



State Load Despatch Centre (SLDC)

Under
Bihar State Power Transmission Company Limited (BSPTCL)

Petition

For

Seeking prior Regulatory approval of the Hon'ble
Commission for Workwise & Scheme-wise Capital
Investment Plan and Capitalization

Submitted to

Bihar Electricity Regulatory Commission

Submitted By,

Chief Engineer (System Operations)

4th Floor, Vidyut Bhawan - I,

Jawaharlal Nehru Marg,

Patna - 800 021

12th April 2023



BEFORE THE HON'BLE BIHAR ELECTRICITY REGULATORY COMMISSION,
PATNA, BIHAR

Filing No.:

Case No.:

IN THE MATTER OF:

Filing of Petition for State Load Despatch Centre (SLDC) under Bihar State Power Transmission Company Limited for the prior approval of Workwise & Scheme-wise Capital Investment Plan and Capitalization in accordance with BERC (Procedure for filing Capital investment and Capitalisation plan) Regulations, 2018 along with other relevant guidelines and directions issued by the Hon'ble BERC from time to time and under the Electricity Act,2003.

AND

IN THE MATTER OF THE APPLICANT

State Load Despatch Centre (SLDC) under Bihar State Power Transmission Company Limited (herein after referred to as "SLDC" or "Petitioner"), which shall mean for the purpose of this petition, the SLDC in the state of Bihar, having its registered office at Vidyut Bhawan - I, Jawharlal Nehru Marg, Patna - 800 021.



The Petitioner respectfully submits as under:

1. State Load Despatch Centre (herein after referred to as 'SLDC' or 'Petitioner') under Bihar State Power Transmission Company Limited (BSPTCL), is responsible for optimum scheduling and despatch of electricity, monitor grid operations & other functions in the State of Bihar as enumerated under section 32 of the Electricity Act 2003.
2. The Hon'ble Commission in the MYT Order dated 21st March 2016, had directed SLDC to file separate Petition for Determination of Aggregate Revenue Requirement (ARR) and SLDC Charges along with Capital Investment Plan and Capitalization .
3. In compliance of the BERC Regulations and Directives, this present petition is being filed on independent basis for SLDC function and has been prepared in accordance with the provisions of BERC (Procedure for filing Capital investment and Capitalisation plan) Regulation, 2018 along with the other guidelines and directions issued by the Hon'ble Commission from time to time and under the Electricity Act, 2003 read with relevant guidelines as amended from time to time by the Hon'ble BERC for approval of Investment Plan of SLDC.
4. SLDC along with this petition is submitting information to the extent applicable and would make available any further information/additional data required by the Hon'ble Commission during the course of the proceedings.
5. In order to align the thoughts and principles behind the petition of Investment Proposal, SLDC respectfully seeks an opportunity to present their case prior to the approval of the same. SLDC believes that such an approach would go a long way towards providing a fair treatment to all the stakeholders and may eliminate the need for a review or clarification.
6. SLDC may also be permitted to propose suitable changes to the petition and the mechanism of meeting the revenue on further analysis, prior to the final approval by the Hon'ble Commission.
7. In view of the above, SLDC respectfully prays that the Hon'ble Commission may be pleased to consider and approve the following:
 - a. Admit this Petition ;
 - b. Examine the proposal submitted in the enclosed Petition for a favorable dispensation;
 - c. To kindly grant prior Regulatory approval as sought in this Petition for



- works to be carried out as submitted in this Petition.
- d. To kindly approve the estimated cost for proposed capital investment as submitted in this Petition and accordingly approve the proposed funding for these projects.
 - e. To kindly pass through the difference in the cost estimates submitted in this Petition and actual Awarded cost discovered after the tender processing through competitive bidding, as the variation is beyond the control of SLDC;
 - f. Permit to propose suitable changes to the respective capital investment petition, prior to the final approval by the Hon'ble Commission;
 - g. Condone any inadvertent omission/errors/short comings and permit the petitioner to add/change/modify/alter this filing and make further submissions as may be required at a future date.
 - h. Pass such Order as the Hon'ble Commission may deem fit and appropriate keeping in view the facts and circumstances of the case.

**State Load Despatch Centre, Bihar
Bihar State Power Transmission Company Limited**

Place: Patna.
Date: 12th April, 2023.

A. K. Chaudhary.
Chief Engineer (System Operation)



(1) Introduction

1.1 Historical Background of State Load Despatch Centre (SLDC)

The erstwhile Bihar State Electricity Board (hereinafter referred to as 'Board' or 'BSEB') was originally constituted on 1st April 1958 under Section 5 of the Electricity (Supply) Act, 1948 and was engaged in the management of electricity generation, transmission, distribution and related activities in the State of Bihar.

Under the 'Bihar State Electricity Reforms Transfer Scheme, 2012', the BESB was unbundled into five Companies, viz., Bihar State Power (Holding) Company Limited (BSPHCL), Bihar State Power Transmission Company Limited (BSPTCL), Bihar State Power Generation Company Limited (BSPGCL), South Bihar Power Distribution Company Limited (SBPDCL), and North Bihar Power Distribution Company Limited (NBPDC), with effect from 1st November 2012 vide Notification No. 17 dated 30th October 2012.

- **“Bihar State Power (Holding) Company Limited” or “BSP(H)CL”**

BSP(H)CL is the Apex Holding Company that owns the share of the other four companies i.e., Bihar State Power Generation Company Limited, Bihar State Power Transmission Company Limited, South Bihar Power Distribution Company Limited and North Bihar Power Distribution Company Limited.

- **“Bihar State Power Generation Company Limited” or “BSPGCL”**

BSPGCL is the Generating Company to which the Generating Undertakings of the Board have been transferred in accordance with this scheme.

- **“Bihar State Power Transmission Company Limited” or “BSPTCL”**

BSPTCL is the Transmission Company to which the Transmission Undertakings of the Board have been transferred in accordance with this scheme.

- **“South Bihar Power Distribution Company Limited” or “SBPDCL” and
“North Bihar Power Distribution Company Limited” or “NBPDC”**



SBPDCL and NBPDCCL are the Distribution Companies to which the Distribution Undertakings of the Board have been transferred in accordance with this scheme.

1.2 Constitution of State Load Despatch Centre

Section 31 of the Electricity Act, 2003, provides for constitution of State Load Despatch Centre (SLDC). The same is reproduced as below:

“31. (1) The State Government shall establish a Centre to be known as the State Load Despatch Centre for the purposes of exercising the powers and discharging the functions under this Part.

(2) The State Load Despatch Centre shall be operated by a Government company or any authority or corporation established or constituted by or under any State Act, as may be notified by the State Government.

Provided that until a Government company or any authority or corporation is notified by the State Government, the State Transmission Utility shall operate the State Load Despatch Centre:

Provided further that no State Load Despatch Centre shall engage in the business of trading in electricity.”

1.3 Functions of State Load Despatch Centre

The functions of SLDC as envisaged in the Electricity Act, 2003, is as under:

“32. (1) The State Load Despatch Centre shall be the apex body to ensure integrated operation of the power system in a State.

(2) The State Load Despatch Centre shall –

a) be responsible for optimum scheduling and despatch of electricity

within a State, in accordance with the contracts entered into with the licensees or the generating companies operating in that State;

b) monitor grid operations;

c) keep accounts of the quantity of electricity transmitted through the State grid;

d) exercise supervision and control over the intra-state transmission system; and

e) be responsible for carrying out real time operations for grid control and despatch of electricity within the State through secure and economic operation of the State grid in accordance with the Grid Standards and the State Grid Code.



(3) The State Load Despatch Centre may levy and collect such fee and charges from the generating companies and licensees engaged in intra- State transmission of electricity as may be specified by the State Commission."

As State Government has not notified any Separate entity in the form of Government Corporation or authority or Company, the State Transmission Utility namely Bihar State Power Transmission Company Limited (BSPTCL) is operating the State Load Despatch Centre (SLDC).

1.4 SLDC Assets

The Petitioner submits that previously the assets of SLDC were owned by Power Grid Corporation of India (PGCIL) and not SLDC. PGCIL recovers cost from the Distribution Companies namely, South Bihar Power Distribution Company Limited (SBPDCL), North Bihar Power Distribution Company Limited (NBPDCCL) and other users of transmission system. The supporting documents, i.e., the Minutes of the Meeting of Eastern Region Power Committee (ERPC) meeting where it was decided that the SLDC assets will be created by PGCIL have already been submitted to the Hon'ble Commission with the Tariff Petition for FY 2017-18 dated 30th November 2016.

During the Control Period from FY 2019-20 to FY 2021-22 SLDC has implemented SAMAST scheme which is approved by the Hon'ble Commission. Therefore, SLDC now has its own assets.

Bihar SLDC SCADA is used for real time data acquisition of various parameters from various grid substations of BSPTCL. The real time data of various inter-state transmission lines, intra-state transmission lines and Generating Stations is telemetered and reported to SLDC Control Centre located at BSPTCL HQ.

1.5 Approach to Filing of Current Petition

Regulations 6 of BERC (Procedure for filing Capital investment and Capitalisation plan) Regulations, 2018 specifies the procedure to be followed by the licensee to obtain the necessary prior approval of the Hon'ble Commission on the works to be taken up under Capital Investment Plan. The relevant extract of BERC (Procedure for filing Capital investment and Capitalisation plan) Regulations, 2018 is as follows:

" Approval of Capital investment plan

6.1 The rolling capital investment plan shall be integral part of the ARR to be filed every year...

.....Provided that under special circumstances Licensees may also file capital investment plan separately seeking approval thereon if it warrants so and not included in its earlier filing. Such



application must contain all supporting documents inter-alia justification for filing separate petition, purpose of investment, capital structure, DPR, capitalization schedule, financing plan and cost benefit analysis etc”

Therefore, SLDC is filing the current Petition for prior approval of Capital Investment and Capitalization as per the provisions of the BERC (Procedure for filing Capital investment and Capitalisation plan) Regulations, 2018.



(2) Petition for Prior Approval of Investment Plan & Capitalization

2.1. Background

1. Central Electricity Authority has been mandated to prepare “Guidelines on Cyber Security” in Power Sector under the provision of regulation (10) of the Central Electricity Authority (Technical Standards for connectivity to the Grid) (Amendment) Regulations, 2019. Guidelines on Cyber Security in Power Sector incorporating the cardinal principles has been prepared by CEA and in compliance to the provision of the above regulation, CEA (Cyber Security in Power Sector) Guidelines, 2021 are issued for mandatory compliance by all Transmission utilities, Load despatch centres (state, regional, national) etc.

Article 1(b) of CEA (Cyber security in Power Sector) Guidelines, 2021 provides that “The Responsible Entity shall be ISO/IEC 27001 certified (including sector specific controls as per ISO/IEC 27019)”.

Meetings of empowered committee on Cyber Security in Power Sector held on 4th March 2021 & 25th April 2022 in which all power utilities were asked to implement ISMS and get ISO 27001 certified.

In compliance of the above guidelines, SLDC is proposing to implement a scheme for “Selection of a Service Provider to provide consultation, implementation and certification of ISMS (Information Security Management System) ISO 27001:2013 for all Information assets under BSPTCL HQ Patna for 3 years”.

2. Further, Bihar Gazette no 156 dated 31st March 2022, Dept. of Energy, Govt of Bihar has declared the SCADA (Supervisory Control and Data Acquisition System) and WBES (Web Based Energy Scheduling System) of SAMAST and their associated information infrastructures dependencies of SLDC (State Load Despatch Centre) Bihar as “Protected Systems” under the directions of NCIIPC (National Critical Information Infrastructure Protection Centre).

Further, through the Gazette of India Extraordinary PART II, Section 3, Sub-section (ii) dated 1 June 2018, Ministry of Electronics and Information Technology (MeITy) had published the Information Technology (Information Security Practices and Procedures for Protected System) Rules, 2018. As per Section 3, Clause (j) of the stated rules, it is mandated for the organisation having “Protected System” to establish a Cyber Security Operation Centre (C-SOC) using tools and technologies to implement preventive, detective and corrective



controls to secure against advanced and emerging cyber threats. it is also mentioned in the clause that Cyber Security Operation Centre (C-SOC) is to be utilised for identifying unauthorized access to “Protected System”, and unusual and malicious activities on the “Protected System”, by analysing the logs on regular basis. The records of unauthorised access, unusual and malicious activity, if any, shall be documented.

Accordingly, a meeting was convened by CERT-GO on 1st April, 2021 with all Utility Heads and nominated CISOs of RLDCs /SLDCs including Bihar SLDC to discuss the issues related to implementation of cyber security across load despatch centres and the immediate actions to be taken-up to ensure a cyber safe network. In the meeting, it was directed to establish Security Operation Centre (SOC) immediately to improve the alertness pertaining to Cyber security of control centres. Meanwhile, the letter from Nodal agency of Cyber Security Grid Operation (Grid Controller of India) erstwhile POSOCO is received that also emphasised to establish Security Operation Centre for real time cyber monitoring.

Further, Supervisory Control and Data Acquisition System (SCADA) and Web Based Energy Scheduling (WBES) have been declared as protected systems by Energy Dept, GoB. Since Critical Information Infrastructure (SCADA & Energy Scheduling of SAMAST) is very likely to be targeted by an attacker so as to disrupt or compromise an IT-enabled capability, service or process C-SOC needs to be implemented. These capabilities and services are delivered through various Business and/or Industrial Processes, which run on the underlying Information Technology (IT) and Operation Technology (OT) systems. This could have severe impact of non-availability of Business /Industrial Process due to incapacitation or destruction of the underlying ICT infrastructure and degradation on other Critical Sectors/sub-sectors like Discom (NBPDC & SBPDCL), ERLDC, Railways, Nepal power exchange, National Security, National Economy, Public Health, Public Safety, Customers, Business and Government.

As per IT Rules, 2018 notified by MEITY (Ministry of Electronics and IT), any organization having protected system shall establish a Cyber Security Operation Centre (C-SOC) using tools and technologies to implement preventive, detective and corrective controls to secure against advanced and emerging cyber threats. In this regard detailed compliance status of various provisions of the rule above has been solicited by NCIIPC twice.



Accordingly, SLDC is proposing to implement another scheme for “Implementation, Establishment and Maintenance of Cyber Security Operation Centre (C-SOC).”

3. In current scenario, if there is sudden outage of any generating station or sudden surge in demand against forecast by EPM team, there is huge deviation from schedule proposed by DISCOMs. This needs to be addressed by two methods:
 - I. Either by purchase of additional power through Real Time Market (RTM) which can be processed only after 06 times blocks i.e. after one hour thirty minute. Alternatively,
 - II. To restrict load in different area of DISCOMs as per their recommendation by imposing load curtailments on 33KV feeder in concerned GSS.

But there is a manual system of communication for instructions from SLDC to Grids. Since there is a lack of visibility between SLDC operations and Grid in the state, as such it takes 15-30 minutes for ensuring load restrictions or 6-time blocks before gate closure for maintaining schedule. There is practically no way to ensure compliance of instructions by the Grids and even there is no visibility of actual drawl of power by the Grids.

As a result, Discoms end up paying charges/ penalties for DSM violation. In the above mentioned context, therefore, it was decided that there is an urgent need to develop automated communication protocol between SLDC and Grids, Central Command for Grids including Dashboarding and any other system improvement required in the functioning of SLDC. This shall work on logical basis on availability of power out of total scheduled power and actual load demand at that time.

In this regard, it may be noted that Bihar highly depends upon its Central Sector allocations of power to meet the State’s peak demand. These Central Sector allocations generally fails to perform adequately in peak demand periods of the State due to various reasons like forced outages, coal availability etc. Consequently, it has to depend on day-ahead or real-time market, for sourcing its power which at times is either costlier or market lacks depth. To mitigate the cost burden on account of this costlier power purchase, many a times, the State Discoms opt for load curtailment. However, the pattern of load curtailment is erratic and adhoc due to lack of automation in the system. In addition to this, there always remains an uncertainty in determining the exact quantum of



restrictions imposed and their implementation achievement which in turn makes it impossible to find out the unrestricted peak demand of the State.

Further, in case of a plant outage, the DISCOMS have to procure power from markets to meet the demand-supply gap. Many a times, power is not available in the real-time market and even if it is available, cost is much higher. To mitigate the cost burden on account of this, most of the times, the Discoms opt for load curtailment.

For load curtailment, there is no proper system in place for automated load management. It is presently done manually so as to maintain schedule vs drawl i.e UI within limits as specified by CERC/BERC guidelines.

As there is no software/hardware support system for real-time load visibility in SLDC, real-time load of any GSS is first ascertained through telephonic communication. Thereafter, instruction is issued for load restriction one by one to all concerned GSS keeping in mind the entire priority list of GSSs. This manual operation starting from convey of the message till implementation of load restriction by GSS takes around 15-20 minutes.

The Bihar SLDC is adequately managing the power flow in the Bihar State grid, with due application of the National and State Specific Grid Codes, so as to ensure optimum power availability to the consumers and safety of the State's power network. However, at times, its directions on curtailment of load are not complied with by the power utilities due to lack of infrastructure for efficient monitoring, real-time demand surges etc.

Pertinently, Section 32 of Electricity Act 2003 assigns a very important role to SLDC and states various functions of SLDC as follows:-

- (a) be responsible for optimum scheduling and despatch of electricity within a State, in accordance with the contracts entered into with the licensees or the generating companies operating in that State;
- (b) monitor grid operations;
- (c) keep accounts of the quantity of electricity transmitted through the State grid;
- (d) exercise supervision and control over the intra-State transmission system

Further, BERC Intrastate DSM has been notified on 2nd June 2020. Wherein DSM



has to be implemented on all open access consumers/Licensees. In order to ensure all guidelines to CERC/BERC to maintain Schedule Vs Drawl as per frequency to have resilient transmission system and to avoid cascading effect, automatic load balancing system is call of the hour.

In view of the above, there was urgent need to build a dedicated command/control Centre and develop and implement Automated System Balancing Mechanism, ensuring seamless communications across levels, optimizing UI (Schedule-drawl) management and integrated command and Control Centre and empower Bihar SLDC in carrying out its functions most efficiently and diligently.

Accordingly, the subject matter regarding implementation of Automated System Balancing Mechanism for Bihar SLDC, ensuring seamless communications across levels, optimizing DSM and integrated command and Control center was put up for approval in 103rd BOD meeting and the same has been approved vide Resolution No. 103-07 dated 13.12.2022.

In view of the above, SLDC is proposing a scheme for “Implementation of Automated System balancing mechanism for Bihar SLDC ensuring seamless communication across levels, optimizing DSM and Integrated command & Control Center Resource planning and Integrated Command & Control Centre.”

Based on the above, SLDC is filling this present petition for prior regulatory approval of its three new schemes as detailed below:



Petition for seeking prior Regulatory approval of the Hon'ble Commission for Work-wise & Scheme-wise Capital Investment Plan and Capitalization

Sl. No.	Project	Objectives of Proposed works	Details of approval	Total Project Estimated Cost (Rs)	Capital Expenditure		Date of Completion	Year of Capitalisation	Funding of Works
					FY 2023-24	FY 2024-25			
1	Selection of a Service Provider to provide consultation, implementation and certification of ISMS (Information Security Management System) ISO 27001:2013 for all Information assets under BSPTCL HQ Patna for 3 years	To improve and formalize cyber security posture of the company.	Administrative Approval of MD, BSPTCL	Rs 56,95,400.00	Rs. 14,23,850.00	Rs. 18,50,000.00	FY 2025-26	FY 2025-26	IRF
2	Implementation, Establishment and Maintenance of Cyber Security Operation Center (C-SOC)	To implement preventive, detective and corrective controls to secure against advanced and emerging cyber threats.	Approval of 103 rd Board of Directors, BSPTCL Resolution no. 103-09 dated 13.12.2022	Rs 13,18,47,241.00	Rs. 6,59,23,620.00	Rs. 6,59,23,621.00	FY 2024-25	FY 2024-25	IRF



Petition for seeking prior Regulatory approval of the Hon'ble Commission for Work-wise & Scheme-wise Capital Investment Plan and Capitalization

Sl. No.	Project	Objectives of Proposed works	Details of approval	Total Project Estimated Cost (Rs)	Capital Expenditure		Date of Completion	Year of Capitalisation	Funding of Works
					FY 2023-24	FY 2024-25			
3	Implementation of Automated System balancing mechanism for Bihar SLDC ensuring seamless communication across levels, optimizing DSM and Integrated command & Control Center Resource planning and Integrated Command & Control Centre	Ensuring seamless communications across levels, optimising DSM and integrated resource planning and integrated command & control centre.	Approval of 103 rd Board of Directors, BSPTCL Resolution no. 103-07 dated 13.12.2022	Rs 39.48 Cr.	Rs. 35.53 Cr.	Rs. 3.95 Cr.	FY 2024-25	FY 2024-25	IRF



SLDC submits that the estimated project cost of proposed schemes is based on the cost schedule approved by the Board of Directors (BoD) of BSPTCL and is hence, to a large extent realistic and based on the current market prices. Further, SLDC is submitting hereby the estimates and administrative approval for the above schemes.

Further, the cost estimates submitted by SLDC for the above-mentioned schemes and the estimates are worked out on the basis of the present market trend in prices. However, the final cost of these project shall depend on the Awarded cost of the Project after completion of the tendering process through competitive bidding and selection of the lowest bidder. SLDC requests the Hon'ble Commission to pass through any variation in the cost estimates submitted in this Petition and the final Awarded cost of the projects as such variation depends on the market pricing and is beyond the control of SLDC.

SLDC submits that these projects shall be funded through Internal Resources.

Therefore, SLDC respectfully requests the Hon'ble Commission to kindly grant prior Regulatory approval for works to be carried out against the proposed investment plan and accordingly approve the proposed funding as per IRF.



(3) Prayers

SLDC respectfully prays that the Hon'ble Commission may be pleased to consider and approve the following:

- a. Admit this Petition ;
- b. Examine the proposal submitted in the enclosed Petition for a favorable dispensation;
- c. To kindly grant prior Regulatory approval as sought in this Petition for works to be carried out as submitted in this Petition.
- d. To kindly approve the estimated cost for proposed capital investment as submitted in this Petition and accordingly approve the proposed funding for these projects.
- e. To kindly pass through the difference in the cost estimates submitted in this Petition and actual Awarded cost discovered after the tender processing through competitive bidding, as the variation is beyond the control of SLDC;
- f. Permit to propose suitable changes to the respective capital investment petition, prior to the final approval by the Hon'ble Commission;
- g. Condone any inadvertent omission/errors/short comings and permit the petitioner to add/change/modify/alter this filing and make further submissions as may be required at a future date.
- h. Pass such Order as the Hon'ble Commission may deem fit and appropriate keeping in view the facts and circumstances of the case.

**State Load Despatch Centre, Bihar
Bihar State Power Transmission Company Limited**

Place: Patna.
Date: 12th April, 2023.

**A. K. Chaudhary,
Chief Engineer (System Operation)**

बिहार स्टेट पावर ट्रांसमिशन कंपनी लिमिटेड
(रजिस्टर्ड ऑफिस :- विद्युत भवन, बेली रोड, पटना)

Annexure - 1

संचिका संख्या :

पृष्ठ संख्या :

as detailed below:-

- ① Qualifying Requirement/Eligibility Criteria - C/147-145
- ② Scope of work - C/148-147
- ③ Payment Terms - C/149-144.

File is put up for kind perusal and according administrative approval for inviting tender through E proc for estimated cost of Rs. 56,95,400/-


Director (Operation)

- Notes as above

- The instant proposal is regarding hiring of consultant for implementation of ISO 27001:2013 for all information asset under BSPTCL HQ at an estimated cost of Rs 56,95,400/- through e-tender

Submitted for kind administrative approval of MD, BSPTCL PL


29/09/22
ARUN KUMAR CHOUDHARY
CHIEF ENGINEER (S O)
BSPTCL, PATNA


29.09.2022
(Uttam Kumar)
Director (Operations)

MD, BSPTCL:


30/9.
Prabhakar

→ CP (SO)


29/09
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TC-36 - Rakesh - 1 Lac - 12/2021

हमारा आधार
जंस्वित बिहार



BIHAR STATE POWER TRANSMISSION COMPANY LIMITED

(A Wholly Owned Subsidiary of Bihar State Power (Holding) Company Limited)

Registered Office : Vidyut Bhawan, Bailey Road, Patna-800021

(CIN : U74110BR2012SGC018889)

U.O.I. No. 54
BSPTCL/CS/2019-20/126

Patna, Dated: 15th December, 2022

**SUBJECT:- IMPLEMENTATION, ESTABLISHMENT AND MAINTENANCE OF
CYBER SECURITY OPERATION CENTER (C-SOC) AT BIHAR SLDC IN BSPTCL:**

The Board of Directors of Bihar State Power Transmission Co. Ltd. in its 103rd Meeting held on 13.12.2022 vide its Resolution No. 103- 09 took following decision:-

“RESOLVED THAT the Board of Directors of the company be and is hereby accord its approval on proposal for implementation, establishment and maintenance of Cyber Security Operation Center (C-SOC) at Bihar SLDC in BSPTCL.”

Distribution to:

Chief Engineer (System Operation), BSPTCL for information and issuance of needful executive order.

*for and on behalf of Board of Directors of
Bihar State Power Transmission Company Limited*


(Kirti Kiran)
Company Secretary,
BSPTCL






Agenda No ...10309 /2022
Annexure- I-IV

Sub: - Agenda note for Implementation, Establishment and Maintenance of Cyber Security Operation Center (C-SOC) at Bihar SLDC in BSPTCL.

1. Dept. of Energy, Government of Bihar through Bihar Gazette no. 156 dated 31-03-2022 has declared SCADA (Supervisory Control and Data Acquisition System) and WBES (Web Based Energy Scheduling System) of SAMAST and their associated information infrastructure dependencies of SLDC (State Load Despatch Centre) Bihar as "Protected Systems" (Annexure - I).
2. As per Section 3, Clause(j) of IT Rules, 2018 (Information Security Practices and Procedures for Protected Systems) published through the Gazette of India, extraordinary, Part-II-section 3- Sub-section(ii) dated 01-06-2018 by Ministry of Electronics & IT, Govt. Of India, "The organization having protected system shall establish a Cyber Security Operation Center (C-SOC)" (Annexure - II).
3. C-SOC is to be utilized for identifying and documenting unauthorized access to "Protected System" and unusual and malicious activities on the "Protected Systems" by analyzing the logs on regular basis.
4. As per security best practices received from Indian Computer Emergency Response Team (CERT-In) and National Critical Information Infrastructure Protection Centre (NCIIPC), C-SOC implementation has been recommended.
5. CERT-Grid Operation i.e. Power System Operation Corporation (POSOCO) has set up on-premises C-SOC which is operational from October-2022. For preparing estimate of C-SOC Implementation, Establishment and Maintenance for 3 years in Bihar-SLDC, Estimated cost of implementation of SOC has been prepared based on budgetary quotation invited from open market in line with POSOCO Bill of quantity (BoQ). (Annexure - III)
6. Total annual estimated cost for on-premise C-SOC Implementation, establishment and maintenance for 3 years will be **Rs. 13,18,47,241** [Rupees Thirteen Crores Eighteen Lacs Forty Seven Thousand two hundred forty one] including GST @18%. Detailed estimate is placed at Annexure-IV.
7. Fund shall be met under IRF for FY 2022-23.

In a view of the above, matter is put-up for detailed deliberation & according approval of proposal for implementation, establishment and maintenance of Cyber Security Operation Center (C-SOC) at Bihar SLDC in BSPTCL.


(Arun Kumar Chaudhary)
Chief Engineer (System Operation)


(Kriti Kiran)
Company Secretary



भारत सरकार
Government of India

राष्ट्रीय महत्वपूर्ण सूचना अवसंरचना संरक्षण केंद्र
National Critical Information Infrastructure Protection Centre
(A Unit of NTRO)

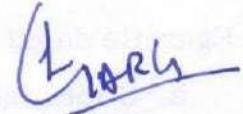


Subject: Further action in pursuance of notification of "Protected System"

1. The following systems along with their associated information infrastructure dependencies at State Load Dispatch Centre (SLDC), Patna, Bihar have been identified as Protected System vide Gazette Notification No. 156-571+10-Egazette dated 31 Mar 2021 of Energy Department, Government of Bihar: -
 - a. Supervisory Control and Data Acquisition (SCADA) System
 - b. Web based Energy Scheduling System (WBES)
2. Post notification, the organization having "Protected Systems" needs to comply with the Information Technology (Information Security Practices and Procedures for Protected Systems) Rules, 2018 (copy enclosed at Annexure-1).
3. In this regard, it is requested to provide the following information/ documents (with appropriate security classification) to NCIIPC at the earliest:-
 - a) Information Security Management System (ISMS)
 - b) Network architecture
 - c) List of authorized personnel having access to "Protected System" along with date of its last review.
 - d) Inventory of hardware and software
 - e) Details of Vulnerability/ Threat/ Risk (VTR) assessment carried out in last two years and Action Taken Report (ATR) on the same
 - f) Cyber Crisis Management Plan (CCMP) along with date of its last review.
 - g) Latest internal and external Information Security Audit reports and post audit compliance reports
 - h) IT Security Service Level Agreements (SLAs) with any 3rd party
4. In accordance with para 3 (1) of aforesaid Rules 2018, an Information Security Steering Committee (ISSC) having a representative of NCIIPC needs

to be formed. It is advisable to convene quarterly meetings of the ISSC to begin with. The order for constitution of the ISSC be issued and its first meeting be conducted at the earliest.

5. Further, detailed compliance status of various provisions of the Information Technology (Information Security Practices and Procedures for Protected System) Rules, 2018 may be provided to NCIIPC within two months of the receipt of this letter in the enclosed format.
6. Please feel free to approach Sh. Ganesh Kumar Sahu, Joint Deputy Director (033-22871078, 9205202008, email: ganesh.sahu@nciipc.gov.in) in case any help/ clarification is required in respect of the above.



(Lokesh Garg)
Deputy Director General
NCIIPC
Tel :011-26736101

File: XXXII/033/EZ/P&E/BSPTCL & SLDC-BH/2021

05 Aug 2022

To,

The Chairman

Bihar State Power Transmission Company limited (BSPTCL)
4th Floor, Vidyut Bhawan, Bailey Road, Patna 800001

Copy to:

Chief Information Security Officer (CISO)

State Load despatch Center, Bihar, 4th Floor,
Vidyut Bhawan, Bailey Road, Patna 800001



भारत सरकार
Government of India

राष्ट्रीय महत्वपूर्ण सूचना अवसंरचना संरक्षण केंद्र



National Critical Information Infrastructure Protection Centre

Subject: Further action in pursuance of notification of "Protected System"

1. Reference is made to NCIIPC letter No. XXXII/033/EZ/P&E/BSPTCL & SLDC-BH/2021-913 dated 05 Aug 2022 on the subject cited above.
2. Vide the letter referred above, it was requested to provide the following information/ documents (with appropriate security classification) to NCIIPC at the earliest:-
 - a) Information Security Management System (ISMS)
 - b) Network Architecture
 - c) List of authorized personnel having access to "Protected System"
 - d) Inventory of hardware and software
 - e) Details of Vulnerability/ Threat/ Risk (VTR) assessment carried out in last two years and Action Taken Report (ATR) on the same
 - f) Cyber Crisis Management Plan (CCMP) along with date of its last review
 - g) Latest internal and external Information Security Audit Reports and post audit compliance reports
 - h) IT Security Service Level Agreements (SLAs) with any 3rd party
3. Bihar SLDC was also requested for the following: -
 - a) To constitute an Information Security Steering Committee (ISSC) having a representative of NCIIPC and conduct its first meeting at the earliest.
 - b) To share the detailed compliance status of various provisions of the Information Technology (Information Security Practices and Procedures for Protected System) Rules, 2018.
4. Bihar SLDC has further been reminded for submission of the above said documents.

5. In view of the above, Bihar SLDC is advised to expedite on sharing of information with NCIIPC for further analysis which in turn would help in improving Cyber Security Posture of Bihar SLDC.
6. Please feel free to approach Sh. Ganesh Kumar Sahu, Joint Deputy Director (033-22871078, 9205202008, email: ganesh.sahu@nciipc.gov.in) in case any help/ clarification is required in respect of the above.


(Lokesh Garg)
Deputy Director General
NCIIPC
Tel :011-26162269

File: XXXII/033/EZ/P&E/BSPTCL & SLDC-BH/2021 -1945 31 Jan 2023

To,

Chairman

Bihar State Power Transmission Company limited (BSPTCL)
4th Floor, Vidyut Bhawan, Bailey Road, Patna 800001

Copy to:

Secretary, Ministry of Power

Shram Shakti Bhawan, Rafi Marg, New Delhi-110001

Chief Secretary

Government of Bihar, Office of Chief Secretary
Government of Bihar, Main Secretariat
Patna-800015

Member (Hydro), CEA & CISO (MoP)

Ministry of Power, Central Electricity Authority (CEA)
Room No. 701, 7th Floor, CEA Sewa Bhawan, R. K. Puram, Sector-01
New Delhi - 110066

CERT-Grid Operation

GRID-INDIA, B-9 (1st Floor), Qutub Institutional Area, Katwaria Sarai
New Delhi-110016

Chief Information Security Officer (CISO)

State Load despatch Center, Bihar, 4th Floor,
Vidyut Bhawan, Bailey Road, Patna 800001

Bihar highly depends upon its Central Sector allocations of power to meet the State's peak demand. These Central Sector allocations generally fails to perform adequately in peak demand periods of the state due to various reasons like forced outages, coal availability etc. Consequently, it has to depend on day-ahead or real-time market, for sourcing its power which at times is either costlier or market lacks depth. To mitigate the cost burden on account of this costlier power purchase, many a times, the State Dis coms opt for load curtailment.

As there is no software/hardware support system for real-time load visibility in SLDC, real-time load of any GSS is first ascertained through telephonic communication. Thereafter, instruction is issued for load restriction one by one to all concerned GSS keeping in mind the entire priority list of GSSs. This manual operation starting from convey of the message till implementation of load restriction by GSS takes around 15-20 minutes.

Hence, in order to automate the process of load curtailment and thus make it more targeted and effective so as to reduce the financial burden due to charges/penalties for DSM violation, the proposal for implementation of Automatic System Balancing Mechanism in Bihar was put up in BOD of BSPTCL and approval for the same was accorded vide Resolution No. 103-07 in 103rd Meeting of BOD of BSPTCL (placed at C/66).

As per discussion held in 103RD BOD of BSPTCL, it was agreed that one district each from NB and SB shall be taken as pilot project. Accordingly, as per the decision taken in the BOD, Rohtas district of SBPDCL and Muzaffarpur district of NBPDCCL have been chosen for implementation of the said scheme as a pilot project. These districts comprise following sub-stations of BSPTCL.

ROHTAS (SASARAM) DISTRICT	MUZAFFARPUR DISTRICT
(a) 132/33 kv GSS Sasaram	(a) 132/33 kv GSS Muszaffarpur
(b) 220/132/33 kv GSS Dehri-on-sone	(b) 132/33 kv GSS SKMCH
(c) 132/33 kv GSS Kerpa	(c) 220/132/33 kv GSS Motipur
(d) 132/33 kv GSS Bikramganj	(d) 220/132/33 kv GSS Musahri
(e) 132/33 kv GSS Kochas	
(f) 132/33 kv GSS Banjari	

The scheme shall finally be implemented across all the sub-stations of BSPTCL after successful implementation in these two districts.

Annexure - 3

In line with above, this office vide email dated 16.12.2022 requested for submission of financial proposal for undertaking above project. In reply, following agencies have submitted their financial proposal for implementation of Automatic System Balancing in 10 GSS of BSPTCL, details of which are placed at C/67-142. The cost summary is tabled below:-

Sl No	AGENCY	COMMAND AND CONTROL CENTER COST (in Rs.)	BOM COST FOR 10 SUBSTATIONS (in Rs.)	TOTAL COST FOR 10 SUB STATIONS (in Rs.)
1	Interface Devices and Services	121449090	280003022	401452112
2	Silicom Electronics (P) Ltd.	117865650	288725360	406591010
3	Temflo Systems Pvt. Ltd	115944746	260550618	376495364
	AVG COST	118419828.7	276426333.3	394846162

The avg cost for implementation of Automatic System Balancing in 2 districts (10 GSS) of BSPTCL comes Rs. 394846162.00 excluding GST (Thirty Nine Crore Forty Eight Lakh Forty Six Thousand One Hundred Sixty Two only).

In view of above, file is being put up for e-tendering for inviting tender for implementation of automated system balancing mechanism for Bihar SLDC, ensuring seamless communications across levels, optimising DSM and integrated resource planning and integrated command & control system for 2 districts (10 GSS) of BSPTCL as a pilot project. Accordingly, a tender notice has been prepared and placed at C/side for kind perusal and obtaining approval for publication in the newspaper. X

[Signature]
27/12/22

[Signature]
27/12/22
AEE SLDC

ESE/SLDC
(GAGAN KUMAR)
ELECTRICAL EXECUTIVE ENGINEER
STATE LOAD DESPATCH CENTRE
BSPTCL, Patna

ESE (SLDC)

Notes above and pre-page may kindly be seen.
as mark 'X' approval may be accorded as proposed.

[Signature]
27/12/22
Sunil Kumar Gupta
ESE, SLDC
BSPTCL, Patna

CE (SO)

Notes on page.

Annexure - 3

In pursuance of decision of BoD of BSPTCL in its 103rd meeting held on 13.12.2022 and circulated by U.O.I No. 52 dt 15.12.2022, Tender notice has been prepared for Implementation of Automated System Balancing mechanism for Bihar SLDC, ensuring seamless communications across levels, Optimising DSM and integrated Resource planning and Integrated Command and Control Centre is placed at CLPDC.

Approval may kindly be obtained for publication of Tender Notice in Newspaper for wide circulation and loading tender on Eprocurement portal.

Director (Operations)

- Notes as above


ARUN KUMAR CHOUHARY
CHIEF ENGINEER (S O)
BSPTCL PATNA

For kind approval of MD, BSPTCL for publishing tender notice as mentioned above.

Submitted for kind approval

LDam
30.12.2022

MD, BSPTCL :


2/01/23



BIHAR STATE POWER TRANSMISSION COMPANY LTD.

Annexure - 3

(Regd. Office-Vidyut Bhawan, Bailey Road, Patna)
 MNo-7763817733, EmailId-so.dept@bsptcl.bihar.gov.in
 (GSTIN No -10AAAFEB2393HIZL, CIN-U74110BR2012SGC018889)
 (Department of System Operation of BSPTCL)

TENDER NOTICE

NIT No. **01/PR/BSPTCL/2023**

TENDER FOR IMPLEMENTATION OF AUTOMATED SYSTEM BALANCING MECHANISM FOR BIHAR SLDC, ENSURING SEAMLESS COMMUNICATIONS ACROSS LEVELS, OPTIMISING DSM AND INTEGRATED RESOURCE PLANNING AND INTEGRATED COMMAND & CONTROL CENTER

Description of work	EMD(Rs.)	Cost of Tender Document (including GST)	Period of Execution
Automatic System Balancing Mechanism at Bihar SLDC	Rs. 40,00,000 -	Rs.11,800.-	09 months
Estimated Cost of Tender (Rs.)		Rs. 39,48 Cr.	
Start date of online sale of Tender document:		From 11:00 Hrs. of 19.01.2023	
Prebid meeting date		11.00 Hrs on 30.01.2023	
Last Date of submission of original copy of EMD		Upto 15:00 Hrs. of 15.02.2023	
Last Date of Online Submission of Tender		Upto 16:00 Hrs. of 15.02.2023	
Date of opening of Technical Part(Part-I)		17:00 Hrs. onwards on 17.02.2023	
Date & time of presentation		Tentatively within a week from date of opening of the technical part of the tender. <i>Date & time will be intimated through e-mail separately at least 2 (two) days in advance</i>	
Date of opening of Financial Part(Part-II)		To be intimated to the eligible Bidders through e-mail separately.	
Evaluation Process	<p>Evaluation of bids will be based on Quality-cum-Cost Based System (QCBS) with weightage of 70:30 (70% for Technical Part and 30% for Financial Part). Technical Part will include Presentation. Note: Only those Bidders who meet the minimum eligibility criteria stipulated in the tender document shall be called for presentation (part of technical evaluation) and technically qualified bids only will be opened for Financial evaluation. The financial bid of the technically qualified Bidders will be opened on a pre-notified date and time. Prior intimation of the same will be given separately through e-mail to the short-listed Bidders(i.e. bidders Who obtained atleast 65% marks in technical evaluation).</p>		
1	<p>Bids against this tender are being invited through e-Tendering mode only. Tender document is available in downloadable format at www.eproc2.bihar.gov.in after paying bid processing fee and thereafter tender document fee which are mandatory to be paid through online modes i.e. Internet Payment Gateway (Credit/Debit Card), Net Banking, etc.</p>		
2	<p>Bid along with necessary online payments must be submitted through e-procurement portal www.eproc2.bihar.gov.in before the date & time specified in the NIT. The department doesn't take responsibility for the delay. Non submission of Tender. Non-Reconciliation of online payment caused due to Non-availability of internet connection, network traffic, holidays or any other reasons.</p>		
3	<p>Any other information including corrigendum-addendum, if any, shall be uploaded on e-procurement website and the bidders are advised to follow and keep track of BSPTCL e-procurement website for updated information if any. BSPTCL is not obligated to send/communicate separate information in this regard. However for any enquiry bidders may contact on following :- (i) Contact No.7763817733,7763817717 (ii) E-mailId-so.dept@bsptcl.bihar.gov.in</p>		
Chief Engineer (SO)			
e-Procurement Help Desk			
Toll Free Number:18005726571, Email Id: eproc2support@bihar.gov.in			
Working Hours: 8AM to 7PM(All days in week except Sunday and few selected state holidays)			



BIHAR STATE POWER TRANSMISSION COMPANY LIMITED

(A Wholly Owned Subsidiary of Bihar State Power (Holding) Company Limited)

Registered Office : Vidyut Bhawan, Bailey Road, Patna-800021

(CIN : U74110BR2012SGC018889)

Annexure - 3

19/12/22

U.O.I. No. 52
BSPTCL/CS/2019-20/126

Patna, Dated: 15th December, 2022

EEE/wsc

20/12/22

SUBJECT:- IMPLEMENTATION OF AUTOMATED SYSTEM BALANCING MECHANISM FOR BIHAR SLDC, ENSURING SEAMLESS COMMUNICATIONS ACROSS LEVELS, OPTIMISING DSM AND INTEGRATED RESOURCE PLANNING AND INTEGRATED COMMAND & CONTROL CENTER:

The Board of Directors of Bihar State Power Transmission Co. Ltd. in its 103rd Meeting held on 13.12.2022 vide its Resolution No. 103- 07 took following decision:-

“RESOLVED THAT the Board of Directors of BSPTCL be and is hereby accord its approval on following:

- Inviting tender for implementation of automated system balancing mechanism for Bihar SLDC, ensuring seamless communications across levels, optimising DSM and integrated resource planning and integrated command & control system.
- The expenditure towards execution of this work will be recovered from SBPDCL and NBPDC. “

Distribution to:

Chief Engineer (S.O), BSPTCL for information and issuance of needful executive order.

for and on behalf of Board of Directors of
Bihar State Power Transmission Company Limited


(Kriti Kiran)
Company Secretary,
BSPTCL

586 c.6 (S.O)
15-12-22

15/12/22