149. The projections made by OPTCL as per the OERC Transmission Tariff Regulations, 2014 are very much realistic which need full consideration. OPTCL does not agree with the estimation of Objector with regard to ARR of Rs. 527.51 Cr. against

OPTCL's proposal of Rs. 990.65 Cr.in view of component wise rejoinder made in foregoing paragraphs against objections made by the Objector.

Transmission Charges

150. The proposed transmission tariff 36.73 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. OPTCL does not agree with the ARR estimated by the Objector. Hence, working out the Transmission Charge @ 16.76 p/u does not merit consideration.

151. With regard to availability of power from OHPC generating stations after deduction of 1% loss consisting of 0.5% towards auxiliary consumption and 0.5% towards transformation loss stands absolutely correct. The same is exclusive of the transmission loss of OPTCL.

152. The loading of transformers in some sub-stations is low/moderate due to installation of 3rd transformer. This has facilitated proper load management without resorting to load shedding. Data with regard to all transformer maximum % loading have been submitted in L-9 format.

153. OPTCL has submitted all required data/information in the present ARR application as per the prescribed formats of Commission. Year wise data with respect to commissioning of new lines and sub-stations are submitted to the Commission during performance review. Recent performance review was done by the Commission on 21.12.2017 for the FY 2016-17 and FY 2017-18 (Apr-Sept'17).OPTCL had furnished commission all requisite information and details as per the prescribed formats of the Commission with full justifications

154. OPTCL has a concrete plan of action to complete the projects within the scheduled time period. During the last 6 months, substantial progress is made and the target of CAPEX will be achieved. Hence, the Objector's contention to reduce the transmission charge to 23 p/u for FY 2018-19 without proper justification and supporting calculation does not merit consideration.

Open Access and Charges

155. In Table-26 (page 38 of ARR application), the derivation for LT and ST Open Access charges have been done assuming the proposed numbers. The Commission shall determine those charges based on approved figures.

156. It is submitted in the ARR application (page 38) regarding filing of an application by OPTCL before 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.

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

Introduction of Reliability Support Charge for connectivity

158. OPTCL submits that the objection made herein is neither matter of records nor related to present ARR and Transmission Tariff application of OPTCL. Hence, OPTCL has no views to offer. The Commission may kindly consider the proposal of OPTCL in this regard.

Other Issues

159. The contentions of the Objector are denied as a co-ordinated effort is always made by OHPC, GRIDCO, OPTCL and SLDC to harness maximum generation of OHPC including from Machkund Power Station as the power from these sources are the cheapest.

160. The % of time when the voltage was below the limit as indicated for Sunabeda sub-station in Format P-1 (page 71 of the ARR application) was actually 1% and 2% respectively for last 6 months of 2016-17 and 1st 6 months of 2017-18. There was typographical error showing those as 100% and 200%.

161. However, in other sub-stations falling under Kesinga command area i.e. Kesinga, Khariar, Bhawanipatna and Junagarh, the system voltage is remaining below the limit for considerable time period. This is due to the fact that these sub-stations are fed from 132kV Bolangir sub-station at a distance of more than 100km. After commissioning of 220kV sub-station at Kesinga (now ongoing) by Decembe-2018, the low voltage problem will be permanently eradicated.

162. As Paralakhemundi sub-station is radially fed from Machkund system (more than 350km) the voltage remains low for considerable time period. The problem will be solved after commissioning of 220kV R.Udayagiri GIS sub-station.

163. 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).

164. "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.

165. OPTCL has adopted latest mode of communication i.e. fibre communication through OPGW (Optical Fibre Ground Wire). OPTCL is running all its IT applications like ERP, AMI etc. through its own fibre network which is the biggest benefit achieved by OPTCL so far apart from earning revenues by leasing out dark fibres. It is further submitted that none of the Telecom equipment are lying unutilised in Store as alleged by the Objector. Hence, the suggestion of the Objector does not merit consideration.

166. The Objections raised with regard to non-implementation of MYT Principle by the Commission are not correct. For OPTCL, the Commission has approved Business Plan for the FY 2014-15 to FY 2018-19 vide order dated 30.07.2016 in Case No. 05/2016. In this order, the component wise ARR aspect has been dealt in a broader perspective up to FY 2018-19 keeping in view the provisions of OERC Transmission Tariff Regulations, 2014.

167. OPTCL in its ARR application has proposed 26971 MU to be transmitted in its network during FY 2018-19 for consumption by consumers of Odisha and wheeling energy of CGPs to their industries including emergency supply to CGPs. This is about 6% increase over the quantum (25545MU) approved by the Commission for the current year FY 2017-18. The 6% rise in energy demand is a good indicator thus justifies OPTCL's statement of higher demand due to ongoing industrialization and implementation of different central and state sponsored rural electrification schemes. In view of the above, Objector's suggestion to dismiss the baseless proposal of OPTCL is liable to be rejected.

168. The list of lines and sub-stations connected to different IPPs for evacuation of state share of power are given in the table below:

Sl. No.	Name of IPP	Connected to OPTCL Network
(i)	Arati Steel, Ghantikhal	LILO on 132kV Meramundali Choudwar Ckt-I
(ii)	GMR Kamalanga Energy ltd.	400kV Meramundali-GKEL SC
(iii)	Meenakshi Power Ltd.	132kV Meenakhi-Jayanagar SC
(iv)	NBVL, Meramundali	132kV NBVL-Kharagprasad DC
(v)	Orissa Power Consortium Ltd., Samal	LILO on 132kV TTPS-Duburi Ckt-I
(vi)	Vedanta Limited, Jharsuguda	400kV Meramundali-Vedanta DC

169. The above lines are part of the transmission system of OPTCL. 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 of long-term customers. Hence, revenue earned by OPTCL from exclusive use of above lines cannot be ascertained.

170. The 400kV Ib-Meramundali DC line from Meramundali S/S to M/s Vedanta has been commissioned in Dec'2015 & Odisha share of power is being evacuated through this line. For evacuation of power from Ib-Thermal Power station expansion, the 400kV connectivity to Ib-Thermal from Lapanga S/S is under progress. The updated Transmission Plan for the period up to end of FY 2021-22 is adequate enough to receive Odisha share of power without paying any CTU charges.

171. OPTCL submitted the Transmission Plan connecting Inter-state lines & Intra-state plans for 220kV & above to CEA in 18th Standing Committee. CEA has approved the following:

- 400kV projects for the state of Odisha up to FY 2018-19.
- 400/220kV Meramundali-B S/S with associated line
- 400/220kV Narendrapur S/S with associated line
- 400/220kV Khuntuni S/S with associated line

Delays in Project

172. 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 schedule completion period varying from 24 to 36 months from the date of award of the contract.
- The schedule 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.
- 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 resulting 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 Hon'ble Court.
- Delay in getting statutory clearances such as forest clearance etc.

173. Due to the above reasons, although the sub-station work is completed in all respect within the schedule period, commissioning of the sub-station 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 & aims to complete within the time schedule to avoid time and cost over-run.

174. The contentions of the Objector are denied as a co-ordinated effort is always made by OHPC, GRIDCO, OPTCL and SLDC to harness maximum generation of OHPC including from Delays in Project.

Quality, Adequacy and Reliability of Power Supply in the State

175. 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.

176. Construction of new sub-stations & lines are planned taking into consideration the loading constraint of the existing system as well as demand projections by the DISCOMs.

a) 92 nos. new transmission projects (lines & sub-stations) were approved by the Commission in the revised Business Plan vide order dated 30.07.2016 in Case No.05/2016 in the 12thplan period (2012-13 to 2016-17) & part of 13th Plan period (2017-18 to 2018-19). Out of the above, the following projects have been completed till date and the projects targeted to be completed in FY 2017-18 &FY 2018-19 are indicated below.

- Projects completed during FY 2013-14 to 2015-16: 30 nos.
- Projects completed in FY 2016-17: 14 nos.
- Projects already completed in FY 2017-18: 09 nos.
- Projects to be completed in FY 2017-18: 25 nos.
- Projects under construction & to be completed in FY 2018-19: 19 nos.

b) "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.

c) 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 2016-17, 115 MVA transformation capacity has been added at 6 sub-stations. Similarly, in FY 2017-18 till date, 409 MVA has been added at 10 sub-stations.

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

e) Installation of 33kV Capacitor Banks for improvement of voltage profile at identified sub-stations. Till date, 265MVAr has been added at 19 sub-stations. Balance 10MVAr is under installation at one sub-station and scheduled to be commissioned within FY 2017-18.

f) 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) and 99.97% (2016-17). The Commission has acknowledged this achievement of OPTCL. The Central Electricity Authority has declared OPTCL as the Best Performer (GOLD Medal) in the country under 'Transmission System Availability' category consecutively for FY 2012-13 and 2013-14.

g) This amply shows the effort and commitment of OPTCL to provide good quality uninterrupted power supply to DISCOMs. DISCOMs are required to supply quality power to end consumers of the State through their distribution network. Hence, giving undertaking through affidavit as has been urged by the Objector does not arise.

h) Substantial steps have been taken to minimise interruptions in the transmission system. The same are detailed below:

- Replacement of old, obsolete and defective equipment like Breakers, CT, PT, CVT, LA etc.
- Predictive maintenance of sub-station & line equipment using diagnostic testing kits.
- Thermo-vision scanning of sub-stations & lines and subsequent remedial measures.
- Replacement / uprating of bus system in the sub-stations including replacement of old & damaged conductors of lines.
- Provision of double jumpers at tension locations of lines.
- Replacement of disc insulators with long rod insulators in saline prone areas.
- Improvement of earthing system of lines.
- Application of silicon rubber coating on insulators inside sub-stations located in saline belts.

i) For quick restoration of power supply:

- OPTCL has deployed emergency restoration gangs at strategic locations to attend breakdown with least time delay.
- Adequate stock of ERS towers has been maintained for use during contingent situation arising out of tower failures.

j) Substantial tangible steps have been taken by OPTCL to address issues of line constraints. These are enumerated below:

- Loading Constraints of 132kV Chandaka-Mancheswar and Chandaka-Ranasinghpur lines have been solved by conversion of ACSR conductor to HTLS conductors.

- Also, OPTCL has awarded contracts for uprating of conductors from ACSR to HTLS in 132kV Joda-Barbil and 132kV Mendhasal-Khurda lines.
- Work is in progress for conversion of S/C lines D/C lines for 132kV Akhusingh - Paralakhemundi, 132kV New Bolangir-Patnagarh, 132kV New Bolangir-Sonepur, 132kV Jajpur Road-Anandpur, 132kV Paradeep - Jagatsinghpur lines which would further improve the loading capacity.
- 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.
- By installation of 220/132 Auto-Transformer at Mendhasal, loading constraints of Khurda has been addressed.
- Commissioning of Dabugaon and Umerkote sub-stations has improved the power supply and power quality in those areas.
- Besides above steps, 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.

k) 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.

The lines presently undergoing replacement of old conductor are shown in the table below:

Sl. No.	**Name of the EHT Lines**
1	132kV Digapahandi – Mohana line
2	132kV Digapahandi – Berhampur line
3	132kV TTPS – Duburi – Jjapur Road Ckt-II
4	132kV Jajpur Road – Bhadrakh Line
5	132kV Burla PH – Budhipadar Ckt – I
6	220kV TTPS – Joda Ckt – I
7	220kV Meramundali – Bhanjanagar Ckt – I

8	132kV Chainpal – Choudwar Ckt – I
9	132kV Budhipadar – Rajgangpur line
10	132kV Kendrapara – Paradeep DC

The lines presently undergoing conversion from ACSR Conductor to HTLS conductor are shown below:

Sl. No.	**Name of the EHT Line**
1	132kV Mendhasal – Khurda line
2	132kV Joda – Barbil line

The lines presently undergoing conversion from S/C to D/C are shown below:

Sl. No.	**Name of the EHT Line**
1	132kV New Bolangir-Patnagarh
2	132kV New Bolangir-Sonepur
3	132kV Akhusingh-Paralakhemundi

177. Annual and periodic maintenance works on all lines and sub-stations are regularly carried out by OPTCL. Any Unscheduled replacement/maintenance work is promptly attended as per requirement.

OBSERVATION OF THE STATE ADVISORY COMMITTEE (SAC) (PARA 178)

178. The Commission convened the State Advisory Committee (SAC) meeting on 20.02.2018 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 increase in Transmission tariff as proposed by OPTCL, will be extra burden to consumer and levy of Reliability surcharge should not be included. Prof A. K Tripathy suggested that since Odisha tariff is lowest in country, marginal increase in tariff will not affect much.

VIEWS OF GOVT. OF ODISHA ON TARIFF ISSUES (PARA 179)

179. Govt. of Odisha communicated its views on issue involving Transmission Tariff for the year 2018-19 vide their letter No. 2253 dated 12.03.2018 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 present difficult situation, the Govt. agrees to extend the status-quo on up-valuation till FY 2018-19.

COMMISSION'S VIEWS AND ORDER (PARA 180 TO 260)

180. The Commission, for approval of ARR and determination of transmission tariff for OPTCL for the FY 2018-19, has followed the principles as laid down in OERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2014 and is also guided by the provisions of the Tariff Policy as well as other Statutory Notifications and Directives while giving due considerations to the ground realities of the Odisha Power Sector.

181. OPTCL has inherited a transmission network from GRIDCO on as is where basis. Continuous up-gradation and regular repairs and 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 Commission's and consumers' expectations 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.

182. 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.

183. 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 should be shared with intending users by the CTU/STU and the

load dispatch centers, particularly information on available transmission capacity and load flow studies.

Computation of Transmission Loss for FY 2018-19

184. 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 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 'As the System Operates'.

185. 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. 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'17 to September'17 is 3.38% against Commission's approval of 3.50% for FY 2017-18. In view of the reducing trend of transmission loss level, OPTCL expects the loss level to remain around 3.40% in the current year. Accordingly, OPTCL has proposed 3.25% transmission loss during FY 2018-19.

186. The approved and actual transmission loss for the year 2011-12 to 2017-18 is furnished in the table below:

Table – 14

FY	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Approved (%)	3.90	3.80	3.80	3.75	3.75	3.70	3.50
Actual audited (%)	3.88	3.84	3.79	3.73	3.67	3.58	3.38 (Provisional for April 17 to Sept 17)

187. Some objectors have suggested for identification of maximum loss prone areas and conduct energy audit to know the quantum of loss in the system. Moreover, many CGP's have been synchronized and distributing additional power in local areas and also number of additional 132, 220 KV and 400 kV lines have been commissioned. Some objectors suggested to limit the transmission loss between 1.5% to 2.5%,

somewhat similar to that of PGCIL. We observe that OPTCL transmits energy at lower voltage compared to PGCIL and therefore a direct correlation to loss level by PGCIL may not be appropriate. We agree with the views of Objectors that in the mean time OPTCL has installed number of new Grid Substations and up gradation of lines and Substations. Further, the Commission in its Business plan order vide case No. 05/2016 dated 30.07.2016 has approved the Transmission loss as 3.00% for 2018-19 basing on submission of OPTCL.

188. Therefore, considering the submission of objectors and loss trajectory approved by the Commission in the Business Plan for the period from FY 2014-15 to FY 2018-19, the Commission approves 3.00% for FY 2018-19 as transmission loss for wheeling and directs that OPTCL shall 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 to bring it to the level at par with CTU.

Execution of Projects

189. Objectors have submitted that all lines and 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 direct OPTCL to co-relate 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 before submission of transmission project for approval of OERC need to be done to avoid idle investments being made due to non-completion of inter-linking transmission/ distribution lines/networks and consequent tariff implications.

190. 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.

191. The Commission directs that OPTCL should regularly monitor the progress of all its on-going projects to avoid delay.

192. Odisha has been vulnerable to natural disasters mostly on account of cyclone and flood. Transmission system being the backbone of power supply system should be designed and maintained in a manner so as to withstand it with minimal damage. Govt. of India vide Ministry of power DO letter no. 20/6/2014-OM Dt.05.12.2014 has stipulated that each Transmission Utility must have one set of ERS tower for their highest system voltage level for every 5000kM line as a general practice. Accordingly OPTCL has initiated procurement action for 3 sets ERS(each set having 4 towers) for its line length of more than 13363 ckt. kM.

In addition to the procurement action, regular awareness training and mock drills for erection of ERS structures should be conducted at different geographical locations. During this exercise, ODRAF team's help should also be taken on various use of equipment used by them during natural disasters. Recently such exercises have been conducted at Mancheswar and Bidanasi Grid sub-stations.

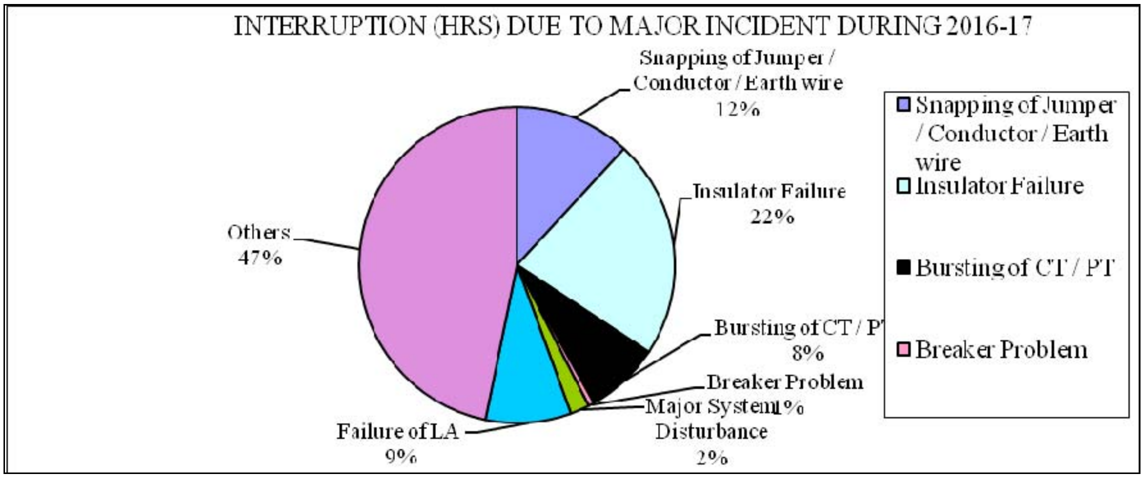
System Interruptions due to Major Incident:

193. OPTCL's system has faced aggregated Annual interruptions varying from 1 hour to 95 hours at different locations on account of 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 (without resorting to total power failure due to non-availability of transmission capacity) from other nearby transmission facilities. The same effort has been made by OPTCL in maintaining uninterrupted power supply even in the event of generation failures. It has been reported about 29 hours of load restriction in the second quarter of the FY 2016-17 on rotation basis has been imposed to curtail demand due to non-availability of generation/failure of generating stations. OPTCL has claimed that there was no black out experienced in the State during the FY 2016-17. Duration of interruption in the year is given in table below:

Table - 15
Interruption due to Major Incident

Incident	Duration of Interruption	No. of Interruption	Percentage
Snapping of Jumper / Conductor / Earth wire	24:15:00	54	12%
Insulator Failure	45:56:00	42	22%
Bursting of CT / PT	15:36:00	11	8%
Breaker Problem	1:13:00	3	1%
Major System Disturbance	4:00:00	7	2%
Failure of LA	17:55:00	27	9%
Others	95:46:00	129	47%

194. 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 2016-17 in the state as claimed by OPTCL.



195. 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. The peak demand of 4105 MW in 2016-17 is about 70 MW less than the peak demand experienced during the previous year 2015-16 (4175 MW). The total energy drawl is 24273 MU in FY 2016-17 against 24615 MU in 2015-16, which indicates a reduction in electricity consumption of around 342 MU in the State. 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 166 kV minimum and 267 kV maximum in its 220 KV system and 93 KV minimum and 152 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 - 16

Sl. No.	Name of the 220/132 kV Grid Sub-station	Maximum Voltage in kV	Minimum Voltage in kV
1	Jaynagar	246	219
2	Theruvali	246	199
3	Bhanjanagar	259	202
4	Chandaka	242	181
5	Narendrapur	267	166
6	Joda	242	212
7	Tarkera	238	211
8	Budhipadar	239	219
9	Duburi	239	197
10	Balasore	244	192
11	Meramundali	242	215
12	Bidanasi	241	195
13	Katapalli	233	192
14	Bhadrak	241	195
15	Paradeep	235	191
16	Bolangir	235	178
17	Mendhasal	238	182

Sl. No.	Name of the 132/33 kV Grid Sub-station	Maximum Voltage in kV	Minimum Voltage in kV
1	Cuttack	143	109
2	Berhampur	153	105
3	Puri	139	96
4	Khurda	152	93

196. 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 on 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.

197. 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 renovation of the old grid s/s with provision of advanced metering/protection/communication system and to install or expand control rooms with modern automation. Further, as a part of O&M activity, OPTCL should upgrade the overloaded grid S/Ss in consultation with DISCOMs.

198. 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. Although, local press reported disruptions on account of equipment failure at Bhadrak and Meramundali, no intimation and enquiry report has been furnished by OPTCL to the Commission till date. This is a violation of the Condition 9.3 of Transmission License Condition of the Commission. The Commission directs OPTCL to report all such incidents in the year 2017-18 including the above along with detail reports required under licence conditions within three months. The Commission further directs that OPTCL shall follow the procedure scrupulously in future.

199. 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.

200. The Commission has analysed the application of OPTCL for Aggregate Revenue Requirement (ARR) for FY 2018-19 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

201. Operation and Maintenance expenses includes (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.

202. OPTCL has claimed an amount of Rs.419.57 crore for FY 2018-19 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) as on 1st January, 2016 by multiplying 2.57times with additional increment of 3% for each year as per the pay matrix of the existing employees and employees to be regularized during FY 2017-18 and FY 2018-19 after successful completion of their training period works out to Rs.166.42Cr.

ii. The prevailing rate approved by Govt. of Odisha is 4% wef 01.01.2017. Govt. of India has approved 1% DA on revised pay wef 01.07.2017. Considering the present inflation, it is likely that the DA rate for the FY 2018-19 would be around 10% (average).With the above projection, the DA for FY 2018-19works out to Rs. 16.64Cr.

iii. As per the present rate, all employees of OPTCL are entitled to get HRA @ 20% on the (Basic Pay+GP) where residence has not been provided. As per the 7th Pay Commission Resolution, all the State Govt. employee shall continue to draw the HRA equal to the amount drawn before the date of publication of the Resolution even after fixation of pay in revised pay scale. The revision of HRA shall be decided subsequently. Accordingly, OPTCL has projected Rs.9.00 Cr.HRA for FY 2018-19.

iv. All employees of OPTCL are entitled to get Medical Allowance @ 5% on the (Basic Pay+GP). Accordingly, OPTCL has projected Rs.9.53Cr. for FY 2018-19 towards Medical Expenses including projection of Rs.1.21 Cr. towards reimbursement of medical expenses.

v. Under staff welfare expenses, OPTCL has projected Rs. 4.69 Cr. towards Uniform, Liveries, GIS, Sports, Recreations & Cultural Activity, Hospital Expenses etc. for FY 2018-19.

vi. OPTCL has engaged personnel in different streams through outsourcing. Accordingly, Rs.3.09 Cr. has been proposed towards payment to outsourced personnel.

vii. OPTCL has already recruited 150 JMOT (Electrical) in the month of August, 2017 and initiated actions for induction of 15 No. Asst. Managers, 10 Nos. Jr.

Managers and 60 Nos. Office Assistants. Advertisement for recruitment for another 115 Nos. Asst. Managers and 3 Nos. of Jr. Managers planned to be floated taking total recruitment to 203 to be completed by March-2018. During the FY 2018-19, OPTCL is planning to recruit 334 Nos. employees comprising 124 nos. Asst. Managers, 28 nos. Jr. Managers, 151 nos. JMOT, 18 nos. JTTT and 13 nos. Office Assistants. Accordingly, OPTCL has proposed Rs.6.42 Cr. towards stipend for the new recruitees for the FY 2018-19.

viii. OPTCL has proposed one third (1/3rd) towards arrear pay amounting to Rs.27.66 Cr. in line with 6th Pay Commission arrear approved by the Commission.

ix. OPTCL proposes Rs.8.84 Cr. towards Bonus, Other allowances (Shift, Handicap, City, ABT etc.), LTC, Honorarium, Ex-gratia, Conveyance (both allowance and reimbursement) etc. for FY 2018-19.

x. Terminal benefits have been projected as per the report of the actuary.

xi. OPTCL has proposed arrear impact of 7th pay revision on pension for the period 01.01.2016 to 31.03.2018 and wage board revision for the period 01.04.2015 to 31.03.2018 amounting to Rs. 63.35 Cr. One third (1/3rd) of such arrear amount i.e. Rs. 21.12 Cr. Is proposed for the FY 2018-19.

Basic Pay

203. As per the un-audited data for FY 2016-17 the expenditure was Rs.67.23 crore. OPTCL in the reply to queries of the Commission reported that the actual cash outflow on Basic Pay + GP from April 2017 to November 2017 (for a period of 8 month) was Rs.40.07 crore. The Basic pay and GP for FY 2017-18 as submitted has been extrapolated to arrive at Basic pay for FY 2018-19 anticipating 7th pay recommendations. The said calculation is shown in the following table:

Table – 17

(Rs in Crore)

	FY 2017-18 (Approved)	**FY 2017-18 (Estimated)**	**FY 2018-19 (Estimated)**
Basic Pay + GP	58	60.11	
7th pay recommendation assuming 2.57 times hike with 3% annual increment			151.29

204. The above estimated Basic Pay is to be calculated and approved after taking into account the average number of employees considering retirement and inductions. The OPTCL has proposed the number of employees in the ARR in the following manner.

Table - 18
Information on number of Employees (Proposed)

No of employees as on 01.04.2016	3202
Induction of new employees during 2016-17	100
Retired /resigned during 2016-17	225
No. of employees as on 31.03.2017	3077
Induction of new employees during 2017-18	353
Retired/ resigned / to be retired during 2017-18	256
No. of employees as on 31.03.2018	3174
Induction of new employees during 2018-19	334
To be retired during 2018-19	197
No. of employees as on 31.03.2019	3311

205. The Commission examined the proposal of OPTCL towards induction of employees during 2017-18 and 2018-19 of 353 Nos. & 334 Nos. respectively. OPTCL has proposed an amount of Rs.6.42 crore towards stipend for the induction of 334 employees during FY 2018-19. The Commission is not inclined to consider the above employees while determining the average nos. of employees for FY 2018-19 as the pay structure of existing employees is different from the new employees to be inducted on contract basis. Accordingly the average number of employees approved by the Commission for computation of Basic Pay for FY 2018-19 is given below:

Table – 19
Information on number of Employees (Approved)

No. of employees as on 31.03.2017	3077
Induction of new employees during 2017-18	0
Retired/ resigned / to be retired during 2017-18	256
No. of employees as on 31.03.2018	2821
Average no. of employees for the FY 2017-18	2949
Induction of new employees during 2018-19	0
To be retired during 2018-19	197
No. of employees as on 31.03.2019	2624
Average no. of employees for the FY 2018-19	2723

206. The average employees during FY 2017-18 and FY 2018-19 works out to be 2949 Nos. and 2723 nos. respectively as shown in the above table.

Considering this, the basic pay is determined as under:-

Table – 20

(Rs. in crore)

Particulars	**FY 2018-19 (Approved)**
Basic pay on the basis of 7th pay recommendation assuming 2.57 times hike with 3% annual increment	163.88
Approved Basic Pay after factoring no. of employees	151.32

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 (from Rs.9.53 lakhs in the year 2015-16 to Rs.12.67 lakhs proposed now (2015-16-Rs.9.53lakh, 2016-17-Rs.9.50 lakh, 2017-18-Rs.9.59 lakh and proposed Rs.12.67 lakh in 2018-19) The Commission also observes that present employees cost constitute 54.61% (Rs.360.40 Cr.) and related A & G cost another 4% (Rs.26.44 Cr.), totalling to 58.61% 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.

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 any upward increase shall be on the basis of prudent check from time to time. The Commission, therefore, approves Rs.151.32 crore towards Basic Pay for FY 2018-19.

Dearness Allowance:

207. The Govt of Odisha implemented the 7th Pay Commission 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 2018-19.

Table - 21

Date effective from	Rate	Status
1.01.16	nil	Approved By GoO
1.07.16	2%	Approved By GoO
1.1.17	4%	Approved By GoO
1.07.17	5%	Approved By GoO
1.1.18	6%	Projected
1.07.18	7%	Projected
1.01.19	8%	Projected

208. As per the above table the DA rate for FY 2018-19 is assumed to be 7%.

House Rent Allowance

209. 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 recommendations and the HRA would be a fixed amount equalling to the amount received on the date of implementation of 7th pay recommendations.

Stipend for new contractual recruitment

210. Under this head OPTCL claimed an amount of Rs.6.42 crore for the FY 2018-19 as detailed in table below:

Table - 22
Stipend for new recruitment

YEAR	Post	Employees recruited/ to be recruited	Stipend per employee per month (Rs.)	Total stipend per month (Rs. Lakh)
2017-18	JMOT (EL)	150	7000	10.50
	Jr. Manager	13	12000	1.56
	Asst. Manager	130	18000	23.40
	Office Assistant	60	8000	4.80
2018-19	Jr. Manager	28	12000	3.36
	Asst. Manager	124	18000	22.32
	JMOT (EL)	151	7000	10.57
	JTTT (Telecom)	18	7000	1.26
	Office Assistant	13	8000	1.04
	Total	**687**		**78.81**
	Total stipend claimed for FY 2018-19 = Rs. 6.42 Cr.			

211. Commission allows the same of Rs. 6.42 crore towards stipend for new recruitments. OPTCL should follow State Govt models on contractual appointment as a State Govt. entity.

212. Medical allowance has been allowed @ 5% of basic pay. Medical reimbursement and all other items such as outsourced engagement, LTC, honorarium, ex-gratia and staff welfare expenses have been accepted as projected by OPTCL.

213. OPTCL has proposed arrear impact on account of 7th pay commission data to the tune of Rs. 82.17 Cr. for the period from 01.01.2016 to 31.03.2018. The OPTCL has proposed one third of such arrear to the tune of Rs. 27.66 Crore for FY 2018-19. The Commission however allows a sum of Rs. 25 Cr. as partial arrear on such account which would subsequently be adjusted after implementation of 7th pay recommendation. OPTCL shall follow State Govt. rules on contractual appointments.

Terminal Benefit including NPS

214. 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 2017-18, OPTCL has made provision of Rs. 2004.04 Cr. towards Terminal Liabilities(Pension, Gratuity and Leave Encashment) based on the Actuarial Valuation. OPTCL has further submitted that from FY 2005-06 to FY 2017-18 the Commission has allowed total Rs. 1857.05Cr. and the present gap is Rs. 146.99 Cr which has been projected as terminal liability for the FY 2018-19. Besides, OPTCL has projected Rs.9.01 Cr. towards employer's matching contribution for employees who have joined under NPS and Non-Pensionary Category.

215. OPTCL has also proposed arrear impact of 7th pay revision on pension for the period 01.01.2016 to 31.03.2018 and wage board revision for the period 01.04.2015 to 31.03.2018 to the tune of Rs.63.35 Cr. OPTCL has proposed one third (1/3rd)of such arrear amount i.e.Rs.21.12 Cr. for the FY 2018-19.

216. In reply to the query of the Commission, OPTCL has submitted the cash outflow statement towards terminal liabilities up to November, 2017. As per the statement an amount of Rs.103.26 crore has been disbursed towards terminal benefits (Pension, Gratuity and Leave Encashment) during 8 months of the FY 2017-18. The commission is of the opinion that since 7th pay recommendations are yet to be implemented 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 146.99 crore for FY 2018-19 as proposed by

the OPTCL. Besides the above, an amount of Rs.9.01 crore towards NPS and Rs.21.12 crore towards arrear pension are allowed for FY 2018-19.

217. 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- 23
Approved Employees Cost for FY 2018-19 (Rs. crore)

Sl No	Particulars	FY 2017-18 Approved	FY 2018-19 Proposed	FY 2018-19 Approved
A	**Salary & Allownce**			
1	Basic Pay and Grade Pay	58.00	166.42	151.29
2	Dearness Allowance	83.52	16.64	10.59
3	House Rent Allowance	8.70	9.00	9.00
4	Other Allowance	0.63	0.74	0.63
5	Bonus	0.01	0.01	0.01
6	Stipend for New Recruitment	5.00	6.42	5.50
7	Arrear Salary for 7th Pay Comission		27.66	
	Sub-total (A)	**155.86**	**226.89**	**177.02**
B	**Additional Employee Cost**			
	Arrear salary for impact of upgradation of PB 2 to PB 3	**1.35**	**-**	**-**
1	Out Sources Engagement	3.76	3.09	3.09
	Sub-total (B)	**5.11**	**3.09**	**3.09**
C	**Other Employee Cost**			
1	Medical Expenses (allowance + Reimbursement)	2.90	9.53	2.90
2	Leave Travel Concession	0.69	0.46	0.46
3	Honorarium	0.15	0.15	0.15
4	Ex-gratia	2.50	5.00	5.00
5	Staff Welfare Expenses	3.52	4.69	4.50
6	Miscellaneous	-	2.48	-
	Sub-total (C)	**9.76**	**22.31**	**13.01**
D	**Terminal Benefits**	139.58	146.99	146.99
1	Pension			
2	Gratuity			
3	Leave Salary			
4	Other (including contribution to NPS)	4.06	9.01	9.01
5	Arrear pension for 7th Pay Comission	-	**21.12**	**21.12**
	Sub-total (D)	**143.64**	**177.12**	**177.12**
E	**Total Employees Cost (A+B+C+D)**	**314.37**	**429.41**	**370.24**
F	Less: Employees Cost Capitalised	9.87	9.84	9.84
G	**Net Employee Cost (E- F)**	**304.50**	**419.57**	**360.40**

Repair & Maintenance Expenses

218. For the FY 2018-19 OPTCL has proposed an amount of Rs.156.19 crore under the head repair and maintenance expenses. Item wise details is given in the table below:

Table- 24

(Rs. crore)

Particulars	OERC Approval (FY 2016-17)	OERC Approval (FY 2017-18)	Projection (FY 2018-19)
(i) O&M	**110.59**	**124.97**	137.51
(ii) Telecom			1.86
(iii) Civil Works			13.50
(iv) Information Technology			3.32
Total R&M Expenses			**156.19**

219. 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-17, the opening balance of the Gross block as on 1-4-2018 is shown as Rs. 3683.25 crore. The commission after scrutiny of the audited accounts for the FY 2016-17 and further additions of assets during FY 2017-18 approves the assets as shown in the following table:

Table – 25

(Rs. in crore)

Transmission Assets	Deemed Cost as on 01.04.2018	Up valuation effect	Pre-up valued value of assets as on 01.04.2018
Free Hold Land	46.35		46.35
Lease Hold Land	40.10	5.64	34.46
Buildings	72.39	1.35	71.04
Plant and Machinery (other civil works)	18.63	1.58	17.05
Plant and Machinery	1887.85	70.87	1816.98
Plant and Machinery (By Beneficiary)	250.60	193.28	57.32
Plant and Machinery: (Lines, Cables and Network)	1305.12	451.29	853.83

Transmission Assets	Deemed Cost as on 01.04.2018	Up valuation effect	Pre-up valued value of assets as on 01.04.2018
Vehicles	1.06	0.44	0.62
Furniture, Fixture	4.47	1.20	3.27
Office Equipment& Others	21.26	2.21	19.05
Capital stores and spares	35.43		
Grand Total	**3683.25**	**727.86**	**2919.97**

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 01.04.2018 is assessed at Rs. 2919.97 crore. Accordingly the R&M expenses are calculated at Rs. 73.00 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. 38 crore. Therefore the total R&M approved is Rs. 111.00 crore for FY 2018-19.

Administration & General Expenses

220. For the FY 2018-19, the petitioner has proposed an amount of Rs. 27.23 Crore under the head Administration & General Expenses. Item-wise break up of expenses is given in table below:

Table- 26

PARTICULARS	(Rs. Cr.)
Approved for FY 2017-18	21.47
Escalation as per WPI up to Oct-17 (3.576%)	0.77
A&G for FY 2018-19	22.24
Add: Licence Fees	1.50
Add: Inspection Fees	2.85
Add: SLDC Charges	0.65
Total A&G Expenses for FY 2018-19	27.23

221. 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. The annual rate of inflation based on monthly WPI stood at 2.90% for the period from 1st April 2017 to 31st December 2017 as revealed from the Economic Survey Report 2017-18.

222. Therefore, the Commission allows escalation of 2.90% (rate of inflation measured by WPI for the period from 1st April 2017 to 31st December 2017) over the approved amount of previous year. The calculation for determining the A&G expenses is given in table below:

Table - 27

(Rs. Crore)

Normal A&G approved during 2017-18	21.47
Escalation as per WPI	2.90%
Normal A&G for 2018-19	22.09
Add licensee fees to Commission	1.50
Add: Inspection fees	2.85
Total A&G Expenses approved for FY 2018-19	**26.44**

223. The Commission approved an amount of Rs. 26.44 crore towards A&G expenses for the FY 2018-19. 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

224. The petitioner has proposed an amount of Rs.132.66 crore towards interest on long-term loan for the FY 2018-19. Loan-wise interest payment as proposed by OPTCL is depicted in table below:

Table- 28

Projection for Interest on loan for FY 2018-19 (Rs. Cr.)							
		Rate of Interest	**Principal as on 01.04.18**	**Loan to be received (FY 18-19)**	**Loan to be redeemed (FY 18-19)**	**Interest payment (FY 18-19)**	**Total Payment (FY 18-19)**
A	Govt. Loans						
	State Govt. (Cash Loan)	13.00%	2.00			0.26	0.26
	State Govt.(CRF)	0.00%	15.00				0
	GoO Bonds	13.00%	400.00			26.00	26.00
	Sub-Total		417.00			26.26	26.26
B	Institutional Loans						
	Bank of India	9.33% (Avg.)	192.71	49.76	6.75	18.32	25.07
	REC Loan	12.02%(Avg.)	232.02		25.45	27.33	52.78
	PFC Loan	12.03%(Avg.)	51.25		6.00	5.43	11.43
	Union Bank of India	8.10%	201.44			16.32	16.32
	JICA	0.80%	25.00	148.88		0.80	0.80
	Sub-Total		702.42	198.64	38.20	68.20	106.40
C	**Grand Total**		**1119.42**	**198.64**	**38.20**	**94.46**	**132.66**

225. 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. 379.73 crore. Such details are given in the following table:

Table - 29

Source	Opening balance as on 1.04.2017	Anticipated receipt (FY 2017-18)	Anticipated Payment (FY 2017-18)	Closing Balance 31.03.2018
Govt Loan				
State Govt (Cash Loan)	2.00			2.00
State Govt Loan (CTF)	15.00			15.00
Central Govt Loan	-		-	-
State Govt Bond	400.00			400.00
Sub Total	417.00	-	-	417.00
Banks/Fis				
Bank of India	48.43	144.28	0.00	192.71
PFC	48.75	9.01	6.51	51.25
REC	257.47	-	25.45	232.01
JICA		25.00		25.00
Union Bank of India		201.44		201.44
Sub Total	354.64	379.73	31.97	702.41
Others				
Infrastructure Loan	120.35		24.00	96.35
Total Loan	891.99	379.73	55.97	1,215.76

226. The loan position submitted above was analysed on the basis of the audited accounts for FY 2016-17 available with the Commission along with actual loans availed during 2017-18 (till Jan 2018). On scrutiny following details have emerged on the actual up-to date loans.

Table-30

	Opening balance as on 01.04.2017	Actual receipt upto Jan 2018	Anticipated receipt (FY 2017-18)	Anticipated Payment (FY 2017-18)	Closing Balance 31.03.2018	Closing Balance 31.03.2018 (approved)
Govt Loan						
State Govt (Cash Loan)	2.00				2.00	
State Govt Loan (CTF)	15.00				15.00	
Central Govt Loan	-			-	-	
State Govt Bond	400.00				400.00	
Sub Total	417.00		-	-	417.00	-
Banks/FIs						
Bank of India	48.43	3.69	144.28	-	192.71	52.12
PFC	48.75	9.01	9.01	8.23	49.53	49.53
REC	257.47			1.72	255.75	255.75
JICA		7.21	25.00		25.00	-
Union Bank of India			201.44		201.44	-

Sub Total	354.64	19.91	379.73	9.95	724.42	357.40
Others						
Infrastructure Loan	120.35			24.00	96.35	-
Total Loan	891.99	19.91	379.73	33.95	1,215.76	357.40

227. The amount proposed to be availed during 2018-19 has not been considered for calculation of interest. OPTCL shall make effort to reduce interest cost through swapping of loan wherever possible.

228. Source wise break up on loan as on 31.03.2018 and 31.03.2019, average rate of interest on the above loan and the amount of interest determined and approved for 2018-19 is given in table below:

Table – 31

(Rs. Crore)

Source	**Average rate of interest (%)**	**Loan as on 31.03.2018**	**Anticipated Payment (FY 2018-19)**	**Loan as on 31.03.2019**	**Average Loan amount**	**Interest amount**
Bank of India	9.70	52.12	6.75	45.37	48.75	4.73
REC	12.25	255.75	25.45	230.30	243.03	29.77
PFC	12.25	49.53	6.00	43.53	46.53	5.70
Total		**357.40**	**38.20**	319.20	338.30	40.20

229. The Commission allows Rs.40.20 crore towards interest on Loan for FY 2018-19.

B. Interest on Working Capital

230. OPTCL has proposed an amount of Rs.13.92 crore towards interest on working capital under Regulation 8.26 of OERC Regulations, 2014. The table showing calculation of interest on working capital is given in table below:

Table- 32

Calculation of Interest on Working Capital	
Parameters	**Rs. Crore**
(i) Receivables equivalent to two months of fixed cost.	87.88
(ii) Maintenance Spares @ 15% of O&M expenses	91.41
(iii) Operation & Maintenance expenses for one month	50.79
Total Working Capital	230.08
Interest on Working Capital @ 12.10% for 15 days	**13.92**

231. As per the OERC (Terms and Conditions for Determination of Transmission Tariff) Regulation, 2014 read with para 8.26 it has been mentioned that in case of STU (OPTCL) the Commission shall determine the quantum of working capital if needed depending upon the cash flow position of the licensee and shall allow interest on the

same. OPTCL furnished the cash flow statement up to November 2017. According to this revenue receipt is shown at Rs.450.41 crore whereas the revenue expenditure is Rs.337.83 crore. The gap is Rs.161.59 crore positive including opening surplus balance of Rs.49.01crore. The Commission therefore is not inclined to allow Interest on Working Capital in the revenue requirement for FY 2018-19.

Depreciation

232. It is revealed from the latest submission of Audited accounts for FY 2016-17 that OPTCL has adopted Ind- AS system of accounting. As reported in the said audited accounts the deemed cost of Assets as on 31.03.2017 is 3042.57 crore. However the Commission in the last Tariff order approved the Total Assets of OPTCL as on 31.03.2017 to the tune of Rs. 4086.91 crore. Therefore now the asset value has been reduced by Rs. 1044.34 crore due to the implementation of Ind- AS system of accounting. The OPTCL have submitted that assets worth of Rs. 613.35 crore will be added during FY 2017-18. The details of their submission regarding assets and depreciation is given in the following table:

Table - 33

Transmission Assets	OERC Depreciation Rate as per Regulations, 2014	Deemed Cost as on 01.04.2018	Addition during FY 2018-19	Depreciation
Free Hold Land		46.35	11.47	-
Lease Hold Land		40.10	9.92	0.66
Buildings	3.34%	72.39	17.91	3.37
Plant and Machinery (Other Civil Work)	3.34%	18.63	4.61	0.68
Plant and Machinery	5.28%	1887.85	467.06	122.08
Plant and Machinery (By Beneficiary)	0.00%	250.60	39.60	-
Plant and Machinery: (Lines, Cables & Network)	5.28%	1305.12	322.89	88.44
Vehicles	9.50%	1.06	0.26	0.11
Furniture, Fixture	6.33%	4.47	1.11	0.31
Office Equipment& Others	6.33%	21.26	5.26	2.25
Capital stores and spares		35.43	8.76	
Grand Total		**3683.25**	**888.84**	**217.91**

233. OPTCL has accordingly claimed an amount of Rs.217.91 crore towards depreciation for the FY 2018-19.

234. 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 which is shown in the following table:

Table - 34

(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

235. The depreciation is allowed as per the rate prescribed in the OERC Transmission Regulation 2014. A statement of Fixed Asset and block wise computation of depreciation allowed for FY 2018-19 given in the following table :

Table - 35

(Rs. Crore)

Transmission Assets	**OERC Depreciation Rate as per Regulations, 2014**	**Deemed Cost as on 01.04.2018**	**Up valuation effect**	**Approved (Pre-up-valued) assets as on 01.04.2018**	**Depreciation**
Free Hold Land		46.35		46.35	-
Lease Hold Land		40.10	5.64	34.46	
Buildings	3.34%	72.39	1.35	71.04	2.37

Transmission Assets	OERC Depreciation Rate as per Regulations, 2014	Deemed Cost as on 01.04.2018	Up valuation effect	Approved (Pre-up-valued) assets as on 01.04.2018	Depreciation
Plant and Machinery (other civil works)	3.34%	18.63	1.58	17.05	0.57
Plant and Machinery	5.28%	1887.85	70.87	1816.98	95.94
Plant and Machinery (By Beneficiary)	0.00%	250.60	193.28	57.32	
Plant and Machinery: (Lines, Cables and Network)	5.28%	1305.12	451.29	853.83	45.08
Vehicles	9.50%	1.06	0.44	0.62	0.06
Furniture, Fixture	6.33%	4.47	1.20	3.27	0.21
Office Equipment& Others	6.33%	21.26	2.21	19.05	1.21
Capital stores and spares		35.43		35.43	
Grand Total		**3683.25**	**727.86**	**2955.39**	**145.43**

236. Accordingly, Commission approves an amount of Rs.145.43 crore towards depreciation for the FY 2018-19.

Return on Equity

237. OPTCL has claimed an amount of Rs.69.75 crore during FY 2018-19 as per clause 8.28 of Regulation, 2014 on equity share capital of Rs.450 crore @ 15.5%.

238. 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 2017-18 amounts to Rs.450 crore. The sanction order and date of Govt. fund is given in table below:

Table – 36

Sl. No.	Sanction Order No. and Date	Amount (Rs. in cr.)
1.	R&R-I-01/2009-3560 dt.25.03.09	23.04
2.	R&R-I-01/2009-2003 dt.24.02.09	0.01
3.	R&R-I-01/2009-9464 dt.11.09.09	5.0
4.	R&R-I-01/2009-4826 dt.01.06.10	20.0
5.	R&R-I/73/2010-2438 dt.23.03.2011	51.95
6.	R&R-6/12-685 dt.31.01.2012	1.00
7.	R&R-6/12-690 dt.31.01.2012	39.00

Sl. No.	Sanction Order No. and Date	Amount (Rs. in cr.)
8.	R&R-6/12-695 dt.31.01.2012	3.00
9.	R&R-6/12-629 dt.22.01.2013	25.76
10.	R&R-6/12-634 dt.22.01.2013	16.60
11.	R&R-6/12-624 dt.22.01.2013	7.64
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
22.	BT(P)-04/2018/En-1786 dt. 26.02.18	15.00
23.	BT(P)-04/2018/En-1791 dt. 26.02.18	20.00
24.	BT(P)-04/2018/En-1796 dt. 26.02.18	15.00
25	**Total**	**450.00**

239. The Commission allows return at the rate of 15.5% on the equity value of Rs.450 crore amounting to Rs.69.75 crore**.** The Commission approves the same as a pass through in the ARR of 2018-19.

240. Further, OPTCL has proposed an amount of Rs.6.07 Crore towards income tax for 2018-19. The Commission allows the actual income tax expenses of Rs.4.16 crore booked in the audited accounts by OPTCL for FY 2016-17 as a pass through in the ARR of 2018-19 as against their claim of Rs. 6.07 crore.

Expenses relating to auxiliary energy consumption in the s/s

241. OPTCL has claimed an amount of Rs.5.54 crore under this head for FY 2018-19. 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

242. (a) **Grid Co-ordination Committee Expenses:** OPTCL claimed an amount of Rs.0.88 crore under the head GCC expenses for the FY 2018-19 against the Commission's approval of Rs.0.34 crore for FY 2017-18. The said expenditure for GCC is in general a part of A&G expenses. Therefore, the Commission allows an amount of Rs.0.34 crore towards GCC expenses for the year 2018-19 in line with approval of the last year ARR with stipulation that this provision should be treated as a controllable expense.

Payment of SLDC Charges

243. 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 has approved the ARR for SLDC for FY 2017-18 wherein it has been determined that OPTCL has to Pay 10% of SOC to SLDC. Accordingly, OPTCL will pay an amount of Rs.0.80 crore per annum to SLDC towards System Operation Charges for FY 2017-18. The details of SOC are available in the ARR of SLDC approved in Case No.78 of 2017. The said amount of Rs.0.80 crore is allowed in the ARR of OPTCL to be recovered through its Transmission Tariff.

Incentive for system availability

244. OPTCL in its submission has claimed an incentive of Rs.9.30 crore to be passed on the ARR of FY 2018-19 as the system availability of OPTCL Transmission Network for FY 2016-17 was 99.97%, which is more than Normative Annual Transmission System Availability Factor (NATAF) of 98.5%. The OPTCL system availability of 99.97% has been duly checked & certified by SLDC.

245. The Commission examined the relevant provision of Act & Regulations on payment of incentive to OPTCL. As SLDC has verified the System Availability of 99.97% during FY 2016-17 and is expected to maintain NATAF more than 98.5% during FY 2017-18, pending verification, the Commission approves an amount of Rs.5.00 crore as an incentive in the ARR of OPTCL for FY 2018-19 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. The Commission desires that

this incentive amount of Rs.5.00Cr. should be spent in such a way that its secondary side 33 KV supplies to DISCOMs should be within permissible range of 33 KV. OPTCL is directed to submit the breakup of the amount spent under this.

Rebate

246. 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 19.81 crore towards rebate for FY 2018-19. The Commission approves an amount of Rs.13.20 crore towards rebate as a pass through in the ARR.

Miscellaneous Receipts

247. OPTCL has proposed an amount of Rs.50 crore towards miscellaneous receipt from inter-state wheeling, Intra-State short term Open Access, Inter-State short term Open Access, STU charges received from Energy Exchange and supervision charges. OPTCL in its submission stated the following: During 1st six months of FY 2017-18, Miscellaneous Receipt of OPTCL from different sources is about Rs.20.64 crore. As required by the Commission the OPTCL submitted its cash flow statement up to November, 2017 as per which the miscellaneous receipt for the 1st 6 months of the current financial year worked out to Rs.48.78 crore. The details are given in table below:

Table- 37

Miscellaneous Receipt during 1st six months of FY 2017-18	
Source	**Rs. Crore**
Inter-State Wheeling	13.78
NALCO	4.53
IMFA	6.38
Short-Term Open Access	12.89
IEX	7.59
Supervision Charge	0.82
Sale of tender papers and other miscellaneous receipt	2.79
Total	**48.78**

248. Extrapolating the above amount of Rs.48.78 crore for a period of 12 month the miscellaneous receipt for the entire year works out to Rs.97.56 crore for the FY 2017-18. Apart from the above income, there are certain incomes which are earned by

OPTCL like interest on Bank Deposits. In the audited accounts for FY 2016-17 interest earned from Bank deposits was Rs. 19.21 crore. The Commission assumes the same amount to be earned from interest on Bank deposits in the FY 2018-19. Therefore Commission considers the amount of Rs.116.77 crore i,e.(Rs.97.56 + Rs.19.21) crore towards Miscellaneous Receipt for the year 2018-19.

Transmission Cost

249. OPTCL in its ARR application has considered demand projection of all four DISCOMs totalling 26561 MU for FY 2018-19. 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 26361 MU. The Commission scrutinized the proposal of OPTCL and the total energy to be transmitted in the OPTCL system is estimated at 26400 MU for FY 2018-19, the details of which are mentioned in the table below:

Table – 38

Details of Energy for Transmission	Proposed by OPTCL (MU)	Approved by OERC (MU)
Total Demand of DISCOM	26,561.0	25,990.0
Less energy transmitted in 33KV & 11 KV network	200.0	200.0
Energy Transmitted for DISCOM	26,361.0	25,790.0
Wheeling to industries from CGPs	600.0	600.0
Sale to CGPs by GRIDCO	10.0	10.0
Total	**26,971.0**	**26,400.0**

250. The details of expenses proposed by OPTCL and approved by the Commission for FY 2018-19 towards transmission charges are depicted in table below:

Table – 39
ARR Proposed and Approved for OPTCL for 2018-19

Particulars	Approved for 2017-18	Proposed for 2018-19	Approved for 2018-19
Employees Cost including Terminal Benefits	304.50	419.57	360.40
R&M Cost	124.97	156.19	111.00
A&G Cost	25.60	27.23	26.44
Interest and financial charges	46.56	94.46	40.20
Depreciation	130.76	217.90	145.43
Return on Equity	62.00	69.75	69.75
Income Tax	8.15	6.07	4.16
Interest on Working Capital	-	13.92	-
Sub-Total	**702.54**	**1,005.09**	**757.38**

Particulars	Approved for 2017-18	Proposed for 2018-19	Approved for 2018-19
Special Appropriation			
Pass Through Expenses			
Contingency Reserve			
Other miscellaneous expenses (Aux.)	-	5.58	-
GCC Expense including SLDC charges and CSR	0.99	0.88	1.14
Incentive for system availability	5.00	9.30	5.00
Rebate	12.80	19.80	13.20
Total	**721.33**	**1,040.65**	**776.72**
Less Misc. Receipts	81.94	50.00	116.77
Annual Revenue Requirement to be recovered from LTOA Consumers (i.e. DISCOMs & CGPs)	**639.40**	**990.65**	**659.95**
No. of Units to be handled	25,545.00	26,561.00	26,400.00
Transmission Charges (Paise/Unit) (Rounded)	**25.03**	**37.30**	**25.00**
Expected Revenue from LTOA Customers	639.40	674.28	
Deficit	-	(316.37)	

TARIFF DESIGN

Transmission Charges

251. 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 paise 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.

252. 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 26400 MU with an average demand of 3014 MW. The net transmission cost as indicated in the table above is Rs.686.47 crore. Accordingly, the LTOA charges work out to a rounded sum of Rs.6000.00/MW/day or Rs.260/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

253. 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 2018-19. However, the Commission expects that OPTCL shall strive to reduce the loss further by 0.20% by adopting best practices by end of 2018-19.

Reactive Energy Charges:

254. 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.The charges have been worked out @ 3 paise/KVArh for FY 2016-17 &also for FY 2017-18. Since during FY 2018-19, 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 FY 2018-19. The said application is under active consideration of the Commission. The Commission will decide matter on Reactive energy charges after hearing from the stakeholders and considering other relavant issues.

Transmission Charge Payment Mechanism

255. 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 to be followed for the Year 2018-19.

Rebate

256. 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

257. 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.

258. The transmission tariff approved as above in respect of OPTCL will become effective from 1st April, 2018 and shall continue until further order.

259. The Tariff Order shall be made effective from 01.04.2018.

260. The applications of OPTCL in Case No. 77 of 2017 is disposed of accordingly.

(S. K. PARHI) **MEMBER**	**(A. K. DAS)** **MEMBER**	**(U. N. BEHERA)** **CHAIRPERSON**