

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 374/MP/2019**

**Coram:**

**Shri P.K. Pujari, Chairperson**

**Shri I.S. Jha, Member**

**Shri Arun Goyal, Member**

**Date of Order: 31.5.2021**

**In the matter of**

Application under sub-section (4) of section 28 of Electricity Act, 2003 and Regulation 10 of the Central Electricity Regulatory Commission (Fee and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2019 for determining the NRLDC Charges for the control period 01.04.2019-31.03.2024.

**And in the matter of**

Northern Regional Load Despatch Centre (NRLDC)  
Power System Operation Corporation of India Limited (POSOCO),  
(A Government of India Undertaking)  
Registered Office: B-9, Qutub Institutional Area,  
Katwaria Sarai, New Delhi- 110016

**....Petitioner**

**Versus**

1. Chairman, UPPCL, Uttar Pradesh Power Corporation Limited, Shakti Bhawan, 14 - Ashok Marg, Lucknow-226001
2. Principal Secretary, Government of J&K, Civil secretariat, Srinagar, J&K.
3. CMD, Rajasthan Rajya Vidyut Prasaran Nigam Limited, Vidyut Bhawan, Vidyut Marg, Jaipur-302005
4. Chairman, RUVNL, Vidyut Bhawan, Janpath, Jyoti Nagar, Jaipur- 302005, Rajasthan
5. CMD, Punjab State Transmission Corporation Limited, PSEB Head Office The Mall, Patiala-147 001
6. Managing Director, Haryana Vidyut Prasaran Nigam Limited, Shakti Bhawan, Sector-6, Panchkula-134109



7. Chief Engineer, Haryana Power Purchase Center, Room No-308, Shakti Bhawan, Sector-6 Panchkula-134109, Haryana
8. CMD, Delhi Transco Limited, Shakti Sadan, Kotla Road, New Delhi-110 002
9. Chairman, Himachal Pradesh State Electricity Board Ltd., Kumar House, Vidyut Bhawan, Shimla-171004
10. SE SLDC, Himachal Pradesh Load Society, Totu, Shimla-171 011, Himachal Pradesh
11. Managing Director, Power Transmission Corporation of Uttarakhand Limited, 7-B, Lane No-1, Vasant Vihar Enclave, Dehradun - 248 001.
12. Managing Director, Uttarakhand Power Corporation Ltd., Kanwli Road, Urja Bhawan, Dehradun-248001, Uttarakhand
13. Chief Engineer, Electricity Department, UT Chandigarh, Sector 9-D, UT Chandigarh-160019
14. Chief Electrical Engineer, North Central Railway General Manager Office, Subedarganj Uttar Madhya Railway, Allahabad, UP- 211011.
15. The DGM, Electrical, National Fertilizers Limited, District:- Ropar, Naya Nangal 140124, Punjab
16. Chief General Manager, PGCIL Kurukshetra ( $\pm 800$  KV HVDC Inter Connector Project) V.P.O. Bhadson, Opp Piccadily Sugar Mill, Tehsil INDRI, District Karnal-132117 (Haryana)
17. Senior DGM, PGCIL Bhiwadi HVDC ( $\pm 500$  KV), 4th Km Mile Stone, Bhiwadi-Alwar Bye-Pass Road, P.O. Khijuriwas, Distt. Alwar, (Rajashtan)-301018.
18. General Manager, PGCIL, Dadri HVDC ( $\pm 500$  KV), PO-Vidyut Nagar, Distt: Gautam buddh Nagar (U.P.)-201008.
19. Senior GM, PGCIL, Agra HVDC Terminal 765/400/220 KV, Sub-Station, 6 KM, Mile Stone, Shamshabad Road, P.O. Shyamo, Agra-283125 (U.P.)
20. Senior DGM, PGCIL, Ballia HVDC ( $\pm 500$  KV) Sub-Station, Village & Post: Ibrahimpatti, (via Krihirapur), Tehsil: Belthra Road, Distt: - Ballia (U.P.) Pin-221716.
21. General Manager, PGCIL Rihand HVDC Station, Inside NTPC Rihand Plant Premises, P.O-Bijpur Distt: Sonebhadra, (U.P.) Pin-231223.
22. CMD, Punjab State Power Corporation Ltd., The Mall, Patiala – 147001, Punjab.

### **Users under the category of Generating Stations and Sellers**



23. General Manager, Singrauli Super Thermal Power Station, NTPC, Shakti Nagar, UP-231222
24. General Manager, Singrauli Solar PV Power Project, NTPC, Shakti Nagar, UP-231222
25. General Manager, Singrauli Small Hydro Power Project, NTPC, Shakti Nagar, UP-231222
26. General Manager, Rihand Super Thermal Power Station-I, NTPC, Rihand Nagar, UP-231223
27. General Manager, Rihand Super Thermal Power Station-II, NTPC, Rihand Nagar, UP-231223
28. General Manager, Rihand Super Thermal Power Station-III, NTPC, Rihand Nagar, Dist-Sonbhadra, UP – 231223
29. General Manager, Dadri, National Capital Power Project, Dadri Dhaulana Road, Distt. Gautam Buddh Nagar, UP-201008
30. General Manager, Dadri – Stage - II, National Capital Power Project, NTPC, Dadri Dhaulana Road, Distt. Gautam Buddh Nagar, UP-201008
31. General Manager, Firoz Gandhi Unchahar Thermal Power Project-I, NTPC, P.O. Unchahar, Distt. Raibareilly, UP-229406
32. General Manager, Firoz Gandhi Unchahar Thermal Power Project-II, NTPC, P.O. Unchahar,,Distt. Raibareilly, UP-229406
33. General Manager, Firoz Gandhi Unchahar Thermal Power Project-III, NTPC, P.O. Unchahar, Distt. Raibareilly, UP-229406
34. General Manager, Firoz Gandhi Unchahar Thermal Power Project-IV, NTPC, P.O. Unchahar, Dist.: Raibareilly, UP-229406
35. General Manager, Firoz Gandhi Unchahar Solar PV Power Project, NTPC, Unchahar, Distt. Raibareilly, UP
36. General Manager, Dadri Gas Power Project, NTPC, Dhaulana Road, Distt. Gautam Buddh Nagar, UP-201008
37. General Manager, Dadri Solar PV Power Project, NTPC, Dhaulana Road, Distt. Gautam Buddh Nagar, UP-201008
38. General Manager, Auraiya Gas Power Project( Gas Fired, RLNG Fired, Liquid Fired), NTPC, Dibiyapur, Distt Etawah, UP-206244
39. General Manager, Anta Gas Power Project (Gas Fired, RLNG Fired, Liquid Fired), NTPC, Distt. Baran, Rajasthan-325209



40. General Manager, Koldam HPP, NTPC, Post- Barman, Dist- Bilaspur, Himachal Pradesh 174013
41. Station Director, Narora Atomic Power Station, NPCIL, Narora, Distt. Bulandshahar, UP-202389
42. Station Director, Rajasthan Atomic Power Station-B, NPCIL, Rawatbhata, PO- Anu Shakti Vihar, Kota, Rajasthan-323303
43. Station Director, Rajasthan Atomic Power Station-C, NPCIL, (RAPS-5&6) NPCIL Rawatbhata, PO-Anushakti Vihar, Kota, Rajasthan-323303
44. General Manager, Bairasiul Hydro Electric Project, NHPC Ltd., Surangini, Distt. Chamba, HP-176317
45. General Manager, Salal Hydro Electric Project, NHPC Ltd, Jyotipuram, Distt. Udhampur, J&K-182312
46. General Manager, Tanakpur Hydro Electric Project, NHPC Ltd., Banbassa, Distt. Champawa,Uttarakhand-262310
47. General Manager, Chamera-I Hydro Electric Project, NHPC Ltd., Khairi, Distt. Chamba, HP-176310
48. General Manager, Uri Hydro Electric Project, NHPC Ltd., Mohra, Distt. Baramulla, J&K-193122
49. General Manager, Chamera-II Hydro Electric Project, NHPC Ltd., Karian, Distt. Chamba, HP-176310
50. General Manager, Chamera-III Hydro Electric Project, NHPC Ltd., Dharwala, Distt.- Chamba,HP-176311
51. General Manager, Dhauliganga Hydro Electric Project, NHPC Ltd., Tapovan, Dharchula, Pithoragarh, Uttarakhand-262545
52. General Manager, Dulhasti Hydro Electric Project, NHPC Ltd., Chenab Nagar, Distt. Kishtwar, J&K-182206
53. General Manager, Uri-II Hydro Electric Project, NHPC Ltd., Nowpura, Distt. Baramulla, J&K-193123
54. General Manager, Parbati HE Project Stage-III, NHPC Ltd., Behali, P.O- Larji Kullu 175122 Himachal Pradesh
55. Chief Engineer, Sewa-II Power Station, NHPC Ltd. Mashke, post Bag no-2, P.O-Khari, Dist: Kathua, Jammu and Kashmir -176325



56. The Chief Engineer (Electrical), Kishanganga HEP, NHPC Ltd., Office cum Residential colony, Kralpora, Distt: Bandipora, Jammu and Kashmir-193502
57. The General Managar, Parbati-II, HEP, NHPC Ltd., E&M Complex, Sainj, Distt. Kullu 175134, Himachal Pradesh
58. General Manager, Naptha Jhakhri HEP, Satluj Jal Vidyut Nigam Ltd. Power Project, Jhakri, Rampur, Distt. Shimla, HP-172201
59. General Manager, Rampur HEP, Satluj Jal Vidyut Nigam Ltd. Power Project, Jhakri, Rampur, Distt. Shimla, HP-172201
60. General Manager, Tehri Hydro Development Corporation Ltd., Bhagirath Puram, Tehri, Uttrakhand-249001
61. General Manager, Koteswar HEP, THDCIL, Koteswarpuram, Post Office-Pokhari Tehri Garwal, Uttarakhand - 249146
62. General Manager, ADHPL, Village- Prini, PO -Jagat Sukh, Tehsil - Manali, Distt- Kullu (H.P) India.
63. General Manager, Indra Gandhi Super Tharmal Power Project, APCPL, PO - Jharli, Tahsil Matanhail, Dist – Jhajjar, (Haryana)-124125
64. General Manager, Karcham Wangtoo HEP, Himachal Baspa Power Company Limited, Sholtu Colony, PO- Tapti, Dist-Kinnaur, -172104 (HP).
65. Director, Malana – II, Everest Power Pvt. Ltd, Hall-A/ First Floor Plot No-143-144, Udyog Vihar, Phase -4, Gurgaon, Haryana 122015
66. Company Secretary, Shree Cement Thermal Power Project, Bangurnagar, Beawar , Dist -Ajmer, Rajasthan -305901
67. Company Secretary, Greenco Budhil HPS Ltd, Plot No. 1367 Road No- 45, Jubilee Hills, Hyderabad- 500033
68. Project General Manager, Himachal Sorang Power Limited, D-7, Lane-I, Sector-I, New Shimla, Shimla, H.P.-171009.
69. Director (Power Regulation), Bhakra Power House, BBMB, SLDC Complex , 66 KV Substation, Industrial Area Phase-I, Madhya Marg, BBMB Chandigarh
70. Superintending Engineer, Dehar HEP, BBMB, PW, Solapper, Tehsil Sundernagar, District: Mandi Himachal Pradesh-175017
71. Superintending Engineer, Pong Power House Circle, Power wing BBMB Talwara, District: Hoshiarpur, Punjab 144216
72. General Manager, Sainj HEP, HPPCL, Larji, District - Kullu, Himachal Pradesh, 175122



73. Manager, SB Energy Four Private Ltd., Bhadla (SPD 200MW), 5th Floor, worldmark-2, Asset, Area-8 Hospitality District, Aerocity, NH – 8, Delhi-110037
74. Sr. Manager, Renew Solar Power Pvt. Ltd, Commercial Block-1, Zone 6, Golf Course Road, DLF City phase-V, Gurugram- 122009, Haryana
75. Vice President, Azure Power India Pvt. Ltd., 3rd Floor, Asset .301-304 & 307 Worldmark 3, Aerocity, New Delhi -110037
76. Associate Vice President) BD- HOD, Mahoba Solar (UP) Pvt. Ltd., 4th floor, South Wing, Adani Corporate House, Shantigram, Near Vaishnav Devi Circle, SG Highway, Ahmedabad 382 421, Gujarat
77. Vice President, Azure Power Thirty Four Pvt. Ltd., 3rd Floor, Asset 301-304 and 307, World Mark-3, Aerocity, New Delhi – 110037
78. Manager (BD), Tata Power Renewable Energy Ltd., Corporate Centre, A Block, 34, Sant Tukaram Road, Camac Bunder, Mumbai - 400009

**Users under the category of Inter State Transmission Licensees**

79. Executive Director, PGCIL, NRTS-I, Power Grid Corporation of India Ltd., B-9, Qutab Institutional Area, New Delhi-110016.
80. Director, Operations, Powerlinks Transmission Ltd., 10th Floor, DLF Tower-A, District Centre, Jasola, New Delhi-110044
81. Executive Director & CEO, Jaypee POWERGRID Ltd. F-Block, Sector -128 Noida- U.P
82. Director, Adani Transmission India Ltd, Business Development, Achalraj, Opp Mayor Bungalow, Law Garden, Ahmedabad 380009.
83. Managing Director, Parbati Koldam Transmission Company LTD., 5th Floor 1A, JMD Galleria, Sec-48, Sohna Road, Gorgan, Haryana 122018.
84. General Manager, Indira Gandhi Super Thermal Power Project, Aravali Power company Private Limited, P.O.: Jharli, Dist-Jhajjar
85. The Vice President, NRSS XXIX Transmission Limited,F-1, Mira Corporate Suite, Ishwar Nagar, Mathura Road, New Delhi – 110065.
86. The Director, Patran Transmission Company Limited, 400 KV 220kV GIS Substation, Village-Banwala, Tehsil-Patran, District: Patiala 147105 Punjab.
87. The Vice President, RAPP Transmission Company Ltd, F-1, Mira Corporate Suite, Ishwar Nagar, Mathura Road, New Delhi – 110065
88. The Vice President, NRSS XXXI (B) Transmission Ltd. 503, windsor off CST Road, Kalina, Santacruz (E), Mumbai 400098



89. The Vice President, NRSS XXXVI Transmission Ltd. Essel Infra projects Ltd. 06th Floor, Plot No. 19, Film City, Sec-16 A, Gautam Buddha Nagar , Noida U.P. – 201301
90. CEO, POWERGRID Unchahar Transmission Ltd. 765/400/220kV Substation, Village Chauferava, Post & Dist Fatehpur, Uttar Pradesh, 212601
91. The CEO, POWERGRID KALA AMB Transmission Ltd., 400/220 KV GIS Sub Station, Vill. Meerpur Kotla, PO. Trilokpu Tehsil. Nahan, Distt. Sirmour 173030, Himachal Pradesh
92. The Vice President, Gurgoan Palwal Transmission Ltd., F-1, Mira Corporate Suite, Ishwar Nagar, Mathura Road, New Delhi – 110065

..... Respondents

**Parties present:** Shri Aditya Das, WRLDC  
Shri Rakesh Kumar, NRLDC  
Shri Ankur, NRLDC  
Shri Shiv Sharma, NRLDC  
Shri B.K. Saxena, UPPCL

**ORDER**

The instant petition has been filed by the Petitioner, Northern Regional Load Despatch Centre (NRLDC) under Regulation 10 of the Central Electricity Regulatory Commission (Fees & Charges of Regional Load Despatch Centre and other related matters) Regulations, 2019 (hereinafter referred to as “the 2019 RLDC Regulations”) for determining the charges of NRLDC for the control period from 1.4.2019 to 31.3.2024.

2. Petitioner has made following prayers:

- “1. Approve the charges for NRLDC, as per para-5 above, for control period 1.4.2019 to 31.03.2024.
2. Approve the CAPEX/ REPEX as mentioned in Annex-IV.
3. Approve the level wise manpower as indicated in Annex-II.
4. Approve the reimbursement of expenditure towards publishing of notices in Newspapers and other expenditure (if any) in relation to the filing of Application as one time recovery.





5. *Pass such other order as the Hon'ble Commission deems fit and appropriate in this case and in the interest of justice."*
3. The brief facts of the case are as follows:
- a. National Load Despatch Centre (NLDC) and the Regional Load Despatch Centres (RLDCs) are statutory bodies set up under Section 26 and Section 27 respectively of the Electricity Act, 2003. The RLDCs perform the functions as specified under Section 28 of the Electricity Act, 2003.
  - b. NLDC and the RLDCs are being operated by Power System Operation Corporation Limited (POSOCO), a Government of India undertaking, w.e.f. 1.10.2010 in accordance with the Gazette Notification dated 27.9.2010 and 19.12.2016 of Ministry of Power, Government of India.
  - c. In exercise of powers conferred under Section 178 of the Electricity Act, 2003, the Central Electricity Regulatory Commission (hereinafter referred as "the Commission"), vide notification dated 5<sup>th</sup> April 2019 issued the 2019 RLDC Regulations for determination of fees and charges of NLDC and RLDCs for the control period 2019-24.
  - d. The Commission vide order dated 3.3.2021 in Petition No. 431/MP/2019, has approved the trued-up fees and charges of NRLDC for the control period 2014-19.
  - e. In accordance with the Regulation 10(1) of the 2019 RLDC Regulations, NRLDC has filed the instant Petition for determination of charges for the control period 2019-24 based on the capital expenditure incurred as on 1.4.2019 and projected to be incurred during the said control period.
4. The charges of NRLDC for the control period 2019-24 include Return on Equity (ROE), Interest on Loan Capital (IOL), Depreciation, Operation and Maintenance Expenses excluding human resources expenses, Operational Expenditure (OPEX), Human Resource expenses (HR expenses), NLDC charges and Corporate expenses, and Interest on working capital (IOWC).





5. The summary of charges claimed by the Petitioner in the instant petition for the control period 2019-24 is as follows:

(in Rs lakh)

Sr. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	Total
1	Return on Equity	53.68	86.60	108.72	124.27	154.18	527.45
2	Interest on Loan Capital	-	-	-	-	-	-
3	Depreciation	193.66	265.69	315.61	350.34	363.15	1488.45
4	O & M Expenses exclusive Human Resource Expenses	728.13	761.66	796.79	833.60	872.15	3992.34
5	Human Resource Expenses	2649.48	2970.60	3452.35	4008.92	4760.04	17841.39
6	OPEX	29.12	45.74	45.74	45.74	45.74	212.08
7	NLDC Charges and Corporate office expenses	1767.99	2041.20	2588.18	2834.09	3130.90	12362.36
8	Interest on Working Capital	141.09	159.70	189.11	212.20	241.74	943.84
	<b>Total</b>	<b>5563.15</b>	<b>6331.19</b>	<b>7496.50</b>	<b>8409.16</b>	<b>9567.91</b>	<b>37367.91</b>

6. The Respondents are the generating companies, distribution companies, electricity departments and transmission licensees, which are availing services from the Petitioner.

7. The hearing in this matter was held on 25.2.2020. The Commission admitted the Petition and directed the Petitioner to implead Punjab State Power Corporation Ltd (PSPCL) as a respondent in the Petition and to file revised memo of parties. The Petitioner was further directed to submit certain information vide ROP of the hearing which the Petitioner has submitted vide affidavit dated 12.3.2020.



8. The Petitioner has served the copy of the petition upon the respondents. The Respondent, Uttar Pradesh Power Corporation Limited (UPPCL), has submitted reply to this petition vide affidavit dated 27.5.2020. The Petitioner has filed rejoinder to the reply of UPPCL vide affidavit dated 5.6.2020 in the matter. The issues raised by UPPCL and response of the Petitioner thereon have been discussed in the relevant paragraphs of this order.

9. The hearing in the matter was further held on 20.5.2020 through video conferencing and the order was reserved. The Petitioner was directed to submit certain information vide ROP of the hearing which has been furnished by the Petitioner vide affidavit dated 5.6.2020.

10. This order has been issued after considering the main petition dated 4.10.2019, submission of additional information by the Petitioner vide affidavits dated 12.3.2020 and 5.6.2020, reply of UPPCL vide affidavit dated 27.5.2020 and Petitioner's rejoinder vide affidavit dated 5.6.2020.

11. Having heard the representatives of the Petitioner and UPPCL present at the hearing and having perused the material on record, we proceed to dispose of the instant petition.

### **DETERMINATION OF CHARGES FOR 2019-24 PERIOD**

12. The Petitioner has submitted information as required under the 2019 RLDC Regulations for determination of NRLDC charges for control period 2019-24. The computation of NRLDC charges for control period 2019-24 has been discussed in the subsequent paragraphs.

### **Capital Cost**



13. Regulation 14 of the 2019 RLDC Regulations provides as under:

**“14. Computation of Capital Cost**

(1) *The capital cost as admitted by the Commission after prudence check, for each of the Regional Load Despatch Centres or NLDC, as the case may be, shall form the basis for determination of annual charges.*

(2) *The capital cost shall be computed by considering the following:*

*i) The Capital cost as admitted by the Commission as on 01.04.2019 duly trued up by excluding liability, if any;*

*ii) Expenditure on account of additional capitalization determined in accordance with the Regulation 15 (1);*

*iii) The fixed assets which have been replaced during control period shall be de-capitalized in accordance with Regulation 15 (2);*

*iv) Interest during construction and incidental expenditure during construction;*

*v) Any grant received from the Central or State Government or any statutory body or authority for execution of the project which does not carry any liability of repayment shall be excluded from the Capital Cost for the purpose of computation of interest on loan, return on equity and depreciation;*

(3) *The Capital cost shall be admitted after prudence check which may include scrutiny of the reasonableness of the capital expenditure, financing plan, Interest During Construction (IDC), Incidental Expenditure During Construction (IEDC), financing charges, any gain or loss on account of Foreign Exchange Rate Variation (FERV), cost over-run and time over-run and such other matters as may be considered appropriate by the Commission:*

*Provided that interest during construction shall be computed corresponding to the loan from the date of infusion of debt fund, and after taking into account the prudent phasing of funds duly adjusting IDC on account of time overrun if any;*

*Provided further that incidental expenditure during construction shall be computed after prudence check duly adjusting the IEDC on account of time over run, if any, interest on deposits or advances, or any other receipts and liquidated damages recovered or recoverable corresponding to the delay.*

(4) *RLDC or NLDC shall submit Auditor Certificate for the capital expenditure incurred as on 1.4.2019 and, a Management Certificate duly signed by an authorised person, not below the level of Director of the company, for the projected capital expenditure for respective years of the period 2019-24.”*

14. The capital cost of Rs 1245.32 lakh as on 31.3.2019 was admitted by the Commission vide order dated 3.3.2021 in Petition No. 431/MP/2019 and the same has been considered as opening capital cost as on 1.4.2019 for NRLDC for determination of charges in accordance with Regulation 14 of the 2019 RLDC Regulations.



## **Capital Expenditure (CAPEX) and Replacement Expenditure (REPEX)**

15. Regulation 8 of the 2019 RLDC Regulations provides as under:

**“8. Capital Expenditure (CAPEX) and Replacement Expenditure (REPEX) Plan:**

(1) The RLDCs and NLDC shall formulate the scheme for Capital Expenditure (CAPEX) and Replacement Expenditure (REPEX) for the control period duly approved by the Board of Directors of Power System Operation Corporation Limited. The CAPEX and REPEX plan shall also include future costs to be incurred for the up-gradation, modernization, automation and expansion of infrastructure in addition to existing capital assets.

(2) The concerned RLDCs or NLDC as the case may be shall submit the following along with the petition for determination of fees and charges:

a) the CAPEX for the control period along with details of estimated expenses, and estimated completion period of each scheme;

b) the REPEX plan for capital expenditure of existing asset, completion of life of existing asset, cumulative depreciation recovered, date of replacement, cumulative repayment of loan upto date of replacement, writing off of the gross value of the original assets from the original fixed assets along with estimated expenses and estimated completion period of each scheme.

(3) XXXXXXXXXXXX”

16. The Petitioner has claimed projected Capital Expenditure (CAPEX) and Replacement expenditure (REPEX) during the control period 2019-24 as follows:

(In Rs lakh)

Sr. No.	Expenditure head	2019-20	2020-21	2021-22	2022-23	2023-24	Total
1	CAPEX	614.62	401.20	271.20	156.20	716.20	2159.42
2	REPEX	20.00	30.00	16.00	60.00	30.00	156.00
	<b>Total</b>	<b>634.62</b>	<b>431.20</b>	<b>287.20</b>	<b>216.20</b>	<b>746.20</b>	<b>2315.42</b>

17. The detailed head-wise break-up of the CAPEX and REPEX submitted by the Petitioner is as follows:

**CAPEX Plan**

(In Rs lakh)

Name of the Work	2019-20	2020-21	2021-22	2022-23	2023-24	Total
<b>SCADA systems</b>						
<b>Hardware</b>						
WAMS system/Data	-	20.00	-	-	-	20.00



Analytics						
Enhanced Operator Interface/facility	15.00	-	-	-	-	15.00
Video Wall Controller	10.62	-	-	-	-	10.62
<b>Sub Total</b>	<b>25.62</b>	<b>20.00</b>	-	-	-	<b>45.62</b>
<b>Software</b>						
WAMS system	-	100.00	-	-	-	100.00
Decision support systems	-	20.00	-	-	-	20.00
Sub Total	-	120.00	-	-	-	120.00
<b>Sub Total</b>	<b>25.62</b>	<b>140.00</b>	-	-	-	<b>165.62</b>
<b>IT Systems</b>						
<b>Hardware</b>						
IT Infrastructure (Servers, Routers etc.)	250.00	15.00	15.00	100.00	15.00	395.00
Office computer system	20.00	-	-	-	-	20.00
Cyber Security	40.00	40.00	-	-	-	80.00
Data Centre h/w equipments	-	50.00	-	-	-	50.00
Communication infrastructure	5.00	5.00	-	-	-	10.00
<b>Sub-Total</b>	<b>315.00</b>	<b>110.00</b>	<b>15.00</b>	<b>100.00</b>	<b>15.00</b>	<b>555.00</b>
<b>Software</b>						
IT Infrastructure	100.00	-	-	-	-	100.00
Other s/w , S/W standardisation etc.	5.00	10.00	10.00	10.00	10.00	45.00
Outage Management Software	10.00	-	-	-	-	10.00
REMC Weather Service Provider	-	-	-	-	10.00	10.00
Forecasting	15.00	-	-	-	15.00	30.00
WBES Software	-	-	125.00	-	-	125.00
Fees & Charges billing & accounting	-	-	40.00	-	-	40.00
Reporting Software	-	-	-	-	40.00	40.00
Big Data Analytics	-	50.00	50.00	-	-	100.00
Cyber Security	10.00	10.00	10.00	10.00	10.00	50.00
Data Centre s/w equipments	-	15.00	15.00	15.00	15.00	60.00
Store Management System	-	20.00	-	-	-	20.00
Building Management System	-	10.00	-	-	-	10.00
Sub Total	140.00	115.00	250.00	35.00	100.00	640.00
<b>Sub Total</b>	<b>455.00</b>	<b>225.00</b>	<b>265.00</b>	<b>135.00</b>	<b>115.00</b>	<b>1195.00</b>
<b>Power Supply</b>						
Solar system	15.00	-	-	-	-	15.00
LT/Distribution panel	55.00	-	-	-	-	55.00
<b>Sub Total</b>	<b>70.00</b>	-	-	-	-	<b>70.00</b>
<b>Civil Works</b>						
Office Building*	-	-	-	-	600.00	600.00



Bollard System (Boom Barrier)	-	10.00	-	-	-	10.00
Boundary Wall/Fencing	-	15.00	-	-	-	15.00
CCTV & Surveillance system	10.00	-	-	-	-	10.00
<b>Sub Total</b>	<b>10.00</b>	<b>25.00</b>	<b>-</b>	<b>-</b>	<b>600.00</b>	<b>635.00</b>
<b>Air conditioning System</b>						
Other Air conditioning System- Portable	5.00	-	5.00	-	-	10.00
AC Plant Chiller unit (2 no)	49.00	-	-	-	-	49.00
<b>Sub Total</b>	<b>54.00</b>	<b>-</b>	<b>5.00</b>	<b>-</b>	<b>-</b>	<b>59.00</b>
<b>Communication System</b>						
<b>Sub Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Other Infrastructure, including Equipment</b>						
Furnitures	-	10.00	-	-	-	10.00
Library System	-	1.20	1.20	1.20	1.20	4.80
Fitness equipments	-	-	-	20.00	-	20.00
<b>Sub Total</b>	<b>-</b>	<b>11.20</b>	<b>1.20</b>	<b>21.20</b>	<b>1.20</b>	<b>34.80</b>
<b>Any other Asset not covered under any of the Categories mentioned above</b>						
<b>Sub Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total</b>	<b>614.62</b>	<b>401.20</b>	<b>271.20</b>	<b>156.20</b>	<b>716.20</b>	<b>2159.42</b>

### REPEX Plan

(In Rs lakh)

Name of the Work	2019 – 20	2020 - 21	2021 - 22	2022 - 23	2023 - 24	Total
<b>IT Systems</b>						
<b>Hardware</b>						
VC	-	30.00	-	-	-	30.00
Offline Computer Systems	20.00	-	-	-	-	20.00
<b>Sub Total</b>	<b>20.00</b>	<b>30.00</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>50.00</b>
<b>Software</b>						
Website & Intranet	-	-	-	20.00	-	20.00
MDM	-	-	-	40.00	-	40.00
Pool Account Management	-	-	-	-	30.00	30.00
<b>Sub Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>60.00</b>	<b>30.00</b>	<b>90.00</b>
<b>Total</b>	<b>20.00</b>	<b>30.00</b>	<b>-</b>	<b>60.00</b>	<b>30.00</b>	<b>140.00</b>
<b>Power Supply</b>						
DG Set Replacement	-	-	16.00	-	-	16.00
<b>Total</b>	<b>-</b>	<b>-</b>	<b>16.00</b>	<b>-</b>	<b>-</b>	<b>16.00</b>



<b>Total</b>	<b>20.00</b>	<b>30.00</b>	<b>16.00</b>	<b>60.00</b>	<b>30.00</b>	<b>156.00</b>
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18. The head-wise details of the de-capitalisation of assets has been submitted by the Petitioner vide Form-5B which is as follows:

(In Rs lakh)

<b>Name of the Asset</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Power Supply	-	-	6.71	-	-
IT Systems (Hardware)	7.07	7.61	-	-	-
<b>Total</b>	<b>7.07</b>	<b>7.61</b>	<b>6.71</b>	-	-

19. The Petitioner has submitted resolution of Board regarding CAPEX and REPEX Plan. The major components of CAPEX and REPEX claimed by the Petitioner are as follows:

- Rs.1195.00 lakh claimed under CAPEX towards procurement of IT Systems (Rs. 555 lakh for IT Hardware and Rs. 640 lakh for IT Software).
- Rs. 165.62 lakh towards additional analytical SCADA software under CAPEX (Rs. 45.62 for SCADA Hardware and Rs. 120 lakh for SCADA software).
- Rs. 600 lakh under CAPEX towards Civil works at NRLDC which consist of acquisition/ building up of new office space.
- Rs. 70 lakh under CAPEX towards power supply head for installation of solar systems and LT distribution panel.
- Rs. 59 lakh under CAPEX towards procurement of two new chiller plants and portable ACs under the head Air conditioning systems.
- Rs. 34.80 lakh under CAPEX towards procurement of furniture, fitness equipment and library system.
- Rs. 140 lakh under REPEX towards up gradation of IT systems (Rs. 50 lakh for IT Hardware and Rs. 90 lakh towards IT software).
- Rs. 16 lakh under REPEX plan envisaged to be spent on Power supply for DG set replacement.





20. The Petitioner has submitted that presently NRLDC does not have its own land/ office building infrastructure. However, possibilities in this regard are being explored by the Petitioner. The Petitioner further submitted that as acquisition/ construction of own infrastructure may require significant expenditure, NRLDC shall approach the Commission for necessary directions, after finalization of the proposal, in this regard. The Petitioner has claimed an anticipated amount of Rs 600 lakh in the FY 2023-24 for acquisition/ building of its own office infrastructure.

21. Clause 5 of Regulation 10 of the 2019 RLDC Regulations is reproduced below:

*“(5) The concerned RLDC or NLDC, as the case may be, shall be allowed the fees and charges by the Commission based on the audited capital expenditure incurred as on 1.4.2019 and projected to be incurred during control period as per Management Certificate for CAPEX and REPEX.:*

*Provided that the application shall contain details of underlying assumptions and justification for the capital expenditure incurred and the expenditure proposed to be incurred in accordance with the CAPEX and REPEX.”*

22. Regulation 12 of the 2019 RLDC Regulations is reproduced below:

*“12. Prudence Check of Capital Expenditure*

*The principles adopted for prudence check of capital cost shall be reasonableness of capital cost, financing plan, interest during construction, use of efficient technology, upgradability/ scalability of the technology and systems to accommodate the growing requirement of system operation, cost overrun and time over-run, procurement of equipment and materials through competitive bidding and such other matters as may be considered appropriate by the Commission for determination of fees and charges.*

*Provided that, while carrying out the prudence check, the Commission shall also examine whether the RLDCs or NLDC, as the case may be, has been careful in its judgments and decisions in execution of the project.”*

23. A conjoint reading of clause 5 of Regulations 10 and Regulation 12 of the 2019 RLDC Regulations provide that CAPEX and REPEX incurred and projected to be incurred during the control period shall also contain the underlying assumptions and justification for the same to enable prudence check by the Commission.



## **CAPEX**

24. It is evident from the submissions of the Petitioner that SCADA replacement is completed at NRLDC during the last control period. However, minor up-gradation work is envisaged to be carried out towards additional analytical software such as WAMS system/ Data Analytics, Enhanced Operator Interface, Video Wall Controller towards SCADA Hardware and Decision support system and WMAS towards SCADA software. SCADA being an important part in normal functioning of RLDCs, the projected expenses claimed towards SCADA up-gradation work is allowed.

25. We further note that the petitioner has estimated an expenditure of Rs. 1195 lakh under the CAPEX Plan towards procurement of new IT related Hardware and software. The Petitioner has submitted the details of these IT software along with their costing details such as outage management software, IT infrastructure, WBES software, big data analytics, reporting software, scheduling software, fees and charges software, etc. The Petitioner has also submitted details of IT hardware along with their costing details such as in data centres, PA and VC systems, Access control and security system, REMC, cyber security etc.

26. The IT software and hardware being crucial elements for functioning of NRLDC and the same having been justified by the Petitioner along with their costing details, we allow these expenditures on projection basis subject to true-up.

27. With regard to the claim of the Petitioner of Rs 600 lakh in the FY 2023-24 for acquisition/ building of its own office infrastructure, we allow the said expenditure subject to submission of justification along with cost details at the time of true-up. We expect that due fiscal prudence will be exercised and expenditure shall be in line with DPE/GOI Guidelines, if any, in this regard.

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## **REPEX**

28. The Petitioner has projected an expenditure of Rs 50.00 lakh on IT Hardware, Rs 90.00 lakh on IT Software and Rs. 16 lakh towards power supply including procurement of new DG set. The Petitioner has submitted that IT hardware expense includes items such as equipment for VC systems and Offline computer systems. REPEX expenditure on IT software includes website and intranet, MDM and Pool account Management. Expenses proposed to be incurred on power supply include procurement of new DG Set in the FY 2021-22.

29. We have considered the submissions of Petitioner regarding REPEX. The Petitioner has also submitted its REPEX Plan as approved by Board of POSOCO as per the requirement in Regulation 8(1) of the 2019 RLDC Regulations. Therefore, we allow the REPEX plan claimed on projection basis subject to true-up.

30. As per clause 2(b) of Regulation 8 of the 2019 RLDC Regulations, the Petitioner is required to submit the REPEX plan for capital expenditure on existing assets, completion of life of existing assets, cumulative depreciation recovered, date of replacement, cumulative repayment of loan up to date of replacement, writing off of the gross value of the original assets from the original fixed assets along with estimated expenses and estimated completion period for each scheme.

31. The Commission vide ROP of hearing dated 25.2.2020 had sought the following information regarding REPEX from the Petitioner:

“xxxx

*v. Submit the corresponding de-capitalisation alongwith its gross value and cumulative depreciation, if there is REPEX; and*

xxxx”



32. In response, the Petitioner submitted details regarding de-capitalisation along with its gross value and cumulative depreciation. However, we observe that the Petitioner has not submitted the complete details as per clause 2(b) of Regulation 8 of the 2019 RLDC Fees Regulations. The Petitioner is directed to submit the same at the time of true-up.

33. The Petitioner has submitted resolution of the Board regarding CAPEX and REPEX. However, the same does not include the approved figures by the Board. The Board resolution refers to the Background note. The Petitioner is directed to submit the background note approved by the Board which includes the approved projected figures along with true up petition.

34. As per the above discussion, the allowed CAPEX and REPEX for the control period 2019-24 is as follows:

(In Rs lakh)

<b>Expenditure Head</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	<b>Total</b>
CAPEX Allowed	614.62	401.20	271.20	156.20	716.20	2159.42
REPEX Allowed	20.00	30.00	16.00	60.00	30.00	156.00
Total CAPEX and REPEX Allowed	634.62	431.20	287.20	216.20	746.20	2315.42

35. The expenditure allowed under CAPEX and REPEX are subject to submission of justification and reasonableness of the expenditure incurred along with Auditor Certificate and other details as per the Regulations 10(5) read with Regulation 12 and clause 2(b) of Regulation 8 the 2019 RLDC Regulations at the time of true up.

### **De-capitalisation**

36. Regulation 15 of the 2019 RLDC Regulations provides as follows:



**“15. Additional Capitalization and De-Capitalization**

(1) The capital expenditure incurred or projected to be incurred for the assets already in service and the additional assets projected to be procured during tariff period may be admitted, by the Commission, subject to prudence check.

(2) In case of de-capitalization of assets under the REPEX or otherwise, the original cost of such asset as on the date of de-capitalization shall be deducted from the value of gross fixed asset along with corresponding adjustment in equity, outstanding loan, cumulative repayment of loan and depreciation in the year such de-capitalization takes place.”

37. The Petitioner has submitted Form-3C wherein year-wise de-capitalisation of assets have been provided as follows:

(In Rs lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24	Total
<b>De-Capitalization</b>	7.07	7.61	6.71	0.00	0.00	21.39

**Net Additional Capitalisation**

38. The net additional capitalisation has been derived after considering allowed CAPEX/ REPEX and de-capitalization. Following is the net additional capitalisation allowed in the instant Petition:

(In Rs lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24	Total
<b>Net Additional capitalization</b>						2294.0
	627.55	423.59	280.49	216.20	746.20	3

**Debt-Equity Ratio**

39. Regulation 16 of the 2019 RLDC Regulations provides as under:-

“(1) The actual debt - equity ratio as admitted by the Commission for the period ending 31.3.2019 shall be considered for the opening capital cost of the Regional Load Despatch Centres and National Load Despatch Centre for the next control period:

(2) The capital expenditure incurred prior to 1.4.2019, where debt-equity ratio has not been determined by the Commission for determination of annual charges of RLDC for the period ending 31.3.2019, the Commission shall determine the debt: equity ratio in accordance with Regulation 11(3) of the Central Electricity Regulatory Commission (Fees and Charges for Regional Load Despatch Centres and other related matters) Regulations 2015:



(3) For the capital expenditure incurred or projected to be incurred on or after 1.4.2019, the debt-equity ratio shall be considered as 70:30. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan: Provided that:

i. Where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of Return on Equity;

ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment;

iii. Any grant, other than LDC development Fund obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt – equity ratio.

*Explanation: The premium, if any, raised by the Power System Operation Corporation Limited while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount and internal resources are actually utilized for meeting the capital expenditure of the RLDC.”*

40. The Commission vide order dated 3.3.2021 in Petition no. 431/MP/2019 has trued up the fees and charges for the period 2014-19 and the admitted debt-equity ratio as on 31.3.2019 is 86.81:13.19. The same debt-equity ratio has been considered as on 1.4.2019.

41. The Petitioner has submitted that the capital expenditure and replacement expenditure during the 2019-24 period shall be in debt-equity ratio of 70:30. Further, 70% of the CAPEX and REPEX shall be funded through debt (from LDCD funds) and 30% of the CAPEX and REPEX shall be funded through equity share capital.

42. The Petitioner vide Form 3C has submitted that de-capitalisation during 2019-24 period is in debt-equity ratio of 86.81:13.19. Therefore, we have considered debt-equity ratio for the additional capitalisation and de-capitalisation in the ratio of 70:30 and 86.81:13.19 respectively for 2019-24 control period. After removing the debt and equity in respect of the de-capitalised assets from the respective debt and



equity of the CAPEX/REPEX, the equity of the net additional capitalisation was restricted to 30% as per clause 3 of Regulation 16 of the 2019 RLDC Regulations.

43. The details of the debt-equity considered as on 1.4.2019 and 31.3.2024 for the purpose of charges of NRLDC for the 2019-24 period is as follows:

( In Rs lakh)

Particular	Capital cost as on 1.4.2019		Capital cost as on 31.3.2024	
	Amount	%	Amount	%
Debt	1081.05	86.81	2686.87	75.91
Equity	164.28	13.19	852.48	24.09
<b>Total</b>	<b>1245.32</b>	<b>100</b>	<b>3539.35</b>	<b>100</b>

### **Return on Equity (ROE)**

44. Regulation 19 of the 2019 RLDC Regulations provides as under:

#### ***“19. Return on Equity***

*(1) Return on equity shall be computed in Rupee terms on the equity base determined in accordance with Regulation 16 of these regulations.*

*(2) Return on equity shall be computed on pre-tax base rate of 15.50% to be grossed up as per the sub-clause (3) of this Regulation.*

*(3) The rate of return on equity shall be computed by grossing up the base rate with the effective tax rate of the respective financial year based on relevant Finance Act.*

*(4) Return on equity with respect to the actual tax rate applicable to the Power System Operation Corporation Limited in line with the provisions of the relevant Finance Acts of the respective year during control period shall be trued up at the end of the control period.*

*(5) Rate of return on equity shall be rounded off to three decimal points and be computed as per the following formula:*

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

*Where, t is the effective tax rate in accordance with sub-clause (3) and regulation 3(15).”*

45. The Petitioner has submitted that 30% of the capital expenditure for the period 2019-24 shall be done through Petitioner’s own equity share capital. The Petitioner vide Form-2 has also submitted that the effective tax rate considered for computation of ROE for the period 2019-24 is 25.17%.





46. Clause 6 of Regulation 27 of the 2019 RLDC Regulations is reproduced below:

“(5)Xxxxxx

*(6) Any asset created by the POSOCO out of the money deposited into the LDCD Fund shall be considered for computation of depreciation as per the rates specified in these Regulations. If required, POSOCO may finance capital assets partly from the equity and partly from LDCD Fund. As such, if the capital project is partly financed from equity share capital, it shall be considered for computation of return on equity, in which case, the funding shall be considered in a normative debt equity ratio of 70:30 with the interest on loan component as NIL and the treatment of equity as per regulation 16(2) of these Regulations. Load Despatch Centre shall submit details of such assets in the CAPEX plan.*

(7) Xxxxxxx”

47. We observe that in the instant case, the Petitioner has proposed to finance 30% of capital expenditure for the period 2019-24 partly from the equity share capital and 70% of capital expenditure (debt portion) from LDCD funds. Therefore, year-wise ROE allowed has been worked out as per the 2019 RLDC Regulations considering effective tax rate as 25.17% as follows:

(Rs in lakh)					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Opening Equity	164.28	352.54	479.62	563.76	628.62
Addition due to Additional Capitalization after considering de-capitalisation	188.27	127.08	84.15	64.86	223.86
Closing Equity	352.54	479.62	563.76	628.62	852.48
Average Equity	258.41	416.08	521.69	596.19	740.55
Return on Equity (Base Rate) %	15.50%	15.50%	15.50%	15.50%	15.50%
Effective Tax rate %	25.170%	25.170%	25.170%	25.170%	25.170%
Rate of Return on Equity (Pre-tax) %	20.714%	20.714%	20.714%	20.714%	20.714%
<b>Return on Equity (Pre-tax)</b>	<b>53.53</b>	<b>86.19</b>	<b>108.06</b>	<b>123.50</b>	<b>153.40</b>



48. The Petitioner is directed to submit year-wise actual equity capital infused for incurring capital expenditure during the 2019-24 period duly certified by the Auditor at the time of true up.

### **Interest on Loan (IOL)**

49. The Petitioner has not claimed Interest on Loan component for the 2019-24 period as the principal portion of the loan has been repaid fully.

### **Depreciation**

50. The Petitioner has submitted that depreciation has been worked as per Regulation 21 of the 2019 RLDC Regulations and the salvage value of assets excluding IT Equipment and Software has been considered as 10% and there is no salvage value for IT Equipment and Software. The Petitioner has further submitted that depreciation has been worked out as per the rates given in Appendix III of the 2019 RLDC Regulations.

51. Regulations 21 of the 2019 RLDC Regulations provides as under:

#### ***“21. Depreciation***

*(1) Xxxxx*

*(2) The salvage value of the asset (excluding IT equipment and Software) shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset. The salvage value for IT equipment and software shall be considered as NIL and 100% value of the assets shall be considered as depreciable.*

*(3) Land shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the capital cost of the asset.*

*(4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-III to these regulations for the assets of the Regional Load Despatch Centre.*

*(5)Xxxxxx*

*(6)Xxxxxx*



(7) The balance depreciable value as on 1.4.2019 shall be worked out by deducting the cumulative depreciation from the gross depreciable value of the assets appearing in the books of accounts of the Power System Operation Corporation Limited for the respective Regional Load Despatch Centre and National Load Despatch Centre.

(8) In case of de-capitalization of assets in respect of concerned RLDC, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the de-capitalized asset during its useful life.”

52. Depreciation has been calculated annually based on Straight Line Method and at rates specified in the 2019 RLDC Regulations. Year-wise Weighted Average Rates of Depreciation (WAROD) have been calculated by applying specified rates of depreciation for individual items and WAROD has been worked out (Annexure-1).

The depreciation worked out is as follows:

(Rs in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Opening Gross Block</b>	1245.32	1872.87	2296.46	2576.95	2793.15
<b>Additional Capital expenditure after considering de-capitalisation during 2019-24</b>	627.55	423.59	280.49	216.20	746.20
<b>Closing Gross Block</b>	1872.87	2296.46	2576.95	2793.15	3539.35
<b>Average Gross Block</b>	1559.09	2084.66	2436.70	2685.05	3166.25
<b>Average Gross Block of 90% Depreciable assets</b>	362.51	447.61	473.46	491.80	803.00
<b>Average Gross Block of 100% Depreciable assets</b>	1196.58	1637.05	1963.25	2193.25	2363.25
<b>Weighted Average Rate of Depreciation (%)</b>	<b>12.52%</b>	<b>12.74%</b>	<b>12.96%</b>	<b>13.09%</b>	<b>12.24%</b>
<b>Depreciable Value (excluding IT equipments and software)</b>	326.26	402.85	426.11	442.62	722.70
<b>Depreciable value of IT equipments and software</b>	1196.58	1637.05	1963.25	2193.25	2363.25
<b>Total Depreciable Value</b>	1522.84	2039.90	2389.36	2635.87	3085.95
<b>Remaining Depreciable Value</b>	273.04	602.06	693.63	631.12	729.76
<b>Depreciation</b>	<b>195.14</b>	<b>265.53</b>	<b>315.75</b>	<b>351.44</b>	<b>387.67</b>
<b>Cumulative Depreciation/ Advance against Depreciation</b>	1437.84	1695.73	2004.75	2356.19	2743.86

### **Operation and Maintenance Expenses (O&M Expenses)**

53. The Petitioner has submitted that the normalized O&M expenses of the 2014-19 period have been escalated at the rate of 4.77% and then averaged to arrive at the normalized average O&M expenses at 2018-19 level. Further escalation rate of



4.77% has been considered for escalating the average normalized O&M expenses of 2018-19 price level to arrive at the O&M expenses for the year 2019-20 and further for each year of 2020-2024.

54. The Petitioner has submitted that SCADA-AMC charges have been added on the basis of LOAs awarded earlier in accordance with the clause 5 of Regulation 22 of the 2019 RLDC Regulations.

55. The Petitioner vide affidavit dated 5.6.2020 has submitted that the total O&M expenses arrived for the year FY 2019-20 have been allocated in the ratio of actual head-wise expenses incurred during the last year of the control period 2014-19. Thereafter, the head-wise O&M expenses for the FY 2019-20 have been escalated further at 4.77% to arrive at the O&M expenses for subsequent years.

56. The summary of O&M Expenses claimed by the Petitioner for period 2019-24 is as follows:

(Rs In lakh)

ITEMS	2019-20	2020-21	2021-22	2022-23	2023-24	Total
<b>Repairs and maintenance expenses (R&amp;M expenses)</b>	132.05	137.15	142.48	148.08	153.94	<b>713.70</b>
<b>Administrative and general expenses etc. (A&amp;G expenses)</b>	596.08	624.52	654.31	685.52	718.22	<b>3278.64</b>
<b>Total</b>	<b>728.13</b>	<b>761.67</b>	<b>796.79</b>	<b>833.60</b>	<b>872.16</b>	<b>3992.34</b>

57. Details of the projected R&M expenses and A&G expenses claimed by the Petitioner for period 2019-24 are as follows:

**Repair and Maintenance Expenses (R&M expenses)**



(Rs In lakh)

Account Head	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Civil Works repairs and maintenance	100.36	105.14	110.16	115.41	120.92	551.99
Others (Specify)	6.47	6.78	7.11	7.45	7.80	35.61
<b>Total</b>	<b>106.83</b>	<b>111.93</b>	<b>117.26</b>	<b>122.86</b>	<b>128.72</b>	<b>587.60</b>
AMC of SCADA	25.22	25.22	25.22	25.22	25.22	126.10
<b>Grand Total (R&amp;M)</b>	<b>132.05</b>	<b>137.15</b>	<b>142.48</b>	<b>148.08</b>	<b>153.94</b>	<b>713.70</b>

**Administration and General Expenses (A&G expenses)**

(Rs In lakh)

<u>Account Head</u>	<u>2019-20</u>	<u>2020-21</u>	<u>2021-22</u>	<u>2022-23</u>	<u>2023-24</u>	<u>Total</u>
<b><u>PROPERTY RELATED EXPENSES</u></b>						
Rates and Taxes	1.69	1.77	1.86	1.95	2.04	9.32
Insurance	1.75	1.83	1.92	2.01	2.11	9.62
<b>Sub Total.</b>	<b>3.44</b>	<b>3.61</b>	<b>3.78</b>	<b>3.96</b>	<b>4.15</b>	<b>18.94</b>
<b><u>COMMUNICATION</u></b>						
Telephone and Trunk Call	16.69	17.48	18.32	19.19	20.10	91.78
Postage and Telegram	1.19	1.25	1.31	1.37	1.44	6.57
Courier Charges	0.19	0.20	0.21	0.22	0.23	1.07
Other (Internet Leased Line Charges)	10.55	11.05	11.58	12.13	12.71	58.03
<b>Sub Total.</b>	<b>28.62</b>	<b>29.99</b>	<b>31.42</b>	<b>32.92</b>	<b>34.49</b>	<b>157.44</b>
<b><u>PROFESSIONAL CHARGES</u></b>						
Legal Expenses	1.19	1.25	1.31	1.37	1.44	6.57
Consultancy Charges	6.61	6.92	7.25	7.60	7.96	36.34
Technical Fees	1.05	1.10	1.15	1.20	1.26	5.75
Other Charges	0.01	0.01	0.01	0.01	0.01	0.05
<b>Sub Total.</b>	<b>8.86</b>	<b>9.28</b>	<b>9.72</b>	<b>10.19</b>	<b>10.67</b>	<b>48.71</b>
<b><u>CONVEYANCE AND TRAVELLING</u></b>						



<b>Account Head</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	<b>Total</b>
Conveyance Charges	35.65	37.35	39.13	41.00	42.95	196.07
Travelling Charges	36.45	38.19	40.01	41.92	43.92	200.50
Hire Charges of Vehicle	12.90	13.52	14.16	14.84	15.54	70.96
<b>Sub Total.</b>	<b>85.00</b>	<b>89.06</b>	<b>93.30</b>	<b>97.75</b>	<b>102.42</b>	<b>467.53</b>
<b>OTHER EXPENSES</b>						
Electricity Charges	115.67	121.19	126.97	133.03	139.37	636.22
Books and Periodicals	0.42	0.44	0.46	0.48	0.50	2.29
Printing and Stationery	6.91	7.24	7.59	7.95	8.33	38.02
Advertisement	3.83	4.01	4.21	4.41	4.62	21.07
Entertainment	2.45	2.57	2.69	2.82	2.95	13.49
Watch and Ward	233.19	244.32	255.97	268.18	280.97	1282.63
Miscellaneous	71.93	75.36	78.95	82.72	86.66	395.61
Water Charges	23.59	24.71	25.89	27.13	28.42	129.75
<b>Sub Total.</b>	<b>457.99</b>	<b>479.84</b>	<b>502.72</b>	<b>526.70</b>	<b>551.83</b>	<b>2519.08</b>
<b>ADDITIONAL EXPENSES</b>						
EDP Expenditure	12.17	12.75	13.36	14.00	14.66	66.94
Sub Total.	12.17	12.75	13.36	14.00	14.66	66.94
<b>Total (A&amp;G):</b>	<b>596.08</b>	<b>624.52</b>	<b>654.31</b>	<b>685.52</b>	<b>718.22</b>	<b>3278.64</b>

58. Regulation 22 of the 2019 RLDC Regulations provides as under: -

*“22. Operation and Maintenance Expenses*

*(1) Operation and maintenance(O&M) expenses (excluding human resource expenses) shall be derived on the basis of actual operation and maintenance expenses for the years 2014-15 to 2018-19, based on the audited balance sheets. The O&M expenses shall be normalized by excluding abnormal operation and maintenance expenses, donation, loss-in-inventory, prior period adjustments, claims and advances written-off, provisions, etc., if any, after prudence check by the Commission*

*(2) The normalized operation and maintenance expenses, after prudence check, for the years 2014- 15 to 2018-19, shall be escalated at the rate of 4.77% to arrive at the normalized operation and maintenance expenses at the 2018-19 price level respectively and then averaged to arrive at normalized average operation and maintenance expenses for the 2014-15 to 2018-19 at 2018- 19 price level. The average normalized operation and maintenance expenses of 2018-19 price level shall be escalated at the escalation rate as worked out in accordance with clause(4) of this Regulation to arrive the operation and maintenance expenses for the year 2019-20.*

*(3) The operation and maintenance expenses for the year 2019-20 shall be escalated further at the annual escalation rate as worked out in accordance with clause (4) this Regulation to arrive at permissible operation and maintenance expenses for the subsequent years of the control period.*

*(4) The escalation rate shall be worked out by considering the compounded annual growth rate, inflation rate, rationalization of O&M expenses and other factors, if any.*



*(5) The actual expenditure towards Annual Maintenance Contract (AMC) of SCADA system and other Software/Hardware like REMC, National Open Access Registry (NOAR), web based scheduling software etc. involving significant expenditure, after prudence check, shall be considered for arriving at the Operation and Maintenance Expenses during 2019-20 to 2023- 24.”*

59. Clause 10 of Regulation 24 of the 2019 RLDC Regulations provides as under:

*“Human Resource Development (HRD) expenses, incurred by the NLDC or RLDCS shall be a part of HR Expenses from FY 2019-20 onwards. In addition to the capacity building of the employees of NLDC or RLDCs, capacity building workshops and training programs organized for other stakeholders will also form part of the HRD expenses. Projected annual HRD expenses will be at least 5% of the HR expenses arrived based on the methodology defined above. However, if the actual utilization towards HRD expenditure exceeds the 5% of HR expenses of any year, it shall be allowed at the time of truing up by the Commission after prudence check. In case of less than 5% utilization, it shall be refunded at the time of annual truing up. All efforts shall be made to ensure that minimum seven days training per employee per annum is imparted as per the National Training Policy.”*

60. Clause 2 of Regulation 22 of the 2019 RLDC Regulations provides for normalisation of O&M expenses for the period 2014-2019. The O&M expenses for period 2014-19 have been normalised considering disallowed expenditure in order dated 3.3.2021 in Petition No. 431/MP/2019 (true-up petition of NRLDC fees and charges for the period 2014-19) such as rebate to customer and the expenditure claimed under organizational development and training expenses. Organizational development and training expenses shall be considered under HRD expenses during the 2019-24 control period. Further, as per clause 5 of Regulation 22 of the 2019 RLDC Regulations, the actual expenditure towards Annual Maintenance Contract (AMC) of SCADA system is to be considered and hence the same has been excluded. Projected expenditure towards AMC of SCADA has been allowed as projected by the Petitioner for 2019-24 subject to true up.

61. As per clause 4 of Regulation 22 of the 2019 RLDC Regulations, escalation rate is to be worked out considering compounded annual growth rate, inflation rate





and rationalization of O&M expenses. We observe that the compounded annual growth rate (CAGR) of normalized O&M expenses for the control period 2014-19 works out as 13.16% whereas the Petitioner has considered escalation rate of 4.77% to arrive at O&M expenses for FY 2019-20. Considering CAGR of 13.16% for previous control period, it would not be prudent to take 4.77% as escalation rate to arrive at O&M expenses for FY 2019-20. Further, considering that POSOCO came into existence only in 2017 and is a growing organisation, escalation of 13.16% has been considered to arrive at O&M Expenses for the FY 2019-20.

62. The above arrived O&M expenses (R&M expenses excluding SCADA AMC and A&G expenses) for FY 2019-20 have further been escalated at 4.77% each year as claimed by the Petitioner to arrive at O&M expenses for period 2020-2024. Accordingly, O&M expenses allowed are as under:

(in Rs, lakh)

Year	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total
O&M expenses excluding AMC SCADA	708.1	741.87	777.26	814.33	853.18	3894.72
AMC SCADA 2019-24 as per submissions	25.22	25.22	25.22	25.22	25.22	126.10
<b>Total O&amp;M Expenses 2019-24</b>	<b>733.31</b>	<b>767.09</b>	<b>802.48</b>	<b>839.55</b>	<b>878.40</b>	<b>4020.83</b>

63. The O&M expenses excluding SCADA AMC have been allocated head-wise on the basis of actual head-wise expenses approved for year 2018-19 vide Order dated 3.3.2021 in Petition No. 431/MP/2019. The head-wise breakup for R&M expenses and A&G expenses is as follows:

**R&M Expenses**

(in Rs lakh)

Allowed R&M Expenses 2019-24						
	2019-20	2020-21	2021-22	2022-23	2023-24	Total



<b>R&amp;M Expenses excluding AMC SCADA</b>	115.39	120.89	126.66	132.70	139.03	634.66
<b>AMC SCADA</b>	25.22	25.22	25.22	25.22	25.22	126.10
<b>Total R&amp;M Expenses</b>	<b>140.61</b>	<b>146.11</b>	<b>151.88</b>	<b>157.92</b>	<b>164.25</b>	<b>760.76</b>

### A&G Expenses

( in Rs lakh)

<b>Allowed A&amp;G Expenses 2019-24</b>						
<b>Account Head</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	<b>Total</b>
<b>Property related expenses</b>	3.63	3.80	3.99	4.18	4.37	19.97
<b>Communication</b>	30.19	31.63	33.14	34.72	36.37	166.04
<b>Professional charges</b>	9.34	9.79	10.25	10.74	11.25	51.37
<b>Conveyance and Travelling</b>	89.64	93.92	98.40	103.09	108.01	493.06
<b>Other expenses</b>	447.07	468.40	490.74	514.15	538.67	2459.03
<b>Additional Expenses (EDP)</b>	12.83	13.45	14.09	14.76	15.46	70.59
<b>Total A&amp;G</b>	<b>592.71</b>	<b>620.98</b>	<b>650.60</b>	<b>681.63</b>	<b>714.15</b>	<b>3260.06</b>

64. The summary of O&M Expenses allowed for period 2019-24 is as follows:

(In Rs lakh)

<b>Allowed O&amp;M Expenses 2019-24</b>						
<b>ITEMS</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	<b>Total</b>
<b>Repairs and maintenance expenses (R&amp;M)</b>	140.61	146.11	151.88	157.92	164.25	760.76
<b>Administrative and general expenses etc. (A&amp;G)</b>	592.71	620.98	650.60	681.63	714.15	3260.06
<b>TOTAL</b>	<b>733.31</b>	<b>767.09</b>	<b>802.48</b>	<b>839.55</b>	<b>878.40</b>	<b>4020.83</b>

65. The Petitioner is directed to submit details of actual SCADA AMC expenses during the 2019-24 period at the time of true up.

### Operational Expenditure (OPEX)

66. The Petitioner has submitted OPEX expenditure plan for the period 2019-24 as follows:



Sr.No.	Name of the Work	2019-20	2020-21	2021-22	2022-23	2023-24	Total
1	Data centre (services) hiring charges	12.50	25.00	25.00	25.00	25.00	112.50
2	VAPT	2.50	2.50	2.50	2.50	2.50	12.50
3	Oracle Subscription	10.00	10.00	10.00	10.00	10.00	50.00
4	DBA for Oracle Database	4.12	8.24	8.24	8.24	8.24	37.08
	<b>Total (1 to 4)</b>	<b>29.12</b>	<b>45.74</b>	<b>45.74</b>	<b>45.74</b>	<b>45.74</b>	<b>212.08</b>

67. Regulation 23 of the 2019 RLDC Regulations is reproduced below:

*“23. Operational Expenditure (OPEX)*

*OPEX shall include services like Cloud Computing, Data Storage, Data Centre, Big Data Analytics tools, Advanced data visualization tool (with GIS interfacing), Satellite Services, Weather Data Services, WebNetUse, Forecasting Services, Licensee Fee for software, tools for knowledge upgradation or training of DICs etc. NLDC may procure software of transmission cost allocation centrally, if required, for use by respective DICs under OPEX.*

*Actual expenditure towards engaging of services under OPEX shall be considered, after prudence check during 2019-20 to 2023-24.”*

68. The Petitioner has provided brief about the items covered under OPEX which is as under:

Details of OPEX

I. Hosting of critical applications to external data center

Along with development of in-house data centers, possibility of hosting critical applications on the external and professionally managed data centers needs to be explored. The advantages of external data centers include reliable power supply, multiple ISPs, higher bandwidth, tighter security and option of DR site. Apart from these, there is 24/7 monitoring of critical applications by multiple cyber security experts who respond to the cyber-attacks in real time.

II. Oracle Subscription

Oracle Database is being used for various software applications like Open Access, web Based scheduling Software, Meter Data Management etc. and renewal of Oracle subscription needs to be done every year.



### III. DBA for Oracle

Since all critical applications are using oracle as its database, its maintenance and upkeep becomes very essential. It is proposed to hire Database Administrator (DBA) for managing Oracle Database and maintaining its availability.

### IV. VAPT

As per cyber security measures and ISMS requirement, Vulnerability Assessment and Penetration testing (VAPT) is proposed is to be carried out every year through third party CERT-in certified auditors.

69. We have considered the submissions made by the petitioner. We observe that the expenses projected to be incurred on OPEX are mostly towards increasing bandwidth for hosting of critical applications on external data centre, its security and subscription of Oracle and hiring of DBA for managing Oracle database and VAPT. We allow the OPEX as claimed by the petitioner. However, the same is subject to true-up in accordance with the Regulation 23 of the 2019 RLDC Regulations.

### **Human Resource Expenses (HR Expenses)**

70. Regulation 24 of the 2019 RLDC Regulations is as follows:

#### ***“24. Human Resource Expenses***

*(1) Human resource expenses shall be derived on the basis of actual human resource expenses for the years 2017-18 to 2018-19 based on the audited balance sheets. The human resource expenses shall be normalized by excluding abnormal Human resource expenses ex-gratia, VRS expenses, PRP/incentive, prior-period adjustments, claims and advances written-off, provisions, etc., if any, after prudence check by the Commission:*

*(2) The expenses towards payment of Certificate Retainer-ship amount would be a part of the Human Resource Expenses.*

*(3) Performance related pay computed in accordance with DPE /other applicable guidelines shall be met from the incentive allowed in accordance with Regulation 32 of these Regulations.*

*Provided that in case of any surplus in the incentive collected as per provisions of Regulation 32 after payment of performance related pay in accordance with DPE guidelines, such surplus amount shall be maintained separately to be used in subsequent years in case of shortfall of funds for payment of performance related pay as per DPE guidelines.*



*Provided further that in case shortfall in the funds as per Regulation 32 for distribution of performance related pay in accordance with DPE guidelines still persists, the shortfall shall be met from the LDC development Fund*

*(4) The normalized human resource expenses, after prudence check, for the year 2017-18 to 2018- 19, shall be escalated at the rate of 4.77% to arrive at the normalized human resource expenses at the 2018-19 price level respectively and then averaged to arrive at normalized average human resource expenses for the 2017-18 to 2018-19 at 2018-19 price level.*

*(5) The manpower approved during the year 2018-19 shall be the basis for computation of the HR expenses for 2019-20. Thereafter, for the subsequent years, the HR expenses shall be escalated at the annual escalation rate.*

*(6) The average normalized human resource expenses of 2018-19 price level shall be escalated at the escalation rate as worked out in accordance with clause (8) of this Regulation to arrive the HR expenses for the year 2019-20.*

*(7) The human resource expenses for the year 2019-20 shall be escalated further at the annual escalation rate as worked out in accordance with clause (8) this Regulation to arrive at permissible human resource expenses for the subsequent years of the control period:*

*(8) The escalation rate shall be worked out by considering the compound annual growth rate, inflation rate, rationalization of human resource and other factors, if any.*

*(9) The cost of anticipated increase in the manpower of each year of the control period shall also be considered after prudence check. The strength of manpower required for effective functioning of LDC will be as approved by the Commission while specifying the fees and charges.*

*(10) Human Resource Development (HRD) expenses, incurred by the NLDC or RLDCS shall be a part of HR Expenses from FY 2019-20 onwards. In addition to the capacity building of the employees of NLDC or RLDCs, capacity building workshops and training programs organized for other stakeholders will also form part of the HRD expenses. Projected annual HRD expenses will be at least 5% of the HR expenses arrived based on the methodology defined above. However, if the actual utilization towards HRD expenditure exceeds the 5% of HR expenses of any year, it shall be allowed at the time of truing up by the Commission after prudence check. In case of less than 5% utilization, it shall be refunded at the time of annual truing up. All efforts shall be made to ensure that minimum seven days training per employee per annum is imparted as per the National Training Policy.”*

71. The Summary of HR expenses claimed by the Petitioner for period 2019-24 is as follows:

	(In Rs lakh)					
<b>Financial Year</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	<b>Total</b>
<b>HR Cost</b>	2523.31	2829.14	3287.95	3818.02	4533.37	16991.79
<b>HRD Cost</b>	126.17	141.46	164.4	190.9	226.67	849.59



<b>Total HR Cost</b>	<b>2649.48</b>	<b>2970.60</b>	<b>3452.35</b>	<b>4008.92</b>	<b>4760.04</b>	<b>17841.38</b>
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72. The Petitioner has submitted that costs under provisions of Performance Related Expenses (PLI/ PRP) expenses have already been excluded from the HR expenses of the 2014-19 period before using them for projecting HR cost for the 2019-24 period. The Petitioner has further requested that the impact of IND AS adjustments, under “Staff Welfare” head, inadvertently excluded in the 2014-19 petition, may be considered for arriving at the expenses of 2019-24 period.

73. The Petitioner has submitted that as per Regulation 24 of the 2019 RLDC Regulations, normalized HR expenses of 2017-18 have been escalated at the rate of 4.77% to arrive at 2018-19 price level and then averaged with 2018-19 HR expenses to arrive at the normalized average HR expenses at 2018-19 level. This has been escalated at 4.77% each year to arrive at HR expenses for the year 2019-20 and further for each year of the 2020-2024 period.

74. The Petitioner has further submitted that for arriving at the head-wise HR expenses for the control period 2019-24, the total expenses arrived for the year FY 2019-20 have been allocated head-wise in the ratio of actual head-wise expenses incurred during the last year i.e. FY 2018-19 of the control period 2014-19. Thereafter, the head-wise HR expenses for the FY 2019-20 have been escalated further at the same rate i.e. 4.77% to arrive at the HR expenses for subsequent years. The Petitioner in the calculation sheets submitted along with the Petition has multiplied escalated per employee expense for 2019-20 with projected manpower for 2019-20. Similarly projected HR expense has been calculated by Petitioner for



subsequent years of 20-24 considering escalation rate of 4.77% and projected manpower.

75. Further, the Petitioner submitted that Human Resource Development (HRD) expenses have been considered as 5% of HR expenses in line with the clause 10 of Regulation 24 of the 2019 RLDC Regulations.

76. UPPCL vide affidavit dated 27.5.2020 has submitted that performance related pay (PRP) may be deleted under the head Human Resource Expenses for the years 2017-18 and 2018-19 before normalization of these expenses to arrive at HR expenses for years under the control period from 2019 to 2024.

77. The Petitioner vide its rejoinder dated 5.6.2020 to the reply of UPPCL clarified that while computation of HR expenses for the control period 2019-24, Performance Related Expenses (PRP/PLI) incurred during the control period 2014-19 have not been considered as part of Human Resource Expenses. The Petitioner further clarified that the PLI shown in the HR expenses during FY 2018-19 is actually provision made towards Certificate Linked Incentive.

78. The Commission vide order dated 3.3.2021 in Petition no. 431/MP/2019 has observed the following regarding PLI/ CLI:

*“92. The Petitioner has submitted Auditor’s Certificate dated 18.10.2019 indicating the expense of ₹90.30 lakh w.r.t. ‘Productivity Linked Incentive’ for FY 2018-19. However, the Petitioner vide affidavit dated 16.3.2020, has clarified that the said head is ‘Certification Linked Incentive’ (CLI) instead of ‘Productivity Linked Incentive’. Also, the Petitioner has submitted that the said CLI amount has not been disbursed yet and this amount was just provisioned against CLI. Since, the said CLI amount has not been disbursed by the Petitioner, we are not inclined to allow any reimbursement under this head. Moreover, the Performance Linked Incentive (PLI) payments made by the Petitioner are being dealt by the Commission in separate petitions filed by the Petitioner.”*





79. As stated in the above-mentioned order, we observe that Productivity Linked Incentive (PLI) which has been mentioned as component of HR expenses in Form-6B is Certificate Linked Incentive (CLI) instead of PLI. Also, as per aforementioned order dated 3.3.2021, CLI has already been disallowed by the Commission during 2014-19 period. Accordingly, the said CLI has not been considered while normalizing approved HR expenses of period 2014-19, for projecting HR expenses for FY 2019-20.

80. The Petitioner has submitted that the actual manpower of NRLDC as on 31.03.2019 was 79 and the manpower projected as on 31.03.2024 is 141. The existing and projected manpower details at NRLDC are as follows:

<b>NRLDC</b>	<b>As on 31.3.2019</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<b>Executive</b>	56	73	79	89	100	115
<b>Non-Executive</b>	23	26	26	26	26	26
<b>TOTAL</b>	<b>79</b>	<b>99</b>	<b>105</b>	<b>115</b>	<b>126</b>	<b>141</b>

81. The Petitioner has submitted the broad reasons for projected increase in manpower as under:

- a) POSOCO is a knowledge-based control centre organization and human resource is its main asset.
- b) There is an ever increasing complexity of electricity market, number of participating entities, energy volumes, number of transactions etc. which will require adequate manpower.
- c) Additional Manpower is required for additional works/ responsibilities including establishing Renewable Energy Management Centres, which are scheduled to come up in Northern Regional Load Despatch Centre, Western Regional Load Despatch Centre, Southern Regional Load Despatch center and the National Load Despatch Centre.



- d) Increasing thrust on renewables and their integration in the grid, will require additional manpower.
- e) Electricity markets are growing more complex with increase in number of users, use and application of big data and automation are envisaged to bring pivotal change in processes and create forward and backward linkages that will improve security, reliability and economy in the grid. Also, proportionate increase in manpower in Management Functions will also be required.

82. The Petitioner has further submitted that as per POSOCO's manpower philosophy, the recruitment is generally carried out at trainee level and apart from immediate requirement in the current year, vacancies at higher levels are largely envisaged to be filled through internal career progression.

83. UPPCL vide affidavit dated 27.5.2020 has, as regards approval of extra manpower to be deployed during the 2019-24 control period, submitted that the 2019 RLDC Regulations do not make any provision which bestows jurisdiction on the Commission to deal with the issues related to manpower. UPPCL has prayed to not to allow financial incidents on account of deployment of extra manpower during the said control period while determining the charges for the Petitioner.

84. The Petitioner vide rejoinder dated 5.6.2020 has submitted that clause 7 of Regulation 21 of the 2015 RLDC Regulations applicable and clause 9 of Regulation 24 of the 2019 RLDC Regulations applicable clearly mention that the cost of anticipated increase in the manpower of each year of the control period shall also be considered after prudence check. Further, clause 9 of Regulation 24 of the 2019 RLDC Regulations also mention that the strength of manpower required for effective functioning of LDC will be as approved by the Commission while specifying the fees



and charges. Further, the presidential sanction for establishment of POSOCO provides that:

*“POSOCO’s revenue stream will be governed through fees and charges specified by the CERC as per Section 28(4) of the Electricity Act 2003. The strength of manpower required for effective functioning of RLDCs/ NLDC will be as approved by the CERC while specifying the fees and charges. The expenses of POSOCO through fees and charges so collected will be adequate to cover the functioning of the Company and there will be no dependence on Government funds.”*

85. The Petitioner has also submitted that the Commission while approving the additional manpower for the control period 2014-19 in its order in Petition No. 344/MP/2018 dated 10.6.2019 (paragraphs 50 and 51) has directed as under.

*“We have considered the submission of the Petitioner and we are of the view that POSOCO requires additional manpower to discharge the additional responsibilities post legal separation of POSOCO“*

86. We observe that the Petitioner has projected increase in manpower from 79 as on 31.3.2019 to 141 as on 31.3.2024. It is also observed that although the Petitioner has provided broad reasons for increase in manpower, but functional mapping of proposed increase in manpower vis-a-vis current manpower along with justification for increase in posts at higher levels needs to be provided in detail by the Petitioner. In this regard following has been observed vide Order dated 16.4.2021 in Petition No 375/MP/2019:

*“84. The Petitioner has submitted reasons for increase in manpower for the 2019-24 period. However, the commission is of the view that proposed increase in manpower vis-à-vis current manpower for POSOCO as a whole is required to be looked into in detail and needs more deliberations. The Petitioner is required to do functional mapping of all posts and justify increase in posts particularly at higher levels. Therefore, the Petitioner is directed to file a consolidated petition projecting manpower for POSOCO as a whole for the Control Period 2019-24 along with detailed justifications and grade wise functional mapping. At present, HR Expenses for the control period 2019-24 have been worked out as per Regulation 24 of the 2019 RLDC Regulations without considering any increase in manpower.”*

87. In line with the above observation of the Commission, the HR Expenses for the control period 2019-24 have been worked out as per Regulation 24 of the 2019 RLDC Regulations without considering any increase in manpower.



88. The normalized HR expenses of FY 2017-18 and FY 2018-19 have been worked out by excluding disallowed expenses of Certificate Linked Incentive (CLI) as in order dated 3.3.2021 in Petition No. 431/MP/2019. However, liberty is granted to the Petitioner to claim expenses towards actual payment of Certificate Retainer-ship amount as part of HR Expenses at the time of true up.

89. The HR Expenses have been segregated in two categories (executive and non-executive). The audited HR Expenses against each category for the FY 2017-18 and FY 2018-19 have been considered for calculating HR expenses for the period 2019-24. After normalization, HR Expenses per employee in each category have been derived by dividing HR Expenses by actual manpower in each category for the corresponding year.

90. As per clause 4 of Regulation 24 of the 2019 RLDC Regulations, the escalation rate of 4.77% has been considered to arrive at normalized category-wise HR Expenses per employee of 2017-18 at price level of 2018-19. The HR expenses per employee in each category thus arrived for 2017-18 and 2018-19 are averaged to arrive at average normalised HR Expenses per employee at 2018-19 price level.

91. Clauses 6, 7 and 8 of Regulations 24 of the 2019 RLDC Regulations provide that the escalation rate for arriving at expenses of 2019-20 and further in the control period 2019-24 shall be worked out after considering the compounded annual growth rate, inflation rate, rationalization of human resources and other factors, if any. We observe that the Petitioner has considered escalation rate as 4.77% for arriving at HR Expenses for FY 2019-20 and for further years of the period 2020-24. As additional manpower of RLDCs and NLDC is not being approved in the instant



order, HR expenses shall be allowed on provisional basis based on actual manpower as on 31.3.2019 as submitted by the Petitioner; escalation rate of 4.77% to arrive at HR Expenses for each of the year of the control period of 2019-24.

92. Any impact on HR Expenses due to additional recruitment of manpower as approved later by the Commission, shall be considered on filing separate petition by the Petitioner along with associated increase in O&M or HR expenses.

93. As per clause 10 of Regulation 24 of the 2019 RLDC Regulations, Human Resource Development (HRD) expenses are being considered @5% of HR expenses subject to true up.

94. As per the above discussion, the HR Expenses being allowed for the control period 2019-24 are as follows:

(Rs in Lakh)

<b>HR Expenses allowed provisionally for 2019-24</b>					
	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
HR Expenses Allowed with 4.77%	1954.00	2047.21	2144.86	2247.17	2354.36
HRD Expenses Allowable @ 5% of Total HR Cost	97.70	102.36	107.24	112.364	117.72
<b>Total HR Expenses allowed</b>	<b>2051.70</b>	<b>2149.57</b>	<b>2252.10</b>	<b>2359.53</b>	<b>2472.08</b>

95. We direct the Petitioner to give detailed cost break-up under different heads of HR expenses at the time of true-up.

### **Apportioned NLDC Charges & Corporate Office expenses**

96. Regulation 11 of the 2019 RLDC Regulations provides as under:

*“11. Determination of Fees and Charges The Fees and Charges shall be determined separately for each of the Regional Load Despatch Centres and National Load Despatch Centre;*

*Provided that the annual charges of NLDC including corporate office expenses for the control period shall be apportioned among Regional Load Despatch Centres on*



*the basis of the peak met (in MW) in the respective region as indicated on CEA's website for the preceding year."*

97. Accordingly, the NLDC charges and Corporate Office expenses are to be apportioned among the Regional Load Despatch Centres on the basis of the peak demand served in the respective Region for the preceding year. The Commission vide order dated 16.4.2021 in Petition No. 375/MP/2019 has apportioned the NLDC charges and Corporate Office expenses based on the peak demand met during FY 2018-19 which is as follows:

*"103. Accordingly, the allowed annual charges of NLDC and corporate office have been apportioned amongst the RLDCs as follows:*

*(in Rs Lakh)*

	<b>Peak demand met (%) / Total NLDC Charges</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Total NLDC charges		6282.01	7079.28	8494.99	8898.29	8873.29
NRLDC	32.04%	2012.76	2268.20	2721.79	2851.01	2843.00
WRLDC	28.97%	1819.90	2050.87	2461.00	2577.83	2570.59
ERLDC	11.80%	741.28	835.35	1002.41	1050.00	1047.05
SRLDC	25.71%	1615.10	1820.08	2184.06	2287.75	2281.32
NERLDC	1.48%	92.97	104.77	125.73	131.69	131.32

"

### **Interest on Working Capital**

98. Regulation 25 of the 2019 RLDC Regulations provide as under:-

#### ***"25. Interest on Working Capital***

*(1) The working capital shall cover:*

- (i) Operation and maintenance expenses (excluding human resource expenses) for one month;*
- (ii) Human resource expenses including Human Resource Development Expenses for one month;*
- (iii) NLDC charges and Corporate Office for one month and*
- (iv) Receivables equivalent to 45 days of annual charges as approved by the Commission.*



(2) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 as per tariff Regulations.

(3) Interest on working capital shall be payable on normative basis notwithstanding that the Power System Operation Corporation Limited has not taken any loan for working capital from any outside agency.”

99. Accordingly, following expenses have been worked out for determination of Interest on Working Capital:

(i) O&M Expenses excluding human resource expenses have been considered for one month of the allowed O&M expenses.

(ii) Human Resource Expenses including HRD expenses have been considered for one month of the allowed HR Expenses.

(iii) NLDC charges and corporate office expenses for one month have been included.

(iv) The receivables have been considered on the basis of 45 days of allowed Annual charges.

(v) Rate of interest on working capital has been considered as yearly MCLR of SBI issued from time to time Plus 350 bps i.e. as on 1.4.2019 (i.e. 8.55% plus 3.50% = 12.05%) and as on 1.4.2020 (i.e. 7.75% plus 3.50% = 11.25%). For the balance control period i.e. 2021-22 up to 2023-24 interest rates has been considered as 11.25% which is subject to true-up.

100. The Petitioner vide Form-8 has considered rate of interest on working capital as 12.55% for the complete 2019-24 period.

101. Interest on working capital worked out for the 2019-24 period is as follows :

(Rs in lakh)

Description	2019-20	2020-21	2021-22	2022-23	2023-24
One month NLDC Charges	167.73	189.02	226.82	237.58	236.92
One month O & M Expenses Excluding Human Resource Expenses	61.11	63.92	66.87	69.96	73.20
One month Human Resource Expenses	170.98	179.13	187.68	196.63	206.01
1.5 months Receivables (45	650.26	713.90	798.74	840.25	866.99



days of Annual charges )					
<b>Total</b>	<b>1050.08</b>	<b>1145.98</b>	<b>1280.11</b>	<b>1344.43</b>	<b>1383.11</b>
Rate of Interest on Working Capital (%)	12.05%	11.25%	11.25%	11.25%	11.25%
<b>Interest</b>	<b>126.53</b>	<b>128.92</b>	<b>144.01</b>	<b>151.25</b>	<b>155.60</b>

### **Annual charges**

102. The details of annual charges allowed for NRLDC as per the 2019 RLDC Regulations for control period 2019-24 is summarized below:

(Rs in lakh)

<b>Annual Charges</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Depreciation	195.14	265.53	315.75	351.44	387.67
Return on Equity	53.53	86.19	108.06	123.50	153.40
Interest on Working Capital	126.53	128.92	144.01	151.25	155.60
O & M Expenses (Excluding Human Resource Expenses)	733.31	767.09	802.48	839.55	878.40
Human Resource Expenses	2051.70	2149.57	2252.10	2359.53	2472.08
NLDC Charges and Corporate Office Expenses	2012.76	2268.20	2721.79	2851.01	2843.00
OPEX	29.12	45.74	45.74	45.74	45.74
<b>Total</b>	<b>5202.09</b>	<b>5711.24</b>	<b>6389.93</b>	<b>6722.01</b>	<b>6935.89</b>

### **Billing and Payment of charges**

103. Billing and payment of charges allowed shall be governed by Regulation 34 of the 2019 RLDC Regulations. Accordingly, POSOCO will raise bills for these charges on monthly basis directly from the Users as per the said Regulation.

104. Further, in terms of clause 8 of Regulations 10 read with clause 4 of Regulations 13 of the 2019 RLDC Regulations, the amount under-recovered or over-recovered by the RLDCs along with simple interest at the rate equal to the bank rate as on 1st April of the respective year, shall be recovered or refunded by RLDC or Users, as the case may be, in six equal monthly instalments.





105. Annexure-1 attached with herewith forms part of this order.

106. This order disposes of Petition No. 374/MP/2019.

Sd/  
**(Arun Goyal)**  
Member

Sd/  
**(I. S. Jha)**  
Member

Sd/  
**(P. K. Pujari)**  
Chairperson



**DETAILS OF WEIGHTED AVERAGE RATE OF DEPRECIATION (WAROD)  
FOR THE 2019-24 CONTROL PERIOD**

**NRLDC**

NRLDC (2019-24)	Admitted Capital Cost as on 1.4.2019 (Approved by the Commission vide order dated 3.3.2021 in petition no.431/MP/2019)	Net Additional capitalisation	Projected Capital Cost as on 31.3.2024	Rate of Depreciation as per Regulation	Annual Depreciation as per Regulation				
					2019-20	2020-21	2021-22	2022-23	2023-24
<b>Capital Expenditures as on 1.04.2019</b>									
Freehold Land	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00	0.00
Leasehold Land	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
Building & Other Civil Works	201.41	635.00	836.41	3.34%	6.89	7.48	7.90	7.90	17.92
Auxilliary Power System and Power supply	52.95	79.29	132.24	5.28%	4.64	6.49	6.74	6.98	6.98
Air conditioning system (Static)	0.00	49.00	49.00	5.28%	1.29	2.59	2.59	2.59	2.59
Air conditioning system (Portable)	0.00	10.00	10.00	9.50%	0.24	0.48	0.71	0.95	0.95
Office Furniture and other infrastructure equipment (including Communication Equipment)	38.95	34.80	73.75	6.33%	2.47	2.82	3.21	3.92	4.63
Any other assets not categorised	2.20	0.00	2.20	5.28%	0.12	0.12	0.12	0.12	0.12
SCADA and IT Hardware	211.14	635.94	847.08	15.00%	58.19	96.13	108.69	117.31	125.94
SCADA and IT Software	738.67	850.00	1588.67	15.00%	121.30	149.43	185.80	211.68	228.55
<b>Total</b>	<b>1245.32</b>	<b>2294.03</b>	<b>3539.35</b>		<b>195.14</b>	<b>265.53</b>	<b>315.75</b>	<b>351.44</b>	<b>387.67</b>
<b>Weighted Average Rate of Depreciation</b>					12.52%	12.74%	12.96%	13.09%	12.24%

