

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No.378/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 subsection (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 SRLDC Charges for the control period 01.04.2019-31.03.2024.

**And in the matter of**

Southern Regional Load Despatch Centre (SRLDC)  
Power System Operation Corporation of India Limited (POSOCO),  
Registered Office: B-9, Qutub Institutional Area, 1<sup>st</sup> Floor,  
Katwaria Sarai, New Delhi- 110016

**....Petitioner**

**Versus**

**Users of Southern Regional Load Despatch Centre (SRLDC):**

**Users under the category of Distribution Licensees and Buyers**

1. Chairman cum Managing Director, APTRANSCO, Vidyut Soudha, Gunadala, Vijayawada 520 004, Andhra Pradesh
2. Chairman cum Managing Director, TSTRANSCO, Vidyut Soudha, Hyderabad 500 082, Telangana
3. Managing Director, PCKL, KPTCL building, Cauvery Bhavan, Bangalore-560 009, Karnataka
4. Chairman, KSEB, Vaidyuthi Bhavanam, Pattom, Trivandrum 695 004, Kerala
5. Chairman, TNEB, 144, Anna Salai, Chennai 600 002, Tamil Nadu
6. Superintending Engineer, PUDUCHERRY ELE. DEPT, Electricity Dept. of Pondicherry, Pondicherry 605 001
7. Chief Engineer (Electrical), Goa Electricity Board, Office of Chief Electrical Engineer (Electrical), Govt. of Goa, Vidyuth Bhavan, 3rd Floor, Panaji, Goa 403 001
8. Executive Director, POWERGRID HVDC, PGCIL, Southern Regional Transmission System – II, Near RTO Driving Test Track, Singanayakanhalli, Yelahanka, Bangalore 560 064, Karnataka



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

9. Executive Director, RAMAGUNDAM STG I & II, NTPC, RSTPS, Jyothi Nagar, Dist. Karim Nagar, Telangana - 505 215
10. Executive Director, RAMAGUNTAM STG III, NTPC, RSTPS, Jyothi Nagar, Dist. Karim Nagar, Telangana - 505 215
11. Executive Director, SIMHADRI STG II, NTPC, District - Vishakhapatnam, Simhadri – 531 020, Andhra Pradesh
12. Executive Director, SIMHADRI STG I, NTPC, District - Vishakhapatnam, Simhadri – 531 020, Andhra Pradesh
13. Executive Director, NTPC, TALCHER STG II, NTPC, Kaniha, Deepshikha - P.O, District – Angul 759 147, Orissa
14. General Manager (O&M), Kudgi STPP, NTPC, T.K.Basavana Bagewadi, Bijapur Dist 586 121, Karnataka
15. Chief General Manager, NLC TPS II STG I, Neyveli Lignite Corpn. Ltd, Thermal Power Station II, Neyveli 607 801, Tamil Nadu
16. Chief General Manager, NLC TPS II STG II, Neyveli Lignite Corpn. Ltd., Thermal Power Station II, Neyveli 607 801, Tamil Nadu
17. Chief General Manager, NLC TPS I EXPANSION, Neyveli Lignite Corpn. Ltd., Thermal Power Station I (Exp.), Neyveli 607 801, Tamil Nadu
18. Chief General Manager, NLC TPS II EXPANSION, Neyveli Lignite Corpn. Ltd., Thermal Power Station II (Expn.), Neyveli 607 801, Tamil Nadu
19. Chief General Manager, New Neyveli Thermal Power Project, Neyveli 607 807, Cuddalore Dist. Tamil Nadu
20. Station Director, MAPS, Nuclear Power Corpn. Of India Ltd, Madras Atomic Power Station, Kalpakkam 603 102, Tamil Nadu
21. Station Director, KGS UNITS 1&2, Nuclear Power Corpn. Of India Ltd, Kaiga Generating Station, Kaiga 581 400, Karwar, Karnataka
22. Station Director, KGS UNIT 3&4, Nuclear Power Corpn. Of India Ltd, Kaiga Generating Station, Kaiga 581 400, Karwar, Karnataka
23. The Station Director, KNPP Unit-1, Kudankulam Nuclear Power Project, Nuclear Power Corporation of India Ltd., Kudankulam Post, Radhapuram Taluk – 627 106, Tamil Nadu
24. The Station Director, KNPP Unit-2, Kudankulam Nuclear Power Project, Nuclear Power Corporation of India Ltd., Kudankulam Post, Radhapuram Taluk – 627 106, Tamil Nadu
25. The Executive Director, NTPC Tamilnadu Energy Company Ltd., Vallur Thermal Power Project, Vellivoyalchavadi Post, Poneri Taluck, Tiruvallur Dist, Chennai – 600 013, Tamil Nadu
26. The Executive Director, NLC Tamilnadu Power Limited, 2 \* 500MW JV Thermal Power Project, Harbour Estate, Tuticorin – 628 004, Tamil Nadu
27. Executive Director, LANCO KODAPALLI St II, LANCO KONDAPALLI POWER PVT. LTD, Kondapalli, Ibrahimpatnam Mandal, PIN 521 228, Telangana
28. Executive Director, LANCO KODAPALLI St III, LANCO KONDAPALLI POWER PVT. LTD, Kondapalli, Ibrahimpatnam Mandal, PIN 521 228, Telangana



29. The Chairman & Managing Director, Meenakshi Energy Pvt Ltd. (Phase I), 405, Saptagiri Towers, 1-10-75/1/1 to 6, Begumpet, Secunderabad – 500 016, Telangana
30. The Chairman & Managing Director, Meenakshi Energy Pvt Ltd (Phase II), 405, Saptagiri Towers, 1-10-75/1/1 to 6, Begumpet, Secunderabad – 500 016, Telangana
31. The General Manager, Simhapuri Energy Ltd., Madhucon Greenlands, 6-3-866/2, 3rd Floor, Begumpet, Hyderabad – 560 016, Telangana
32. The President & CEO, Coastal Energen Pvt Limited, 7th Floor, Buhari Towers, No. 4 Moores Road, Chennai 600 006, Tamil Nadu
33. The Chief Commercial Officer (CCO), Sembcorp Energy India Ltd., 6-3-1090, A-Block, 5th Floor, T.S.R Towers, Raj Bhavan Road, Somajiguda, Hyderabad 500082, Telangana
34. The AGM-Electrical, IL&FS Tamil Nadu Power Company Ltd, C. Pudhupettai (Post), Parangipettai (Via), Chidambaram (TK), Cuddalore 608 502, Tamil Nadu
35. The Chief Commercial Officer (CCO), Sembcorp Energy India Ltd., 6-3-1090, A-Block, 5th Floor, T.S.R Towers, Raj Bhavan Road, Somajiguda, Hyderabad 500 082, Telangana
36. Associate Director-Business Development, FRV Andhra Pradesh Solar Farm-I Pvt. Ltd., Aria Tower - Unit 5 C, 5th Floor, JW Marriott Hotel, Aerocity Asset Area 4, Hospitality District, Near Indira Gandhi International Airport, New Delhi 110 037
37. Associate Director-Business Development, FRV Andhra Pradesh Solar Farm-II Pvt. Ltd., Aria Tower - Unit 5 C, 5th Floor, JW Marriott Hotel, Aerocity Asset Area 4, Hospitality District, Near Indira Gandhi International Airport, New Delhi 110 037
38. General Manager, Azure Power thirty six private limited, 3rd floor, Asset 301-304, World mark 3, Aerocity, Delhi, 110037
39. Group Head Commercial, Tata Power Renewable Energy Limited, 2nd Floor, Block B, Corporate Centre, 34, Sant Tukaram Road, Carnac Bunder, Mumbai 400 009
40. The Manager, ACME Karnal Solar Power Pvt. Ltd., Plot No. 152, Sector-44, Gurugram, Haryana 122 003
41. The Manager, ACME Bhiwadi Solar Power Pvt. Ltd., Plot No. 152, Sector-44, Gurugram, Haryana 122 003
42. The Manager, ACME Hisar Solar Power Pvt. Ltd., Plot No. 152, Sector-44, Gurugram, Haryana 122 003
43. The GM (Commercial), NTPC Ananthapuramu Ultra Mega Solar park, Southern Region Head Quarters, NTPC Bhavan, Kavadiguda Main Road, Secunderabad 500 080, Telangana
44. General Manager – Projects, Green Infra Renewable Energy Limited, 5th floor, Tower C, Building No.8, DLF Cyber city, Gurugram, Haryana 22 002



45. Chief operating officer (Wind & Solar), Mytrah Energy (India) Energy Pvt Ltd, 8001, S NO 109 Q city, Nanakramguda, Gachibowli, Hyderabad, Telangana - 500032
46. The Assistant General Manager (Electrical), Orange Sironj Wind Power Pvt Ltd, F-9, 1<sup>st</sup> Floor, Manish Plaza-1, Plot No 7, MLU Sector-10, Dwarka, New Delhi- 110075

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

47. Executive Director, POWERGRID ISTS, Southern Regional Transmission System – II, Near.RTO Driving Test Track, Singanayakanhalli, Yelahanka, Bangalore – 560 064, Karnataka.
48. The Project In Charge, Raichur Sholapur Transmission Company Limited, Patel Estates, S.V.Road, Jogeshwari (West), Mumbai 400 102, Maharashtra
49. The Project In Charge, Kudgi Transmission Ltd., Building No 3, Second Floor, Sudeep Plaza, MLU Sector - 11, Pocket - 4, Dwarka, NEW DELHI – 110 075, Delhi
50. The Project In Charge, Powergrid Vizag Transmission Ltd. Vizag 400kV SS, Sector 10, Ukkanaguram, Vishakapatnam 530 032, Andhra Pradesh
51. The CEO, Powergrid NM Transmission Ltd., SRTS - II, Near RTO Driving Track, Singanayakanahalli, Yelahanka-Doddaballapur Road, Bengaluru 560 064, Karnataka
52. Head-O&M/Assets Management, Maheswaram Transmission Co. Ltd., Tulip-634, New Minal Residency, J.K.Road, Near Ayodhya Bypass, Bhopal 462023, Madhya Pradesh
53. The Chief Executive Officer, POWERGRID Southern Interconnector Transmission System Ltd, 6-6-8/32 & 395 E, Kavadi guda Main Road, Old Praga tools, Secunderabad 500 080, Telangana
54. The Divisional Engineer (Technical), Andhra Pradesh Solar Power Corporation Pvt. Ltd, H.No. 6-3-856/A/3, Sadat Manzil Compound, Neeraj Public School Lane, Opposite to Green Park Hotel, Ameerpet, Hyderabad 500 016, Telangana

**...Respondents**

**Parties present:** Shri Shiv Kumar Sharma, NLDC  
Shri Rakesh Kumar, NLDC  
Shri Nishdeep Singh, NLDC  
Shri Ankit Jain, NERLDC  
Ms.HimaniDutta, NERLDC  
Shri Venkateshan M, SRLDC  
Shri Sunil Kumar Jaiswal, SRLDC  
Shri Vivek Upadhyay, ERLDC  
Shri Manas Das, ERLDC



Shri S. S. Raju, PGCIL  
Shri B. K. Saxena, UPPCL

### ORDER

The instant petition has been filed by the Petitioner, Southern Regional Load Despatch Centre (SRLDC) 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 SRLDC for the control period from 1.4.2019 to 31.3.2024.

2. Petitioner has made following prayers:

- “1. Approve the charges for SRLDC, as per para-5 above, for control period 1.4.2019 to 31.03.2024.
2. Approve the CAPEX/ REPEX Plan 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. The Southern Region Load Despatch Centre (SRLDC) is a statutory body set up under Section 27 of the Electricity Act, 2003 and performs the functions specified under Section 28 of the Electricity Act, 2003. The NLDC and RLDCs are being operated by Power System Operation Corporation Limited (POSOCO) w.e.f. 1.10.2010 in accordance with the Gazette Notification dated 27.9.2010 and 19.12.2016 notified by Ministry of Power, Government of India. The working/ functions of the Southern Region Load Despatch Centre are governed by the Electricity Act 2003, Regulations of the Central Electricity Regulatory Commission and of the Central Electricity Authority issued and amended from time to time.

b. In exercise of powers conferred under section 178 read with section 28(4) of the Electricity Act, 2003, the Central Electricity Regulatory



Commission vide notification dated 5<sup>th</sup> April 2019 issued the Central Electricity Regulatory Commission (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2019. These regulations are for determination of fees and charges of NLDC and RLDCs for the control period 2019-24.

c. The Commission vide order dated 21.03.2021 in Petition No. 437/MP/2019, has approved the trued-up fees and charges of SRLDC for the period 2014-19.

d. In accordance with the Regulation 10(1) of the 2019 RLDC Regulations, SRLDC 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 annual charges of SRLDC for period 2019-24 include Return on Equity (ROE), Interest on Loan Capital (IOL), Depreciation, Operation and Maintenance Expenses excluding human resources expenses (O&M expenses), Operational Expenditure (OPEX), Human Resource expenses (HR expenses) NLDC annual charges and Corporate Office expenses and Interest on working capital.

5. The summary of annual 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	32.68	60.63	79.48	91.79	101.98	366.56
2	Interest on Loan Capital	-	-	-	-	-	-
3	Depreciation	110.19	170.78	212.14	239.53	260.87	993.51
4	O & M Expenses excl Human Resource Expenses	521.62	544.11	567.68	592.37	618.25	2844.03
5	Human Resource Expenses	2792.53	3129.26	3633.91	4216.83	5003.12	18775.64
6	OPEX	21.50	31.50	43.00	43.00	59.00	198.00



7	NLDC Charges and Corporate office expenses	1418.78	1638.02	2076.96	2274.31	2512.49	9920.56
8	Interest on Working Capital	128.34	145.27	172.11	194.12	222.78	862.62
		5025.63	5719.57	6785.28	7651.95	8778.49	33960.92

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 serve copy of the Petition on the Respondents. The Petitioner was further directed to submit certain information during the hearing and the same has been furnished by the Petitioner vide affidavit dated 13.3.2020.

8. The Petitioner has served the copy of the petition upon the respondents. The Respondent, Kerala State Electricity Board Limited (KSEB), has submitted reply to this petition vide affidavit dated 5.12.2019. The Petitioner has filed rejoinder vide affidavit dated 4.2.2020 in the matter. The issues raised by the Respondent KSEB and response of the Petitioner thereon have been discussed in the relevant paragraphs of this order.

9. The hearing in the matter was again held on 29.5.2020 through video conferencing and the order was reserved. The Petitioner was directed to submit certain information during the hearing and the same has been furnished vide affidavit dated 24.6.2020.

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 13.3.2020 and 24.6.2020, reply of KSEB vide affidavit dated 5.12.2019 and Petitioner's rejoinder vide affidavit dated 4.2.2020.

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

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

12. The Petitioner has submitted information as required under the 2019 RLDC Regulations for determination of SRLDC annual charges for control period 2019-24. The computation of SRLDC annual 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. 675.18 lakh as on 31.3.2019 was admitted by the Commission vide order dated 21.3.2021 in Petition No. 437/MP/2019. Same capital cost of Rs. 675.18 lakh has been considered as opening capital cost as on 1.4.2019 for SRLDC to determine annual 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) In relation to any consolidated schemes of CAPEX and REPEX involving one or more RLDCs and/or NLDC, the capital expenditure chargeable to each RLDC and NLDC shall be segregated and considered as a part of capital expenditure of RLDC concerned and NLDC, as the case may be”*



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

**CAPEX and REPEX Claimed**

(In Rs. lakh)

Description	2019-20	2020-21	2021-22	2022-23	2023-24	Total
CAPEX	523.25	322.00	234.05	129.30	158.50	1367.10
REPEX	22.00	35.00	18.00	15.00	25.00	115.00
<b>Total</b>	<b>545.25</b>	<b>357</b>	<b>252.05</b>	<b>144.3</b>	<b>183.5</b>	<b>1482.1</b>

17. The Petitioner has submitted that in CAPEX/REPEX Plan, major items are Rs. 1236.00 lakh towards procurement of IT systems (hardware and software). IT systems include general IT infrastructure (server/ storage, desktop, printer), network security, smart data center, DR site, PA & VC system, access control and security system, surveillance system, testing tools/ management system, off-the-shelf software, cyber security tools, Security Information and Event Management systems, ERP software, fees and charges software, First Time Charging software, pool settlement software, Contract Management software, WAMS application, Document Management system, Website CMS, HR automation etc.

18. The Petitioner has submitted that presently SRLDC does not have its own land/office building infrastructure. However, possibilities in this regard are being explored. As acquisition/ building own infrastructure may require significant expenditure, SRLDC may approach the Commission for necessary directions, after finalization of the proposal.

19. KSEB vide its reply dated 5.12.2019 submitted that the capital addition proposed by the Petitioner for the control period 2019-24 is huge compared to its existing gross block. The gross block as on 1-4-2019 of SRLDC is Rs. 6.37 crore. The addition to gross block in the year 2019-20 itself is Rs. 5.45 crore. KSEB further submitted that the Petitioner vide Annexure-III has furnished an estimate of CAPEX.



However, the details of CAPEX, the basis of adopting the cost and the estimated completion period of each scheme, the rationale for incurring such huge CAPEX has not been furnished. KSEB also submitted that the Petitioner's claim for REPEX for 2019-24 is not supported by the details required as per the Regulation 8(2) of the 2019 RLDC Regulations.

20. The Petitioner in its rejoinder dated 04.02.2020 has submitted that the considerations by SRLDC while filing this petition are detailed below:

Sr. No.	Particulars	Amount (In Rs. Cr)
1	Opening balance Gross Block as on 01-04-2014	26.46
2	CAPEX/REPEX additions during block 2014-19 not considered as not allowed by CERC for calculations of charges	27.41
3	REPEX de-capitalization during 2014-19 considered as included in opening balance as 01-04-14	20.09
4	Balance of Gross block as on 01-04-2019 (1) - (3)	6.37

21. The Petitioner has submitted that as per the above table, gross block of assets of SRLDC viz. Rs. 6.37 crore as on 01.04.2019 was made after considering de-capitalization of old assets done during 2014-19 viz Rs. 20.09 crore out of gross block existing as on 01.04.2014. Further no CAPEX was added during 2014-19 in calculation of Rs. 6.37 crore as the same was not allowed in the Regulations for RLDC fees and charges for the 2014-19 control period due to which, opening gross-block as on 01.04.2019 is less.

22. We have considered the submissions of Petitioner and Respondent KSEB. We observe that the Commission vide order dated 29.12.2016 in Petition No. 242/TT/2015 (related to determination of fees and charges of SRLDC for control period 2014-19) observed that since the additional CAPEX and REPEX is proposed to be met from the LDC Fund, the same is not allowed for the purpose of computation of annual charges. Accordingly, although expenditure towards CAPEX has been incurred, the same is not reflecting in gross block.



23. As regards specific query of KSEB regarding furnishing details of CAPEX, basis for adopting the cost and the estimated completion period of each scheme and their rationale, we note that the Petitioner vide its rejoinder dated 04.02.2020 has submitted the details.

### CAPEX

24. The Petitioner has submitted following CAPEX Plan with estimates of each scheme:

(In Rs. lakh)

CAPEX in control period 2019-24							
Sr. No.	Name of the Work	2019-20	2020-21	2021-22	2022-23	2023-24	Total
		Basic Cost	Basic Cost	Basic Cost	Basic Cost	Basic Cost	
4	<b>IT Systems</b>						
4a	<b>Hardware (Category C (M) of Annex-III of Regulations)</b>						
(i)	IT Infrastructure (Server/Storage)	200.00	10.00	10.00	25.00	50.00	<b>295.00</b>
(ii)	Network Security (Firewall & Network Equipment)	10.00	25.00	10.00	10.00	10.00	<b>65.00</b>
(iii)	Smart Data Center	-	-	10.00	10.00	10.00	<b>30.00</b>
(iv)	DR Site	50.00	50.00	50.00	-	-	<b>150.00</b>
(v)	PA and VC system	-	10.00	-	50.00	5.00	<b>65.00</b>
(vi)	Access control and security system	3.50	-	-	-	-	<b>3.50</b>
(vii)	Surveillance System	-	-	-	-	10.00	<b>10.00</b>
(viii)	Testing tools/Management System	5.00	20.00	-	-	-	<b>25.00</b>
	<b>Sub Total (4a)</b>	<b>268.50</b>	<b>115.00</b>	<b>80.00</b>	<b>95.00</b>	<b>85.00</b>	<b>643.50</b>
4b	<b>Software (Category C(N) of Annex-III of Regulations)</b>						
(i)	Off-the-self Software	12.50	12.50	12.50	12.50	37.50	<b>87.50</b>
(ii)	Cyber Security Tools	15.00	15.00	15.00	15.00	15.00	<b>75.00</b>
(iii)	Security Information & Event Management System	-	25.00	25.00	-	-	<b>50.00</b>



(iv)	ERP Software	-	20.00	-	-	-	20.00
(v)	Fees and Charges	20.00		-	-	-	20.00
(vi)	First Time Charging (FTC)	-	20.00	-	-	-	20.00
(vii)	Pool Settlement Software	-	-	30.00	-	-	30.00
(viii)	Contract Management Software	-	10.00	-	-	-	10.00
(ix)	WAMS application	50.00	50.00	50.00	-	-	150.00
(x)	HR Automation	-	15.00	-	-	-	15.00
(xi)	Document management system	-	25.00	-	-	-	25.00
(xii)	Website CMS	25.00	-	-	-	-	25.00
	<b>Sub Total (3b)</b>	<b>122.50</b>	<b>192.50</b>	<b>132.50</b>	<b>27.50</b>	<b>52.50</b>	<b>527.50</b>
	<b>Sub Total (4)</b>	<b>391.00</b>	<b>307.50</b>	<b>212.50</b>	<b>122.50</b>	<b>137.50</b>	<b>1171.00</b>
5	<b>Power Supply (Category C(C) of Annex-III of Regulations)</b>						
(i)	Electrical Works	2.00	-	2.00	-	3.00	7.00
	<b>Sub Total (5)</b>	<b>2.00</b>	<b>0.00</b>	<b>2.00</b>	<b>0.00</b>	<b>3.00</b>	<b>7.00</b>
6	<b>Civil Works (Category C(A) of Annex-III of Regulations)</b>						
(i)	Renovation	62.00	3.25	3.30	0.30	13.50	82.35
	<b>Sub Total (6)</b>	<b>62.00</b>	<b>3.25</b>	<b>3.30</b>	<b>0.30</b>	<b>13.50</b>	<b>82.35</b>
7	<b>Air conditioning System (Category C(I) of Annex-III of Regulations)</b>						
(i)	Airconditioning System (Static)	12.00	5.00	10.00	-	-	27.00
	<b>Sub-Total (7)</b>	<b>12.00</b>	<b>5.00</b>	<b>10.00</b>	<b>0.00</b>	<b>0.00</b>	<b>27.00</b>
8	<b>Communication System (Category C(L) of Annex-III of Regulations)</b>						
(i)	EPEABX System	7.00	-	5.00	-	-	12.00
(ii)	Telephone Handset	0.25	0.25	0.25	0.50	0.50	1.75
	<b>Sub Total (8)</b>	<b>7.25</b>	<b>0.25</b>	<b>5.25</b>	<b>0.50</b>	<b>0.50</b>	<b>13.75</b>
9	<b>Other Infrastructure, including Equipments (Category (J) of Annex-III of Regulations)</b>						
(i)	Furnitures	11.00	-	-	-	3.00	14.00
(ii)	Fire alarm/fighting system	25.00	-	-	5.00	-	30.00
(iii)	Fitness equipments	3.00	-	-	-	-	3.00
(iv)	Air Purifier	5.00	5.00	-	-	-	10.00
	<b>Sub Total (9)</b>	<b>44.00</b>	<b>5.00</b>	<b>0.00</b>	<b>5.00</b>	<b>3.00</b>	<b>57.00</b>
10	<b>Any other Asset not covered under any of the Categories</b>						



	<b>mentioned above (Category (O) of Annex-III of Regulations)</b>						
(i)	Amenities/ Canteen equipment	5.00	1.00	1.00	1.00	1.00	<b>9.00</b>
	<b>Sub Total (10)</b>	<b>5.00</b>	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>	<b>9.00</b>
	<b>Total (1 to 10)</b>	<b>523.25</b>	<b>322.00</b>	<b>234.05</b>	<b>129.30</b>	<b>158.50</b>	<b>1367.10</b>

25. Regulation 10(5) 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.”*

26. The Petitioner has provided estimates of schemes proposed to be implemented under CAPEX vide its main Petition and has also provided justification, basis of cost estimation and expected schedule of completion for various schemes vide its rejoinder dated 04.02.2020, as required under Regulations 10(5) and 12 of the 2019 RLDC Regulations. Further, the Petitioner has furnished resolution of Board of POSOCO required under Regulation 8 of the 2019 RLDC Regulations.

27. The Petitioner has proposed CAPEX of Rs. 295 lakh in the control period 2019-24 for IT Infrastructure (server/ storage). Under the scheme, the Petitioner has proposed modernization by addition of latest technology stand-alone servers, servers for intranet, storage (SAN & NAS), associated Accessories etc.

28. The Petitioner has proposed CAPEX of Rs. 65 lakh for network security (firewall & network equipment) in which the Petitioner has proposed to procure next generation firewall, Link Load Balancer, Wireless Access Controller and Wi-Fi infrastructure of SRLDC. It has proposed to install one new firewall to segregate DMZ LAN with Server LAN & Computers LAN and network security devices such as

Anti-APT SAND box to enhance the Cyber Security of IT Infrastructure. The Petitioner has proposed CAPEX of Rs. 30 lakh for Smart Data Centre. The Petitioner has submitted that SRLDC data center hosts numerous servers under various projects like IT, SCADA, URTDSM and REMC. The center is congested and does not have sufficient space for proper maintenance and cooling of IT servers. As all the servers are hosting critical applications, it has proposed to move IT infrastructure to Smart Rack solution, wherein Rack provides data center facility within its panel along with cool air and hot air flow, firefighting and authorized access. Therefore, amount of Rs. 10 lakh is provisioned in financial years 2021-22, 2022-23 and 2023-24.

29. The Petitioner has proposed CAPEX of Rs. 150 lakh for Disaster Recovery (DR) Site. The Petitioner has submitted that SRLDC is hosting numerous web applications and some of the applications have critical commercial implications and that these applications are operating round the clock. Such critical infrastructure applications need to be supported from remote location, in case of any disaster. It has proposed to setup Disaster Recovery (DR) site of SRLDC at other RLDC. Setting up DR site requires additional hardware such as servers, SAN & NAS Storage, SAN switches, Routers, Virtualization Software, Windows Server 2019 License and Oracle Enterprise Edition License to setup full-fledged DR site.

30. The Petitioner has proposed CAPEX of Rs 65 lakh for Public Address (PA) System and Video Conferencing (VC) System. The Petitioner has submitted that currently there is no Public Address (PA) system available at SRLDC. The PA system is proposed to be implemented in two phases. Audio and video system are planned to be completed by August 2020 and digital LCD display boards are planned to be awarded by April 2023 and completed by June 2023. For these items,





the basis of cost estimate is prevailing market rates. For another scheme of video conference (VC) system at SRLDC, the Petitioner has submitted that the existing video conference system will complete its life by 2022-23. Accordingly, a new video conference system would be required for first floor at SRLDC, which is proposed in FY 2022-23.

31. The Petitioner has proposed CAPEX of Rs. 3.5 lakh, Rs. 10 lakh and Rs. 20 lakh for access control and security system, surveillance system and testing tools/management system respectively. The Petitioner has proposed CAPEX of Rs. 87.5 lakh for the control period 2019-24 under 'Software' head. The Petitioner has submitted that it is required to procure licensed version of software like MS Office, Adobe Acrobat Reader/ Writer, Auto Cad, PS CAD, Mat LAB, Remote Desktop tool like Team Viewer/ cisco WebEx, Asset Management & Network Monitoring Software etc. that are used in day-to-day work. The Petitioner has also proposed CAPEX of Rs. 75 lakh for cyber security tools. The Petitioner has submitted that cyber security tools such as Patch Management Software, WAF (Web Application Firewall), Vulnerabilities Assessment and Penetration Testing Tool, Intrusion Detection and Prevention System, Data protection and privacy Suite and Network Access Control (NAC) are envisaged to be procured at SRLDC for enhancing the cyber security of IT infrastructure. The Petitioner has proposed Rs. 15 lakh under this head for each financial year in the control period 2019-24.

32. The Petitioner has proposed CAPEX of Rs. 50 lakh for Security Information & Event Management System which is required to collect real time logs of all servers, database, firewalls, applications, desktops and network equipment for better analysis. Further, the Petitioner has proposed CAPEX of Rs. 20 lakh each for ERP software, Fees and Charges Software and First Time Charging Software; Rs. 30



lakh for Pool Settlement Software; and Rs. 10 lakh for Contract Management Software. The Petitioner has submitted that earlier POSOCO was a subsidiary of Power Grid Corporation of India Ltd. (PGCIL) and SAP system was available for PGCIL. After separation, POSOCO does not have any ERP/SAP system. In order to implement an ERP System in POSOCO for improvement in internal business processes and overall business performance, provision has been envisaged for purchase of ERP software. Regarding Fees and Charges Software, the Petitioner has submitted that the current software lifecycle is over and software is 7 years old. Hence, there is a requirement of new Fees and Charges software. Regarding First Time Charging Software and Contract Management Software, the Petitioner has submitted that the current software are developed in-house and has its own limitations and there is a need for developing new software for first time charging of transmission elements to handle various processes and intricacy. Regarding Pool Settlement Software also, the Petitioner has submitted that it has been developed in-house and has its own limitations e.g. it can handle only DSM accounts. There is a need for developing new software for handling other accounts such as RRAS, AGC etc. including DSM account.

33. The Petitioner has proposed CAPEX of Rs. 150 lakh for Wide Area Management System (WAMS) application. The Petitioner has submitted that synchro-phasor analytics being developed through IIT Bombay are mostly focused towards offline applications and for transmission asset management. However, to facilitate functions mandated under the Electricity Act, 2003, SRLDC requires applications focused towards Real Time Grid Operation. Therefore, additional WAMS applications are required to be developed to support the system operator. Following applications can be taken up during the control period 2019-24.

- a) Real Time Automated Event Analysis Tool
- 



- b) Oscillation Source Location
- c) Real time Inertia Estimation Tool
- d) Base lining Analysis of Angle Pairs and Low Frequency Modes
- e) Frequency Response Characteristics (FRC) Analysis Tool
- f) Post-Dispatch Analysis Tool for Generator Trip and Event Analysis

34. The Petitioner has further submitted that currently SRLDC has signed MoU with PRDC & IIT Madras to explore joint development of synchro-phasor application and a pilot project is underway to validate the software. This would require a long-term effort and also applications need to be suitable to Indian grid requirements. The process involves preparation of technical specifications, tender documents, floating of tendering, bid evaluation, award of contract, etc. that shall be taken up at SRLDC level. Efforts in this regard have to commence in advance. Hence, requisite provision has to be built progressively in CAPEX starting from 2019-20 onwards. The work related to WAMS application is planned to be awarded by March 2020 and to be completed by March 2021 along with one year of defect liability period followed by AMC of four years. Cost estimation is done based on the discussion with potential vendors and based on the schedule of completion, the total cost is apportioned equally during financial years 2019-20, 2020-21 and 2021-22 with a provision to carry forward to next financial year in case of any rescheduling of activities.

35. The Petitioner has proposed CAPEX of Rs. 15 lakh for HR automation. The Petitioner has submitted that many of the functions at HR are done using Microsoft Office applications like MS Word, MS Excel etc. manually and there is no specific software to cover such automation/ miscellaneous HR works. Accordingly, it has been envisaged for purchase of HR automation software apart from ERP software. Schedule of completion of the scheme is by March 2021 and basis of cost estimate



is prevailing market rate enquired with vendor. The software is to be centrally procured by NLDC/CC POSOCO and the cost pertaining to SRLDC portion is proposed in the instant petition.

36. The Petitioner has proposed CAPEX of Rs. 25 lakh for document management system. It has been submitted by the Petitioner that at present, all documents are either stored physically or they are scattered across laptops, PCs, email attachments, desktop folders, etc. It becomes extremely difficult to locate a particular file at the time of need. It is planned to procure Document Management Software to store and search the documents in one central location. It is also required to digitize old physical documents which will help reduction of paper usage. The scheme is scheduled to be completed by December 2020 and the cost is estimated based on the discussion with OEM. The Petitioner has also proposed CAPEX of Rs. 25 lakh for Website CMS. The Petitioner has submitted that the current software is developed in-house and has its own limitations. It is planned to develop new CMS based bi-lingual website for SRLDC based on latest technologies.

37. The Petitioner has proposed CAPEX of Rs. 7 lakh under the head 'Power Supply' for procurement of LED electrical light fittings for office buildings as per the recommendation of Energy Audit conducted in the year 2019. The Petitioner has proposed CAPEX of Rs. 82.35 lakh under the head 'Civil Works' out of which SRLDC has allocated Rs. 62.00 lakhs for FY 2019-20 for civil renovation works for office buildings. Another Rs. 20.35 lakh has been proposed in the control period 2019-24 for providing Department Index Box, construction of gymnasium room, enhancement of physical security at SRLDC building, providing vertical blinds, false



ceiling, partition, acoustic wall cladding and decorative work for office conference halls etc.

38. The Petitioner has proposed CAPEX of Rs. 27 lakh under the head 'Air-conditioning System' for procurement of air conditioning system (static) for auditorium, PEWA room and Mahila Samithi Room in 2019-20, additional A/C for server rooms in 2020-21 for Conference Hall and UPS Control Room.

39. The Petitioner has proposed CAPEX of Rs. 12 lakh and Rs. 1.75 lakh for EPABX system and telephone handsets respectively under the head 'Communication System'. The Petitioner has submitted that expenditure in EPBAX system is envisaged for procurement of analog EPABX telephone exchange, voice loggers & accessories, up-gradation of digital telephone exchange & voice loggers. Expenditure under 'Telephone Handsets' is planned for procurement of telephone handsets for replacement of faulty/ old telephone handsets.

40. Under the head 'Other Infrastructure, including Equipment', the Petitioner has proposed CAPEX of Rs. 14 lakh for furniture, Rs. 30 lakh for fire alarm/ fire-fighting system, Rs. 3 lakh for fitness equipment, Rs. 10 lakh for air purifiers. Under head 'Any other Asset not covered under any of the Categories mentioned above', the Petitioner has proposed CAPEX of Rs. 9 lakh for amenities/ canteen equipment. In this head, SRLDC has planned for installation of kitchen wardrobes/ modular kitchen cabinets and procurement of cooking utensils for canteen/ mess at SRLDC office in a multi-phase manner that will be completed by March 2024. Regarding expenses on air purifiers, it has been submitted by the Petitioner that 20 air purifiers are required to be procured and the total cost is proposed to be Rs. 10 lakh.



41. We have considered the submissions of the Petitioner. We observe that the Petitioner has provided justifications, schedule time of completion and basis of cost estimation of respective schemes proposed under CAPEX. Accordingly, all the items under proposed CAPEX is allowed, except expenditure of Rs. 1.75 lakh towards telephone handsets. We are of the view that CAPEX of Rs. 1.75 lakh for telephone handsets is not in the nature of CAPEX since it is for replacement of faulty/ old telephone handsets and rather it is a REPEX. Therefore, the Petitioner is allowed to incur this expenditure under REPEX subject to furnishing details of de-capitalisation done and depreciation realized against the same during true up.

42. We also observe that the Petitioner has submitted Board resolution for CAPEX as well as REPEX Plan. However, the Petitioner is directed to submit the background note approved by the Board which includes the approved projected figures along with true up petition.

43. Based on the above, we allow following expenditure for CAPEX for the control period 2019-24:

(In Rs. lakh)

Year	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total
Claimed	523.25	322	234.05	129.3	158.5	1367.1
Not allowed* (telephone handsets)	0.25	0.25	0.25	0.5	0.5	1.75
Allowed	523	321.75	233.8	128.8	158	1365.35

\*Shifted to REPEX

### **REPEX**

44. The Petitioner had submitted following REPEX Plan with estimates of each scheme:



REPEX in control period 2019-24							
All figures in Lakhs							
Sr. No.	Name of the Work	2019-20	2020-21	2021-22	2022-23	2023-24	Total
		Basic Cost	Basic Cost	Basic Cost	Basic Cost	Basic Cost	
1	<b>IT Systems</b>						
1a	<b>Hardware (Category (M) of Annex-III of Regulations)</b>						
(i)	Desktop PCs & Printers	15.00	15.00	15.00	10.00	10.00	<b>65.00</b>
	<b>Sub Total (2)</b>	<b>15.00</b>	<b>15.00</b>	<b>15.00</b>	<b>10.00</b>	<b>10.00</b>	<b>65.00</b>
2	<b>Power Supply (Category (C) of Annex-III of Regulations)</b>						
(i)	UPS Replacement	-	-	3.00	5.00	-	<b>8.00</b>
	<b>Sub Total (3)</b>	<b>-</b>	<b>-</b>	<b>3.00</b>	<b>5.00</b>	<b>-</b>	<b>8.00</b>
3	<b>Civil Works (Category (A) of Annex-III of Regulations)</b>						
(i)	Replacement of Lift at SRLDC	-	20.00	-	-	-	<b>20.00</b>
	<b>Sub Total</b>	<b>-</b>	<b>20.00</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>20.00</b>
4	<b>Other Infrastructure, including Equipment (Category (J) of Annex-III of Regulations)</b>						
(i)	Fire alarm/fighting system	7.00	-	-	-	15.00	<b>22.00</b>
	<b>Sub Total</b>	<b>7.00</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>15.00</b>	<b>22.00</b>
	<b>Total (1 to 4)</b>	<b>22.00</b>	<b>35.00</b>	<b>18.00</b>	<b>15.00</b>	<b>25.00</b>	<b>115.00</b>

45. The Petitioner in reply of query of KSEB, vide its Rejoinder has submitted that all major portion of REPEX is done out of assets capitalized during 2009-14 whose





life is already over and full depreciation recovered. CAPEX incurred during 2014-19 was not allowed by CERC for purpose of calculation of charges and hence is not included in opening balance of assets as on 01.04.2019 in 2019-24 calculation of charges. In cases where small portion of REPEX which are replaced during 2019-24 out of 2014-19 block CAPEX, there is 'nil' de-capitalization considered in calculations due to the fact that no asset value exists for the same in opening balance as on 01.04.2019.

46. The Petitioner has proposed REPEX of Rs. 65 lakh under head 'IT Systems (hardware)'. The Petitioner has proposed this expenditure on computers, laptops, multifunction printers, scanners, switches and its accessories etc. which are required for carrying out the daily activities. It has proposed for 80 computers and 6 heavy duty multi-function printers.

47. The Petitioner has proposed REPEX of Rs. 8 lakh under head 'Power Supply'. The Petitioner has submitted that under the on-going SCADA project at SRLDC, 11 DCPCs (Data Concentrator Cum Protocol Converters) have been installed at PGCIL sub-stations in Southern Region and 1 DCPC is at SRLDC. In order to ensure continuous uninterruptable power supply to DCPCs, UPS system along with battery sets were procured by PGCIL under SCADA/EMS System Consultancy Project. Subsequently, UPS system at all 11 locations have been taken over by SRLDC. At each DCPC location, there are 2 number 3 kVA UPS and 2 sets of battery banks (12 V x 8). Three-years rate contract has been awarded for replacement of aged and defective battery sets with effect from February 2018. The battery sets have been replaced progressively in 2018 and 2019 at all DCPC locations. Assuming life of 3 years of each battery sets and also as experienced from past service records, the battery sets will need replacement in 2021 and 2022.



48. The Petitioner has proposed REPEX of Rs. 20 lakh under head 'Civil Works'. The Petitioner has stated that the said expenses are planned to be done on replacement of present lift at SRLDC which was installed in 1998 and has completed its useful life in 2019. The Petitioner has submitted that the de-capitalization cost is Rs. 6.95 lakhs. The Petitioner has proposed REPEX of Rs. 22 lakh under head 'Other Infrastructure, including Equipment's' for fire alarm/ fire-fighting system. The Petitioner has proposed the said expenditure in 2 stages. In first stage, ground floor, second floor and third floor auditorium area in 2019-20 for Rs. 7 lakh are envisaged while in second stage, replacement of main panel, repeater panels and first floor sensors are planned to be completed by 2023-24 for Rs. 15 lakh. The Petitioner has submitted that the system is already 10 years old and has completed its useful life.

49. We have considered the submissions of the Petitioner regarding REPEX and observe that the Petitioner has provided details of the scheme, justifications, scheduled completion period and basis of cost estimation. As per requirement of Regulation 8(1) of the 2019 RLDC Regulations, the Petitioner has submitted REPEX Plan approved by its Board. Further as per Regulation 8(2)(b), the Petitioner is required to submit 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 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 of each scheme. The Petitioner in its rejoinder to reply of KSEB has submitted that major portion of REPEX is done out of assets capitalized during 2009-14 whose life is already over and full depreciation recovered.



50. We observe that the Petitioner has clarified about completion of life of existing asset stating that major portion of REPEX is done out of assets capitalized during 2014-19 whose life is already over and full depreciation is recovered. However, other details such as date of replacement, cumulative repayment of loan up to date of replacement in respect of each scheme under REPEX are not explicitly provided by the Petitioner. We also observe that Petitioner has submitted Board resolution for REPEX Plan. The Petitioner is directed to submit the background note approved by the Board which includes the approved projected figures along with true up petition. Accordingly, we allow the expenditure under REPEX as proposed by the Petitioner subject to providing the above-mentioned details at the time of true up.

51. CAPEX and REPEX allowed for control period 2019-24 are as follows:

(in Rs. lakh)

Year	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total
CAPEX	523	321.75	233.8	128.8	158	1365.35
REPEX	22	35	18	15	25	115
REPEX allowed in view of dis-allowed CAPEX (Telephone handsets)	0.25	0.25	0.25	0.5	0.5	1.75
<b>Total</b>	<b>545.25</b>	<b>357</b>	<b>252.05</b>	<b>144.3</b>	<b>183.5</b>	<b>1482.1</b>

52. 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 Regulation 8(2)(b) of the 2019 RLDC Regulations at the time of true up.

### **De-capitalisation**



53. 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.”

54. The Petitioner has submitted the relevant Forms. As per Form ‘Calculation of Annual Depreciation’, the details of the de-capitalization is submitted as below:

(in Rs. lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24	TOTAL
<b>De-capitalization</b>	-	6.95	-	-	-	6.95

**Net Additional Capitalisation**

55. 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)

<b>Net Additional capitalization</b>	2019-20	2020-21	2021-22	2022-23	2023-24	TOTAL
	545.25	350.05	252.05	144.3	183.5	1475.15

**Debt-Equity Ratio**

56. 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 Southern Regional 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.”*

57. The Commission vide order dated 21.3.2021 in Petition No. 437/MP/2019 has tried up the fees and charges for the period 2014-19 and admitted debt-equity ratio of 88.76:11.24 as on 31.3.2019. The same debt-equity ratio has been considered as on 1.4.2019.

58. 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 capital. The Petitioner, vide Form 3C, has also submitted that de-capitalisation during 2019-24 period shall be in debt-equity ratio of 70:30. Therefore, in terms of Regulation 16 of the 2019 RLDC Regulations, we have considered debt-equity ratio for the additional capitalisation and de-capitalisation in the ratio of 70:30 for 2019-24 control period.

59. The details of the debt-equity considered as on 1.4.2019 and 31.3.2024 for the purpose of annual charges of SRLDC 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	599.27	88.76	1631.87	70
Equity	75.91	11.24	518.46	30
<b>Total</b>	<b>675.18</b>	<b>100.00</b>	<b>2150.33</b>	<b>100</b>

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

60. Regulation 19 of the 2019 RLDC Regulations provides as follows:

#### ***“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).”*

61. The Petitioner has submitted that 30% of the capital cost for the period 2019-24 shall be met through its own equity 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%.

62. Regulation 27(6) 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) XXXXXXXX”

63. We observe that in the instant case, the Petitioner has proposed to finance 30% of capital expenditure for the period 2019-24 from the equity 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 are as follows:

(In Rs. lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	75.91	239.49	344.50	420.12	463.41
Addition due to Additional Capitalization after considering de-capitalisation	163.58	105.02	75.62	43.29	55.05
Closing Equity	239.49	344.50	420.12	463.41	518.46
Average Equity	157.70	292.00	382.31	441.76	490.93
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>	32.67	60.48	79.19	91.51	101.69

64. 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)**

65. The Petitioner has submitted that as per the Regulation 20 of the 2019 RLDC Regulations, Interest on Loan is to be calculated on the loan component of the capital and normative loan outstanding as on 1.4.2019. There is no Interest of Loan component for control period 2019-24 as funding of loan portion of the capital is proposed from the LDCD Fund and there is no loan outstanding of the previous control period.

66. Accordingly, Interest on Loan component of Annual Charges is nil.

#### **Depreciation**





67. 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.

68. Regulations 21 of the 2019 RLDC Regulations provides as follows:

**“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 Southern Regional 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.”*

69. 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:

(In Rs. 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 Gross Block	675.18	1220.43	1570.48	1822.53	1966.83
Additional Capital expenditure/reduction due to decapitalisation during 2019-24	545.25	350.05	252.05	144.30	183.50
Closing Gross Block	1220.43	1570.48	1822.53	1966.83	2150.33
Average Gross Block	947.81	1395.46	1696.51	1894.68	2058.58
Average Gross Block of 90% Depreciable assets	297.06	380.46	406.51	424.68	448.58
Average Gross Block of 100% Depreciable assets	650.75	1015.00	1290.00	1470.00	1610.00
Weighted Average Rate of Depreciation (%)	11.82%	12.23%	12.57%	12.73%	12.80%
Depreciable Value (excluding IT equipments and software)	267.35	342.41	365.85	382.21	403.72
Depreciable value of IT equipments and software	650.75	1015.00	1290.00	1470.00	1610.00
Total Depreciable Value	918.10	1357.41	1655.85	1852.21	2013.72
Remaining Depreciable Value	250.47	577.71	705.46	688.64	608.99
Depreciation	112.07	170.69	213.18	241.16	263.42
Cumulative Depreciation/ Advance against Depreciation	779.70	950.39	1163.57	1404.73	1668.15

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

70. 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. The Petitioner vide affidavit dated 23.06.2020 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 the same rate i.e. 4.77% to arrive at the O&M expenses for subsequent years.

71. The Petitioner has submitted that SCADA-AMC charges have been added on the basis of LOAs awarded earlier in accordance with the Regulation 22(5) of the 2019 RLDC Regulations. The details of Operation and Maintenance expenses as claimed by the Petitioner is as follows:

(In Rs. lakh)

ITEMS	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Repairs & Maintenance Expenses	102.93	105.46	108.10	110.87	113.78	541.14
Administrative and General Expenses	418.68	438.66	459.58	481.50	504.47	2302.89
<b>Total</b>	<b>521.62</b>	<b>544.11</b>	<b>567.68</b>	<b>592.37</b>	<b>618.25</b>	<b>2844.03</b>

72. Break-up of claimed R&M Expenses as submitted by the Petitioner is as under:

(In Rs. lakh)

Account Head	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total
<b>Consumption of Stores and Spares</b>	-	-	-	-	-	-
<b>Plant and Machinery Repairs and Maintenance</b>	1.93	2.02	2.12	2.22	2.32	10.60
<b>Civil Works repairs and maintenance</b>	18.13	19.00	19.91	20.86	21.85	99.75
<b>Others (Specify)</b>	32.87	34.44	36.08	37.80	39.60	180.80
<b>Total:</b>	<b>52.93</b>	<b>55.46</b>	<b>58.10</b>	<b>60.87</b>	<b>63.78</b>	<b>291.14</b>
<b>AMC SCADA</b>	50.00	50.00	50.00	50.00	50.00	250.00
<b>Total</b>	<b>102.93</b>	<b>105.46</b>	<b>108.10</b>	<b>110.87</b>	<b>113.78</b>	<b>541.14</b>

73. Break-up of claimed A&G Expenses as submitted by the Petitioner is as under:

<b>Break up of A&amp;G Expenses Claimed (In Rs. lakh)</b>						
<b>Account Head</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>	<b>Total</b>
<b>PROPERTY RELATED EXPENSES</b>						
Rates and Taxes	0.04	0.04	0.04	0.04	0.04	0.2
Insurance	0.85	0.89	0.94	0.98	1.03	4.7
<b>Sub Total</b>	<b>0.89</b>	<b>0.93</b>	<b>0.98</b>	<b>1.02</b>	<b>1.07</b>	<b>4.89</b>
<b>COMMUNICATION</b>						
Telephone and Trunk Call	12.94	13.56	14.21	14.88	15.59	71.19
Postage and Telegram	0.83	0.87	0.91	0.95	1	4.55
Other (Internet Leased Line Charges)	7.79	8.16	8.55	8.96	9.39	42.86
<b>Sub Total</b>	<b>21.56</b>	<b>22.59</b>	<b>23.67</b>	<b>24.8</b>	<b>25.98</b>	<b>118.59</b>
<b>PROFESSIONAL CHARGES</b>						
Legal Expenses	0.68	0.71	0.74	0.78	0.81	3.72
Consultancy Charges	0.06	0.07	0.07	0.07	0.08	0.34
Technical Fees	1.82	1.91	2	2.1	2.2	10.03
Audit Fees	2.31	2.42	2.54	2.66	2.79	12.72
Other Charges	2.04	2.13	2.24	2.34	2.45	11.2
<b>Sub Total</b>	<b>6.91</b>	<b>7.24</b>	<b>7.59</b>	<b>7.95</b>	<b>8.33</b>	<b>38.01</b>
<b>CONVEYANCE AND TRAVELLING</b>						
Conveyance Charges	34.76	36.42	38.16	39.98	41.88	191.2
Travelling Charges	82.72	86.67	90.8	95.13	99.67	455
Hire Charges of Vehicle	15.58	16.32	17.1	17.91	18.77	85.67
<b>Sub Total</b>	<b>133.06</b>	<b>139.41</b>	<b>146.06</b>	<b>153.02</b>	<b>160.32</b>	<b>731.87</b>
<b>OTHER EXPENSES</b>						
Electricity Charges	91.33	95.69	100.25	105.04	110.05	502.36
Fees and Subscription	0.68	0.72	0.75	0.79	0.83	3.77
Books and Periodicals	0.2	0.21	0.22	0.24	0.25	1.13
Printing and Stationery	1.18	1.24	1.3	1.36	1.43	6.51
Advertisement	4.02	4.21	4.41	4.62	4.84	22.11
Entertainment	3.76	3.94	4.13	4.33	4.53	20.7
Watch and Ward	76.92	80.59	84.44	88.46	92.68	423.1
Miscellaneous	60.91	63.82	66.86	70.05	73.39	335.04
Organisational Development Expenses	7.01	7.34	7.69	8.06	8.45	38.55



<b>Break up of A&amp;G Expenses Claimed (In Rs. lakh)</b>						
<b>Account Head</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>	<b>Total</b>
<b>Water Charges</b>	2.8	2.94	3.08	3.22	3.38	15.41
<b>Sub Total</b>	248.84	260.7	273.14	286.17	299.82	1368.67
<b>ADDITIONAL EXPENSES</b>						
<b>EDP Expenditure</b>	7.43	7.78	8.15	8.54	8.95	40.85
<b>Sub Total</b>	7.43	7.78	8.15	8.54	8.95	40.85
<b>Total</b>	<b>418.68</b>	<b>438.66</b>	<b>459.58</b>	<b>481.5</b>	<b>504.47</b>	<b>2302.89</b>

74. The Petitioner, in compliance of RoP of hearing dated 25.02.2020, has submitted details of actual R&M expenses and A&G expenses of 1<sup>st</sup> six months of FY 2019-20 and expected R&M expenses and A&G expenses for balance six months of FY 2019-20.

75. The Petitioner, in compliance of RoP of hearing dated 29.05.2020, has submitted that expenses on other heads viz. donation, loss-in-inventory, claims and advances written-off, provisions, etc. have been 'NIL' during the control period 2014-19. The Petitioner has also submitted that R&D Expenses of Rs. 15.88 lakh are excluded in O&M expenses of 2014-19 before using them for calculation of O&M expenses for 2019-24.

76. 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.”*

77. Regulation 24(10) of the 2019 RLDC Regulations is extracted as follows:

*“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.”*

78. Regulation 22(2) of the 2019 RLDC Regulations provides for normalisation of O&M expenses for the period 2014-2019. The Petitioner has stated that R&D Expenditure is not included in the O&M expenditure and is already excluded in the Auditor Certificate. The O&M expenses for period 2014-19 have been normalised considering disallowed expenditure such as ‘Rebate to Customer’ in order dated 21.03.2021 in Petition No. 437/MP/2019 (true-up petition of SRLDC fees and charges for the period 2014-19). The expenditure claimed under organizational development and training expenses in Petition No. 437/MP/2019 have been excluded, as these expenses shall be considered under HRD expenses during the 2019-24 control period. Further, as per Regulation 22(5) of the 2019 RLDC Regulations, the actual expenditure towards Annual Maintenance Contract (AMC) of



SCADA system is to be considered and, hence, AMC of SCADA expenditure has been excluded from 2014-19 O&M Expenses.

79. From the data submitted for actual R&M expenses and A&G expenses of 1<sup>st</sup> six months of FY 2019-20 and expected R&M expenses and A&G expenses for balance six months of FY 2019-20, we observe that the Petitioner has booked certain expenses under Organizational Development Expenses. We direct the Petitioner to book such expenses on trainings or Organisational development under HRD Expenses and not in O&M Expenses.

### **AMC of SCADA**

80. Regulation 22(5) of the 2019 RLDC Regulations states following:

*“(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.”*

81. We observe that as per above-mentioned Regulation, actual expenditure towards AMC of SCADA shall be considered for arriving at the O&M expenses during 2019-24. Also, we observe that in case of the Petitioner, actual AMC of SCADA expenses as approved vide order in 437/MP/2019 dated 21.03.2019 are as below:

(In Rs. lakh)

Year	2014-15	2015-16	2016-17	2017-18	2018-19	Total
AMC of SCADA	374.02	103.13	0.00	45.02	49.97	572.14

82. We had observed that expenses in AMC of SCADA vary widely during the five year period 2014-19 for which the Petitioner had submitted reasons in Petition No. 437/MP/2019. Taking these actual expenses which have wide annual variation would not be prudent to consider while calculating O&M expenses for control period





2019-24 and, therefore, AMC of SCADA expenses have been excluded during normalization of O&M Expenses and while calculating O&M expenses for FY 2019-20. The Petitioner has submitted that AMC of SCADA have been added on the basis of LOAs awarded in accordance with Regulation 22(5) of the 2019 RLDC Regulations. Although the Petitioner has not submitted documentary proof of the same, we observe that expenses on AMC of new SCADA in FY 2018-19 of previous control period 2014-19 was Rs. 49.9 lakh and the Petitioner has projected Rs. 50 lakh/annum as expenses on AMC of SCADA. The Petitioner has also submitted the expenses on AMC of SCADA for the first six months of 2019-20 as Rs. 24.89 lakh which also translates to near Rs. 50 lakh/annum. Therefore, we are allowing projected expenses on AMC SCADA for control period 2019-24 subject to filing of documentary proof at the time of truing-up.

83. As per Regulation 22(4) 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 to be ~18.81% whereas the Petitioner has considered escalation rate of 4.77% to arrive at O&M expenses for FY 2019-20. Considering CAGR of 18.81% for previous control period, it would not be appropriate to take 4.77% as escalation rate to arrive at O&M expenses for FY 2019-20. Further, considering that POSOCO has come into existence only in 2017 and is a growing organisation, escalation of 18.81% has been considered to arrive at O&M Expenses for the FY 2019-20.

84. The above arrived O&M 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 below:



(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 of SCADA	462.63	484.7	507.82	532.04	557.42	2544.62
AMC of SCADA	50	50	50	50	50	250
<b>Total</b>	<b>512.63</b>	<b>534.7</b>	<b>557.82</b>	<b>582.04</b>	<b>607.42</b>	<b>2794.61</b>

85. The O&M expenses excluding AMC of SCADA have been allocated head-wise on the basis of actual head-wise expenses approved for year 2018-19 vide Order dated 21.3.2021 in Petition No. 437/MP/2019. The head-wise breakup for R&M expenses and A&G expenses (after rounding off) is as follows:

(In Rs. lakh)

Allowed Repairs and Maintenance Expenses						
Account Head	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total
Allowed R&M Expenses excluding AMC of SCADA	60.03	62.89	65.89	69.03	72.33	330.17
AMC of SCADA	50.00	50.00	50.00	50.00	50.00	250.00
<b>Total R&amp;M Expenses allowed</b>	<b>110.03</b>	<b>112.89</b>	<b>115.89</b>	<b>119.03</b>	<b>122.33</b>	<b>580.17</b>

(In Rs. lakh)

Allowed Administrative and General Expenses						
Account Head	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Property Related Expenses	0.94	0.98	1.03	1.08	1.13	5.16
Communication	22.74	23.82	24.96	26.15	27.4	125.06
Professional Charges	7.29	7.64	8	8.38	8.78	40.09
Conveyance And Travelling	140.32	147.01	154.02	161.37	169.07	771.79
Other Expenses	231.32	242.36	253.92	266.03	278.72	1272.34
<b>Total:</b>	<b>402.6</b>	<b>421.81</b>	<b>441.93</b>	<b>463.01</b>	<b>485.09</b>	<b>2214.45</b>

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

(In Rs. lakh)

Allowed O&M Expenses 2019-24						
ITEMS	2019-20	2020-21	2021-22	2022-23	2023-24	Total
<b>Repairs and maintenance Expenses (R&amp;M)</b>	110.03	112.89	115.89	119.03	122.33	580.17



Allowed O&M Expenses 2019-24						
ITEMS	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Administrative and general Expenses (A&G)	402.6	421.81	441.93	463.01	485.09	2214.45
<b>TOTAL</b>	<b>512.63</b>	<b>534.7</b>	<b>557.82</b>	<b>582.04</b>	<b>607.42</b>	<b>2794.61</b>

### **Operational Expenditure (OPEX)**

87. The Petitioner has submitted OPEX plan for 2019-24 as under:

(In Rs. lakh)

S. No.	Name of the Work	2019-20	2020-21	2021-22	2022-23	2023-24	Total
1	Software Licenses (Office 365, Antivirus/end point protection, business messenger service) including digital library subscriptions	10.00	10.00	10.00	10.00	10.00	50.00
2	Weather forecast	-	-	0.50	0.50	2.00	3.00
3	Power Forecast	-	-	8.00	8.00	30.00	46.00
4	Anti-virus	1.00	1.00	1.50	1.50	1.50	6.50
5	SSL certificate for SRLDC web applications	0.50	0.50	0.50	0.50	0.50	2.50
6	Data Analytics	-	10.00	10.00	10.00	-	30.00
7	Oracle Database Administrator	10.00	10.00	12.50	12.50	15.00	60.00
	Total (1 to 7)	21.50	31.50	43.00	43.00	59.00	198.00

88. Regulation 23 of 2019 RLDC Regulations provides as under:

#### ***“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.”*

89. The Petitioner has submitted as under:



(a) 'Software Licenses & Anti-Virus' - These expenses are proposed to have various software license for day to day work like MS office, pdf reader, writer and antivirus installed at all computers & servers.

(b) 'SSL certificate for SRLDC web applications' - SRLDC is hosting website & other web applications such as Energy Scheduling, Control Room Daily report, Short Term Open Access etc. SSL certificate is required for implementation of https for these applications. Therefore, the cost of procurement of SSL certificate is provisioned.

(c) 'Oracle Database Administrator' - SRLDC has many critical software installed for the effectively carrying out southern grid operations. It is, therefore, prudent to engage suitable agency which may provide DBA having Oracle technical knowhow.

(d) 'Weather Forecasting & Power Forecasting' - Forecasting services (power & weather) beyond 10 pooling stations reporting to SRLDC REMC need to be paid by SRLDC. 15 pooling stations for 2021-23 and 20 pooling stations for 2023-25 respectively have been considered for calculating the requirement of forecasting services. OPEX rates have been planned based on the rates quoted for power and weather forecasts in the REMC maintenance contract.

(e) 'Data Analytics' - SRLDC is handling voluminous data in various fields of operations like scheduling, metering, deviation settlement, forecasting etc. LDCs need to analyse various parameters of grid and take necessary action for economic and efficient system operation. SRLDC has been providing feedback on behaviour of regional entities to various statutory organizations and forums like CERC, RPC/ NPC etc. Hence, it is required to engage a service provider for analyzing big data available with SRLDC over the years.

90. We have considered the submissions made by the petitioner. We observe that the Petitioner has submitted the Board resolution for the OPEX plan and has provided detailed justification of the expenses proposed to be incurred under OPEX. Regulation 23 of the 2019 RLDC Regulations provides that actual expenditure



towards engaging of services under OPEX shall be considered, after prudence checks during 2019-20 to 2023-24. Therefore, we allow the following expenditure estimated by the Petitioner under OPEX subject to true up. We direct the Petitioner to submit proof of actual expenditures along with justification and due diligence taken in procurement of services at the time of true up.

#### **OPEX Allowed for 2019-24**

(In Rs. lakh)

Year	2019-20	2020-21	2021-22	2022-23	2023-24	Total
<b>OPEX</b>	21.50	31.50	43.00	43.00	59.00	198.00

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

91. Regulation 24 of the 2019 RLDC Regulation provides following :

##### ***“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.”

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

(in Rs. lakh)

Account Head	2019-20	2020-21	2021-22	2022-23	2023-24	2019-24
HR Expenses	2659.55	2980.25	3460.87	4016.03	4764.88	17881.57
Human Resource Development (HRD)	132.98	149.01	173.04	200.8	238.24	894.08
Total including HRD	2792.53	3129.26	3633.91	4216.83	5003.12	18775.65

93. The Petitioner has submitted that costs under provisions for Certificate Linked Incentive (CLI) 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 period, may be considered for arriving at the expenses of 2019-24 period. The Petitioner has submitted that



expenses on heads like ex-gratia, VRS expenses, prior-period adjustments (for previous control period), claims and advances written-off, provisions, etc. have been Nil during the control period 2014-19.

94. The Petitioner has also submitted that normalized HR expenses of 2017-18 and 2018-19 have been escalated at the rate of 4.77% and then averaged to arrive at the normalized average HR expenses at 2018-19 level. Same escalation rate has been considered for escalating the average normalized HR expenses of 2018-19 level to arrive at the HR expenses for the year 2019-20. 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 Petition has multiplied escalated per employee expense for 2019-20 with projected manpower for 2019-20. Similarly projected HR expense has been calculated by the Petitioner for subsequent years of 20-24 considering escalation rate of 4.77% and projected manpower.

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

96. KSEB in its reply has submitted that the Petitioner has claimed a huge amount under human resource expenses and that the HR cost constitute about 56% of the total fees and charges of SRLDC. KSEB has submitted that this huge expenditure on HR, when a huge amount of CAPEX is invested for automation is not justifiable. It is also observed that yearly around 6-15 employees (executives) are being added to SRLDC. Therefore, need for such employee addition when huge investment is incurred for automation may be verified and only prudent employee addition may be allowed. KSEB has further referred recommendation in the Pradhan

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Committee report and stated that average of 70-75 personnel is only required for each LDC.

97. The Petitioner vide its rejoinder has submitted that the recommendations of Report of Pradhan Committee are of August 2008 and since then a report on Capacity Building of Indian Load Despatch Centres (CABIL) has been published in December 2018, which recommends strength of 100-150 in large LDCs such as SRLDC. SRLDC has submitted that it has projected the manpower requirement after due diligence and assessing the future requirement and present manpower strength. The Petitioner has further submitted that HR expenses have been worked out considering normalized expenses for year 2017-18 and 2018-19 and escalating them at 4.77%. Further, the projected HR expenses also include impact of the increase in manpower and HRD cost (5% of HR expenses).

98. The broad reasons submitted by the Petitioner for increase in the projected manpower are 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. Also, increasing thrust on renewables and their integration to the grid will require additional manpower.
- (c) Additional Manpower is required for additional works/ responsibilities including establishing Renewable Energy Management Centres, which are scheduled to come up in Southern Regional Load Despatch Centre, Northern Regional Load Despatch Centre, Western Regional Load Despatch Centre, and the National Load Despatch Centre.
- (d) 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.

99. We observe that in response to KSEB's argument regarding increase in HR Expenses for the 2019-24 period, the Petitioner has stated that increase is due to projected increase in manpower and additional 5% HRD expenses. We also observe that HR Expenses for 2014-15, 2015-16 and 2016-17 are Rs. 1261.77 lakh, Rs. 1324.75 lakh and Rs. 1474.09 lakh respectively, while HR Expenses for 2017-18 and 2018-19 are Rs. 1694.15 lakh and Rs. 2148.91 lakh respectively. This significant increase in HR expenses in 2017-18 to 2018-19 is primarily due to pay revision of POSOCO's employees. As per the Regulation 24(4) of the 2019 RLDC Regulations, HR expenses for 2017-18 and 2018-19 are to be normalised to arrive at HR Expenses for the 2019-24 period. Therefore, there would be significant increase in HR Expenses compared to the HR Expenses of previous control period.

100. The Petitioner has submitted that actual manpower of SRLDC as on 31.03.2019 was 75 and the manpower projected as on 31.03.2024 is 141. The financial years wise projected manpower for SRLDC is as follows:

<b>Manpower Projections</b>			
<b>SRLDC</b>	<b>Executives</b>	<b>Non-Executives</b>	<b>Total</b>
Total Manpower as on 31.3.2019 (344/MP/2018)	58	17	75
FY 2019-20	73	26	99
FY 2020-21	79	26	105
FY 2021-22	89	26	115
FY 2022-23	100	26	126
FY 2023-24	115	26	141

101. We have considered the submissions of Petitioner and observe that although the Petitioner has submitted reasons for increase in manpower for the 2019-24 period, 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. In this regard, following has been observed by the Commission 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.”*

102. In line with the above observation of the Commission, in the instant case, 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.

103. Regulation 24(2) of the 2019 RLDC Regulations provides that payment of Certificate Retainer-ship amount would be a part of the Human Resource Expenses. The normalized HR expenses of FY 2017-18 and FY 2018-19 have been worked out by excluding disallowed expenses of Certificate Licked Incentive (CLI) as in order dated 21.03.2021 in Petition No. 437/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.

104. HR Expenses are segregated in two categories - Executive and Non-Executive. The audited HR Expenses against each category for FY 2017-18 and FY 2018-19 are taken as basis of calculation. 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 years.



105. As per Regulation 24(4) 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.

106. Regulations 24(6), 24(7) and 24(8) 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 of 2018-19 as submitted by the Petitioner and with an escalation rate of 4.77%, to arrive at HR Expenses for each of the year of the control period of 2019-24.

107. 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.

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

109. Accordingly, allowed HR Expenses worked out for the Petitioner for control period 2019-24 are as follows:



(in Rs. lakh)

<b>HR Expenses allowed provisionally for 2019-24</b>					
FY	2019-20	2020-21	2021-22	2022-23	2023-24
HR Expenses Allowed with 4.77% escalation rate	1989.67	2084.58	2184.01	2288.19	2397.34
HRD Expenses Allowable @ 5% of Total HR Cost	99.5	104.2	109.2	114.4	119.9
<b>Total HR Expenses allowed</b>	<b>2089.16</b>	<b>2188.81</b>	<b>2293.21</b>	<b>2402.60</b>	<b>2517.20</b>

### **NLDC Charges & its Apportionment**

110. NLDC charges have been apportioned as under vide Order dated 16.4.2021 in Petition No. 375/MP/2019:

*“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 (%)</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<b>Total NLDC charges</b>		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
<b>SRLDC</b>	<b>25.71%</b>	<b>1615.10</b>	<b>1820.08</b>	<b>2184.06</b>	<b>2287.75</b>	<b>2281.32</b>
NERLDC	1.48%	92.97	104.77	125.73	131.69	131.32

Accordingly, the above shall be considered for SRLDC.

### **Interest on Working Capital**

111. Regulation 25 of the 2019 RLDC Regulations provides 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 not withstanding that the Power System Operation Corporation Limited has not taken any loan for working capital from any outside agency.”

112. Accordingly, following expenses have been worked out for determination of

Interest on Working Capital:

- (a) O&M Expenses excluding human resource expenses have been considered for one month of the recommended O&M expenses.
- (b) Human Resource Expenses including HRD expenses have been considered for one month of the allowed HR Expenses.
- (c) NLDC charges and corporate office expenses for one month have been included.
- (d) The receivables have been worked out on the basis 45 days of Annual Charges.
- (e) 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.

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

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

(in Rs. lakh)

Description	2019-20	2020-21	2021-22	2022-23	2022-23	2023-24
One month NLDC Charges	134.59	151.67	182.01	190.65	190.65	190.11
One month O & M Expenses Excluding Human Resource Expenses	42.72	44.56	46.49	48.50	48.50	50.62
One month Human Resource Expenses	174.10	182.40	191.10	200.22	200.22	209.77
Receivables (1.5 months of Annual	561.64	614.75	686.87	722.34	722.34	745.58



Description	2019-20	2020-21	2021-22	2022-23	2022-23	2023-24
charges)						
Total Working Capital	913.05	993.38	1,106.46	1,161.71	1,161.71	1,196.07
Rate of Interest on Working Capital	12.05%	11.25%	11.25%	11.25%	11.25%	11.25%
Interest on Working Capital	110.02	111.76	124.48	130.69	130.69	134.56

### **Annual Charges**

115. The details of Annual Charges allowed for SRLDC as per the 2019 RLDC Regulations for control period 2019-24 is summarized as follows:

(in Rs. lakh)

Annual Charges	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	112.07	170.69	213.18	241.16	263.42
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	32.67	60.48	79.19	91.51	101.69
Interest on Working Capital	110.02	111.76	124.48	130.69	134.56
O & M Expenses excluding HR Expenses	512.63	534.70	557.82	582.04	607.42
Human Resource expenses	2089.16	2188.81	2293.21	2402.60	2517.20
NLDC Charges	1615.10	1820.08	2184.06	2287.75	2281.32
OPEX	21.50	31.50	43.00	43.00	59.00
<b>Total</b>	<b>4493.15</b>	<b>4918.02</b>	<b>5494.94</b>	<b>5778.75</b>	<b>5964.60</b>

### **Filing Fee and Publication Expenses**

116. The Petitioner has sought 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. Since the expenditure has been incurred for meeting a statutory requirement, we allow the direct reimbursement of these expenses by the users/ beneficiaries on pro-rata basis.

### **Billing and Payment of Charges**



117. 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.

118. 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.

119. Annexure-1 appended herewith is part of this order.

120. This order disposes of Petition No. 378/MP/2019.

Sd/  
**(Arun Goyal)**  
Member

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

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



**ANNEXURE-1****DETAILS OF WEIGHTED AVERAGE RATE OF DEPRECIATION (WAROD)  
FOR THE 2019-24 CONTROL PERIOD****SRLDC**

SRLDC (2019-24)	Admitted Capital Cost as on 1.4.2019 (Approved by the Commission vide order dated 21.03.2021 in petition no.437/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	67.46	95.40	162.86	3.34%	3.29	4.60	4.92	4.98	5.21
Auxiliary Power Supply System	123.61	15.00	138.61	5.28%	6.58	6.63	6.76	7.03	7.24
Air Conditioning Systems -Static	0.00	27.00	27.00	5.28%	0.32	0.77	1.16	1.43	1.43
Air Conditioning Systems-Portable	0.00	0.00	0.00	9.50%	0.00	0.00	0.00	0.00	0.00
Office Furniture and furnishing (including Cummunication Equipment)	36.36	92.75	129.11	6.33%	4.15	6.15	6.49	6.83	7.59
Others	0.00	9.00	9.00	5.28%	0.13	0.29	0.34	0.40	0.45
SCADA and IT Hardware	297.13	708.50	1005.63	15.00%	65.83	96.84	113.72	128.72	143.72
SCADA and IT Software	150.62	527.50	678.12	15.00%	31.78	55.41	79.78	91.78	97.78
<b>Total</b>	<b>675.18</b>	<b>1475.15</b>	<b>2150.33</b>		<b>112.07</b>	<b>170.69</b>	<b>213.18</b>	<b>241.16</b>	<b>263.42</b>
<b>Weighted Average Rate of Depreciation</b>					<b>11.8246%</b>	<b>12.2318%</b>	<b>12.5658%</b>	<b>12.7283%</b>	<b>12.7960%</b>

