



**BEFORE**

**THE BIHAR ELECTRICITY REGULATORY COMMISSION  
VIDYUT BHAWAN -II, PATNA**

**Petition**

**For**

**Determination of Annual Revenue Requirement (ARR) and  
SLDC operating charges  
for FY 2018-19**

**For**

**State Load Despatch Centre (SLDC)**

**under**

**Bihar State Power Transmission Company Limited**

**Patna**



**Chief Engineer (System Operations)**

**4<sup>th</sup> Floor, Vidyut Bhawan-1**

**Jawaharlal Nehru Marg**

**Patna - 800 021**

**15 November, 2017**



**BEFORE, THE BIHAR ELECTRICITY REGULATORY COMMISSION,**

IN THE MATTER OF

Filing of the Petition for Determination of Annual Revenue Requirement (ARR) and SLDC operating charges for FY 2018-19 under BERC (Terms and Conditions for Determination of Tariff) Regulations, 2007 along with the other guidelines and directions issued by the BERC from time to time.

AND

IN THE MATTER OF

Bihar State Load Despatch Centre (hereinafter referred to as "SLDC" or "Petitioner" which shall mean for the purpose of this petition the Licensee), having its registered office at Vidyut Bhawan-1, Jawaharlal Nehru Marg, Patna.

The Petitioner respectfully submits as under:

1. Pursuant to the enactment of the Electricity Act, 2003, State Load Despatch Centre (hereinafter referred to as SLDC) is filing this petition for Determination of Aggregate Revenue Requirement and SLDC operating charges for FY 2018-19 as per procedures outlined in the governing regulations thereof.
2. The Multi-year Tariff (MYT) petition for control period FY 2013-14 to FY 2015-16 was filed on 14.11.2012 by BSPHCL on behalf of all companies and accordingly the Hon'ble Commission had issued common order for all entities (tariff order dated March 15, 2013).
3. The Hon'ble Commission in the MYT Order dated 21 March, 2016, had directed SLDC to file separate Petition for Determination of Aggregate Revenue Requirement.
4. In compliance of the BERC Regulations and Directives, BSPTCL for the first time filed separate petition for ARR of FY 2017-18 for SLDC function on 30.11.2016 and the Hon'ble Commission had issued Order on the same on March 9, 2017.



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5. This petition has been prepared in accordance with the provisions of Multi-Year Tariff of the BERC (Terms and Conditions for Determination of Tariff) Regulations, 2007 as amended from time to time by the Hon'ble Commission.
  6. SLDC along with this petition is submitting the data & information to the extent available and would make available any further information/additional data required by the Hon'ble Commission during the course of proceedings.



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## 1 Introduction

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1. **Bihar State Electricity Board ("Board" or "BSEB")** 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.
2. Under the new '**Bihar State Electricity Reforms Transfer Scheme 2012**', the BSEB has been unbundled into five companies: 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 dated 30.10.2012.
3. **"Bihar State Power (Holding) Company Limited" or "BSP(H)CL"** means the Company that will own shares of newly incorporated reorganized 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.
4. **"Bihar State Power Generation Company Limited" or "BSPGCL"** means the Generating Company to which the Generating Undertakings of the Board are to be transferred in accordance with this Scheme
5. **"Bihar State Power Transmission Company Limited" or "BSPTCL"** means the Transmission Company to which the Transmission Undertakings of the Board are to be transferred in accordance with this Scheme
6. **"South Bihar Power Distribution Company Limited" or "SBPDCL" and "North Bihar Power Distribution Company Limited" or "NBPDC"** collectively mean the Distribution Companies, to which the Distribution Undertakings of the Board are to be transferred in accordance with this Scheme.



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## 2 Annual Performance Review (APR) for FY 2017-18 and Determination of ARR & SLDC Operating charges for FY 2018-19

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### 2.1 Constitution of State Load Despatch Centre

Section 31 of the Electricity Act, 2003, provides for constitution of State Load Despatch Centre (SLDC):

*“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.”*

### 2.2 Functions of State Load Despatch Centre

The functions of SLDC as envisaged in the Electricity Act, 2003, are 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;*



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- (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."

### **2.3 SLDC Charges**

The Petitioner submits that the assets of SLDC are not owned by BSPTCL. The same are owned by PGCIL who recovers cost through tariff charged to the Distribution Companies namely, South Bihar Distribution Company Private Limited and North Bihar Distribution Company Private Limited. The supporting documents i.e. the Minutes of the Meeting of ERPC meeting where it was decided that the SLDC assets will be created by PGCIL had already been submitted to the Hon'ble Commission with the Tariff Petition for FY 2017-18 dated 30 November, 2016.

However, day-to-day operations of SLDC is managed by BSPTCL and for the same separate accounts is being maintained too. Therefore, in view of the facts explained above and Provision of Section 31 (1), (2) & 1<sup>st</sup> Proviso of Section 31(2) of the Electricity Act, 2003, operations of SLDC is just and proper. A separate Petition for determining Aggregate Revenue Requirement is being based on expenses incurred in operationalisation of SLDC.

### **2.4 Operation & Maintenance Expenses**

As the strengthening of the SLDC is taking place, no. of employees has been increased in SLDC, as a result O&M for SLDC has increased. Therefore, for accurate projection the Petitioner has mostly relied upon the actual six months data from April, 2017 to September, 2017.





### 2.4.1 Employee Expenses

The employee expenses primarily include costs towards salaries, dearness allowances, bonus, staff welfare and medical benefits, leave travel and earned leave encashment, and the terminal benefits in the form of pension, gratuity etc.

The Commission in its Tariff Order for FY 2017-18 dated 9 March, 2017, considered the inflationary indexation methodology for projecting employee cost of the Petitioner for FY 2016-17 and FY 2017-18. The Petitioner adopted the same methodology for projecting employee expenses for FY 2017-18 (Oct., 2017 to March 2018) and FY 2018-19.

The computation for indexation based on CPI and WPI is shown in the Table below:

**Table 2-1: Computation for indexation based on CPI and WPI**

Particulars	WPI	CPI	Total
Weightage	0.45	0.55	1
Index Point for FY 2016-17	183.16	275.92	
Indexation n (Index point*weightage)	82.42125	151.7542	234.1754
Index Point for FY 2015-16	176.51	265.01	
Indexation n-i (Index point*weightage)	79.4295	145.7555	225.185
Combined Inflation			3.99%

The Petitioner has considered an increase of 3.99% per annum (based on CPI and WPI Index) over actual expenses for FY 2017-18 (April, 2017 to September, 2018). The Petitioner has not considered the actual employee expenses of FY 2016-17 as it is on lower side. To strengthen the SLDC, no. of employees has been increased in FY 2017-18, which resulted in increased employee cost for first six month of FY 2017-18 (April, 2017 to September, 2018). Therefore, to accurately project the employee expenses actual employee cost for first six month of FY 2017-18 (April, 2017 to September, 2018) has been considered as base for next six months. Details of actual employee cost for first six month of FY 2017-18 (April, 2017 to September, 2018) are shown in the Table below:



**Table 2-2: Actual employee cost for first six month of FY 2017-18 (April, 2017 to September, 2018) (in Rs.)**

<b>Employee Cost</b>	<b>Amount</b>
Salary Payable- SLDC	2361605.00
Salaries-Permanent Employees (Executive)	9022514.00
House Rent Allowance	829309.00
D.A- Permanent Employees (Executive)	2409278.00
Special Pay	124683.00
City Transport Allowance	145181.00
Tablet Maintenance	80176.00
SIM Maintenance	76176.00
CPS Contribution (Employer)	800345.00
Honorarium	7500.00
Salaries-Permanent Employees (Non-Executive)	1458801.00
D.A- Permanent Employees (Non-Executive)	426044.00
Compensatory Allowance	1572.00
Emergency Allowance	3600.00
Shaving/washing Allowance	120.00
Conveyance Allowance	11700.00
Suspense	500.00
Computer Literacy Allowance	105752.00
Medical Expenses Reimbursement (Officer)	50339.00
<b>Total</b>	<b>33864298.00</b>



The Employee Expenses for FY 2017-18 and FY 2018-19 as computed by the Petitioner is shown in the table below

**Table 2-3: Projected Employee Expenses for FY 2017-18 and FY 2018-19 (Rs. Crore)**

Sr. No.	Particulars	FY 2016-17	FY 2017-18 revised				FY 2018-19
		Actual	Approved in Tariff Order dated 9 March, 2017	Apr.'17-Sept.'17 (Actual)	Oct.'17-March'18 (Estimated)	Total (RE)	Projections
1	Employee Cost		3.67		3.39		<b>6.84</b>
2	Indexation		2.59%		3.99%		3.99%
3	Add: Inflationary Increase		0.10		<b>0.07</b>		0.27
4	<b>Total Employee Cost</b>	<b>2.32</b>	<b>3.77</b>	<b>3.39</b>	<b>3.45</b>	<b>6.84</b>	7.11

#### 2.4.2 Administration & General Expenses

Administration and General expenses mainly comprise costs towards rent charges, telephone and other communication expenses, professional charges, conveyance and travelling allowances and other debits.

For Projecting A&G expenses the Petitioner has adopted the same approach as adopted by the Commission in its Tariff Order for FY 2017-18 dated 9 March, 2017. For projecting A&G expenses for FY 2017-18 (Oct., 2017 to March 2018) and FY 2018-19, the Petitioner has considered an increase of 3.99% per annum (based on CPI and WPI Index) over actual expenses for FY 2017-18 (April, 2017 to September, 2018) because of the aforementioned reasons. Details of actual A&G expenses for first six month of FY 2017-18 (April, 2017 to September, 2018) are shown in the Table below:



**Table 2-4: Actual A&G expenses for first six month of FY 2017-18 (April, 2017 to September, 2018) (in Rs.)**

<b>Administrative &amp; General Expenses</b>	<b>Total</b>
Miscellaneous Expenses	3627.00
Bank Charges	885.00
Books and Periodicals	10340.00
Travelling Expenses	557407.00
Entertainment Expenses	55052.00
Telephone Expenses	140615.00
Electricity Charges	1113642.00
Printing and Stationery	20944.00
Free Electricity	41079.00
Vehicle Hiring Expenses	307032.00
Rates & Taxes	740.00
<b>Total</b>	<b>2814406.00</b>

The A&G Expenses for FY 2017-18 and FY 2018-19 as computed by the Petitioner is shown in the table below:

**Table 2-5: Projected A&G expenses for FY 2017-18 and FY 2018-19 (Rs. Crore)**

Sr. No	Particulars	FY 2016-17	FY 2017-18 revised				FY 2018-19
		Actual	Approved in Tariff Order dated 9 March, 2017	Apr.'17-Sept.'17 (Actual)	Oct.'17-March'18 (Estimated)	Total (RE)	Estimate
1	A&G expenses		0.42		0.28		0.57
2	Indexation		2.59%		3.99%		3.99%
3	Add: Inflationary Increase		0.01		0.01		0.02
4	<b>Total A&amp;G expenses</b>	<b>0.51</b>	<b>0.43</b>	<b>0.28</b>	<b>0.29</b>	<b>0.57</b>	<b>0.59</b>



### 2.4.3 Repairs & Maintenance Expenses

From April 2017 to September 2017, there is no booking under R&M expenses but booking in accounts will be done in next 6 months. Therefore, for FY 2017-18 same R&M expenses as approved in the Tariff Order dated 9 March, 2017 has been considered.

In line with the philosophy followed for projecting employee and A&G expenses, R&M expenses for FY 2018-19 has been projected after considering an increase of 3.99% (based on CPI and WPI Index) per annum over expenses for FY 2017-18.

**Table 2-6: Projected R&M Expenses for FY 2017-18 and FY 2018-19 (Rs. Crore)**

Sr. No	Particulars	FY 2016-17	FY 2017-18 revised				FY 2018-19
		Actual	Approved in Tariff Order dated 9 March, 2017	Apr.'17-Sept.'17 (Actual)	Oct.'17-March'18 (Estimated)	Total (RE)	Estimate
1	R&M expenses		1.02				1.05
2	Indexation		2.59%				3.99%
3	Add: Inflationary Increase		0.03				0.04
4	<b>Total R&amp;M expenses</b>	<b>0.15</b>	<b>1.05</b>	<b>0.00</b>	<b>1.05</b>	<b>1.05</b>	<b>1.09</b>



## 2.4.4 Summary of O&M Expenses

The summary of the O&M expenses is tabulated below for reference:

**Table 2-7: Summary of the O&M expenses for FY 2017-18 and FY 2018-19 (Rs. Crore)**

Sl. No.	Particulars	FY 2016-17	FY 2017-18	FY 2017-18	FY 2018-19
		Actual	Tariff Order dated 9 March 2017	Revised	Projection
1	Employee Expenses	2.32	3.77	6.84	7.11
2	A&G Expenses	0.51	0.43	0.57	0.59
3	R&M Expenses	0.15	1.05	1.05	1.09
4	<b>Total</b>	<b>2.97</b>	<b>5.25</b>	<b>8.46</b>	<b>8.80</b>

## 2.5 Interest on Working Capital

The Petitioner has arrived at the working capital requirement according to applicable norms for transmission function provided in the BEREC (Terms and Conditions of Tariff) Regulations, 2007 amended from time to time are reproduced in the following table for reference:

**Table 2-8: Norms for Working Capital Requirement**

Sr. No.	Particulars	Norms
1.	Operation & Maintenance Expenses	One month
2.	Maintenance spares	@1% of the opening GFA with 6% escalation per annum
3.	Receivables	Two months of transmission charges
4.	Rate of interest on working capital	Base Rate of State Bank of India +350 basis points



The rate of interest applied on the proposed working capital for FY 2017-18 is as per the SBI Base plus 350 basis points 12.80%(9.3%+3.50%). For FY 2018-19 rate of interest on working capital based on latest SBI bank rate as on 1.10.2017 is 12.45%(8.95%+3.5%).

The proposed interest on working capital for FY 2017-18 and FY 2018-19 is computed based on the above norms is given in the following table.

**Table 2-9: Revised Interest on Working Capital (IWC) for FY 2017-18 and Projected IWC for FY 2018-19 (Rs. Crore)**

Sl. No.	Particulars	FY 2017-18		FY 2018-19
		Approved in Tariff Order dated 9 March, 2017	Revised	Estimate
1	O&M Expenses for 1 Month	0.44	0.70	0.73
2	Maintenance Spares @1% of Opening GFA with 6% escalation	-		
3	Receivables 2 Months	0.90	1.46	1.51
4	<b>Total Working Capital</b>	<b>1.34</b>	<b>2.16</b>	<b>2.25</b>
5	Rate of Interest	12.80%	12.80%	12.45%
6	<b>Interest on Working Capital</b>	<b>0.17</b>	<b>0.28</b>	<b>0.28</b>

## 2.6 Aggregate Revenue Requirement

The revised ARR for FY 2017-18 and projected ARR for FY 2018-19 is summarised in the Table below:

**Table 2-10: Revised ARR for FY 2017-18 and Projected ARR for FY 2018-19 (Rs. Crore)**

Sr. No.	Particulars	FY 2017-18 (Approved in Tariff Order dated 9 March, 2017)	FY 2017-18 (Revised)	FY 2018-19
1.	O&M expenses	5.25	8.46	8.80
2.	Depreciation	-	-	-
3.	Interest on Loan Capital	-	-	-



Sr. No.	Particulars	FY 2017-18 (Approved in Tariff Order dated 9 March, 2017)	FY 2017-18 (Revised)	FY 2018-19
4.	Interest on Working Capital	0.17	0.28	0.28
5.	Income Tax	-	-	-
6.	Return on Equity	-	-	-
7.	<b>Aggregate Revenue Requirement</b>	<b>5.42</b>	<b>8.74</b>	<b>9.08</b>
8.	Less: Non-Tariff Income	-	-	-
9.	<b>Total Aggregate Revenue Requirement</b>	<b>5.42</b>	<b>8.74</b>	<b>9.08</b>

The Petitioner requests the Hon'ble Commission to approve revised ARR for FY 2017-18 and the projected ARR for FY 2018-19 as in the above Table.

The Commission adopted Methodology for recovery of SLDC ARR in Tariff Order for FY 2017-18 dated 9 March, 2017 is reproduced below:

*“The Commission has approved the ARR of Rs.5.42 Crore for SLDC business for FY 2017-18. SLDC operating charges have to be collected from all the users based on their contracted capacity (MW). Distribution companies being the last mile company in value chain of power sector, ultimately it is the distribution companies which has to pay such ARR of SLDC. Hence to simplify the process of collecting the SLDC charges, the Commission directs the SLDC/BSPTCL to bill these charges on monthly basis to the distribution companies i.e. NBPDC and SBPDCL in their power sharing ratio.”*

The Petitioner proposed to recover ARR for FY 2018-19 on monthly basis to the distribution companies i.e. NBPDC and SBPDCL in their power sharing ratio based on the same methodology reproduced above.





### 3 Compliance of Directives

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#### 3.1 Directive 1: Autonomy of SLDC

*Section 31 of the Electricity Act, 2003 mandates constitution of State Load Despatch Centre as a separate entity. However, till such separate entity is notified, the State Transmission utility should operate the SLDC.*

*Keeping in view the various functions envisaged for the SLDC under Section 32 of the Act, and also having regard to increasing electricity business in the State, as well as in the interest of successful implementation of various electricity reform measures, the Commission has been emphasizing the need to setup an independent SLDC entity in the State. However, till such time comes, the SLDC be strengthened in order to enable it to discharge its statutory functions effectively.*

*The Commission also directs BSPTCL to segregate the assets and liabilities from BSPTCL and direct SLDC to maintain separate accounts of the revenue and expenditure relating to SLDC business.*

#### **Compliance:**

Separate ARR for SLDC is being filed from FY 2017-18 and onwards and separate accounts for the revenue of SLDC is also being maintained. Presently, separate Bank Account relating to SLDC bearing no. 8531101011788 is being maintained for Revenue expenditure relating to it. However, to make it a totally independent entity, notification from the state government has to be issued. BSPTCL is in process to make SLDC, a separate entity and soon the matter will be put up before BSP(H)CL Board for approval and to take up the matter with the State Government.

#### 3.2 Directive 2: Users of SLDC

*SLDC shall address all of its users to apply for grid connectivity and shall maintain list of such customers with details such as MW contracted, etc. and shall furnish the list of its users to the Commission.*

#### **Compliance:**

The Petitioner is strengthening the infrastructure for Grid connectivity so that real time communications can be done. Once the infrastructure gets ready which is expected to be complete by July, 2018, the Petitioner will provide the grid connectivity to the users and will submit the list of its users to the Commission by September, 2018.



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### 3.3 Directive 3: Implementation of Scheduling, Accounting, Metering And Settlement of Transactions in Electricity (SAMAST).

*The SLDC shall file status report on implementation of SAMAST by 31st May 2017.*

**Compliance:** The Petitioner has submitted the updated status report on implementation of SAMAST vide letter dated 16.10.2017 and attached as Annexure-I, which is expected to be completed by July, 2018.



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## 4 Prayers

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The Petitioner prays to the Hon'ble Commission as under:

- i. To admit the Petition
- ii. Examine the proposal submitted by the Petitioner in the enclosed petition for a favourable dispensation
- iii. To Approve APR of Rs. 8.74 Crore
- iv. To approve the SLDC ARR of Rs. 9.08 Crore for FY 2018-19 and recovery of same from the two Distribution Companies in the ratio of power sharing ratio;
- v. Condone any inadvertent omissions, errors, short comings and permit SLDC to add/change/modify/alter this filing and make further submissions as may be required at a future date; and
- vi. Pass such other and further Orders as deemed fit and proper in the facts and circumstances of the case.

Dated: 15 November, 2017

H.R. Panday  
Chief Engineer (System Operation)