

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:		Northern 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	No.					
	(1) 765 kV		13	15	16	17.5	19
	(2) 400 kV		49	49.5	50	49.5	49.5
	(3) 220 kV		3	3	5	7	7
	(4) 132 kV		0	0	0	0	0
(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		38500	42500	48250	55850	62450
	(2) 400 kV		48885	52357.5	56080	57737.5	62395
	(3) 220 kV		800	900	1100	1300	1300
	(4) 132 kV		0	0	0	0	0
(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					
3.	Number of bays in each AC Substation in operation	No.					
	(1) 765 kV		117.5	139.5	163.5	186.5	201.5
	(2) 400 kV		741.5	779.5	805.5	826	856.5
	(3) 220 kV		410.5	425	446.5	460.5	485
	(4) 132 kV		19	19	28.5	38	38
(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.					
4.	Ckt-km of AC lines in operation	No.					
	(1) 765 kV		5594.55	6194.29	7158.87	8134.63	8595.01
	(2) 765 kV charged at 400 KV		960.87	960.87	960.87	783.71	606.55
	(3) 400 kV		28043.32	29102.61	29661.33	29811.05	29973.97
	(4) 400 kV Charged at 220 KV		471.51	471.51	471.51	471.51	471.51
	(5) 220 kV		4522.74	4790.58	5130.89	5246.09	5246.09
	(6) Upto 132 kV		320.33	338.67	357.01	357.01	357.01
(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.					
Total number of employees* engaged in O&M of Sub-station							
(1) 765 kV		257	320	334	372	398	

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Sl. No.	Particulars	Units	2017-18	2018-19	2019-20	2020-21	2021-22
5.	(2) 400 kV	No.	682	907	925	830	755
	(3) 220 kV		40	45	43	41	45
	(4) 132 kV		0	0	0	0	0
	(1) 765 kV	Cost (Rs. Lakhs)	5910	6567	7497	8863	9372
	(2) 400 kV		15683	18612	20764	19774	17778
	(3) 220 kV		920	923	965	977	1060
	(4) 132 kV		0	0	0	0	0
(Nomenclature are as per highest available voltage level)							
6.	Total number of employees* engaged in O&M of Transmission						
	(1) 765 kV	No.	197	171	183	174	202
	(2) 400 kV		317	440	458	422	445
	(3) 220 kV		27	13	14	19	27
	(4) 132 kV		0	0	0	0	0
	(1) 765 kV	Cost (Rs. Lakhs)	4530	3509	4108	4145	4757
	(2) 400 kV		7290	9029	10281	10054	10479
	(3) 220 kV		621	267	314	453	636
(4) 132 kV	0		0	0	0	0	
(Nomenclature are as per highest available voltage level)							
7.	Auxiliary Power Consumption (excluding colony power)	MU					
	(1) 765 kV		15.15	13.81	15.62	15.97	19.06
	(2) 400 kV		35.61	36.94	36.23	36.59	37.05
	(3) 220 kV		1.05	1.09	1.82	1.89	2.62
	(4) 132 kV		0	0	0	0	0
(Nomenclature are as per highest available voltage level)							
8.	Colony Power Consumption	MU					
	(1) 765 kV		1.65	0.59	0.62	0.62	0.68
	(2) 400 kV		5.22	4.79	4.60	5.19	5.48
	(3) 220 kV		0.17	0.22	0.36	0.40	0.44
	(4) 132 kV		0	0	0	0	0
(Nomenclature are as per highest available voltage level)							
9.	Spare ICTs/Reactors						
	(1) 765 kV	No.	2	1	1	1	0
		Cost (Rs.)	2934	1501	1139	1336	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)			Asset capitalised in the concerned FY is considered.				
10.	Spare Smoothing Reactors						
	(1) 765 kV	No.	0	0	0	0	0
	(2) 400 kV smoothing reactor	No.	0	0	0	0	0
	(3) 220 kV	No.	0	0	0	0	0

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Sl. No.	Particulars		Units	2017-18	2018-19	2019-20	2020-21	2021-22
	(4)	132 kV	No.	0	0	0	0	0
	(Nomenclature are as per highest available voltage level)							
11.	ICTs							
	(1)	765 kV	No.	26.5	29.5	33.5	39.5	45
			Cost (Rs. Lakhs)	Data separately not available/ maintained				
	(2)	400 kV	No.	135	142.5	150.5	154	163.5
			Cost (Rs. Lakhs)	Data separately not available/ maintained				
	(3)	220 kV	No.	7	7	10.5	14	14
			Cost (Rs. Lakhs)	Data separately not available/ maintained				
	(4)	132 kV	No.	0	0	0	0	0
		Cost (Rs. Lakhs)	Data separately not available/ maintained					
	(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.				
12.	Reactors							
	(1)	765 kV	No.	60	70.5	79.5	87.5	94
			Cost (Rs. Lakhs)	Data separately not available/ maintained				
	(2)	400 kV	No.	183.5	194.5	201	202.5	207.5
			Cost (Rs. Lakhs)	Data separately not available/ maintained				
	(3)	220 kV	No.	0	0.5	1	1.5	5.5
			Cost (Rs. Lakhs)	Data separately not available/ maintained				
	(4)	132 kV	No.	0	0	0	0	0
		Cost (Rs. Lakhs)	Data separately not available/ maintained					
	(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.				
13.	±200 MVAR STATCOM		No.	0.00	1.00	0.00	0.00	0.00
			Cost (Rs. Lakhs)	-	13,557.61	-	-	-
	±300 MVAR STATCOM		No.	0.00	1.00	0.00	0.00	0.00
			Cost (Rs. Lakhs)	-	21,464.62	-	-	-
	Asset capitalised in the concerned FY is considered.							
14.	Average outage duration for							
	A. Transmission Lines							
	(1)	765 kV		54.657	43.505	38.745	57.500	34.634
	(2)	400 kV		14.973	15.139	30.976	46.817	19.521
	(3)	220 kV		5.231	15.029	25.470	13.953	13.383
	(4)	132 kV		0.851	13.252	5.008	1.202	9.090
	B. Transformers							
	(1)	765 kV		13.698	12.945	12.059	9.440	22.912
(2)	400 kV	Hours/ year	9.199	38.841	28.700	17.532	23.180	
(3)	220 kV		3.267	8.293	4.736	5.939	14.049	
(4)	132 kV		0	0	0	0	0	

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Sl. No.	Particulars	Units	2017-18	2018-19	2019-20	2020-21	2021-22
	C. Reactors						
	(1) 765 kV		1.409	2.516	3.992	2.163	2.737
	(2) 400 kV		1.249	9.640	4.135	1.050	1.216
	(3) 220 kV		0	0	0	0	0.680
	(4) 132 kV		0	0	0	0	0
	(Nomenclature are as per highest available voltage level)						
15.	Cost of Initial spares (for S/S)	(Rs. In Lakhs)					
	A. Capitalized						
	(1) 765 kV		12494.86	4968.2	4965.3	5310.9	7981.7
	(2) 400 kV						
	(3) 220 kV						
	(4) 132 kV						
	B. In Stock		Data seperately not available/ maintained				
	(1) 765 kV						
	(2) 400 kV						
	(3) 220 kV						
	(4) 132 kV						
	C. Cost of initial spares consumed		Data seperately not available/ maintained				
	(1) 765 kV						
	(2) 400 kV						
(3) 220 kV							
(4) 132 kV							
16.	Cost of O&M spares Consumed (for S/s)	(Rs. In Lakhs)					
	(1) 765 kV		8,027.48	2,633.00	2,682.00	2,735.00	2,269.00
	(2) 400 kV						
	(3) 220 kV						
	(4) 132 kV						
	(Nomenclature are as per highest available voltage level)						
17.	Cost of Initial spares (for Lines)	(Rs. In Lakhs)					
	A. Capitalized						
	(1) 765 kV		4573.36	3178.75	1986.5	65.49	1279.22
	(2) 400 kV						
	(3) 220 kV						
	(4) 132 kV						
	B. In Stock		Data seperately not available/ maintained				
	(1) 765 kV						
	(2) 400 kV						
	(3) 220 kV						
	(4) 132 kV						
	C. Cost of initial spares consumed		Data seperately not available/ maintained				
	(1) 765 kV						
	(2) 400 kV						
(3) 220 kV							
(4) 132 kV							

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Name of Transmission Region:		Northern 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
18.	Cost of O&M spares Consumed (for Lines)		(Rs. In Lakhs)					
	(1)	765 kV		3,931.46	4,391.00	2,949.00	2,995.00	1,308.00
	(2)	400 kV						
	(3)	220 kV						
	(4)	132 kV						
(Nomenclature are as per highest available voltage level)								

Note:* Executive & Non-Executive ~~/contract labour~~

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

Name of Transmission Company:		Power Grid Corporation of India Limited					
Name of Transmission Region:		Northern Region					
Rihand:-							
Sl.	Particulars	Units	2017-18	2018-19	2019-20	2020-21	2021-22
1	Total number of employees* engaged in sub-station O&M	Nos.	18	16	19	19	19
		Cost (Rs in	385.26	437.73	428.71	425.46	553.99
2	Total number of employees* engaged in O&M of Transmission	(No. & cost)	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).				
3.	Auxiliary power consumption (excluding	(MU)	5.480	4.531	4.511	4.426	4.171
4.	Colony power consumption	(MU)	Employees residing in NTPC Colony				
5.	Outage duration for Rihand - Dadri HVDC	Pole-days	13.94	2.09	0.25	1.31	1.82
6.	Load curtailment	MW - days	N/A				
7.	Cost of initial spares						
	a) Capitalized		0	0	0	0	0
	b) In Stock	(Rs. in lakh)	Data seperately not available/ maintained				
	c) Consumed		Data seperately not available/ maintained				
8.	Cost of O&M spares consumed	(Rs. in lakh)	110.06	88.00	307.00	78.00	171.00

Dadri:-							
Sl.	Particulars	Units	2017-18	2018-19	2019-20	2020-21	2021-22
1	Total number of employees* engaged in sub-station O&M	Nos.	22	23	23	22	21
		Cost (Rs in	470.87	507.78	681.68	433.31	691.92
2	Total number of employees* engaged in O&M of Transmission	(No. & cost)	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).				
3.	Auxiliary power consumption (excluding	(MU)	5.95	5.20	5.20	4.73	5.05
4.	Colony power consumption	(MU)	Employees residing in NTPC Colony				
5.	Outage duration for Rihand - Dadri HVDC	Pole-days	13.94	2.09	0.25	1.31	1.82
6.	Load curtailment	MW - days	N/A				
7.	Cost of initial spares	(Rs. in lakh)					
	a) Capitalized		0	0	0	0	0
	b) In Stock		Data seperately not available/ maintained				
	c) Consumed		Data seperately not available/ maintained				
8.	Cost of O&M spares consumed	(Rs. in lakh)	123.01	191.00	140.00	96.00	133.00

Bhiwadi:-							
Sl.	Particulars	Units	2017-18	2018-19	2019-20	2020-21	2021-22
1	Total number of employees engaged in sub-station O&M	Nos.	11	21	18	19	20
		Cost (Rs in	409.72	312.78	440.03	383.40	434.35
2	Total number of employees engaged in O&M of Transmission	(No. & cost)	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).				
3.	Auxiliary power consumption (excluding	(MU)	8.300	7.023	6.263	6.204	5.386
4.	Colony power consumption	(MU)	0.348	0.242	0.266	0.237	0.255
5.	Outage duration for Balia - Bhiwadi HVDC	Pole-days	24.97	7.69	3.13	3.98	1.51
6.	Load curtailment	MW - days	N/A				
7.	Cost of initial spares						
	a) Capitalized	(Rs. in lakh)	0.00	0.00	0.00	0.00	0.00
	b) In Stock		Data seperately not available/ maintained				
	c) Consumed		Data seperately not available/ maintained				
8.	Cost of O&M spares consumed	(Rs. in lakh)	194.22	207.00	108.00	238.00	163.00

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

Name of Transmission Company:		Power Grid Corporation of India Limited					
Name of Transmission Region:		Northern Region					
Ballia:-							
Sl.	Particulars	Units	2017-18	2018-19	2019-20	2020-21	2021-22
1	Total number of employees engaged in sub-station O&M	Nos.	20	12	22	21	24
		Cost (Rs in	465.91	228.53	242.87	217.33	185.32
2	Total number of employees engaged in O&M of Transmission	(No. & cost)	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).				
3.	Auxiliary power consumption (excluding	(MU)	6.450	7.467	6.980	5.194	5.145
4.	Colony power consumption	(MU)	0.463	0.467	0.442	0.358	0.395
5.	Outage duration for Balia - Bhiwadi HVDC	Pole-days	24.97	7.69	3.13	3.98	1.51
6.	Load curtailment	MW - days	N/A				
7.	Cost of initial spares						
	a) Capitalized	(Rs. in lakh)	0.00	0.00	0.00	0.00	0.00
	b) In Stock		Data seperately not available/ maintained				
	c) Consumed		Data seperately not available/ maintained				
8.	Cost of O&M spares consumed	(Rs. in lakh)	161.85	0.00	53.00	245.00	87.00

Vindhyachal							
Sl.	Particulars	Units	2017-18	2018-19	2019-20	2020-21	2021-22
1	Total number of employees engaged in sub-station O&M	Nos.	16	22	23	23	22
		Cost (Rs in	342.45	427.98	459.28	562.21	563.04
2	Total number of employees engaged in O&M of Transmission	(No. & cost)	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).				
3.	Auxiliary power consumption (excluding	(MU)	5.557	4.848	4.205	5.458	5.272
4.	Colony power consumption	(MU)	Employees residing in NTPC Colony				
5.	Outage duration	Pole-days	69.72	185.06	23.62	1.61	4.84
6.	Load curtailment	MW - days	N/A				
7.	Cost of initial spares	(Rs. in lakh)					
	a) Capitalized		0	0	0	0	0
	b) In Stock		Data seperately not available/ maintained				
	c) Consumed		Data seperately not available/ maintained				
8.	Cost of O&M spares consumed	(Rs. in lakh)	155.38	22.00	38.00	158.00	76.00

Agra							
Sl.	Particulars	Units	2017-18	2018-19	2019-20	2020-21	2021-22
1	Total number of employees engaged in sub-station O&M	Nos.	18	22	26	27	24
		Cost (Rs in	385.26	965.48	911.64	751.47	784.96
2	Total number of employees * engaged in O&M of Transmission	(No. & cost)	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).				
3.	Auxiliary power consumption (excluding	(MU)	17.940	18.208	15.696	16.850	18.251
4.	Colony power consumption	(MU)	0.35	0.448	0.463	0.279	0.296
5.	Outage duration for Biswanath Chairali - Agra	Pole-days	21.28	1.51	1.58	4.32	20.01
	Outage duration for Alipurduar - Agra HVDC	Pole-days	14.98	2.50	1.71	0.51	20.51
6.	Load curtailment	MW - days	N/A				
7.	Cost of initial spares	(Rs. in lakh)					
	a) Capitalized		0.00	0.00	0.00	0.00	0.00
	b) In Stock		Data seperately not available/ maintained				
	c) Consumed		Data seperately not available/ maintained				
8.	Cost of O&M spares consumed	(Rs. in lakh)	246.02	425.00	203.00	427.00	148.00

Kurukshetra							
Sl.	Particulars	Units	2017-18	2018-19	2019-20	2020-21	2021-22

Table-2- Station wise information (average for the year) for HVDC system							
Name of Transmission Company:		Power Grid Corporation of India Limited					
Name of Transmission Region:		Northern Region					
1	Total number of employees engaged in sub-station O&M		18	51	39	36	34
		Cost (Rs in	385.26	488.86	324.33	510.52	709.02
2	Total number of employees* engaged in O&M of Transmission	(No. & cost)	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).				
3.	Auxiliary power consumption (excluding	(MU)	11.850	10.641	12.258	16.626	16.291
4.	Colony power consumption	(MU)	NA	NA	0.149	0.153	0.171
5.	Outage duration for Champa- Kurukshetra	Pole-days	17.56	18.24	11.05	9.54	10.78
6.	Load curtailment	MW - days	Data seperately not available/ maintained				
7.	Cost of initial spares	(Rs. in lakh)					
	a) Capitalized		1800	857.99	3687.79	1358.76	1614.45
	b) In Stock		Data seperately not available/ maintained				
	c) Consumed		Data seperately not available/ maintained				
8.	Cost of O&M spares consumed	(Rs. in lakh)	155.38	0.00	0.00	16.00	46.00

*Pole 1 Champa-Kurukshetra HVDC commissioned during 2016-17. Pole 2 Commissioned in 2017-18 and Pole 3 & 4 Commissioned during 2019-20.

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: Northern 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.)	117.5	164.0	188.0	211.0	250.0
2.	Average length of OPGW links in operation	(in Kms.)	6340.42	7991.94	8306.65	9629.42	12399.73
3.	Number of Remote Terminal Units(RTUs)	(No.)	42	42	42	29	15
4.	Number of PLCC links	(No.)	12	11	5	3	2
5.	Number of OPGW links	(No.)	112	125	125	140	167
6.	Number of Auxiliary Power Supply(DC) Nodes	(No.)	30	47	48	53	61
7.	Number of employees engaged in O&M of RTU and Communication System						
	1) Executive		6	6	6	8	6
	2) Non executive	(No.)	2	4	3	4	4
	3) outsourced		20	27	30	39	43
8.	Average outage duration for	(hours /year)					
	a) Wideband Communication	0	289.63	271.56	245.28	219.91	183.96
	b) RTUs		332.24	297.84	271.56	219	131.4
	c) PLCC		0	0	0	0	0
	d) Auxiliary Power Supply System		0	0	0	0	0
9.	Cost of Initial spares						
	a) Capitalized	(Rs.in lakh)	463.49	629.06	117.34	569.49	630.584
	b) In Stock		541	1006.02	851.36	1271.85	1688.49
	c) Consumed		30	164	272	149	214
10.	Cost of O&M spares Consumed	(Rs.in lakh)	76	0	140.98	12.76	2.35
11.	Number of PMU installed in the region	(No.)	179	377	377	418	418
12.	O & M expenses of PMU incurred in the region	(Rs.in lakh)	0	31.03	138.73	175.44	383.73

(Note: separate note on utilization of PMU is to be given along with benefit availed during the year)

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

Name of Transmission Company:		POWER GRID TRANSMISSION OF INDIA LIMITED				
Name of Transmission Region:		Northern Region				
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	6605.27	11128.14	10805.05	11369.10	11852.31
2)	Consumption of Stores (not capitalized)	13104.87	11420.38	11002.93	12692.12	8263.21
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)	8714.75	9986.91	10998.98	9647.25	9196.50
6)	Expenses of Diesel Generating sets	94.07	131.30	118.12	96.00	99.29
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)	28518.97	32666.73	32925.08	33804.47	29411.31
2.0	Administrative & General Expenses:					
1)	Insurance	4629.59	5675.03	5436.57	6471.52	5313.44
2)	Security (General other than special)	6759.22	7549.22	7594.60	7771.62	8327.96
3)	Rent	202.72	1022.76	2553.22	1711.16	1748.12
4)	Electricity Charges	Included in 1.0(5)				
5)	Traveling and conveyance	1842.83	2446.89	2486.79	1859.98	2155.16
6)	Communication expenses	249.91	364.20	513.56	428.98	540.18
7)	Advertisement and publicity	618.70	609.98	563.99	244.16	380.34
8)	Foundation laying and inauguration	2.05	0.00	0.00	0.00	0.00
9)	Books Periodicals and Journals	9.31	50.47	36.61	21.44	34.82
10)	Research expenses	0.00	122.43	235.09	106.25	10.15
11)	Cost Audit Fees	38.31	34.77	34.16	34.83	29.39
12)	Horticulture Expenses	855.93	1011.77	1292.47	1265.59	1640.64
13)	Bandwidth charges dark fibre lease charges (Telecom) etc	1844.86	2069.64	1801.14	1849.22	1791.26
14)	Donations expenses	0.00	0.25	0.00	0.00	0.00
15)	Entertainment expenses	70.15	64.87	79.11	94.80	114.40
16)	Filing Fees	1972.27	2227.88	2441.26	2251.87	2679.57
17)	Legal Expenses	495.27	850.39	377.00	443.64	345.20
18)	Consultancy Expenses	34.82	-27.83	76.35	2.01	-3.56
19)	Professional charges (not covered under employee expenses)	52.46	320.95	320.35	302.84	482.22
20)	Printing and Stationary	84.22	143.66	145.43	92.59	138.03
21)	Hiring of Vehicle (excluding construction & Corporate exp)	3172.06	3275.85	1476.66	2002.34	2916.19
22)	Training and Recruitment expenses	466.73	827.91	1350.45	1271.73	1266.74
23)	Rates and taxes	406.28	1047.51	1219.47	1040.73	1030.79
24)	Rebate to Customers	6238.68	6083.36	3816.90	35126.75	5003.65
25)	Self Insurance Reserve	6729.10	7166.33	7835.71	8006.55	8502.96
26)	Provisions (Provide details)	0.00	0.00	0.00	0.00	0.00
27)	Prior Period Adjustment , if any	0.00	0.00	0.00	0.00	0.00
28)	Any other A&G expenses (Provide details)	9752.04	35678.52	-9406.85	2232.72	3350.60
	Sub-total(A&G Expenses)	46527.50	78616.81	32280.05	74633.33	47798.25
3.0	Employee Expenses					
1)	Salaries, wages and allowances	29187.64	22029.23	27631.14	26142.05	26447.37
2)	Staff welfare expenses					
a)	Contribution to Provident and other funds	1386.66	5206.98	4056.01	7701.33	6108.52
b)	Gratuity	-1504.97	-259.16	122.54	97.15	90.55
c)	Pension	1503.23	280.10	302.04	271.35	260.50
d)	Employee Medical Expenses	1930.08	2516.58	1680.86	1606.67	2120.82

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

Name of Transmission Company:		POWER GRID TRANSMISSION OF INDIA LIMITED				
Name of Transmission Region:		Northern Region				
Sr.No	ITEM	2017-18	2018-19	2019-20	2020-21	2021-22
1	2	3	4	5	6	7
	e) Liveries and Uniforms	143.60	771.54	1844.79	713.35	662.35
	f) Safety & Appliances expenses	150.03	149.06	44.85	156.35	166.24
	g) Others	1248.67	2099.87	2091.92	1481.00	3029.99
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)	3753.22	9482.62	9643.17	9380.58	9117.31
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 to 20	0	0	0	0	0
	Sub-total(Employee Expenses)	37798.17	42276.83	47417.64	47549.83	48003.65
4.0	Additional /Specific Security it any on the advise of Govt. Agency/ Statutory Authority/ any other reasons	1502.00	1547.96	2254.34	2342.78	3488.44
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	13037.83	9793.92	8454.53	8876.58	8702.40
	(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	3361.09	7184.38	10250.92	6851.77	8251.38
10.0	- Others (Specify items not included above)	0	0	0	0	0
	Sub Total (1 to 10)	130745.55	172086.63	133582.57	174058.76	145655.43
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	130745.55	172086.63	133582.57	174058.76	145655.43
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)	1057.78	To be claimed separately			
14	Total Expenses (12) + (13A)	131803.33	172086.63	133582.57	174058.76	145655.43

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

Name of Transmission Company:		POWER GRID TRANSMISSION OF INDIA LIMITED				
Name of Transmission Region:		Northern Region				
Sr.No	ITEM	2017-18	2018-19	2019-20	2020-21	2021-22
1	2	3	4	5	6	7
Notes						
	I. The details of Corporate Expenses and the methodology of allocation of corporate expenses to various functional					
	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 , rate					
	IX. Details of capital spares consumed each year which were not claimed/allowed in the tariff should be furnished					

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	37.03	104.24	157.90	91.23	102.83
2	EDP Expenses	115.26	548.14	328.77	323.51	346.53
3	Miscellaneous Expenses	1,797.38	262.36	-177.03	680.73	3,147.11
4	Bad Debts Expenses	-	11,634.90	0.19	17.16	-46.74
5	FERV Expense	7,802.37	23,128.88	-9,716.69	1,120.10	-199.14
	Total	9,752.04	35,678.52	-9,406.85	2,232.72	3,350.60

Name of Transmission Company:		Power Grid Corporation of India Limited	
Name of Transmission Region:		Northern Region	
Sl No	Particulars	Year	Reason
1	Repairs of Plant & Machinery	2018-19	Due to increase in transmission assets under O&M stage-04 new 765 kV Substation commissioned during FY 2017-18. Aging of Transmission System requiring more maintenance.
2	Power Charges (electricity consumed for repairing activity)	2018-19	Due to increase in transmission assets under O&M stage- 04 new 765 kV Substation commissioned during FY 2017-18. POLE -II of Champa-Kurukhetra HVDC commissioned.
3	Insurance	2018-19	Increase in assets
4	Security (General other than special)	2018-19	Increase in assets
5	Rent	2018-19	Increase in assets
6	Traveling and conveyance	2018-19	Increase in assets
7	Communication expenses	2018-19	Increase in assets
8	Bandwidth charges dark fibre lease charges (Telecom) etc	2018-19	Increase in assets
9	Filing Fees	2018-19	Increase in assets
10	Horticulture Expenses	2018-19	Increase in asset and increase in contract wage rates
11	Legal Expenses	2018-19	increase Legal cost of arbitration and cases
12	Any other A&G expenses (Provide details)	2018-19	provision for bad debts and increase in FERV
13	Rent	2019-20	Creation of Short term lease as per IND AS 116 for hiring of Vehicle
14	6. Communication Expenses	2019-20	Increase due to revision in employee entitlements.
15	Entertainment expenses	2019-20	Increase in assets
16	Horticulture Expenses	2019-20	Increase in asset and increase in contract wage rates
17	Hiring of Vehicle (excluding construction & Corporate exp)	2019-20	Creation of Short term lease as per IND AS 116 for hiring of Vehicle
18	Rates and taxes	2019-20	Increase in transmission assets
19	Rebate to Customers	2019-20	Reduction in rebate due to change of rate from 2% to 1.5% in new tariff block
20	Any other A&G expenses (Provide details)	2019-20	decrease in FERV and decrease of bad debts and increase in rldc Fees
21	Insurance	2020-21	Increase in assets
22	Traveling and conveyance	2020-21	Decrease mainly due to Covid-19 impact
23	6. Communication Expenses	2020-21	Decrease in mobile charges due to covid 19
24	7. Advertisement and publicity	2020-21	Due to reduction in advertisement cost for tender notices due to shift to online mode
25	Entertainment expenses	2020-21	Increase in assets
26	Legal Expenses	2020-21	increase Legal cost of arbitration and cases
27	Printing and Stationary	2020-21	Decrease due to Covid 19
28	Hiring of Vehicle (excluding construction & Corporate exp)	2020-21	Increase in transmission assets
29	Rebate to Customers	2020-21	Increase in rebate due to special covid rebate
30	Any other A&G expenses (Provide details)	2020-21	decrease in ferv
31			
32	Traveling and conveyance	2021-22	Increase in travel due to relaxation of covid norms
33	6. Communication Expenses	2021-22	Increase due to employee entitlements.
34	7. Advertisement and publicity	2021-22	Increase in assets
35	Entertainment expenses	2021-22	Increase in assets
36	Filing Fees	2021-22	Increase in assets
37	Horticulture Expenses	2021-22	Increase in asset and increase in contract wage rates
38	Professional charges (not covered under employee expenses)	2021-22	Increase in brokerage for scrap disposal
39	Hiring of Vehicle (excluding construction & Corporate exp)	2021-22	Increase in transmission assets
40	Rebate to Customers	2021-22	Decrease in rebate due to special covid rebate given in FY 2020-21.
41	Any other A&G expenses (Provide details)	2021-22	Increase in rldc fess on addition of assets

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

Name of Transmission Company:	POWER GRID TRANSMISSION OF INDIA LIMITED
Name of Transmission Region:	Northern 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	6.25	22.26	358.22	461.02	444.77
2)	Consumption of Stores (not capitalized)	12.10	98.50	224.25	0.00	0.00
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)	0.00	0.10	0.16	0.14	0.00
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)	18.35	120.86	582.63	461.16	444.77
2.0	Administrative & General Expenses:					
1)	Insurance	0	0	0	0	0
2)	Security (General other than special)	0	0	0	0	0
3)	Rent	0	0	0.00	-0.12	0.12
4)	Electricity Charges		Included in 1.0(5)			
5)	Traveling and conveyance	3.75	1.01	1.11	2.56	1.22
6)	Communication expenses	0.10	0.86	0.50	1.44	0.37
7)	Advertisement and publicity	0.00	4.38	0.50	23.12	5.44
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	0.29	0.50	0.20
12)	Horticulture Expenses	0	0	0	0	0
13)	Bandwidth charges dark fibre lease charges (Telecom) etc	0	0	78.67	160.97	118.35
14)	Donations expenses	0	0	0	0	0
15)	Entertainment expenses	0.00	0.30	0.55	0.52	0.67
16)	Filing Fees	1.40	1.66	20.62	26.72	17.12
17)	Legal Expenses	0	0	0	0	0
18)	Consultancy Expenses	0	0	0	0	0
19)	Professional charges (not covered under employee expenses)	0	0	0	0.17	1.16
20)	Printing and Stationary	0	0	0.32	0.00	0.00
21)	Hiring of Vehicle (excluding construction & Corporate exp)	0	0	0	0.12	-0.12
22)	Training and Recruitment expenses	4.42	0.05	0.23	0.08	0.13
23)	Rates and taxes	0	0	0	0	0
24)	Rebate to Customers	0	0	16.17	122.51	34.38
25)	Self Insurance Reserve	0	39.36	42.99	48.83	1.87
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)	30.70	30.18	165.65	199.80	-365.18
	Sub-total(A&G Expenses)	40.37	77.81	327.59	587.62	-184.29
3.0	Employee Expenses					
1)	Salaries, wages and allowances	152.39	47.10	85.87	108.34	65.53
2)	Staff welfare expenses		0.30	3.15	3.64	0.88
a)	Contribution to Provident and other funds	7.74	8.03	9.80	12.12	5.15
b)	Gratuity	-8.79	0.25	0.29	0.15	0.00
c)	Pension	12.20	0.22	0.30	0.50	0.21
d)	Employee Medical Expenses	10.58	1.26	0.34	1.50	-0.03

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

Name of Transmission Company:	POWER GRID TRANSMISSION OF INDIA LIMITED
Name of Transmission Region:	Northern Region

(Rs. In Lakhs)

	e) Liveries and Uniforms	0.75	1.08	2.16	2.41	0.54
	f) Safety & Appliances expenses	0.36	0.00	0.03	0.00	0.00
	g) Others	8.79	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)	23.21	-1.67	1.67	4.61	0
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 to 20	0	0	0	0	0
	Sub-total(Employee Expenses)	207.24	56.56	103.62	133.27	72.29
4.0	Additional /Specific Security it any on the advise of Govt. Agency/ Statutory Authority/ any other reasons	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	176.49	243.59	189.11	321.32
	(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)	265.96	431.73	1257.42	1371.17	654.09
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	265.96	431.73	1257.42	1371.17	654.09
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)	265.96	431.73	1257.42	1371.17	654.09

Notes					
:					
	I. The details of Corporate Expenses and the methodology of allocation of corporate expenses to various functional				

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

Name of Transmission Company:	POWER GRID TRANSMISSION OF INDIA LIMITED
Name of Transmission Region:	Northern Region

(Rs. In Lakhs)

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 , rate etc.
IX.	Details of capital spares consumed each year which were not claimed/allowed in the tariff should be furnished giving

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	0.03	-4.36	120.70	212.65	-369.81
4	Bad Debts Expenses	0.00	0.00	0.00	0.00	0.00
5	FERV Expense	30.67	34.54	44.95	-12.85	4.63
	Total	30.70	30.18	165.65	199.80	-365.18

Additional Region-wise Information required from Transmission Licensees

Name of Transmission Company:	Power Grid Corporation of India Limited
Name of Transmission Region:	Northern 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	279.25	279.25	279.25	279.25	279.25
	b) D/C	4667.75	4667.75	4667.75	4667.75	4667.75
2	765 kV					
	a) S/C	4840.41	4508.45	4508.45	4862.77	4862.77
	b) D/C	593.95	925.91	1724.51	1724.51	2028.94
3	765 kV Charged at 400 KV					
	a) S/C	960.87	960.87	960.87	606.55	606.55
4	400 kV					
	a) S/C	5495.36	5495.36	5710.21	5723.71	5723.71
	b) D/C	11775.75	11955.75	11991.29	11991.29	12087.50
	c) M/C	0.00	27.88	27.88	27.88	57.86
5	400 kV Charged at 220 KV					
	a) D/C	235.76	235.76	235.76	235.76	235.76
5	400 kV Charged at 132 KV					
	a) D/C	0.00	0.00	0.00	0.00	0.00
6	220 kV					
	a) S/C	616.77	955.27	955.27	955.27	955.27
	b) D/C	1974.35	2030.21	2145.41	2145.41	2145.41
7	Up to 132 kV					
	a) S/C	58.00	58.00	58.00	58.00	58.00
	b) D/C	131.17	149.51	149.51	149.51	149.51

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	Lapwing D/C	6125.92	6125.93	6125.93	6125.93	6125.93
		Zebra D/C	422.34	1086.26	2683.46	2683.46	3370.32
		Zebra S/C	331.96	0.00	0.00	0.00	0.00
2	Quad	Bersimis S/C	5285.42	5285.42	5285.42	5285.42	5285.42
		Bersimis D/C	765.57	765.57	765.57	765.57	765.57
		Moose D/C	3369.37	3369.37	3387.37	3387.37	3387.37
		Moose S/C	297.70	297.70	297.70	297.70	297.70
		Lapwing D/C	1579.57	1579.57	1579.57	1579.57	1579.57
		Bersimis D/C	2703.62	2703.62	2703.62	2703.62	2703.62
3	Tripple	Snowbird D/C	2198.77	2198.77	2198.77	2198.77	2198.77
		Snowbird S/C	2.35	2.35	2.35	15.85	15.85
4	Twin	Moose D/C	16885.87	17246.09	17299.17	17299.17	17396.17
		Moose S/C	5493.01	5493.01	5707.86	5707.86	5707.86
		Bersimis S/C	52.00	52.00	52.00	52.00	52.00
		Zebra S/C	113.45	113.45	113.45	113.45	113.45
		Enviro Moose D/C	61.70	61.70	61.70	61.70	61.70
		ACAR D/C	481.88	481.88	481.88	481.88	481.88

Additional Region-wise Information required from Transmission Licensees

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

		HTLS D/C	0.00	0.00	0.00	0.00	17.43
		HTLS M/C	0.00	111.52	111.52	111.52	231.04
5	Single	ACSR Zebra D/C	3343.55	3455.268	3685.67	3685.67	3685.67
		ACSR Zebra S/C	237.06	237.057	237.06	237.06	237.06
		Moose D/C	232.51	232.512	232.51	232.51	232.51
		ACKC D/C	66.76	66.762	66.76	66.76	66.76
		AAAC Zebra S/C	317.30	317.297	317.30	317.30	317.30
		AAAC Zebra D/C	257.67	257.666	257.67	257.67	257.67
		Dear S/C	0.00		332.40	332.40	332.40
		Moose S/C	62.42	62.42	62.42	62.42	62.42
		Panther S/C	58.00	58.00	58.00	58.00	58.00
		Panther D/C	262.33	262.334	299.01	299.01	299.01
		220kV Cable				6.10	6.10
Grand Total			51008.10	51923.52	54406.12	54425.73	55346.54

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	15	15	17	18	20
2	400 kV	49	50	50	49	50
3	220 kV	3	3	7	7	7
4	Up to 132 kV	0	0	0	0	0

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	191	191	215	215	215
2	765 kV	134	145	182	191	213
3	400 kV	770	790	821	832	883
4	220 kV	415	434	459	467	504
5	Up to 132 kV	19	19	38	38	38

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

		2017-18	2018-19	2019-20	2020-21	2021-22
	Substation O&M	10438.84	8981.49	16612.18	13936.75	12353.37
	Lines O&M		10456.12	1650.55	5305.83	4741.79
	Security	7398.29	8887.38	9608.08	9900.43	11674.04
	Others	7166.31	35153.85	34546.69	33143.14	38302.40
Grand Total		25003.44	63478.84	62417.50	62286.15	67071.60

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

		2017-18	2018-19	2019-20	2020-21	2021-22
	Total	1,23,862.60	1,56,480.63	1,19,089.51	1,58,373.10	1,28,954.37

Annexure X

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

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:	BHIWADI				
i) No of Employees	11.00	21.00	18.00	19.00	20.00
ii) A&G Expenses	647.89	857.52	784.55	758.42	804.62
iii) Repairs & Maintenance	369.51	769.99	654.59	845.75	852.79
iv) Employee Expenses	409.72	312.78	440.03	383.40	434.35
v) Corporate expenses	Included in Annexure VI-BI				
vi) Other income	0	0	0	0	0
vii) Any other income	0	0	0	0	0
Total Expenditure	1427.12	1940.29	1879.17	1987.57	2091.76

Particulars	2017-18	2018-19	2019-20	2020-21	2021-22
Name of HVDC Station:	BALIA				
i) No of Employees	20.00	12.00	22.00	21.00	24.00
ii) A&G Expenses	602.05	675.35	546.24	505.49	462.13
iii) Repairs & Maintenance	239.51	621.31	646.80	769.58	628.35
iv) Employee Expenses	465.91	228.53	242.87	217.33	185.32
v) Corporate expenses	Included in Annexure VI-BI				
vi) Other income	0	0	0	0	0
vii) Any other income	0	0	0	0	0
Total Expenditure	1307.47	1525.19	1435.92	1492.40	1275.80

Particulars	2017-18	2018-19	2019-20	2020-21	2021-22
Name of HVDC Station:	HVDC DADRI				
i) No of Employees	22.00	23.00	23.00	22.00	21.00
ii) A&G Expenses	546.39	772.01	771.71	700.56	751.64
iii) Repairs & Maintenance	320.44	664.24	806.97	633.86	729.06
iv) Employee Expenses	470.87	507.78	681.68	433.31	691.92
v) Corporate expenses	Included in Annexure VI-BI				
vi) Other income	0	0	0	0	0
vii) Any other income	0	0	0	0	0
Total Expenditure	1337.70	1944.02	2260.36	1767.73	2172.63

Particulars	2017-18	2018-19	2019-20	2020-21	2021-22
Name of HVDC Station:	RIHAND				
i) No of Employees	18.00	16.00	19.00	19.00	19.00
ii) A&G Expenses	535.26	759.58	678.79	641.25	551.09
iii) Repairs & Maintenance	108.47	743.94	577.84	414.40	814.51
iv) Employee Expenses	385.26	437.73	428.71	425.46	553.99
v) Corporate expenses	Included in Annexure VI-BI				
vi) Other income	0	0	0	0	0
vii) Any other income	0	0	0	0	0

Annexure X

Name of Transmission Company:	Power Grid Corporation of India Limited				
Name of Transmission Region:	Northern Region				
Station wise O&M Expenditure at HVDC Station (Rs. lakh)					
Total Expenditure	1028.99	1941.25	1685.34	1481.11	1919.59

Particulars	2017-18	2018-19	2019-20	2020-21	2021-22
Name of HVDC Station:	KURUKSHETRA				
i) No of Employees	18.00	51.00	39.00	36.00	34.00
ii) A&G Expenses	299.39	981.75	846.84	1706.81	1852.92
iii) Repairs & Maintenance	8.25	1524.22	1194.37	1137.90	1175.92
iv) Employee Expenses	385.26	488.86	324.33	510.52	709.02
v) Corporate expenses	Included in Annexure VI-BI				
vi) Other income	0	0	0	0	0
vii) Any other income	0	0	0	0	0
Total Expenditure	692.90	2994.83	2365.55	3355.23	3737.86

Particulars	2017-18	2018-19	2019-20	2020-21	2021-22
Name of HVDC Station:	AGRA				
i) No of Employees	18.00	22.00	26.00	27.00	24.00
ii) A&G Expenses	492.01	1894.96	1572.28	1588.82	1814.93
iii) Repairs & Maintenance	97.97	1234.14	1377.93	1572.98	1377.35
iv) Employee Expenses	385.26	965.48	911.64	751.47	784.96
v) Corporate expenses	Included in Annexure VI-BI				
vi) Other income	0	0	0	0	0
vii) Any other income	0	0	0	0	0
Total Expenditure	975.24	4094.59	3861.84	3913.27	3977.24

Particulars	2017-18	2018-19	2019-20	2020-21	2021-22
Name of HVDC Station:	VINDHYACHAL				
i) No of Employees	16.00	22.00	23.00	23.00	22.00
ii) A&G Expenses	647.56	456.54	387.35	393.53	417.04
iii) Repairs & Maintenance	181.30	281.32	158.26	732.61	546.10
iv) Employee Expenses	342.45	427.98	459.28	562.21	563.04
v) Corporate expenses	Included in Annexure VI-BI				
vi) Other income	0	0	0	0	0
vii) Any other income	0	0	0	0	0
Total Expenditure	1171.31	1165.83	1004.89	1688.34	1526.18

Additional Region-wise Information required from Transmission Licensees (Communication System)	
Name of Transmission Company:	Power Grid Corporation of India Limited
Name of Transmission Region:	Northern 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)	7163.44	8229.07	8306.65	10155.30	12532.05
Number of wideband Communication nodes in operation	135	187	188	223	257
Number of RTUs in operation	42	42	42	15	15
Number of PLCC links in operation	10	8	6	4	4
Number of PMUs in Operation	179	377	377	418	418
Number of Auxiliary Power Supply Nodes in operation	34	47	48	53	60

Table-2- Cost of Services

Particulars	2017-18	2018-19	2019-20	2020-21	2021-22
Communication system	173.97	524.31	789.25	1038.52	1099.63
PLCC O&M					
RTU O&M					
Auxiliary Power Supply					
Hiring charges of	56.89	336.22	258.23	133.1	89.97
Security	0	0	0	0	0
Others	1.67	0	0	0	0
Total	232.53	860.53	1047.48	1171.62	1189.6

Annexure-XII (C)

Standard list of Capital Spare for Communication system needs to be submitted			
OPGW/SDH/MUX/PLCC /RTU cards/DC Modules			
Name of Transmission Company:		Power Grid Corporation of India Limited	
Name of Transmission Region:		Northern Region	
S.No	Name of capital spare	Qty (Nos)	Cost (Rs) in Lacs
1	OPGW and hardware fittings	421 Km	998.88
2	SDH / PDH spares	22 set	364.09
3	WAMS Spare	10% of Spare card of Each	791.88
4			
Standard list of O&M Spare for OPGW/SDH/MUX/PLCC /RTU cards/DC Modules needs to be submitted			
S.No	Name of O&M spare	Qty (Nos)	Cost (Rs) in Lacs
1	OPGW & associated Hardware fittings	50 Kms	115.26
2	OFC & duct cable	20 Kms	18.26

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:			Northern Region									

S.no	Voltage	Name of Substation	2017-18		2018-19		2019-20		2020-21		2021-22	
			MU	%	MU	%	MU	%	MU	%	MU	%
1	400	Bahadurgarh	0.630	-	0.572	-	0.532	-	0.585	-	0.580	-
2	400	Ballabgarh	1.010	-	1.100	-	1.207	-	1.046	-	1.096	-
3	400	Bassi	1.030	-	1.010	-	1.020	-	1.010	-	1.090	-
4	400	Bhinmal	0.895	-	0.621	-	0.532	-	0.546	-	0.511	-
5	400	Bhiwadi	0.700	-	0.647	-	0.710	-	0.753	-	0.821	-
6	HVDC	Bhiwadi HVDC	8.300	-	7.023	-	6.263	-	6.204	-	5.386	-
7	765	Bhiwani	0.585	-	0.904	-	0.974	-	0.971	-	0.963	-
8	HVDC	Dadri HVDC	5.950	-	5.199	-	5.203	-	4.729	-	5.053	-
9	400	Gurgaon	0.670	-	0.679	-	0.612	-	0.614	-	0.639	-
10	400	Hisar	0.710	-	0.798	-	0.769	-	0.704	-	0.797	-
11	400	Jaipur South	0.281	-	0.375	-	0.372	-	0.379	-	0.395	-
12	765	Jhatikara	1.020	-	1.060	-	1.120	-	1.060	-	1.140	-
13	400	Jind	0.045	-	0.543	-	0.483	-	0.506	-	0.516	-
14	400	Kankroli	0.745	-	0.686	-	0.660	-	0.669	-	0.611	-
15	400	Kota	1.060	-	0.560	-	0.616	-	0.587	-	0.529	-
16	400	Kotputli	0.490	-	0.428	-	0.313	-	0.229	-	0.227	-
17	400	Koteshwar	0.310	-	0.343	-	1.026	-	0.698	-	0.410	-
18	400	Maharanibagh	0.058	-	0.535	-	0.514	-	0.525	-	0.536	-
19	400	Mandola	1.350	-	0.484	-	0.524	-	0.627	-	0.678	-
20	400	Manesar	0.530	-	0.470	-	0.448	-	0.415	-	0.431	-
21	765	Meerut	1.880	-	1.888	-	1.975	-	1.084	-	1.095	-
22	400	Neemrana	0.700	-	0.782	-	0.721	-	0.717	-	0.636	-
23	400	Roorkee	0.930	-	0.535	-	0.514	-	0.525	-	0.536	-
24	400	Sikar	0.044	-	0.871	-	0.998	-	1.042	-	1.056	-
25	400	Sonipat	0.465	-	0.484	-	0.396	-	0.459	-	0.440	-
26	400	Baghpat	0.200	-	0.333	-	0.349	-	0.419	-	0.593	-
27	400	Dehradun	0.370	-	0.536	-	0.571	-	0.563	-	0.504	-
28	400	Saharanpur	0.880	-	1.018	-	0.977	-	1.085	-	1.049	-
29	400	Kurukshetra	3.800	-	0.679	-	0.612	-	0.614	-	0.639	-
30	HVDC	Kurukshetra HVDC	11.850	-	10.641	-	12.258	-	16.626	-	16.291	-
31	765	Ajmer	0.150	-	0.422	-	0.589	-	0.635	-	0.739	-
32	765	Bhadla	NA	-	NA	-	NA	-	NA	-	1.480	-
33	765	Bhadla-II	NA	-	NA	-	NA	-	NA	-	NA	-
34	765	Bikaner	NA	-	NA	-	0.450	-	0.640	-	0.860	-
35	765	Chittorgarh	0.038	-	0.045	-	0.515	-	0.641	-	0.639	-
36	400	Dwarka	NA	-	NA	-	NA	-	NA	-	NA	-
37	765	Fatehgarh-II	NA	-	NA	-	NA	-	NA	-	NA	-
38	400	Tughlakabad	NA	-	0.167	-	0.382	-	0.393	-	0.395	-
39	400	Abdullapur	0.589	-	0.589	-	0.552	-	0.666	-	0.709	-
40	400	Amritsar	0.520	-	0.523	-	0.376	-	0.420	-	0.524	-
41	400	Banala	0.310	-	0.252	-	0.297	-	0.385	-	0.447	-
42	400	Chamba	0.304	-	0.280	-	0.286	-	0.275	-	0.295	-
43	220	Chandigarh	NA	-	NA	-	NA	-	NA	-	0.450	-
44	400	Fatehabad	0.560	-	0.600	-	0.559	-	0.512	-	0.651	-
45	400	Hamirpur	0.446	-	0.370	-	0.355	-	0.526	-	0.462	-
46	400	Jalandhar	0.982	-	0.982	-	0.696	-	0.846	-	0.944	-
47	400	Kaithal	0.535	-	0.401	-	0.466	-	0.427	-	0.440	-
48	400	Kishenpur	0.992	-	0.746	-	0.674	-	0.863	-	0.922	-

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:			Northern Region									

S.no	Voltage	Name of Substation	2017-18		2018-19		2019-20		2020-21		2021-22	
			MU	%	MU	%	MU	%	MU	%	MU	%
49	400	Ludhiana	0.982	-	1.484	-	1.588	-	1.243	-	1.283	-
50	400	Malerkotla	0.483	-	0.416	-	0.380	-	0.422	-	0.553	-
51	765	Moga	1.620	-	1.418	-	1.465	-	1.522	-	1.304	-
52	400	Nallagarh	0.742	-	0.926	-	0.944	-	0.973	-	0.983	-
53	400	New Wanpoh	0.425	-	0.589	-	0.734	-	0.675	-	0.782	-
54	400	Panchkula	0.823	-	0.732	-	0.559	-	0.522	-	0.513	-
55	400	Patiala	0.635	-	0.660	-	0.650	-	0.599	-	0.671	-
56	400	Samba	0.356	-	0.473	-	0.395	-	0.378	-	0.434	-
57	400	Wagoora	0.762	-	2.004	-	1.830	-	1.862	-	1.770	-
58	220	Drass	NA	-	NA	-	0.102	-	0.204	-	0.381	-
59	220	Kargil	NA	-	NA	-	0.201	-	0.210	-	0.225	-
60	220	Khaltsi	NA	-	NA	-	0.190	-	0.198	-	0.217	-
61	220	Leh	NA	-	NA	-	0.220	-	0.205	-	0.203	-
62	765	Agra	2.590	-	1.605	-	1.758	-	1.295	-	1.374	-
63	HVDC	Agra HVDC	17.940	-	18.208	-	15.696	-	16.850	-	18.251	-
64	765	Aligarh	0.056	-	0.443	-	0.426	-	0.394	-	0.250	-
65	400	Allahabad	1.540	-	1.102	-	0.794	-	1.204	-	1.311	-
66	765	Ballia	1.620	-	1.869	-	1.858	-	1.969	-	2.765	-
67	HVDC	Ballia HVDC	6.450	-	7.467	-	6.980	-	5.194	-	5.145	-
68	400	Bareilly-400	0.589	-	0.733	-	0.809	-	0.774	-	0.933	-
69	765	Bareilly-765	0.540	-	0.510	-	0.495	-	0.461	-	0.633	-
70	400	Fatehpur	1.240	-	1.235	-	1.268	-	1.269	-	1.225	-
71	400	Gorakhpur	1.530	-	1.125	-	1.142	-	1.175	-	1.089	-
72	400	Jauljibi	NA	-	NA	-	NA	-	NA	-	NA	-
73	400	Kanpur-400	1.630	-	1.802	-	1.910	-	1.572	-	1.518	-
74	765	Kanpur-GIS	0.617	-	0.990	-	1.460	-	1.741	-	1.304	-
75	400	Lucknow-400	1.692	-	1.414	-	0.914	-	1.126	-	0.848	-
76	765	Lucknow-765	0.840	-	0.740	-	0.703	-	1.599	-	2.490	-
77	400	Mainpuri	0.855	-	0.810	-	0.872	-	0.906	-	0.659	-
78	765	Orai	0.060	-	1.132	-	1.013	-	1.138	-	1.189	-
79	220	Pithoragarh	0.300	-	0.331	-	0.367	-	0.370	-	0.370	-
80	220	Raebareilly	0.430	-	0.401	-	0.398	-	0.392	-	0.403	-
81	HVDC	Rihand	5.480	-	4.531	-	4.511	-	4.426	-	4.171	-
82	400	Shahjahanpur	0.520	-	0.655	-	0.523	-	0.480	-	0.573	-
83	220	Sitarganj	0.323	-	0.357	-	0.342	-	0.315	-	0.370	-
84	400	Sohawal	0.435	-	0.781	-	0.802	-	0.782	-	0.793	-
85	765	Varansi	0.761	-	0.780	-	0.820	-	0.822	-	0.832	-
86	HVDC	Vindhyahcal	5.557	-	4.848	-	4.205	-	5.458	-	5.272	-

Details of incidental Expenses During Construction (IEDC) including compensation, employee expenses and other expenses for assets acieveing COD post 01.04.2017:							
Name of Transmission Company:			Power Grid Corporation of India Limited				
Name of Transmission Region:			Northern 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.	NTSS				32	17	-
2.	JAW2				302	58	-
3.	NS32				54	43	-
4.	Spare Ict				11	-	-
5.	NEBA				165	89	-
6.	NEBA				184	99	-
7.	NTSS				32	17	-
8.	NTSS				21	11	-
9.	NS34				21	1	-
10.	Aug Mainpuri				45	-23	-
11.	NS30				969	38	-
12.	IRSS				2,345	411	-
13.	Spare ICT				1	-	-
14.	Rae Bareli				8	-	-
15.	IRSS Part-B				777	125	-
16.	Mainpuri				51	-26	-
17.	Line bays asso with various RSS in NR				28	-	-
18.	NTSS				24	13	-
19.	NS34				179	-3	-
20.	NTSS				25	13	-
21.	NS40				60	-	-
22.	Aug Rae Bareli				12	-	-
23.	NRSS-XXX				906	210	-
24.	P492				18	-	-
25.	NRSS-XL				31	0	-
26.	P370				61	1,173	-
27.	NRSS-XL				61	1	-
28.	NRSS-XL				74	1	-
29.	P479				544	631	-
30.	P496				-	124	-
31.	Fault level at Kanpur				-	196	-
32.	Fault level at Kanpur				-	196	-
33.	Spare ICT				-	100	-
34.	Spare ICT				-	97	-
35.	NRSS-37				1,860	1,396	-
36.	Spare ICT				-	192	-
37.	Reliable Communication Scheme under Central sector for Northern Region				-	78	-
38.	Reliable Communication Scheme under Central sector for Northern Region				-	60	-
39.	Reliable Communication Scheme under Central sector for Northern Region				-	98	-
40.	Reliable Communication Scheme under Central sector for Northern Region				-	36	-
41.	Reliable Communication Scheme under Central sector for Northern Region				-	2	-
42.	Reliable Communication Scheme under Central sector for Northern Region				-	88	-
43.	NTAMC PROJECT				224	53	-
44.	NRSS XIX				418	-	-
45.	NRSS XV				-	252	-
46.	SYSTEM STRENGTHENING XXIV				606	323	-
47.	NRTSS				171	-	-
48.	NRSS-XVIII				72	-	-
49.	NRSS XXVI				61	-	-
50.	RAPP7&8-PARTA				98	-	-
51.	NRSS XXV				80	-	-

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:			Northern 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
52.	NRSS - XXXII				100	-	-
53.	Establishment of Fibre Optic for Central Sector under NR expansion scheme				209	57	-
54.	Strengthening Scheme in NR				40	-	-
55.	Green Energy Corridors-ISTS-Part-A				1,004	948	-
56.	Inter-regional system strengthening scheme for WR & NR Part-B				0	-	-
57.	Creation of 400/220kV S/s in Delhi (Part -A)				2,752	456	-
58.	Tehri PSP Transmission System				661	-	-
59.	Creation of 400/220kV S/s in Delhi (Part -B)				398	419	-
60.	Aug. of Transformers in NR - Part B (Gurgaon)				6	23	-
61.	PHASE-I Unified Real Time Dynamic State Measurement (URTDSM) for all Regions Phase-I				198	278	-
62.	Trans. System with RAPP - 7 & 8 - Part B				410	254	-
63.	Bus reactor in Northern Region Phase-II				50	-	-
64.	Provision of Series Reactor in NR				-	43	-
65.	Aug. Transf. Cap. at Mainpuri & Sikar				45	-	-
66.	Green Energy Corridors-ISTS-Part-D				647	4,808	-
67.	Green Energy Corridors -ISTS Part-B				1,390	1,899	-
68.	Establishment of FO Communication System in Northern Region under Fibre Optic Expansion Project (Additional)				58	188	-
69.	ATS with NRSS XXXVIII				-	3	-
70.	Trans System for Bhadla SPP				439	2,077	-
71.	400kV line bays at Bhinmal & Sikar				-	12	-
72.	Conversion of Fixed Line Reactors into Switchable Line Reactors				-	1	-
73.	Reliable Communication System in Northern Region				-	343	-
74.	NRSS-XL				695	805	-
75.	Tr. Scheme for SEZs in Rajasthan				2,777	8,507	-
76.	SYSTR for REZ in Rajasthan				269	776	-
77.	NR-WR HVDC INTERCONNECTOR FOR IPP PROJECTS				2,032	-	-
78.	HVDC Bipole-2 (Champa-Kurukshetra) Upgradation				2,737	4,010	-
79.	NR2-KUHV				2,032	-	-
80.	NR2-P412				2,737	4,010	-
81.	N216_T/S ASSOCIATED WITH NRSSXVI-NR2				2,269	251	-
82.	N224_NRSS-XXIV (400 KV D/C DULHASTI-KISHENPUR TL,KPUR EXT. & ABDULLAPUR EXT.)				1,554	216	-
83.	N232_NRSS-32				623	123	-
84.	P366_SVC IN NR				375	125	-
85.	P367_Augmentation of transformers in NR-Part B (ATNB)				512	50	-
86.	P370_DYNAMIC COMPENSATION AT NALAGARH - STATCOM				524	142	-
87.	P371_Transmission System with Kishenganga-HEP				1,235	359	-
88.	P375_NR SYSTEM STRENGTHENING SCHEME-XXIX(29)				110	27	-
89.	P377_NR SYSTEM STRENGTH. SCHEME - XXXIV (34)				63	14	-
90.	P380_Green Energy Corridor ISTS - Part D - NRSS 26				3,271	919	-

Details of incidental Expenses During Construction (IEDC) including compensation, employee expenses and other expenses for assets acieveing COD post 01.04.2017:							
Name of Transmission Company:			Power Grid Corporation of India Limited				
Name of Transmission Region:			Northern 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
91.	P299_NR2-P428 Expn of FO -Addl				94	28	-
92.	P445_P445_315MVA, 400/220kV ICT at Fatehab				11	1	-
93.	P453_ESTABLISHMENT OF FIBRE OPTIC COMMUNICATION SYSTEM IN NORTHERN REGION UNDER FIBER OPTIC EXPANSION PROJECT (ADDITIONAL REQUIREMENT)				289	86	-
94.	P492_Conv of Fixed LR to Switchable LR//400 kV Abdullapur-S/s Extn				5	1	-
95.	P496_NR-II Reliable Communication System				1,615	294	-
96.	P502_NRSS-XL				1,560	309	-
97.	P532_Controlling High Sckt/Loading at Moga S/S				296	48	-
98.	P534_1x500 MVA 400/220 kV ICT at Amritsar				210	53	-
99.	P549_7 Nos. Spare ICTs in Northern Region (1 at Panchkula and 1 at Moga out of 7 in NR)				170	50	-
100.	STSN_Strengthening Scheme in NR(LILO of Jal-Hamirpur,Ext.of Dehar BBMB SS)				160	18	-
101.	N216_T/S ASSOCIATED WITH NRSSXVI-NR2	S/s			2,269.15	251.17	-
102.		TL					-
103.	N224_NRSS-XXIV (400 KV D/C DULHASTI-	S/s			1,554	216	-
104.	KISHENPUR TL,KPUR EXT. & ABDULLAPUR	TL					-
105.	N232_NRSS-32	S/s			623	123	-
106.		TL					-
107.	P366_SVC IN NR	S/s			375	125	-
108.		TL					-
109.	P367_Augmentation of transformers in NR-Part B (ATNB)	S/s			512	50	-
110.		TL					-
111.	P370_DYNAMIC COMPENSATION AT NALAGARH - STATCOM	S/s			524	142	-
112.		TL					-
113.	P371_Transmission System with Kishenganga-HEP	S/s			1,235	359	-
114.		TL					-
115.	P375_NR SYSTEM STRENGTHENING SCHEME-XXIX(29)	S/s			110	27	-
116.		TL					-
117.	P377_NR SYSTEM STRENGTH. SCHEME -XXXIV (34)	S/s			63	14	-
118.		TL					-
119.	P380_Green Energy Corridor ISTS - Part D - NRSS 26	S/s					-
120.		TL			3,271	919	-
121.	P299_NR2-P428 Expn of FO -Addl	S/s			94	28	-
122.		TL					-
123.	P445_P445_315MVA, 400/220kV ICT at Fatehab	S/s			11	1	-
124.	ad	TL					-
125.	P453_ESTABLISHMENT OF FIBRE OPTIC COMMUNICATION SYSTEM IN NORTHERN	S/s			289	86	-
126.		TL					-
127.	P492_Conv of Fixed LR to Switchable LR//400 kV Abdullapur-S/s Extn	S/s			5	1	-
128.		TL					-
129.	P496_NR-II Reliable Communication System	S/s			1,615	294	-
130.		TL					-
131.	P502_NRSS-XL	S/s			1,560	309	-
132.		TL					-
133.	P532_Controlling High Sckt/Loading at Moga S/S	S/s			296	48	-
134.		TL					-
135.	P534_1x500 MVA 400/220 kV ICT at Amritsar	S/s			210	53	-
136.		TL					-
137.	P549_7 Nos. Spare ICTs in Northern Region (1 at Panchkula and 1 at Moga out of 7 in NR)	S/s			170	50	-
138.		TL					-
139.	STSN_Strengthening Scheme in NR(LILO of Jal-	S/s			160	18	-

Details of incidental Expenses During Construction (IEDC) including compensation, employee expenses and other expenses for assets acieveing COD post 01.04.2017:							
Name of Transmission Company:				Power Grid Corporation of India Limited			
Name of Transmission Region:				Northern 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
140.	Hamirpur,Ext.of Dehar BBMB SS)	TL					-

Details of Capital Cost of Transmission Line	
Name of Transmission Company:	Power Grid Corporation of India Limited
Name of Transmission Region:	Northern Region

SI No.	Year	Configuration	Length (km)	Total Cost	Cost/km	Cost/ckt-km	
2	2014-15	b) D/C	79.21				
		c) M/C	0.00				
		400 kV Charged at 220 KV					
		a) D/C	0.00				
		400 kV Charged at 132 KV					
		a) D/C	0.00				
		220 kV					
		a) S/C	0.00				
		b) D/C	7.50				
		Up to 132 kV					
a) S/C	0.00						
b) D/C	0.00						
3	2015-16	HVDC					
		a) S/C	0.00				
		b) D/C	1753.56				
		765 kV					
		a) S/C	777.55				
		b) D/C	0.00				
		765 kV Charged at 400 KV					
		a) S/C	0.00				
		400 kV					
		a) S/C	0.00				
		b) D/C	979.57				
		c) M/C	0.00				
		400 kV Charged at 220 KV					
		a) D/C	0.00				
400 kV Charged at 132 KV							
a) D/C	0.00						
220 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:	Northern Region

SI No.	Year	Configuration	Length (km)	Total Cost	Cost/k m	Cost/ckt- km
		Up to 132 kV				
		a) S/C	0.00			
		b) D/C	0.00			
		HVDC				
		a) S/C	113.45			
		b) D/C	1288.06			
		765 kV				
		a) S/C	745.38			
		b) D/C	326.17			
		765 kV Charged at 400 KV				
		a) S/C	0.00			
		400 kV				
		a) S/C	0.00			
		b) D/C	962.59			
		c) M/C	0.00			
		400 kV Charged at 220 KV				
		a) D/C	0.00			
		400 kV Charged at 132 KV				
		a) D/C	0.00			
		220 kV				
		a) S/C	0.00			
		b) D/C	13.77			
		Up to 132 kV				
		a) S/C	0.00			
		b) D/C	0.00			
		HVDC				
		a) S/C	0.00			
		b) D/C	21.34			
		765 kV				
		a) S/C	331.96			
		b) D/C	267.78			
		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:	Northern Region

SI No.	Year	Configuration	Length (km)	Total Cost	Cost/km	Cost/ckt-km		
5	2017-18			Data seperately not available/ maintained				
		400 kV						
		a) S/C	0.00					
		b) D/C	1003.53					
		c) M/C	0.00					
		400 kV Charged at 220 KV						
		a) D/C	0.00					
		400 kV Charged at 132 KV						
		a) D/C	0.00					
		220 kV						
		a) S/C	0.00					
		b) D/C	42.73					
Up to 132 kV								
a) S/C	0.00							
b) D/C	0.00							
6	2018-19	HVDC						
		a) S/C	0.00					
		b) D/C	0.00					
		765 kV						
		a) S/C	0.00					
		b) D/C	331.96					
		765 kV Charged at 400 KV						
		a) S/C	0.00					
		400 kV						
		a) S/C	0.00					
		b) D/C	180.00					
		c) M/C	27.88					
400 kV Charged at 220 KV								
a) D/C	0.00							
400 kV Charged at 132 KV								
a) D/C	0.00							
220 kV								

Details of Capital Cost of Transmission Line	
Name of Transmission Company:	Power Grid Corporation of India Limited
Name of Transmission Region:	Northern Region

SI No.	Year	Configuration	Length (km)	Total Cost	Cost/km	Cost/ckt-km
		a) S/C	338.50			
		b) D/C	55.86			
		Up to 132 kV				
		a) S/C	0.00			
		b) D/C	18.34			
		HVDC				
		a) S/C	0.00			
		b) D/C	0.00			
		765 kV				
		a) S/C	0.00			
		b) D/C	798.60			
		765 kV Charged at 400 KV				
		a) S/C	0.00			
		400 kV				
		a) S/C	214.85			
		b) D/C	35.54			
		c) M/C	0.00			
		400 kV Charged at 220 KV				
		a) D/C	0.00			
		400 kV Charged at 132 KV				
		a) D/C	0.00			
		220 kV				
		a) S/C	0.00			
		b) D/C	115.20			
		Up to 132 kV				
		a) S/C	0.00			
		b) D/C	0.00			
		HVDC				
		a) S/C	0.00			
		b) D/C	0.00			
		765 kV				
		a) S/C	354.32			
		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:	Northern Region

SI No.	Year	Configuration	Length (km)	Total Cost	Cost/km	Cost/ckt-km
8	2020-21					
		765 kV Charged at 400 KV				
		a) S/C	0.00			
		400 kV				
		a) S/C	13.50			
		b) D/C	0.00			
		c) M/C	0.00			
		400 kV Charged at 220 KV				
		a) D/C	0.00			
		400 kV Charged at 132 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			
		b) D/C	0.00			
		765 kV				
		a) S/C	0.00			
		b) D/C	304.43			
		765 kV Charged at 400 KV				
		a) S/C	0.00			
		400 kV				
		a) S/C	0.00			
		b) D/C	96.22			
		c) M/C	29.98			
		400 kV Charged at 220 KV				
a) D/C	0.00					
400 kV Charged at 132 KV						

Details of Capital Cost of Transmission Line	
Name of Transmission Company:	Power Grid Corporation of India Limited
Name of Transmission Region:	Northern Region

SI No.	Year	Configuration	Length (km)	Total Cost	Cost/km	Cost/ckt-km
		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:				Northern Region			
SI No.	Year	Configuration	MVA Capacity	No. of Bays	Total Cost	Cost/MV	Cost/bays
1	2013-14	765kV		10	Data separately not available/ maintained		
		400kV	4705	47			
		220kV		24			
		132kV		0			
		HVDC		0			
2	2014-15	765kV	1500	3			
		400kV	4075	25			
		220kV		17			
		132kV		0			
		HVDC		0			
3	2015-16	765kV	1500	18			
		400kV	815	42			
		220kV		1			
		132kV		0			
		HVDC		56			
4	2016-17	765kV	6000	18			
		400kV	7390	65			
		220kV		25			
		132kV		0			
		HVDC		14			
5	2017-18	765kV	7000	33			
		400kV	4260	56			
		220kV	400	8			
		132kV		0			
		HVDC		6			
6	2018-19	765kV	1000	11			
		400kV	3630	20			
		220kV		19			
		132kV		0			
		HVDC		0			
7	2019-20	765kV	10500	37			
		400kV	1500	31			
		220kV	400	25			
		132kV		19			
		HVDC		24			
8	2020-21	765kV	4700	9			
		400kV	1815	11			
		220kV		8			
		132kV		0			
		HVDC		0			
9	2021-22	765kV	8500	22			
		400kV	7500	51			
		220kV		37			
		132kV		0			
		HVDC		0			