



CHHATTISGARH STATE ELECTRICITY REGULATORY COMMISSION
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Petition No. 7 of 2026

In the matter of

Approval of Capital Investment Plan in respect of Chhattisgarh State Load Dispatch Center for the Control Period from FY 2026-27 to FY 2029-30.

**M/s Chhattisgarh State Load Despatch Center
(CSLDC)**

..... Petitioner

Present: Vivek Ganodwale, Member (Law)

Ajay Kumar Singh, Member (Tech)

ORDER

(Passed on 16/04/2026)

This order is passed in the petition filed by CSLDC for approval of Capital Investment Plan for Control Period FY 2026-27 to FY 2029-30.

- 2.** The Petition was registered as Petition No. 07 of 2026 dated 13.01.2026. As per the procedure laid down in the Regulations, a Public Notice along with the gist of the Petition was published in the newspapers for inviting objections/suggestions. For this purpose, the Petition was made available in the office of the Commission and the Petitioner. The Petition was also made available on the Commission's and petitioner's website.

3. On the scrutiny of the Capital Investment Plan (CIP) above petition, the Commission observed certain deficiencies and sought clarification from CSLDC.
4. A Technical Validation Session (TVS) on the Petition was held on 12.02.2026, in the office of Commission. During the TVS, the CSLDC was asked to submit clarifications/additional information for prudence check of the submission of CSLDC. In response to the queries of the Commission, CSLDC submitted the clarifications, which have been discussed in the relevant section of this Order. The Commission conducted Public Hearing on 17.02.2026, 18.02.2026, 19.02.2026 and 20.02.2026. Further, the Commission also held a meeting with Members of the State Advisory Committee on 21.02.2026, to seek their valuable suggestions and comments.
5. No comments from public were received on the CIP filed by CSLDC. No objections were presented by public during hearing also.
6. CSLDC in replies to the data gaps has submitted revised Capex and Capitalization plan for the Control Period FY 26-27 to FY 29-30. CSLDC has proposed Capital Investment of Rs. 171.66 Crore for FY 2026-27 to FY 2029-30.

7. Details of spill over work as proposed by CSLDC:

CSLDC sought approval for following spill over work:

i. Installation of Weather sensors at 10 S/s in CG

SLDC submitted that weather parameters of different parts of the State are required for short-term demand forecasting on daily

basis. This will help SLDC to perform scheduling activities more accurately. Weather parameters such as Temperature, Wind speed, Humidity and Rainfall are required to be telemetered from various Substations and Generating stations. Installation of Weather sensors at 10 S/s in the State shall help in better forecasting of actual load.

Table 1: Financial Phasing for Installation of Weather sensors at 10 S/s in CG (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Installation of Weather sensors at 10 S/s in CG	0.75(S)	-	-	-	0.75

ii. **Procurement of Office Furniture for Main and Backup SLDC**

SLDC submitted that Furniture is required to be procured for CSLDC building for 32 Nos. new Post of Executives is created.

Table 2: Financial Phasing for Procurement of Office Furniture for Main and Backup SLDC (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Procurement of Office Furniture for Main and Backup SLDC	0.07(S)	0.10(N)	-	-	0.17

iii. **Installation of Indoor security camera, projectors and scanner**

Useful service life (Seven Years) of current CCTV System of Main SLDC Raipur has already expired, therefore, CSLDC has proposed to install CCTV systems for 24 x 7 surveillance. Details of the proposal is given in below table:

Table 3: Financial Phasing for Installation of Indoor security camera, projectors and scanner (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Installation of Indoor security camera, projectors and scanner	0.49(S)	-	-	-	0.49

iv. **Procurement of UPS and Laser Jet Printers at Main and Backup SLDC**

In compliance with the workforce adequacy Guidelines issued by the MOP (GoI) vide notification dtd 30.10.2024, CSLDC requires to procure UPS and Laser Jet Printers at Main and Backup SLDC as per detail given in table below:

Table 4: Financial Phasing for Procurement of UPS and Laser Jet Printers at Main and Backup SLDC (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Totals
1	Procurement of UPS and Laser Jet Printers at Main and Backup SLDC	0.10(S)	0.10(N)	-	-	0.20

v. Upgradation of MEA system

The existing IT infrastructure (hardware and software) under MEA System for "ABT Based UI/DSM Billing System" is in commercial operation since 2009 and has completed its Useful/Productive Life, therefore, upgradation of MEA system is proposed and detail as given in table below:

Table 5: Financial Phasing for Upgradation of MEA system (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Upgradation of MEA system	2.00(S)	-	-	-	2.00

vi. Surveillance Monitoring System for Back-up SLDC

Scheme is already covered in Scheme No. 3 "*Installation of Indoor security camera, projectors and scanner*"

Table 6: Financial Phasing for Surveillance Monitoring System for Back-up SLDC (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Surveillance Monitoring System for Back-up SLDC	-	-	-	-	-

vii. Replacement of Test RTU

Test RTU is required at SLDC for various testing and integration activities before and after commissioning without disturbing telemetry from other RTUs in the field. Moreover, the same is also being utilized for acquiring weather parameters and planned to use for gathering parameters of UPS and DG set status.

Table 7: Financial Phasing for Replacement of Test RTU (Rs Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Replacement of Test RTU	0.10 (S) & 0.06 (N)	-	-	-	0.16

viii. Upgradation of SCADA

Useful service life, i.e. Seven Years of existing SCADA system has expired in October, 2023. CSLDC has signed an MoU for upgradation/replacement of SCADA/EMS system with WRLDC, POSOCO dated December 31, 2020. GRID-INDIA is in the process of floating tender for up-gradation of SCADA/EMS system at SLDC Chhattisgarh. CSLDC is working on real time data transfer system through SCADA for which day to day up-gradation on same platform as WRLDC is working in order to acquire. Details of the proposal as submitted in additional information is given in the table below:

Table 8: Financial Phasing for Upgradation of SCADA (with IDC)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Totals
1	Up-gradation of SCADA	57.30	36.64	-	-	93.94

ix. **Replacement of Conference Room Video & Audio-Conferencing System for Main SLDC**

Useful service life (Seven Years) of current Conference Room Audio Conferencing System has already expired in December 2019. The present Video Conferencing System is also not compatible with online meeting platforms such as WebEx, Google Meet, MS Teams, etc.

As per the provision stipulated in clause no. 3.75 of Chapter -1 of CSERC MYT Regulations, 2025, also mentioned in item no. 2 of this petition.

Table 9: Financial Phasing for Replacement of Conference Room Video & Audio-Conferencing System for Main SLDC

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Replacement of Conference Room Video & Audio-Conferencing System for Main SLDC	0.75(S)	-	-	-	0.75

x. **Replacement of Battery 48 VDC Battery I28 Set at Main & Backup SLDC**

CSLDC has proposed Replacement of Battery 48 VDC Battery Set at Main & Backup SLDC as same has completed its useful life. Detail of the same is given in table below:

**Table 10: Financial Phasing for Replacement of Battery 48 VDC
Battery Set at Main & Backup SLDC (Rs. Crores)**

S. No.	Particulars	FY 26-27	FY 27- 28	FY 28- 29	FY 29- 30	Totals
1	Replacement of Battery 48 VDC Battery I28 Set at Main & Backup SLDC	0.09(S)	-	-	-	0.09

xi. Replacement of Outdoor CCTV System of Main SLDC Raipur

**Table 11: Financial Phasing for Replacement of Outdoor CCTV
System of Main SLDC Raipur**

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Replacement of Outdoor CCTV System of Main SLDC Raipur	-	-	-	-	-

xii. Implementation of SAMAST Project (C) (Rs. 10 Cr. Benchmark approval from PSDF)

As per report on SAMAST of Technical Committee of Forum of Regulators which was adopted and accepted by Forum of Regulators, a new SAMAST system is proposed for efficient operations of CSLDC. The new system will bring an overall improvement of power supply management through online scheduling, Accounting, Metering, settlement of transaction and convenience to open access customers and other inter- State and

intra-State key holders. Total tentative project cost was Rs. 18 Crore (including capital expenditure for O&M and revenue expenditure of Rs. 13.22 crores and Rs. 4.78 crores respectively), which was approved by the Commission vide order dtd. 31/10/2019 passed Petition no. 25/2019 (M). As per notification No. 10/1/2014-OM dated 25/08/2022 of Ministry of Power, Government of India, the cost of the SAMAST project estimated by the PSDF is Rs. 14.60 Crore (excluding AMC) and Rs. 13.14 Crores is granted by PSDF (90% of the approved estimated cost).

The Tender for implementation of SAMAST project published vide Tender e-NIT No.: 03-02/SLDCCG/SAMAST/e-bidding/TR-243/2449, Raipur, dtd. 08/01/2025 and price bid of the tender has been opened, in which L1 bidder has quoted Rs. 32.86 Crores (including Capital expenditure and AMC for amount of Rs. 31.13 Crores and Rs. 1.72 Crore- for 2 years respectively). So the remaining amount after deducting the PSDF grant (i.e. 33.39 -13.14= Rs. 20.25 Cr. and Rs. 0.8496 Cr. for AMC per year) shall be met through the CSLDC Development Fund. After implementation of SAMAST, CSLDC will work on the same platforms as per the guidelines issued by NLDC.

Table 12: Financial Phasing for Implementation of SAMAST Project (C) (Rs. 10 Cr. Benchmark approval from PSDF) (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Implementation of SAMAST Project (C) (Rs. 10 Cr. Benchmark approval from PSDF)	9.52 (S) & 10.73 (N)	0.85	0.85	0.85	22.80

xiii. Procurement and up-gradation of 37 Nos. of PCs for Office use at Main and Backup SLDC

Procurement process of 37 Nos. PCs for SLDC as discussed above includes only desktop with CPU. Upgradation of PC was costly, hence, SLDC has proposed to procure new PCs as per detail given below:

Table 13: Financial Phasing Procurement and upgradation of 37 Nos. of PCs for Office use at Main and Backup SLDC (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Procurement and upgradation of 37 Nos. of PCs for Office use at Main and Backup SLDC	0.10 (S) & 0.23 (N)	0.11 (N)	-	0.30	0.74

xiv. Procurement of Air Conditioners at Main & Backup SLDC

CSLDC submitted that main SLDC building has 30 nos. split ACs which were commissioned with the building in year 2010. Backup SLDC has 15 nos. split ACs which were commissioned with the building in the year 2016. These ACs have already served useful life and needs replacement. **Details of the proposal is given in table below:**

Table 14: Financial Phasing for Procurement of Air Conditioners at Main & Backup SLDC (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Procurement of Air Conditioners at Main & Backup SLDC	0.05(S) & 0.35(N)	-	-	-	0.40

xv. Up-gradation of Fire Hydrant System at Main and Backup SLDC

CSLDC submitted that as per Building Management System, fire alarm and automatic water spray fire-fighting system for office floor with complete suppression of any type of fire/gas within maximum 1.5 minutes 'without any human interference, monitored by Very Early Warning Aspirating Smoke Detection (VESDA) system is required.

The fire hydrant system at main SLDC and backup SLDC was installed in the year 2010 and 2013. The water pipelines of this fire hydrant system are rusted and damaged. Therefore, CSLDC has proposed for up-gradation fire hydrant system. Details of the proposal is given in table below:

Table 15: Financial Phasing for Upgradation of Fire Hydrant System at Main and Backup SLDC (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Totals
1	Upgradation of Fire Hydrant System at Main and Backup SLDC	0.25(S)	0.25(N)	-	-	0.50

xvi. Procurement of Refrigerator and Microwave Oven for Conference Room at Main SLDC

In the CABIL Report of the Forum of Regulators Technical Committee sub-group issued that Each station should ensure provision of adequate rest grid relief mechanisms, which need to be standardized including size of the rest room, number of beds to be made available, facilities such as television, water dispensers with provision of both hot and cold water, refrigerators, microwave ovens, massage chairs, reclining chairs, Library facilities with both aviation subject & general materials, well-equipped gym, individual storage locker facility etc.

In view of above, CSLDC has proposed to procure refrigerator and oven for conference room of SLDC building.

Detail of the proposal is given in table below:

Table 16: Financial Phasing for Procurement of Refrigerator and Microwave Oven for Conference Room at Main SLDC (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Procurement of Refrigerator and Microwave Oven for Conference Room at Main SLDC	0.02(S)	-	-	-	0.02

xvii. Microsoft office License

CSLDC has proposed to procure Microsoft license as per the detail given in table below:

Table 17: Financial Phasing for Microsoft office License (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Microsoft office License	0.56(S)	-	-	-	0.56

xviii. 175 Ton Air Cooled Screw Chiller at SLDC, Building, Raipur

The office building was originally designed for the industrial central AC system. The Centralized system is being used for air conditioning of the Control-room, Server-room, Communication-room, video projection- room, Auxiliary power supply room, etc., where costly equipment is installed, which have to be kept in air-conditioned environment with ambient temperature of 23-degree C. Apart from the above, it is used for maintaining the required temperature of the SLDC building. The central Air Conditioning system of 160 T was installed at SLDC in the year 2009 and after continuous service of 15 years it has rendered its useful life. Since, the central Air Conditioning system is very essential as mentioned above, CSLDC has proposed to replace the central Air Conditioning system with a new one with capacity of at least 175 T.

Table 18: Financial Phasing for 175 Ton Air Cooled Screw Chiller at SLDC, Building, Raipur (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	175 Ton Air Cooled Screw Chiller at SLDC, Building, Raipur	1.05(S)	-	-	-	1.05

xix. Security Operation Centre and Network operation control

Ministry of Electronics and Information Technology on dated 22-May-2018 notified Information Technology (Information Security Practices and Procedures for Protected System) Rules, 2018. In the rules it has been mentioned that organization having "Protected System" shall establish a Cyber Security Operation Centre (C-SOC) and Network Operation Centre (NOC). As per above rules, SLDC Chhattisgarh having "Protected System" is required to establish a Security Operation Centre (SOC) and Network Operation Centre (NOC).

CERT-GO, GRID-INDIA vide email dated 16-11-2025 has informed that PSDF appraisal committee has approved 20.43 Cr for the establishment of Indigenous SOC and Indigenous NOC projects at SLDC's. PSDF will fund 90% of the above estimated cost i.e. 18.38Cr. As per CSPTCL norms estimated cost for the establishment of Indigenous SOC and Indigenous NOC projects at SLDC's is 25.55 Cr. Difference of amount of CSPTCL's estimate and 90% of amount approved PSDF appraisal committee is 7.17Cr. In the Year 2026-27, SLDC has proposed 7.17Cr for the establishment of Indigenous SOC and Indigenous NOC projects at SLDC. Details of the proposal is given in table below:

Table 19: Financial Phasing for Security Operation Centre and Network operation control (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Security Operation Centre and Network operation control	1.00 (S)+1.00(S) & 5.17 (N)	-	-	-	7.17

xx. **Productivity Tools for Demand Estimation with H/w & S/W**

To comply with the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2023 that SLDCs, RLDCs and NLDC shall compute forecasting error for intra-day, day-ahead, weekly, monthly and yearly forecasts and analyse the same in order to reduce forecasting error in the future. The computed forecasting errors shall be made available by SLDCs, RLDCs and NLDC on their respective websites. Therefore, CSLDC requires Productivity Tools for Demand Estimation with H/w & S/W. CSLDC has proposed to procure as per the detail given in table below:

Table 20: Financial Phasing for Productivity Tools for Demand Estimation with H/w & S/W (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Productivity Tools for Demand Estimation with H/w & S/W	0.20(S)	-	-	-	0.20

xxi. **Procurement for Supply, Installation and Commissioning of 480V 165AH VRLA Battery Bank (Consists of 240 cells) at Main and Backup SLDC**

The 480V 165AH VRLA Battery Bank (Consists of 240 cells) at Main and Backup SLDC SCADA System was installed in the year 2016. The useful life of the batteries is already over. They are required to be replaced for smooth functioning of EMS/SCADA system. Therefore, CSLDC has proposed Installation and

Commissioning of 480V 165AH VRLA Battery Bank (Consists of 240 cells) at Main and Backup SLDC. The details are given in the table below:

Table 21: Financial Phasing for Procurement for Supply, Installation and Commissioning of 480V 165AH VRLA Battery Bank (Consists of 240 cells) at Main and Backup SLDC (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Procurement for Supply, Installation and Commissioning of 480V 165AH VRLA Battery Bank (Consists of 240 cells) at Main and Backup SLDC	0.39(S)	-	-	-	0.39

xxii. Voice recording system

CSLDC has submitted that voice recorder is used to record the conversation of control room phones; the recording is useful for analysis purpose after any major event in power system. No Call Loggers & Recorders were damaged due to heavy lightning and are beyond repair.

Table 22: Financial Phasing for Voice recording system (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Voice recording system	0.24(S)	-	-	-	0.24

xxiii. Procurement of WAF (Web Application Firewall), NLB (Network Load Balancer), Anti DDoS

In order to improve the cyber security posture of SLDC, Chhattisgarh, NCIIPC has recommended for the installation of Web Access Firewall (WAF), Network Load Balancer (NLB) and Anti DDoS devices. Accordingly, CSLDC has proposed as under:

Table 23: Financial Phasing for Procurement of WAF (Web Application Firewall), NLB (Network Load Balancer), Anti DDoS (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Procurement of WAF (Web Application Firewall), NLB (Network Load Balancer), Anti DDoS	2.40(S)		-	-	2.40

xxiv. Upgradation/replacement of SLDC Building LAN cables and switches.

SLDC Building LAN cables were laid in the SLDC building in the year 2010. These cables have become very old and causing data loss in the system. Hence replacement is required. Accordingly, CSLDC has proposed as under:

Table 24: Financial Phasing for Upgradation/replacement of SLDC Building LAN cables and switches (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Upgradation/replacement of SLDC Building LAN cables and switches	0.20 (S) & 0.10 (N)	-	-	-	0.30

xxv. Implementation of cyber security (Capital ADDS, NMS, CAV etc) at Back up SLDC

In the Vulnerability Assessment and Penetration Testing (VAPT) conducted in March 2019, recommendations were made to protect CSLDC from cyber-attacks. The IT infrastructure of CSLDC is vulnerable to various cyber-attacks, which may lead to data loss and downtime of IT infrastructure in the event of non-compliance of recommendations of VAPT. Since, the working of CSLDC is highly dependent on IT infrastructure, it is utmost necessary to take essential steps to protect the IT infrastructure. Based on the above recommendations, a plan has been made to install Active Directory Domain Services, Antivirus and Patch management server, Network Monitoring System, etc. Accordingly, CSLDC has proposed as under:

Table 25: Financial Phasing for Implementation of cyber security (Capital ADDS, NMS, CAV etc) at Back up SLDC (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Totals
1	Implementation of cyber security (Capital ADDS, NMS, CAV etc) at Back up SLDC	1.00(S)	-	-	-	1.00

xxvi. Implementation of Data Diode for IT and OT segregation at SLDC Raipur

CSLDC has submitted that data Diode is critical to ensure security for IT systems of the SLDC. Accordingly, CSLDC has proposed as under:

Table 26: Financial Phasing for Implementation of Data Diode for IT and OT segregation at SLDC Raipur (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Totals
1	Implementation of Data Diode for IT and OT segregation at SLDC Raipur	2.00(S)	-	-	-	2.00

xxvii. Implementation of cyber security (Capital ADDS, NMS, CAV etc.) at SLDC Main Raipur

To improve the cyber security posture of Main SLDC, Raipur by implementation of various cyber security tools such as Network Security Tools, Vulnerability Scanners, Penetration Testing Tool, Identity and Access Management (IAM) Tools, Data Loss Prevention (DLP) Tools, etc. Existing Cyber security (ADDS, NMS, CAV) at Main SLDC has been commissioned in year 2022. The useful life of the system is 7 years from the date of commissioning. The existing system hardware and software will have completed its useful life and will need replacement. Accordingly, CSLDC has proposed as under:

Table 27: Financial Phasing for Implementation of cyber security (Capital ADDS, NMS, CAV etc.) at SLDC Main Raipur (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Implementation of cyber security (Capital ADDS, NMS, CAV etc.) at SLDC Main Raipur	-	-	-	1.00(S)	1.00

Commission's View:

8. All above spilled-over works, which were approved in the previous CIP Orders by the Commission but as per CSLDC, these works are not completed in previous control period. Therefore, CSLDC has proposed to approve the same as spill over works for control period from FY 2026-27 to FY 2029-30. Since all capital works under spilled overworks have already been approved by the Commission therefore, no further approval is required and CSLDC should complete these schemes at the earliest. Accordingly, the Commission approves spill-over works for FY 2026-27 to FY 2029-30 as proposed by CSLDC.

9. **Procurement of regular Laptops and high end Laptops for Root Mean Square RMS simulations in Power System Simulation for Engineering PSSE for SLDC**

PSSE software is being used by GRID-INDIA, Gencos and STUs pan India for carrying out system studies, planning outages, etc. The software requires high end laptops with good computing powers for providing results quickly. In the year 2026-27 0.05Cr has been proposed for the procurement of high end Laptops for PSSE software. For power system study (PSS) it is required to procure at least Three Nos. high end latest Laptops (2 for Main SLDC & 1 for Backup SLDC). Accordingly, CSLDC has proposed as under:

Table 28: Financial Phasing for Purchasing of high end Laptops for Root Mean Square RMS simulations in Power System Simulation for Engineering PSSE (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Totals
1	Purchasing of high end Laptops for Root Mean Square RMS simulations in Power System Simulation for Engineering PSSE.	0.05	-	0.03	-	0.08

Commission's View:

10. The Commission finds that the proposed procurement of high end laptops is essential for carrying out system studies, planning outages, etc. The Commission, based on the submission of CSLDC, approves the investment for this scheme as proposed by CSLDC.

11. Procurement of Heavy Duty Multifunctional Colour Printers with all accessories at Main and Backup SLDC

Heavy Duty Multifunctional Colour Printers with all accessories at Main and Backup SLDC, is required for multiple works, such as daily reports, Printing of DSM billing, Data Section, Open Access and other works related to correspondence from SLDC & simultaneous activities at SLDC being the Nodal Agencies for STOA, as well as in establishment / other official works. The existing Printers are old and not functioning well. Therefore, CSLDC has proposed as under:

Table 29: Financial Phasing for Procurement of Heavy Duty Multifunctional Colour Printers with all accessories at Main and Backup SLDC (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Procurement of Heavy Duty Multifunctional Colour Printers with all accessories at Main and Backup SLDC	0.13	-	-	-	0.13

Commission's View:-

12. The replacement of old and non-functional equipment is essential to ensure efficiency and reliability in the operation. The Commission, based on the submission of CSLDC, approved the investment for this scheme as proposed by CSLDC.

13. Upgradation of Electrical System of Main SLDC including Replacement of required Items along with Supply, Installation, Testing and Commissioning at Main SLDC

The Electrical system at main SLDC was installed in the year 2010. The Sanctioned load of the SLDC building is 300 KVA, initially only SLDC office is operating in the building. At present O/o ED (Fin.), O/o ED (PC & RA), O/o ED (S &P), O/o ED (Project), etc. are operating in this building due to that the Electrical Load of building is increased and also electrical equipment get older and weaken. Therefore, some of electrical equipment are needed to be replaced/upgraded. Accordingly, CSLDC has proposed as under:

Table 30: Financial Phasing for Upgradation of Electrical System of Main SLDC including Replacement of required Items along with Supply, Installation, Testing and Commissioning at Main SLDC (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Upgradation of Electrical System of Main SLDC including Replacement of required Items along with Supply, Installation, Testing and Commissioning at Main SLDC	0.10	-	-	-	0.10

Commission's View:

14. The Electrical system was installed in 2010, became inadequate due to increased loading and ageing of equipment over time and accordingly upgradation is required. The Commission, based on the submission of CSLD, approves the investment for this scheme as proposed by CSLDC.

15. Procurement of Electrical Fans and Exhaust at Main and Backup SLDC

Ceiling Fans, Exhaust Fans have been installed in SLDC building in 2010 and not working up to the mark, therefore, It is required to procure ceiling fans and Exhaust fans for SLDC Raipur and Backup SLDC Khedamara, Bhilai. Accordingly, CSLDC has proposed as under:

Table 31: Financial Phasing for Procurement of Electrical Fans and Exhaust at Main and Backup SLDC (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Procurement of Electrical Fans and Exhaust at Main and Backup SLDC	0.03	-	-	-	0.03

Commission's View:-

The building was handed over to SLDC in the year 2010. Over time the functionality of fans have deteriorated. Accordingly, the procurement of new fans are required. The Commission, based on the submission of CSLDC, approves the investment for this scheme as proposed by CSLDC.

16. Procurement of Water Cooler/Purifier at Main and Backup SLDC

In the CABIL Report of the Forum of Regulators Technical Committee sub-group each station should ensure provision of adequate rest grid relief mechanisms, which need to be standardized including size of the rest room, number of beds to be made available, facilities such as television, water dispensers with provision of both hot and cold water, refrigerators, microwave ovens, massage chairs, reclining chairs, Library facilities with both aviation subject & general materials, well-equipped gym, individual storage locker facility, etc. Accordingly, conference room of SLDC building is required to be equipped with Water Cooler/Purifier.

Table 32: Financial Phasing for Procurement of Water Cooler/Purifier at Main and Backup SLDC (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Procurement of Water Cooler/Purifier at Main and Backup SLDC	0.05	-	-	-	0.05

Commission's View:-

17. The Commission, based on the submission of CSLDC, has approves the investment for this scheme as proposed by CSLDC.

18. Additional IEM, DCU, Modem, network switch and accessories under SAMAST Project

The number of meters for the SAMAST project was considered based on the number of feeders, transformers, substations and generators available upto FY 2018-19 as per the DPR submitted by M/s C-DAC, Bengaluru (consultant for SAMAST project). Since then, the number of feeders, transformers, substations and generators have been increased considerably. The main objective of the SAMAST project is smooth operation of energy accounting and DSM settlement, so it has to include meters of all the locations which are used in energy accounting and DSM settlement.

In order to further improve the national grid operating system and to facilitate the inter-State exchange of power flows, Additional IEM, DCU, Modem, network switch and accessories under SAMAST Project are required as per the detail given below:

Table 33: Financial Phasing for Additional IEM, DCU, Modem, network switch and accessories under SAMAST Project (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Additional IEM, DCU, Modem, network switch and accessories under SAMAST Project	-	3.00	0.25	0.25	3.50

Commission's View:-

19. In Order to smooth energy accounting and DSM settlement, the Commission, based on the submission of CSLDC approves the investment proposed by CSLDC.
20. **Formation of DR for SAMAST Project at Back-up SLDC, Khedamara**

As per NCIIPC guidelines, protection of critical information infrastructure Disaster Recovery/Business Continuity Planning Controls (DR) sites must be maintained in a ready-to-operate state at all times and should be regularly tested to ensure continuity and high availability of services. in view of the above, the DR (Back-up control centre) for SAMAST project in case of failover of network at main control centre Raipur is proposed at Back-up SLDC, Khedamara.

In order to further improve the national grid operating system and to facilitate the inter-State exchange of power flows, Formation of DR for SAMAST Project at Back-up SLDC, Khedamara is essential. Accordingly, CSLDC has proposed following:

Table 34: Formation of DR for SAMAST Project at Back-up SLDC, Khedamara (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Formation of DR for SAMAST Project at Back-up SLDC, Khedamara	-	20.00	1.00	1.00	22.00

Commission's View:-

- 21.** In Order to ensure continuity of operations and safeguarding critical infrastructure, Disaster Recovery facility is essential, based on the submission of CSLDC, approves the investment proposed by CSLDC for formation of DR for SAMAST Project at Back-up SLDC, Khedamara.
- 22. Tape Library including Tape Cartridge and Data plus Cleaning Cartridges**

SLDC data is crucial and important and it must be stored in a secured way so that in the event of an unexpected incident, the data can be backed up, recovered, and migrated safely and reliably. In view of the above, a Tape library is required. Accordingly, CSLDC has proposed as under:

Table 35: Financial Phasing for Tape Library including Tape Cartridge and Data plus Cleaning Cartridges (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Tape Library including Tape Cartridge and Data plus Cleaning Cartridges	-	1.00	-	-	1.00

Commission's View:-

23. The secure storage and reliable backup of critical SLDC data are essential for ensuring system integrity and continuity of operations. The Commission, based on the submission of CSLDC, approves the investment for this scheme as proposed by CSLDC

24. Upgradation of server, firewall and storage at Backup SLDC, Khedamara

Existing server, firewall and storage at backup SLDC has been commissioned in year 2022. The useful life of the system is 7 years from the date of commissioning. The existing system hardware and software will be completing its useful life and will be required replacement. Accordingly, CSLDC has proposed as under:

Table 36: Financial Phasing for Upgradation of server, firewall and storage at Backup SLDC, Khedamara (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Upgradation of server, firewall and storage at Backup SLDC, Khedamara	-	-	-	0.90	0.90

Commission's View:

25. The useful of the system existing server, firewall and storage is 7 years from the date of commissioning, since the system was commissioned back in 2022. Upgradation will be required by the end of the control period. The Commission, based on the submission of CSLDC, approves the investment for this scheme as proposed by CSLDC

26. Implementation of Disk Backup solution for Windows Servers, Linux Servers and Workstation

SLDC has many Critical infrastructures deployed which are necessary for day to day functioning. The following proposed solution will take periodical backup of the servers and workstation and help in minimising downtime in event of any failure of system.

Table 37: Financial Phasing for Implementation of Disk Backup solution for Windows Servers, Linux Servers and Workstation (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Implementation of Disk Backup solution for Windows Servers, Linux Servers and Workstation	0.50	-	-	-	0.50

Commission's View:-

27. The Commission, based on the submission of CSLDC, approves the investment for this scheme as proposed by CSLDC.

28. Design, Development and Deployment of DPR, FTC portal with associated storage and peripherals

At present, SLDC prepares Daily Progress Report (DPR) in excel. First Time Charging (FTC) is being carried out manually. WRLDC has developed portal for the above work. SLDC on similar lines proposes to develop online website for DPR and FTC where access will be provided to all the stakeholders which include CSPGCL, CSPTCL, CSPDCL, IPP/PPP/Renewable generators consumers. Accordingly, CSLDC has proposed as under:

Table 38: Financial Phasing for Design, Development and Deployment of DPR, FTC portal with associated storage and peripherals (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Design, Development and Deployment of DPR, FTC portal with associated storage and peripherals	-	0.65	-	-	0.65

Commission's View:-

29. The Commission, based on the submission of CSLDC, approves the investment for this scheme as proposed by CSLDC.

30. Conference Room Video & Audio-Conferencing System for Backup SLDC

At present, no audio video conferencing facility is available at Backup SLDC. For creating integration between Main SLDC and Backup SLDC video conferencing system is proposed by CSLDC as per detail given below:

Table 39: Financial Phasing for Conference Room Video & Audio-Conferencing System for Backup SLDC (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Conference Room Video & Audio-Conferencing System for Backup SLDC	-	0.75	-	-	0.75

Commission's View:-

- 31.** The Commission, based on the submission of CSLDC, approves the investment for this scheme as proposed by CSLDC.
- 32. Procurement of DG set for Main SLDC building lighting and air conditioning**

During outage of power supply at Main SLDC, servers do not receive sufficient cooling and are prone to failure. Critical infrastructure already has UPS and DG set support to prevent any outages. Separate DG set is required for SLDC building lighting and air conditioning. Accordingly, CSLDC has proposed as under:

Table 40: Financial Phasing for Procurement of DG set for Main SLDC building lighting and air conditioning (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Procurement of DG set for Main SLDC building lighting and air conditioning	-	0.75	-	-	0.75

Commission's view:

- 33.** The Commission, based on the submission of CSLDC, approves the investment for this scheme as proposed by CSLDC.
- 34. Establishment of Email Server at Main and Backup SLDC in DC-DR mode.**

Email is being used at SLDC for communication with different agencies. Control room instructions are also passed through emails to the beneficiaries. At present, SLDC email server is hosted on google cloud. SLDC does not have any on premise email server. In the event

of any cyber incident SLDC has no copy of these emails. SLDC is planning to establish email server at Main and Backup SLDC in DC-DR mode. Therefore, CSLDC has proposed as under:

Table 41: Financial Phasing for Establishment of Email Server at Main and Backup SLDC in DC-DR mode. (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Establishment of Email Server at Main and Backup SLDC in DC-DR mode.	1.00	-	-	-	1.00

Commission's View:-

35. The Commission, based on the submission of CSLDC, approves the investment for this scheme as proposed by CSLDC.

36. Procurement of High performance computing workstations for SLDC.

SLDC control room carries out real time forecasting and scheduling through WBES portal. For carrying out these activities in each time block high performance workstations are required. General purpose PCs have 8GB RAM and processors of 2.5GHz with 6 cores. These PCs are not suitable for huge computing activities and tend to be sluggish. SLDC requires computers with computers having at least 32 GB RAM and 12 core CPU for quick computing. Accordingly, CSLDC has proposed as under:

Table 42: Financial Phasing for Procurement of High performance computing workstations for SLDC. (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Procurement of High performance computing workstations for SLDC.	0.25	-	-	-	0.25

Commission's view:

37. The Commission, based on the submission of CSLDC and in accordance with Regulation 3.75 of the MYT Regulations, 2025 approved the investment for this scheme as proposed by CSLDC.

38. Procurement of Cyber Security monitoring tools for SLDC.

At present, SLDC does not have any Cyber Security auditing tools as specified in Cyber Security in Power Sector Guidelines 2021. In year 2026-27, 0.50Cr has been proposed for the procurement of Cyber Security monitoring tools for SLDC which will be used for conducting cyber security audit and generating of reports.

Table 43: Procurement of Cyber Security monitoring tools for SLDC. (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Procurement of Cyber Security monitoring tools for SLDC.	0.50	-	-	-	0.50

Commission's View:-

39. Cyber Security monitoring is necessary to safeguard necessary SLDC infrastructure. The Commission, based on the submission of CSLDC, approves the investment for this scheme as proposed by CSLDC.

40. Procurement of Network Honeypot and Isolation Switch for SLDC.

Network Honeypot and Isolation Switch is an essential network security tool that sits behind the firewall in a secure environment and detects firewall breaches and unauthorised intrusions. The network isolation switch is used to trigger the isolation of critical areas of the network. As per CEA, Cyber Security in Power Sector Guidelines 2021, SLDC is identified as a Responsible Entity. Therefore, CSLDC has proposed as under:

Table 44: Financial Phasing for Network Honeypot and Isolation Switch for SLDC (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Procurement of Network Honeypot and Isolation Switch for SLDC	0.25	-	-	-	0.25

Commission's View:

41. The Commission, based on the submission of CSLDC and in accordance with Regulation 3.75 of the MYT Regulations, 2025 approved the investment for this scheme as proposed by CSLDC.

42. Funding of Capital Works:

CSLDC submitted that capital works proposed above shall be carried out by taking loan from financial institution and from internal resources with Debt:Equity ratio of 70:30. Some of the schemes are to partially funded by way of grant from PSDF. The amount to be received from grants are not considered in CIP at present and shall be considered during capitalization phase at appropriate stage upon receipt of the same and final consideration in the GFA. Accordingly, the proposal for Capex is as follows:

**Table 48: Funding of the Capital Expenditure for Control
Period of FY 2026-27 to FY 2029-30 (Rs. Crores)**

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Spill Over Work	81.53	36.64	0.00	1.00	119.17
2	New Proposed Work	19.50	27.56	2.13	3.30	52.49
3	Capital Investment Proposed	101.03	64.20	2.13	4.30	171.66
4	Debt (70%)	70.72	44.94	1.49	3.01	120.16
5	Equity (30%)	30.31	19.26	0.64	1.29	51.50

Commission's View:-

- 43.** The Commission has approved capital investment and funding of capital expenditure in the normative Debt: Equity ratio of 70:30, as shown in the Table below:

Table 48: Funding of the Capital Expenditure approved by the Commission (Rs. Crores)

S. No.	Particulars	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
1	Spill Over Work	81.53	30.00*	0.00	1.00	112.53
2	New Proposed Work	19.50	27.56	2.13	3.30	52.49
3	Capital Investment Proposed	101.03	57.56	2.13	4.30	165.02
4	Debt (70%)	70.72	40.29	1.49	3.01	115.51
5	Equity (30%)	30.31	17.27	0.64	1.29	49.51

(*exclusive of claimed IDC of Rs. 6.64 Crores)

44. Interest During Construction

In response to the data gaps, CSLDC submitted that IDC is only applicable to the "Upgradation/Replacement of the SCADA system and provided computation details IDC of Rs. 6.64 Crores.

Commission's View:

- 45.** The Commission shall consider the IDC for the approved schemes based on the actuals at the time of truing up, subject to the prudence check and submission of requisite supporting documents.

- 46.** The approvals granted for capital investments are based on broad parameters and estimates submitted by utility. The utility has to adhere to prudence check on technical requirement and detailed specifications and ensure that works are completed at reasonable cost. Also, the timelines for executing the works must be adhered to. All such costs shall be considered for capitalization only after prudence check by the Commission.
- 47.** CSLDC is directed to submit quarterly status report in respect of Spill over works & New proposed works approved in this order.
- 48.** If the petitioner fails to initiate the work, including tendering process, procurement of land etc. within a period of one year from the date of receipt of approval, the approval shall be deemed to be cancelled.
- 49.** We accordingly.

**Sd/-
(Ajay Kumar Singh)
Member (Tech)**

**Sd/-
(Vivek Ganodwale)
Member (Law)**