

***Summary of ARR &
Transmission Tariff Filings***

Submitted by

OPTCL

For

FY 2020-21

Summary of OPTCL's ARR & Transmission Tariff filing For FY 2020-21

- 1) In exercise of powers conferred under Sections 39,131,133 and 134 of the Electricity Act, 2003 read with Sections 23 & 24 of the Orissa Electricity Reform Act, 1995, the State Government published the Orissa Electricity Reform (Transfer of Transmission and Related Activities) Scheme, 2005 ("Transfer Scheme") in the Gazette dated 09.06.2005 which was effective retrospectively from 01.04.2005 wherein the Transmission Undertaking (the Undertaking related to the activities of Transmission, State Transmission Utility and State Load Dispatch Centre and acts incidental and ancillary thereto) of the Grid Corporation of Odisha Limited (Transferor), (now renamed GRIDCO Ltd.- "GRIDCO") has been transferred and vested in Odisha Power Transmission Corporation Limited ("OPTCL").
- 2) As per Clause 10 of the Transfer Scheme, OPTCL is a deemed Transmission Licensee under Section 14 of the Electricity Act 2003 for undertaking the business to transmit electricity in the State of Odisha. OPTCL has also been notified as the State Transmission Utility and accordingly, shall discharge the State Load dispatch functions from the date of transfer till further orders of the State Government.
- 3) 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 Hon'ble OERC for approval. Further, Regulation 5.2 of the OERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2014 requires OPTCL to file ARR application by 30th November of every year of the Control Period. In compliance of the above, OPTCL submits its Aggregate Revenue Requirement & Transmission Tariff application for FY 2020-21 for kind approval of the Hon'ble Commission.

Categorization of Open Access Customers

- 4) All the customers seeking open access to OPTCL Transmission System are classified under two categories:
 - (a) **Long Term Open Access Customers (LTOA Customers)**

A Long Term Open Access Customer means a person availing or intending to avail access to the Intra-State Transmission System for a period of 25 years or more. Based on such premise, four DISCOMs, NALCO & IMFA happen to be the long term customers of OPTCL. East Coast Railway (ECoR) has applied to OPTCL for grant of connectivity and LTOA/MTOA of OPTCL's intra-state network for

drawal of power to 29 TSSs of Railway located in Odisha, OPTCL has filed one petition before the Hon'ble Commission on 26.10.2016 in the above matter. OPTCL has prayed therein inter alia to acknowledge ECoR as a "Deemed Distribution Licensee" and declare them as the fifth DISCOM to be operative in the State of Odisha apart from the existing four DISCOMs (CESU, WESCO, NESCO and SOUTHCO). In the above premises, OPTCL in the present ARR application has projected the demand of Railways separately (as furnished by each DISCOM) as one LTOA Customer.

(b) Short Term Open Access Customers (STOA Customers)

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

Formulation and Computation of Transmission Charges

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

OPTCL has formulated its present ARR & Transmission Tariff application for FY 2020-21 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 2020-21 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 charges

O&M Expenses

- 6) As per the Regulation 8.2 of OERC Regulations, 2014, Operation and Maintenance (O&M) expenses shall include:
 - (a) Salaries, wages, pension contribution and other employee costs;
 - (b) Administrative and General Expenses;
 - (c) Repairs and Maintenance;
 - (d) Expenses related to auxiliary energy consumption in the sub-station for the purpose of air-conditioning, lighting, technical consumption, etc.; and
 - (e) Other miscellaneous expenses, statutory levies and taxes (except corporate income tax)

OPTCL's submission in this regard is given below.

Salaries, wages, pension contribution and other employee costs

- 7) The Employee Expenses for FY 2020-21 estimated as **Rs. 466.22 Cr** including Terminal Benefit Liability and impact of 7th Pay Commission (remaining 60% towards arrear pay of Rs. 52.94 Cr for pay revision of Executives and Non-Executives of OPTCL for the period from 01.01.2016 and 01.04.2015 respectively). It is expected that State Govt. will issue notification towards release of the balance 60% by the end of current FY 2019-20. Hence, OPTCL has proposed **Rs. 52.94 Cr.** towards balance 60% arrear pay. Presently (as on 1.11.2019) the Men in Position (MIP) of OPTCL is 2914 against sanctioned strength of 5149 (Executive-1916 + Non-Executive-3233). The employee expenses calculation has been made on the basis of (i) employee cost, (ii) terminal benefit liability of employees and existing pensioners and (iii) impact of 7th Pay Commission.
- 8) 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.

Administrative and General (A&G) Expenses

- 9) The A&G Expenses include property related expenses, communication, professional charges, conveyance and travelling, SLDC charges, licensee fee and material related expenses. OPTCL has proposed **Rs. 28.66 Cr** towards A&G Expenses for FY 2020-21. The A&G Expenses have shown an increasing trend in recent years due to price rise and inflation and is on the higher side than the amount approved by the Hon'ble Commission. However, taking into account of the annual escalation based on the Regulation 8.14 (average WPI from January 2019 to October 2019), OPTCL has proposed Rs. 28.66 Cr. towards A&G Expenses.

Repair and Maintenance (R & M) Expenses

- 10) The R&M works of OPTCL are undertaken in different streams namely O&M, Telecom, Civil Works and Information Technology (IT). The proposed R&M Expenses for FY 2020-21 is **Rs.140.59 Cr**, as shown in the **Table-1** below:

Table-1 Repairs and Maintenance Expenses for FY 2020-21 (Rs.Cr)

Particulars	OERC Approval (FY 2018-19)	OERC Approval (FY 2019-20)	Projection (FY 2020-21)
(i) O&M	111.00	115.22	123.51
(ii) Telecom			3.09
(iii) Civil Works			10.00
(iv) Information Technology			3.99
Total R & M Expenses			Rs. 140.59 Cr.

- 11) OPTCL owns 148 Nos. of grid substations of different voltage classes and EHT transmission lines of 13,995.031 ckt. Km. as shown in Table-2 below:

Table-2

Sub-Station and Line Details	
400/220/33kV S/S	1
400/220/132/33kV S/S	3
220/132/33kV S/S	19
220/33kV S/S	10
220/132kV S/S	1
132kV Sw. Stn.	20
132/33kV S/S	92
132/33/25kV S/S	1
132/33/11kV S/S	1

Total No. of Sub-Stations	148	
Voltage Level	Lines (ckt. km.)	Bays
400kV	1196.872	44
220kV	5974.856	324
132kV	6823.303	917
33kV		1098
25kV		2
11kV		8
TOTAL	13,995.031	2393

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

- 12) **Grid Coordination Committee (GCC) Expenses:** Under (GCC) expenses, OPTCL proposes **Rs. 0.50 Cr** towards annual GCC Expenses for FY 2020-21 in line with the Chapter-11 (2)(1) of the Orissa Grid Code (OGC) Regulations 2006.
- 13) Taking into account the proposed expenditure towards manpower (Employee Cost including Terminal Benefit), Repair & Spares (R&M Expenses) towards consumables, insurance and overheads (A&G Expenses), GCC expenses, OPTCL proposes the O&M Expenses as **Rs.635.97 Cr.** The summary of O&M Expenses for FY 2020-21 is shown in the **Table-3** below:

Table-3 Summary of O&M Expenses for FY 2020-21

Particulars	Amount
	(Rs. Cr.)
(i) Employees Cost including Terminal Benefits	466.22
(ii) A&G Cost	28.66
(iii) R&M Cost	140.59
(iv) Expenses related to auxiliary energy consumption in sub-stations	0.00
(v) Other miscellaneous expenses, statutory levies and taxes (GCC expenses)	0.50
Total O&M Expenses	Rs. 635.97 Cr.

Interest and Financial Charges

14) **Interest on Loan**

Interest on loan for FY 2020-21 has been projected as **Rs.53.53 Cr.** Details of interest on loan capital are shown in the **Table-4** below:

Table-4 Interest on Loan for FY 2020-21 (Rs. Cr)

		Rate of Interest	Principal as on 01.04.19	Loan to be received (FY 20-21)	Loan to be redeemed (FY 20-21)	Interest payment (FY 20-21)	Total Payment (FY 20-21)
A	Govt. Loans						
	State Govt.(CRF)	0.00%	15.00			0.00	0.00
	GoO Bonds	13.00%	400.00			0.00	0.00
	Sub-Total		415.00			0.00	0.00
B	Institutional Loans						
	Bank of India	8.60% (Avg.)	70.62	85.53	6.75	7.62	14.37
	REC Loan	10.63% (Avg.)	174.49		32.07	18.84	50.91
	PFC Loan	10.63% (Avg.)	37.75		6.74	4.23	10.97
	Union Bank of India	8.70%	38.11	85.53		7.04	7.04
	JICA	8.65%	168.32	310.00		15.80	1.11
	Sub-Total		489.29	481.06	45.56	53.53	84.40
C	Grand Total		904.29	481.06	45.56	53.53	84.40

15) Interest on Working Capital:

As per the Regulation 8.26 of OERC Regulations, 2014, the rate of interest for working capital shall be on normative basis and shall be equal to the SBI Base Rate plus 300 basis points as on 1st January of the preceding year for which tariff is determined:

provided that in case of STU (OPTCL) the Commission shall determine the quantum of working capital if needed depending on the cash flow position of the licensee and shall allow interest on the same.

OPTCL submitted that the Hon'ble Commission has not allowed interest on working capital on the ground that OPTCL has a revenue surplus i.e. the gap between revenue receipts and revenue payments.

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

16) **Rebate:** OPTCL has projected 2% rebate amounting to **Rs.19.33 Cr.** which is calculated based on the projected ARR for the FY 2020-21.

New Projects

- 17) OPTCL proposes to spend **Rs.1156.41 Cr.** during FY 2020-21 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-5** below:

Table-5 Projected CAPEX for new projects - FY 2020-21

Particulars	Amount (Rs. Cr.)
(i) Telecom Wing	133.22
(ii) Existing Assets (O&M Wing)	48.83
(iii) Information Technology (IT Wing)	39.88
(iv) Civil Wing	55.29
(v) New Transmission Projects (Construction Wing)	879.19
Total Capital Expenditure [(i)+(ii)+(iii)+(iv)+(v)]	Rs. 1156.41 Cr.

- 18) **CAPEX for telecom related projects:** The CAPEX proposal for the FY 2020-21 in respect of Telecommunication work is summarized in the Table-6 below:

Table -6 CAPEX - Telecom Projects - FY 2020-21

Sl. No.	ITEM	Amount (Rs Cr.)
1	Provision of Battery Set & Battery Charger (FCBC)	1.26
2	Provision of Optical Fibre based communication through OPGW for providing reliable communication to all grid S/S in OPTCL with PSDF support	67.89
3	Provision of 78 nos. of RTUs against replacement of 51 nos. old RTUs and 27 new RTUs for new grid S/S.	23.04
4	Provision of Optical Fibre based communication through OPGW for balance line sections of OPTCL	15.00
5	Provision of Digital Tele-protector coupler(DTPC) in all 220kV and higher kV lines of OPTCL	14.03
6	Implementation of OPGW communication scheme for upcoming line sections of OPTCL	12.00
	TOTAL	Rs.133.22 Cr.

- 19) **CAPEX for Existing Assets (O&M Wing):** The details of item wise CAPEX for O&M related projects are shown in the **Table-7** below.

Table-7 CAPEX Existing Assets – (O&M WING) - FY 2020-21

Sl. No.	Description	Unit Rate (Lakh)	Quantity	Amount (Rs. Lakh)
1	PROCUREMENT OF TRANSFORMERS WITH COST OF ERECTION			
(i)	Procurement of 160 MVA, 220/33kV		1	509.18
(ii)	Procurement of 40 MVA, 132/33kV		2	444.30
(iii)	Procurement of 20 MVA, 132/33kV		4	667.24
2	Construction of 3rd bay			
(i)	132kV Bay		2	200.00
(ii)	33kV		2	80.00
3	Sub-Station Automation System		15	1500.00
4	Replacement of Conductor			
(i)	132kV Bidanasi Chandaka SC(loc, 52-90)			86.33
(ii)	132kV Choudwar Bidanasi SC loc.22-23-91-118			58.04
(iii)	132kV Therubali-Rayagada SC			134.74
(iv)	132kV Burla PH-Rajgangpur-Rourkela Ckt. Loc.J1 to J65			126.19
(v)	220kV Therubali-Bhanjanagar DC line Ckt.-I			1077.01
TOTAL				Rs. 4883.03 lakh = Rs. 48.83 Cr.

20) **CAPEX for Information Technology (IT) related projects:** Provision of **Rs. 39.88 Cr.** is made for FY 2020-21 towards CAPEX for infrastructure development of IT and automation related fields etc. as given in the **Table-8** below:

Table-8 CAPEX - IT PROJECTS - FY 2020-21

Sl. No.	Item Description	Amount (Rs. Cr.)
1	Primary Data Center (PDC)	16.38
2	Smart Grid AMI	0.50
3	CCTV & VC	4.00
4	i-ERP	10.00

Sl. No.	Item Description	Amount (Rs. Cr.)
5	Work Automation	1.00
6	Big Data & Data Analysis	5.00
7	Business Intelligence(BI)	3.00
TOTAL		Rs. 39.88 Cr

- 21) **CAPEX for civil works:** OPTCL proposes CAPEX of **Rs. 55.29 Cr.** relating to Civil Works during FY 2020-21 for new upcoming projects which have been detailed in **Table-9** below.

Table-9 CAPEX - CIVIL WORKS PROJECTS - FY 2020-21

Sl. No.	Description of Works	Amount (Rs. Cr.)
1	Construction of multi-stored office complexes of OPTCL	16.7
2	Construction of approach roads inside various grid sub-stations of OPTCL	3.52
3	Construction of compound wall inside various grid sub-stations of OPTCL	3.00
4	Construction of store, vehicle shed and open stockyards inside various grid sub-stations of OPTCL	4.40
5	Construction of retiring rooms, watch tower, control room extensions, minor office buildings inside various grid sub-stations of OPTCL	7.67
6	Construction of Shakti Bhavan & Tech Tower	20.00
TOTAL		55.29

- 22) **CAPEX for New Transmission Projects (construction wing):** It has been planned to spend an amount of **Rs. 879.19 Cr.** on transmission related infrastructure during FY 2020-21 to increase the overall system capacity and to strengthen the transmission system network of the state, the details of which are shown in the **Table-10** below.

**Table-10
CAPEX for New Transmission Projects (Construction Wing) FY 2020-21**

Sl. No.	Description of the Project/Scheme	Expenditure during FY 2019-20			Projected expenditure (FY 2020-21)
		Actual for first	Projection for balance	Total	
A	ONGOING SCHEME				

Sl. No.	Description of the Project/Scheme	Expenditure during FY 2019-20			Projected expenditure (FY 2020-21)
		Six months	Six months		
1	2	3	4	5=3+4	6
1	2x12.5MVA,132/33kV Udala S/S with LILO	0.61	3.40	4.01	
2	132kV Bhadrak-Anandpur S/C line	1.17	1.40	2.57	
3	Bay extn. 132/33kV S/S at Olaver with line	1.01		1.01	
4	132/33kV S/S at Agarpada with line	0.22	3.80	4.02	
5	220/132kV S/S at Atri with line	1.25	3.75	5.00	
6	220/132/33kV S/S at Pratapsasan with line	5.14	10	15.14	
7	3RD ICT at 400/220kV S/S at New Duburi	1.17	9.8	10.97	
8	3rd ICT at 400/220kV S/S at Mendhasal	1.70		1.70	
9	2X20MVA, 132/33kV S/S at R.Udayagiri with line		2.00	2.00	
10	220/33kV S/S at Narasinghpur with LILO	0.02	0.20	0.22	
11	132/33kV S/S Bangiriposhi with line	0.19		0.19	
12	132/33kV S/S at Dhenkikote with line	6.62		6.62	
13	2x20MVA,132/33kV Brajabiharipur, Cuttack with LILO.	3.86	6.50	10.36	
14	220/33kV S/S at Baliguda with 220KV Kesinga Baliguda DC line	5.01		5.01	12.00
15	2x20MVA, 132/33kV S/S at Satasankha (puri) with line	2.11	5.00	7.11	
16	132/33kV S/S at Chikiti with line	1.94	6.00	7.94	
17	132/33kV S/S at Betanati with line	0.02	6.00	6.02	
18	220/132/33kV Aska S/S with line	4.67	4.00	8.67	
19	220/132/33kV Goda Chhak S/S with line	1.80	4.00	5.80	
20	132/33kV Unit-8 (BBSR) GIS S/S with line	0.39	3.50	3.89	
21	132/33kV Mancheswar GIS S/S with line	0.15	4.00	4.15	
22	132kV Phulbani-Boudh S/C line	3.66	7.50	11.16	
23	132/33kV GIS at Athagarh with line	0.10		0.10	
24	132/33kV GIS at Chandbali with line	0.36	1.50	1.86	

Sl. No.	Description of the Project/Scheme	Expenditure during FY 2019-20			Projected expenditure (FY 2020-21)
25	132.kV DC line from 132/33kV GIS Chandbali to 220kV/132/33kV S/S at Balimunda, Dhamara	1.28	11.70	12.98	5.20
26	220kV Pandiabil-Pratapsasan D/C line	3.98	11.50	15.48	
27	220/132/33kV Dhamra S/S with line (Revival)	9.78	28.00	37.78	15.00
28	132/33kV G.Udaygiri S/S with line	4.33	8.00	12.33	23.43
29	400/220kV GIS at Meramundali-B with line	1.74	9.00	10.74	
30	220/33kV S/S at Dasapalla with line	5.6	15.00	20.60	
31	220/132/33kV S/S at Kiakata with line	13.73	48.00	61.73	30.00
32	132/33kV S/S at Rajnagar with line	3.71	12.00	15.71	21.17
33	132kV Kuchei-Bangiriposi S/C line	0.34		0.34	
34	220/33kV S/S at Telkoi with line	3.94	16.00	19.94	23.96
35	132kV Aska-Digapahandi D/C line	4.97	6.00	10.97	
36	220kV Narendrapur-Aska D/C line	4.06	6.00	10.06	15.00
37	132kV Parlakhemundi -R.Udaygiri D/C line	2.06	8.00	10.06	
38	132/33kV S/S at Gondia with line	3.09	5.00	8.09	28.60
39	220/132/33kV S/S at Turumunga with line	3.68	36.00	39.68	20.00
40	132/33kV S/S at Chandipur with line	3.97	20.00	23.97	15.91
41	132/33kV S/S at Bahugram with line	0.50	7.00	7.50	15.00
42	220/33kV S/S at Palei, Balichandrapur with line	1.97	5.00	6.97	10.00
43	Diversion of one no. 400kV and 4Nos. 220kV line with 220kV LILO arrangement for connectivity with 400/220kV GIS Meramundali-B		10.00	10.00	26.03
44	132/33kV GIS at Hinjli			-	10.00
45	220/33kV GIS at Godisahi		5.00	5.00	20.00
46	220/33kV GIS at Kantabada		5.00	5.00	25.00
47	220/33kV GIS at Gothapatna		5.00	5.00	10.00
48	132/33kV GIS at Nayapalli		10.00	10.00	50.00
49	132/33kV GIS at Satyanagar		5.00	5.00	30.00
50	132/33kV GIS at Badagada		5.00	5.00	30.00
51	220/132/33kV GIS at Balianta		10.00	10.00	50.00
52	Others	6.68		6.68	
53	400kV IB-Meramundali D/C line	0.58	0.42	1.00	0.05

Sl. No.	Description of the Project/Scheme	Expenditure during FY 2019-20			Projected expenditure (FY 2020-21)
54	220/132/33kV S/S at Lapanga	0.01	0.19	0.20	0.20
55	2X100MVA, 220/132/33kV S/S at Kuanrunda with line	9.81	7.91	17.00	12.00
56	220kV Bay Extension at Lapanga	0.47	0.73	1.20	1.50
57	132/33kV S/S at Maneswar with line	1.89	10.11	12.00	5.80
58	Ioc. No. 118/1 of 400kV Vendant-Lapanga D/C Line & Ioc. No. 118/2 of 400kV IB-Meramundali Line to Lapanga	-	0.02	0.02	-
59	132/33kV GIS at Hirakud with line	2.59	14.41	17.00	2.97
60	220/132/33kV S/S at Bamra with line	1.61	2.39	4.00	10.00
61	220/132/33kV S/S at A.Katapali	1.16	0.97	2.13	-
62	220/33kV S/S at Deogarh with line	4.96	13.04	18.00	7.53
63	220/33kV S/S at Lephrpada with line	4.19	14.81	19.00	8.10
64	132/33kV S/S at Lakhanpura with line	7.07	12.93	20.00	7.80
65	132 kV Lapanga-Brajaraj Nagar D/C(Remja) line	0.96	1.4	2.00	2.00
66	220/132kV S/S at Kesinga with line	3.54	2.00	5.54	5.00
67	220/132/33kV S/S at Baragarh(New)	1.09	0.50	1.59	-
68	132/33kV S/S at Ghens with line	1.47	1.00	2.47	
69	132/33kV S/S at Tusura with line	0.88	0.20	1.08	
70	132kV Biramaharajapur S/S with line	-	0.50	0.50	3.00
71	132kV Junagarh-Kesinga D/C line	0.64	1.50	2.14	3.00
72	132kV Nuapada-Padampur line	-	1.00	1.00	3.00
73	220/132kV S/S at Kashipur with line	0.54	1.40	1.94	
74	220/132/33kV S/S at Jayapatna with line	2.37	3.56	5.94	10.00
75	220kV Transformer Bay at Laxmipur	-	0.70	0.70	1.20
76	220/132/33kV S/S at Gunupur	6.78	19.00	25.78	25.00
77	220kV LILO arrangement to Kashipur	0.03	-	0.03	-
78	132/33kV S/S at Pottangi with line		0.40	0.40	
79	132kV S/S at Umerkote with line		0.20	0.20	
80	132/33kV S/S at Podagada with line	0.01	0.10	0.11	
81	220kV Jayanagar-PGCIL D/C line with 2Nos. 220kV Feeder bays		1.00	1.00	0.60
82	Conversion of existing Jaynagar-Sunabeda S/C line to D/C line	0.01	0.20	0.21	2.00
83	220/33kV S/S at Malkanagiri with line	0.01	2.00	2.01	

Sl. No.	Description of the Project/Scheme	Expenditure during FY 2019-20			Projected expenditure (FY 2020-21)
84	132/33kV Boriguma S/S with LILO	0.17	3.00	3.17	1.50
85	220/33kV S/S at Kalimela with line	1.13	2.00	3.13	2.00
86	132kV Jayanagar-Tentulikhunti S/C line	1.14	1.00	2.14	3.00
87	220/33kV S/S at Govindpalli with line	9.11	10.00	19.11	2.50
88	132kV Podagada-Pottangi S/C line	6.72	4.00	10.72	4.00
89	132/33kV S/S at Thaupalli with line	4.01	10.00	14.01	15.00
90	220kV LILO of Bolangir-Kesinga line to 400/220 kV Madhiapali	-	0.30	0.30	0.30
91	132kV LILO of Bargarh-Barpali line to 220/132/33 kV Bargarh	0.30	0.30	0.60	0.30
	TOTAL - A	197.80	533.66	731.47	625.65
B	NEW PROJECTS				
1	400/220kV GIS at Ramakrushnapur with line	0.48	2.50	2.98	30.00
2	400/220kV S/S at Khuntuni with line	0.14		0.14	20.00
3	220/132kV GIS at Dhenkanal-B with line	0.38	9.50	9.88	15.00
4	220/132/33kV GIS at Kuakhia with line		2.00	2.00	15.00
5	220/33kV S/S at Chitalo		2.00	2.00	10.00
6	220kV LILO of 220kV TTPS-Joda to 220/33kV GIS Keonjhar			-	10.00
7	400/220/33kV GIS at Paradeep with 400kV & 220kV line		2.00	2.00	20.00
8	400kV & 220kV LILO line to 400/220kV GIS at Ramakrihnapur , 220kV & 132 kV LILO line to GIS at Kuakhia & 220kV LILO line to GIS at Dhenkanal-B			-	20.00
9	132/33 kV S/S at Bhatli with line	3.68	5.00	8.68	15.00
10	Bal work of 132kV Padampur-Nuapada line	2.71	1.50	4.21	5.00
11	Bal work of 132/33kV S/S at Birmaharajpur	1.18	3.22	4.18	8.00
12	132kV Jaipatna-Junagarh DC line	0	3.14	3.14	7.00
13	132/33kV S/S at Nabarangpur	2.08	12.22	14.08	5.00
14	132/33kV S/S at Lamptaput	0.03	10.00	10.03	5.00
	TOTAL - B	10.68	52.64	63.31	185.00
	TOTAL - A+B	208.48	586.30	794.78	810.65
C	DEPOSIT WORK				

Sl. No.	Description of the Project/Scheme	Expenditure during FY 2019-20			Projected expenditure (FY 2020-21)
1	RTSS at Boinda		0.02	0.02	
2	RTSS at Malatipatapur		1.00	1.00	0.02
3	RTSS at Kendrapara	2.80	1.00	3.80	
4	RTSS at Kamakhyanagar	0.92	2.00	2.92	
5	RTSS at SIJU	0.30	7.70	8.00	
6	RTSS at Charbatia	0.69	8.00	8.69	
7	RTSS at Sukinda	0.55	3.70	4.25	
8	RTSS at Dhanmandal	2.29	2.82	5.09	5.50
9	132kV Baner-Jayapatana Line (MI project)	0.85	0.40	1.25	0.00
10	Heightening of 33kV Tower of CESU/NESCO	6.91		6.91	21.00
11	RTSS at Bimlagarh	0.09	0.91	1.00	1.00
12	RTSS at Belpahar	0.09	1.91	2.00	1.00
13	RTSS at kechhobahal	0.01	2.49	2.50	1.00
14	RTSS at Rengali	-	0.22	0.22	0.02
15	RTSS at Maneswar	0.33	1.67	2.00	1.00
16	Diversion of CPP-II (NSPCL, Rourkela)- MSDS-V (RSP) D/C Line using UG cable	0.85	2.20	3.05	0.70
17	220/132/33kV S/S at Barma (50% Deposit work)	1.61	2.39	4.00	10.00
18	RTSS at Dhutra	0.70	1.90	260	7.00
19	RTSS at Garposh	0.53	1.47	2.00	7.00
20	RTSS at Bamra	0.02	0.33	0.35	0.50
21	RTSS at Kesinga	-	0.30	0.30	0.30
22	RTSS at Kantabanji	-	0.30	0.30	0.30
23	RTSS at Naupada	-	0.30	0.30	0.30
24	RTSS at Dunguripali	0.10	0.20	0.30	1.00
25	RTSS at Deogaon	0.83	1.50	2.33	2.00
26	RTSS at Godbhanga	0.40	2.0	2.40	2.00
27	RTSS at Bisamecuttack	0.00	0.10	0.10	-
28	RTSS at Bhalumaska	0.49	0.57	1.06	1.50
29	RTSS at Lanjigarh	0.12	0.11	0.23	0.40
30	RTSS at Laxmipur	0.59	.00	3.59	5.00
	TOTAL - C	22.08	50.49	72.57	68.54
	TOTAL - D = A+B+C	230.56	636.79	867.35	879.19

Depreciation

- 23) The Gross Fixed Assets at the beginning of the FY 2020-21 is estimated as Rs.6808.59 Cr. (Rs.6025.08 Cr. as on 01.04.19 + Rs. 783.51 Cr. projected addition during FY 2019-20). For 2020-21, Depreciation is estimated as Rs. 208.59 Cr. which includes Rs.1.57 Cr. towards cost of premium/rent on leasehold land.

Return on Equity

- 24) 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. 790.07 Cr** as on 31.03.2019 as per the Audited Account. Government of Odisha has committed to provide funds of Rs. 250 Cr. as equity over the five year period FY 2017-18 to FY 2021-22 i.e. Rs. 50 Cr. annually. As per the Annual Plan Budget of Dept. of Energy, Govt. of Odisha for the FY 2019-20, budget provision of Rs. 55 Cr. has been made under the scheme Share Capital Investment to OPTCL which is likely to be received shortly. Besides, GoO has already released Rs.14.70 Cr. as equity capital under the Smart Grid Scheme. The total Equity receivable as on 31.03.2020 will be **Rs.859.77 Cr.** Accordingly, OPTCL proposes Return on Equity (RoE) of Rs. 123.95 Cr. for FY 2020-21 @ 15.5% as per clause 8.28 of Regulations, 2014 on Rs. 799.70 Cr. (859.77-60.07) i.e. on opening balance of FY 2020-21.

INCOME TAX

- 25) As per the Regulation 8.43 of OERC Regulations, 2014, Income tax of the Transmission Licensee shall be recovered from the beneficiaries. As per the Audited Accounts for the FY 2018-19, OPTCL has made provision of Rs.8.15 Cr as Income Tax . The same amount of Rs. 8.15Cr. has been proposed for FY 2020-21. 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

- 26) Considering the proposed cost / expenses under different heads, the Transmission Cost of OPTCL for FY 2020-21 is worked out as **Rs.1049.52 Cr.** Details are shown in the **Table-11** below:

Table-11 Transmission Cost for FY 2020-21

Particulars	Amount (Rs. Cr.)
Employee Cost including Terminal Benefits	466.22
R&M Cost	140.59
A&G Cost	28.66
Expenses related to auxiliary energy consumption	0.00
Other miscellaneous expenses, statutory levies and taxes (GCC)	0.50
Sub-Total (O&M Cost)	635.97
Interest on Loan Capital	53.53
Interest on Working Capital	0.00
Rebate	19.33
Sub- Total (Interest & Financial Cost)	72.86
Depreciation	208.59
Return on Equity	123.95
Income Tax	8.15
Total	1049.52

Other Costs:

Incentive for system availability:

27) 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 2018-19 as **99.98%**. The computation and the TAFY figure have been verified and certified by SLDC.

In accordance with the formula prescribed in Regulation 6.5, OPTCL has worked out incentive of **Rs. 9.92 Cr.** towards system availability for the year 2018-19 using approved ARR figure of Rs. 659.95 Cr. for the said year. Hence, OPTCL proposes **Rs. 9.92 Cr** towards Incentive for System Availability to be allowed in the ARR for FY 2020-21.

Other income and cost / Miscellaneous receipt:

- 28) For the FY 2020-21 OPTCL has proposed Rs. 93 Cr. under the Miscellaneous Receipt from different sources such as inter-State wheeling, STOA and STU charges, Bank interest, other Misc receipts etc.

Current status on revenue earnings from Supervision Charge:

- 29) 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 2019-20 would not be appreciable on higher side. OPTCL submitted that in line with trend of revenue earning during FY 2019-20, it expects the miscellaneous receipt of Rs.93.00 crore during 2020-21.
- 30) The summary of Aggregate Revenue Requirement of OPTCL for FY 2020-21 is shown in the **Table-12** below adding all the projected expenditures as explained in foregoing paragraphs:

Table-12 Summary of Aggregate Revenue Requirement of OPTCL for FY 2020-21

ITEMS	Proposal for OPTCL FY 2020-21	
A) FIXED COST		
1. O&M Expenses		635.97
(i) Employees Cost including Terminal Benefits	466.22	
(ii) A&G Cost	28.66	
(iii) R&M Cost	140.59	
(iv) Expenses related to auxiliary energy consumption	0.00	
(v) Other misc. expenses, statutory levies and taxes (GCC)	0.50	
2. Interest & Financial Charges		72.86
(i) Interest on Loan Capital	53.53	
(ii) Interest on Working Capital	0.00	
(iii) Rebate	19.33	
3. Depreciation		208.59
4. Return on Equity		123.95

5. Income Tax		8.15
Sub-Total (A)		1049.52
B) Others		
Incentive for system availability		9.92
Total Trans. Cost (A+B)		1059.44
C) Less Misc. Receipts		93.00
D) ARR to be recovered from LTOA Customers i.e. OPTCL's Aggregate Revenue Requirement		966.44

Transmission loss:

- 31) 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'19 to September'19 is 3.24% against Commission's approval of 3.00% for FY 2019-20. OPTCL expects the loss level to remain around 3.25% in the current year. Accordingly, OPTCL proposes **3.20%** transmission loss during FY 2020-21.

Estimation of revenue receipt and deficit of ARR at the existing transmission charge @ 25 Paisa/Unit

- 32) OPTCL has projected the recent realistic demand projection of all four DISCOMs plus Railway totalling 28187 MU for FY 2020-21, which is different than Commission 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 27987 MU (28187-200) from the total demand projection of DISCOMs and Railways.

During FY 2020-21, 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 27987 MU.
- ii. By charging the rate applicable on LTOA customers like IMFA, NALCO & BEL for supply of 610 MU as 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 28597 MU (27987+610) at the existing transmission tariff of 25 P/U will be Rs. 714.93 Cr.

Excess/Deficit of Revenue Requirement:

33) OPTCL has projected revenue deficit of Rs.251.51 Cr. considering the ARR proposed and the revenue to be earned from wheeling of 28597 MU at the existing transmission tariff of 25 P/U, the details of which are shown in **Table-13** below.

Table-13 Deficit of Revenue requirement 2020-21

Deficit of Revenue Requirement as per existing transmission tariff @ 25 p/u (Rs. Cr.)	
Total Aggregate Revenue Requirement	966.44
Less: Revenue earned from Long Term Open Access Customer	714.93
Deficit of Revenue Requirement for FY 2020-21 at the existing rate @ 25 p/u	-251.51

Proposal for revision of Transmission Tariff/ Wheeling Charges

34) OPTCL, with its present transmission tariff, cannot meet its proposed revenue requirement at the existing transmission tariff of 25 p/u and will suffer revenue deficit as mentioned above. In order to meet the deficit, OPTCL submitted before Hon'ble Commission with humble request to approve its proposed ARR, the Transmission Tariff and Transmission Loss for FY 2020-21 to be effected from 01.04.2020.

Open Access charges:

35) The table below shows the open access charges proposed by OPTCL for FY 2020-21.

Table-14 Abstract of OA Charges Proposed by OPTCL for FY 2020-21

DETAILS	In Rs. Per Unit approach
Net Aggregate Revenue Requirement (Rs. Cr.)	966.44
Proposed Energy to be transmitted in OPTCL Network (MU)	28597
Proposed Transmission Tariff (P/U)	33.80
Power Flow (Equivalent of 28362 MU) in MWs	3265
Long term Open Access Charges in terms of Rs./MW/Day	8110
Short term Open Access Charges in terms of Rs./MW/Day	2028

Besides above Charges, the Open Access customers are also required to pay any other charges as determined by Hon'ble Commission as per provisions under Chapter-II (CHARGES FOR OPEN ACCESS) of the Regulations 2006.

- 36) OPTCL has filed an application before the Hon'ble Commission on 27.11.2017 for amendment of existing OERC Open Access Regulations, 2005 and 2006 by introducing Medium Term Open Access (MTOA), fixing higher transmission charges for STOA and MTOA customers than LTOA customers and making these Regulations compatible with CERC Connectivity & Open Access Regulations. OPTCL requested that Hon'ble Commission may kindly consider to amend the existing OERC Open Access Regulations, 2005 and 2006 to enable OPTCL to earn more revenue which would be accounted for under Miscellaneous Receipt so as to relieve the LTOA customers resulting downward effect on Retail Supply Tariff.

Reactive energy charges

- 37) Hon'ble 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 continue for time being 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. OPTCL proposes that 3 paise/KVARh may be approved provisionally as Reactive Energy Charges FY 2020-21

Proposed Schedule of Transmission Charge of OPTCL for FY 2020-21

Transmission Charge:

- 38) Transmission Charge @ 33.80 P/U 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, Railways and CGPs.

Transmission Loss @3.20%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 & 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.

Rebate:

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

Delayed Payment Surcharge:

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

Duties and Taxes:

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

PRAYER

OPTCL's proposal for FY 2020-21 are:

1. Aggregate Revenue Requirement of Rs.966.44Cr.
2. Recovery of Transmission Charge @ 33.80 P/U
3. Transmission Loss for wheeling as 3.20% on energy drawl
