

Pro-forma for furnishing Actual annual performance/operational expenses for the Transmission Systems for the 5-year period from 2017-18 to 2021-22							
Name of Transmission Company:		Power Grid Corporation of India Limited					
Name of Transmission Region:		Eastern Region					
Table-1 - Region wise information (average for the year, but otherwise total for the region) for AC system							
Sl. No.	Particulars	Units	2017-18	2018-19	2019-20	2020-21	2021-22
1.	Number of AC Substation in operation	No.					
	(1) 765 kV		5	5	5	5	5
	(2) 400 kV		27	28.5	29	29	29
	(3) 220 kV		7	7	7	7	7
	(4) 132 kV		1	1	1	1	1
(Nomenclature are as per highest available voltage level)		Note : (a) Average is calculated based on data as on 1st April and data as on 31 march for that FY. (b) Yearwise data is the cumulative figure of that year.					
2.	Transformation capacity of AC Substation in operation	MVA*					
	(1) 765 kV		18000	18750	21000	22500	22500
	(2) 400 kV		21252.5	23317.5	25040	26762.5	27985
	(3) 220 kV		2630	2790	2845	2900	2950
	(4) 132 kV		120	120	120	120	120
(Nomenclature are as per highest available voltage level)		* In earlier submitted data for 2017-18, classification of MVA considered was based on highest voltage level available in a particular substation. Presently, MVA has been clasified based on highest voltage level of each Transformer. Further, earlier submitted data for 2017-18 included MVA corresponding to SVC/ STATCOM Coupling transformers and same has been removed.					
3.	Number of bays in each AC Substation in operation	No.					
	(1) 765 kV		47	52	61.5	69	71
	(2) 400 kV		389.5	425.5	454.5	470	479.5
	(3) 220 kV		156	170.5	178.5	181.5	183
	(4) 132 kV		55	57	59	60	60.5
(Nomenclature are as per highest available voltage level)		Note : (a) Average is calculated based on data as on 1st April and data as on 31 march for that FY. (b) Yearwise data is the cumulative figure of that year.					

Pro-forma for furnishing Actual annual performance/operational expenses for the Transmission Systems for the 5-year period from 2017-18 to 2021-22

Name of Transmission Company:		Power Grid Corporation of India Limited					
Name of Transmission Region:		Eastern Region					
Table-1 - Region wise information (average for the year, but otherwise total for the region) for AC system							
Sl. No.	Particulars	Units	2017-18	2018-19	2019-20	2020-21	2021-22
4.	Ckt-km of AC lines in operation	No.					
	(1) 765 kV		1768.51	2084.11	2379.17	2379.17	2379.17
	(2) 400 kV		16031.83	16583.77	17054.42	17643.60	18120.22
	(3) 220 kV		1678.43	1680.93	1680.93	1680.93	1680.93
	(4) 132 kV		461.50	461.50	461.50	461.50	461.50
(Nomenclature are as per highest available voltage level)							
5.	Total number of employees engaged in O&M of Sub-station						
	(1) 765 kV	No	762	156	163	145	131
	(2) 400 kV			597	558	495	495
	(3) 220 kV			123	109	98	89
	(4) 132 kV			8	9	6	6
	(1) 765 kV	Cost (Rs. Lakhs)	14962.35	2871.59	3413.11	3319.03	3099.01
	(2) 400 kV			10989.36	11684.14	11330.49	11710.00
	(3) 220 kV			2264.14	2282.39	2243.21	2105.43
	(4) 132 kV			147.26	188.45	137.34	141.94
	(Nomenclature are as per highest available voltage level)						
6.	Total number of employees engaged in O&M of Transmission Lines						
	(1) 765 kV	No	307	76	83	92	95
	(2) 400 kV			257	255	268	271
	(3) 220 kV			43	45	57	54
	(4) 132 kV			1	1	1	1
	(1) 765 kV	Cost (Rs. Lakhs)	6028.14	1398.98	1737.96	2105.87	2247.37
	(2) 400 kV			4730.76	5339.53	6134.49	6410.93
	(3) 220 kV			791.53	942.27	1304.72	1277.45
	(4) 132 kV			18.41	20.94	22.89	23.66
	(Nomenclature are as per highest available voltage level)						

Pro-forma for furnishing Actual annual performance/operational expenses for the Transmission Systems for the 5-year period from 2017-18 to 2021-22

Name of Transmission Company:		Power Grid Corporation of India Limited					
Name of Transmission Region:		Eastern Region					
Table-1 - Region wise information (average for the year, but otherwise total for the region) for AC system							
Sl. No.	Particulars	Units	2017-18	2018-19	2019-20	2020-21	2021-22
7.	Auxiliary Power Consumption (excluding colony power)	MU					
	(1) 765 kV		4.84	7.84	7.63	7.19	7.14
	(2) 400 kV		19.31	20.60	21.00	20.89	20.98
	(3) 220 kV		2.61	2.21	2.21	2.19	2.10
	(4) 132 kV		0.08	0.08	0.08	0.08	0.08
(Nomenclature are as per highest available voltage level)							
8.	Colony Power Consumption	MU					
	(1) 765 kV		0.48	0.71	0.64	0.69	0.65
	(2) 400 kV		3.01	3.05	3.06	3.04	2.77
	(3) 220 kV		0.64	0.82	0.84	0.76	0.80
	(4) 132 kV		0.11	0.07	0.06	0.07	0.09
(Nomenclature are as per highest available voltage level)							
9.	Spare ICTs/Reactors	No.					
	(1) 765 kV ICT/Reactor		2	0	1	0	0
	(2) 400 kV		0	0	0	0	0
	(3) 220 kV		0	0	0	0	0
	(4) 132 kV		0	0	0	0	0
	(1) 765 kV ICT/Reactor	Cost (Rs. Lakhs)	2815.04	0	1637.55	0	0
	(2) 400 kV		0	0	0	0	0
	(3) 220 kV		0	0	0	0	0
	(4) 132 kV		0	0	0	0	0
(Nomenclature are as per highest available voltage level)							
10.	Spare Smoothing Reactors	No.					
	(1) 765 kV		0	0	0	0	0
	(2) 400 kV		0	0	0	0	0
	(3) 220 kV		0	0	0	0	0
	(4) 132 kV	0	0	0	0	0	
	(1) 765 kV	Cost (Rs. Lakhs)	0	0	0	0	0
	(2) 400 kV		0	0	0	0	0
	(3) 220 kV		0	0	0	0	0
	(4) 132 kV		0	0	0	0	0
(Nomenclature are as per highest available voltage level)							

Pro-forma for furnishing Actual annual performance/operational expenses for the Transmission Systems for the 5-year period from 2017-18 to 2021-22

Name of Transmission Company:		Power Grid Corporation of India Limited					
Name of Transmission Region:		Eastern Region					
Table-1 - Region wise information (average for the year, but otherwise total for the region) for AC system							
Sl. No.	Particulars	Units	2017-18	2018-19	2019-20	2020-21	2021-22
11.	ICTs						
	(1) 765 kV	No	12	12.5	14	15	15
	(2) 400 kV		61	65.5	69.5	73.5	76.5
	(3) 220 kV		19	20	20	20	20.5
	(4) 132 kV		4	4	4	4	4
	(1) 765 kV	Cost (Rs. Lakhs)	Data separately not available/maintained				
	(2) 400 kV						
	(3) 220 kV						
	(4) 132 kV						
	(Nomenclature are as per highest available voltage level)						
12.	Reactors						
	(1) 765 kV	No	21	24	27	28	29
	(2) 400 kV		128	140	150.5	153	153
	(3) 220 kV		0	0	0	0	0
	(4) 132 kV		0	0	0	0	0
	(1) 765 kV	Cost (Rs. Lakhs)	Data separately not available/maintained				
	(2) 400 kV						
	(3) 220 kV						
	(4) 132 kV						
	(Nomenclature are as per highest available voltage level)						
13.	±200 MVAR STATCOM	No.	0	2	0	0	0
	±300 MVAR STATCOM		1	1	0	0	0
	±200 MVAR STATCOM	Cost (Rs. Lakhs)	0	32351.97	0	0	0
	±300 MVAR STATCOM		15532.06	16629.33	0	0	0
14.	Average outage duration for						
	A. Transmission Lines						
	(1) 765 kV	Hours/year	0.95	6.70	18.11	6.20	4.08
	(2) 400 kV		0.31	4.32	4.25	5.08	4.19
	(3) 220 kV		0.32	5.30	2.80	5.58	8.70
	(4) 132 kV		0.16	1.87	0.88	1.51	1.46
	B. Transformers						
	(1) 765 kV	Hours/year	0.46	8.13	11.43	8.36	10.22
	(2) 400 kV		0.46	9.97	5.86	8.88	9.36
	(3) 220 kV		0.37	3.46	2.49	1.86	3.04
	(4) 132 kV		0.09	7.08	1.04	8.84	9.21
	C. Reactors						

Pro-forma for furnishing Actual annual performance/operational expenses for the Transmission Systems for the 5-year period from 2017-18 to 2021-22								
Name of Transmission Company:			Power Grid Corporation of India Limited					
Name of Transmission Region:			Eastern Region					
Table-1 - Region wise information (average for the year, but otherwise total for the region) for AC system								
Sl. No.	Particulars		Units	2017-18	2018-19	2019-20	2020-21	2021-22
	(1)	765 kV		0.26	7.14	3.65	5.61	4.45
	(2)	400 kV		0.28	2.85	11.67	3.21	5.33
	(3)	220 kV		0	0	0	0	0
	(4)	132 kV		0	0	0	0	0
	(Nomenclature are as per highest available voltage level)							
15.	Cost of Initial spares (for S/S)							
	A.	Capitalized						
	(1)	765 kV						
	(2)	400 kV		1699.67	3355.49	2613.49	578.00	504.94
	(3)	220 kV						
	(4)	132 kV						
	B.	In Stock						
	(1)	765 kV	(Rs. In Lakhs)	Data separately not available/maintained				
	(2)	400 kV						
	(3)	220 kV						
	(4)	132 kV						
	C.	Cost of initial spares consumed						
	(1)	765 kV						
	(2)	400 kV						
	(3)	220 kV						
	(4)	132 kV						
16.	Cost of O&M spares Consumed (for S/s)							
	(1)	765 kV						
	(2)	400 kV		5734.86	1941.00	2392.00	1369.00	1542.00
	(3)	220 kV						
	(4)	132 kV						
	(Nomenclature are as per highest available voltage level)							
17.	Cost of Initial spares (for Lines)							
	A.	Capitalized						
	(1)	765 kV						
	(2)	400 kV		448.82	2971.56	634.00	889.95	875.24
	(3)	220 kV						
	(4)	132 kV						
	B.	In Stock						

Pro-forma for furnishing Actual annual performance/operational expenses for the Transmission Systems for the 5-year period from 2017-18 to 2021-22								
Name of Transmission Company:			Power Grid Corporation of India Limited					
Name of Transmission Region:			Eastern Region					
Table-1 - Region wise information (average for the year, but otherwise total for the region) for AC system								
Sl. No.	Particulars		Units	2017-18	2018-19	2019-20	2020-21	2021-22
	(1)	765 kV	(Rs. In Lakhs)	Data separately not available/maintained				
	(2)	400 kV						
	(3)	220 kV						
	(4)	132 kV						
	C.	Cost of initial spares consumed						
	(1)	765 kV	(Rs. In Lakhs)	Data separately not available/maintained				
	(2)	400 kV						
	(3)	220 kV						
	(4)	132 kV						
18.	Cost of O&M spares Consumed (for Lines)		(Rs. In Lakhs)					
	(1)	765 kV		2663.53	1984.00	2254.00	1803.00	1428.00
	(2)	400 kV						
	(3)	220 kV						
	(4)	132 kV						
	(Nomenclature are as per highest available voltage level)							

Note: *Executive & non-executive/~~contract~~ labour

Pro-forma for furnishing Actual annual performance/operational expenses for the Transmission Systems for the 5-year period from 2017-18 to 2021-22

Name of Transmission Company:	Power Grid Corporation of India Limited
Name of Transmission Region:	Eastern Region

Table-2- Station wise information (average for the year) for HVDC systems

1) Sasaram HVDC

Sl.No.	Particulars	Units	2017-18	2018-19	2019-20	2020-21	2021-22
1	Total number of employees* engaged in sub-station O&M	No.	24	39	40	39	37
		Cost (Rs. In lakh)	471.26	244.87	231.92	228.99	252.08
2	Total number of employees* engaged in O&M of Transmission Lines	No.	Data for manpower for HVDC TL O&M is not available separately as the same set of employees are maintaining both type of lines (AC & HVDC)				
		Cost (Rs. In lakh)					
3	Auxiliary power consumption (excluding colony power)	(MU)	6.85	4.34	4.94	4.25	4.53
4	Colony power consumption	(MU)	0.52	0.25	0.33	0.28	0.27
5	Outage duration	Pole-days	16.43	0.23	5.54	0.16	1.23
6	Load curtailment	MW - days	Data separately not available/maintained				
7	Cost of initial spares	(Rs. in lakh)					
	a) Capitalized		0	0	0	0	0
	b) In Stock		Data separately not available/maintained				
	c) Consumed						
8	Cost of O&M spares consumed	(Rs. in lakh)	161.94	128.45	69.77	188.36	104.72

2) Alipurduar HVDC

Sl.No.	Particulars	Units	2017-18	2018-19	2019-20	2020-21	2021-22
1	Total number of employees* engaged in sub-station O&M	No.	15	21	19	15	17
		Cost (Rs. In lakh)	294.53	191.78	277.55	257.07	302.63
2	Total number of employees* engaged in O&M of Transmission Lines	No.	Data for manpower for HVDC TL O&M is not available separately as the same set of employees are maintaining both type of lines (AC & HVDC)				
		Cost (Rs. In lakh)					
3	Auxiliary power consumption (excluding colony power)	(MU)	4.46	4.76	4.97	5.13	4.97
4	Colony power consumption	(MU)	0.00	0.12	0.18	0.20	0.22
5	Outage duration	Pole-days	14.98	2.50	1.71	0.51	20.51
6	Load curtailment	MW - days	Data separately not available/maintained				

Pro-forma for furnishing Actual annual performance/operational expenses for the Transmission Systems for the 5-year period from 2017-18 to 2021-22							
Name of Transmission Company:		Power Grid Corporation of India Limited					
Name of Transmission Region:		Eastern Region					
Table-2- Station wise information (average for the year) for HVDC systems							
7	Cost of initial spares	(Rs. in lakh)					
	a) Capitalized		11464.3	0	0	0	0
	b) In Stock		Data separately not available/maintained				
	c) Consumed						
8	Cost of O&M spares consumed	(Rs. in lakh)	156.16	4.07	52.36	30.08	84.68

3) Talcher HVDC							
Sl.No.	Particulars	Units	2017-18	2018-19	2019-20	2020-21	2021-22
1	Total number of employees* engaged in sub-station O&M	No.	19	22	19	21	21
		Cost (Rs. In lakh)	373.08	600.15	604.36	516.20	589.53
2	Total number of employees* engaged in O&M of Transmission Lines	No.	Data for manpower for HVDC TL O&M is not available separately as the same set of employees are maintaining both type of lines (AC & HVDC)				
		Cost (Rs. In lakh)					
3	Auxiliary power consumption (excluding colony power)	(MU)	8.25	7.59	7.93	7.83	7.74
4	Colony power consumption	(MU)	NTPC Colony				
5	Outage duration	Pole-days	1.68	0.71	0.74	10.63	4.11
6	Load curtailment	MW - days	Data separately not available/maintained				
7	Cost of initial spares	(Rs. in lakh)					
	a) Capitalized		0	0	0	0	0
	b) In Stock		Data separately not available/maintained				
	c) Consumed						
8	Cost of O&M spares consumed	(Rs. in lakh)	161.94	295.74	384.10	211.69	234.67

Note: *Executive & non-executive/-contract labour

Pro-forma for furnishing Actual annual performance/operational data for the communication system for the 5-year period from 2017-18 to 2021-22

Name of Transmission Company:		Power Grid Corporation of India Limited					
Name of Transmission Region:		Eastern Region					
Table-3 - Region wise information (average for the year, but otherwise total for the region) for Communication system							
Sl. No.	Particulars	Units	2017-18	2018-19	2019-20	2020-21	2021-22
1	Number of Wideband Communication Nodes in operation	(No.)	61	48	59	60	64
2	Average length of OPGW links in operation	(in Kms.)	4415	5127.522	6569.242	7200	8190.152
3	Number of Remote Terminal Units(RTUs)	(No.)	27	22	22	21	20
4	Number of PLCC links	(No.)	0	0	0	0	0
5	Number of OPGW links	(No.)	49	54	68	70	74
6	Number of Auxiliary Power Supply(DC) Nodes	(No.)	45	31	38	38	39
7	Number of employees engaged in O&M of RTU and Communication System	(No.)					
	1) Executive	(No.)	45	31	38	38	39
	2) Non executive		2	1	1	1	0
	3) outsourced		0	0	0	0	0
8	Average outage duration for	(hours/year)					
	a) Wideband Communication Links	0	200	160	190	220	185
	b) RTUs		65	55	64.17	43	92.33
	c) PLCC		0	0	0	0	0
	d) Auxiliary Power Supply System		60	68	57	72	54
9	Cost of Initial spares	(Rs.in lakh)					
	a) Capitalized		87.59	0	24.04	0	0
	b) In Stock		43.12	113.12	97.12	98.63	74.18
	c) Consumed		9	16	22.53	24.45	61.43
10	Cost of O&M spares Consumed	(Rs.in lakh)	2.51	13.47	13.09	3.72	13.31
11	Number of PMU installed in the region	(No.)	* 12 ** 187	289	289	290	296
12	O & M expenses of PMU incurred in the region	(Rs.in lakh)	0	0	NA	NA	330.87

Note:

* Under Pilot project

** Under URTDSM project

Details of Operation & Maintenance Expenses of Transmission O&M service (To be filled for each of the

Name of Transmission Company:		Power Grid Corporation of India Limited				
Name of Transmission Region:		Eastern Region				
(Rs. In Lakhs)						
Sr.No.	ITEM	2017-18	2018-19	2019-20	2020-21	2021-22
1	2	3	4	5	6	7
1.0	Repairs and Maintenance Expenses :					
1)	Repairs of Plant & Machinery	5632.10	6398.99	7243.61	7354.06	8215.50
2)	Consumption of Stores (not capitalized)	8878.44	6599.15	7417.21	7105.35	6543.80
3)	Consumption of Spares (not capitalized)	Included in 1.0 (1)				
4)	Patrolling expenses	Included in natural heads of expenditure				
5)	Power Charges (electricity consumed for repairing activity)	3486.57	3581.45	4619.36	3721.28	6069.40
6)	Expenses of Diesel Generating sets	87.51	71.27	82.98	51.00	116.91
7)	Provisions	0	0	0	0	0
8)	Prior Period Adjustment , if any	0	0	0	0	0
9)	Other expenses, if any (please provide details)	0	0	0	0	0
	Sub-total (R&M Expenses)	18084.62	16650.86	19363.15	18231.69	20945.61
2.0	Administrative & General Expenses:					
1)	Insurance	764.76	2048.38	1810.28	1705.83	1534.11
2)	Security (General other than special)	4094.21	4431.85	4989.36	5298.70	5367.55
3)	Rent	70.33	367.50	776.90	927.19	1010.53
4)	Electricity Charges	Included in 1.0 (5) above				
5)	Traveling and conveyance	1249.14	1560.98	1502.41	1061.17	1247.34
6)	Communication expenses	135.26	203.92	315.99	263.03	313.41
7)	Advertisement and publicity	280.38	272.55	317.59	118.41	110.94
8)	Foundation laying and inauguration	8.41	0	0	0	0
9)	Books Periodicals and Journals	2.25	27.93	20.64	14.14	18.29
10)	Research expenses	0.00	61.81	118.68	53.64	5.12
11)	Cost Audit Fees	27.15	22.37	17.23	19.20	23.96
12)	Horticulture Expenses	434.52	488.76	520.20	584.19	520.35
13)	Bandwidth charges dark fibre lease charges (Telecom) etc	984.36	1089.75	1014.53	979.32	995.64
14)	Donations expenses	0	0	0	0	0
15)	Entertainment expenses	24.52	28.76	41.82	51.39	51.70
16)	Filing Fees	978.77	1418.80	1469.55	1189.24	1271.48
17)	Legal Expenses	103.96	187.65	326.44	84.96	74.34
18)	Consultancy Expenses	4.06	4.13	5.62	0.86	-1.33
19)	Professional charges (not covered under employee expenses)	77.68	155.07	226.01	164.88	269.20
20)	Printing and Stationary	70.74	87.17	96.64	70.52	61.56
21)	Hiring of Vehicle (excluding construction & Corporate exp)	1793.22	2165.81	1738.66	1804.69	2085.58
22)	Training and Recruitment expenses	322.50	861.94	676.83	301.50	372.35
23)	Rates and taxes	404.10	714.35	775.68	513.40	845.85
24)	Rebate to Customers	3421.18	3564.36	2319.64	20333.10	2654.25

Details of Operation & Maintenance Expenses of Transmission O&M service (To be filled for each of the

Name of Transmission Company:		Power Grid Corporation of India Limited				
Name of Transmission Region:		Eastern Region				
25)	Self Insurance Reserve	3721.50	4118.73	4308.73	4553.83	4652.30
26)	Provisions (Provide details)	0	0	0	0	0
27)	Prior Period Adjustment , if any	0	0	0	0	0
28)	Any other A&G expenses (Provide details)	1653.18	6090.43	1594.40	1526.24	2436.53
	Sub-total(A&G Expenses)	20626.17	29973.00	24983.84	41619.46	25921.05
3.0	Employee Expenses					
1)	Salaries, wages and allowances	16497.36	12443.55	15112.06	14786.34	15270.91
2)	Staff welfare expenses					
	a) Contribution to Provident and other funds	887.69	2822.17	2199.18	4165.37	3602.46
	b) Gratuity	-999.62	-186.05	79.15	65.10	61.80
	c) Pension	863.17	152.10	158.39	155.27	153.52
	d) Employee Medical Expenses	1227.17	1477.77	1120.89	996.32	1501.88
	e) Liveries and Uniforms	81.98	415.81	974.56	459.59	400.16
	f) Safety & Appliances expenses	11.83	78.03	73.43	99.01	72.41
	g) Others	1310.37	1959.84	1750.85	1619.55	1845.17
3)	Productivity linked incentive	0	0	0	0	0
4)	Expenditure on VRS	0	0	0	0	0
5)	Ex-gratia	0	0	0	0	0
6)	Performance related pay (PRP)	2327.95	5110.18	5276.83	5254.26	5251.80
7)	Any other expenses	0	0	0	0	0
8)	Provisions (furnish details separately)	0	0	0	0	0
9)	Prior Period Adjustment , if any (furnish details separately)	0	0	0	0	0
10)	VII Pay Arrears Paid Pertaining to period prior	0	0	0	0	0
	Sub-total(Employee Expenses)	22207.90	24273.39	26745.35	27600.82	28160.11
4.0	Additional /Specific Security it any on the advise of Govt. Agency/ Statutory Authority/ any other reasons	137.73	0	0	0	0
5.0	Loss of store/Disposal/Write off	0	0	0	0	0
6.0	Provisions (other than above)	0	0	0	0	0
7.0	Prior Period Adjustment , if any (not covered above)	0	0	0	0	0
8.0	Corporate office expenses allocation	0	0	0	0	0
	(i) Transmission O&M Service	7075.94	5416.93	5155.25	4821.49	4740.47
	(ii) Projects under construction	0	0	0	0	0
	(iii) ULDC -Communication	0	0	0	0	0
	(iv) Consultancy services, if any	0	0	0	0	0
	(v) Other business (Telecom)	0	0	0	0	0
	(vi) Other business (if any)	0	0	0	0	0
9.0	Corporate Social Responsibility expenses	1671.95	5184.83	8584.35	6443.10	5599.02

Details of Operation & Maintenance Expenses of Transmission O&M service (To be filled for each of the

Name of Transmission Company:		Power Grid Corporation of India Limited				
Name of Transmission Region:		Eastern Region				
10.0	- Others (Specify items not included above)	0	0	0	0	0
	Sub Total (1 to 10)	69804.31	81499.00	84831.93	98716.57	85366.27
11	Other Income, Revenue and Recoveries, if any	0	0	0	0	0
a)	Short term open access (other than transmission service)	0	0	0	0	0
b)	System & Market operation charges	0	0	0	0	0
c)	Interest on differential tariff recovered	0	0	0	0	0
d)	Consultancy Services	0	0	0	0	0
e)	Interest against Loans and advances	0	0	0	0	0
f)	Interest from advanced to contractors/suppliers	0	0	0	0	0
g)	Income from lease of assets	0	0	0	0	0
h)	Disposal of scrap/stores (not covered under capitalized assets)	0	0	0	0	0
i)	Interest on Government securities	0	0	0	0	0
j)	Miscellaneous income from operations	0	0	0	0	0
k)	Revenue/ Recoveries, if any	0	0	0	0	0
12	Net Expenses	69804.31	81499.00	84831.93	98716.57	85366.27
13	Capital spares consumed not included in (A) (1) above and not claimed/allowed by	Capital Spares not claimed/allowed by CERC have been consumed as O&M Spares				
13A	Expenses against Capital expenditure incurred for Operation and Maintenance of Transmission System (not included in Capital Cost/Repair & Maintenance expenditure indicated 1.0(1) above)	1021.04	To be claimed separately			
14	Total Expenses (12) + (13A)	70825.34	81499.00	84831.93	98716.57	85366.27
Notes:						
I. The details of Corporate Expenses and the methodology of allocation of corporate expenses to various						
II. An annual increase in O&M expenses under a given head in excess of 10% percent should be explained.						
III. The data should be based on audited balance sheets, duly reconciled and certified.						
IV. Employee cost should be excluding arrears paid for pay hike/prior period adjustment /payment						
IV. Details of arrears, if any, pertaining to period prior to the year 2017-18 should be mentioned separately.						
V. No. of employees opting for VRS during each year should be indicated.						
VI. Details of abnormal expenses, if any, shall be furnished separately.						
VII Break-up of staff welfare expenses should be furnished						
VIII Details of Consumptive Water requirement , contracted quantum and actual water consumed with						
IX. Details of capital spares consumed each year which were not claimed/allowed in the tariff should be						
Break Up of other A & G Expenses (Indicated at 2 (28) above)						
Sr. No.	Item	2017-18	2018-19	2019-20	2020-21	2021-22
1	Tax and Statutory Audit Fees	32.79	54.83	89.74	43.88	50.06

Details of Operation & Maintenance Expenses of Transmission O&M service (To be filled for each of the

Name of Transmission Company:		Power Grid Corporation of India Limited				
Name of Transmission Region:		Eastern Region				
2	EDP Expenses	77.49	327.39	206.54	197.18	191.98
3	Miscellaneous Expenses	452.66	-191.15	147.88	354.72	2215.05
4	Bad Debts Expenses	0	5873.57	0.36	8.66	-23.59
5	FERV Expense	1090.24	25.79	1149.87	921.79	3.03
	Total	1653.18	6090.43	1594.40	1526.24	2436.53

Name of Transmission Company:		Power Grid Corporation of India Limited	
Name of Transmission Region:		Eastern Region	
SI No	Particulars	Year	Reasons of Variance
1	Repairs of Plant & Machinery	2018-19	Due to increase in transmission assets under O&M stage and aging of Transmission assets requiring more maintenance
2	Insurance	2018-19	Increase in Mega Insurance for addition of Alipurduar HVDC
3	Rent	2018-19	Increase in transit hostel expenses
4	Cost Audit Fees	2018-19	Due to change of fees paid in other capacity for certification work
5	Filing fees	2018-19	Increase due to addition of new assets
6	Legal Expenses	2018-19	Legal cost due to arbitration cases
7	Professional charges (not covered under employee expenses)	2018-19	Increase due to addition of new assets
8	Hiring of Vehicle (excluding construction & Corporate exp)	2018-19	Due to GST on vehicle hiring
9	Training and Recruitment expenses	2018-19	Increase due to new recruitments
10	Rates and taxes	2018-19	Increase due to GST on RHQ Allocation
11	Any other A&G expenses	2018-19	Provision for bad debts and decrease in FERV
12	Repairs of Plant & Machinery	2019-20	Due to increase in transmission assets under O&M stage and aging of Transmission assets requiring more maintenance
13	Consumption of Stores(Not Capitalized)	2019-20	Due to increase in transmission assets under O&M stage and aging of Transmission assets requiring more maintenance
14	Power charges	2019-20	Addition of 04 nos STATCOM in ER during 2019-20
15	Insurance	2019-20	Change in Mega Insurance policy premium based on sum insured
16	Security (General other than special)	2019-20	Increase due to addition in substations
17	Rent	2019-20	Creation of Short term lease as per IND AS 116 for hiring of Vehicle
18	Communication Expenses	2019-20	Increase due to revision in employee entitlements.
19	Advertisement and publicity	2019-20	Higher advertisement expenditure due to new projects
20	Cost Audit Fees	2019-20	Due to change of fees paid in other capacity for certification work
21	Entertainment expenses	2019-20	Increase in transmission assets under O&M Stage
22	Legal Expenses	2019-20	Legal cost due to arbitration cases
23	Professional charges (not covered under employee expenses)	2019-20	Professional from ABB & CGL for repairing work at Different SS under ER in current year
24	Hiring of Vehicle (excluding construction & Corporate exp)	2019-20	Increase in new transmission assets and due to amendment of vehicle contract and increase in CLW rates higher vehicle cost in current year. Creation of Short term lease as per IND AS 116 for hiring of Vehicle
25	Training and Recruitment expenses	2019-20	Due to COVID, less no. of offline trainings done in current year
26	Rebate to Customers	2019-20	Reduction in rebate due to change of rate from 2% to 1.5% in new tariff block
27	Any other A&G expenses	2019-20	Decrease in provision for bad debts and increase in ferv
28	Salary, wages and allowances	2019-20	Increase due to new recruitments
29	Rent	2020-21	Creation of Short term lease as per IND AS 116
30	Electricity Charges	2020-21	Decrease in Power Charge HVDC Stations
31	Traveling and conveyance	2020-21	Decrease in employee movement due to COVID 19
32	Communication Expenses	2020-21	Decrease in mobile charges due to covid 19
33	Advertisement and publicity	2020-21	Due to reduction in advertisement cost for tender notices due to shift to online mode
34	Cost Audit Fees	2020-21	Due to change of fees paid in other capacity for certification work
35	Entertainment expenses	2020-21	Increase in transmission assets under O&M Stage
36	Filing Fees	2020-21	Change in allocation base for CERC fees
37	Printing and Stationary	2020-21	General reduction in stationery procurement
38	Training and Recruitment expenses	2020-21	Due to COVID, less no. of offline trainings done in current year
39	Rates and taxes	2020-21	Increase in FY 2019-20 on account of Land Rent and Land levy charges for 2017-18 and 2018-19.
40	Rebate to Customers	2020-21	Increase in rebate due to special covid rebate
41	Repairs of Plant & Machinery	2021-22	Due to increase in transmission assets under O&M stage and aging of Transmission assets requiring more maintenance

Name of Transmission Company:		Power Grid Corporation of India Limited	
Name of Transmission Region:		Eastern Region	
SI No	Particulars	Year	Reasons of Variance
42	Electricity Charges	2021-22	Arrear payment for Tertiary Power charges for substations under Odisha
43	Expenses of Diesel Generating sets	2021-22	Expense increased due to more running of DG due to low reliability/frequent outage of state supply line at few stations
44	Traveling and conveyance	2021-22	Increase in Employee movement due to relaxation of Covid Norms
45	Communication Expenses	2021-22	Increase due to employee entitlements.
46	Cost Audit Fees	2021-22	Due to change of fees paid in other capacity for certification work
47	Professional charges (not covered under employee expenses)	2021-22	Cost of conducting Pile integrity & their analysis
48	Printing and Stationary	2021-22	General reduction in stationery procurement
49	Hiring of Vehicle (excluding construction & Corporate exp)	2021-22	Due to increase in CLW Rates for driver wages and general increase in contract rates
50	Training and Recruitment expenses	2021-22	Due to COVID in FY 2020-21, less no. of offline trainings were done.
51	Rates and taxes	2021-22	Arrear lease rent from Dec'2011 to Mar'2019 amounting to Rs.2.27 crores on renewal of Leasehold Land at Birpara S/S
52	Rebate to Customers	2021-22	Decrease in rebate due to special covid rebate given in FY 2020-21.
53	Any other A&G expenses (Provide details)	2021-22	Scrap loss for decap of old assets

DETAILS OF OPERATION AND MAINTENANCE EXPENSES OF COMMUNICATION SYSTEM (OTHER THAN TELECOM OR OTHER BUSINESS)

Name of Transmission Company:		Power Grid Corporation of India Limited				
Name of Transmission Region:		Eastern Region				
		(Rs. In Lakhs)				
Sr.No.	ITEM	2017-18	2018-19	2019-20	2020-21	2021-22
1	2	3.00	4.00	5.00	6.00	7.00
1.0	Repairs and Maintenance Expenses :					
1)	Repairs of Plant & Machinery	193.12	250.18	218.13	242.43	515.70
2)	Consumption of Stores (not capitalized)	0	246.54	7.59	7.59	106.83
3)	Consumption of Spares (not capitalized)	Included in 1.0 (1)				
4)	Patrolling expenses	Included in natural heads of expenditure				
5)	Power Charges (electricity consumed for repairing	0	0	0	0	0
6)	Expenses of Diesel Generating sets	0	0	0	0	0
7)	Provisions	0	0	0	0	0
8)	Prior Period Adjustment , if any	0	0	0	0	0
9)	Other expenses, if any (please provide details)	0	0	0	0	0
	Sub-total (R&M Expenses)	193.12	496.73	225.72	250.02	622.53
2.0	Administrative & General Expenses:					
1)	Insurance	0	0.24	0	0	0
2)	Security (General other than special)	0	0	0	0	0
3)	Rent	0	0	0	0	0
4)	Electricity Charges	0	0	0	0	0
5)	Traveling and conveyance	8.82	3.82	0.19	8.19	12.17
6)	Communication expenses	0.81	0.25	0.17	1.91	2.95
7)	Advertisement and publicity	6.60	3.30	14.13	13.89	1.29
8)	Foundation laying and inauguration	0	0	0	0	0
9)	Books Periodicals and Journals	0	0	0	0	0
10)	Research expenses	0	0	0	0	0
11)	Cost Audit Fees	0	0	0	0	0
12)	Horticulture Expenses	0	0	0	0	0
13)	Bandwidth charges dark fibre lease charges	40.65	82.18	117.36	144.04	63.06
14)	Donations expenses	0	0	0	0	0
15)	Entertainment expenses	0.33	0.10	0	0.28	0.90
16)	Filing Fees	8.87	3.00	14.71	16.71	16.19
17)	Legal Expenses	0	0	0	0	0
18)	Consultancy Expenses	0	0	0	0	0
19)	Professional charges (not covered under employee	0	0	0	0	0
20)	Printing and Stationary	0.04	0	0	0	0
21)	Hiring of Vehicle (excluding construction &	0	0	3.84	0	3.80
22)	Training and Recruitment expenses	0	0	0.27	0.03	0.16
23)	Rates and taxes	0	0	0.46	0	0
24)	Rebate to Customers	0	16.95	52.13	129.51	12.76
25)	Self Insurance Reserve	0	0	0	0	0
26)	Provisions (Provide details)	0	0	0	0	0
27)	Prior Period Adjustment , if any	0	0	0	0	0
28)	Any other A&G expenses (Provide details)	295.23	961.06	1245.48	480.35	323.98
	Sub-total(A&G Expenses)	361.35	1070.89	1448.73	794.91	437.25

DETAILS OF OPERATION AND MAINTENANCE EXPENSES OF COMMUNICATION SYSTEM (OTHER THAN TELECOM OR OTHER BUSINESS)

Name of Transmission Company:		Power Grid Corporation of India Limited				
Name of Transmission Region:		Eastern Region				
3.0	Employee Expenses					
1)	Salaries, wages and allowances	62.06	73.28	18.15	170.52	199.21
2)	Staff welfare expenses		1.51	0.38	5.72	6.93
	a) Contribution to Provident and other funds	3.15	11.37	2.30	21.99	35.37
	b) Gratuity	-3.58	0.32	0.29	0.22	0.15
	c) Pension	4.97	0.21	0.00	1.38	1.38
	d) Employee Medical Expenses	4.31	3.76	-0.04	3.30	2.92
	e) Liveries and Uniforms	0.30	0.72	0.72	4.59	3.30
	f) Safety & Appliances expenses	0.15	0	0	0	0
	g) Others	3.58	0	0	0	0
3)	Productivity linked incentive	0	0	0	0	0
4)	Expenditure on VRS	0	0	0	0	0
5)	Ex-gratia	0	0	0	0	0
6)	Performance related pay (PRP)	9.45	2.43	1.23	0.00	2.24
7)	Any other expenses	0	0	0	0	0
8)	Provisions (furnish details separately)	0	0	0	0	0
9)	Prior Period Adjustment , if any (furnish details	0	0	0	0	0
10)	VII Pay Arrears Paid Pertaining to period prior to 20	0	0	0	0	0
	Sub-total(Employee Expenses)	84.40	93.60	23.03	207.71	251.52
4.0	Additional /Specific Security it any on the advise	0	0	0	0	0
5.0	Loss of store/Disposal/Write off	0	0	0	0	0
6.0	Provisions (other than above)	0	0	0	0	0
7.0	Prior Period Adjustment , if any (not covered	0	0	0	0	0
8.0	Corporate office expenses allocation	0	0	0	0	0
	(i) Transmission O&M Service	0	0	0	0	0
	(ii) Projects under construction	0	0	0	0	0
	(iii) ULDC -Communication	0	0	0	0	0
	(iv) Consultancy services, if any	0	0	0	0	0
	(v) Other business (Telecom)	0	0	0	0	0
	(vi) Other business (if any)	0	0	0	0	0
9.0	Corporate Social Responsibility expenses	0	0	0	0	0
10.0	- Others (Specify items not included above)	0	0	0	0	0
	Sub Total (1 to 10)	638.87	1661.21	1697.48	1252.65	1311.30
11	Other Income, Revenue and Recoveries, if any	0	0	0	0	0
a)	Short term open access (other than transmission	0	0	0	0	0
b)	System & Market operation charges	0	0	0	0	0
c)	Interest on differential tariff recovered	0	0	0	0	0
d)	Consultancy Services	0	0	0	0	0
e)	Interest against Loans and advances	0	0	0	0	0
f)	Interest from advanced to contractors/suppliers	0	0	0	0	0
g)	Income from lease of assets	0	0	0	0	0
h)	Disposal of scrap/stores (not covered under	0	0	0	0	0
i)	Interest on Government securities	0	0	0	0	0
j)	Miscellaneous income from operations	0	0	0	0	0
k)	Revenue/ Recoveries, if any	0	0	0	0	0
12	Net Expenses	638.87	1661.21	1697.48	1252.65	1311.30

DETAILS OF OPERATION AND MAINTENANCE EXPENSES OF COMMUNICATION SYSTEM (OTHER THAN TELECOM OR OTHER BUSINESS)

Name of Transmission Company:		Power Grid Corporation of India Limited				
Name of Transmission Region:		Eastern Region				
13	Capital spares consumed not included in (A) (1) above and not claimed/allowed by Commission for capitalization	Capital Spares not claimed/allowed by CERC have been consumed as O&M Spares				
13A	Expenses against Capital expenditure incurred for Operation and Maintenance of Transmission System (not included in Capital Cost/Repair & Maintenance expenditure indicated 1.0(1) above)					
14	Total Expenses (12) + (13A)	638.87	1661.21	1697.48	1252.65	1311.30

Notes:

I. The details of Corporate Expenses and the methodology of allocation of corporate expenses to various functional activities and allocation of Corporate expenses pertaining to power generation/ transmission system to each operating stations/ transmission region/system and stations/ transmission region/system under construction should be clearly specified in ANNEXURE-VIII as provided here separately.
II. An annual increase in O&M expenses under a given head in excess of 10% percent should be explained.
III. The data should be based on audited balance sheets, duly reconciled and certified.
IV. Employee cost should be excluding arrears paid for pay hike/prior period adjustment /payment
IV. Details of arrears, if any, pertaining to period prior to the year 2017-18 should be mentioned separately.
V. No. of employees opting for VRS during each year should be indicated.
VI. Details of abnormal expenses, if any, shall be furnished separately.
VII Break-up of staff welfare expenses should be furnished
VIII Details of Consumptive Water requirement , contracted quantum and actual water consumed with source ,
IX. Details of capital spares consumed each year which were not claimed/allowed in the tariff should be

Break Up of other A & G Expenses (Indicated at 2 (28) above)

Sr. No.	Item	2017-18	2018-19	2019-20	2020-21	2021-22
1	Tax and Statutory Audit Fees	0.00	0.00	0.00	0.00	0.00
2	EDP Expenses	0.00	0.00	0.00	0.00	0.00
3	Miscellaneous Expenses	291.15	115.65	153.49	115.44	0.00
4	Bad Debts Expenses	0.00	0.00	0.00	0.00	0.00
5	FERV Expense	4.08	845.41	1091.98	364.90	323.98
	Total	295.23	961.06	1245.48	480.35	323.98

Additional Region-wise Information required from Transmission Licensees

Name of Transmission Company: Power Grid Corporation of India Limited

Name of Transmission Region: Eastern Region

Table-1- Length (km) of Transmission Lines in Commercial Operation

		Status as on				
		1.4.2018	1.4.2019	1.4.2020	1.4.2021	1.4.2022
1	HVDC					
	a) S/C	0	0	0	0	0
2	765 kV					
	a) S/C	1195.97	1195.97	1195.97	1195.97	1195.97
	b) D/C	296.54	591.60	591.60	591.60	591.60
3	765 kV Charged at 400 KV					
	a) S/C	0	0	0	0	0
4	400 kV					
	a) S/C	2139.10	2139.10	2139.10	2139.10	2139.10
	b) D/C	6965.04	7147.20	7438.95	7736.38	7915.57
	c)D/C on M/C	5.80	5.80	5.80	5.80	5.80
	d)Multi Circuit	79.39	79.39	79.39	79.39	79.39
5	400 kV Charged at 220 KV					
	a) D/C	0	0	0	0	0
6	220 kV					
	a) S/C	38.00	38.00	38.00	38.00	38.00
	b) D/C	821.46	821.46	821.46	821.46	821.46
7	Up to 132 kV					
	a) S/C	151.00	151.00	151.00	151.00	151.00
	b) D/C	155.25	155.25	155.25	155.25	155.25

Table-2-Ckt km by Conductor Configuration

		Type of Conductor	Status as on				
			1.4.2018	1.4.2019	1.4.2020	1.4.2021	1.4.2022
1	Hexa	Zebra D/C	41.08	631.20	631.20	631.20	631.20
2	Quad	Bersimis S/C	1195.97	1195.97	1195.97	1195.97	1195.97
		Bersimis D/C	552.00	552.00	552.00	552.00	552.00
		Moose D/C	3748.91	3877.21	4159.99	4159.99	4485.99
		Moose M/C	181.56	181.56	181.56	181.56	181.56
		Moose D/C on M/C	7.49	7.49	7.49	7.49	7.49
3	Tripple	Snowbird D/C	492.82	492.82	793.54	1213.54	1213.54
4	Twin	Moose D/C	9474.20	9547.18	9547.18	9722.04	9731.82
		Moose S/C	2138.08	2138.08	2138.08	2138.08	2138.08
		Moose M/C	136.02	136.02	136.02	136.02	136.02

Additional Region-wise Information required from Transmission Licensees

Name of Transmission Company:		Power Grid Corporation of India Limited					
Name of Transmission Region:		Eastern Region					
5	Single	Moose D/C on M/C	4.10	4.10	4.10	4.10	4.10
		Invar D/C	52.59	52.59	52.59	52.59	52.59
		Lapwing D/C	161.21	161.21	161.21	161.21	161.21
		Lapwing S/C	1.02	1.02	1.02	1.02	1.02
		HTLS	0	163.00	163.00	163.00	185.60
	Grand Total	Moose D/C	0.39	0.39	0.39	0.39	0.39
		Zebra D/C	1642.93	1642.93	1642.93	1642.93	1642.93
		Zebra S/C	38.00	38.00	38.00	38.00	38.00
		Panther S/C	114.00	114.00	114.00	114.00	114.00
		Panther D/C	308.00	308.00	308.00	308.00	308.00
Dog D/C		2.50	2.50	2.50	2.50	2.50	
Dog S/C	37.00	37.00	37.00	37.00	37.00		
Grand Total		20329.87	21284.27	21867.78	22462.64	22821.02	

Table-3- Number of AC Substations in Commercial Operation

		Status as on				
		1.4.2018	1.4.2019	1.4.2020	1.4.2021	1.4.2022
1	765 kV	5	5	5	5	5
2	400 kV	28	29	29	29	29
3	220 kV	7	7	7	7	7
4	Up to 132 kV	1	1	1	1	1

Table-4- Number of Sub-station bays in Commercial Operation

		Status as on				
		1.4.2018	1.4.2019	1.4.2020	1.4.2021	1.4.2022
1	HVDC	56	56	56	56	56
2	765 kV	48	56	67	71	71
3	400 kV	405	443	466	474	485
4	220 kV	160	176	181	182	184
5	Up to 132 kV	56	58	60	60	61

Table-5- Cost of Outsourcing of Services (Rs. lakh)

		2017-18	2018-19	2019-20	2020-21	2021-22
	Substation O&M	5145.43	7106.53	8048.42	8091.49	7846.66
	Lines O&M	4464.06	4734.91	5011.99	5675.44	3880.16
	Security	4356.13	4350.34	4907.02	5215.48	5266.40
	Others	2870.55	3570.51	3425.47	3165.18	3453.26
	Grand Total	16836.17	19762.29	21392.90	22147.60	20446.47

Table-6- Total O&M Expenditure Including RHQ, but Excluding HVDC Stations (Rs lakh)

		2017-18	2018-19	2019-20	2020-21	2021-22
	O&M	67140.55	75358.65	78737.98	93652.51	79801.98
	Total	67140.55	75358.65	78737.98	93652.51	79801.98

Name of Transmission Company:	Power Grid Corporation of India Limited
Name of Transmission Region:	Eastern Region
Station wise O&M Expenditure at HVDC Station (Rs. lakh)	

Particulars	2017-18	2018-19	2019-20	2020-21	2021-22
Name of HVDC Station:	ALIPURDUAR				
i) No of Employees	15	21	19	15	17
ii) A&G Expenses	556.85	1104.64	1088.11	962.64	909.36
iii) Repairs & Maintenance	0.93	975.67	1162.51	927.15	905.05
iv) Employee Expenses*	294.53	191.78	277.55	257.07	302.63
v) Corporate expenses allocated*	Included in Annexure-VI (B-I)				
vi) Other income	0	0	0	0	0
vii) Any other income	0	0	0	0	0
Total Expenditure	852.32	2272.09	2528.17	2146.85	2117.04

Particulars	2017-18	2018-19	2019-20	2020-21	2021-22
Name of HVDC Station:	TALCHER				
i) No of Employees	19	22	19	21	21
ii) A&G Expenses	500.57	1039.18	998.33	954.49	795.75
iii) Repairs & Maintenance	838.80	843.19	736.24	421.64	781.02
iv) Employee Expenses*	373.03	624.72	627.08	516.72	589.61
v) Corporate expenses allocated*	Included in Annexure-VI (B-I)				
vi) Other income (Note-38)	0	0	0	0	0
vii) Any other income	0	0	0	0	0
Total Expenditure	1712.40	2507.09	2361.65	1892.85	2166.38

Particulars	2017-18	2018-19	2019-20	2020-21	2021-22
Name of HVDC Station:	SASARAM				
i) No of Employees	24	16	16	16	15
ii) A&G Expenses	237.89	287.47	311.77	256.48	344.10
iii) Repairs & Maintenance**	410.93	828.83	660.44	538.88	684.68
iv) Employee Expenses*	471.26	244.87	231.92	228.99	252.08
v) Corporate expenses allocated*	Included in Annexure-VI (B-I)				
vi) Other income	0	0	0	0	0
vii) Any other income	0	0	0	0	0
Total Expenditure	1120.07	1361.17	1204.14	1024.36	1280.86

Note :

Excluding VII Pay arrear paid for period prior to FY 2017-18

** iii) Repairs & Maintenance- Includes Power charges & Operating expenses of DG Sets

* v) Corporate expenses allocated* - Includes CC/RHQ Employee Cost chargeable to revenue & Corporate center/RHQ exp chargeable to revenue

<u>Additional Region-wise Information required from Transmission Licensees</u> <u>(Communication System)</u>					
Name of Transmission Company:		Power Grid Corporation of India Limited			
Name of Transmission Region:		Eastern Region			
Table-1- Details of Communication system in Commercial Operation					
Particulars	Status as on				
	1.04.2018	1.04.2019	1.04.2020	1.04.2021	1.04.2022
OPGW Communication Links in operation(in Kms)	4658	5103.06	5325.78	6012.42	6632.63
Number of wideband Communication nodes in operation	62	58	59	61	64
Number of RTUs in operation	33	25	22	21	20
Number of PLCC links in operation	0	0	0	0	0
Number of PMUs in Operation	* 12 ** 187	289	289	290	296
Number of Auxiliary Power Supply Nodes in operation	51	38	38	38	39
Table-2- Cost of Outsourcing of Services (INR in lakhs)					
Particulars	2017-18	2018-19	2019-20	2020-21	2021-22
Communication system O&M	268.26	229	243.07	270.51	299.54
PLCC O&M	0	0	0	0	0
RTU O&M	11.97	8.64	6.48	6.48	5.76
Auxiliary Power Supply O&M	2.53	12.82	12.82	12.82	12.82
Hiring charges of Bandwidth	41.57	82.18	270.85	258.85	61.34
Security	0	1.58	1.58	1.58	1.58
Others	14.42	0	0	0	0
Total	338.75	334.22	534.8	550.24	381.04

Note:

* Under Pilot project

** Under URTDSM project

Annexure-XII (C)

Name of Transmission Company:		Power Grid Corporation of India Limited	
Name of Transmission Region:		Eastern Region	
Standard list of Capital Spare for Communication system needs to be submitted			
OPGW/SDH/MUX/PLCC/RTU cards/DC Modules			
S.No	Name of capital spare	Qty (Nos)	Cost (Rs in lakhs)
1	OPGW & Associated Hardware Fittings	19 Km	25
2	SDH Spares	2 SET	
3	DCPS Spares	2 SET	1.41
4	WAMS system under URTDSM Project	10% of Spare card of Each equipment, PMUs	304.44
Standard list of O&M Spare for OPGW/SDH/MUX/PLCC /RTU cards/DC Modules needs to be submitted			
OPGW/SDH/MUX/PLCC/RTU cards/DC Modules			
S.No	Name of O&M spare	Qty (Nos)	Cost (Rs in lakhs)
1	SDH Spares	1 SET	98.74
2	RTU Spare	1 SET	8.00

Auxiliary Consumption separately for 132kV, 220kV, 400kV & 765kV AC and HVDC Substation Separately

Name of Transmission Company:		Power Grid Corporation of India Limited												
Name of Transmission Region:		Eastern Region												
S.no	Voltage level	Substations	2017-18		2018-19		2019-20		2020-21		2021-22		2022-23	
			MU	%	MU	%	MU	%	MU	%	MU	%	MU	%
1	220	ARA	0.563	-	0.441	-	0.455	-	0.432	-	0.432	-	0.416	-
2	400	BANKA	0.485	-	0.643	-	0.760	-	0.639	-	0.661	-	0.749	-
3	400	BIHARSHARIF	1.486	-	1.497	-	1.398	-	1.221	-	1.334	-	1.358	-
4	765	GAYA	1.340	-	1.406	-	1.427	-	1.240	-	1.144	-	1.073	-
5	400	JAMSHEDPUR	0.956	-	0.842	-	0.852	-	0.892	-	0.954	-	0.936	-
6	400	MUZAFFARPUR	1.190	-	1.275	-	1.181	-	1.053	-	1.092	-	1.167	-
7	400	NEW PURNEA	1.650	-	0.949	-	0.845	-	0.835	-	0.879	-	0.873	-
8	400	PATNA	1.060	-	1.042	-	1.021	-	0.964	-	0.933	-	0.906	-
9	220	PURNEA	0.622	-	0.450	-	0.442	-	0.411	-	0.340	-	0.420	-
10	400	RANCHI	0.910	-	0.967	-	0.996	-	0.964	-	0.956	-	1.027	-
11	765	NEW RANCHI	1.250	-	1.611	-	1.611	-	1.810	-	1.924	-	1.899	-
12	400	LAKHISRAI	0.625	-	0.516	-	0.615	-	0.476	-	0.537	-	0.537	-
13	765	PUSAULI	1.535	-	1.445	-	1.648	-	1.415	-	1.509	-	1.494	-
14	400	CHAIBASA	0.546	-	0.513	-	0.524	-	0.534	-	0.550	-	0.506	-
15	400	KISHANGANJ	0.388	-	0.335	-	0.674	-	0.723	-	0.482	-	1.435	-
16	400	CHANDWA	0.196	-	0.192	-	0.233	-	0.216	-	0.232	-	0.250	-
17	400	DALTONGANJ	-	-	0.340	-	0.461	-	0.421	-	0.410	-	0.434	-
18	HVDC	SASARAM HVDC	4.605	-	4.336	-	4.945	-	4.246	-	4.528	-	4.482	-
19	400	ALIPURDUAR	1.487	-	1.585	-	1.657	-	1.708	-	1.658	-	1.574	-
20	400	SUBHASGRAM	1.353	-	0.954	-	0.995	-	0.908	-	0.919	-	0.683	-
21	400	DURGAPUR	0.795	-	1.128	-	0.915	-	1.098	-	0.751	-	0.884	-
22	400	RAJARHAT	NA	-	0.414	-	0.431	-	0.803	-	0.811	-	0.748	-
23	400	MALDA	0.445	-	0.399	-	0.356	-	0.332	-	0.356	-	0.346	-
24	400	RANGPO	0.368	-	0.331	-	0.343	-	0.344	-	0.356	-	0.346	-
25	220	BIRPARA	0.452	-	0.401	-	0.365	-	0.389	-	0.362	-	0.352	-
26	220	NEW MELLI	0.145	-	0.194	-	0.295	-	0.295	-	0.322	-	0.315	-
27	220	DALKHOLA	0.389	-	0.277	-	0.264	-	0.275	-	0.251	-	0.232	-
28	400	MAITHON	1.120	-	0.706	-	0.667	-	0.803	-	0.803	-	0.829	-
29	220	SILIGURI	0.435	-	0.443	-	0.392	-	0.386	-	0.388	-	0.379	-
30	400	BINAGURI	0.925	-	0.839	-	0.881	-	0.860	-	0.935	-	0.988	-
31	400	BERHAMPORE	0.312	-	0.379	-	0.337	-	0.313	-	0.372	-	0.421	-
32	132	GANGTOK	0.076	-	0.078	-	0.079	-	0.080	-	0.080	-	0.082	-
33	HVDC	ALIPURDUAR HVDC	4.460	-	4.755	-	4.971	-	5.125	-	4.973	-	4.721	-
34	765	Angul	1.276	-	1.368	-	1.278	-	1.175	-	1.028	-	0.938	-
35	400	Baripada	0.120	-	0.680	-	0.812	-	0.722	-	0.540	-	0.668	-
36	400	Bolangir	0.484	-	0.501	-	0.515	-	0.485	-	0.461	-	0.463	-
37	400	Indravati	0.285	-	0.221	-	0.256	-	0.233	-	0.237	-	0.252	-
38	400	Jeyapore	0.261	-	0.945	-	1.013	-	1.056	-	1.192	-	1.631	-
39	400	Keonjhar	0.325	-	0.416	-	0.407	-	0.469	-	0.475	-	0.426	-
40	400	Pandiabili	0.497	-	0.533	-	0.529	-	0.451	-	0.465	-	0.454	-
41	400	Rengali	0.520	-	0.407	-	0.462	-	0.465	-	0.501	-	0.539	-

Auxiliary Consumption separately for 132kV, 220kV, 400kV & 765kV AC and HVDC Substation Separately

Name of Transmission Company:			Power Grid Corporation of India Limited											
Name of Transmission Region:			Eastern Region											
S.no	Voltage level	Substations	2017-18		2018-19		2019-20		2020-21		2021-22		2022-23	
			MU	%	MU	%	MU	%	MU	%	MU	%	MU	%
42	400	Rourkela	0.520	-	1.051	-	0.865	-	0.902	-	1.131	-	1.436	-
43	765	Sundargarh	0.970	-	2.011	-	1.669	-	1.555	-	1.530	-	1.334	-
44	HVDC	Talcher HVDC	8.250	-	7.593	-	7.925	-	7.835	-	7.736	-	7.745	-

Details of incidental Expenses During Construction (IEDC) including compensation, employee expenses and other expenses for assets achieving COD post 01.04.2017							
Name of Transmission Company:		Power Grid Corporation of India Limited					
Name of Transmission Region:		Eastern Region					
Sl. No.	Name of Scheme	Sub-station (S/s)/ Transmission Line (TL)	MVA/ Line Length (km)	Compensation (Forest, crop, Tree, PTCC)	Employee Expenses	Administrative & General Expenses	Any other expenses
1.	ERSS-IX	S/s			213.32	123.07	
2.	POWERGRID works associated with Transmission System Strengthening in India System for Transfer of Power from new HEPs in Bhutan	S/s			148.35	18.27	
3.	ERSS XI	S/s			0	876.25	
4.	Common scheme for 765 kV Pooling Stations and Network	S/s			27.18	24.59	
5.	ERSS - V	S/s			16.97	0.00	
6.	ERSS-VI	S/s			5.98	3.59	
7.	ERSS XIV	S/s			9.06	83.70	
8.	ERSS XVII, Part- A	S/s			0.00	65.08	
9.	ERSS XII	S/s			1149.81	233.13	
10.	ERSS-III	S/s			503.16	441.49	
11.	ERSS-III	TL			1295.71	1076.39	
12.	ERSS XVII, Part- B	S/s			0.00	89.78	
13.	ERSS-XX	S/s			503.73	292.76	
14.	SPLIT BUS ARRANGEMENT FOR VARIOUS SUB	S/s			42.52	4.22	
15.	SPLIT BUS ARRANGEMENT FOR VARIOUS SUB STATIONS IN ER	TL			525.45	0	
16.	Associated Transmission System for Nabinagar-II TPS (3X660 MV)	S/s			272.08	178.77	
17.	Associated Transmission System for Nabinagar-II TPS (3X660 MV)	TL			1290.22	1188.49	
18.	Establishment of Communication system under Expansion/ Upgradation of SCADA/ EMS System of SLDCs of Eastern Region (BSPTCL & DVC) links	S/s			238.97	95.25	
19.	ERSS XVIII	S/s			775.09	390.21	
20.	ERSS XXIII	S/s			766.85	403.18	
21.	ERSS XXIII	TL			1382.62	726.94	
22.	ERSS-III	S/s			111.73	42.36	
23.	Transmission System associated with Darlipali TPS	S/s			6.50	1.83	
24.	Transmission System associated with Darlipali TPS	TL			63.45	17.84	
25.	ERSS XIV	S/s			45.14	17.37	
26.	ERSS XIV	S/s			26.86	12.86	
27.	ERSS XIV	S/s			13.86	6.62	
28.	Powergrid works associated with Common Transmission System for Phase-II Generation Project in Odisha	S/s			40.53	13.49	
29.	Powergrid works associated with Common Transmission System for Phase-II Generation Project in Odisha	S/s			9.13	1.25	
30.	Powergrid works associated with Common Transmission System for Phase-II Generation Project in Odisha	S/s			33.28	4.08	
31.	Powergrid works associated with Common Transmission System for Phase-II Generation Project in Odisha	TL			209.21	25.62	
32.	Powergrid works associated with Common Transmission System for Phase-II Generation Project in Odisha	S/s			789.32	310.37	
33.	Common system associated with East Coast energy Pvt Ltd & NCC power projects Ltd LTOA generation projects in Srikakulam area Par	S/s			367.94	263.32	
34.	Common system associated with East Coast energy Pvt Ltd & NCC power projects Ltd LTOA generation projects in Srikakulam area Par	TL			2942.31	2105.72	

Details of incidental Expenses During Construction (IEDC) including compensation, employee expenses and other expenses for assets achieving COD post 01.04.2017							
Name of Transmission Company:		Power Grid Corporation of India Limited					
Name of Transmission Region:		Eastern Region					
Sl. No.	Name of Scheme	Sub-station (S/s)/ Transmission Line (TL)	MVA/ Line Length (km)	Compensation (Forest, crop, Tree, PTCC)	Employee Expenses	Administrative & General Expenses	Any other expenses
35.	Common system associated with East Coast energy Pvt Ltd & NCC power projects Ltd LTOA generation projects in Srikakulam area Par	S/s			54.43	39.41	
36.	Common system associated with East Coast energy Pvt Ltd & NCC power projects Ltd LTOA generation projects in Srikakulam area Par	TL			408.87	296.02	
37.	ERSS XI	S/s			188.82	109.32	
38.	ERSS XI	S/s			197.62	99.79	
39.	Powergrid works associated with TBCB Lines under Common Transmission System for Phase-II Generation Project in Odisha	S/s			138.52	198.76	
40.	ERSS-IX	S/s			29.91	8.78	
41.	ERSS-IX	S/s			14.44	2.08	
42.	ERSS XII	S/s			27.39	0.00	
43.	ERSS XII	S/s			32.64	0.00	
44.	ERSS XVII, Part- B	S/s			2.97	1.44	
45.	ERSS XVII, Part- B	S/s			14.00	6.81	
46.	ERSS XVII, Part- B	S/s			61.53	29.94	
47.	ERSS XVII, Part- B	S/s			14.80	7.20	
48.	ERSS XVII, Part- B	S/s			59.44	28.92	
49.	Communication system under Eastern Region Fibre Optic Expansion Project(Additional Requirement)	S/s			14.61	22.12	
50.	ERSS-V	S/s			9.84	29.37	
51.	SCADA	ULDC			5.58	3.10	
52.	SCADA	ULDC			3.64	1.68	
53.	SCADA	ULDC			1.22	0.76	
54.	SCADA	ULDC			0.33	0.27	
55.	ULDC replacement	ULDC			10.19	2.25	
56.	ERSS-VII	S/s			0.00	0.01	
57.	SCADA	ULDC			1.54	0.92	
58.	HVDC-Pole3&4	TL			78.80	42.99	
59.	HVDC-Pole3&4	TL			201.40	103.77	
60.	ERSS-IX	S/s			6.66	10.36	
61.	ERSS XIV	S/s			1.75	1.17	
62.	SCADA	ULDC			0.00	2.21	
63.	ERSS XV	S/s			0.40	0.74	
64.	ERSS XV	S/s			9.76	7.53	
65.	ULDC Expansion (274)	ULDC			0.47	0.27	
66.	ULDC Expansion (274)	ULDC			0.55	0.35	
67.	ERSS XIV	S/s			21.42	23.99	
68.	ERSS XV	S/s			3.07	2.26	
69.	ERSS XV	TL			10.36	10.50	
70.	ERSS XV	S/s			4.13	1.88	
71.	ERSS XV	TL			31.43	28.20	
72.	ERSS V	S/s			273.58	106.64	
73.	ERSS V	TL			44.67	17.15	
74.	ERSS V	S/s			34.47	13.27	
75.	ERSS V	S/s			34.47	13.27	
76.	ULDC MW Replacement	ULDC			11.53	7.98	
77.	URTDSM	ULDC			45.93	101.11	
78.	URTDSM	ULDC			5.24	11.52	
79.	ERSS XVII B	S/s			6.50	8.66	
80.	ERSS V	S/s			116.76	59.55	
81.	ERSS V	TL			962.83	695.27	

Details of incidental Expenses During Construction (IEDC) including compensation, employee expenses and other expenses for assets achieveing COD post 01.04.2017							
Name of Transmission Company:		Power Grid Corporation of India Limited					
Name of Transmission Region:		Eastern Region					
Sl. No.	Name of Scheme	Sub-station (S/s)/ Transmission Line (TL)	MVA/ Line Length (km)	Compensation (Forest, crop, Tree, PTCC)	Employee Expenses	Administrative & General Expenses	Any other expenses
82.	ERSS XX	S/s			21.19	4.38	
83.	ERSS XX	S/s			28.48	6.30	
84.	ULDC Expanssion (274)	ULDC			0.87	0.37	
85.	Development of pooling station in Northern part of W.B. and transfer of power from Bhutan to NR/WR	TL			620.63	316.31	
86.	ERSS V	S/s			48.38	15.18	
87.	ERSS V	S/s			871.51	551.05	
88.	ERSS V	TL			1867.93	593.47	
89.	ERSS XX	S/s			83.63	17.40	
90.	ERSS XX	S/s			29.12	45.53	
91.	ERSS XX	TL			367.93	575.21	
92.	ERSS XVII-B	S/s			197.22	4.92	
93.	ULDC expansion 274	ULDC			11.18	0.64	
94.	ERSS XV	S/s			86.07	-2.92	
95.	ERSS XV	TL			9.39	-0.31	
96.	Mangdechu-390	TL			377.95	542.29	
97.	ERSS XVII-B	S/s			210.67	93.72	
98.	ERSS XVII-B	S/s			156.45	65.59	
99.	ERSS XX	S/s			22.80	424.83	
100.	ERSS XXIII	TL			18.20	261.32	
101.	ERSS XXIII	S/s			7.14	102.48	
102.	Sikkim-B1 (477)	TL			116.30	922.68	
103.	SKMB-257	S/s			34.89	5.32	

Details of Capital Cost of Transmission Line							
Name of Transmission Company:			Power Grid Corporation of India Limited				
Name of Transmission Region:			Eastern Region				
SI No.	Year	Configuration	Length (km)	Total Cost	Cost/km	Cost/ckt-km	
1	2013-14	HVDC					
		a) S/C	0.00				
		765 kV					
		a) S/C	0.00				
		b) D/C					
		765 kV Charged at 400 KV					
		a) S/C	0.00				
		400 kV					
		a) S/C	0.00				
		b) D/C	299.65				
		c)D/C on M/C	0.00				
		d)Multi Circuit	0.00				
		400 kV Charged at 220 KV					
		a) D/C	0.00				
		220 kV					
		a) S/C	0.00				
		b) D/C	0.00				
		Up to 132 kV					
		a) S/C	0.00				
		b) D/C	0.00				
2	2014-15	HVDC					
		a) S/C	0.00				
		765 kV					
		a) S/C	502.98				
		b) D/C					
		765 kV Charged at 400 KV					
		a) S/C	0.00				
		400 kV					
		a) S/C	0.00				
		b) D/C	462.74				
		c)D/C on M/C	0.00				
d)Multi Circuit	42.02						

Details of Capital Cost of Transmission Line			
Name of Transmission Company:		Power Grid Corporation of India Limited	
Name of Transmission Region:		Eastern Region	
		400 kV Charged at 220 KV	
		a) D/C	0.00
		220 kV	
		a) S/C	0.00
		b) D/C	0.00
		Up to 132 kV	
		a) S/C	0.00
		b) D/C	4.75
3	2015-16	HVDC	
		a) S/C	0.00
		765 kV	
		a) S/C	272.00
		b) D/C	
		765 kV Charged at 400 KV	
		a) S/C	0.00
		400 kV	
		a) S/C	0.00
		b) D/C	436.45
		c)D/C on M/C	0.00
		d)Multi Circuit	0.00
		400 kV Charged at 220 KV	
		a) D/C	0.00
		220 kV	
		a) S/C	0.00
		b) D/C	46.52
		Up to 132 kV	
		a) S/C	0.00
		b) D/C	0.00
4	2016-17	HVDC	
		a) S/C	0.00
		765 kV	
		a) S/C	273.18
		b) D/C	
		765 kV Charged at 400 KV	
		a) S/C	0.00

Details of Capital Cost of Transmission Line			
Name of Transmission Company:		Power Grid Corporation of India Limited	
Name of Transmission Region:		Eastern Region	
		400 kV	
		a) S/C	0.00
		b) D/C	313.00
		c)D/C on M/C	0.00
		d)Multi Circuit	28.05
		400 kV Charged at 220 KV	
		a) D/C	0.00
		220 kV	
		a) S/C	0.00
		b) D/C	0.00
		Up to 132 kV	
		a) S/C	0.00
		b) D/C	0.00
5	2017-18	HVDC	
		a) S/C	0.00
		765 kV	
		a) S/C	0.00
		b) D/C	
		765 kV Charged at 400 KV	
		a) S/C	0.00
		400 kV	
		a) S/C	0.00
		b) D/C	366.52
		c)D/C on M/C	0.00
		d)Multi Circuit	0.00
		400 kV Charged at 220 KV	
		a) D/C	0.00
		220 kV	
		a) S/C	0.00
		b) D/C	2.50
		Up to 132 kV	
		a) S/C	0.00
		b) D/C	0.00
6	2018-19	HVDC	
		a) S/C	0.00

Data separately not available/maintained

Details of Capital Cost of Transmission Line			
Name of Transmission Company:		Power Grid Corporation of India Limited	
Name of Transmission Region:		Eastern Region	
		765 kV	
		a) S/C	0.00
		b) D/C	
		765 kV Charged at 400 KV	
		a) S/C	0.00
		400 kV	
		a) S/C	0.00
		b) D/C	182.16
		c)D/C on M/C	0.00
		d)Multi Circuit	0.00
		400 kV Charged at 220 KV	
		a) D/C	0.00
		220 kV	
		a) S/C	0.00
		b) D/C	0.00
Up to 132 kV			
a) S/C	0.00		
b) D/C	0.00		
7	2019-20	HVDC	
		a) S/C	0.00
		765 kV	
		a) S/C	0.00
		b) D/C	
		765 kV Charged at 400 KV	
		a) S/C	0.00
		400 kV	
		a) S/C	0.00
		b) D/C	291.75
		c)D/C on M/C	0.00
		d)Multi Circuit	0.00
		400 kV Charged at 220 KV	
		a) D/C	0.00
		220 kV	
		a) S/C	0.00

Details of Capital Cost of Transmission Line			
Name of Transmission Company:		Power Grid Corporation of India Limited	
Name of Transmission Region:		Eastern Region	
		b) D/C	0.00
		Up to 132 kV	
		a) S/C	0.00
		b) D/C	0.00
8	2020-21	HVDC	
		a) S/C	0.00
		765 kV	
		a) S/C	0.00
		b) D/C	
		765 kV Charged at 400 KV	
		a) S/C	0.00
		400 kV	
		a) S/C	0.00
		b) D/C	297.43
		c)D/C on M/C	0.00
		d)Multi Circuit	0.00
		400 kV Charged at 220 KV	
		a) D/C	0.00
		220 kV	
		a) S/C	0.00
		b) D/C	0.00
		Up to 132 kV	
		a) S/C	0.00
		b) D/C	0.00
9	2021-22	HVDC	
		a) S/C	0.00
		765 kV	
		a) S/C	0.00
		b) D/C	
		765 kV Charged at 400 KV	
		a) S/C	0.00
		400 kV	
		a) S/C	0.00
		b) D/C	179.19
		c)D/C on M/C	0.00

Details of Capital Cost of Transmission Line			
Name of Transmission Company:		Power Grid Corporation of India Limited	
Name of Transmission Region:		Eastern Region	
	d)Multi Circuit	0.00	
	400 kV Charged at 220 KV		
	a) D/C	0.00	
	220 kV		
	a) S/C	0.00	
	b) D/C	0.00	
	Up to 132 kV		
	a) S/C	0.00	
	b) D/C	0.00	

Details of Capital Cost of Transmission Line							
Name of Transmission Company:				Power Grid Corporation of India Limited			
Name of Transmission Region:				Eastern Region			
SI No.	Year	Configuration	MVA Capacity	No. of Bays	Total Cost	Cost/MVA	Cost/bays
1	2013-14	765kV	1500	5	Data separately not available/maintained		
		400kV		42			
		220kV		0			
		132kV		1			
		HVDC		0			
2	2014-15	765kV	4500	16			
		400kV	3105	37			
		220kV	460	17			
		132kV		6			
		HVDC		0			
3	2015-16	765kV	6000	8			
		400kV	1500	20			
		220kV	800	14			
		132kV		1			
		HVDC		0			
4	2016-17	765kV		5			
		400kV	3000	32			
		220kV		4			
		132kV		0			
		HVDC		0			
5	2017-18	765kV		2			
		400kV	3260	32			
		220kV	320	11			
		132kV		2			
		HVDC		28			
6	2018-19	765kV	1500	8			
		400kV	1315	38			
		220kV		16			
		132kV		2			
		HVDC		0			
7	2019-20	765kV	3000	11			
		400kV	2445	23			
		220kV	160	5			
		132kV		2			
		HVDC		0			
8	2020-21	765kV		4			
		400kV	1630	8			
		220kV		1			
		132kV		0			
		HVDC		0			
9	2021-22	765kV		0			
		400kV	1445	11			
		220kV	100	2			
		132kV		1			
		HVDC		0			