

Summary of ARR & Transmission Tariff Filings

Submitted by

OPTCL

For

FY 2019-20

Summary of OPTCL's ARR & Transmission Tariff filing For FY 2019-20

- 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 2019-20 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 2019-20 as per the provisions under OERC Regulations, 2014. Regulation 5 of the OERC Regulations, 2014 specifies the Procedure for Tariff Determination and Regulation 8 specifies the Principles for Determination of ARR. As per the Regulation 8.1, the ARR for the Transmission Business for each year shall contain the following items:

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

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

I. Fixed Cost

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

II. OTHERS:

- 1) Incentive for System Availability

Details of Fixed 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 2019-20 estimated as **Rs. 421.99 Cr** including Terminal Benefit Liability and impact of 7th Pay Commission (40% towards arrear pay of Rs. 35.28 Cr for pay revision of Executives and Non-Executives of OPTCL for the period from 01.01.2016 and 01.04.2015 respectively). Presently (as on 1.11.2018) the Men in Position (MIP) of OPTCL is 3038 against sanctioned strength of 4998 (Executive-1916 + Non-Executive-3082). 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) payment of differential pension and pensioner benefit liability.
- 8) A significant number of posts are lying vacant in different ranks due to retirement, death, promotion etc. as a result of which functioning of the organization has been seriously affected. OPTCL plans to fill 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.
- 9) 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

- 10) 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. 28.07 Cr** towards A&G Expenses for FY 2019-20. 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, OPTCL has proposed Rs. 28.07 Cr. towards A&G Expenses.

Repair and Maintenance (R & M) Expenses

- 11) 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 2019-20 is **Rs.115.22 Cr**, as shown in the **Table-1** below:

Table-1 Repairs and Maintenance Expenses for FY 2019-20 (Rs.Cr)

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

Expenses related to auxiliary energy consumption in the sub-stations

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

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

- 13) **Grid Coordination Committee (GCC) Expenses:** Under (GCC) expenses, OPTCL proposes **Rs. 0.43 Cr** towards annual GCC Expenses for FY 2019-20 in line with the Chapter-11 (2)(1) of the Orissa Grid Code (OGC) Regulations 2006.
- 14) 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.571.24 Cr**. The summary of O&M Expenses for FY 2019-20 is shown in the **Table-2** below:

Table-2 Summary of O&M Expenses for FY 2019-20

Particulars	Amount
	(Rs. Cr.)
(i) Employees Cost including Terminal Benefits	421.99
(ii) A&G Cost	28.07
(iii) R&M Cost	115.22
(iv) Expenses related to auxiliary energy consumption in sub-stations	5.53
(v) Other miscellaneous expenses, statutory levies and taxes (GCC expenses)	0.43
Total O&M Expenses	Rs. 571.24 Cr.

Interest and Financial Charges15) **Interest on Loan**

Interest on loan for FY 2019-20 has been projected as **Rs.41.01 Cr.** Details of interest on loan capital are shown in the **Table-3** below:

Table-3 Interest on Loan for FY 2019-20 (Rs. Cr)

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

16) **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.

- 17) **Rebate:** OPTCL has projected 2% rebate amounting to **Rs.17.23 Cr.** which is calculated based on the projected ARR for the FY 2019-20.

New Projects

- 18) OPTCL proposes to spend **Rs.915.49 Cr.** during FY 2019-20 towards Capital Expenditure (CAPEX) on new projects in different streams of activities like O&M, Telecom, IT, Construction and Civil Works and construction. The summary of proposed CAPEX under various wings is furnished in the **Table-4** below:

Table-4 Projected CAPEX for new projects - FY 2019-20

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

- 19) **CAPEX for telecom related projects:** The CAPEX proposal for the FY 2019-20 in respect of Telecommunication work is summarized as follows:

1. SCADA Interface Points in all vital 132kV Sub-Stations of OPTCL by laying OPGW Cable
2. Provision of Battery set & Battery Charger (FCBC)
3. Provision of optical fibre based communication through OPGW for providing reliable communication to all grid s/s" with PSDF support

4. Provision of RTU under old RTU replacement scheme & for new sub-stations
5. Implementation of OPGW communication scheme for balance line sections of OPTCL covering 835km
- 20) Provision of **Rs. 56.97 Cr** is proposed for FY 2019-20 towards **CAPEX pertaining to Telecommunication Wing**, the details of which are shown in the **Table-5** below:

Table -5 CAPEX - Telecom Projects - FY 2019-20

Sl. No.	ITEM	Amount (Rs Cr.)
1	SCADA interface points at vital 132kV grid S/S of OPTCL by laying OPGW cable	2.38
2	Provision of Battery Set & Battery Charger (FCBC)	1.26
3	Provision of Optical Fibre based communication through OPGW for providing reliable communication to all grid S/S in OPTCL with PSDF support	30.00
4	Provision of 78 nos. of RTUs against replacement of 51 nos. old RTUs and 27 new RTUs for new grid S/S.	13.33
5	Provision of Optical Fibre based communication through OPGW for balance line sections of OPTCL	10.00
	TOTAL	56.97

- 21) **CAPEX for Existing Assets (O&M Wing):** An amount of **Rs. 57.08 Cr.** has been proposed for the FY 2019-20 under CAPEX to meet the future load growth basically by way of transformer capacity augmentation / sub-station capacity enhancement by installing additional / 3rd transformers in the existing grid sub-stations & to mitigate the over voltage problems by replacement of ACSR LYNX Conductor with ACSR Panther Conductor. The details of item wise CAPEX for O&M related projects are shown in the **Table-6** below.

Table-6 CAPEX Existing Assets – (O&M WING) - FY 2019-20

Sl. No.	Description	Unit Rate (Lakh)	Quantity	Amount (Rs. Lakh)
1	PROCUREMENT OF TRANSFORMERS WITH COST OF ERECTION			
(i)	Procurement of 63 MVA, 220/33kV	403.33	2	806.66
(ii)	Procurement of 40 MVA, 132/33kV	253.00	2	506.00
(iii)	Procurement of 40 MVA, 132/33kV at Jaleswar	253.00	1	253.00
(iv)	Procurement of 20 MVA, 132/33kV	183.70	2	367.40
(v)	Procurement of 20 MVA, 132/33kV	183.70	3	551.10
2	Cost of construction of bays with cost of structures and equipments	LS		406.37
3	Sub-Station Automation System			
(i)	Bhubaneswar, Sunabeda, Nayagarh, Khurda and Chainpal Grid S/S		5	1261.44
(ii)	Rairangpur, Dhenkanal and Puri Grid S/S		3	447.88

(iii)	Phulnakhara, Chandpur, Kharagprasad , Ranasinghpur, Banki, Jharsuguda, Khajuriakata and Laxmipur Grid S/S		8	693.53
4	Capacity up-gradation at 132/33kV Bhawanipatna Grid S/S from 2X12.5MVA to 1X20+2x12.5 MVA		1	200.00
5	Construction of one no. 33kV feeder bay at 133/33kV Khariar Grid S/S to supply power through 33kV Muribahal Distribution feeder.		1	35.10
6	Supply, erection, testing and commissioning of 02 nos. Hybrid System (PASS MO) for 132kV Digapahandi & Akhusingh line bay at Mohana Grid S/S		1	160.00
7	Replacement of ACSR LYNX Conductor by ACSR Panther Conductor of 132kV Berhampur-Digapahandi SC line		1	20.00
TOTAL				Rs. 5708.48 lakh = Rs. 57.08 Cr.

- 22) **CAPEX for Information Technology (IT) related projects:** Provision of **Rs. 14.00 Cr.** is made for FY 2019-20 towards CAPEX for infrastructure development of IT and automation related fields etc. as given in the **Table-7** below:

Table-7 CAPEX - IT PROJECTS - FY 2019-20

Sl. No.	Item Description	Amount (Rs. Cr.)
1	Network OGS-WAN	5.00
2	Primary Data Center(PDC)	5.00
3	Smart Grid AMI	0.50
4	End-User IT Systems	1.00
5	CCTV & VC	2.00
6	Other IT Initiative (Website, Portal Services & IT Security)	0.50
TOTAL		Rs.14.00 Cr.

- 23) **CAPEX for civil works:** OPTCL proposes CAPEX of **Rs. 45.96 Cr.** relating to Civil Works during FY 2019-20 for new upcoming projects which have been detailed in **Table-8** below.

Table-8 CAPEX - CIVIL WORKS PROJECTS - FY 2019-20

Sl. No.	Description of Works	Amount (Rs. Cr.)
1	Boundary wall works	2.00
2	Office premises at newly created units of OPTCL	10.00
3	Approach road & related works	4.00
4	Office complex at Matiasahi, Angul	3.00
5	SLDC building	16.00

6	Water supply system, sewerage system and drainage related works	0.50
7	Data Centre	8.71
8	Multistoried building inside G.M. Office at Cuttack	1.75
	TOTAL	45.96

- 24) **CAPEX for New Transmission Projects (construction wing):** It has been planned to spend an amount of **Rs. 741.48 Cr.** on transmission related infrastructure during FY 2019-20 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-9** below.

Table-9

CAPEX for New Transmission Projects (Construction Wing) FY 2019-20

Sl. No.	Description of the Project/Scheme	Expenditure during FY 2018-19			Projected expenditure (FY 2019-20)
		Actual for first Six months	Projection for balance Six months	Total	
A	ONGOING SCHEME				
1	2	3	4	5=3+4	6
1	132/33kV Khajuriakata S/S with line	0.01	1.50	1.51	
2	2x12.5MVA,132/33kV Udala S/S with LILO	6.53	3.00	9.53	
3	132kV Bhadrak-Anandpur S/C line		2.00	2.00	4.00
4	132/33kV Olaver S/S with line	0.01	3.00	3.01	
5	132/33kV Agarpada S/S with line	2.43	3.00	5.43	4.00
6	2x20MVA Bhograi S/S LILO		0.65	0.65	
7	132kV Baripada PGCIL (Kuchei)- Jaleswar D/C line & Bay Extension	1.87	0.50	2.37	
8	220/132kV Puri (Samangara) S/S with line	0.54	0.46	1.00	
9	220/132kV Atri (Karadagadia) S/S with line	0.41	4.50	4.91	
10	220/132/33kV Pratapsasan S/S with line	1.30	10.00	11.30	12.00
11	3rd ICT at 400/220kV Mendhasal S/S	1.51	0.50	2.01	
12	132kV Nuapatna-Banki S/C line	0.14	2.50	2.64	
13	2X20MVA, 132/33kV R.Udayagiri S/S with line	0.22	3.00	3.22	
14	220/33kV Narasinghpur S/S with LILO	3.07	2.00	5.07	
15	132/33kV Dhenkikote S/S with line	0.20	2.00	2.20	
16	2x20MVA,132/33kV Brajabiharipur, Cuttack with LILO.	1.81	8.00	9.81	13.00

Sl. No.	Description of the Project/Scheme	Expenditure during FY 2018-19			Projected expenditure (FY 2019-20)
17	220/33kV Baliguda S/S with 220KV Kesinga Baliguda DC line	14.50	4.00	18.50	22.00
18	2x20MVA, 132/33kV Satasankha (puri) S/S with line	9.27	6.00	15.27	3.55
19	132/33kV Tirtol S/S with line	2.21	3.00	5.21	
20	132/33kV Chikiti S/S with line	2.48	1.00	3.48	
21	132/33kV Betanati S/S with line	0.36	3.00	3.36	5.50
22	220/132/33kV Aska S/S with line	18.44	5.00	23.44	
23	220/132/33kV Goda Chhak S/S with line	15.25	10.00	25.25	
24	132/33kV Unit-8 (BBSR) GIS S/S with line	3.05	3.00	6.05	
25	132/33kV Mancheswar GIS S/S with line	0.96	5.00	5.96	
26	132kV Phulbani-Boudh S/C line	6.71	3.00	9.71	11.68
27	132/33kV GIS at Athagarh with line	3.14	4.00	7.14	
28	220/33kV GIS at Keonjhar with line	1.05	8.00	9.05	
29	220kV Keonjhar PGCIL-Keonjhar GIS line	0.78	0.70	1.48	
30	132/33kV GIS at Chandbali with line	3.54	3.50	7.04	
31	220kV Pandiabil-Pratapsasan D/C line	0.38	5.00	5.38	7.00
32	220/132/33kV Dhamra S/S with line (Revival)	3.53	6.50	10.03	23.00
33	132/33kV G.Udaygiri S/S with line		5.00	5.00	12.00
34	400/220kV GIS at Meramundali-B with line	0.49	70.00	70.49	68.50
35	220/33kV S/S at Dasapalla with line		5.50	5.50	23.00
36	132kV Olavar-Chandbali D/C line	1.32	2.00	3.32	
37	220/132/33kV S/S at Kiakata with line		20.00	20.00	45.00
38	Other works	0.93	3.00	3.93	
39	220/132kV S/S at Kesinga with line	33.41	14.00	47.41	
40	220/132/33kV S/S at Baragarh (New)	6.45	2.50	8.95	
41	132/33kV S/S at Kantabanji with line	0.00	3.00	3.00	
42	132/33kV S/S at Ghens with line	1.18	7.00	8.18	
43	132/33kV S/S at Tusura with line	0.14	4.00	4.14	
44	132kV S/S at Biramaharajapur with line	0.38	2.50	2.88	8.00
45	132kV Junagarh-Kesinga D/C line	0.38	6.00	6.38	
46	132kV Nuapada-Padampur line	0.72	1.50	2.22	7.00
47	400/220kV S/S at Lapanga	19.91	5.81	25.72	
48	220/132/33kV S/S at Kuanmunda with line	0.00	3.00	3.00	15.00
49	132kV Lapanga-Remja D/C line	0.00	5.00	5.00	6.72

Sl. No.	Description of the Project/Scheme	Expenditure during FY 2018-19			Projected expenditure (FY 2019-20)
50	loc. No. 118/1 of 400kV Vendant-Lapanga D/C Line & loc. No. 118 / 2 of 400kV IB - Meramundali Line to Lapanga S/S	4.51	6.00	10.51	
51	Restoration of 400kV IB-MRDL D/C line	0.00	5.37	5.37	
52	220/33kV S/S at Kashipur	1.74	4.00	5.74	
53	220/132kV S/S at Jayapatna with line	11.52	26.96	38.48	20.00
54	132/33kV S/S at Hata-Muniguda	0.59	3.00	3.59	
55	220/33kV S/S at Laxmipur	0.00	3.14	3.14	
56	220/132/33kV S/S at Gunupur	0.00	0.30	0.30	15.00
57	132/33kV S/S at Pottangi with line	0.00	4.00	4.00	
58	132/33kV S/S at Podagada with line	0.02	5.38	5.40	
59	220kV Jayanagar-Jayanagar(PGCIL) D/C line with 2 nos. 220kV feeder bays	0.00	1.50	1.50	
60	Conversion of existing Jaynagar-Sunabeda S/C line to D/C line	0.00	1.00	1.00	2.00
61	132/33kV S/S at Boriguma with LILO	0.82		0.82	10.00
62	220/33kV S/S at Kalimela with line	6.17	5.00	11.17	15.00
63	132kV Jayanagar-Tentulikhunti S/C line	2.09		2.09	12.00
64	Others	1.87		1.87	2.00
	TOTAL - A	200.34	342.77	543.11	366.95
B	NEW PROJECTS				
1	132/33kV S/S at Rajnagar with line		2.00	2.00	15.00
2	132kV Kuchei-Bangiriposi S/C line		3.50	3.50	8.00
3	220/33kV S/S at Telkoi with line		7.00	7.00	6.00
4	132kV Aska-Digapahandi D/C line		2.00	2.00	8.00
5	220kV Narendrapur-Aska D/C line		1.00	1.00	
6	132kV Parlakhemundi -R.Udaygiri D/C line		3.00	3.00	8.00
7	132/33kV S/S at Gondia with line		2.00	2.00	13.00
8	220/132/33kV S/S at Turumunga with line		5.00	5.00	12.00
9	132/33kV S/S at Chandipur with line		0.00	0.00	8.00
10	400/220kV GIS at Ramakrushnapur with line		0.00	0.00	10.00
11	400/220kV S/S at Khuntuni with line		1.00	1.00	
12	220/132kV GIS at Dhenkanal-B with line	0.09		0.09	6.00
13	132/33kV S/S at Bahugram with line		4.50	4.50	
14	220/132/33kV GIS at Kuakhia with line		2.00	2.00	
15	220/33kV GIS at Godisahi	0.51	1.00	1.51	10.00

Sl. No.	Description of the Project/Scheme	Expenditure during FY 2018-19			Projected expenditure (FY 2019-20)
16	220/33kV GIS at Gothapatna			0.00	10.00
17	132/33kV GIS at Hinjuli				10.00
18	132/33kV S/S at Thuapalli with line	-	5.50	5.50	15.00
19	220kV LILO of Bolangir-Kesinga line to 400/220kV S/S at Madhiapali	-	1.00	1.00	
20	132kV LILO of Bargarh-Barpali line to 220/132/33kV S/S at Bargarh	-	2.00	2.00	
21	132/33kV S/S at Lakhanpur with line	0.10	6.00	6.10	20.00
22	220/33kV S/S at Lephrpada with line	-	6.00	6.00	20.00
23	220/33 S/S at Deogarh with Line	-	6.00	6.00	20.30
24	132/33kV S/S at Maneswar with LILO	1.59	8.00	9.59	8.00
25	220kV LILO to 220/33kV S/S at Kashipur	0.00	2.00	2.00	
26	220/33kV S/S at Thuamularampur with line	0.00	0.00	0.00	0.00
27	220/33kV S/S at Govindpalli with line	9.60	15.00	24.60	26.00
28	132/33 kV S/S at Bhatli with line	-	3.00	3.00	12.00
29	220/132/33 kV AIS at Bamra	-	12.00	12.00	25.00
30	132/33kV GIS at Hirakud	-	10.00	10.00	25.00
31	132/33kV S/S at Lamtaput	-	3.00	3.00	7.00
32	132/33kV S/S at Nawarangapur	-	3.00	3.00	7.00
33	132 kV Baner-Jayapatana Line		4.00	4.00	5.50
	TOTAL - B	11.89	120.50	132.39	314.80
	TOTAL - A+B	212.23	463.27	675.50	681.75
C	DEPOSIT WORK				
1	220/33kV GIS at Infocity-II with line	1.85		1.85	
2	132/33kV S/S at Mania (Tangi)	0.28		0.28	
3	RTSS at Boinda	0.18	0.50	0.68	
4	RTSS at Malatipatapur	0.34	1.00	1.34	2.00
5	RTSS at Kendrapara	1.63	3.00	4.63	2.05
6	RTSS at Kamakhyanagar	1.05	3.00	4.05	
7	RTSS at Rairakhol	0.06		0.06	
8	Diversion of 400kV Meramundali-Dubri D/C line.	1.65	4.00	5.65	0.78
9	RTSS at SIJU			-	7.50
10	RTSS at Charbatia			-	8.00
11	RTSS at Dhanmandal			-	8.00
12	RTSS at Kesinga	-	4.00	4.00	
13	RTSS at Kantabanji	0.04	2.00	2.04	
14	RTSS at Nuapada	0.32	1.50	1.82	1.00

Sl. No.	Description of the Project/Scheme	Expenditure during FY 2018-19			Projected expenditure (FY 2019-20)
15	RTSS at Dunguripali	2.72	2.30	5.02	
16	RTSS at Deogaon	1.37	3.50	4.87	
17	RTSS at Godbhaga	0.94	2.00	2.94	1.00
18	RTSS at Bimlagarh	1.53	1.50	3.03	
19	RTSS at kechhobahal	0.44	2.00	2.44	
20	RTSS at Maneswar	0.81	3.00	3.81	2.00
21	RTSS at Bisamcuttack	0.00	1.48	1.48	
22	RTSS at Rayagada	0.00	0.62	0.62	
23	220kV RTSS at Tikiri	0.00		0.00	
24	RTSS at Bhalumaska	1.99	3.50	5.49	2.00
25	RTSS at Lanjigarh	0.01	2.29	2.30	2.00
26	220kV RTSS at Laxmipur	0.00		0.00	8.40
27	RTSS at Bamra	0.03	0.50	0.53	2.00
28	RTSS at Dhutra	0.00	5.00	5.00	6.00
29	RTSS at Garposh	0.00	5.00	5.00	7.00
	TOTAL - C	17.24	51.69	68.93	59.73
	TOTAL - D = A+B+C	229.47	514.96	744.43	741.48

Depreciation

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

Return on Equity

- 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. 690.07 Cr** as on 31.03.2018 as per the Audited Account. Government of Odisha has committed to provide funds of Rs. 250 Cr. as equity over the five year period FY 2017-18 to FY 2021-22 i.e. Rs. 50 Cr. annually. As per the Annual Plan Budget of Dept. of Energy, Govt. of Odisha for the FY 2018-19, budget provision of Rs. 45 Cr. has been made under the scheme Share Capital Investment to OPTCL which is likely to be received shortly. Besides, GoO has already released Rs.55 Cr. as equity capital under the Smart Grid Scheme. The total Equity receivable as on 31.03.2019 will be **Rs.790.07 Cr.** Accordingly, OPTCL proposes Return on Equity (RoE) of Rs. 113.15 Cr. for FY 2019-20 @ 15.5% as per clause 8.28 of Regulations, 2014 on Rs. 730 Cr. (790.07-60.07) i.e. on opening balance of FY 2019-20.

INCOME TAX

- 27) As per the Regulation 8.43 of OERC Regulations, 2014, Income tax of the Transmission Licensee shall be recovered from the beneficiaries. As per the Audited Accounts for the FY 2017-18, OPTCL has made provision of Rs.3.01 Cr as Income Tax . The same amount of Rs. 3.01Cr. has been proposed for FY 2019-20. However, difference if any, as per the Regulation 8.43 and 8.44, shall be adjusted during the true up exercise based on audited accounts.

TRANSMISSION COST

- 28) Considering the proposed cost / expenses under different heads, the Transmission Cost of OPTCL for FY 2019-20 is worked out as **Rs.931.67 Cr.** Details are shown in the **Table-10** below:

Table-10 Transmission Cost for FY 2019-20

Particulars	Amount (Rs. Cr.)
Employee Cost including Terminal Benefits	421.99
R&M Cost	115.22
A&G Cost	28.07
Expenses related to auxiliary energy consumption	5.53
Other miscellaneous expenses, statutory levies and taxes (GCC)	0.43
Sub-Total (O&M Cost)	571.24
Interest on Loan Capital	41.01
Interest on Working Capital	0.00
Rebate	17.23
Sub- Total (Interest & Financial Cost)	58.24
Depreciation	186.03
Return on Equity	113.15
Income Tax	3.01
Total	931.67

Other Costs:

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 2017-18 as **99.98%**. The computation and the TAFY figure have been verified and certified by SLDC.

In accordance with the formula prescribed in Regulation 6.5, OPTCL has worked out incentive of **Rs. 9.30 Cr.** towards system availability for the year 2017-18 using

approved ARR figure of Rs. 639.40 Cr. for the said year. Hence, OPTCL proposes **Rs. 9.60 Cr** towards Incentive for System Availability to be allowed in the ARR for FY 2019-20.

Other income and cost / Miscellaneous receipt:

- 30) For the FY 2019-20 OPTCL has proposed Rs. 80 Cr. under the Miscellaneous Receipt from different sources such as inter-State wheeling, STOA and STU charges, Bank interest etc.

Current status on revenue earnings from Supervision Charge:

- 31) 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 2018-19 would not be appreciable on higher side. OPTCL submitted that in line with trend of revenue earning during FY 2018-19, it expects the miscellaneous receipt of Rs.80.00 crore during 2019-20.
- 32) The summary of Aggregate Revenue Requirement of OPTCL for FY 2019-20 is shown in the **Table-11** below adding all the projected expenditures as explained in foregoing paragraphs:

Table-11 Summary of Aggregate Revenue Requirement of OPTCL for FY 2019-20

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

Transmission loss:

- 33) OPTCL has been able to reduce the transmission loss year over year by commissioning a number of new transmission projects and adopting innovative schemes under Master Maintenance Plan during last few years. The actual transmission loss in the OPTCL's transmission system from April'18 to September'18 is 3.29% against Commission's approval of 3.00% for FY 2018-19. OPTCL expects the loss level to remain around 3.30% in the current year. Accordingly, OPTCL proposes **3.25%** transmission loss during FY 2019-20.

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

- 34) OPTCL has projected the recent realistic demand projection of all four DISCOMs plus Railway totalling 27952 MU for FY 2019-20. OPTCL envisages 200MU energy to be transacted in DISCOMs 33kV & 11kV network for which OPTCL is not entitled to receive any transmission charge as per Commission's order. Hence, total MU to be transmitted in OPTCL network gets reduced to 27752 MU (27952-200) from the total demand projection of DISCOMs and Railways.

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

- i. By charging the rate applicable on DISCOMs and Railways for wheeling of 27752 MU.
- ii. By charging the rate applicable on CGPs like IMFA & NALCO for supply of 10 MU Emergency Power & Back-up Power to their CGPs and load centres located at different places.
- iii. By charging the rate applicable on other LTOA customer like IMFA & NALCO for wheeling of their surplus power of 600 MU from their CGPs to load centres located at different places.

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

Excess/Deficit of Revenue Requirement:

- 35) OPTCL has projected revenue deficit of Rs.152.22 Cr. considering the ARR proposed and the revenue to be earned from wheeling of 28362 MU at the existing transmission tariff of 25 P/U, the details of which are shown in **Table-12** below.

Table-12 Deficit of Revenue requirement 2019-20

Deficit of Revenue Requirement as per existing transmission tariff @ 25 p/u (Rs. Cr.)	
Total Aggregate Revenue Requirement	861.27
Less: Revenue earned from Long Term Open Access Customer	709.05
Deficit of Revenue Requirement for FY 2019-20 at the existing rate @ 25 p/u	-152.22

Proposal for revision of Transmission Tariff/ Wheeling Charges

- 36) 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 2019-20 to be effected from 01.04.2019.

Open Access charges:

- 37) The table below shows the open access charges proposed by OPTCL for FY 2019-20.

Table-13 Abstract of OA Charges Proposed by OPTCL for FY 2019-20

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

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.

- 38) 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

- 39) OPTCL proposed that during FY 2019-20, there is no plan to install Capacitor Banks at any other grid S/S, so 3paise/KVARh may be approved provisionally as Reactive Energy Charges FY 2019-20 in line with the provisional approval for FY 2018-19.

Proposed Schedule of Transmission Charge of OPTCL for FY 2019-20

Transmission Charge:

- 40) Transmission Charge @ 30.37 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 @3.25% 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:

- 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.

PRAYER

OPTCL's proposal for FY 2019-20 are:

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