

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

**Present: Shri U. N. Behera, Chairperson
Shri S. K. Parhi, Member
Shri G. Mahapatra, Member**

CASE NO. 73 OF 2020

**DATE OF HEARING : 08.02.2021
DATE OF ORDER : 26.03.2021**

IN THE MATTER OF: An application for approval of Aggregate Revenue Requirement and determination of Transmission Tariff for FY 2021-22 filed by OPTCL under Sections 62, 64 and all other applicable provisions of the Electricity Act, 2003 read with relevant provisions of OERC (Conduct of Business) Regulations, 2004, OERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2014 and other tariff related matters for the year 2021-22.

ORDER

M/s. Odisha Power Transmission Corporation Limited, Bhubaneswar, (in short “OPTCL”) the present petitioner, undertakes Intra State transmission business in the State. It has been notified as the State Transmission Utility (STU) under Section 39(1) of the Act with effect from 01.04.2005 vide Government notification dated 09.06.2005. By virtue of the 2nd Proviso to Section 14 of the Electricity Act, 2003 (hereinafter referred to as “the Act”) OPTCL has been a deemed Transmission Licensee under the Act. OPTCL is now governed by License Conditions set forth in OERC (Conduct of Business) Regulations, 2004, at Appendix 4B issued under section 16 of the Act and as modified by OERC by its Order dated 27th October 2006.

PROCEDURAL HISTORY (Para 2 to 9)

2. As per OERC (Conduct of Business) Regulations, 2004 and OERC (Terms and Conditions for Transmission Tariff) Regulations, 2014, licensees/deemed licensees are required to file their Aggregate Revenue Requirement within 30th November in each year in the prescribed formats. OPTCL as a deemed licensee had submitted its ARR application for 2021-22 before the Commission on 01.12.2020 as 30.11.2020 was a “Sunday” and the said application was accepted and registered as Case No.73 of 2020. After due scrutiny and admission of the matter, the Commission directed OPTCL to

publish its ARR & Transmission tariff application in the approved format in the leading and widely circulated English and Odia daily newspapers one each. The matter was posted in the Commission's website in order to invite objections/views from the intending objectors. The Commission had also directed the applicant to file its rejoinder to the objections filed by the various objectors and to serve copies on them.

3. Accordingly, OPTCL published the said public notice in the leading English and Odia dailies in one issue each. The Commission issued individual notice to the applicant, objectors and to the Government 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 05 numbers of objections/suggestions from the following persons/ associations/ institutions/ organizations.

(1) Sri Ananda Kumar Mohapatra, Power Analyst, S/o. Jachindranath Mohapatra, Plot No.639/1021, Lane-2, Laxmi Vihar, P.O: Bankual, Tankapani Road, P.S: Saheed Nagar, Bhubaneswar, Dist.-Khurda-751002,,(2) M/s. Grinity Power Tech Pvt. Limited, At-K-8-82, Kalinga Nagar, Ghatikia, Bhubaneswar-751029, (3) M/s. Visa Steel Limited(VSL), Kalinganagar Industrial Complex, At- Jakhapura, Dist.- Jajpur-755026,(4) Shri Ramesh Ch. Satpathy, Secretary, National Institute of Indian Labour & President Upobhokta Mahasangha, Plot No.302(B), Beherasahi, Nayapalli, Bhubaneswar-751012and (5) 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 through virtual mode and their written submission were taken on record and was 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 had appointed World Institute of Sustainable Energy (WISE), Pune as Consumer Counsel for objective analysis of the licensee's Aggregate Revenue Requirement and the proposal for determination of Transmission Tariff for FY 2021-22.

7. The date for hearing was fixed as 08.02.2021 at 11.00 AM and it was duly notified in the leading newspapers mentioning the list of the objectors. The Commission also issued individual notice to the objectors and the Department of Energy, Government of Odisha informing them about the date and time of hearing through virtual mode due to COVID-19 pandemic situation in the State and requesting the applicant, the objectors and the Government's authorized representative to furnish their individual e-mail ID and Whatsapp number in the address oerc.vc@gmail.com by the previous day of hearing to provide links for hearing. Accordingly, the applicant, objectors and the representative of DoE, GoO had furnished their e-mail IDs for taking part in the hearing through virtual mode.
8. In its consultative process, the Commission conducted a public hearing at its premises on 08.02.2021 through virtual mode and heard the applicant, objectors, Consumer Counsel and the representative of the Department of Energy, Government of Odisha at length.
9. The Commission convened the State Advisory Committee (SAC) meeting through virtual mode on 22.02.2021 at 11.00 AM to discuss about the Aggregate Revenue Requirement applications and tariff proposals of licensees for FY 2021-22. The Members of SAC, special invitees, the representative of Department of Energy, Government of Odisha, OHPC, OPGC, SLDC and licensees actively participated in the discussion and offered their valuable suggestions and views on the matter for consideration of the Commission.

OPTCL's ARR & TARIFF PROPOSAL FOR FY 2021-22 (PARA 10 TO 44)

10. As provided under Regulation 53 (1) at Chapter VIII of OERC (Conduct of Business) Regulations, 2004 and under Clause 19.3 of License Conditions of OPTCL, OPTCL 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. In compliance to the above, OPTCL has submitted its Aggregate Revenue Requirement & Transmission Tariff application for FY 2021-22 for approval of the Commission.

Categorization of Open Access Customers

11. OPTCL owns the transmission system and allows the customer to use it through open access. 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 exceeding twelve (12) years but not exceeding twenty five (25) years.

Based on such premise, four DISCOMs, NALCO, IMFA & BEL happen to be the long term customers of OPTCL.

- b. **Medium Term Open Access Customers (MTOA Customers)**

Medium Term Open Access means the open access for a period exceeding three (3) months but not exceeding three (3) years.

- c. **Short Term Open Access Customers (STOA Customers)**

Short Term Open Access means open access for a period up to one (1) month at a time.

Medium-term open access or short-term open access shall be granted if the resultant power flow can be accommodated in the existing transmission system or the transmission system under execution. Provided that no augmentation shall be carried out to the transmission system for the sole purpose of granting medium-term open access or short-term open access.

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 have been made effective from 04.12.2014 and are to be followed by the Transmission Licensee while formulating its ARR and Transmission Tariff application.

OPTCL has formulated its present ARR & Transmission Tariff application for FY 2021-22 as per the provisions under OERC Regulations, 2014. Regulation 5 of the

OERC Regulations, 2014 specifies the Procedure for Tariff Determination and Regulation 8 specifies the Principles for Determination of ARR. As per the Regulation 8.1, the ARR for the Transmission Business for each year shall contain the following items:

- (a) Operation and Maintenance expenses;
- (b) Interest and Financial Charges;
- (c) Depreciation;
- (d) Return on Equity;
- (e) Income Tax;
- (f) Deposits from Transmission System Users;
- (g) Less: Non-Tariff Income
- (h) Less: Income from Other Business as specified in these Regulations

The various costs involved for carrying out transmission business by OPTCL for FY 2021-22 while formulating the ARR and Transmission Tariff have been categorized under the following heads:

I. Fixed Cost

- 1) Operation & Maintenance (O & M) Expenses
- 2) Interest and Financial Charges
- 3) Depreciation
- 4) Return on Equity

II. OTHERS:

- 1) Incentive for System Availability

DETAILS OF FIXED COST:

O&M Expenses:

- 13. Taking into account the proposed expenditure towards Employee Cost including Terminal Benefits, Administrative and General (A&G) Expenses, Repairs and Spares (R&M Expenses), expenses related to auxiliary energy consumption, and other

miscellaneous expenses, OPTCL has proposed sum of Rs. 722.32 Cr. under the head of O&M expenses for FY 2021-22.

Salaries, Wages, Pension Contribution and Other Employee Costs

14. OPTCL submitted that, as on 01.04.2020, the no. of employees of OPTCL is 2816 against the sanctioned strength of 5149 (Executive-1916+Non-Executive-3233). 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. In the meantime, some additional manpower has been inducted and more will be recruited in coming years.
15. The employee cost details include salaries, dearness allowance, other allowances, stipend, reimbursement of medical expenses, house rent, leave travel concession, honorarium, Ex-gratia and misc. expenses, staff welfare expenses, wage revision arrear, stipend for new recruitment etc.
16. OPTCL has proposed Rs. 532.73 Cr towards Employee Cost, Terminal Benefits and possible impact of 7th Pay Commission including for FY 2021-22. The details are given below:

Table - 1
Employee Cost Proposed by OPTCL for FY 2021-22 (Rs. Cr)

Employee cost including Salary, Dearness Allowance etc.	281.93
Terminal Benefit Liability of Employees and Existing Pensioners	214.35
7 th Pay Commission Impact for Existing Employees (50%)	44.12
Less: Capitalization	7.67
Total	532.73

Administrative and General (A&G) Expenses

17. OPTCL has proposed Rs. 38.13 Cr towards A&G Expenses for FY 2021-22. The A&G Expenses include property related expenses, communication, professional charges, conveyance and travelling, SLDC charges, license fee and material related expenses.

Repair and Maintenance (R & M) Expenses

18. The R&M works of OPTCL are taken up in different streams namely O&M, Telecom, Civil Works and Information Technology (IT). The proposed R&M Expenses for FY 2021-22 is Rs.151.10 Cr , as shown in the Table below:

Table - 2
Repairs and Maintenance Expenses for FY 2021-22 (Rs.Cr)

Particulars	OERC Approval (FY 2019-20)	OERC Approval (FY 2020-21)	Projection (FY 2021-22)
(i) O&M	115.22	115.22	123.09
(ii) Telecom			3.39
(iii) Civil Works			20.40
(iv) Information Technology			4.23
Total R & M Expenses			Rs. 151.10 Cr.

19. As on 01.04.2020, OPTCL owns 156 nos. grid sub-stations of different voltage classes and EHT transmission lines of 14,359.416ckt. km. as shown in the Table below.
Further, around 21 new grid substations are proposed to be commissioned during FY 20-21 and FY 21-22.

Table - 3
Sub-station and line details of OPTCL

Sub-Station and Line Details		
400/220/33kV S/S	1	
400/220/132/33kV S/S	3	
220/132/33kV S/S	21	
220/33kV S/S	11	
220/132kV S/S	1	
132kV Sw. Stn.	20	
132/33kV S/S	97	
132/33/25kV S/S	1	
132/33/11kV S/S	1	
Total No. of Sub-Stations	156	
Voltage Level	Lines (ckt. km.)	Bays
400Kv	1196.872	46
220kV	6183.406	345
132kV	6979.138	963
33kV		1150
25kV		2
11kV		8
TOTAL	14,359.416	2514

The status of transmission assets of OPTCL as submitted in the Performance Review held during December, 2020 is as follows:

Table- 4

	As on 31.03.2016	As on 31.03.2017	As on 31.03.2018	As on 31.03.2019	As on 30.11.2019	As on 31.03.2020	As on 30.09.2020
No. of grid S/S	125	132	140	148	155	156	160
EHT Line ckt.	12819	13072	13442	13995	14250	14359.416	14559.425

	As on 31.03.2016	As on 31.03.2017	As on 31.03.2018	As on 31.03.2019	As on 30.11.2019	As on 31.03.2020	As on 30.09.2020
KM							
Transformation Capacity (MVA)	15142	16535	17461	19231	20376	20882	21697

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

20. **Grid Coordination Committee (GCC) Expenses:** OPTCL proposes Rs. 0.35 Cr towards annual GCC Expenses for FY 2021-22 to deal with the matters specified in the Chapter-11 (2)(1) of the Odisha Grid Code (OGC) Regulations 2015.

Interest and Financial Charges

Interest on Loan

21. OPTCL in its ARR application has proposed Rs.150.46 Cr. as interest on loan for FY 2021-22.

Interest on Working Capital

22. As per the Regulation 8.26 of OERC Regulations, 2014, the rate of interest for working capital shall be on normative basis and shall be equal to the SBI Base Rate plus 300 basis points as on 1st January of the preceding year for which tariff is determined: provided that in case of STU (OPTCL) the Commission shall determine the quantum of working capital if needed depending on the cash flow position of the licensee and shall allow interest on the same. OPTCL estimated the Working Capital as Rs.281.86 Cr. The interest on working capital works out to Rs.31.43 Cr considering interest rate of 11.15%.

Rebate

23. OPTCL projected 2% rebate amounting to Rs.26.14 Cr. which is calculated based on the projected ARR for the FY 2021-22.

New projects

24. OPTCL proposes to spend Rs.1361.36 Cr. during FY 2021-22 towards Capital Expenditure (CAPEX) on new projects in different streams of activities like O&M, Telecom, IT, Construction and Civil Works and construction of new transmission projects.

Depreciation

25. The Gross Fixed Assets at the beginning of the FY 2021-22 is estimated as Rs.7804.29Cr. (Rs.6560.81 Cr. as on 01.04.20 + Rs. 1243.48 Cr. projected addition during FY 2020-21). For 2021-22, Depreciation is estimated as Rs. 279.07 Cr. which includes Rs.1.85 Cr. towards amortisation of lease hold assets and Rs 2.57 Cr towards amortisation of intangible assets.

Return on Equity

26. At the time of de-merger of GRIDCO effective from 1.4.2005, the equity share capital of OPTCL was stated at Rs. 60.07 Cr. Through infusion of additional capital by the state government, the paid up equity capital of OPTCL has increased to Rs. 859.77 Cr as on 31.03.2020 as per the Audited Account. Government of Odisha has committed to provide funds of Rs. 250 Cr. as equity over the five-year period FY 2017-18 to FY 2021-22 i.e. Rs. 50 Cr. annually. During the current year OPTCL has already received Rs. 50 Cr. from the State Govt. towards the scheme of Share Capital Investment to OPTCL. The total Equity Capital as on 31.03.2021 will be Rs. 909.77 Cr. Accordingly, OPTCL proposes Return on Equity (RoE) of Rs. 131.70 Cr. for FY 2021-22 @ 15.5% as per clause 8.28 of Regulations, 2014 on Rs. 849.79 Cr. (909.77-60.07) i.e. on opening balance of FY 2021-22.

Income tax

27. As per the Regulation 8.43 of OERC Regulations, 2014, Income tax of the Transmission Licensee shall be recovered from the beneficiaries excluding the income tax on other income streams (non-transmission business). As per the Audited Accounts for the FY 2018-19, OPTCL has made provision of Rs.8.15 Cr as Income Tax. The same amount of Rs. 8.15 Cr. has been proposed for FY 2021-22. However, difference if any, as per the Regulation 8.43 and 8.44, shall be adjusted during the true up exercise based on audited accounts.

Transmission cost

28. Considering the proposed cost / expenses under different heads, the Transmission Cost of OPTCL for FY 2021-22 is worked out as Rs. 1349.27 Cr.

Other Costs & Receipts

Incentive for system availability:

29. 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 2019-20 as 99.98%. The computation and the TAFY figure have been verified and certified by SLDC. In accordance with the formula prescribed in Regulation 6.5, OPTCL has worked out incentive of Rs. 10.62 Cr. towards system availability for the year 2019-20 using approved ARR figure of Rs. 706.71 Cr. for the said year. Hence, OPTCL proposed Rs. 10.62 Cr towards Incentive for System Availability to be allowed in the ARR for FY 2021-22.

Miscellaneous receipt:

30. OPTCL submitted that compared to earlier years, the earning from Supervision Charge is drastically reduced. The number of applicant industries is very less for which revenue from Supervision Charge during the balance period of FY 2020-21 would not be appreciable. Hence, in line with the trend of revenue earning during FY 2020-21, OPTCL proposed Rs. 52.72 Cr. under the Miscellaneous Receipt from different sources such as inter-State wheeling, STOA and STU charges, Bank interest, other Misc receipts etc. for the FY 2021-22.

Summary of ARR proposed by OPTCL for FY 2021-22

31. Considering all the proposed expenses and receipts as explained in foregoing paragraphs, OPTCL has filed its Aggregate Revenue Requirement of **Rs.1307.17 Cr** for FY 2021-22 for approval of the Commission. Details are shown in the table below:

Table - 5
Summary of Aggregate Revenue Requirement of OPTCL for FY 2021-22

ITEMS	Proposal for OPTCL FY 2021-22	
A) FIXED COST		
1. O&M Expenses		722.32
(i) Employees Cost including Terminal Benefits	532.73	
(ii) A&G Cost	38.13	
(iii) R&M Cost	151.10	

ITEMS	Proposal for OPTCL FY 2021-22	
(iv) Expenses related to auxiliary energy consumption	0.00	
(v) Other misc. expenses, statutory levies and taxes (GCC)	0.35	
2. Interest & Financial Charges		208.03
(i) Interest on Loan Capital	150.46	
(ii) Interest on Working Capital	31.43	
(iii) Rebate	26.14	
3. Depreciation		279.07
4. Return on Equity		131.70
5. Income Tax		8.15
Sub-Total (A)		1349.27
B) Others		
Incentive for system availability		10.62
Total Trans. Cost (A+B)		1359.89
C) Less Misc. Receipts		52.72
D) ARR to be recovered from LTOA Customers i.e. OPTCL's Aggregate Revenue Requirement		1307.17

Transmission loss

32. OPTCL submitted that the transmission loss is purely a technical loss and dependant on the location of the generation sources, system configuration and power flow at different load centres. Further, the expected increase in power flow in its transmission network due to implementation of various Central & State sponsored projects will contribute to increase in the transmission loss. OPTCL has been able to reduce the transmission loss year over year by commissioning a number of new transmission projects and adopting innovative schemes under Master Maintenance Plan during last few years. The actual transmission loss in the OPTCL's transmission system from April'20 to September'20 is 3.18% against Commission's approval of 3.00% for FY 2020-21. OPTCL expects the loss level to remain around 3.20% in the current year. Accordingly, OPTCL proposes 3.15% transmission loss during FY 2021-22.

OPTCL revenue receipt and deficit in the proposed ARR for FY 2021-22

33. OPTCL, on the receipt of recent communication from DISCOMs, has taken realistic demand projection of all four DISCOMs totalling 26680MU (3045.66MW) for FY 2021-22 which is different from Commission's approval figure in LTDF order dated 15.01.2019. OPTCL envisages 200MU energy to be transacted in DISCOMs 33kV & 11kV network for which OPTCL is not entitled to receive any transmission charge as

per Commission's order. Hence, total MU to be transmitted in OPTCL network gets reduced to 26480 MU (26680-200) from the total demand projection of DISCOMs and Railways.

During FY 2021-22, OPTCL will earn revenue from the LTOA Customers in the following manner:

- i. By charging the rate applicable on DISCOMs and Railways for wheeling of 26480 MU (3022.83MW).
- ii. By charging the rate applicable on LTOA customers like IMFA, NALCO & BEL for supply of 660 MU as wheeling and Emergency Power & Back-up Power to their CGPs and load centres located at different places.

The revenue to be earned by OPTCL from wheeling of 27140 MU (26480+660) at the existing transmission tariff of 25 P/U will be Rs. 678.50 Cr.

34. Excess/Deficit of Revenue Requirement:

OPTCL has projected revenue deficit of Rs.628.67 Cr. considering the ARR proposed and the revenue to be earned from wheeling of 27140 MU at the existing transmission tariff of 25 P/U.

Proposal for revision of Transmission Tariff/ Wheeling Charges

35. OPTCL submitted that as the same cannot be met from the existing transmission tariff of 25 P/U, therefore OPTCL has requested to the Commission for approval of :
1. Aggregate Revenue Requirement of Rs.1307.17Cr.
 2. Recovery of Transmission Charge @ 11559.35 Rs/MW-Day.
 3. Transmission Loss for wheeling as 3.15% on energy drawl

OPEN ACCESS CHARGES

36. The new regulation "OERC (Terms and conditions of Intra state open access) Regulations 2020" has been published by OERC vide Odisha Gazette on dated 02.11.2020 in which Para 20 (2) of Chapter 5 specifies the details of Open Access Charges. As per the Regulations, transmission charges shall be payable on the basis of contracted capacity in case of long-term and medium-term open access consumers and on the basis of scheduled load in case of short-term open access consumers. For Open Access for a part of a day, the transmission charges shall be payable on pro-rata basis.

OPTCL has proposed that the Open Access charges for FY 2021-22 as per table below:

**Table - 6
Open Access Charges Proposed by OPTCL for FY 2021-22**

DETAILS	In Rs. Per MW approach
Net Aggregate Revenue Requirement (Rs. Cr.)	1307.17
Proposed Energy to be transmitted in OPTCL Network (MU)	27140
Power Flow (Equivalent of 27140 MU) in MWs	3098.17
Proposed Transmission Tariff (Rs/MW-Day)	11559.35

Transmission Charge

37. OPTCL has proposed the Transmission Charge @ 11559.35 Rs/MW-Day, which shall be applicable for transmission of power at 400kV/220kV/132kV over OPTCL's EHT transmission system for the purpose of transmission of energy from generator end to the sub-station from where energy will be fed to DISCOMs. Transmission Loss @3.15% shall be utilised for the use of EHT transmission system and for the purpose of transmission of energy from a CGP to its industrial unit located at a separate place as well as for transmission of power from outside the state to an industry located inside the State. Long Term Open Access Customers, Medium Term Open Access Customers & Short Term Open Access Customers shall pay the applicable Transmission Charges plus all other charges and losses as applicable thereon, as the case may be. The transmission charge shall be applicable to the DISCOMs, Railways and CGPs for the respective month.

Reactive energy charges

38. The Commission in Para 16 (page 5) of the order dated 05.02.2019 in Case No. 50/2017 has inter alia viewed that the provisional reactive energy charges of 3 paise/kVARh as allowed in ARR 2018-19 order would continue for time being till a final justification is submitted by OPTCL in consultation with the stakeholder. Accordingly, OPTCL is holding consultation with the stakeholders at regular intervals and some more time is required in this regard. Therefore, OPTCL proposes that 3paise/ KVARh may be approved provisionally as Reactive Energy Charges FY 2021-22.

Levy of Grid Support Charges (GSC):

39. OPTCL filed an application before OERC on 23.09.2020 for determination and approval for levy of Grid Support Charges for industries having Captive Generating /

Cogeneration plants and running in parallel with the Grids of OPTCL. This will generate additional revenue for OPTCL. The matter has been listed as Case No. 52/2020. The Commission vide public notice dated 18.11.2020 had invited participation from various stakeholders. The matter shall be heard by the Commission in due course.

True Up Application for FY 2019-20:

40. As per Regulation 7.1 (Truing up of Capital Expenditure and Tariff) of OERC Regulations, 2014, OPTCL may file an application each year for truing up along with the tariff petition filed for the next tariff period and the Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period. In the mean time annual accounts of FY 2019-20 has been duly audited. OPTCL will file the true up application before the Commission shortly.

Rebate

41. 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

42. 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

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

CAPEX for New projects

44. OPTCL proposes to spend **Rs.1361.36 Cr.** during FY 2021-22 towards Capital Expenditure (CAPEX) on new projects in different streams of activities like O&M,

Telecom, IT, Construction and Civil Works and construction. The summary of proposed CAPEX under various wings is furnished in the Table below:

Table - 7
Projected CAPEX for new projects - FY 2021-22

Particulars	Amount (Rs. Cr.)
(i) Telecom Wing	28.30
(ii) Existing Assets (O&M Wing)	55.87
(iii) Information Technology (IT Wing)	28.95
(iv) Civil Wing	18.57
(v) New Transmission Projects (Construction Wing)	1229.67
Total Capital Expenditure [(i)+(ii)+(iii)+(iv)+(v)]	Rs. 1361.36 Cr.

VIEWS OF CONSUMER COUNSEL, ON TRANSMISSION TARIFF PROPOSAL OF OPTCL FOR 2021-22 (PARA 45 TO 49)

45. 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 2021-22. World Institute of Sustainable Energy (WISE), Pune appointed as Consumer Counsel to put up queries and objections regarding ARR and tariff filing of OPTCL.

Analysis of the Proposal by Consumer Counsel

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

Annual Revenue Requirement

47. OPTCL has projected its revenue requirement for FY 2021-22 at about 46.93% more than that approved for FY 2020-21. In FY 2020-21, the total ARR was increased by 4.17% from approved ARR of FY 2019-20.

48. It includes the increase in Employee Cost (28.10%) R&M Cost (31.14%), A&G cost (32.76%), interest on loan capital (472.52%), depreciation (42.68%) and incentive (112.40%). The comparative figures of components of ARR are given in the table below.

Table - 8
Comparative Annual Revenue Requirement of OPTCL (Rs. Crore)

	Approved FY 2019- 20	Approved FY 2020- 21	Proposed FY 2021- 22	Increase % 2020-21 vs 2019-20	Increase % 2021-22 vs 2020-21
Employees Cost incl. Terminal Benefits	419.77	415.87	532.73	-0.93%	28.10%

A&G Cost	27.55	28.72	38.13	4.24%	32.76%
R&M Cost	115.22	115.22	151.10	0.00%	31.14%
Expenses related to auxiliary energy consumption	0	0	0		
Other misc. expenses, statutory levies and taxes(GCC)	0.43	0.5	0.35	16.27%	-30.00%
Interest on Loan Capital	35.14	26.28	150.46	-25.21%	472.52%
Interest on Working Capital	0	0	31.43		
Rebate	14.12	14.28	26.14	1.13%	83.05%
Depreciation	162.06	195.59	279.07	20.69%	42.68%
Return on Equity	106.06	123.95	131.70	16.73%	6.25%
Income Tax	3.01	0.13	8.15	-95.68%	6169.23%
Incentive for system availability	5	5	10.62	0.00%	112.40%
Total	888.48	925.54	1359.89	4.17%	46.93%
Less Misc. Receipts	124.77	211.70	52.72	69.67%	-75.09%
Less Surplus True up	57				
ARR to be recovered from LTOA Customers i.e. OPTCL's Aggregate Revenue Requirement	706.71	713.84	1307.17		
Transmission Charges (P/U)	25	25	48.16	0.00%	92.64%

49. The significant increase in all expenses as mentioned above would impose excessive burden on the general consumers of the state, as this would be passed on to the ultimate users through GRIDCO and DISCOMs. Transmission loss should be fixed at a reasonable level. Therefore, there is a need to review the following expenses for the benefit of the consumers:

Employee cost including terminal benefits and pension, R&M expenses specifically on engagement of Security personnel (26.37% of total 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 2021-22 (PARA 50 TO 82)

The issue wise views of the objectors placed before the Commission are summarised below:

Transmission Loss

50. An objector submitted that in spite of the sizable investment made in construction of new transmission lines, transmission loss is projected at higher level without any proper study. Considering that the increase of power being handled in Odisha Transmission System is very low and the quantum of energy to be handled during the current year is less than the previous year, the transmission loss for wheeling should not be more than 2.75% against 3.00% approved by Commission for 2020-21.
51. Another Objector submitted that OPTCL should conduct Energy Audit and their standard of performance should be monitored by third party auditor as appointed by the Commission. Proposing the transmission loss arbitrarily without giving the breakup of the losses in different components of transmission system is not appropriate for the S.T.U. OPTCL need to reduce the transmission loss significantly. The Objector proposed approving transmission loss of OPTCL at 2.5%.
52. One of the objectors pointed out that the figures reported by OPTCL with regard to energy sale to DISCOM during FY 2019-20 (24375MU) does not match with the GRIDCO reported sale (24616MU). The total transmission loss computed by the petitioner is 914.28 MU which is not true because the above 241 MU is not accounted by the petitioner. So transmission loss of petitioner should be reduced by another 241 MU, i.e. to 673 MU which brings transmission loss to 2.39%. Therefore, the transmission loss should be considered as 2.39% and not 3.25% as stated by the OPTCL.
53. The Objector further requested the Commission to direct OPTCL to submit details of the CCPS/CGPs, CO-GEN and RES for the injection power of 1768.70 MU to the state grid .

Human Resource Expenses/ Employee Cost

54. An Objector submitted that since OPTCL has not furnished the audited balance sheet, the approved manpower expenses in FY 2020-21 may be considered and approved for FY 2021-22, till OPTCL submits the same.
55. OPTCL is to explain the actual employee cost which has increased by 37% in projection for ensuing year FY 2021-22 compared to actual of previous year FY 2020.

A&G expenses

56. An Objector submitted that the A&G expense proposed by OPTCL is on a higher side. The petitioner mentioned that WPI of electricity fell by 10.68% in Dec' 2020 from its base value in Jan' 2020. Hence the Commission may allow 10.68% reduction below the earlier approved figure for FY 2020-21..

Interest on loan capital

57. One of the Objectors submitted that the Government of Odisha bonds may not be considered as interest on loan in line with the earlier tariff order. The Objector further submitted that there is now a significant reduction in interest rate in banks due to demonetization and COVID-19. OPTCL may consider switching over from loan with higher interest to loan with lower interest to reduce interest on loan capital.

Depreciation

58. Another Objector requested the Commission not to allow any capitalization of expenditure for FY 2021-22 unless the work is completed in all respect and commissioning has been declared. The Objector has raised that OPTCL has not submitted the depreciation cost in line with the Transmission Regulations 2014.

R&M expenses

59. An objector submitted that the projected assets in FY 2020-21 and FY 2021-22 should not be considered as asset for computation of R&M cost, rather the actual assets may be considered for computation of R&M cost.
60. Another Objector submitted that funds allotted for O&M are not fully utilized in time.

Return on Equity

61. OPTCL has submitted that Govt of Odisha has infused equity of Rs 849.79 Cr. An Objector pointed out that all the equity has been utilized for the project related to DISCOM and OPTCL should give proper justification for equity requirement and whether all such project have been approved by OERC.

Incentive for System Availability

62. The transmission system availability should be fixed at a minimum value of 99% and above which OPTCL will be eligible for incentive and not at 98%. The incentive amount need not be considered in the ARR of OPTCL as it is not expenditure. It is

duty of transmission licensee to maintain reliable supply and make the system available.

Miscellaneous receipt

63. Another Objector has suggested OPTCL has proposed to levy grid support charges and reactive energy charges in future. In case same is approved then these charges should be considered as miscellaneous receipt and should be reduced from the ARR of OPTCL and accordingly transmission tariff should be calculated.

Transmission Charges

64. An Objector submitted that there is usually high transmission tariff proposed by OPTCL and has requested to allow transmission charges of 25 p/u for FY 2021-22 also.
65. Another Objectors pointed out that proposed transmission tariff is abnormally very high and should not be permitted. This will adversely affect the RST of the DISCOMs and will be huge burden on the consumers of Odisha.
66. An Objector has supported increase in transmission tariff as same is not raised for long years despite several upward revision of RST, BSP and other tariff and charges. The objector requested the Commission for increasing tariff of the transmission licensee by allocating the total cost of the state grid in between the beneficiaries DISCOMs, Power Generators, EREB & Open Access consumers according to the cardinal principle of pricing 'to each according to the benefits, to each according to the cost' in the interest of the sector and the state.

Annual Revenue Requirement

67. An Objector has requested to approve the annual revenue requirement of OPTCL through a prudence check.

Open Access Charges

68. An Objector pointed out that OPTCL has proposed to equate STOA charges with LTOA charges. This proposal contravenes the Open Access Regulation framed by the Commission. STOA charges should be always lower than the LTOA charges.

Substations and Lines

69. An Objector has requested for detailed list of substations and lines of more than 40 years old.

70. The Objector further requested list of 33/11 KV substations and amounts spent on them by OPTCL.
71. The Objectors have requested list of substations and lines which have not yet been replaced/upgraded since last 5 years.
72. The Objector has further requested details of expenditure in different schemes of Government of India/Government of Odisha for line and substation development work.
73. The Objector requested list of lines and substations connected to different IPPs for evacuation of generated powers and how much the wheeling charges OPTCL have received from such IPPs.
74. The Objector has requested list of overloaded lines and substations.
75. OPTCL should produce the action taking report on action plan to evacuate all power of all IPPs through OPTCL lines and substations.

Introduction of Reliability Support Charge for connectivity

76. Another Objector has stated OPTCL has proposed to introduce reliability support charge for providing connectivity to CGP. There is no such provision in the Transmission Tariff Regulation and against the spirit of Electricity Act 2003 and hence this proposal should be rejected.

Report by CAG

77. One of the Objectors submitted that as per the Report of the CAG on Public sector undertakings for FY2018, Government of Odisha has infused funds in the State Power Utilities. The OPTCL may confirm the same in the tariff application accordingly depreciation and debt service charges should not be allowed on the assets created by the utilities from such government grants.

Other issues

78. One of the Objectors sought action taken status report on transmission plan for intra-state transmission system as well as inter-state transmission system including report on revision in load projections and generation scenarios considering the seasonal and time of the variations and also produce a status report and what action they have taken.

79. One of the Objectors requested the status report along with the list of joint venture companies to evacuate power.
80. Another Objector submitted that OPTCL may submit the audited balance sheet, P/L statement and along with auditor report without which the tariff proposal should not be entertained.

Revenue Gap

81. An Objector pointed out that the revenue gap projected for ensuing year is very much on higher side than the actual for previous year FY 2019-20. The Objector requested OPTCL to clarify following in case of revenue gap:
 - i. Revenue receipts from LTOA consumers, interstate sales, STOA consumers, income from investments and miscellaneous receipts is very low for ensuing financial year in comparison to the actual revenue receipts of previous year FY 2019-20.
 - ii. OPTCL to clarify abnormal high projection of interest payment expenditure in case of interest paid on new loan and interest paid on working capital.
 - iii. The total cost of ARR increased by 43% over previous year FY 2019-20. Same should not be allowed as the total cost cannot increase more than the rate of consumer price index.
 - iv. Average revenue has been reduced from 29.02 p/u in FY 2019-20 to 26.94 p/u in the projection for FY 2021-22.
 - v. Average cost has been increased from 33.87 p/u to 50.11 p/u in the projection.
 - vi. Negative revenue gap for projected year is 461% higher to the actual negative of previous year FY 2019-20.

Reply to previous queries

82. An Objector pointed out that OPTCL has not submitted its reply to the queries raised by the Commission on OPTCL filing for FY 2020-21.

REJOINDER BY OPTCL TO THE QUERY OF OBJECTORS (PARA 83 TO 137)

83. In response to the views of objectors on the ARR and Tariff Application of OPTCL for 2021-22, OPTCL had filed rejoinders for the same. The response of OPTCL has been broadly classified into the following issues.

Transmission Loss

84. OPTCL submitted that the actual transmission loss for the period Apr' - Sep' 2020 is calculated to be 3.18% as shown in the ARR & Transmission Tariff application for FY 2021-22. This figure is less than the actual transmission loss that has taken place during last year i.e. FY 2019-20 i.e. 3.25%. In fact, OPTCL had projected Transmission loss of 3.20% for the FY 2020-21, but the Commission had set a target of 3.00% which could not be achieved yet. However, it is not understood on what basis the Objectors have proposed to keep the Transmission loss at 2.75% or 2.5%.
85. In OPTCL system, the transmission loss is purely technical loss and a function of real time injection of power by a number of generators, system configuration and power flow requirements at different load centres. It depends on many parameters / factors such as distance and mismatch between generation and load, types of load, reactive power compensation, voltage profile, seasonal variation of demand load etc. Thus, OPTCL does not have much control over the same at any point of time. The transmission system of OPTCL operates as an integral part of the Eastern Region 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.

As the matter of fact, some grid s/s and lines are being constructed in many remote and deprived areas funded under Central & State Govt. schemes in the interest of public. Additional length in EHT lines and Sub-stations thus created in such areas remain under-loaded which are also responsible for increase in transmission loss.

In spite of the above, the Transmission Loss in OPTCL network is in a gradually reducing trend over the years i.e. from 3.73% during 2014-15 to 3.25% in 2019-20 and has remained 3.18% within 1st six months of FY 2020-21 mainly due to addition of infrastructure and various system strengthening works taken up by OPTCL. The actual losses incurred over the years by OPTCL have been within the margin allowed by the Commission up to the year FY 2017-18. However, in the FY 2018-19, the Commission set the loss at 3.00% though the projected transmission loss was at 3.25% and thereafter the Commission has been pegging the transmission loss at the same level though loss projected by OPTCL remained at 3.25%. The details are given below:

Table - 9
Details of Transmission losses of OPTCL

Year	Tr. Loss proposed	OERC Approval	Actual
2014-15	3.75%	3.75%	3.73%
2015-16	3.75%	3.75%	3.67%
2016-17	3.70%	3.70%	3.58%
2017-18	3.50%	3.50%	3.34%
2018-19	3.25%	3.00%	3.28%
2019-20	3.25%	3.00%	3.25%
2020-21	3.20 %	3.00%	

From the table given above, it is also clear that each year upto FY 2017-18, the transmission loss achieved by OPTCL has remained at a level lower than the approved figures by the Commission and from FY 2018-19 the target set by OERC appears to be very stiff which was hard to achieve though the trend of lesser transmission loss year after year has been achieved.

86. It may be kindly be appreciated that the transmission loss (technical) is bound to happen as per law of physics and is very difficult to reduce after a certain level. Also, at all India level, the transmission loss of utilities has remained at more than 3.00% and to suffice its view point, transmission loss of different utilities is given below.

Table - 10
Transmission Loss of different states during FY 2020-21

Name of states	Tr. loss approved by State Commission
Utter Pradesh (UPPTCL)	3.40 %(UERC)
Assam (AEGCL)	3.34% (AERC)
Andhra Pradesh (APTRANSCO)	3.08% (APERC)
Chhattisgarh (CSPTCL)	3.22% (CSERC)

87. However, as a responsible Transmission utility, OPTCL is making an all-out effort to reduce the transmission loss further by undertaking various system operation and loss reduction measures by implementing the emerging technologies like system Automation, load bifurcation, modification in system configuration, procurement of more efficient equipment, Digitalization of grids by using Bay Control units, Protection system improvement using Busbar protection and Event Logger, Conversion of Radial to Ring system, Advanced Metering Infrastructure etc. to bring it to 3.10% by FY 2023-24 as set out in Business plan of OPTCL.

In view of the reducing trend of transmission loss level, OPTCL expects the loss level to remain around 3.20% in the current year. Accordingly, OPTCL has proposed

transmission loss of 3.15% during FY 2021-22. Hence, OPTCL does not agree with the suggestion of the Objector to approve transmission loss of 2.75% as it is neither based on any scientific logic nor any basis or data.

88. **Steps taken for Energy Audit:** OPTCL stated that it has already installed 1965 nos. of 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.

89. OPTCL submitted that each and every year, OPTCL clearly submits in its ARR application that it anticipates approximately 200MU of energy flow to DISCOMs directly in their 11kV & 33kV distribution network without involvement of OPTCL's EHT network based on past trend. The details of such network of DISCOMs are outlined below:

1. Energy flow from Chipilima Power House to WESCO through TFR-I & II at 33kV voltage level.
2. Energy flow from Burla Power House to WESCO through 11kV Island Feeder.
3. Direct injection by Solar / Thermal plants to DISCOMs network at 11kV/33kV voltage level without involvement of OPTCL EHT network.

As per the OERC's common order dated 26.09.2012 passed in Case No. 53/2008 (WESCO vs. OPTCL) and Case No. 53/2012 (NESCO vs. OPTCL), OPTCL is not entitled to transmission charges for the above transaction of energy. Because of the above mentioned factors, there is a difference in the figures of output disclosed by OPTCL and the sale figures submitted by GRIDCO.

90. OPTCL submitted the details of gross input and gross output against CPPs, CO-GEN & RES as below :

Table - 11

SL. NO.	SOURCE	GROSS INPUT IN MU
1	IMFA	311.40
2	NALCO	175.31
3	HINDALCO	16.33
4	RSP	0.00
5	NINL(KMCL)	9.44
6	NBVL/NBFA	4.14
7	Arati Steel	17.31
8	IFFCO, Paradeep	0.01
9	Bhusan S&P	154.44
10	Bhusan S&S	108.15
11	Tata Sponge Ltd.	5.24
12	Shyam Metallics Ltd.	5.09
13	Vedanta (Lanjigarh)	7.60
14	Jindal Stainless/STRIPS	30.56
15	SMC Power	0.83
16	Vedanta (Jharsuguda)	38.59
17	Visa Steel	9.90
18	Rathi Steel & Power	0.00
19	Action Ispat Ltd.	0.00
20	Aryan Ispat Ltd.	2.74
21	OCL	0.00
22	Maheswari Ispat	0.00
23	Maithan Ispat	0.11
24	Aditya Alu Ltd.	14.67
25	JSPL, Angul	42.70
26	MSP Metallics	0.00
27	FACOR Power	3.15
28	Shree Ganesh	5.99
29	Essar	4.01
30	Bhubaneswar Power	2.81
31	MGM	2.26
32	Shalivahan Biomass	66.60
33	Alex Green Energy (33kV)	0.00
34	SECI	503.67
35	ACME SPPL	43.65
36	NVVNL Bundle Power etc. (Solar)	182.01
	TOTAL (CGP, CO-GEN & RENEWABLE SOURCES)	1768.70
SL. NO.	SOURCE	GROSS OUTPUT
1	IMFA	344.43
2	NALCO	411.94
	TOTAL (CGP, CO-GEN & RENEWABLE SOURCES)	756.37

Human Resource Expenses/ Employee Cost

91. OPTCL has projected Rs.532.73 Cr. as Employee Cost for FY 2021-22. The item-wise details of employee cost are furnished in Table-1 (Page-8) and at F-10 (page-61) of the

ARR application and the justification thereof is mentioned in detail at page 4 to 9 of the application. For FY 2021-22, OPTCL has claimed Rs. 44.12 Cr. towards balance 50% of 7th Pay Commission arrear for existing employees. Apart from that, OPTCL has proposed the Dearness Allowance (DA) of 28% as per guide lines of G.O.O for budget preparation for FY 2021-22. With annual increment of the existing employees and induction of new employees, the corresponding expenditures related to the Basic Pay, DA, HRA etc. will increase proportionately. Therefore, the proposal of OPTCL is quite realistic and justified.

92. OPTCL has already submitted the Audited Annual Accounts for FY 2019-20 along with the Statutory Auditors Report to the Commission in its compliance to OERC queries as Annexure-8(a) (page 67-139) against Query no.14.
93. The tentative recruitment plan of OPTCL for 2020-21 is as follows:

Table - 12

SI No.	Designations	Post to be filled up
1	Jr. MT (Jr. Manager)	16
2	MT (Asst. Manager)	96
3	JMOT/JTTT	365
5	Office Asst. (Gr III) (Trainee)	35

A & G Expenses

94. The table below indicates the A&G expenses for the last 10 years.

Table - 13
A & G Expenses for last 10 years (Rs. Crore)

Year	OERC Approval (Rs. Cr.)	Actual (Audited) (Rs. Cr.)
2010-11	15.14	33.81
2011-12	18.00	20.81
2012-13	21.25	22.48
2013-14	22.39	146.17
2014-15	24.01	45.48
2015-16	24.37	39.82
2016-17	24.66	61.68
2017-18	25.60	57.35
2018-19	26.44	37.37
2019-20	27.55	44.23
2020-21	28.72	17.13 (upto Nov' 20)

95. The actual expenditure as per audited accounts is always higher than the OERC approved figures. This is due to the fact that year over year, new sub-stations and lines

are added to the OPTCL network for which new office have been created for proper supervision of work and smooth administration. The details of addition of lines and sub-stations commissioning with addition of offices are given in Page 10 of ARR application.

OPTCL further submitted that, in the books of accounts, A&G means any item which is not covered under Employee Cost and R&M expenses. Expenditures such as Insurance, Rates & Taxes, Hire Charges of vehicles, Telephones & Internet Charges, Printing & Stationery, Security and Other Personnel (Watch & Ward Expenses), Postage & Telegram, Rent, Advertisement, Electricity & Water Charges, Legal/Consultancy, Profession Fees and Office Maintenance etc. are generally considered as A&G Expenses. Besides, expenditures like Loss on theft of materials, Advances/Receivables written off, Provision for bad & doubtful debts, Provision for expenditure on projects, Provision for doubtful receivables, Provision for scrap/obsolete materials are also accounted for under A&G Expenses.

Further, expenses for Watch and Ward, Outsourcing, hiring of vehicle are incurred in lieu of the Employee Cost. If OPTCL goes for appointing the regular employees to carry out such activities, the salary etc. for them will be charged under Employee Cost. Similarly, all the provisions for expenses made against the capital items as well as revenue items are accounted for under A&G Expenses.

Interest on Loan Capital

96. State Government vide Notification No-11080/En dtd. 31.12.2020 has converted the Bond of Rs.400 Cr. along with Accumulated interest of Rs.247 Cr. to Equity. Therefore, OPTCL has already requested the OERC to exclude the interest of Rs.26 Cr. and consider the above bond with interest to equity base of OPTCL in its reply to queries No-15.
97. The projection towards interest on loan capital is very much realistic as it is based on facts and evidential documents that need full consideration. The loans proposed to be availed from Banks and Financial Institutions are in respect of various projects which have been approved by the Commission. Accordingly, an amount of Rs. 1361.36 Cr. has been proposed as CAPEX for FY 2021-22. For financing the above CAPEX and loan already availed, OPTCL proposes Rs.124.46 Cr. (excluding Rs.26 Cr.) towards

interest on loan capital for FY 2021-22 based on Regulation 8.24 of OERC Transmission Tariff Regulations, 2014.

98. OPTCL submitted that the interest rate of the bank is computed based on Marginal Cost of fund based Lending Rate (MCLR) as per the RBI guidelines. The interest rate on REC and PFC loan has already been furnished in page 64 to 66 of the ARR application. As the difference between loan with higher interest and loan with lower interest is not substantial, the switching over option is not viable at present due to pre-exit charges 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 IT Act, GST @18% etc.

In view of the above, OPTCL does not agree with the views of the objector and request the Commission to allow Rs.53.53 Cr. as interest on loan capital.

Depreciation

99. The Commission has approved depreciation of Rs. 195.59 Cr. for FY 2020-21 as per the rate prescribed in the OERC Transmission Tariff Regulations, 2014. For FY 2021-22, OPTCL has projected depreciation of Rs.279.07 Cr. based on the audited accounts for FY 2019-20 considering the depreciation rate as prescribed under Tariff Regulations, 2014 and projected additions thereto during FY 2020-21 & 2021-22. 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.
100. In F-2 (page 48-51 of the ARR application), the details of transmission assets transferred to fixed assets during FY 2019-20 (previous year) and planned to be transferred to fixed assets during FY 2020-21 (current year) and FY 2021-22 (ensuing year) have been clearly indicated. In view of the above, OPTCL has requested to allow Rs.279.07 Cr. towards Depreciation as proposed by OPTCL.

Repair and Maintenance (R&M) Expenditure

101. Over the years OPTCL has been able to achieve Transmission system availability consistently at the level 99.98% because of the prudent R&M expenses. In order to carry forward the level of performance and also to take it to greater height, OPTCL has proposed an amount of Rs 151.10 cr. as R&M expenses for the FY 2021-22.

OPTCL in its ARR application (page 12-17) has submitted in detail regarding R&M expenses to be undertaken in different streams of activities.

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

Further, Regulations 8.15 allows R&M Expenses as 2.5% on Gross Fixed Assets whereas the objector calculated it as 2.5% on Net Assets which is not in accordance of the regulation.

103. For OPTCL, Regulation 8.16 is applicable. This Regulation is reproduced below:

“In case of STU (OPTCL), the Commission shall allow R&M expenses basing on past trend and requirement of the licensee in this regard after prudence check”.

It is reiterated that no depreciation or R&M Cost have been claimed on any capital assets unless it is completed and put in to use.

Hence, the projection towards R&M expenses is very much realistic as it is based on facts and evidential documents that need full consideration. The projected R&M expenses are very much required to at least maintain level of Transmission system availability achieved over the years and providing uninterrupted and quality power to the consumer.

104. Year wise approval and actual expenditure towards R&M for the period from 2013-14 to 2020-21 (up to Nov'20) are given in the Table below. The actual figures are as per audited accounts up to FY 2019-20. In FY 2020-21 (till Nov' 20), OPTCL has already incurred expenditure to the tune of **Rs. 68.76 Cr.** as per cash flow statement.

Table - 14
R&M Expenses of OPTCL (Rs. Cr.)

Financial Year	OERC Approved	Actual
2013-14	60.00	70.20
2014-15	93.00	100.31
2015-16	108.00	113.35
2016-17	110.59	149.53
2017-18	124.97	137.83
2018-19	111.00	115.13
2019-20	115.22	125.53
2020-21	115.22	68.76 (Apr-Nov'20)

From the above, it is observed that OPTCL has been effectively utilizing the R&M expenditure approved by OERC and achieved Transmission system availability more than specified. Hence, the concern raised by the Objector is not appropriate.

Return on Equity (RoE)

105. As on date, OPTCL has received Rs. 849.79 Cr. from Government of Odisha towards Equity Share Capital. The details regarding the dates of receipt and sanction orders of the State Government up to the date 30.11.2020 are mentioned in the ARR application. The projection of Rs.131.70 Cr. (@15.50% post-tax) towards RoE (Rs 849.79 in equity capital) is based on Regulation 8.29 of OERC. Transmission Tariff Regulations, 2014. The details of sanction letters are already mentioned at Table No.- 21 page 29-30 of the ARR application. Hence, the projection towards RoE is very much realistic which needs full consideration.

Further, since vide notification no. 11080 dt.31.12.2020, the state Govt. has converted Rs 400 Cr. bond to equity, the RoE shall be more and the Commission may take cognizance of the fact accordingly.

Incentive for System Availability

106. OPTCL has proposed an amount of Rs. 10.62 Cr. towards incentive for system availability following Regulation 6.5 of OERC Transmission Tariff Regulations, 2014. The Transmission System Availability figures attained by OPTCL over the last five years are: 99.96% (2013-14), 99.95% (2014-15), 99.96% (2015-16), 99.97% (2016-17) and 99.98% (2017-18), 99.98% (2018-19), 99.98% (2019-20). The Commission has acknowledged this achievement of OPTCL awarded incentive. 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 FY 2013-14.

The 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.

Miscellaneous Receipts

107. 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.

Further, tender-wizard is vender based portal where all the fees related to the tender wizard is the income of the service provider (in our case M/s KEONICS) not OPTCL. The item wise details of proposed Misc. Income are mentioned in Table-23 (page-33) of the ARR application which includes revenue from both short-term open access (inter-state & Intra-state wheeling).

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 Government. GoO has agreed to provide 6% of Project Management Cost (PMC) in case of ODSSP scheme and 2.5% in case of ODAFF.

108. OPTCL has to incur cost on setting up the project office, manpower, contingencies and project related administrative expenses as well as fees payable to Project Management Consultants from this PMC. Hence, PMC is not the same as Supervision Charges. There are no PMC on the other State Govt. sponsored schemes. Similarly, Central Govt. will provide 0.5% as PMC for implementation of IPDS and DDUGJY schemes only. It is estimated that this amount will be insufficient. However, State Govt. has agreed to provide the extra amount beyond 0.5% which is yet to be received.
109. Further, in compliance to IND AS 115 (effective from 01.04.2018) the supervision/implementing agency charges in respect of DISCOMs and other works are credited to Statement of Profit & Loss in the year in which the completion and handing over (i.e. control is transferred) of the assets are made to the DISCOMs/Divisions after adjustment of related expenses, if any. Therefore, the supervision/implementing agency charges in respect of the schemes ODSSP, ODAFF, DDUGJY & IPDS are not recognized in the Statement of Profit & Loss for the FY 2019-20 and the same can't be recognized in advance for the FY 2021-22 unless it fulfils the above conditions.

Therefore, the assumption of huge amount receivable from State Govt. @ 6% of the Project Cost under Misc. Income is not tenable. Also the tentative budget of Rs. 2430 Cr. as noted by the objector are not true and have no merit. 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. 52.72 Cr. during FY 2021-22.

Transmission Charges

110. OPTCL submitted that the present ARR and Transmission Tariff application has been prepared and submitted based on provisions contained in OERC Transmission Tariff Regulations, 2014, OPTCL's Audited Accounts for FY 2019-20, all relevant data/information and material. OPTCL filed the ARR application for FY 2021-22 on 01.12.2020 considering DISCOMs demand of 27140 MU as per realistic energy demand projections by the DISCOMs at that time.
111. The proposed Transmission Charge of 11559.35/MW-DAY is derived considering the recent realistic energy demand projection of all four DISCOMs and the ARR figures arrived by OPTCL justifying component wise projections. OPTCL submitted that the present ARR and Transmission Tariff application has been prepared and submitted based on provisions contained in OERC Transmission Tariff Regulations, 2014, OPTCL's Audited Accounts for FY 2019-20, all relevant data/information and material. Moreover, OPTCL had furnished all requisite information and details as per the prescribed formats of the Commission with full justifications. OPTCL has also submitted additional information / clarifications to queries raised by the Commission on 18.01.2021 in which the audited accounts along with statutory audit report of OPTCL for FY 2019-20 has been submitted

Aggregate Revenue Requirement

112. The projections made by OPTCL as per the OERC Transmission Tariff Regulations, 2014 are very much realistic and the details are explained in its ARR application which need full consideration.

Open Access & Charges

113. OPTCL has acted as per the new Open Access regulation, OERC (Terms and Conditions of Intra-State Open Access) Regulations, 2020 which has come in to force with effect from its publication in Odisha Gazette dated 18th November, 2020.

Substations and lines

114. Over the years OPTCL has been continuously planning and implementing substantial no. of projects to strengthen its transmission system for ensuring quality, adequacy &

reliability of power supply in the State based on requisition of DISCOMs and by Transmission Planning through system study. However, if there still remains any area / areas of the state under brownout or blackout condition due to want of lines and sub stations of STU the objector may please specify the same so that the same shall be considered by OPTCL.

115. The details of sub-stations and lines having more than 40 years of life are given below.

Table- 15
The list of Sub-stations having more than 40 years of life period

Sl. No.	Sub-Stations	Voltage Level	Year of Commissioning
40 - 50 years of service			
1	Jayanagar	220/132/33kV	1980
2	Bargarh	132/33kV	1979
3	Bhubaneswar	132/33kV	1979
4	Kendrapara	132/33kV	1979
5	Aska	132/33kV	1975
6	Therubali	220/132/33kV	1974
7	Mohana	132/33kV	1973
8	Rajgangpur	132/33kV	1973
9	Chainpal	132/33kV	1972
> 50 years of service			
1	Brajarajnaragar	132/33/11kV	1969
2	Jajpur Road	132/33kV	1969
3	Khurda	132/33kV	1969
4	Ganjam	132/33kV	1967
5	Berhampur	132/33/11kV	1964
6	Sunabeda	132/33kV	1964
7	Rayagada	132/33kV	1962
8	Joda	220/132/33kV	1959
9	Jharsuguda	132/33kV	1958
10	Rourkela	132/33/25kV	1958
11	Choudwar	132/33kV	1956

The list of EHT lines having more than 40 years of lifespan.

Table - 16

Sl. No.	Name of EHT Line	Voltage Level (kV)	Year Of Commissioning
40 - 50 Years of Service			
1	132 kV Aska - Berhampur SC	132	1980
2	132 kV Balasore - Bhadrak SC	132	1980
3	132 kV Bhanjanagar - Aska DC	132	1980
4	132 kV Bolangir - Saintala SC	132	1980
5	132 kV Kesinga - Saintala SC	132	1980

Sl. No.	Name of EHT Line	Voltage Level (kV)	Year Of Commissioning
6	132 kV Polasponga - Rairangpur SC (Loc. No. 111 to 336)	132	1980
7	132 kV TTPS - Chainpal - II & III DC	132	1980
8	220 kV Rengali - Tarkera DC (Loc. 188 to 306)	220	1979
9	220 kV Tarkera - Rengali DC (Loc. No. 307 to 645)	220	1979
10	132 kV Burla PH - Chiplima PH DC	132	1979
11	132 kV Chandaka - Bhubaneswar Ckt-I SC	132	1979
12	132 kV Chandaka - Bhubaneswar Ckt-II SC	132	1979
13	132 kV Chiplima PH - Bargarh SC	132	1979
14	132 kV Jaipur Road - Bhadrak SC	132	1979
15	132 kV Jajpur Road - Kendrapara DC	132	1979
16	132 kV Khurda - Balugaon SC	132	1978
17	132 kV Chainpal - FCI DC	132	1975
18	220 kV Bhanjanagar - Meramundali DC (Loc. No. 197 to 470)	220	1974
19	220 kV Jayanagar - Balimela DC	220	1974
20	220 kV Jayanagar - Therubali DC	220	1974
21	220 kV Therubali - Bhanjanagar DC (Loc. No. 471 to 827)	220	1974
22	220 kV Therubali - Bhanjanagar DC (Loc. No. 828 to 1049)	220	1974
23	132 kV Rajgangpur - OCL SC	132	1973
24	132 kV Rajgangpur - Traction DC	132	1973
25	132 kV Chainpal - Choudwar Ckt - II SC (Loc. No. 1 to 151)	132	1972
26	132 kV Chainpal - Choudwar Ckt - II SC (Loc. No. 152 to 314 via ICCL)	132	1972
50 - 60 Years of Service			
1	132 kV Jayanagar - Sunabeda SC	132	1970
2	132 kV Bidanasi - Chandaka SC (Loc. 1 - 51)	132	1969
3	132 kV Bidanasi - Chandaka SC (Loc. 52 to 90)	132	1969
4	132 kV Chandaka - Khurda SC	132	1969
5	132 kV Choudwar - Bidanasi SC (Loc. No. 22 - 23 - 91 to 118)	132	1969
6	132 kV Duburi - Jajpur Road DC	132	1969
7	132 kV TTPS - Duburi DC	132	1969
8	132 kV Chhatrapur - Ganjam SC	132	1968
9	132 kV TTPS - Chainpal - I SC	132	1968
10	220 kV Bhanjanagar - Meramundali DC (Loc. No. 196 up to Meramundali)	220	1967
11	220 kV TTPS - Joda DC (Loc. No. 1 to 234)	220	1967
12	220 kV TTPS - Joda DC (Loc. No. 235 to 503)	220	1967

Sl. No.	Name of EHT Line	Voltage Level (kV)	Year Of Commissioning
13	220 kV TTPS - Meramundali DC	220	1967
14	132 kV Therubali - Rayagada SC	132	1967
15	132 kV Angul - Boinda SC	132	1963
16	132 kV Angul - TTPS SC	132	1963
17	132 kV Burla PH - Boinda SC	132	1963
18	132 kV Berhampur - Mohana SC	132	1962
19	132 kV Rayagada - Akhusingh – Mohana SC	132	1962
> 60 Years of Service			
1	132 kV Joda - Nalda - Bhalulata SC	132	1959
2	132 kV Rourkela - Nalda SC (Up to Bhalulata, Loc. No. 1 to 78)	132	1959
3	132 kV Budhipadar - Tarkera Ckt - I SC (Rajgangpur to Tarkera, Loc. No. 1 to 88)	132	1958
4	132 kV Budhipadar - Tarkera Ckt - II SC (Rajgangpur to Tarkera, Loc. No. 1 to 89)	132	1958
5	132 kV Budhipadar - Tarkera DC (Bamra to Rajgangpur, Loc. No. 283 to 410)	132	1958
6	132 kV Budhipadar - Tarkera DC (Up to Bamra, Loc. No. 164 to 283)	132	1958
7	132 kV Burla PH - Budhipadar DC	132	1958
8	132 kV Burla PH - HINDALCO DC	132	1958
9	132 kV Burla PH - Rajgangpur - Rourkela Ckt (Loc. 171 - 294)	132	1958
10	132 kV Burla PH - Rajgangpur - Rourkela Ckt (Loc. 294 - 430 - 526, Bamra to Rourkela)	132	1958
11	132 kV Burla PH - Rajgangpur - Rourkela Ckt (Loc. J1 - J65)	132	1958
12	132 kV Burla PH - Rajgangpur - Rourkela Ckt (Loc. J65 – 171)	132	1958
13	132 kV Chainpal - Choudwar Ckt - I SC (Loc. No. 1 to 147)	132	1958
14	132 kV Chainpal - Choudwar Ckt - I SC (Loc. No. 148 to 285)	132	1958
15	132 kV Tarkera - Rourkela Ckt - I SC	132	1958
16	132 kV Tarkera - Rourkela Ckt - II SC	132	1958
17	132 kV Jayanagar - Rayagada SC	132	1956
18	132 kV Machkund PH - Jayanagar SC	132	1956

116. The list of 33/11kV sub-stations with lines which have already been commissioned & loaded under Odisha Distribution System Strengthening Projects (ODSSP), IPDS & DDUGJY has been provided in the Rejoinder to the Objections submitted by OPTCL on 29th January, 2021.

- The expenditure incurred under ODSSP as on 31.12.2020 is Rs. 3346 Cr.
- The expenditure incurred under IPDS as on 31.12.2020 is Rs. 36.65 Cr.

- The expenditure incurred under DDUGJY as on 31.12.2020 is Rs. 41.59 Cr.

117. 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 being taken for new/augmentation of lines and substations. The lines presently undergoing replacement of old conductor are shown in the table below :

Table - 17

Sl. No.	Name of the EHT Lines
1	132kV Digapahandi – Berhampur line
2	132kV TTPS – Duburi Ckt-I
3	220kV TTPS – Joda Ckt – II
4	220kV Meramundali – Bhanjanagar Ckt – II
5	132kV Kendrapara – Paradeep DC

118. The lines presently undergoing conversion from S/C to D/C are shown in the table below:

Table - 18

Sl. No.	Name of the EHT Line
1	132kV New Bolangir-Sonepur
2	132kV Paradeep - Jagatsinghpur

119. The lines presently going through diversion works are shown in the table below:

Table - 19

Sl. No.	Name of the EHT Line
1	132 kV Paradeep-IFFCO line from Loc. 29 to Loc. 35

120. OPTCL aims to augment the installed transformation capacity at most of the existing sub-stations keeping in view of the additional load requirement projected for future. Augmentation plan is inclusive of the n-1 & n-2 contingency conditions. In last 5 years, OPTCL has established and upgraded total 87 nos. of substations adding total 8489 MVA transformation capacity to transmission network.

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.

121. The details of expenditure pertaining to various schemes of State/Central Govt. for Power Sector Development (sub-stations & lines) are submitted in the table below:

Table - 20

Sl. No.	Name of the Scheme	State Govt. / Central Govt.	Sector	Expenditure up to Nov' 20 (Rs. Cr.)
1	Odisha Distribution Sector Strengthening Project (ODSSP)	State Govt.	Distribution	3336.45
2	Dedicated Agriculture & Fishery Feeder (ODAFF)	State Govt.	Distribution	123.18
3	State Capital Region Improvement of Power System (SCRIPS)	State Govt.	Transmission & Distribution	995.61
4	Radial to Ring Conversion Projects (RRCP)	State Govt.	Transmission	183.01
5	Disaster Resilient Power System (DRPS)	State Govt.	Transmission	189.08
6	Disaster Response Centre (DRC)	State Govt.	Transmission	82.87
7	Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY)	Both Central Govt. & State Govt.	Distribution	1306.91
8	Integrated Power Development Scheme (IPDS)	Both Central Govt. & State Govt.	Distribution	935.03
9	Rajiv Gandhi Grameen Vidutikaran Yojana (RGGVY)	Both Central Govt. & State Govt.	Distribution	68.65
10	GPS survey of infrastructures	State Govt.	Distribution	13.06
11	BIJU Gramya Jyoti Yojana (BGJY)	State Govt.	Distribution	265.08
14	Ama Ghare LED	State Govt.	Distribution	247.21
15	Construction of 33/11 kV S/s (SETU)	State Govt.	Distribution	2.12
16	SOUBHAGYA	Both Central Govt. & State Govt.	Distribution	601.52
17	PSDF	Central Govt. / own	Transmission	56.65

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

Table - 21

Sl. No.	Name of IPP	Connected to OPTCL Network
1	Arati Steel, Ghantikhal	LILo on 132kV Meramundali Choudwar Ckt-I
2	GMR Kamalanga Energy ltd.	400kV Meramundali-GKEL SC
3	Meenakshi Power Ltd.	132kV Meenakshi-Jayanagar SC
4	NBVL, Meramundali	132kV NBVL-Kharagprasad DC

Sl. No.	Name of IPP	Connected to OPTCL Network
5	Orissa Power Consortium Ltd., Samal	LILO on 132kV TTPS-Duburi Ckt-I
6	Vedanta Limited, Jharsuguda	400kV Meramundali-Vedanta DC
7	OPGC 2x660 MVA (New) at IB	400kV Lapanga-IB DC
8	Baitarani Power Projects Pvt. Ltd.	132 kV BPPPL – Anandpur SC

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 for transmitting / wheeling power from the generating stations including CGPs and State share of power from IPPs to load centers / destination of use by long-term customers. Hence, revenue earned by OPTCL from exclusive use of above lines cannot be ascertained.

Introduction of Reliability Support Charge for connectivity

123. The benefits derived by the CGPs with co-located loads are enormous. The benefits are in the nature of ancillary services which are not paid till now. The Grid support charges (GSC)/Parallel operation charge has been levied by different state Regulatory Commissions and upheld by APTEL and Supreme Court of India through various orders and hence proposed by OPTCL through a separate petition.

Report by CAG

124. Since the respondent has not enclosed the CAG report on Economic Sector & Public Sector Undertakings for the year ended March-2018, the petitioner is unable to comment on the facts & figures. However, it is clarified that due care has always been taken not to include any assets created out of State Govt. grants while calculating the depreciation and debt service charges. Hence, the contention of the respondent on depreciation and debt service charges has no merit.
125. The de-capitalisation or de-recognition of Property, Plant and Equipment (PPE) for the FY 2019-20 was due to disposal of items when no future economic benefit were expected to arise from the continued use of assets. The same cannot be recognized and valued in advance. However, if there is any de-capitalisation recognized in FY 2020-21 and 2021-22, the same will be considered during the truing up exercise. Further, OPTCL is unable to comment on the facts & figures of CAG report and it is once again reiterated that no depreciation has been claimed on assets created out of Govt. grants. Therefore, contention of the Objector is not justified and unacceptable.

Revenue Gap

126. OPTCL has projected its revenue requirement for FY 2021-22 based on OERC Transmission Tariff Regulations 2014. The units to be handled during FY 2021-22 is based on DISCOM's recent realistic projections furnished to GRIDCO and their projection is less by 1410 MU compared to FY 2020-21. It may be noted that due to less drawal by DISCOMs, OPTCL suffered operational loss of Rs. 80.42 Crore in FY2019-20 and the same trend has been continuing in the current FY 2020-21 also. Similarly, in the current year, the STOA transactions upto Oct-20 are also very low in comparison to previous years. Further, the miscellaneous income of Rs. 84.41 Crore (as per audited accounts) for FY 2019-20 includes the non-tariff items such as deferred income for assets received from customers, provision written back etc. Hence, the same should not be linked. Therefore, the contention of the respondent has no merit and not to be considered.
127. All the transmission projects being constructed / to be constructed by OPTCL are either funded by the State Govt. or through loan from the Banks and Financial Institutions. In F-2 form, OPTCL has meticulously mentioned the details of CAPEX to be made in the current FY 2020-21 and ensuing FY 2021-22. With regard to the funding of some of these projects, OPTCL has already tied up with different Banks & Financial Institutions and simultaneously negotiating with few other Banks & FIs for the remaining projects. The details of calculation of interest on loan amounting to Rs.124.46 Crore is already mentioned in F-13 form. Further, OPTCL has claimed the Interest on Working Capital as Rs. 31.43 Crore based on the provisions of the OERC Transmission Tariff Regulations 2014.

Transmission cost for wheeling of power

128. OPTCL submitted that the present ARR and Transmission Tariff application has been prepared and submitted based on provisions contained in OERC Transmission Tariff Regulations, 2014, OPTCL's Audited Accounts for FY 2019-20, all relevant data / information and material. Moreover, OPTCL had furnished all requisite information and details as per the prescribed formats of the Commission with full justifications. OPTCL has also submitted additional information / clarifications to the queries raised by the Commission on 18.01.2021 in which the audited accounts along with statutory audit report of OPTCL for FY 2019-20 is submitted. Hence, OPTCL does not agree with the contention of the objector to link the ARR with Consumer price index (CPI).

129. The figures of Actual Revenue as 29.02 P/U for the FY-2020 and 26.94 P/U for the year-2022 cited by the objector has no justification and finds no merit. However, the revenue projection was made based on the MU projection by the DISCOMs. Therefore, OPTCL strongly objects to the wrong assumption of the Objector.
130. OPTCL strongly objects the words such as fictitious, false, fabricated, offence etc. used by the objector without any justification and urge the Commission to restrict the objector not to write such things in future. F-5 format deals with the calculation that shows the revenue gap w.r.t. projected ARR vis-a-vis if recovered at the present approved rate i.e @ 25 P/U.

Other Issues

Status Report on Transmission plan

131. OPTCL submitted a perspective Transmission Plan till the end of 12th Plan period (up to FY 2016-17) and got the Commission's approval vide Case No.79/2012. The Commission vide order dated 30.07.2016 in Case No. 05/2016 also approved the 5-year revised Business Plan of OPTCL (FY 2014-15 to FY 2018-19). The Commission vide order dated 09.04.2019 (Case No. 18/2017) has approved the balance period of 13th Transmission Plan (FY 2019-20 to FY 2021-22) in which 22 projects have been approved out of 30 projects submitted for approval. Meanwhile, OPTCL has prepared a perspective Transmission Plan till the end of the 14th Plan period (2022-23 to 2026-27) and 1st two years of 14th plan i.e. (FY 2022-23 to FY 2023-24) have been embedded in the current Business Plan (FY 2019-20 to FY 2023-24) which has been submitted to OERC for approval of the commission. This has been done taking into account the perspective Transmission Plan criteria developed by CEA. In these perspective transmission plans, the action plan for drawal of Odisha share as well as the evacuation of surplus power from IPPs have been taken care of.
132. CEA has approved the following 400kV projects for the state of Odisha up to FY 2019-20.
- 400/220kV Meramundali-B S/S with associated line.
 - 400/220kV Khuntuni S/S with associated line.
 - 400/220kV Paradeep B S/S with associated line.
 - 400/220kV Bhadrak B S/S with associated line.
 - 400/220kV Narendrapur S/S with associated line.

- 400/220kV Therubali S/S with associated line.
 - 400/220kV Jayanagar S/S with associated line.
133. As of now no Joint Venture Companies (JV) are there to evacuate power inside the State of Odisha.
134. The list and status of overloaded lines are given below.

List of Over-loaded lines:

- i. 132 kV Theruvali – Kesinga SC line
- ii. 132 kV Polasponga – Karanjia – Rairangpur - Bangiriposi SC line
- iii. 132 kV Bolangir-Acme-Tushar-Saintala-ABRL-Kesinga line
- iv. 132 kV Katapali- Barhgarh line

Status of over loaded lines:-

135. In order to reduce over loading of 132 kV Theruvali-Kesinga SC line, 220 kV New Bolangir-Kesinga DC line construction is under progress. OPTCL is shifting from Radial feeder connectivity to ring connectivity by recently charging 132 kV SC line from Jayapatna GSS to Dabugaon GSS and proposed 132 kV SC line from Jayapatna GSS to Junagarh GSS.
136. In order to reduce overloading of 132 kV Polasponga-Karanjia-Rairangpur-Bangiriposi SC line, Construction of proposed 220/132/33 kV GSS at Turumunga. & Construction of 220 kV DC connectivity to Keonjhar PG from proposed 220/132/33 kV GSS at Turumunga, Energisation of 220/33 kV Keonjhar GIS and DC connection to Keonjhar PG have been taken up.
137. As of now, no sub-station is over loaded. But still OPTCL is planning and implementing the augmentation schemes on the basis of demand forecast data furnished by DISCOMs as well as taking into consideration n-1 contingency and n-2 contingency.

Regarding evacuation of state share of power from the IPPs, the same has already been submitted in reply above.

OBSERVATION OF THE STATE ADVISORY COMMITTEE (SAC) (PARA 138)

138. The Commission convened the State Advisory Committee (SAC) meeting on 22.02.2021 at 11:00 A.M. through video conferencing mode. The Members of SAC deliberated on different issues related to power sector and the Annual Revenue Requirement of various licensees. SAC members welcomed the steps taken by OPTCL for signing the MOU with the IIT, Bhubaneswar for technical

support/guidance. They emphasized proper data analysis, testing, training etc. through in-house effort taking the help of IIT & other leading Institutions. Some members pointed that the proposal of OPTCL for increase of transmission loss to 3.15% should not be allowed since a lot of investment has been made for commissioning of new sub-stations, uprating /upgradation of lines/sub-stations, implementation of Sub-station Automation System (SAS), procurement of more efficient equipments etc. Further, transmission system of OPTCL should be capable enough for smooth integration/operation of large scale renewable generation expected in future.

VIEWS OF GOVERNMENT OF ODISHA ON TARIFF ISSUES (Para 139)

139. The Commission had written to Government of Odisha vide Letter No. 313 dated 25.02.2021 to submit their views on up-valuation of assets. Government of Odisha in their letter No. 3333, dated 24.03.2021 has intimated as follows:

(a) 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 agree 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 for 5 years from FY 2021-22 to 2025-26.

(b) Provision of subsidy under Section 65 of the Electricity Act, 2003

In view of the increasing power demand, massive investments have been made by the State Government for up gradation of transmission and distribution systems which is primarily in the nature of capital subsidy to keep the tariff low for all categories of consumers. The Government, therefore, do not agree to provide any subsidy for any class of consumers under Section 65 of the Electricity Act, 2003.

(c) Return on non-cash equity infusion of Rs.647 Cr. in OPTCL

Government vide its notification No. 11080 dt. 31st December 2020 have converted the Bonds of Rs. 400 Crore and interest outstanding of about Rs.247 Crore to equity share capital investment of Government in OPTCL. However, in order to bring down its effect on the tariff, OERC may not allow any return on this equity for the time being. However, OPTCL may not be allowed to

incur losses and requisite provision may be made for proper upkeep of the transmission assets.

COMMISSION’S VIEWS AND ORDER (PARA 140 TO 224)

140. The Commission had notified OERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2014. As per the said Regulation, the controllable and non-controllable costs have been defined under Regulation 6.3 which is valid till 31st March, 2019. The Commission in exercise of power conferred under Regulation 9.1 of above Transmission Regulation had extended the same until further orders vide its order dated 21.04.2020 in case no.72 of 2019.
141. Therefore, the Commission while approving ARR and transmission tariff of OPTCL for the FY 2021-22, shall be guided by the principles as laid down in OERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2014 and also shall be guided by the provisions of the Tariff Policy as well as other Statutory Notifications and Directives with due consideration of State specific need of Odisha.
142. OPTCL has inherited a transmission network from GRIDCO on “as is where is” basis. Continuous up-gradation and regular repair & maintenance are required to keep the network in a safe and operational condition and to meet the growing requirements of DISCOMs’ demand as well as to fulfil the expectation of the Commission and consumer on quality of supply, performance standards and availability of transmission network. In view of this, the Commission, over the past several years, has been approving a significant amount of Capital Investment proposals for installation of new Grid substations, transmission lines etc. 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.
143. 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.

144. Para 7.2(2) of Tariff Policy states that it is desirable to move to a system of loss compensation based on incremental losses as present deficiencies in transmission capacities are to overcome the same through network expansion. Necessary studies are to be conducted to establish the allowable level of system loss for the network configuration and the consequential capital expenditure required to augment the transmission system and reduce system losses. Since additional flows above a level of line loading lead to significantly higher losses, CTU/STU should ensure upgradation of transmission systems to avoid the situations of overloading.
145. 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 the available information, particularly the information on available transmission capacity and load flow studies, should be shared with intending users by the CTU/STU and the load dispatch centres.

Computation of Transmission Loss for FY 2021-22

146. The transmission system of OPTCL operates as an integral part of the Eastern Regional Grid to serve the internal demand of the State as well as carry out import and export of power depending upon the system demand under the overall supervision of the Eastern Regional Load Dispatch Centre in accordance with the GRIDCODE. Transmission loss, therefore, has been determined on the basis of principle of 'As the System Operates'.
147. OPTCL submitted that the transmission loss is purely a technical loss and dependent upon the real time injection/location of generation sources, system configuration and power flow requirements at different load centres. It also depends on parameters/factors such as distance and mismatch between generation & load ,types of load, reactive power compensation, voltage profile, seasonal variation etc. The transmission system of OPTCL operates as an integral part of the Eastern Region 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. OPTCL therefore does not have much control over the same. OPTCL, in the interest of public has constructed some grid s/s and lines in remote and deprived areas of the State with financial support from Central & State Government. Additional length in EHT lines and Sub-stations created in such

areas remain under-loaded which are also responsible for increase in transmission loss. The actual transmission loss of OPTCL was within the margin allowed by the Commission up to the year FY 2017-18. The actual transmission loss in the OPTCL's transmission system for FY 2018-19 & FY 2019-20 was 3.28% & 3.25 % respectively as against Commission's approval of 3.00%.

148. Over the year, OPTCL has been able to reduce the transmission loss gradually from 3.73% during 2014-15 to 3.25% in 2019-20 and has remained 3.18% within 1st six months of FY 2020-21 mainly due to addition of infrastructure and various system strengthening works. In view of this trend of transmission loss level, OPTCL expects the loss level to remain around 3.20% in the current year. Accordingly, OPTCL has proposed 3.15% transmission loss during FY 2021-22.

149. The approved and actual transmission loss for the year 2012-13 to 2020-21 is furnished in the table below:

Table - 22

FY	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Approved (%)	3.80	3.80	3.75	3.75	3.70	3.50	3.00	3.00	3.00
Actual audited (%)	3.84	3.79	3.73	3.67	3.58	3.34	3.28	3.25	3.18 (Provisional for April 20 to Sept' 20)

150. Some objectors have suggested for identification of maximum loss prone areas and conduct energy audit to know the quantum of loss in the system. Some objectors suggested that OPTCL should inform the methodology adopted for estimation of transmission loss and formulate action plan for loss reduction. Further, in the meantime, a lot of investment has been made by OPTCL for installation of many new Grid substations and up-rating/up-gradation of lines/substations for efficient operation of its Transmission system. Loss reduction is also a part of efficient operation. It is the responsibility of the OPTCL to reduce its transmission loss in time bound manner. OPTCL has undertaken various loss reduction measures by implementing the Substation Automation System, digitisation of Grids by using Bay control units, uprating of conductors from ACSR to HTLS, conversion from single circuit to double circuit line, procurement of efficient equipments etc. Further, the Commission in its Business plan order vide case No. 05/2016 dated 30.07.2016 had approved the Transmission loss as 3.00% during the year 2018-19 basing on submission of OPTCL.

OPTCL in its intra state transmission plan for the period from FY 2019-20 to FY 2021-22 had also submitted that the transmission loss during FY 2021-22 would be 2.47%. Further, the Commission considering the submission of the stakeholders had approved the transmission loss of 3% for the FY 2020-21. Therefore, the contention of OPTCL at present that increase in transmission loss is due to addition of infrastructure and various system strengthening works and therefore loss should be considered at the level of 3.15% without any supporting study or well-substantiated reason is not acceptable.

151. It is observed that OPTCL has not achieved the loss target approved by the Commission FY 2018-19, FY 2019-20 and FY 2020-21. OPTCL in its submission has submitted that the approved loss level could not be achieved primarily due to addition of infrastructure and various system strengthening works in remote and deprived areas of the State. However, the neighbouring state such as Andhra Pradesh, where almost similar type of network configuration is available, the Electricity Regulatory Commission has considered the lower limit of intra state transmission loss at the level of 2.86% and average transmission loss of 3.06%. Further, Chhattisgarh State Electricity Regulatory Commission has considered intra-state Transmission loss of 3% for FY 2020-21. Hence, keeping in view the licensees' track record in reduction of the losses, the huge investment made in the transmission network for system strengthening, automation, utilisation of energy efficient equipments etc., and considering the submission of objectors as well as OPTCL, the Commission approves 3.00% as transmission loss for FY 2021-22 which is same as that of FY 2020-21. Further, the Commission directs OPTCL to continuously monitor the operation of transmission system, prevent over loading/under loading wherever possible by taking suitable measures and take up innovative action for optimum loading of the existing network. Efforts should be made by OPTCL to reduce the loss further.

Execution of Projects

152. Objectors have submitted that OPTCL should have full control over its transmission system to meet the power flow requirement of the State. It is observed that OPTCL is not completing the projects approved by the Commission within the allowed time frame. In its reply OPTCL submitted that some projects are inordinately delayed due to ROW problems, Court cases, delay in getting statutory clearances from Railways, Forest & NHAI, and non availability of clear corridor for construction of line etc. Further, 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 though they are completed. The Commission directs OPTCL to co-ordinate with DISCOMs for evacuation of power from new/augmented grid s/s by building their own downstream distribution lines. Prior discussion with the DISCOMs is required before submission of transmission project for approval of OERC in order to avoid idle investments. OPTCL has completed only 14 nos. of projects during FY 2019-20 and 5 nos. projects till November 2020 in FY 2020-21. The progresses of ongoing projects are not encouraging. OPTCL should approach the concerned authorities to sort out the issues on “forest clearance” & “RoW” and should have proper monitoring mechanism in order to complete the projects already approved by the Commission within time schedule to avoid cost and time over run.

153. Electrical safety hazards are increasingly posing risk to people and property in the form of shocks, injury, fire, explosion leading to fatal/non-fatal accidents. The growing number of electrical accidents in the State is a serious concern for all. Lots of incidents on electrical accidents with fatalities have come to the notice of the Commission. The primary reasons of such incidents are due to non-adherence to safety rules, no/improper maintenance of transmission/distribution system elements, non-maintenance of proper line clearances, lack of proper use of safety gadgets by the employees etc. Further, appropriately trained/licensed personnel are not being entrusted to work in the field. CEA (Measures relating to Safety and Electric Supply) Regulations, 2010 has vividly dealt with all these matters i.e. relating to issue of certificate of competency /electrical work permit, engagement of personnel having undergone appropriate training, engagement of safety officer, maintenance of switchgear, maintenance of appropriate clearances etc. In this connection, the Commission has framed a Regulation on compensation to electrical accident victims. The Commission, therefore, directs the licensees to adhere to the provisions of CEA (Measures relating to Safety and Electric Supply) Regulations, 2010 scrupulously.
154. The Commission opined that since the transmission plans are based on the demands projected ahead of its execution, utmost care needs to be taken to avoid stranded transmission assets. Addition of lines and substations without any quantified objective shall lead to more system losses, high reactive power loading leading to further requirement of capacitor banks, stability issues etc. in under loaded conditions. The consumers also bear the burden on account of high capital investment, RoE, loan,

O&M expenses etc. The Commission feels one of the reasons of increase of ARR of OPTCL from year to year is due to the high capital investment in creation of stranded assets.

155. It has come to the notice of the Commission that OPTCL is taking up the initiatives for execution of some projects without the approval and even declined by the OERC. Therefore, the Commission directs that henceforth no transmission system strengthening proposals should be executed without the prior approval of the Commission. Appropriate cost benefit analysis should be submitted along with the comprehensive system study before proceeding for further network expansion plan. The sourcing of fund for the upcoming projects should also be intimated to the Commission.
156. OPTCL should find out latest technical methods for effective utilization of existing/proposed higher level transmission system by upgrading the existing substation/ transmission lines and equipments to increase power transfer capacity and reliability. Further, OPTCL should take the help of emerging techniques of control, monitoring, protection, communications, forecasting techniques, etc. for efficient operation of its transmission system in an optimal manner because of expected large scale integration of distributed renewable generation with their uncontrollable generation variability in coming years. OPTCL should have periodic R&M activities for efficient functioning of its transmission elements and also should have plan for a Disaster Resilient Transmission System to prevent the damage to a large extent during natural disaster.

System Interruptions due to Major Incident:

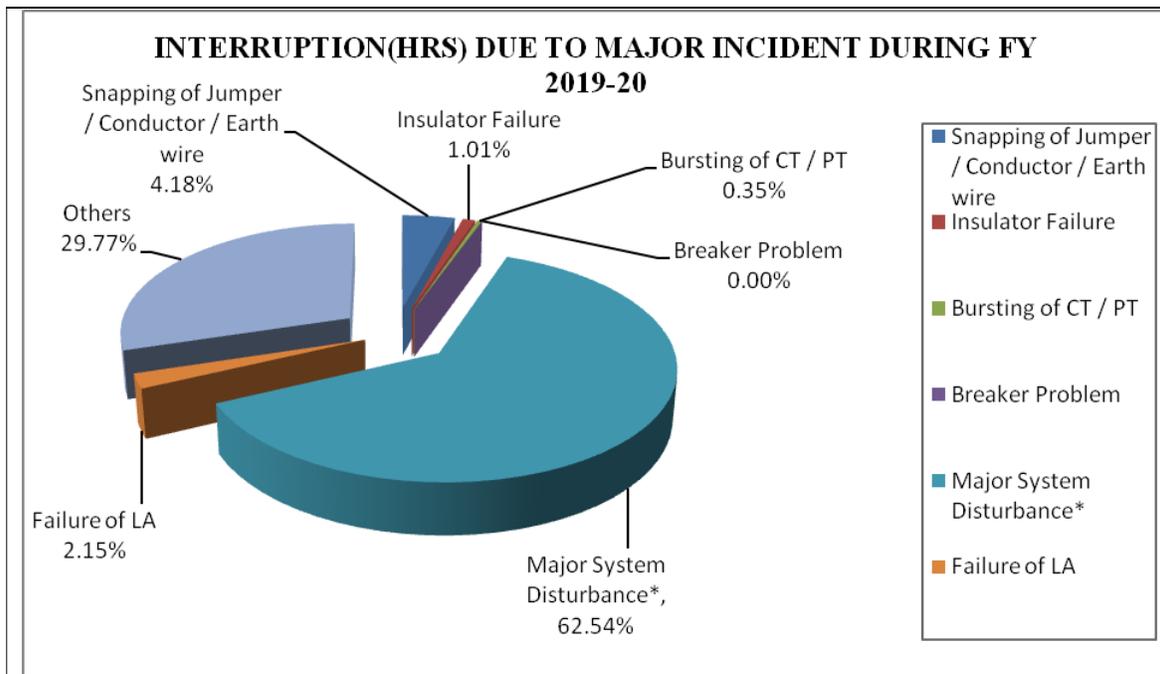
157. OPTCL's system has faced aggregated Annual interruptions varying from 3 hour to 638 hours at different locations on account of conductor/jumper/earth wire snapping, insulator failure, bursting of Current Transformer/Potential Transformer, breaker problem, system disturbance, Lightning Arrester failures etc. The duration as mentioned above is the sum total of interruptions occurred at different areas (s/s) during the FY 2019-20. The duration of interruptions is more in FY 2019-20 because of occurrence of Cyclone 'Fani' during the month of May, 2019. 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 4 hours of load restriction during the second quarter for the FY 2019-20 on rotation basis due to failure in generating stations. The load restriction has been imposed to curtail demand due to non-availability of generation/failure of generating stations. OPTCL claimed that there was no black out experienced in the State during the FY 2019-20. Duration of interruption in the year is given in the table below:

Table - 23
Interruption due to Major Incident

Incident	Duration of Interruption	No. of Interruption	Percentage
Snapping of Jumper / Conductor / Earth wire	42:42:00	44	4.18
Insulator Failure	10:20:00	12	1.01
Bursting of CT / PT	3:32:00	4	0.35
Breaker Problem	0:00:00	1	0.00
Major System Disturbance*	638:23:00	9	62.54
Failure of LA	21:58:00	20	2.15
Others	303:52:00	381	29.77

The duration of interruption indicated above is the sum total of interruptions occurred at different areas(S/s) during the year. However there was no total blackout experienced for the State during the year 2019-20.
* -Interruption due to "Fani Cyclone".



158. It is observed during FY 2019-20 the daily peak demand touched at 5151 MW maximum on 04.04.2019 and a minimum of 2574 MW on 05.04.2019. The peak

demand of 5151 MW in 2019-20 was about 276 MW lower than the peak demand experienced during the previous year 2018-19 (5427 MW). The total energy drawl was 25532 MU in FY 2019-20 as against 26269 MU in 2018-19, which indicates the decrease in electricity consumption of around 737 MU in the State.

159. 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 108 kV minimum & 193 kV maximum in its 132 kV system, 193 kV minimum & 262 kV maximum in its 220 KV system and 375 kV minimum & 424 kV maximum in its 400 kV system. As reported, the voltage levels at few 132 kV S/Ss have been lower than the allowed limits. The maximum and minimum voltage levels at different major grid S/Ss of OPTCL are given in table below:

Table - 24

Allowable Range (245-198 kV)			
Sl. No.	Name of the 220/132 kV Grid Sub-station	Maximum Voltage in kV	Minimum Voltage in kV
1	ATRI	243	209
2	Balasore	237	203
3	Bhadrak	236	202
4	Bhanjanagar	243	210
5	Bidanasi	242	212
6	Budhipadar	236	212
7	Chandaka	237	200
8	Duburi	237	212
9	Jaynagar	241	224
10	Joda	241	213
11	Katapalli	236	207
12	Lapanga	241	220
13	Laxmipur	241	221
14	Mendhasal	244	196
15	Meramundali	240	206
16	Narendrapur	244	193
17	Nayagarh	244	206
18	Paradeep	238	201
19	Sadeipali	237	205
20	Tarkera	262	213
21	Theruvalli	244	212

Allowable Range (380 -420 kV)			
Sl. No.	Name of the 400 kV Grid Sub-station	Maximum Voltage in kV	Minimum Voltage in kV
1	Duburi (N)	423	395
2	Lapanga	420	403
3	Mendhasal	425	375
4	Meramundali	424	400

Allowable Range (145 -122 kV)			
Sl. No.	Name of the 132/33 kV Grid S/S	Maximum Voltage in kV	Minimum Voltage in kV
1	Cuttack	142	118
2	Berhampur	150	114
3	Puri	143	110
4	Khurda	140	108

160. OPTCL is advised to take suitable remedial measures and to keep the OLTC of the power transformers in healthy condition. All the field engineers should be trained to operate it during peak and off-peak load condition to maintain voltage. OPTCL should also monitor the reactive drawl of DISCOMs from its grid S/S and wherever DISCOMs draw excessive reactive load at low voltage condition, it shall take up with them for remedial measure.
161. OPTCL should find out latest technical methods for effective utilization of existing level transmission system to increase power transfer capacity and reliability using FACTS devices. OPTCL should identify the frequently overloaded line and find out feasibility of employing FACTS there. This would not only relieve congestion but also improve voltage profile of the lines. OPTCL is required to develop appropriate system to ensure power supply without interruptions in any part of the State and ISTS of Eastern Region. The Commission expects OPTCL to plan R&M activities with provision of advanced metering /protection/communication system with modern automation. Further, as a part of O&M activity, OPTCL should upgrade the overloaded grid S/Ss in consultation with DISCOMs.
162. OPTCL should avoid under loading of lines and substations resulting in losses and should conduct comprehensive system study before proceeding for further network expansion plan. There should be periodic audit of relay/protection system of transmission system/distribution system within the state for reliable operation of the State Transmission System.
163. 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 dated 03.01.2007. The Commission directs OPTCL to report all the major incidents for which any part of the transmission system is affected.
164. The coastal districts of Odisha have repeatedly been battered by natural disasters like cyclone and flood. In the recent past, extensive damage to the transmission system happened due to many such disasters. It is understood that OPTCL has received Rs.191.95 cr. for disaster resilient power system and disaster response centre from the State Government. OPTCL should submit a detailed report on the utilisation of the above fund.

165. OPTCL, after conducting system studies, should take necessary action to uprate ACSR conductors to HTLS conductors, wherever required. Further, OPTCL should find out the latest technical methods for effective utilization of existing/proposed higher level transmission system by upgrading the existing substations/transmission lines and equipments to increase power transfer capacity and avoid RoW problem. Strengthening of the existing network, multi voltage level and multi circuit transmission lines may also be considered for the purpose.
166. OPTCL should also avoid under loading of lines resulting in losses and conduct comprehensive system studies & discuss with distribution licensees before proceeding for further network expansion plan. OPTCL should have in place an efficient and holistic monitoring/management system of its transmission network.
167. The Commission has analysed the application of OPTCL for Aggregate Revenue Requirement (ARR) for FY 2021-22 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
 - viii. Less: Income from other business as specified in these Regulations.

Operation and Maintenance Expenses

168. 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.

169. OPTCL has proposed an amount of Rs.532.72 crore for FY 2021-22 under Salary, Wages, Pension contribution and other employee costs. While projecting the employees cost, the petitioner has considered the following assumptions:-
- i. The actual cash outflow on this head from April-20 to Oct-20 has been extrapolated to arrive at Basic Pay for FY 2020-21 as Rs 158.65 Cr. Considering the average no. of employees during this period and a 3% hike in annual increment the Basic Pay for the FY 2021-22 is worked out as Rs.168.11 Cr.
 - ii. OPTCL has proposed **Rs.44.12 Cr.** towards balance 50% arrear salary of 7th pay revision to be considered in the ARR of 2021-22.
 - iii. ***Dearness Allowance (DA):*** OPTCL has estimated that the DA rate for the FY 2021-22 would be around 28% (average). With this assumption, the DA for FY 2021-22 has been estimated to **Rs. 47.07Cr.**
 - iv. Presently the rate of HRA for Executives is 18-20% on pre-revised pay and for Non-Executives is 18-20% on revised pay. OPTCL has estimated HRA for 85% of the employees @ 19% of the Basic Pay and accordingly projected **Rs.27.15 Cr.** for FY 2021-22.
 - v. OPTCL has submitted that the employees of OPTCL are entitled to get Medical Allowance @ 5% on revised pay. Accordingly OPTCL has projected **Rs.8.41Cr.** for FY 2021-22.
 - vi. OPTCL is going to adopt group health/medical insurance policy for its employees in lieu of actual medical reimbursement concept. For this purpose, OPTCL has proposed **Rs.5.00 Cr.** as payment towards the premium of such Group Insurance Scheme under Staff Welfare expenses.
 - vii. Under staff welfare expenses, OPTCL has projected **Rs.3.64 Cr.** towards Uniform, Liveries, GIS, Sports, Recreations & Cultural Activity, Hospital Expenses etc. for FY 2021-22.
 - viii. At present, OPTCL is functioning with 53% of manpower against sanctioned strength. For smooth functioning, OPTCL has engaged personnel in different streams through outsourcing. Accordingly, **Rs.2.57Cr.** has been proposed towards payment to outsourced personnel.

- ix. OPTCL has proposed **Rs.7.26 Cr.** towards stipend for the new recruits for the FY 2021-22.
- x. OPTCL proposes **Rs.12.71 Cr.** towards Bonus, Other allowances (Shift, Handicap, City, ABT etc.), LTC, Honorarium, Ex-gratia, Conveyance (both allowance and reimbursement) etc. for FY 2021-22.

Basic Pay

170. OPTCL in the reply to queries of the Commission submitted that the actual cash outflow on Basic Pay + GP from April 2020 to November 2020 (for a period of 8 month) was Rs.105.37 crore averaging Rs. 13.17 crore per month. The Basic pay and GP for FY 2020-21 as submitted by OPTCL has been extrapolated to arrive at Basic pay for FY 2021-22 taking into consideration the average number of employees during such year. The OPTCL has proposed the number of employees in the ARR in the following manner.

Table - 25
Information on number of Employees

OPTCL	Proposed
No. of employees as on 31.03.2020	2816
Add: Addition during 2020-21	4
Less: Retirement/Expired/ Resignation during 2020-21	211
No. of employees as on 31.03.2021	2609
Add: Addition during 2021-22	515
Less: Retirement/Expired/ Resignation during 2021-22	152
No. of employees as on 31.03.2022	2972
Average no. of employees for FY 2020-21	2713
Average no. of employees for FY 2021-22	2791

171. The Commission after prudence check finds that the number of employees as projected by OPTCL is reasonable and accordingly allows the same as shown in the above table. The average number of employees during FY 2020-21 and FY 2021-22 works out to be 2713 Nos. and 2791 nos. respectively as shown in the above table. The calculated prorated Basic Pay of Rs. 158.06 crore for FY 2020-21 is factored with the average number of employees for FY 2020-21 and FY 2021-22 considering retirement and inductions and enhanced at the rate of 3% for calculating basic pay for 2021-22. The said calculation is shown in the following table:

Table – 26**(Rs in Crore)**

Cash outgo	Amount
Basic+GP drawn in 04/2020	13.48
Basic+GP drawn in 05/2020	13.45
Basic+GP drawn in 06/2020	13.35
Basic+GP drawn in 07/2020	13.18
Basic+GP drawn in 08/2020	13.09
Basic+GP drawn in 09/2020	13.05
Basic+GP drawn in 10/2020	12.95
Basic+GP drawn in 11/2020	12.82
Average (Basic Pay + GP) per month	13.17
Pro-rated for FY 2020-21	158.06
Approved for FY 2021-22	167.48

Dearness Allowance:

172. 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 2021-22.

Table – 27

Effective Date	Rate	Status
01.01.2016	nil	Approved By GoO
01.07.2016	2%	Approved By GoO
01.01.2017	4%	Approved By GoO
01.07.2017	5%	Approved By GoO
01.01.2018	7%	Approved By GoO
01.07.2018	9%	Approved By GoO
01.01.2019	12%	Approved By GoO
01.07.2019	17%	Approved By GoO
01.01.2020	20%	Projected
01.07.2020	23%	Projected
01.01.2021	26%	Projected
01.07.2021	29%	Projected
01.01.2022	32%	Projected

173. As per the above table the average DA rate for FY 2021-22 is assumed to be 29%.

House Rent Allowance

174. House rent allowance has been allowed as provided in the 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. The present payment of HRA is

approximately 8.97% of basic pay, as per the information submitted by OPTCL. The commission accordingly approves the HRA of Rs. 15.02 crore.

Stipend for new contractual recruitment

- 175. OPTCL has submitted that they have planned to recruit 512 Nos. employees during FY 2020-21 and 418 Nos. in FY 2021-22. Accordingly, OPTCL has proposed **Rs.7.26 Cr.** towards stipend for the new recruits for the FY 2021-22.
- 176. The Commission after prudence check allows Rs 7.26 crore towards stipend for new recruitments. It is directed that OPTCL should follow State Govt models on contractual appointment as a State Govt. entity.
- 177. Medical reimbursement and all other items such as outsourced engagement, honorarium, ex-gratia and staff welfare expenses have been accepted by the Commission appropriately. The Commission is not inclined to approve any amount towards LTC because of restrictions imposed by the Government of Odisha, Finance Department notification no.20042 dt.07.07.2020.

Terminal Benefit including NPS

- 178. OPTCL has submitted that as per Accounting Standard 15 issued by MCA, employee benefit liabilities shall be assessed through actuarial valuation. The actuarial assumptions are required to measure the obligation and the expense and there is a possibility of actuarial gains and losses. Moreover, the obligations are measured on a discounted basis because they may be settled over many years after the employees render the related service. Accordingly, OPTCL has been doing actuarial valuation by availing the service of qualified Actuary every year.
- 179. Accordingly, based on the report of independent actuary M/s Charan Gupta Consultants Pvt. Ltd., Noida, U.P. OPTCL has made provision towards terminal liabilities. For FY 2021-22, OPTCL has projected by escalation of 3% over the previous year as shown in following table:

Table - 28 (Rs. Cr.)

Year	2021-22
Pension	185.48
Gratuity	10.43
Leave salary	5.25
Total	Rs. 201.16 Cr.

180. For FY 2021-22, OPTCL has proposed **Rs.201.16 Cr.** towards terminal liabilities (Pension, Gratuity & Leave Encashment). Besides OPTCL has projected **Rs.13.19 Cr.** towards employer's matching contribution for employees who have joined under NPS and Non-Pensioner Category.

It is pertinent to mention here that the Commission has allowed Rs. 2313.76 cr. (excluding NPS contributions) towards corpus fund of terminal liabilities in the ARR to OPTCL over the periods up to the FY 2020-21. The details of Terminal Liability allowed by the Commission are presented in the table below:

Table - 29

Expected Corpus Availability of OPTCL/(Gridco)	(Rs. in Cr.)
OB as on 01.04.1999	184.07
1999-00	11.68
2000-01	25.22
2001-02	27.74
2002-03	30.52
2003-04	33.57
2004-05	117.54
2005-06	40.62
2006-07	44.68
2007-08	55.38
2008-09	51.34
2009-10	76.94
2010-11	140.20
2011-12	176.36
2012-13	129.80
2013-14	117.18
2014-15	134.11
2015-16	135.37
2016-17	140.00
2017-18	139.58
2018-19	168.11
2019-20	165.12
2020-21	167.63
Total	2,312.76

181. To assess the cash out flow due to terminal liabilities, the commission sought for the month wise cash outflow information which is presented in the table below:

Table – 30

Cash outgo terminal liabilities	Amount (Rs. Cr.)
04/2020	14.91
05/2020	17.84
06/2020	3.69

Cash outgo terminal liabilities	Amount (Rs. Cr.)
07/2020	17.68
08/2020	17.70
09/2020	17.68
10/2020	18.65
11/2020	17.74
Average Pension per month	15.74
Pro-rated for FY 2020-21	188.84

182. It is seen from the above table that the average monthly payment towards terminal liabilities is approximately Rs. 15.74 cr. and it would be Rs.188.84 cr. for the FY 2020-21 if prorated for the whole year.
183. The commission analysed the same and find that the projection made by the OPTCL of Rs.201.16 cr. for FY 2021-22 is reasonable, which is allowed towards terminal liabilities to OPTCL for FY 2021-22. Besides the above, an amount of Rs.13.19 crore towards NPS is allowed for FY 2021-22.
184. 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- 31
Approved Employees Cost for FY 2021-22 (Rs. crore)

Sl No	Particulars	FY 2020-21 Approved	FY 2021-22 Proposed	FY 2021-22 Approved
A	Salary & Allowance			
1	Basic Pay and Grade Pay	162.35	168.11	167.48
2	Dearness Allowance	43.83	47.07	48.57
3	House Rent Allowance	15.07	27.15	15.02
4	Other Allowance	1.03	0.79	0.79
5	Bonus	0.01	0.04	0.04
6	Stipend for New Recruitment	5.71	7.26	7.26
7	Arrear Salary for 7th Pay Commission	8.82	44.12	0
	Sub-total (A)	236.82	294.54	239.16
B	Additional Employee Cost			
1	Out Sources Engagement	3.17	2.57	2.57
	Sub-total (B)	3.17	2.57	2.57
C	Other Employee Cost			
1	Medical Expenses(allowance + Reimbursement)	5.22	8.41	5.74
2	Leave Travel Concession	0.50	0.40	-
3	Honorarium	0.05	0.07	0.07
4	Ex-gratia	5.00	7.00	5.00
5	Staff Welfare Expenses	2.79	8.64	3.07
6	Miscellaneous expenses	-	4.41	3.00
	Sub-total (C)	13.56	28.93	16.88
D	Terminal Benefits			
1	Pension	167.63	185.48	185.48

Sl No	Particulars	FY 2020-21 Approved	FY 2021-22 Proposed	FY 2021-22 Approved
2	Gratuity		10.43	10.43
3	Leave Salary		5.25	5.25
4	Other (including contribution to NPS)	9.77	13.19	13.19
	Sub-total (D)	177.40	214.35	214.35
E	Total Employees Cost (A+B+C+D)	430.95	540.39	472.96
F	Less: Employees Cost Capitalized	15.08	7.67	15.08
G	Net Employee Cost (E- F)	415.87	532.72	457.88

The employee cost approved for the FY 2021-22 is Rs. 457.88 crore.

Repair & Maintenance Expenses

185. The OPTCL has submitted that the R&M works are undertaken in different streams namely O&M, Telecom, Civil Works and Information Technology (IT). The OPTCL has projected a sum of Rs.151.10 cr. towards R&M expenses and the summary of proposed R&M Expenses under these four heads is given in the following table :

Table- 32

(Rs. Cr.)

Particulars	OERC Approval (FY 2019-20)	OERC Approval (FY 2020-21)	Projection (FY 2021-22)
(i) O&M	115.22	115.22	123.09
(ii) Telecom			3.39
(iii) Civil Works			20.40
(iv) Information Technology			4.23
Total R&M Expenses			151.10

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

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

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

As per the submission in the ARR Form F-17, the opening balance of the Gross block as on 01-04-2021 is shown as Rs.7804.29 crore.

As per the OERC Transmission regulation, the R&M expenses are allowed at the rate of 2.5% on opening GFA and also based on the actual expenditure incurred during the previous year. The Pre-up valued value of assets as on 01.04.2021 is assessed at

Rs.4561.35 crore (shown separately in depreciation table). The OPTCL was asked to submit the actual expenditure incurred under R&M during the previous year 2019-20 and the current year up to November 2020 (FY 2020-21). As per the submission, the actual expenditure incurred during the FY 2019-20 is Rs.121.63 cr. and for the current year from April 2020 to November 2020 is Rs. 68.76 cr. for 8 months. The current year average monthly expenditure is Rs.8.60cr. approximately which would be Rs.103.14 cr. if prorated for the whole year. The Commission analyses the same and thinks it reasonable to increase 15% over the current year expenditure for the ensuing year which is depicted in the table given below:

Table – 33
(Rs. Cr.)

April 2020 to November 2020	68.76
Average per month	8.60
Prorated for 2020-21	103.10
Approved for 2021-22(15% increase)	118.61

Accordingly the amount of R & M expenditure for the FY 2021-22 is approved for Rs.118.61 cr.

Administration & General Expenses

187. For the FY 2021-22, the petitioner has proposed an amount of Rs.38.13 Crore under the head Administration & General Expenses. Item-wise break up of expenses is given in table below:

Table- 34

PARTICULARS	(Rs. Cr.)
Property Related Expenses	4.37
Communication	0.90
Professional Charges	6.50
Conveyance & Travelling	12.71
Electricity & Water Charges	1.99
Fees & Subscription	0.09
Books & Periodicals	0.06
Printing & Stationery	0.44
Advertisement	1.53
Entertainment	0.18
Watch & Ward	2.31
Miscellaneous	2.53
Training	2.14
Office Maintenance	1.58
SLDC Charges	0.80
Total	38.13

188. 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.
189. Therefore, the Commission allows escalation of 2.76% (rate of inflation measured by WPI for the period up to Jan 2021) over the approved amount of previous year. The calculation for determining the A&G expenses is given in table below:

Table - 35

(Rs. Crore)

Normal A&G approved during 2020-21	23.29
Escalation as per WPI (up to jan'2021 @2.76%)	0.64
Normal A&G for 2021-22	23.93
Add : licensee fees to Commission	1.90
Add: Inspection fees	3.68
SLDC charges	0.84
Total A&G Expenses approved for FY 2021-22	30.35

190. The Commission approved an amount of Rs. 30.35 crore towards A&G expenses for the FY 2021-22. The Commission also directs OPTCL to keep the A&G cost under control and commensurate with business volume.

Interest and financial charges

A. Interest on loan

191. OPTCL has projected Interest on loan at Rs.150.46 Cr. for FY 2021-22. Details of interest on loan capital projected by OPTCL is shown in following table:

Table- 36

(Rs. Cr.)

Projection for Interest on loan	Average Rate of Interest	Principal as on 01.04.21	Loan to be received FY 21-22	Loan to be redeemed FY 21-22	Interest payment FY 21-22	Total Payment FY21-22
Govt. Loans						
GoO Bonds	13.00%	200.00			26.00	26.00
Sub-Total		200.00			26.00	26.00
Institutional Loans						
Bank of India	8.35%(Avg.)	31.87	-	6.75	2.38	9.13
REC Loan	10.96%(Avg.)	166.62	-	24.35	17.94	42.29
PFC Loan	11.36%(Avg.)	31.01	-	6.74	3.57	10.31
Union Bank of India	8.10% (Avg.)	445.09	90.00	45.11	36.35	81.46
JICA	8.23%(Avg.)	499.99	310.00	80.61	50.05	130.66
New Loan	8.10% (Avg.)	-	350.00	-	14.17	14.17

Projection for Interest on loan	Average Rate of Interest	Principal as on 01.04.21	Loan to be received FY 21-22	Loan to be redeemed FY 21-22	Interest payment FY 21-22	Total Payment FY21-22
Sub-Total		1,174.58	750.00	163.56	124.46	288.02
Grand Total		1,374.58	750.00	163.56	150.46	314.02

192. 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 2020-21 would be total to the tune of Rs.634.46 crore and during FY 2021-22 would be to the tune of Rs.750.00 cr.
193. The Commission analyses the Loan statement submitted by OPTCL. Interest on new loan to be taken during the FY 2021-22 is not considered. Similarly interest on anticipated loan to be received from UBI and JICA during the FY 2021-22 is also not considered for the FY 2021-22. The interest impact of the same will be considered in the ARR of subsequent years.
194. Source wise break up on loan as on 31.03.2021 and 31.03.2022, average rate of interest on the above loan and the amount of interest determined and approved for 2021-22 is given in table below:

Table – 37

(Rs. Crore)

Source	Average rate of interest (%)	Loan as on 31.03.2021	Anticipated Loan to be received FY 21-22	Anticipated Payment (FY 2021-22)	Loan as on 31.03.2022	Average Loan amount	Interest amount
Bank of India	8.35%	31.87	-	6.75	25.12	28.50	2.38
REC	10.96%	166.62	-	24.35	142.27	154.45	16.93
PFC	11.36%	31.01	-	6.74	24.27	27.64	3.14
Union Bank of India	8.10%	445.09		45.11	399.98	422.54	34.23
JICA	8.23%	499.99		80.61	419.38	459.69	37.83
Total		1174.58		163.56	1011.02	1092.80	94.50

195. The Commission allows Rs.94.50 crore towards interest on Loan for FY 2021-22.

B. Interest on Working Capital

OPTCL has proposed Rs. 31.43 cr. as interest on working capital. The Commission analysed the Cash flow statements (Revenue items) of previous year and current financial year from April 2020 to November 2020. It is observed that the total cash inflow for the FY 2019-20 is Rs.694.24cr as against the outflow of Rs.594.34cr. Similarly for the FY 2020-21(April 2020 to November 2020) the total cash inflow is

Rs.465.27cr as against the outflow of Rs.413.06cr. The above analysis indicates that OPTCL has a net positive cash flow. In the above scenario, the Commission is of the opinion that there is no requirement of working Capital loan for OPTCL. Hence the amount of interest on working capital as proposed by OPTCL is not allowed in the ARR.

Depreciation

196. OPTCL has estimated that the Gross Fixed Assets at the beginning of the FY 2021-22 at **Rs.7804.29 cr.** (Rs.6560.81 cr. as on 01.04.2020 + Rs.1243.48 cr. projected addition during FY 2020-21). For FY 2021-22, Depreciation is accordingly estimated as **Rs.279.07 cr.** which includes Rs.1.85 Cr. towards cost of premium/rent on leasehold land. OPTCL proposed Rs.2.57 crore in addition to depreciation towards amortisation of intangible assets. The detailed Statement of Fixed Assets and block-wise computation of depreciation as proposed is shown in the following table:

Table- 38

(Rs. Cr.)

Transmission Assets	OERC Depreciation Rate as per Regulations, 2014	Gross Fixed Assets as on 01.04.2021	Addition FY 2021-22	Depreciation
Free Hold Land		58.95	10.18	
Lease Hold Land		57.85	9.99	1.85
Buildings	3.34%	144.59	24.96	5.04
Electrical Installation		9.30	1.61	0.41
Plant and Machinery other Civil Work	3.34%	82.17	14.19	2.64
Plant and Machinery	5.28%	4,207.78	726.53	164.53
Plant and Machinery by beneficiary	0.00%	361.85	544.44	
Plant and Machinery (Lines, Cables & Network)	5.28%	2,808.87	484.99	96.99
Vehicles	9.50%	2.85	0.49	0.16
Furniture, Fixture	6.33%	8.70	1.50	0.49
Office Equipment & Others	6.33%	50.58	8.73	4.39
Capital stores and spares		10.79	1.86	-
Grand Total		7,804.29	1,829.47	276.50

197. OPTCL has proposed Rs.276.50 Cr towards depreciation for the FY 2021-22. 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 - 39

(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-up valued)	Difference (Up valuation effect)
Free Hold Land	34.46	55.57	5.64
Lease Hold Land	26.75		
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: (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	4048.38	3513.80	534.58

198. Commission in its queries sought for the information on the actual addition of Fixed assets for the current year. In its reply to queries, OPTCL submitted that till the end of December 2020 (for 9 months) for the current year 2020-21, it has considered Rs. 221.81cr. as addition to Fixed Assets. The Commission is of the opinion that during the balance 3 months of the current FY 2020-21, OPTCL would manage to add maximum another Rs.200 cr. in their Fixed Assets. So the total approved addition to Fixed Assets for the FY 2020-21 is Rs. 421.81 cr.
199. 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 2021-22 is given in the following table :

Table - 40

(Rs. Crore)

Transmission Assets	Deemed Cost as on 01.04.2020 (Audited)	Addition during FY 2020-21 (approved)	Cost as on 01.04.2021 (Approved)	Up valuation effect	Pre-up valued value of assets as on 01.04.2021	OERC Depreciation Rate as per Regulations, 2014	Depreciation (Approved for the FY 2021-22)
Free Hold Land	51.97	6.98	58.95		58.95	0.00%	0.00
Lease Hold Land	47.84	6.85	54.69	5.64	49.05	3.34%	1.64
Buildings	98.82	17.13	115.95	1.35	114.6	3.34%	3.83
Electrical installation	7.68	1.1	8.78	-	8.78	5.28%	0.46
Plant and Machinery (other civil works)	70.10	9.73	79.83	1.58	78.25	3.34%	2.61
Plant and Machinery	2820.12	171.38	2991.5	70.87	2920.63	5.28%	154.21
Plant and Machinery: (Lines, Cables and Network)	1528.52	200.00	1728.52	451.29	1277.23	5.28%	67.44
Vehicles	1.16	0.34	1.5	0.44	1.06	9.50%	0.10
Furniture, Fixture	6.22	1.03	7.25	1.20	6.05	6.33%	0.38
Office Equipment & Others	32.18	5.99	38.17	2.21	35.96	6.33%	2.28
Capital stores and spares	9.51	1.28	10.79		10.79	0.00%	0.00
Grand Total	4674.12	421.81	5095.93	534.58	4561.35		232.95

200. Accordingly, Commission approves an amount of Rs.232.95 crore towards depreciation for the FY 2021-22.

Return on Equity

201. OPTCL has proposed an amount of Rs.131.70 crore as return on equity during FY 2021-22 as per clause 8.28 of Regulation, 2014 on equity share capital of Rs. 849.79 crore @ 15.50%.

202. 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 @15.50% to be grossed up as per Clause (2) of this Regulation. The amount of equity infused by State Govt. till the date of filing application amounts to Rs.849.79 crore. The sanction order and date of Govt. fund as filed by OPTCL is given in table below:

Table – 41

Sl. No.	Sanction Order No. and Date	Amount (Rs. 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	5.00
4	R&R-I-01/2009-4826 dt.01.06.10	20.00

Sl. No.	Sanction Order No. and Date	Amount (Rs. Cr.)
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
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
25	BT(P)-04/2018/En-1786 dt. 26.02.18	15.00
26	BT(P)-04/2018/En-1791 dt. 26.02.18	20.00
27	BT(P)-04/2018/En-1796 dt. 26.02.18	15.00
28	R&R -54/2015/En-5458 dt. 23.06.15	20.00
29	R&R -54/2015/En-737 dt. 28.01.16	10.00
30	R&R -54/2015/En-4348 dt. 07.06.16	20.00
31	R&R -54/2015/En-466 dt. 17.01.17	60.00
32	R&R -17/2017/En-2895 dt. 22.04.17	20.00
33	R&R -17/2017/En-10216 dt. 27.12.17	50.00
34	R&R -40/2018/En-3902 dt.28.04.2018	15.00
35	R&R -40/2018/En-4632 dt.24.05.2018	40.00
36	BT(P)-04/2018(pt)-10432/En dt. 19.12.2018	15.00
37	BT(P)-04/2018(pt)-10439/En dt. 19.12.2018	15.00
38	BT(P)-04/2018(pt)-10446/En dt. 19.12.2018	15.00
39	R&R-40/2019-5100/En dt. 27-06-2019	3.76
40	R&R-40/2019-6530/En dt. 06-08-2019	11.03
41	ENG-BUD-BUD-0009-2019/2703/En dt.27.02.20	55.00
41	ENG-BUD-BUD-0009-2019/9013/En dt.13.10.20	50.00
	Total	849.79

203. The Commission allows return on equity at the rate of 15.50% on the equity value of Rs.849.79 crore amounting to Rs.131.70 crore. The Commission approves the same as a pass through in the ARR of 2021-22.
204. Further, OPTCL has proposed an amount of Rs.8.15 Crore towards income tax for the FY 2021-22 based on the provision made in the audited accounts for the FY 2018-19. The actual income tax paid as per the audited accounts for the FY 2019-20 is nil. The Commission does not allow any amount towards income tax as a pass through in the ARR for the FY 2021-22. Any amount of income tax liability to be paid in subsequent period shall be adjusted during the true up exercise based on audited accounts.

Other miscellaneous expenses

205. **Grid Co-ordination Committee Expenses:** OPTCL proposed an amount of Rs.0.35 crore under the head GCC expenses for the FY 2021-22. The said expenditure for GCC is in general a part of A&G expenses. Therefore, the Commission allows an amount of Rs.0.35 crore towards GCC expenses for the year 2021-22 in line with approval of the last year ARR with stipulation that this provision should be treated as a controllable expense.

Incentive for system availability

206. OPTCL in its submission has proposed an incentive of Rs.10.62 crore to be passed on the ARR of FY 2021-22 as the system availability of OPTCL Transmission Network. The transmission system availability factor (TAFY) for FY 2019-20 was 99.98%, which is more than Normative Annual Transmission System Availability Factor (NATAF) of 98.50%. The OPTCL system availability of 99.98% has been duly checked & certified by SLDC.
207. The Commission examined the relevant provision of Act & Regulations on payment of incentive to OPTCL. As SLDC has verified the System Availability of 99.98% during FY 2019-20 and is expected to maintain NATAF more than 98.50% during FY 2020-21, pending verification, the Commission approves an amount of Rs.5.00 crore as an incentive in the ARR of OPTCL for FY 2021-22 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

208. 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 26.14 crore towards rebate for FY 2021-22. The Commission approves an amount of Rs.15.86 crore towards rebate as a pass through in the ARR.

Miscellaneous Receipts

209. OPTCL has proposed an amount of Rs.52.72 crore towards miscellaneous receipt from inter-state wheeling, short term Open Access & STU charges, Bank interest, sale of Scraps and other Misc. Receipts. OPTCL in its submission stated the item-wise details in the table as follows.

Table- 42

Source	Rs.Cr.
Inter-State Wheeling	9.45
Short-Term Open Access& STU Charges	20.91
Bank Interest	16.56
Supervision Charges	1.00
Other Misc. Receipts	4.80
Total	52.72

The analysis of miscellaneous receipts was made by analysis of the audited balance sheet for FY 2018-19 and 2019-20. The following table represents such income from other receipts received by OPTCL for these two years:

Table- 43

Revenue from operations and other Income (Audited)	FY 2018-19	FY 2019-20
Long-term Open Access Charges	643.90	620.81
Short-term Open Access Charges	47.00	37.96
Wheeling Charges	9.45	12.72
Other operating Income	1.63	0
System Operation Charges	7.08	8.13
Market Operation Charges	1.77	2.05
Scheduling Charges	2.20	2.21
Registration Fees	0.01	0.07

Revenue from operations and other Income (Audited)	FY 2018-19	FY 2019-20
Application Fee	0.80	0.99
Revenue from operations (A)	713.84	684.94
Interest from Bank deposits	26.61	21.48
Interest on loans to employees & suppliers	1.78	2.14
Interest from advances to suppliers	0.30	0.07
Interest on Income Tax refund	2.91	0
Deferred income for asset received from customer	54.88	57.12
Net gain/(loss) on disposal of property, plant etc.	14.86	4.95
Provision written back	22.05	8.42
Employee Trust provision withdrawn	0	0
Supervision charges/Implementing Agency Charges	22.05	24.96
Other miscellaneous income	18.83	10.97
Total other Income(B)	164.27	130.11

210. The Commission examined the other receipts earned by the OPTCL in the shape of 'Revenue from operations' and 'Other income'. Out of the various heads under which OPTCL earns other receipts the commission has excluded income from few heads while computation of miscellaneous income. These heads are Long term open access charges, income relating to SLDC charges, loans to employees, suppliers, advances to suppliers, income tax refund, deferred income, disposal of property, plant, provision written back, employee trust provision withdrawn etc. The Commission after exclusion of income from such heads arrived at the miscellaneous Income for the FY 2018-19 and 2019-20 which is shown in the following table:

Table - 44

	(Rs. Cr)	
Miscellaneous Income (Approved)	2018-19	2019-20
Short-term Open Access Charges (considered separately)	47.00	37.96
Other operating Income	1.63	0
Interest from advances to suppliers	0.30	0.07
Interest from Bank deposits	26.61	21.48
Supervision charges/Implementing Agency Charges	22.05	24.96
Net gain/(loss) on disposal of property, plant etc.	14.86	4.95
Other miscellaneous income	18.83	10.97
Total other Income excl. STOA	84.28	62.43
Average Miscellaneous Income excluding STOA charges	73.36	
Revised STOA charges Average audited $(37.96 + 47.00)/2 \times 4$	169.92	
Total Miscellaneous Receipts	243.28	

211. The average of receipts excluding STOA charges for FY 2018-19 and 2019-20 (as shown in the above table) is computed at Rs.73.36 crore. The Commission by OERC (Terms and Conditions of Intra-State Open Access) Regulations, 2020 has rationalised the LTOA and STOA charges paid by the Open Access customers in line with the CERC (Open Access in Interstate Transmission), Regulations. In view of such developments it is estimated that the receipts of STOA during the ensuing year 2021-22 would be substantially increase. The short-term open access charges as per audited accounts was Rs.47 crore and Rs.37.96 crore for FY 2018-19 and 2019-20 respectively. The Commission expects that after the revision of STOA it would be four times of the average charges received during the year FY 2018-19 and 2019-20. Taking such aspect into account commission determines Rs.169.92 crore towards STOA charges to be received during the FY 2021-22 in addition to other miscellaneous receivables of Rs.73.36 as estimated in the above table. Therefore commission allows total miscellaneous receipt of Rs. 243.28 cr for FY 2021-22.

Transmission Cost

212. OPTCL in its ARR application has considered demand projection of all four DISCOMs totalling 26680 MU for FY 2021-22. 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 26480 MU. The Commission scrutinized the proposal of OPTCL and the total energy to be transmitted in the OPTCL system is estimated at 28330 MU for FY 2021-22, the details of which are mentioned in the table below:

Table – 45

Details of Energy for Transmission	Proposed by OPTCL (MU)	Approved by OERC (MU)
Total Demand of DISCOM	26680	27870
Less energy transmitted in 33KV & 11 KV network	200	200
Energy Transmitted for DISCOM	26480	27670
Wheeling to industries from CGPs & Emergency Sale to CGPs.	660	660
Total	27140	28330

213. The details of expenses proposed by OPTCL and approved by the Commission for FY 2021-22 towards transmission charges are depicted in table below:

Table – 46
ARR Proposed and Approved for OPTCL for FY 2021-22 (Rs. in crore)

ITEMS	Approved for 2020-21	Proposed for 2021-22	Approved for 2021-22
Employees Cost including Terminal Benefits	415.87	532.73	457.88
R&M Cost	115.22	151.10	118.61
A&G Cost	28.72	38.13	30.35
Interest and financial charges	26.28	150.46	94.50
Depreciation	195.59	279.07	232.95
Return on Equity	123.95	131.70	131.70
Income Tax	0.13	8.15	-
Interest on Working Capital	-	31.43	-
Sub-Total	905.76	1,322.77	1,066.00
Special Appropriation			
Pass Through Expenses			
Contingency Reserve			
Other miscellaneous expenses (Aux.)	-		
GCC Expenses , statutory levies & taxes	0.50	0.35	0.35
Incentive for system availability	5.00	10.62	5.00
Rebate	14.28	26.14	15.86
Total	925.54	1,359.88	1,087.20
Less Misc. Receipts	211.70	52.72	243.28
Less: Surplus True up			51.00
Annual Revenue Requirement to be recovered from LTOA Consumers (i.e. DISCOMs & CGPs)	713.84	1307.17	792.93
No. of Units to be handled	28,550.00		28,330.00
Transmission Charges (Paise/Unit) (Rounded)	25.00		27.99 (Rounded off) 28.00
Expected Revenue from LTOA Customers	713.75		793.24
Surplus/(Deficit)	(0.09)		0.31

TARIFF DESIGN

Transmission Tariff

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

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

215. 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 28.00 paisa per unit which shall be applicable for transmission of power at 400 kV/220 kV/132 kV over OPTCL's EHT Transmission Lines and Sub-stations and shall be payable by the DISCOMs. It will also be applicable for the purpose of transmission of energy from a CGP to its industries located at a separate place(s) within the State.
216. The estimated energy for transmission in OPTCL's system is 28330 MU with an average demand of 3234 MW. The net transmission cost as indicated in the table above is Rs.793.24 crore. Accordingly, the Open Access charges work out to a rounded sum of Rs.6720.00/MW-day or Rs.280/MWh. The open access customer availing Open Access under relevant Regulations of OERC shall pay Rs.6720.00/MW-Day (Rs.280/MWh) towards transmission charges.

Transmission Loss for Wheeling

217. OPTCL had proposed that out of the energy supplied to transmission licensee, 3.15% 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 2021-22.

Reactive Energy Charges:

218. OPTCL in its ARR application submitted that the Commission in Para 16 of the order dated 05.02.2019 in Case No. 50/2017 has approved the provisional reactive energy charges of 3 paise/KVArH till a final justification is submitted by OPTCL in consultation with the stakeholders. Accordingly, OPTCL is holding consultation with the stakeholders at regular intervals and some more time is required in this regard. In view of the above, OPTCL proposes that 3paise/KVARh may be approved provisionally as Reactive Energy Charges FY 2021-22.
219. In view of the above the Commission provisionally approves reactive energy charges @ 3 paise/KVArh for FY 2021-22. However, the direction of the Commission in the order dated 05.02.2019 in Case No. 50/2017 should be complied by OPTCL.

Transmission Charge Payment Mechanism

220. The LC arrangement has been newly created between OPTCL and DISCOMs for securing transmission charges.

Rebate

221. 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 30 days of presentation of bills by the Distribution Licensee/user, a rebate of 1% shall be allowed.

Late Payment Surcharge

222. In case payment of bills by the licensees/ user is delayed beyond a period of 30 days 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.
223. The transmission tariff approved as above in respect of OPTCL will become effective from 04.04.2021 and shall continue to remain in force until further orders.
224. The application of OPTCL in Case No. 73 of 2020 is disposed of accordingly.

Sd/-
(G. MOHAPATRA)
MEMBER

Sd/-
(S. K. PARHI)
MEMBER

Sd/-
(U. N. BEHERA)
CHAIRPERSON