



**Petition for Aggregate Revenue Requirement (ARR)**

**&**

**Determination of Tariff**

For

FY 2013-14

Main Text and Formats

Submitted to

Punjab State Electricity Regulatory Commission

Chandigarh

By

**PUNJAB STATE TRANSMISSION CORPORATION LIMITED  
(PSTCL)**

Regd. Office: PSEB H.O.

The Mall, Patiala

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**BEFORE THE HON'BLE PUNJAB STATE ELECTRICITY REGULATORY COMMISSION, CHANDIGARH**

Filing No.....

Case No.....

**IN THE MATTER OF:** Petition for approval of the “**Aggregate Revenue Requirement (ARR) & Determination of Tariff**” for FY 2013-14 under Section 62, 64 and 86 of the Electricity Act, 2003 read with the Regulation 13 of PSERC (Terms and Conditions for Determination of Tariff) Regulations, 2005 (including its amendments) and other applicable relevant regulations and guidelines of the Hon’ble Commission for the Electricity business of Punjab State Transmission Corporation Limited (PSTCL) and State Load Despatch Centre (SLDC).

**AND**

**IN THE MATTER OF:** **Punjab State Transmission Corporation Limited (PSTCL)**  
Regd. Office: PSEB H.O. The Mall, Patiala

The Applicant respectfully submits as under: -

**1 BACKGROUND AND BRIEF HISTORY**

**1.1 Background**

- 1.1.1 The Punjab State Transmission Corporation Limited (hereinafter referred to as PSTCL) is one of the Successor entities of erstwhile Punjab State Electricity Board (PSEB) which has been constituted under Companies Act, 1956 on April 16, 2010 after restructuring of PSEB by Government of Punjab vide its Notification No. 1/9/08-EB (PR)/196 (also known as Transfer Scheme) dated April 16, 2010.
- 1.1.2 PSTCL is engaged in the business of electricity transmission in the State of Punjab. PSTCL is also discharging the statutory functions of the SLDC in the State of Punjab.
- 1.1.3 In accordance with the Notification no. 1/9/08-EB (PR)/196 dated 16.4.2010, the Government of Punjab had, in exercise of its powers under section 131, 132, 133 and



other applicable provisions of the Electricity Act, 2003 notified the Punjab Power Sector Reforms Transfer Scheme, 2010. (Transfer Scheme)

1.1.4 The relevant features of Transfer Scheme are given hereunder:

*“Powercom” means the limited company incorporated under companies Act, 1956 with the principle objective of engaging in the business of Generation, Trading and Distribution of power in the State but excluding Transmission, State Load Dispatch and State Transmission Utility functions.*

*“Transco” means the limited company to be incorporated under the companies Act 1956, with the principle objective of engaging in the business of Transmission of power (including State Load Dispatch and State Transmission Utility functions) in the State.*

*“Transmission Undertaking” means the undertaking as the State Government may classify as transmission undertaking in terms of clause 4 of the scheme which shall also include the functions and assets and liabilities pertaining to State Load Dispatch and State Transmission Utility.*

### *3. Transfer of assets and liability –*

*(1) on and from the effective date of transfer, all assets, properties, interest in properties rights and liability of the Board and including all obligation and contingencies shall stand transferred to and vest in and under the control of the State Government absolutely at book value and all claims of the Board against the State Government and all claims of State Government against the board shall stand extinguished and cancelled, and the above consideration shall be in full and final settlement of all the Board.*

*(2) Nothing in sub-rule (1) shall apply to rights, responsibilities, liabilities and obligations in respect of the personnel and matters relating thereto including statutory dues such as salary, wages, gratuity, pension, provident fund, compensation and retirement benefits and the same shall be dealt in the manner provided under clause 6 of these Scheme.*

### *5. Transfer of function and undertaking –*

*(1) on and from the effective date of transfer, the Transmission functions of the Board along with the Transmission undertaking inclusive of all assets, liabilities, interests, right and obligations forming party of the Transmission functions and*

*undertakings as the State Government may specify shall stand re-vested in the Transco for all intent and purpose without further act deed or thing to be done by the Board, the State Government or Transco or any other person and the Transmission functions and the functions of State Load dispatch and State Transmission Utility shall be discharge by the Transco from the above date but subject to the terms and condition of the scheme.*

*(2) All the reaming functions of Board including Generation, Trading and Distribution functions excluding the Transmission Undertaking shall re-vested in and shall be discharged by the Powercom.*

*(6)Transfer of Personnel –*

*(7) subject to sub- clause(a), in respect of all statutory and other schemes and employment related matters including the provident fund, gratuity fund, pension leave encashment and any other Superannuation fund or any other special fund created or existing for the benefit of the personnel, the Powercom shall stand substituted for the Board for all purpose and all the rights, powers and obligations of the board in relation to any and all such matters shall become those of the Powercom and the services of the personnel shall be treated as having continuous for the purpose of the application of the rule.”*

1.1.5 Punjab State Transmission Corporation Ltd. (PSTCL) has been notified as the State Transmission Utility (STU) and has been vested with the State Load Despatch functions till further orders of the State Government, from the date of transfer under the Transfer Scheme.

1.1.6 In terms of the Transfer Scheme notification dated 16.4.2010, the Government of Punjab assigned the following Assets and Liabilities (as on 31.03.2009) to PSTCL on a Provisional basis:

**Table1: Assets and Liabilities (Provisional) as on 31st March 2009**

| S. No | Particulars                     | Amount (Rs. Crore) |
|-------|---------------------------------|--------------------|
| 1     | Gross Block                     | 3315.13            |
|       | Less: Accumulated Depreciation  | 831.59             |
|       | Net Fixed Assets                | 2483.54            |
| 2     | Capital Expenditure in Progress | 247.54             |
| 3     | Assets not in use               | 0.69               |
| 4     | Deferred Cost                   | 0.60               |

| S. No | Particulars                            | Amount (Rs. Crore) |
|-------|--|--------------------|
| 5     | Intangible Assets                      | 0                  |
| 6     | Investments                            | 0                  |
|       | Net Current Assets                     |                    |
| 7     | Total Current Assets                   | 59                 |
|       | Less: Current Liability                |                    |
| 8     | Consumer Security Deposit              | 0                  |
| 9     | Other Current Liability                | 0                  |
|       | Total Current Liability                | 0                  |
|       | Net Current Assets                     | 59                 |
| 10    | Subsidy receivable from the Government | 0                  |
|       | Net Assets                             | 2791.37            |
|       | <b>Financed by</b>                     |                    |
| 1     | Borrowed for Working Capital           | 479.28             |
| 2     | Payment due on Capital Liability       | 93.98              |
| 3     | Capital Liability                      | 626.62             |
| 4     | Funds from State Government            |                    |
|       | Equity                                 | 1548.90            |
|       | Loans                                  | 42.57              |
|       | (Other) RBI Bonds                      | 0                  |
| 5     | Reserve and Reserve Funds              | 0                  |
|       | <b>Total Funds</b>                     | <b>2791.35</b>     |

#### 1.1.7 Status of Provisional Balance Sheet:

- a. According to Rule 9 (1) of Transfer Scheme, 2010, the transfer of assets and liabilities under the scheme is Provisional and will be made final upon the expiry of 12 months from the effective date of transfer or 6 months after the Audited Accounts as on the effective date of transfer are available, whichever is later.
- b. As on the date of filing of this Petition, the Government of Punjab has not vested the final assets and liabilities to successor Utilities.
- c. In the absence of availability of opening balances based on the final Notification of Government of Punjab, as per transfer scheme, PSTCL has considered the following for preparation of ARR and Tariff Petition.
  - i. The Opening GFA (Gross Fixed Assets) of Rs 2040 Crore, as on 1 April 2009, has been considered from the audited books of accounts of PSEB for the transmission business including SLDC. It is also relevant to

mention here that the same GFA of Rs 2040 Crore had been approved by Hon'ble Commission in Tariff Order for FY 2010-11 for the transmission business of PSEB.

- ii. For the Purpose of Return on Equity, Equity Capital of Rs. 328.50 Crore has been derived by grossing up the Return on Equity of Rs 45.99 Crore with the allowed ROE rate of 14% in Tariff Order of FY 2010-11 for the transmission business.
- iii. Long Term Loan as on April 16, 2010 to the tune of Rs 887.07 Crore from different agencies like LIC (Life Insurance Corporation of India), OBC (Oriental Bank of Commerce) and REC (Rural Electrification Corporation Limited) availed by erstwhile PSEB have been considered as the long term loan of PSTCL.
- iv. Except as mentioned above in point iii, PSTCL has not considered opening balances of loan/working capital loan figures as mentioned in transfer scheme in this ARR and tariff Petition.
- v. In the event, the Government of Punjab issues the final Notification for transfer of assets and liabilities to the successor Utilities under rule 9(1) of Punjab Power Sector Reforms Transfer Scheme, 2010, during the pendency of this Petition, **PSTCL shall submit revised figures of the ARR and tariff for consideration of the Hon'ble Commission.**

1.1.8 In accordance with Regulation 13 of the PSERC (Terms and Conditions for Determination of Tariff) Regulations, 2005, PSTCL is filing the Petition for Review of the Aggregate Revenue Requirement (ARR) for the FY 2012-13 and the approval of the Aggregate Revenue Requirement (ARR) and Tariff Determination for the FY 2013-14 for Transmission and SLDC Business of PSTCL.

## **1.2 Tariff filing for FY 2011-12**

- 1.2.1 On 30.11.2010, the PSTCL filed a Petition bearing Petition No. 45 of 2010 before the Hon'ble Commission for approval of Aggregate Revenue Requirement and determination of Tariff for financial year 2011-12 for the transmission and State Load Dispatch functions. PSTCL had also filed the revised estimates of the costs/expenses and revenue pertaining to the transmission function for the previous financial year 2010-11 (including SLDC function) for review.
- 1.2.2 The Hon'ble Commission issued the Order in the matter of the above Petition on 09.05.2011.

## **1.3 Tariff filing for FY 2012-13**

- 1.3.1 On 29.11.2011, the PSTCL filed a Petition bearing Petition No. 67 of 2011 before the Hon'ble Commission for approval of Aggregate Revenue Requirement and determination of Tariff for FY 2012-13 for the Transmission and State Load Dispatch functions. PSTCL had also filed the revised estimates of the costs/expenses and revenue pertaining to the transmission function for the previous financial year 2011-12 (including SLDC function) for review.
- 1.3.2 In the absence of the opening Balance Sheet, the above was based on the assumptions as discussed earlier in this section.
- 1.3.3 By the Order dated 16.07.2012, the Hon'ble Commission had decided the following:
- i) Review of Aggregate Revenue Requirement of Transmission and State Load Dispatch activities for financial year 2011-12 approved by the Hon'ble Commission;
  - ii) Determination of Aggregate Revenue Requirement and Transmission Charges for the Appellant for financial year 2012-13; and
  - iii) Aggregate Revenue Requirement and SLDC Charges for Financial Year 2012-13.

## 2 FINAL TRUING-UP OF FY 2010-11 AND FY 2011-12

2.1.1 Clause-9 (2) of PSERC (Terms and Conditions for Determination of Tariff) Regulations, 2005 states as under:

*“9. REVIEW AND TRUING UP*

...

*After audited accounts of a year are made available, the Commission shall undertake similar exercise as above with reference to the final actual figures as per the audited accounts. **This exercise with reference to audited accounts shall be called ‘Truing Up’.**” (Emphasis supplied)*

2.1.2 PSTCL submits that the Truing-up exercise may be undertaken only on the basis of Audited Accounts. Since the Audit of Accounts for FY 2010-11 and FY 2011-12 are under process and will be finalised upon the notification of the opening balance sheet as on 16/04/2010 by the State Government, it is respectfully submitted that the Truing-up exercise may be undertaken by the Hon’ble Commission for the FY 2010-11 and FY 2011-12 after the finalisation of Audited Accounts.

### **3 BRIEF NOTE ON ARR AND TARIFF PETITION FOR FY 2013-14**

#### **3.1 Regulatory Framework**

3.1.1 PSTCL has prepared this Petition on the basis of PSERC Tariff Regulations, 2005 and subsequent amendments. In particular, the Hon'ble Commission notified the Second Amendment to the Tariff Regulations 2005 vide notification dated 17th September, 2012. PSTCL has forecasted its ARR for FY 2013-14, and reviewed its ARR for FY 2012-13, in cognizance with the amended Regulations.

#### **3.2 Summary of Assumptions**

3.2.1 PSTCL has premised its Tariff Petition while projecting its ARR on the following:

- a) The approved figures of FY 2011-12 have been considered for the GFA and Regulatory Equity
- b) The relevant Judgements of Hon'ble Appellate Tribunal has been referred to while projection of some of the heads.
- c) Escalation Factors have been considered for projecting certain expenses on a realistic basis.

#### **3.3 Summary of ARR for FY 2012-13 and FY 2013-14**

3.3.1 The summary of review of ARR filed for FY 2012-13 and projections of ARR for FY 2013-14, as submitted in this petition, has been tabulated hereunder:

**Table 2: ARR for Transmission and SLDC for FY 2012-13 and FY 2013-14 (Rs Crore)**

| S. No | Particulars        | Transmission Business |        |           |            | SLDC Business      |       |           |            |
|-------|--------------------|-----------------------|--------|-----------|------------|--------------------|-------|-----------|------------|
|       |                    | FY 2012-13            |        |           | FY 2013-14 | FY 2012-13         |       |           | FY 2013-14 |
|       |                    | Last Year Petition    | Order  | Estimated | Projected  | Last Year Petition | Order | Estimated | Projected  |
| 1     | Net Employee costs | 310.00                | 211.12 | 232.49    | 273.22     | 8.89               | 4.54  | 9.01      | 10.54      |
| 2     | Net R&M expenses   | 120.12                | 68.89  | 69.38     | 70.03      | 3.19               | 0.18  | 4.08      | 8.16       |
| 3     | Net A&G expenses   | 74.89                 | 13.79  | 32.06     | 40.51      | 1.40               | 0.03  | 1.75      | 2.11       |
| 4     | Depreciation       | 193.41                | 147.90 | 188.60    | 267.49     | 1.07               | 0.40  | 0.63      | 1.35       |

| S. No     | Particulars                                    | Transmission Business |               |               |                 | SLDC Business      |              |              |              |
|-----------|--|-----------------------|---------------|---------------|-----------------|--------------------|--------------|--------------|--------------|
|           |  | FY 2012-13            |               |               | FY 2013-14      | FY 2012-13         |              |              | FY 2013-14   |
|           |  | Last Year Petition    | Order         | Estimated     | Projected       | Last Year Petition | Order        | Estimated    | Projected    |
| 5         | Interest charges                               | 251.58                | 244.85        | 205.36        | 358.84          | 1.34               | 1.65         | 0.71         | 2.57         |
| 6         | Interest on Working Capital                    | 42.14                 | 25.15         | 31.19         | 42.89           | 1.09               | 0.77         | 1.21         | 2.16         |
| 7         | ULDC Charges                                   | 0.00                  | 0.00          | 0.00          | 0.00            | 21.00              | 21.00        | 17.30        | 31.40        |
| 8         | Return on Equity                               | 110.01                | 50.92         | 75.38         | 75.38           | 1.08               | 0.00         | 0.00         | 0.00         |
| 9         | Provision for bad debts & Other Debits         | 0.00                  | 0.00          | 0.00          | 0.00            | 0.00               | 0.00         | 0.00         | 0.00         |
| <b>10</b> | <b>Total revenue requirement</b>               | <b>1,102.15</b>       | <b>762.62</b> | <b>834.48</b> | <b>1,128.36</b> | <b>39.06</b>       | <b>28.57</b> | <b>34.70</b> | <b>58.30</b> |
| 11        | Less: Non Tariff Income                        | 0.00                  | 36.98         | 5.76          | 2.66            | 0.00               | 0.00         | 5.85         | 0.02         |
| <b>12</b> | <b>Aggregate Revenue Requirement</b>           | <b>1,102.15</b>       | <b>725.64</b> | <b>828.71</b> | <b>1,125.70</b> | <b>39.06</b>       | <b>28.57</b> | <b>28.86</b> | <b>58.28</b> |
| 13        | Revenue gap carry-forward (with carrying cost) | 250.66                | 75.80         | 75.80         | 81.71           | 0.00               | 0.00         | 0.00         | 0.33         |
| <b>14</b> | <b>Cumulative Revenue Requirement</b>          | <b>1,352.81</b>       | <b>801.44</b> | <b>904.51</b> | <b>1,207.41</b> | <b>39.06</b>       | <b>28.57</b> | <b>28.86</b> | <b>58.61</b> |
| 15        | Revenue from Tariff & OA Charges               | <b>0.00</b>           | <b>801.44</b> | 833.31        | 1,207.41        | 0.00               | 28.57        | 28.57        | 58.61        |
| <b>16</b> | <b>Revenue Gap</b>                             | <b>0.00</b>           | <b>0.00</b>   | <b>71.20</b>  | <b>0.00</b>     | <b>0.00</b>        | <b>0.00</b>  | <b>0.29</b>  | <b>0.00</b>  |

3.3.2 The Hon'ble Commission in the Tariff Order for FY 2012-13 dated July 16, 2012 determined a revenue gap of Rs. 71.17 crore for FY 2011-12 with a carrying cost of Rs. 4.63 Crore. PSTCL has considered a revenue gap carry forward of Rs. 75.80 Crore in the estimated ARR for the year FY 2012-13.

3.3.3 In the current petition, PSTCL has estimated a total revenue gap of Rs.71.20 Crore and Rs 0.29 Cr for Transmission and SLDC respectively for the year FY 2012-13.



3.3.4 The above amount, along with a carrying cost (@SBAR of 14.75%) of Rs. 10.50 Crore and Rs 0.04 Crore of Transmission and SLDC respectively, has been considered in the ARR of FY 2013-14.

**Table 3: Combined ARR for Transmission and SLDC Business (Rs Crore)**

| S. No     | Particulars                                 | Transmission & SLDC Business |               |               |                |
|-----------|---|------------------------------|---------------|---------------|----------------|
|           |   | FY 2012-13                   |               |               | FY 2013-14     |
|           |   | Last Year Petition           | Order         | Estimated     | Projected      |
| 1         | Net Employee costs                          | 318.89                       | 215.66        | 241.51        | 283.76         |
| 2         | Net R&M expenses                            | 123.31                       | 69.07         | 73.46         | 78.20          |
| 3         | Net A&G expenses                            | 76.29                        | 13.82         | 33.82         | 42.62          |
| 4         | Depreciation                                | 194.48                       | 148.30        | 189.24        | 268.85         |
| 5         | Interest charges                            | 252.92                       | 246.50        | 206.07        | 361.41         |
| 6         | Interest on Working Capital                 | 43.23                        | 25.92         | 32.40         | 45.05          |
| 7         | ULDC Charges                                | 21.00                        | 21.00         | 17.30         | 31.40          |
| 8         | Return on Equity                            | 111.09                       | 50.92         | 75.38         | 75.38          |
| 9         | Provision for bad debts & Other Debits      | 0.00                         | 0.00          | 0.00          | 0.00           |
| <b>10</b> | <b>Total revenue requirement</b>            | <b>1141.21</b>               | <b>791.19</b> | <b>869.18</b> | <b>1186.66</b> |
| 11        | Less: Non Tariff Income                     | 0.00                         | 36.98         | 11.61         | 2.68           |
| 12        | Incentive Scheme                            | 0.00                         | 0.00          | 0.00          | 0.00           |
| <b>13</b> | <b>Aggregate Revenue Requirement</b>        | <b>1141.21</b>               | <b>754.21</b> | <b>857.57</b> | <b>1183.98</b> |
| 14        | Revenue Gap Carry forward                   | 250.66                       | 75.80         | 75.80         | 82.04          |
| <b>15</b> | <b>Cumulative Revenue Requirement</b>       | <b>1391.87</b>               | <b>830.01</b> | <b>933.37</b> | <b>1266.02</b> |
| 16        | <b>Revenue from Tariff &amp; OA Charges</b> |                              | 830.01        | 861.88        | 1266.02        |
| <b>17</b> | <b>Revenue Gap</b>                          |                              | <b>0.00</b>   | <b>71.49</b>  | <b>0.00</b>    |

### 3.4 Transmission System Capacity

3.4.1 As per Regulation 38 - "Transmission Tariff" of PSERC (Terms and Condition for Determination of Tariff) Regulation, 2005, PSTCL tariff shall be based on the Zonal Postage Stamp Method and shall be worked on the basis of available transmission capacity and would reflect cost of capital investment and operation and maintenance of the Transmission system to transfer bulk power. For the purpose of calculation of

Transmission charges per MW, the Hon'ble Commission has prescribed average capacity to be used as denominator.

*“Average Capacity means the average capacity in MW which can be served by the transmission system of the transmission licensee, which shall be the sum of the generating capacities connected to the transmission system and contracted capacity of other long term transaction handled by the system of the transmission license”.*

3.4.2 The Hon'ble Commission has approved a total Transmission capacity of 10082 MW in the tariff Order for FY 2012-13 based on the gross sum of the generation capacities connected to the transmission network handled by the PSTCL.

3.4.3 PSTCL has derived the generation capacity of the State transmission system for FY 2013-14, by adding all the generation capacity (including State Transmission System) as under:

**Table 4: Generating Capacity for FY 2013-14 (in MW)**

| Name of Project                                | No. of Units | MW    | Installed Capacity (MW) |
|--|--------------|-------|-------------------------|
| GNDTP, Bathinda                                | 4            | 110   | 440.00                  |
| GGSSTP, Ropar                                  | 6            | 210   | 1,260.00                |
| GHTP, Lehra Mohabbat (Unit # 1 & 2) (Stage-I)  | 2            | 210   | 420.00                  |
| GHTP, Lehra Mohabbat (Unit # 3 & 4) (Stage-II) | 2            | 250   | 500.00                  |
| <b>TOTAL THERMAL</b>                           |              |       | <b>2,620.00</b>         |
| Shanan   | 4            | 15    | 60.00                   |
|  | 1            | 50    | 50.00                   |
|  | <b>Total</b> |       | 110.00                  |
| UBDC-I   | 3            | 15    | 45.00                   |
| UBDC-II  | 3            | 15.45 | 46.35                   |
| <b>UBDC TOTAL</b>                              |              |       | 91.35                   |
| <b>**RSPP</b>                                  | 4            | 150   | 600.00                  |
| Less 20% J&K and 4.6% HP share from RSD        |              |       | -147.60                 |
| Net RSD share of Punjab                        |              |       | 452.40                  |
| ASHP   | 4            | 33.5  | 134.00                  |
| MHP-1&2  | 6            | 15    | 90.00                   |
| MHP-3&4  | 6            | 19.5  | 117.00                  |
| MHP Total                                      |              |       | 207.00                  |
| <b>TOTAL HYDRO</b>                             |              |       | <b>994.75</b>           |
| <b>TOTAL(HYDRO+THERMAL)</b>                    |              |       | <b>3,614.75</b>         |
| PEDA & Others including Jalkheri               |              |       | 469.00                  |
| Micro Hydel                                    |              |       | 5.60                    |

| Name of Project  | No. of Units | MW | Installed Capacity (MW) |
|--|--------------|----|-------------------------|
| Total Installed Capacity within the State  |              |    | <b>4,089.35</b>         |
| ** J&K has 20% share at generation cost and HP has 4.6% free of cost share in RSD. So far J&K has not availed the share. |              |    |                         |
| <b>Central Sector</b>  |              |    | 2,087.00                |
| <b>BBMB</b>  |              |    | 1,163.00                |
| <b>New Projects</b>  |              |    | 6,046.00                |
| <b>Total</b>   |              |    | <b>13,385.35</b>        |

3.4.4 It is submitted that the Hon'ble Commission may adopt the above capacity of 13385.35 MW for the FY 2013-14.

#### **4 REVIEW OF ARR FOR FY 2012-13 AND PROJECTIONS OF ARR FOR FY 2013-14**

4.1.1 As regard to the revised estimates for ARR for FY 2012-13, PSTCL is submitting the actual expenses incurred on account of various heads in first half of FY 2012-13. PSTCL has further projected the expenses for various heads in second half of FY 2012-13 on the basis of past trends and activities that are planned and programmed to be taken up during the FY 2012-13.

4.1.2 PSTCL, while projecting expenses for FY 2012-13, has also referred to the Judgments pronounced by Hon'ble Appellate Tribunal for Electricity (ATE) on various issues along with PSERC (Terms and Conditions for determination of Tariff) Regulations, 2005.

#### **4.2 Projections for FY 2013-14**

4.2.1 PSTCL has projected various expenses for FY 2013-14 on the basis of past trends and realistic escalation factors.

4.2.2 PSTCL, while projecting expenses for FY 2013-14, has also referred to the Judgments given by Hon'ble ATE on various issues along with PSERC (Terms and Conditions for determination of Tariff) Regulations, 2005.

4.2.3 It is submitted that PSTCL is a newly formed entity which has started working from 16.4.2010 pursuant to the Transfer Scheme of the State Government. PSTCL also discharges the statutory function of the SLDC for the State of Punjab. PSTCL is required to discharge its duties and responsibilities as required under the Electricity Act, 2003, the Licence conditions, Grid Code and the Rules framed under the Act in addition to complying with Companies Act, and other applicable Laws. Further, PSTCL has a different organisation structure which is required for a company form of business with different areas in Finance, Accounts, Commercial/Regulatory, HR, IT, Administration and Legal in addition to different new functional areas of the technical disciplines. All of the above are in addition to the activities as discharged by the erstwhile PSEB as an integrated Utility. Under these circumstances, it is respectfully submitted that the principles adopted for the approval of ARR and Tariff of the erstwhile PSEB ought not to be made applicable to PSTCL. PSTCL therefore requests the Hon'ble Commission to consider the above submissions while undertaking the exercise of Review of ARR of FY 2012-13 and approval of ARR and Tariff Determination for FY 2013-14.

## **5 PRUDENCE CHECK TO BE CARRIED OUT BY THE HON'BLE COMMISSION WHILE APPROVING THE EXPENSES FOR THE UTILITY**

5.1.1 Hon'ble Appellate Tribunal's Judgment dated 06.10.2009 passed in Appeal No. 36 of 2008 BSES Rajdhani Power Limited versus Delhi Electricity Regulatory Commission reported in 2009 ELR (APTEL) 880). The relevant extracts are quoted hereunder:

*"116 Before parting with the judgment we have to remind the Commission of the observation in our judgment in Appeal No. 265 of 2006, 266 of 2006 and 267 of 2006 in the case of North Delhi Power Limited Vs. Delhi Electricity Regulatory Commission in which we said the following:*

*"60. Before parting with the judgment we are constrained to remark that the Commission has not properly understood the concept of truing up. While considering the Tariff Petition of the utility the Commission has to reasonably anticipate the revenue requested by a particular utility and such assessment should be based on practical considerations. The truing up exercise is meant (sic) to fill the gap between the actual expenses at the end*

*of the year and the anticipated expenses at the beginning of the year. When the utility gives its own statement of anticipated expenditure, the Commission has to accept the same except where the Commission has reason to differ with the statement of the utility and records reasons thereof of where the Commission is able to suggest some method of reducing the anticipated expenditure. This process of “restructuring the claim of the utility by not allowing the reasonably anticipated expenditure and offering to do the needful in the truing up exercise is not prudence*

*117. All projection and assessments have to be made as accurately as possible. Truing up is an exercise that is necessarily to be done as no projection can be so accurate as to equal the real situation. Simply because the truing up exercise will be may on some day in future the Commission cannot take a casual approach in making its projections. **We do appreciate that the Commission intends to keep the burden on the consumer as low as possible. At the same time one has to remember that the burden of the consumer is not ultimately reduced by under estimating the cost today and truing it up in future as such method also burdens the consumer with carrying cost.**” (Emphasis supplied).*

## **6 TRANSMISSION SYSTEM AVAILABILITY AND TRANSMISSION LOSSES**

### **6.1 Transmission System Availability**

6.1.1 Clause-7.3 (1) of Tariff Policy states as under:

#### ***“7.3 Other issues in Transmission***

- 1. Financial incentives and disincentives should be implemented for the CTU and the STU around the key performance indicators (KPI) for these organisations. Such KPIs would include efficient network construction, system availability and loss reduction.*

*...”*

6.1.2 The Hon’ble Commission vide the amendment dated 17<sup>th</sup> september 2012 inserted the following clause in the Tariff Regulations:

***“Amendment of Regulation 10 -Excess or Under Recovery with respect to Norms and Targets A new clause (3) shall be added as under: (3) The Transmission licensee shall be paid transmission charge (inclusive of incentive) for a calendar month for a transmission system or part thereof = AFC x (NDM / NDY) x (TAFM /***

*NATAF)*

*Where, AFC = Annual fixed cost specified for the year, in Rupees*

*NATAF = Normative annual transmission availability factor shall be taken as 98%*

*NDM = Number of days in the month*

*NDY = Number of days in the year*

*TAFM = Transmission system availability factor for the month, in %, calculated by the respective Transmission Licensee got verified and certified by the SLDC.”*

- 6.1.3 PSTCL has put its best efforts to maintain the Transmission System Availability above 99% in FY 2012-13 so as to enable the optimum utilization of Transmission Assets in the State of Punjab.
- 6.1.4 PSTCL prays the Hon’ble Commission to allow the incentive for FY 2012-13, in accordance with the above Regulation at the time of truing-up of FY 2012-13.
- 6.1.5 The actual quarter-wise actual Transmission System Availability during FY 2012-13 (April to September) is tabulated as under:

**Table 5: Transmission System Availability during FY 2012-13 (In Percentage)**

| S. No | Particulars | FY 2012-13 |          |
|-------|-------------|------------|----------|
|       |             | Apr –Jun   | July-Sep |
| 1     | 220 kV      | 99.86      | 99.90    |
| 2     | 132 kV      | 99.50      | 99.84    |

- 6.1.6 PSTCL will put its best efforts to maintain the Transmission System Availability at comparable levels during FY 2013-14, and claim the incentive while truing-up of FY 2013-14.
- 6.1.7 PSTCL prays the Hon’ble Commission to incentivise the performance of PSTCL, while considering the true-up of ARR for FY 2012-13 and review of ARR for FY 2013-14.

## **6.2 Transmission Losses**

- 6.2.1 As regards Transmission Losses, the Hon’ble Commission in last Tariff Order considered Transmission Loss of 2.5% on the basis of comparative data of other three Utilities, i.e. Haryana Vidyut Prasaran Nigam Limited (HVPNL) operating in

Haryana, West Bengal State Transmission Corporation Limited (WBSETCL) operating in West Bengal and Chhattisgarh State Power Transmission Corporation Limited (CSPTCL) operating in Chhattisgarh. The Hon'ble Commission also ruled that it will revisit the Transmission Losses for PSTCL while undertaking the review of FY 2012-13.

6.2.2 To meet with the SGC stipulations, PSTCL has also ordered Intrastate Boundary Metering cum Transmission Level Energy Audit Scheme and major work in this respect is expected to be completed by March 2013. **Remaining works under this scheme shall be completed during FY 2013-14.** With the commissioning of this scheme PSTCL will be able to monitor Grid losses(line wise, bus bar wise and transformer wise)and other required grid parameters from revenue class energy meters (ABT as well as conventional energy meters) along with numerous types of reports, and complete energy audit at transmission level.

6.2.3 PSTCL submits that it has taken the necessary steps to install energy meters at various 220 kV and 132 kV substations.

6.2.4 PSTCL has compared the Transmission Losses considered by some State Electricity Regulatory Commissions in respective Tariff Orders which is tabulated as under:

**Table 6: Transmission Losses approved for Other States-1**

| S. No | Particulars           | Chhattisgarh             | Maharashtra   |
|-------|-----------------------|--------------------------|---|
| 1     | Tariff Order Referred | Order dated Apr 28, 2012 | Order dated Sep 10, 2010  |
| 2     | Approved for FY       | FY 2012-13               | FY 2010-11<br>(Continued in Discom's<br>Business Plan for the period<br>FY 13 to FY 16) |
| 3     | Transmission Loss     | 4.55%                    | 4.85%*  |

**Table 7: Transmission Losses approved for Other States-2**

| S. No | Particulars           | Punjab                    | Rajasthan                |
|-------|-----------------------|---------------------------|--------------------------|
| 1     | Tariff Order Referred | Order dated July 16, 2012 | Order dated Dec 23, 2011 |
| 2     | Approved for FY       | FY 2012-13                | FY 2011-12               |
| 3     | Transmission Loss     | 2.50%                     | 4.20%                    |

6.2.5 PSTCL has been incorporated as an entity on April 16, 2010 and it is comparable

with Chhattisgarh State Power Transmission Company Limited (CSPTCL) which is acting as State Transmission Licensee in Chhattisgarh and became functional on January 1, 2009. Like PSTCL, CSPTCL is mainly handling 132 kV and 220 kV Transmission System.

6.2.6 Further, Clause-7.2 of Tariff Policy envisages that the loss compensation should be based on system studies and should be reasonable and linked to applicable technical loss benchmarks. Clause-7.2 of Tariff Policy is reproduced as under:

***“7.2 Approach to transmission loss allocation***

1. *Transactions should be charged on the basis of average losses arrived at after appropriately considering the distance and directional sensitivity, as applicable to relevant voltage level, on the transmission system. Based on the methodology laid down by the CERC in this regard for inter- state transmission, the Forum of Regulators may evolve a similar approach for intra-state transmission.*

***The loss framework should ensure that the loss compensation is reasonable and linked to applicable technical loss benchmarks. The benchmarks may be determined by the Appropriate Commission after considering advice of CEA.***

*It would be desirable to move to a system of loss compensation based on incremental losses as present deficiencies in transmission capacities are overcome through network expansion.*

2. ***The Appropriate Commission may require necessary studies to be conducted to establish the allowable level of system loss for the network configuration, and the capital expenditure required to augment the transmission system and reduce system losses. Since additional flows above a level of line loading leads to significantly higher losses, CTU/ STU should ensure upgrading of transmission systems to avoid the situations of overloading. The Appropriate Commission should permit adequate capital investments in new assets for upgrading the transmission system.” (Emphasis supplied)***

6.2.7 Hence, the Hon’ble Commission is requested to approve the transmission loss of



4.50% as comparable with the transmission loss of States such as Maharashtra and Chhattisgarh.

## **7 TRANSMISSION CAPITAL EXPENDITURE PLAN**

7.1.1 PSTCL is submitting a Comprehensive Transmission Plan (Investment Plan) to the Hon'ble Commission. This plan has the details of the works taken up and completed by PSTCL during the period FY 2012-13 and to be taken up during the remaining period of FY 2012-13 and FY 2013-14.

7.1.2 2 nos. 400 kV transmission system projects are being implemented for evacuation of power to be generated from Talwandi Sabo Thermal Power Project and Rajpura Thermal Power Project.

### **Talwandi Sabo Thermal Power Project:**

7.1.3 In order to meet the growing load demand of power in the State of Punjab, Talwandi Sabo Power Project was envisaged with a capacity addition of 1980 MW (3X 660 MW). The power from this project is to be transferred within the state of Punjab and the Transmission system has accordingly been planned to cater to the major load growth centres in Punjab by formation of a 400 kV main ring in the State.

7.1.4 The objective of the project is to provide adequate transmission arrangement to meet the dispersal of power from the bulk consumption points to major load centres with reliability and security, along with interconnections in Northern Regional grid.

7.1.5 The generation from Talwandi Sabo is likely to materialize during FY 2013-14. For evacuation of power from this generation project, 400 kV transmission lines have to be connected to major pockets of various load centres of Punjab from the new 400 KV grid substations at Dhuri, Nakodar, Makhu & Muktsar. Further, the transmission system is to be integrated with Northern Regional system at Moga and Amritsar substation of POWERGRID for reliable operation of the power projects.

7.1.6 The revised cost of this transmission project is Rs. 1250.00 Crore (including IDC). The work is being executed by PGCIL on cost plus basis.

### **Physical Progress:**

7.1.7 The works covered under the project along with the respective progress are as under:

#### **a) Transmission Lines:**

**Table 8: Talwandi Sabo Thermal Power Project – Transmission Lines**

| Sr. No. | Name of Line   | Line length (km) | Target date of completion |
|---------|--|------------------|---------------------------|
| 1.      | 400KV Talwandi Sabo-Nakodar DC Line                          | 102              | 31.1.13                   |
| 2       | LILO of one ckt. of 400KV Talwandi Sabo-Nakodar line at Moga | 64               | 30.6.13                   |
| 3       | 400KV Talwandi Sabo-Mukatsar DC Line                         | 100.3            | 31.12.12                  |
| 4.      | 400 kV Talwandi Sabo-Dhuri line                              | 87.6             | Completed                 |
| 5.      | 400 kV Mukatsar-Makhu DC Line                                | 95.5             | 30.9.13                   |
| 6.      | 400 kV Makhu-Amritsar DC Line                                | 64.5             | 30.6.13                   |

**b) Sub-Stations:**

**Table 9: Talwandi Sabo Thermal Power Project – Substations**

| S.No | Name of sub-station  | Capacity  | Target date of completion   |
|------|--|-----------|-----------------------------|
| 1    | 400/220KV Mukatsar (New)   | 2x315 MVA | 30.6.13                     |
| 2    | 400/220KV Makhu (New)  | 2x315 MVA | 31.3.13                     |
| 3    | 400/220KV Nakodar (New)  | 2x315 MVA | 31.3.13                     |
| 4    | 400/220KV Dhuri (New)<br>(1 no. T/F test charged & commissioned, 2 <sup>nd</sup> T/F expected to be test charged in 11/2012) | 2x500 MVA | 31.12.12 for remaining work |

**Financial Progress:**

7.1.8 During FY 2012-13, a payment of Rs. 122 Crore has been released upto 9.11.12. The expected fund requirement for the remaining part of the current financial year is Rs. 180 Crore and for FY 2013-14 it is expected to be Rs. 377 Crore. The project is tied up with REC for funding purpose.

**Rajpura Thermal Power Project:**

- 7.1.9 Rajpura Power Project is being commissioned with an installed capacity of 1320 MW (2X 660 MW) to meet the growing load demand of power in the state of Punjab. The power from this project is to be transferred within the state of Punjab and the Transmission system has accordingly been planned to cater to the major load growth centres in Punjab by formation of a 400 kV main ring in the State.
- 7.1.10 The objective of the project is to provide adequate transmission arrangement to meet the dispersal of power from the bulk consumption points to major load centres with reliability and security, along with interconnections in Northern Regional grid.
- 7.1.11 The generation from Rajpura is likely to come on stream during the FY 2013-14. For evacuation of power from this generation project, 400 kV transmission lines have to be connected to major pockets of various load centres of Punjab from the newly constructed 400 kV grid substation at Rajpura. The estimated cost of this transmission project is Rs.516 Crore. The work is to be executed by PSTCL with engineering consultancy from PGCIL. The Work Order was placed on them on 20.8.2010 and the consultancy charges payable to PGCIL for their services are Rs. 12.8 Crore (Service Tax additional). The works covered under the project are as under:

**a) Transmission Lines:**

**Table 10: Rajpura Thermal Power Project– Transmission Lines**

| S.No. | Name of Line                          | Line length (km) | Target date of completion |
|-------|---------------------------------------|------------------|---------------------------|
| 1.    | 400KV Rajpura TPS – Nakodar DC Line   | 138.26           | 31.3.13                   |
| 2.    | 400KV Rajpura TPS-Rajpura S/S DC Line | 8.84             | 31.1.13                   |
| 3.    | 400 KV Dhuri-Rajpura DC Line          | 85.69            | 31.1.13                   |
| 4.    | 400KV Makhu-Nakodar DC line           | 52.49            | 31.1.13                   |

**b) Sub-Stations**

**Table 11: Rajpura Thermal Power Project– Sub-stations**

| S.No | Name of Sub-Station     | Capacity  | Target date of completion |
|------|-------------------------|-----------|---------------------------|
| 1    | 400/220KV Rajpura (New) | 2x500 MVA | 30.6.2013                 |

### **Financial Progress:**

- 7.1.12 During FY 2011-12, expenditure of Rs. 60 Crore was incurred on the above stated works. For the FY 2012-13, payment of about Rs.120 Crore has been released so far. The expected fund requirement for the remaining part of the current financial year is Rs. 197 Crore and for FY 2013-14, it is expected to be Rs 161 Crore. The project is tied up with REC for funding purpose.
- 7.1.13 During FY 2013-14, two nos. 400 kV substations are planned at Amloh and Doraha (Macchiwara). The 400kV Amloh sub-station is proposed to be fed from 400 kV Sub-station Dhuri by erecting 400 kV double circuit line. The estimated cost of the work (sub-station including feeding line) is Rs 200 Crore. The 400 kV sub-station Doraha (Macchiwara) is proposed to be fed by looping in and out of both the circuits of upcoming 400 kV line from Rajpura Thermal Plant to 400 kV Sub-Station Nakodar. The estimated cost of the work (sub-station including feeding line) is Rs 175 Crore. During FY 2013-14, for both these works, preliminary work is expected to be carried out and balance will spill over the next financial year.

### **Information Technology Related Works**

- 7.1.14 Continuing with its efforts on optimising its operations, PSTCL has created a new office of SE/IT & Technical Audit under the Administrative control of CE/HR, Planning & IT for comprehensive and integrated automation of its various offices. PSTCL has taken initiatives to provide Desktop Computers, Laptops, Printers and Computer Table and Chairs along with other peripherals like UPS, Data Cards etc.
- 7.1.15 PSTCL has planned to introduce **Enterprises Resource Planning (ERP)** to have a comprehensive and integrated automation of all its functions leading to it efficient operations which can be achieved through implementation of ERP. As a part of IT initiatives, PSTCL is required to take immediate steps in this direction. Actions have been initiated for Implementation of ERP at PSTCL.
- 7.1.16 PSTCL is going to develop the software of inventory and Accounting for establishing an efficient and effective management.
- 7.1.17 PSTCL has envisaged a plan to impart the Training to its employees. It has also

introduced the procurement of material through e-tendering by various organizations.

7.1.18 The consolidated expenditure required for IT related works during FY 2012-13 and FY 2013-14 will as under:

**Table 12: IT Related Works**

| Sr. No. | Head                                | Expenditure<br>(In Rs. Lakh) |            |
|---------|-------------------------------------|------------------------------|------------|
|         |                                     | FY 2012-13                   | 2013-14    |
|         | <b><u>Capital Expenditure</u></b>   |                              |            |
| 1.      | Computers and Peripherals           | 100                          | 150        |
| 2.      | Enterprises Resource Planning (ERP) | 10                           | 300        |
| 3.      | Store Computerization               | 20                           | 20         |
| 4.      | Accounting Software                 | 20                           | 40         |
|         | <b>Total Capital Expenditure</b>    | <b>150</b>                   | <b>510</b> |
|         | <b><u>Revenue Expenditure</u></b>   |                              |            |
| 1.      | Data Cards                          | 3.50                         | 7          |
| 2.      | E-tendering                         | 10                           | 20         |
| 3.      | Computer Training                   | 10                           | 20         |
|         | <b>Total</b>                        | <b>23.50</b>                 | <b>47</b>  |

7.1.1 The revenue expenditure shown above has been appropriately considered in the projections of A&G Expenses for the respective financial years. The Capital expenditure required for these IT initiatives has been included in the investment plan of PSTCL.

## 8 OPERATION AND MAINTENANCE EXPENSES

8.1.1 The Hon'ble Commission vide notification dated 17<sup>th</sup> September 2012, amended the Regulation 28 of the Tariff Regulations 2005 with respect to the approval of O&M Expenses for the licensee.

1.2 The amended Regulation 28 reads as under:

*“(2) O&M expenses for distribution licensee (s) shall be determined by the Commission as follows : (a) O&M expenses as approved by the Commission for the year 2011-12 (true up) shall be considered as base O&M expenses for determination of O&M expenses for subsequent years. (b) Base O&M expenses (except employee cost) as above shall be adjusted according to variation in the average rate (on monthly basis) of Wholesale Price Index (all commodities) over the year to determine the O&M expenses for subsequent years. Provided that any expenditure on account of license fee, initial or renewal, fees for determination of tariff and audit fee shall be allowed on actual basis over and above the A&G expenses approved by the Commission. (c) In case of a new distribution licensee (s), the Commission shall make suitable assessment of base O&M expenses of the new licensee (s) and allow O&M expenses for subsequent years for the new licensee (s) on the basis of such estimation and principle as given in clause (b) above. However, for employee cost the principle specified in clause (3) below will be followed.*

*(3) The employee cost for a distribution licensee (s) shall be determined as follows: (a) The employee cost as claimed by the distribution licensee (s) shall be considered in two parts:*

*(i) Terminal benefits such as Death-cum-Retirement Gratuity, Pension, Commuted Pension, Leave Encashment, LTC, Medical reimbursement including fixed medical allowance in respect of pensioners and share of BBMB employee expenses and (ii) all other expenses accounted for under different sub-heads of employee cost taken together. The cost component of terminal benefits and BBMB expenses shall be allowed on actual basis and increase in all other expenses under different sub-heads shall be limited to the increase in Wholesale Price Index (all commodities) as per clause (2) (b) above. (b) Exceptional increase in employee cost on account of pay revision etc. shall be considered separately by the Commission. (c) The additional employee cost in case of New installations/Network for the year of installation shall be considered separately by the Commission on case to case*

*basis keeping in view the principles and methodologies enunciated in these regulations.*

*(4) (a) The O&M expenses (except employee cost) for transmission licensee (s) shall be allowed as per the provisions given in clause (2) above. The employee cost shall however, be determined keeping in view the provisions contained in clause (3). (b) In case of a new transmission licensee (s), the Commission shall make suitable assessment of base O&M expenses of the new licensee (s) and allow O&M expenses for subsequent years for the new licensee (s) on the basis of such estimation and principle as given in clause (2)(b) above. However, for employee cost the principle specified in clause (3) above will be followed.*

*(5) (a) For the determination of O&M expenses (except employee cost) for generating company, the Commission shall allow O & M expenses (except employee cost) in accordance with Clause (2). The employee cost will, however, be determined keeping in view the provisions contained in Clause (3). (b) In case of a new generating company (s), the Commission shall make suitable assessment of base O&M expenses of the new licensee (s) and allow O&M expenses for subsequent years for the new licensee (s) on the basis of such estimation and principle as given in Clause (2)(b) above. However, for employee cost the principle specified in Clause (3) above will be followed.*

*(6) O&M expenses excluding employee expenses for gross fixed assets added during the year shall be considered for a period of six months in cases where Commercial Operation Date of the assets is not available otherwise from the date of commissioning on pro-rata basis.*

*(7) O&M expenses excluding employees cost for a Company/ licensee (s) performing generation and/or distribution & trading functions shall be determined by the Commission on the norms and principles indicated at clause (2) above.*

*The employee cost will, however, be determined keeping in view the provisions contained in Clause (3).*

*(8) O&M expenses of assets taken on lease/hire-purchase and those created out of the consumers' contribution, shall be considered in case the generating company or the licensee has the responsibility for its operation and maintenance and bears O&M expenses*

8.1.3 As mentioned above, the true-up O&M Expenses for FY 2011-12 shall be considered as the base for approval in subsequent years. However, audited Annual Accounts are not yet available so, PSTCL has projected its O&M Expenses as explained in the following sections.

## **8.2 Projection of Employee Expenses for FY 2012-13 and FY 2013-14**

8.2.1 The Hon'ble Commission in its Order dated July 16, 2012 has approved the employee costs for FY 2012-13, based on the average WPI increase of 7.4% available for 9 months of the previous year (April 2011 to December, 2011). It approved employee cost of Rs. 111.26 Crore for transmission business of PSTCL for FY 2012-13.

8.2.2 The Hon'ble Commission allowed the impact of pay revision for FY 2012-13 to the extent of Rs. 21.57 Crore.

8.2.3 On the similar lines, the Hon'ble Commission approved pay arrears to the extent of Rs. 12.87 Crore.

8.2.4 The Hon'ble Commission further ascertained Rs 65.42 Crore towards terminal benefit covered under the employee costs for FY 2012-13. However, the Commission did not provide the employee costs for the new employees to be considered during FY 2012-13. The Hon'ble Commission therefore, approved **the total employee cost of Rs. 211.12 (65.42+111.26+21.57+12.87) Crore for FY 2012-13 for the transmission business of PSTCL.**

8.2.5 PSTCL submits that the disallowance of the employees' costs of PSTCL by the Hon'ble Commission is unjustified and hindering with the satisfactory discharge of day-to-day operations of PSTCL. The core strength of PSTCL is its employees which has enabled PSTCL to maintain exceptional system availability and maintenance of the Transmission System.

8.2.6 PSTCL has always endeavoured to maintain an optimum workforce and therefore has already optimised its employee expenses. The same has been highlighted in the succeeding paragraphs below.

## **8.3 Employee Strength at PSTCL**

8.3.1 On April 16, 2010 when the PSTCL, came into existence it had 4037 employees on its rolls. The table below indicates the employee strength of PSTCL as on March-2011.



**Table 13: Employee Strength of PSTCL as on March 2011**

| S. No. | Office Name                | Sanctioned  | Present     | Vacant      |
|--------|----------------------------|-------------|-------------|-------------|
| 1      | Chief Engineer/SO&C        | 764         | 389         | 375         |
| 2      | Chief Engineer/Sub-station | 1105        | 604         | 501         |
| 3      | Chief Engineer/TL          | 483         | 288         | 195         |
| 4      | S.E./Planning              | 23          | 14          | 9           |
| 5      | Chief Engineer/P&M         | 4041        | 2610        | 1431        |
| 6      | H.R./Sectt./Directors      | 281         | 127         | 154         |
|        | <b>Total</b>               | <b>6697</b> | <b>4032</b> | <b>2665</b> |

8.3.2 On November 30, 2011, the 66KV transmission network which was being constructed by PSTCL on behalf of PSPCL was transferred to Punjab State Power Corporation Limited (PSPCL). Along with the network, a number of employees of PSTCL were also transferred to PSPCL, and accordingly the employee strength of PSTCL reduced to 3122. The existing departments of PSTCL were also re-organised after the transfer of 66KV transmission network to PSPCL.

8.3.3 The table below indicates the employee strength of PSTCL as on March-2012.

**Table14: Employee Strength of PSTCL as on March 2012**

| Sr. No. | Office Name        | Sanctioned  | Posted      | Vacant      |
|---------|--------------------|-------------|-------------|-------------|
| 1       | CMD                | 8           | 8           | 0           |
| 2       | Company Secretary  | 45          | 21          | 24          |
| 3       | Director Technical | 7           | 6           | 1           |
| 4       | Director/Finance   | 168         | 48          | 120         |
| 5       | Director Admin     | 7           | 6           | 1           |
| 6       | Dy. CE/Admin & HR  | 148         | 33          | 115         |
| 7       | CE/SO&C            | 128         | 80          | 48          |
| 9       | CE/TL              | 1035        | 671         | 364         |
| 10      | CE/P&M             | 4056        | 2249        | 1807        |
|         | <b>TOTAL</b>       | <b>5602</b> | <b>3122</b> | <b>2480</b> |

8.3.4 PSTCL had planned to recruit 797 new employees in FY 2012-13 as per the approval of the State Government. This recruitment also includes the requirement of personnel for operating 400 KV networks which is to be commissioned in FY 2012-13.

8.3.5 The details of the employees and the number of posts decided to be filled are tabulated as under:

**Table15: Recruitment planned for FY 2012-13**

| S. No | Name of Post      | Number of Posts | Basic Pay |
|-------|-------------------|-----------------|-----------|
| 1     | AE/ Elect.        | 117             | 22450     |
| 2     | AE/ Civil         | 11              | 22450     |
| 3     | JE Elect          | 158             | 15350     |
| 4     | JE Civil          | 44              | 15350     |
| 5     | Accounts Officer  | 11              | 22450     |
| 6     | Law Officer       | 2               | 16400     |
| 7A    | UDC (Accounts)    | 20              | 9600      |
| 7B    | UDC (General)     | 60              | 9600      |
| 8     | SSA               | 325             | 9350      |
| 9A    | Draftsman         | 7               | 15350     |
| 9B    | Draftsman         | 3               | 15350     |
| 10    | Asst. Manager     | 2               | 22450     |
| 11    | Asst. Manager/ IT | 3               | 22450     |
| 12    | Accountant        | 10              | 15600     |
| 13    | Electrician Gr-II | 24              | 8850      |
|       | <b>Total</b>      | <b>797</b>      |           |

8.3.1 However, only 241 posts could be filled during the first half i.e H1 of FY 2012-13 (April 2012 to September 2012). Therefore, 556 new employees have been considered for recruitment for the H2 of FY 2012-13 (October 2012 to March 2013). The cost related to these new employee addition, has also been considered accordingly. As the recruitment process will be over by 31.12.2012, therefore additional cost for new employees i.e 556 has been considered for 3 months only i.e. January 2013 to March -2013.

8.3.2 At the end of September-2012, the employee strength is 3069, considering the retirements/superannuation during the H1 of FY 2012-13.

**Table16: Employee Strength of PSTCL as on September -2012**

| Sr. No. | Office Name           | Sanctioned  | Posted      | Vacant      |
|---------|-----------------------|-------------|-------------|-------------|
| 1       | CMD                   | 8           | 8           | 0           |
| 2       | Company Secy.         | 39          | 30          | 9           |
| 3       | Director/Tech.        | 8           | 7           | 1           |
| 4       | Director/Fin.         | 143         | 55          | 88          |
| 5       | Dir.Admn              | 7           | 0           | 7           |
| 6       | CE/HR,IT and Planning | 179         | 75          | 104         |
| 7       | CE/SLDC               | 128         | 76          | 52          |
| 8       | CE/TS                 | 1028        | 676         | 352         |
| 9       | CE/P&M                | 4572        | 2142        | 2430        |
|         | <b>TOTAL</b>          | <b>6112</b> | <b>3069</b> | <b>3043</b> |

8.3.3 Continuing with its endeavour for optimisation of employee expenses, PSTCL approved the norms for number of employees to be deployed at 132 KV, 220 KV, and 400 KV substations. The same has been tabulated as under:

**Table 17: Employee Norms for 220 kV and 132kV substation**

| Sno. | Designation                                 | 220kV S/S | 132kV S/S |
|------|---|-----------|-----------|
| 1    | SSE/AEE                                     | 1         | 1         |
| 2    | JE-1 (S/S)                                  | 4         | 1         |
| 3    | SSO/JE-2(S/S)                               | -         | 3         |
| 4    | SSA   | 4         | 4         |
| 5    | RTM   | 4         | 4         |
| 6    | Telephonist/LDC                             | 2         | 1         |
| 7    | Oil Cleaner                                 | 1         | 1         |
| 8    | Chowkidar                                   | -         | 1         |
| 9    | Peon  | 1         | 1         |
| 10   | Electrician Gr. 2 (Electrical)Mistri        | 1         | 1         |
| 11   | UDC   | 1         | -         |
| 12   | Crane Operator<br>(where crane is provided) | 1         | -         |
| 13   | Mali  | 1         | -         |
| 14   | Sweeper                                     | 1         | -         |
| 15   | Fitter/Mechanical Mistri                    | 1         | -         |
|      | <b>Total</b>                                | <b>23</b> | <b>18</b> |

**Table18: Employee Norms for 400kV substation**

| S No. | Designation        | 400kV S/S |
|-------|--------------------|-----------|
| 1     | Sr. XEN/Addl. S.E. | 1         |
| 2     | A.E.E./Mte.        | 1         |
| 3     | AE/Operation       | 4         |
| 4     | AAE S/S Mte        | 1         |
| 5     | AEE S/S Op.        | 4         |
| 6     | SSA Op.            | 4         |
| 7     | Electricians       | 4         |
| 8     | UDC                | 1         |
| 9     | Peon               | 2         |
|       | <b>Total</b>       | <b>22</b> |

- 8.3.4 Based on the above norms, the number of employees required to cater only to the existing sub-station at the end of September-2012 works out 2968. The number does not consider the administrative staff and only covers the employees posted at the sub-station locations. As indicated in the tables earlier, the number of employees for the department of CE/P&M is 2142 at the end of September-2012, and is 28% below the required number of employees for the department. The requirement of sub-station employees increases to 3264 and 3653 by March-13 and March-14 respectively, based on the projected addition of the Sub-stations. Some of the non-core activities have been outsourced and expenses towards the same, has been considered as part of A&G expenses and should be allowed on actual basis over and above the normal A&G expenses.
- 8.3.5 PSTCL requests the Hon'ble Commission to consider the above fact while approving the employee expenses for FY 2012-13 and FY 2013-14.
- 8.3.6 The expected retirements during H2 are 144, taking the employee strength to 3481 by March-2013.
- 8.3.7 For H1 (FY 2012-13), it has considered the actual expenses incurred by it during the first six months of the FY 2012-13.
- 8.3.8 For existing employees, the basic salary for September 2012, has been considered constant for each month of the H2 of FY 2012-13. The basic salary for the new employee addition has been considered for 3 months as discussed earlier.
- 8.3.9 For FY 2013-14, an increase of 3% has been considered for the basic pay for the

existing employees.

- 8.3.10 The Dearness allowance for H2 of FY 2012-13 has been considered at a rate of 72% of basic salary (for existing and prospective employees) for H2 of FY 2012-13, the rate is in line with the prevalent DA rate. No escalation has been considered during H2. However, in case of any revision of DA rate during this period, the Hon'ble Commission may consider the impact of rate change during the truing-up of FY 2012-13. Further, the DA rate was changed to 72% from the earlier rate of 65% w.e.f. July 2012. However, the disbursement to the employees till the month of Sep-12, has been limited to 65% of the basic pay, pending the approval for the same. The impact of the difference for these three months (July to September), has been considered in the H2 of FY 2012-13.
- 8.3.11 PSTCL has assumed an average increase of 10 percentage point in the DA rate during FY 2013-14. The DA has been therefore considered at 82% of the Basic Salary for the ensuing year.
- 8.3.12 As towards the projection of Expenses toward House Rent Allowance (HRA), Fixed Medical (FM) and Other Allowances, PSTCL has considered HRA at a rate of 20% of the Basic Salary, Other allowances at the rate of 10% of the Basic Salary and FM at a rate of Rs 500 per employee per month, for H2 of FY 2012-13 and the ensuing year FY 2013-14.
- 8.3.13 PSTCL has projected expenses related to leave encashment of Rs 7.01Crore and Rs 13.30 Crore for H2 of FY 2012-13 and FY 2013-14.
- 8.3.14 The gratuity payment has been projected as Rs 13.45 Crore for H2 of FY 2012-13. The expenses towards gratuity payment for the ensuing year FY 2013-14 has been considered as Rs 14.00 Crore for FY 2013-14.
- 8.3.15 The pension payments for H2 of FY 2012-13 have been estimated to be Rs 13.74 Crore. For ensuing year FY 2013-14, a pension payment of Rs 33.13 Crore has been considered.
- 8.3.16 PSTCL has considered Rs 10.52 Crore towards commutation of pension for H2 of FY 2012-13. For FY 2013-14, an amount of Rs 13.32 Crore for FY 2013-14.
- 8.3.17 PSTCL has considered salary arrears of Rs 12.87 Crore in H2 of FY 2012-13, and FY 2013-14.
- 8.3.18 PSTCL has considered capitalisation of employee expenses to the extent of Rs 20.24

Crore for H2. For FY 2013-14, an increase of 10% has been considered in the expenses capitalised for FY 2012-13. The amount works out to Rs 26.40 Crore for FY 2013-14.

### Employee Cost towards new installations

8.3.19 The Hon'ble Commission vide notification dated 17<sup>th</sup> September 2012, amended the Regulation 28 of the Tariff Regulations 2005 to include as followed:

*“The additional employee cost in case of new installations/Network for the year of installation shall be considered separately by the Commission on case to case basis keeping in view the principles and methodologies enunciated in these regulations.”*

8.3.20 On account of the employee addition norms for new substations addition, as discussed earlier, the additional employee cost with respect to addition of these employees has been worked out by PSTCL for the year FY 2012-13 and FY 2013-14.

8.3.21 Similarly, additional employee cost towards addition of Transmission network has been computed for FY 2012-13 and FY 2013-14.

8.3.22 The computations for employee cost towards new installations are thus worked out as tabulated below:

**Table19: Employee Cost towards new installations**

| S no.  | Particulars                       | FY 2012-13 | FY 2013-14 |
|--|-----------------------------------|------------|------------|
| <b>Substation Addition</b>                                 |                                   |            |            |
|  | <b>No. of Substation Addition</b> |            |            |
| 1  | 400 kV                            | 3          | 2          |
| 2  | 220 kV                            | 10         | 15         |
| 3  | 132 kV                            | 0          | 0          |
|  | <b>Total</b>                      | <b>13</b>  | <b>17</b>  |
| <b>Additional Employees Required - Substation Addition</b> |                                   |            |            |
| 1  | 400 kV                            | 66         | 44         |
| 2  | 220 kV                            | 230        | 345        |
| 3  | 132 kV                            | 0          | 0          |
|  | <b>Total</b>                      | <b>296</b> | <b>389</b> |

| S no.   | Particulars  | FY<br>2012-13 | FY<br>2013-14 |
|---|--|---------------|---------------|
|   | <b>Additional Employee Cost - Substation Addition (Rs Crore)</b>                                     | <b>9.96</b>   | <b>12.89</b>  |
| <b>Line Length Additions</b>                                |  |               |               |
|   | <b>Line Length Additions (ckt-km)</b>  |               |               |
| 1   | 400 kV   | 1150          | 454           |
| 2   | 220 kV   | 375           | 1310          |
| 3   | 132 kV   | 0             | 4             |
|   | <b>Total</b>   | <b>1525</b>   | <b>1768</b>   |
| <b>Additional Employees Required - Line Length Addition</b> |  |               |               |
| 1   | 400 kV   | 345           | 150           |
| 2   | 220 kV   | 120           | 405           |
| 3   | 132 kV   | 0             | 0             |
|   | <b>Total</b>   | <b>465</b>    | <b>555</b>    |
|   | <b>Additional Employee Cost - Line Length Addition (Rs Crore)</b>                                    | <b>13.49</b>  | <b>16.10</b>  |
|   | <b>Total Additional Employee Cost (Rs Crore) for new substations and Transmission line additions</b> | <b>23.45</b>  | <b>28.99</b>  |

8.3.23 While projecting the employee expenses, PSTCL has included the additional employee cost on account of new installations. PSTCL requests the Hon'ble Commission to kindly consider the above while approving the employee costs projected by PSTCL. The recruitment of the required additional employees would be taken in due course of time.

8.3.24 Based on the above discussion, the employee expenses for FY 2012-13 and FY 2013-14 are tabulated as under:

**Table 20: Employee Expenses Projections for FY 2012-13 and FY 2013-14**

| S. No      | Particulars                             | FY 2012-13  |                |                  | FY 2013-14    |               |
|------------|---|-------------|----------------|------------------|---------------|---------------|
|            |   | Order       | Actuals for H1 | Estimated for H2 | Total         | Projected     |
| <b>I</b>   | <b>Salaries &amp; Allowances</b>        |             |                |                  |               |               |
| 1          | Basic pay                               |             | 40.21          | 44.20            | 84.41         | 95.27         |
| 2          | Dearness allowance                      |             | 25.09          | 33.30            | 58.39         | 78.12         |
| 3          | HRA, Fixed Medical and Other Allowances |             | 7.89           | 14.26            | 22.16         | 30.76         |
| 4          | Over time payment                       |             | 1.48           | 1.93             | 3.40          | 3.97          |
| 5          | Medical reimbursement charges           |             | 0.65           | 0.67             | 1.32          | 1.34          |
| 6          | <b>Sub-total</b>                        |             | <b>75.32</b>   | <b>94.36</b>     | <b>169.68</b> | <b>209.46</b> |
| <b>II</b>  | <b>Terminal Benefits</b>                |             |                |                  |               |               |
| 7          | Leave encashment                        |             | 5.43           | 7.01             | 12.44         | 13.30         |
| 8          | Gratuity                                |             | 8.33           | 13.45            | 21.78         | 14.00         |
| 10         | <b>Sub-total</b>                        | <b>0.00</b> | <b>13.75</b>   | <b>20.46</b>     | <b>34.21</b>  | <b>27.30</b>  |
| <b>III</b> | <b>Pension Payments</b>                 |             |                |                  |               |               |
| 11         | Basic pension                           |             | 12.34          | 13.74            | 26.08         | 33.13         |
| 12         | Any other expenses                      |             | 1.49           | 1.64             | 3.13          | 3.53          |
| 13         | Commutation of Pension                  |             | 0.00           | 10.52            | 10.52         | 13.32         |
| 14         | <b>Sub-total</b>                        |             | <b>13.83</b>   | <b>25.90</b>     | <b>39.73</b>  | <b>49.99</b>  |



| S. No | Particulars        | FY 2012-13    |                |                  | FY 2013-14    |               |
|-------|--------------------|---------------|----------------|------------------|---------------|---------------|
|       |                    | Order         | Actuals for H1 | Estimated for H2 | Total         | Projected     |
| 15    | <b>Total</b>       |               | <b>102.90</b>  | <b>140.72</b>    | <b>243.62</b> | <b>286.75</b> |
| 16    | Amount capitalized |               | 3.76           | 20.24            | 24.00         | 26.40         |
| 17    | <b>Net amount</b>  |               | <b>99.15</b>   | <b>120.48</b>    | <b>219.62</b> | <b>260.35</b> |
| 18    | <b>Grand total</b> |               | <b>99.15</b>   | <b>120.48</b>    | <b>219.62</b> | <b>260.35</b> |
| 19    | Arrears            |               | 0.00           | 12.87            | 12.87         | 12.87         |
| 20    | <b>Total</b>       | <b>211.12</b> | <b>99.15</b>   | <b>133.35</b>    | <b>232.49</b> | <b>273.22</b> |

8.3.25 PSTCL requests the Hon'ble Commission to approve the employee expenses for FY 2012-13 and FY 2013-14 as projected by PSTCL.

#### **8.4 Repairs & Maintenance Expenses**

8.4.1 The Hon'ble Commission in last Tariff Order dated July 16, 2012 applied an average annual increase of 7.40% based on available WPI Indices in FY 2012-13 and approved R&M Expenses of Rs. 68.89 Crore for the same year.

8.4.2 Hon'ble Appellate Tribunal's Ruling in Appeal No. 76 of 2007 - MSETCL v/s MERC dated 1.10.2007:

*"Insofar as the projections of A&G Expenses, employees expenses and R&M expenses for the control period during FY 2007-08 to FY 2009-10, in the impugned order are concerned:*

*(i) actual expenditure for the purposes of truing up for the FY 2006-07 shall be considered by Commission subject to prudence check along with Annual Performance Review as per the Regulation 17 of the MERC (Terms and Conditions of Tariff) Regulations, 2005.*

*(ii) projections of ARR for the control period for the aforesaid heads shall be done*

*by extrapolating the actual audited expenses for the FY 2006-07 subject to prudence check and the same approach shall be followed for the subsequent years till norms are finalized.”*

8.4.3 The Hon’ble Commission allowed Rs. 68.89 Crore for FY 2012-13.

8.4.4 The normal routine Annual Revenue expenditure on repair and maintenance of Plant and Machinery including repairs of damaged Power Transformers, breakers, CTs, Cables, relays and other equipment at sub stations and transmission lines. The old substations are being upgraded with new civil works and landscaping by outsourcing or in-house provisions. The transmission system of the State is very old and the same has to be maintained efficiently with appropriate replacements of equipments and renovations to ensure uninterrupted power transmission in the State. Therefore, PSTCL shall be carrying out special R&M works in addition to General Repair and Maintenance.

8.4.5 PSTCL has incurred an expense of Rs. 10.19 Crore in FY 2012-13 (H1), and it has projected R&M Expenses of Rs. 69.38 Crore for FY 2012-13. This also includes additional expenses on account of new asset additions during FY 2012-13, as provided in Amended Regulation 28(6).

8.4.6 Regulation 28(6) of the Tariff Regulations, 2005 as amended by notification date September 17, 2012 provides as under:

“28. ....

*(6) O&M Expenses excluding employees expenses for gross fixed assets added during the year will be considered for a period of six months in cases where Commercial Operation Date of the assets is not available otherwise from the date of commissioning on pro-rata basis.”*

8.4.7 PSTCL hereby requests Hon’ble Commission to approve the additional R&M expenses as tabulated below:

**Table 21: Additional R & M Expenses towards new asset addition (Rs Crore)**

| Particulars      | Notation | FY 2012-13 | FY 2013-14 |
|------------------|----------|------------|------------|
| Opening GFA      | A        | 2,801.05   | 4,343.01   |
| Net R&M Expenses | B        | 54.41      | 60.04      |

| Particulars  | Notation       | FY 2012-13   | FY 2013-14   |
|--|----------------|--------------|--------------|
| Asset Addition during the year                     | C              | 1,541.96     | 1,446.35     |
| Ratio of R&M / Opening GFA                         | D=B/A          | 1.94%        | 1.38%        |
| <b>R&amp;M for Assets Addition during the year</b> | <b>E=D*C/2</b> | <b>14.98</b> | <b>10.00</b> |

8.4.8 Now the procurement of important equipment is in advanced stage and material has started to be received in the stores and the replacement has started along with. New recruitment of staff and outsourcing has accelerated the execution of these works. Hence, the drive of special revenue works will be continued during the next year of FY 2013-14. Therefore, keeping the above in view, and considering the new asset addition during the year the R&M expenses has been estimated to be Rs. 70.03 Crore for the year FY 2013-14.

8.4.9 Based on the discussion above, the R&M expenses for FY 2012-13 and FY 2013-14 has been tabulated hereunder:

**Table 22: R & M Expenses (Rs Crore) for FY 2012-13 and FY 2013-14**

| S. No    | Particulars                                | FY 2012-13   |              |                |                 | FY 2013-14   |
|----------|--|--------------|--------------|----------------|-----------------|--------------|
|          |  | Order        | Actuals (H1) | Projected (H2) | Total (H1 + H2) |              |
| 1        | R & M Expenses                             |              | 10.36        | 44.22          | 54.58           | 60.04        |
| 2        | R & M Expenses on asset addition during FY |              |              | 14.98          | 14.98           | 10.00        |
| 3        | Less Capitalization                        |              | 0.17         | 0.00           | 0.17            | 0.00         |
| <b>4</b> | <b>Net R &amp; M Expenses</b>              | <b>68.89</b> | <b>10.19</b> | <b>59.20</b>   | <b>69.38</b>    | <b>70.03</b> |

8.4.1 The head-wise expenditure of R&M Expenses in FY 2012-13 and FY 2013-14 has been provided in Form F-4 annexed along with the Petition.

8.4.2 PSTCL requests the Hon'ble Commission to approve the R&M expenses for FY 2012-13 and FY 2013-14 as projected by PSTCL.

## **8.5 Administration and General Expenses**

8.5.1 The Hon'ble Commission in last Tariff Order applied an average annual increase of 7.41% based on available WPI Indices in FY 2012-13 and approved A & G Expenses

of Rs. 13.79 Crore for transmission business for FY 2012-13.

8.5.2 In this regard, it is submitted that so long there is no imprudence in the expenses claimed by the PSTCL, the same may be allowed. The PSTCL ought not to lose on account of such expenses which are essential for the operation of the company.

8.5.3 In the above regard, the Hon'ble Appellate Tribunal's decision in Appeal No. 109 of 2007: MSEDCL v/s MERC dated 17.12.2008 reads as under:

*“Accordingly, we set aside the impugned order passed by the State Commission in respect of Employee Expenses and A&G expenses for the year 2005-06 with the direction to the Commission to approve the said expenses in totality as submitted by the Appellant, as the same being based on actuals.”(Emphasis supplied)*

8.5.4 The Hon'ble Commission did not consider the effect of unbundling of the erstwhile Punjab State Electricity Board, on the expenditure of the successor entities. PSTCL, as a successor entity with an independent function of Transmission, has different business requirements when compared to an entity with integrated functions of Generation, Distribution and Transmission. Further, there is an urgent need of strengthening the Transmission System after the unbundling of the erstwhile Punjab State Electricity Board. Further, PSTCL had incurred A&G expenses which have been disallowed by the State Commission. PSTCL humbly prays the Hon'ble Commission to approve the A&G Expenses as projected by PSTCL for FY 2012-13 and FY 2013-14.

8.5.5 PSTCL has incurred A&G expense of Rs. 7.50 Crore in FY 2012-13 (H1)

8.5.6 PSTCL submits that it has planned to implement SAP-ERP in its Organisation to facilitate planning & optimization of its operations. The implementation of SAP-ERP shall aide faster Data retrieval, Manpower rationalization, & quicker Decision Making. The gain in process & system efficiency is much higher compared to expenditure involved in the implementation and maintenance of ERP. PSTCL has considered an expense of Rs 0.24 Crore in H2 of FY 2012-13 and Rs 0.47 Cr for FY 2013-14, towards consultancy services for implementation of SAP and other initiatives.

8.5.7 PSTCL submits that the security arrangements for vital electrical installations and substations of PSTCL are currently not adequate and needs to be strengthened. A 220

kV sub-station failure, on account of possible security breach can result in grid failure and blackout in the region. Therefore, it is imperative that as a risk mitigation measure, PSTCL is required to strengthen the security of the premises of its various grid sub-stations and stores to ensure uninterrupted power supply in the region.

8.5.8 Considering the criticality of the situation, PSTCL has approved the following norms for number of security personnel for various types of installations

**Table 23: Security Norms**

| Location                        | Security Guards |             | Supervisor |
|---------------------------------|-----------------|-------------|------------|
|                                 | Without Weapon  | With Weapon |            |
| 220 & 132kV Substation          | 4               |             | 1          |
| P&M Store                       | 4               |             | 1          |
| PLC Store                       | 4               |             | 1          |
| S& T Stores (s/s)               | 8               |             | 1          |
| S&T Stores (Transmission Lines) | 8               |             | 1          |
| 400kV S/S                       | 4               | 4           | 1          |
| 400 kV Store                    | 4               |             |            |

8.5.9 Accordingly, PSTCL has projected an expense of Rs 6.85 Crore towards security arrangements of its premises. The security personnel have already been engaged and a proportionate expense of Rs 2.57 Crore has been considered for H2 of FY 2012-13.

8.5.10 PSTCL has considered various expenses like License Fees, Audit Fees, Expenses incurred for security of Substations, ARR and Tariff Petition Fees, Consultancy Charges, Electricity and Water Charges, Lease Rental, Outsourcing expenses, etc., to project A & G Expenses in future.

8.5.11 On account of likely addition of new substations and lines, PSTCL has estimated the A&G expenses on a realistic basis based on the likely expenditure is going to be incurred in FY 2012-13. The Commission is requested to kindly consider the increase in the number of locations being served and catering to higher line length (ckt km) of transmission lines which is the cause of higher projected A & G expenses.

8.5.12 Regulation 28(6) of the Tariff Regulations, 2005 as amended by notification date September 17, 2012 provides as under:

*“O&M expenses excluding employee expenses for gross fixed assets added during the year shall be considered for a period of six months in cases where Commercial*

*Operation Date of the assets is not available otherwise from the date of commissioning on pro-rata basis.”*

8.5.13 PSTCL hereby requests Hon’ble Commission to approve the additional A&G expenses as tabulated below:

**Table 24: A & G Expenses for asset addition during the year (Rs Crore)**

| Particulars  | Notation       | FY 2012-13 | FY 2013-14 |
|--|----------------|------------|------------|
| Opening GFA  | A              | 2,801.05   | 4,343.01   |
| A&G Expenses                                       | B              | 25.10      | 34.72      |
| Average Asset Addition during the year             | C              | 1,541.96   | 1,446.35   |
| Ratio of A&G/Opening GFA                           | D=B/A          | 0.90%      | 0.80%      |
| <b>A&amp;G for Assets Addition during the year</b> | <b>E=D*C/2</b> | 6.91       | 5.78       |

8.5.14 Based on the above discussion, the A & G expenses from FY 2012-13 and FY 2013-14 are tabulated as under:

**Table 25: A & G Expenses for FY 2012-13 and FY 2013-14 (Rs Crore)**

| S. No | Particulars                    | Current Year (FY 2012-13) |       |                |                  |       | Ensuing Year (FY 2013-14) |
|-------|--------------------------------|---------------------------|-------|----------------|------------------|-------|---------------------------|
|       |                                | Last Year Petition        | Order | Actuals for H1 | Estimated for H2 | Total | Projected                 |
| 1     | Rent, rates & taxes            | 1.23                      |       | 0.71           | 0.85             | 1.56  | 1.80                      |
| 2     | Insurance                      | 1.10                      |       | 0.01           | 0.01             | 0.01  | 0.01                      |
| 3     | Telephone, postage & telegrams | 0.49                      |       | 0.19           | 0.23             | 0.43  | 0.49                      |
| 4     | Consultancy fees               | 1.00                      |       | 0.11           | 0.13             | 0.24  | 0.28                      |
| 5     | IT related expenses            | 0.00                      |       | 0.00           | 0.24             | 0.24  | 0.47                      |
| 6     | Technical fees                 | 0.01                      |       | 0.01           | 0.01             | 0.02  | 0.02                      |
| 7     | Other professional charges     | 0.01                      |       | 0.004          | 0.004            | 0.01  | 0.01                      |
| 8     | Conveyance & travel expenses   | 9.07                      |       | 3.21           | 3.85             | 7.07  | 8.13                      |
| 9     | Electricity & water charges    | 0.31                      |       | 0.35           | 0.42             | 0.78  | 0.89                      |

| S. No | Particulars                              | Current Year (FY 2012-13) |              |             |              |              | Ensuing Year (FY 2013-14) |
|-------|--|---------------------------|--------------|-------------|--------------|--------------|---------------------------|
|       |  |                           |              |             |              |              |                           |
| 10    | Others                                   | 2.97                      |              | 1.03        | 1.24         | 2.27         | 2.61                      |
| 11    | Outsourcing Exp. (incl of 400kV)         | 28.31                     |              | 1.56        | 5.31         | 6.87         | 7.89                      |
| 12    | Freight                                  | 0.13                      |              | 0.00        | 0.00         | 0.00         | 0.00                      |
| 13    | Other material related expenses          | 3.04                      |              | 1.22        | 1.46         | 2.68         | 3.08                      |
| 14    | License Fees                             | 0.25                      |              | 0.00        | 0.25         | 0.25         | 0.25                      |
| 15    | ARR Petition Fees                        | 0.25                      |              | 0           | 0.25         | 0.25         | 0.25                      |
| 16    | Lease rental                             | 0.98                      |              | 0.63        | 0.76         | 1.39         | 1.59                      |
| 17    | Auditor's Fees                           | 0.10                      |              | 0           | 0.07         | 0.07         | 0.10                      |
| 18    | Expenses towards Security of Substations | 10.00                     |              | 0           | 2.57         | 2.57         | 6.85                      |
| 19    | <b>Total expenses</b>                    | <b>59.25</b>              |              | <b>9.03</b> | <b>17.65</b> | <b>26.68</b> | <b>34.72</b>              |
| 20    | Less capitalized                         | 2.96                      |              | 1.58        | 0            | 1.58         | 0.00                      |
| 21    | <b>Net expenses</b>                      | <b>56.29</b>              |              | <b>7.45</b> | <b>17.65</b> | <b>25.10</b> | <b>34.72</b>              |
| 22    | Add prior period                         | 0                         |              | 0.05        | 0.00         | 0.05         | 0.00                      |
| 23    | A&G for Assets Addition during the year  | 18.59                     |              | 0           | 6.91         | 6.91         | 5.78                      |
| 24    | <b>Total expenses charged to revenue</b> | <b>74.88</b>              | <b>13.79</b> | <b>7.50</b> | <b>24.56</b> | <b>32.06</b> | <b>40.51</b>              |

8.5.15 PSTCL requests the Hon'ble Commission to approve the A&G expenses for FY 2012-13 and FY 2013-14 as projected by PSTCL.

## 8.6 Summary of O&M Expenses for FY 2012-13 and FY 2013-14

8.6.1 Based on the above discussion, the Operation and Maintenance Expenses are summarized below:

**Table 26: Operation and Maintenance Expenses for FY 2012-13 and FY 2013-14 (Rs Crore)**

| S. No    | Particulars           | FY 2012-13    |               |                |                    | FY 2013-14    |
|----------|-----------------------|---------------|---------------|----------------|--------------------|---------------|
|          |                       | Order         | H1 (Actuals)  | H2 (Projected) | Total<br>(H1 + H2) | Projected     |
| 1        | Net Employee Expenses | 211.12        | 99.15         | 133.35         | 232.49             | 273.22        |
| 2        | Net R&M Expenses      | 68.89         | 10.19         | 59.20          | 69.38              | 70.03         |
| 3        | Net A & G Expenses    | 13.79         | 7.50          | 24.56          | 32.06              | 40.51         |
| <b>4</b> | <b>Total</b>          | <b>293.80</b> | <b>116.84</b> | <b>217.10</b>  | <b>333.94</b>      | <b>383.76</b> |

8.6.2 PSTCL requests the Hon'ble Commission to approve the O&M expenses of PSTCL for FY 2012-13 and FY 2013-14 as submitted above.

## **9 CAPITAL EXPENDITURE AND CAPITALISATION**

9.1.1 The Hon'ble Commission in last Tariff Order approved Capital Expenditure of Rs. Rs. 1100 Crore for FY 2012-13.

9.1.2 One of the major objectives of Tariff Policy is to ensure optimal development of Transmission Network to promote efficient utilization of generation and Transmission assets in the country. The relevant excerpts from National Tariff Policy are reproduced as under:

*“The national transmission network in India is presently under development. Development of the State networks has not been uniform and capacity in such networks needs to be augmented. These networks will play an important role in intra-State power flows and also in the regional and national flows. The tariff policy, insofar as transmission is concerned, seeks to achieve the following objectives:*

- 1. Ensuring optimal development of the transmission network to promote efficient utilization of generation and transmission assets in the country;*
- 2. Attracting the required investments in the transmission sector and providing adequate returns.” (Emphasis Supplied)*

9.1.3 Similarly, National Electricity Policy (NEP) establishes the need for the development of Transmission System in various States for optimal utilization of resources. Clause-



5.3 of National Electricity Policy states as under:

**“5.3 TRANSMISSION**

**5.3.1 *The Transmission System requires adequate and timely investments and also efficient and coordinated action to develop a robust and integrated power system for the country.***

**5.3.2 *Keeping in view the massive increase planned in generation and also for development of power market, there is need for adequately augmenting transmission capacity. While planning new generation capacities, requirement of associated transmission capacity would need to be worked out simultaneously in order to avoid mismatch between generation capacity and transmission facilities. The policy emphasizes the following to meet the above objective:***

- *The Central Government would facilitate the continued development of the National Grid for providing adequate infrastructure for inter-state transmission of power and to ensure that underutilized generation capacity is facilitated to generate electricity for its transmission from surplus regions to deficit regions.*
- *The Central Transmission Utility (CTU) and State Transmission Utility (STU) have the key responsibility of network planning and development based on the National Electricity Plan in coordination with all concerned agencies as provided in the Act. The CTU is responsible for the national and regional transmission system planning and development. The STU is responsible for planning and development of the intra-state transmission system. The CTU would need to coordinate with the STUs for achievement of the shared objective of eliminating transmission constraints in cost effective manner.*
- *Network expansion should be planned and implemented keeping in view the anticipated transmission needs that would be incident on the system in the open access regime. Prior agreement with the beneficiaries would not be a pre-condition for network expansion. CTU/STU should undertake network expansion after identifying the requirements in consultation with stakeholders and taking up the execution after due regulatory approvals.*

... ” (*Emphasis Supplied*)

- 9.1.4 PSTCL being the State Transmission Utility holds the key responsibility of network planning and development in the State of Punjab. The summary of scheme wise Capital Expenditure projected during FY 2012-13 and FY 2013-14 as attached as Annexure I of this Petition is tabulated as under:

**Table 27: Capital Expenditure for FY 2012-13 and FY 2013-14 (Rs. Crore)**

| S. No | Particulars         | FY 2012-13 | FY 2013-14 |
|-------|---------------------|------------|------------|
| 1     | Capital Expenditure | 1,069.69   | 990.18     |
| 2     | Capitalisation      | 1,541.96   | 1,446.35   |

## 9.2 Funding Pattern

- 9.2.1 Regulation 23 of ‘The Punjab State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2005’ states that

*“DEBT-EQUITY RATIO*

*For the purpose of determination of tariff, debt-equity ratio in case of a new project commencing after the date of notification of these Regulations shall be 70:30. Where equity employed is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30% and the balance amount shall be considered as loan. Where actual equity employed is less than 30%, the actual debt and equity shall be considered for determination of tariff.*

*Provided that the Commission may, in appropriate cases, consider equity higher than 30% for the purpose of determination of tariff, where the generating company or the licensee is able to establish to the satisfaction of the Commission that deployment of equity more than 30% is in the interest of the general public;*

*In case of existing and ongoing projects, the actual debt-equity ratio shall be considered for determination of tariff. However, any expansion shall be governed as per clause (1) above.”*

- 9.2.2 PSTCL has considered the Capital Expenditure to be undertaken during FY 2012-13 and FY 2013-14 will be funded through debt from financial institutions with interest rate of 12.5%, as approved by Hon’ble Commission in its previous Orders.

- 9.2.3 The funding pattern during FY 2012-13 and FY 2013-14 is tabulated below:

**Table 28: Funding Pattern during FY 2012-13 and FY 2013-14 (Rs Crore)**

| S. No | Particulars                   | FY 2012-13 | FY 2013-14 |
|-------|-------------------------------|------------|------------|
| 1     | Capital Expenditure during FY | 1,069.69   | 990.18     |
| 2     | Consumer Contribution         | 9.56       | 8.60       |
| 3     | Equity                        | 0.00       | 0.00       |
| 4     | Debt                          | 1,060.13   | 981.58     |

### 9.3 Depreciation

- 9.3.1 The Hon'ble Commission in its last Tariff Order approved depreciation of Rs. 147.90 Crore on Opening GFA by applying rate of 5.28% as considered by PSTCL in its Petition. The Commission did not approve depreciation on assets added during the respective Financial Year.
- 9.3.2 Accounting Standard-6: Clause 3 defines depreciation, depreciable assets, useful life and depreciable amount as below:

*“3.1 Depreciation is a measure of the wearing out, consumption or other loss of value of a depreciable asset arising from use, effluxion of time or obsolescence through technology and market changes. Depreciation is allocated so as to charge a fair proportion of the depreciable amount in each accounting period during the expected useful life of the asset. Depreciation includes amortization of assets whose useful life is predetermined.*

*3.2 Depreciable assets are assets which*

- a. are expected to be used during more than one accounting period; and*
- b. have a limited useful life and*
- c. are held by an enterprise for use in the production or supply of goods and services, for rental to other, or for administrative purposes and not for the purpose of sale in the ordinary course of business*

*3.3 Useful life is either (i) the period over which a depreciable asset is expected to be used by the enterprise; or (ii) the number of production or similar units expected to be obtained from the use of the asset by the enterprise.*

*3.4 Depreciable amount of a depreciable asset is its historical cost, or other amount substituted for historical cost in the financial statement, less the estimated residual value.”*

9.3.3 Hon’ble Appellate Tribunal’s Ruling in Appeal No. 137 of 2008- TPC v/s MERC dated 15.7.2009:

*“In view of the provisions of the Tariff Regulations the Companies Act and the Accounting Standard-6, we find full justification and rationale in the contention of the appellant that proportionate depreciation has to be allowed even for part of the year when the assets have been put to use. The asset once put to use will be exposed to wear and tear which will not wait to depreciate till the start of the new financial year. We, therefore, allow the appeal in this view of the matter also.”*

9.3.4 It is humbly submitted to the Hon’ble Commission, it is expected that huge assets will be put to use during the FY 2012-13 and FY 2013-14 as compared to the previous years and any denial for depreciation on the assets added during the year would have adverse impact on the Petitioner. Accordingly, PSTCL has claimed depreciation on the assets added during the year by assuming that the assets will be added during the mid of the year. For the purpose of claiming depreciation, PSTCL has considered the rate of 5.28% on the basis of the depreciation schedule provided in Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 and the same considered by the Commission in the Tariff Order.

9.3.5 The depreciation as calculated by PSTCL from FY 2012-13 and FY 2013-14 is tabulated as under:

**Table 29: Depreciation for FY 2012-13 and FY 2013-14 (Rs Crore)**

| S.No | Particulars                                  | Notation          | FY 2012-13    | FY 2013-14    |
|------|--|-------------------|---------------|---------------|
|      |  |                   | Estimated     | Projected     |
| 1    | <b>Depreciation</b>                          | <b>A= (B+D)/2</b> | <b>188.60</b> | <b>267.49</b> |
| 2    | Opening GFA                                  | B                 | 2801.05       | 4343.01       |
| 3    | Assets additions during the Year             | C                 | 1541.96       | 1446.35       |
| 4    | Closing GFA                                  | D=B+C             | 4343.01       | 5789.36       |
| 5    | Depreciation as % of Opening and Closing GFA | E                 | 5.81%         | 6.16%         |

#### **9.4 Interest and Finance Charges**

9.4.1 The Hon’ble Commission in last Tariff Order approved Interest of 244.85 Crore corresponding to the capital expenditure approved during FY 2012-13.

- 9.4.2 The Hon'ble Commission disallowed the interest of Rs. 24.39 Crore on account of diversion of capital funds for FY 2012-13 and FY 2013-14. However, PSTCL did not claim any interest as being payable to the Government of Punjab.
- 9.4.3 PSTCL has considered the addition of loan based on the funding requirement as discussed earlier in this Chapter.
- 9.4.4 PSTCL has applied the rate of interest based on the existing loans at 11.09% (weighted average interest rate)
- 9.4.5 PSTCL has considered new loans added during H1 of FY 2012-13 and FY 2013-14 at 12.5% p.a. from REC.
- 9.4.6 The interest expenses computation for FY 2012-13 and FY 2013-14 is tabulated as under:

**Table 30: Interest for FY 2012-13 and FY 2013-14 (Rs Crore)**

| S.No      | Particulars  | FY 2012-13    |               | FY 2013-14    |
|-----------|--|---------------|---------------|---------------|
|           |  | Order         | Estimated     | Projected     |
| 1         | Opening Balance                                      | 1,716.05      | 1,623.23      | 2,537.67      |
| 2         | Loan addition during FY                              | 1,100.00      | 1,060.13      | 981.58        |
| 3         | Loan Repayment during FY                             | 127.69        | 145.70        | 150.04        |
| 4         | Closing Balance                                      | 2,688.36      | 2,537.67      | 3,369.21      |
| 5         | Interest Expenses                                    | 279.23        | 241.36        | 364.84        |
| 6         | Less: Interest Capitalised                           | 9.99          | 40.00         | 10.00         |
| 7         | Interest disallowed on account of diversion of funds | 24.39         | 0.00          | 0.00          |
| <b>8</b>  | <b>Net Interest</b>                                  | <b>244.85</b> | <b>201.36</b> | <b>354.84</b> |
| <b>9</b>  | <b>Rate of Interest</b>                              | <b>12.68%</b> | <b>12.50%</b> | <b>12.50%</b> |
| <b>10</b> | <b>Guarantee Charges payable/paid to PB. Govt.</b>   |               | 4.00          | 4.00          |
| <b>11</b> | <b>Interest &amp; Finance Charges</b>                | <b>244.85</b> | <b>205.36</b> | <b>358.84</b> |

## 9.5 Return on Equity (ROE)

- 9.5.1 The Commission in last Tariff Order approved Return on Equity of Rs. 50.92 Crore for FY 2012-13.
- 9.5.2 PSTCL filed a petition for review of the Tariff Order of FY 2012-13 on the question of ROE which has been dismissed by the Hon'ble Commission in their order dated 10.10.2012. The Hon'ble Commission has held that the ROE cannot be grossed up and the tax is to be allowed as expenditure separately. The decision of the Hon'ble

Commission is contrary to the decision of the Hon'ble Appellate Tribunal in Appeal No. 76 of 2011.

9.5.3 PSTCL has considered the same opening Equity base of Rs. 328.50 Crore as approved by the Commission in last Tariff Order for calculation of Return on Equity.

PSTCL has considered the equity approved by the Hon'ble Commission. The return on equity has been considered as 22.95% (15.5% RoE grossed up by Income Tax rate of 32.45%) in accordance with PSERC Tariff Regulations, 2005. The Return on Equity as calculated by PSTCL from FY 2012-13 to FY 2013-14 is tabulated below:

**Table 31: Return on Equity for FY 2012-13 and FY 2013-14 (Rs Crore)**

| S. No | Particulars   | Current Year (FY 2012-13) |           | Ensuing Year (FY 2013-14) |
|-------|---|---------------------------|-----------|---------------------------|
|       |   | Order                     | Projected | Projected                 |
| 1     | Opening Balance-Equity Capital                            | 328.50                    | 328.50    | 328.50                    |
| 2     | Equity addition during the year through Internal Accruals | 0.00                      | 0.00      | 0.00                      |
| 3     | Closing balance-Equity Capital                            | 0.00                      | 328.50    | 328.50                    |
| 4     | Return on Equity  | 50.92                     | 75.38     | 75.38                     |
| 5     | ROE rate (%)  | 15.50%                    | 22.95%    | 22.95%                    |

9.5.4 Hence, for the projection purposes for FY 2012-13 and FY 2013-14, PSTCL has grossed up the RoE by applicable income tax rate of 32.445% to cover its Income Tax liability

## **9.6 Interest on Working Capital**

9.6.1 The Commission in last Tariff Order approved interest on working capital as Rs. 25.15 Crore in FY 2012-13. The Commission applied the rate of 13% for calculating Interest on Working Capital.

### **Normative Interest on Working Capital:**

9.6.2 Regulation-30 of PSERC Amended Tariff Regulations 2012 states as under:

*“Amendment of Regulation 30- Working Capital & Interest rate on Working Capital Regulation 30 shall be substituted as under:-*

*(1) For transmission licensee (s) and SLDC, the working capital shall be the sum of the following:*

(i) *Operation and Maintenance expenses for one month*

(ii) *Receivables equivalent to two months*

(iii) *Maintenance spares @ 15% of Operation and Maintenance expenses”*

...

(5) *The rate of interest on working capital shall be equal to the actual rate of interest paid/ payable on loans by the licensee (s) or the State Bank of India Advance Rate as on April 1 of the relevant year, whichever is lower. The interest on working capital shall be payable on normative basis notwithstanding that the licensee (s) has not taken working capital loan from any outside agency or has exceeded the working capital loan amount worked out on the normative figures*

9.6.3 PSTCL has calculated Interest on working capital in accordance with Regulation 30 of the PSERC Amended Tariff Regulations 2012. PSTCL has considered the following:

- a) Receivables equivalent to two months of fixed cost
- b) Maintenance Spares @ 15% of operation and maintenance expenses
- c) Operation and Maintenance Expenses for one month.
- d) PSTCL has considered an interest rate of 14.75% for calculating Interest on Working Capital in FY 2012-13 and FY 2013-14 considering State Bank of India Advance Rate as on April 1, 2012.

9.6.4 The interest on Working Capital in accordance with the above Regulation is tabulated below:

**Table 32: Interest on Working Capital for FY 2012-13 and FY 2013-14 (Rs Crore)**

| S.No | Particulars  | FY 2012-13 |           | FY 2013-14 |
|------|--|------------|-----------|------------|
|      |  | Order      | Projected | Projected  |
| 1    | Receivables equivalent to two months of fixed cost.            | 124.93     | 133.55    | 201.23     |
| 2    | Maintenance spares @ 15% of Operation and Maintenance expenses | 44.07      | 50.09     | 57.56      |

| S.No     | Particulars                                       | FY 2012-13   |              | FY 2013-14   |
|----------|---|--------------|--------------|--------------|
| 3        | Operation and Maintenance expenses for one month. | 24.48        | 27.83        | 31.98        |
| 4        | Total Working Capital                             | 193.48       | 211.46       | 290.78       |
| 5        | Rate of Interest applied                          | 13.00%       | 14.75%       | 14.75%       |
| <b>6</b> | <b>Interest on Working Capital</b>                | <b>25.15</b> | <b>31.19</b> | <b>42.89</b> |

## 9.7 Non-Tariff Income

9.7.1 PSTCL has received an amount of Rs 4.55 Crore and the same has been considered Non-Tariff Income during FY 2012-13 (H1). Further, an amount of Rs 1.21 Crore is expected to be received from various sources, which has been considered for H2.

9.7.2 With regards to projection of Non-Tariff Income during FY 2013-14, PSTCL would like to submit that an amount of Rs. 2.66 Crore is estimated.

9.7.3 The estimates of Non-Tariff Income amount are projected below:

**Table 33: Non-Tariff Income (Rs Crore)**

| S. No | Particulars       | FY 2012-13 |      |      |       | FY 2013-14 |
|-------|-------------------|------------|------|------|-------|------------|
|       |                   | Order      | H1   | H2   | Total | Projected  |
| 1     | Non-Tariff Income | 13.05      | 4.55 | 1.21 | 5.76  | 2.66       |

## 10 AGGREGATE REVENUE REQUIREMENT

10.1.1 Based upon the above discussion on projection of expenses on various heads, PSTCL has calculated the ARR for FY 2012-13 and FY 2013-14 which is tabulated below:

**Table 34: ARR for FY 2012-13 and FY 2013-14**

| S. No | Particulars    | Transmission Business |        |           |            |
|-------|----------------|-----------------------|--------|-----------|------------|
|       |                | FY 2012-13            |        |           | FY 2013-14 |
|       |                | Last Year Petition    | Order  | Estimated | Projected  |
| 1     | Employee costs | 310.00                | 211.12 | 232.49    | 273.22     |
| 2     | R&M expenses   | 120.12                | 68.89  | 69.38     | 70.03      |
| 3     | A&G expenses   | 74.89                 | 13.79  | 32.06     | 40.51      |
| 4     | Depreciation   | 193.41                | 147.90 | 188.60    | 267.49     |



| S. No     | Particulars                                     | Transmission Business |               |               |                 |
|-----------|---|-----------------------|---------------|---------------|-----------------|
|           |   | FY 2012-13            |               |               | FY 2013-14      |
|           |   | Last Year<br>Petition | Order         | Estimated     | Projected       |
| 5         | Interest charges                                | 251.58                | 244.85        | 205.36        | 358.84          |
| 6         | Interest on Working<br>Capital                  | 42.14                 | 25.15         | 31.19         | 42.89           |
| 7         | Return on Equity                                | 110.01                | 50.92         | 75.38         | 75.38           |
| 8         | Less: Non Tariff<br>Income                      | 0.00                  | 36.98         | 5.76          | 2.66            |
| <b>9</b>  | <b>Aggregate Revenue<br/>Requirement</b>        | <b>1,102.15</b>       | <b>725.64</b> | <b>828.71</b> | <b>1,125.70</b> |
| 10        | Revenue Gap Carry<br>forward                    | 250.66                | 75.80         | 75.80         | 81.71           |
| <b>11</b> | <b>Cumulative Revenue<br/>Requirement</b>       | <b>1,352.81</b>       | <b>801.44</b> | <b>904.51</b> | <b>1,207.41</b> |
| <b>12</b> | <b>Revenue from Tariff<br/>&amp; OA Charges</b> | <b>0.00</b>           | <b>801.44</b> | <b>833.31</b> | <b>1,207.41</b> |
| 13        | <b>Revenue Gap</b>                              | <b>0.00</b>           | <b>0.00</b>   | <b>71.20</b>  | <b>0.00</b>     |

10.1.2 PSTCL requests the Hon'ble Commission to consider the justification given by PSTCL and approve the ARR for FY 2012-13 and FY 2013-14 as shown in the table above.

## **11 PAYMENT SECURITY MECHANISM**

11.1.1 The Hon'ble Commission in its Order dated 16.07.2012 approved the Payment security Mechanism as under:

*“In the light of the above, the Commission reiterates its direction to PSTCL to coordinate with PSPCL to collect Inter-state transmission charges. Further, the Commission has directed PSPCL in Tariff Order for FY 2012-13 for providing an irrevocable and revolving Letter of Credit (LC) to PSTCL for Intra-State Transmission Charges.”*

11.1.2 PSTCL submits to the Hon'ble Commission that as per the revised guidelines/instructions issued in the matter of payment of **inter-state transmission charges**, the same is payable directly by PSPCL to PGCIL and PSPCL is also required to open Letter of Credit directly in favour of PGCIL. As such PSTCL is no more involved in such transactions.



11.1.3 PSTCL, therefore, prays to the Hon'ble Commission to continue with the same Payment Security Mechanism in respect of payment of **intra-state transmission charges** during FY 2013-14 as mentioned in their Tariff order dated 16.7.2012 for FY 2013-14.

## **12 SLDC OPERATION CHARGES**

### **12.1 Background**

- 12.1.1 Section 31(1) of the Electricity Act, 2003, provides that the State Government shall establish a State Load Despatch Centre (SLDC). Section 31(2) provides that the said SLDC shall be operated by a Government company / authority / corporation constituted by or under any State Act and that until such company / authority / corporation is notified by the State Government, the State Transmission Utility (STU) shall operate the SLDC.
- 12.1.2 Government of Punjab, Department of Power vide Notification No. 1/9/08-EB(PR)/196 dated 16.4.2010 issued the Punjab Power Sector Reforms Transfer Scheme, 2010 and have notified Punjab State Transmission Corporation Ltd. (PSTCL) as the State Transmission Utility (STU) and have vested the State Load Despatch functions with PSTCL till further orders of the State Government from the date of transfer.
- 12.1.3 As per Section 32 of the Act, SLDC shall be the apex body to ensure integrated operation of the power system in a State and shall discharge functions as mentioned under Section 32(2) (a) (b) (c) (d) & (e).
- 12.1.4 Section 32 (3) of the Act provides for levy and collection of such fees and charges from the Generating companies and other licensees engaged in the Intra State transmission of electricity as may be specified by the State Commission.
- 12.1.5 Section 32 (3) of the Act provides for levy and collection of such fees and charges from the Generating companies and other licensees engaged in the Intra State transmission of electricity as may be specified by the State Commission.

### **12.2 Tariff filing for FY 2012-13**

- 12.2.1 On 29.11.2011, the PSTCL filed a Petition bearing Petition No. 67 of 2011 before the Hon'ble Commission for approval of Aggregate Revenue Requirement and determination of Tariff for financial year 2012-13 for the transmission and State Load Dispatch functions. PSTCL had also filed the revised estimates of the costs/expenses and revenue pertaining to the transmission function for the previous financial year 2011-12 (including SLDC function) for review.

12.2.2 In the absence of the opening Balance Sheet, the above was based on the assumptions as discussed earlier in this petition.

12.2.3 By the Order dated 16.07.2012, the Hon'ble Commission had decided the following:

- i) Review of Aggregate Revenue Requirement of Transmission and State Load Dispatch activities for financial year 2011-12 approved by the Hon'ble Commission;
- ii) Aggregate Revenue Requirement and Transmission Charges for the Appellant for financial year 2012-13; and
- iii) Aggregate Revenue Requirement and SLDC Charges for Financial Year 2012-13.

### **12.3 Intra-State Boundary Metering**

12.3.1 To meet with the SGC stipulations, PSTCL has also ordered Intrastate Boundary Metering cum Transmission Level Energy Audit Scheme and major work in this respect is expected to be completed by March 2013. Remaining works under this scheme shall be completed during FY 2013-14. With the commissioning of this scheme PSTCL will be able to monitor Grid losses(line wise, bus bar wise and transformer wise)and other required grid parameters from revenue class energy meters (ABT as well as conventional energy meters) along with numerous types of reports, and complete energy audit at transmission level.

12.3.2 PSTCL submits that it has taken the necessary steps to install energy meters at various 220 kV and 132 kV substations.

### **12.4 ULDC Scheme**

12.4.1 SLDC/ PSTCL have set up SCADA/EMS control centre at Ablowal/ Patiala under ULDC (Unified Load Dispatch & Communication) Scheme implemented by PGCIL for all the constituents of NR Grid in unified manner, since 2002. The SCADA/ EMS in Punjab consist of control centres at SLDC, Ablowal, and Sub-SLDC at Laltonkalan & Jamsher. Initially all the important substations & generating plants in erstwhile PSEB were covered by providing RTUs (Remote Terminal Units) under the scheme as well as by integrating the already provided RTUs in erstwhile PSEB under Interim SCADA scheme (which was operational during pre-2002 period) and subsequently the system was augmented by providing more RTUs for covering more substations by

- providing additional RTUs as and when required.
- 12.4.2 The initial expenditure made by PGCIL for implementation the scheme is being recovered by it, from SLDC/ PSTCL as ULDC Charges (for erstwhile PSEB portion, Central sector portion proportional to Punjab's allocation in ISGS plants & BBMB portion proportional to Punjab's share in its generation) in monthly instalments as per CERC orders amounting to Rs. 9.5 Crore for FY 2012-13 & Rs. 10 Crore for FY 2013-14. This recovery is to continue tentatively till FY 2016-17.
- 12.4.3 The existing SCADA/ EMS control centres are being upgraded by PGCIL under unified scheme called ULDC Phase-II, which also envisages a backup control centre for disaster recovery purpose along with better/ upgraded user interface tools/ reports, PMU (Phase Measurement Units) integration, etc. The project has been awarded by PGCIL to M/s Siemens and likely to be commissioned during FY 2013-14. An amount Rs. 5 Crore shall be required to be paid to PGCIL during FY 2013-14.

## **12.5 RTUs addition/ replacement:**

- 12.5.1 To further augment the ULDC scheme, 47 No. more RTUs are already ordered for covering 41 Nos. left out/ upgraded/ new 220kV level substations in PTSCIL and 6 Nos. RTUs for cannibalizing the existing RTUs (of different makes) for spares. Out of 47 Nos RTUs it is expected that 25 Nos RTU will be commissioned by this year end (2012-13) and remaining 22 will be commissioned by June 2013. With commissioning of these 41 RTUs at left out/ upgraded/ new 220kV substations there shall be a total of 90 substations ( 49 No. previous plus 41 No. under present order) which shall be covered.
- 12.5.2 Out of Rs. 6.00 Crore, expenditure amounting to Rs 2.50 Crore is expected during FY 2012-13, Rs 3.50 Cr is expected during FY 2013-14 and thereafter around Rs 10 lakh every year shall be payable for extended warranty cum Maintenance support for 10 years and for this purpose during FY 2013-14, an amount of Rs 4.50 lakh shall be required.
- 12.5.3 SLDC/ PSTCL is going ahead with procurement of more RTUs to cover left out 132kV & new 220kV (if any) substations in PSTCL as well as replacement of old technology and/ or non-performing/ un-maintainable/ aged RTUs. The tender will be floated soon. This work is expected to be completed by during FY 2013-14 and accordingly an amount of Rs. 9 Crore shall be required during FY 2013-14 along with

O&M Charges in subsequent years.

## 12.6 Basis of Projection of the Present Petition

12.6.1 State Load Despatch Centre in Punjab has started working independently since FY 2011-12. SLDC of Punjab is at nascent stage of being established as an independent unit. This Section covers the projections of expenses against various components of ARR for FY 2012-13 against approved figures of PSERC in its last Tariff Order and for FY 2013-14 for the SLDC business. The expenses against various components of ARR for FY 2012-13 (H2) and for FY 2013-14 have been projected on the basis of expenses incurred during FY 2012-13(H1).

## 13 OPERATION AND MAINTENANCE EXPENSES

13.1.1 The Hon'ble Commission vide notification dated 17<sup>th</sup> September 2012, amended the Regulation 28 of the Tariff Regulations 2005 with respect to the approval of O&M Expenses for the licensee.

3.1.2 The amended Regulation 28 reads as under:

*“(2) O&M expenses for distribution licensee (s) shall be determined by the Commission as follows : (a) O&M expenses as approved by the Commission for the year 2011-12 (true up) shall be considered as base O&M expenses for determination of O&M expenses for subsequent years. (b) Base O&M expenses (except employee cost) as above shall be adjusted according to variation in the average rate (on monthly basis) of Wholesale Price Index (all commodities) over the year to determine the O&M expenses for subsequent years. Provided that any expenditure on account of license fee, initial or renewal, fees for determination of tariff and audit fee shall be allowed on actual basis over and above the A&G expenses approved by the Commission. (c) In case of a new distribution licensee (s), the Commission shall make suitable assessment of base O&M expenses of the new licensee (s) and allow O&M expenses for subsequent years for the new licensee (s) on the basis of such estimation and principle as given in clause (b) above. However, for employee cost the principle specified in clause (3) below will be followed.*

*(3) The employee cost for a distribution licensee (s) shall be determined as follows: (a) The employee cost as claimed by the distribution licensee (s)*

*shall be considered in two parts:*

*(i) Terminal benefits such as Death-cum-Retirement Gratuity, Pension, Commuted Pension, Leave Encashment, LTC, Medical reimbursement including fixed medical allowance in respect of pensioners and share of BBMB employee expenses and (ii) all other expenses accounted for under different sub-heads of employee cost taken together. The cost component of terminal benefits and BBMB expenses shall be allowed on actual basis and increase in all other expenses under different sub-heads shall be limited to the increase in Wholesale Price Index (all commodities) as per clause (2) (b) above. (b) Exceptional increase in employee cost on account of pay revision etc. shall be considered separately by the Commission. (c) The additional employee cost in case of New installations/Network for the year of installation shall be considered separately by the Commission on case to case basis keeping in view the principles and methodologies enunciated in these regulations.*

*(4) (a) The O&M expenses (except employee cost) for transmission licensee (s) shall be allowed as per the provisions given in clause (2) above. The employee cost shall however, be determined keeping in view the provisions contained in clause (3). (b) In case of a new transmission licensee (s), the Commission shall make suitable assessment of base O&M expenses of the new licensee (s) and allow O&M expenses for subsequent years for the new licensee (s) on the basis of such estimation and principle as given in clause (2)(b) above. However, for employee cost the principle specified in clause (3) above will be followed.*

*(5) (a) For the determination of O&M expenses (except employee cost) for generating company, the Commission shall allow O & M expenses (except employee cost) in accordance with Clause (2). The employee cost will, however, be determined keeping in view the provisions contained in Clause (3). (b) In case of a new generating company (s), the Commission shall make suitable assessment of base O&M expenses of the new licensee (s) and allow O&M expenses for subsequent years for the new licensee (s) on the basis of such estimation and principle as given in Clause (2)(b) above. However, for employee cost the principle specified in Clause (3) above will be followed.*

*(6) O&M expenses excluding employee expenses for gross fixed assets added during the year shall be considered for a period of six months in cases where Commercial Operation Date of the assets is not available otherwise from the*

*date of commissioning on pro-rata basis.*

*(7) O&M expenses excluding employees cost for a Company/ licensee (s) performing generation and/or distribution & trading functions shall be determined by the Commission on the norms and principles indicated at clause (2) above.*

*The employee cost will, however, be determined keeping in view the provisions contained in Clause (3).*

*(8) O&M expenses of assets taken on lease/hire-purchase and those created out of the consumers' contribution, shall be considered in case the generating company or the licensee has the responsibility for its operation and maintenance and bears O&M expenses.*

13.1.3 As mentioned above, the trued-up O&M Expenses for FY 2011-12 shall be considered as the base for approval in subsequent years. However, audited Annual Accounts are not yet available so, PSTCL has projected its O&M Expenses for SLDC as explained in the following sections.

### **13.2 Employee Expenses**

13.2.1 The Hon'ble Commission in its Order dated July16, 2012 has approved a total employee costs of Rs. 4.54 crore for SLDC for FY 2012-13.

13.2.2 The Hon'ble Commission has approved the other employee costs for FY 2012-13, based on the average WPI increase of 7.4% available for 9 months of the previous year (April 2011 to December, 2011). It approved the other employee cost of Rs. 2.94 crore for SLDC for FY 2012-13.

13.2.3 The Hon'ble Commission further ascertained Rs 1.06 Crore against the head of terminal benefit covered under the employee costs for FY 2012-13 for the SLDC business. However, the Commission did not provide the employee costs for the new employees to be considered during FY 2012-13. The Hon'ble Commission therefore, approved **the total employee cost of Rs. 4.54 (1.06+2.94+0.54) Crore for FY 2012-13 for the SLDC.**

### **Present Petition**

13.2.4 The actual employee expenses of SLDC in its present Petition have been divided in four heads:



- a) Terminal Benefits
- b) Expenses on account of arrears
- c) Other Employee Expenses (Salary and Allowances, etc)

**a) Terminal Benefits**

13.2.5 The Terminal Benefits includes Gratuity, Basic Pension and Other Terminal Benefits. During FY 2012-13 (H1), SLDC incurred expense of Rs. 0.35 Crore and Rs 0.02 Crore on account of Terminal Benefits and Pension Payments respectively. Based on the past trend and H1 figures for FY 2012-13, SLDC has estimated Terminal Benefits for FY 2012-13 and total estimates of FY 2012-13 as a base for projecting expenses for FY 2013-14.

13.2.6 SLDC has projected expenses related to leave encashment of Rs 0.29 Crore and Rs 0.40 Crore for H2 of FY 2012-13 and FY 2013-14 respectively.

13.2.7 SLDC has projected expenses related to gratuity payment of Rs 0.40 Crore and Rs 0.52 Crore for H2 of FY 2012-13 and FY 2013-14 respectively.

13.2.8 The pension payments for H2 of FY 2012-13 have been estimated to be Rs 0.05 Crore. For ensuing year FY 2013-14, pension payments projection of Rs. 0.09 Crore has been considered.

13.2.9 SLDC has considered Rs 1.1 Crore towards terminal benefits for H2 of FY 2012-13. For FY 2013-14, the amount considered for terminal benefits works out to Rs 1.39 Crore for FY 2013-14.

**Table 35: Terminal Benefits for FY 2012-13 and FY 2013-14 (Rs Crore)**

| Particulars              | FY 2012-13  |              |             | FY 2013-14  |
|--------------------------|-------------|--------------|-------------|-------------|
|                          | H1 Actuals  | H2 Estimates | Total       | Projected   |
| <b>Terminal Benefits</b> |             |              |             |             |
| Leave encashment         | 0.11        | 0.29         | 0.40        | 0.40        |
| Gratuity                 | 0.17        | 0.40         | 0.57        | 0.52        |
| Commutation of Pension   | 0.07        | 0.41         | 0.48        | 0.47        |
| <b>Sub-total</b>         | <b>0.35</b> | <b>1.10</b>  | <b>1.45</b> | <b>1.39</b> |
| <b>Pension Payments</b>  |             |              |             |             |
| Basic Pension            | 0.02        | 0.05         | 0.07        | 0.09        |

| Particulars        | FY 2012-13  |             |             | FY 2013-14  |
|--------------------|-------------|-------------|-------------|-------------|
|                    |             |             |             |             |
| Any other expenses | 0.00        | 0.00        | 0.00        | 0.00        |
| <b>Sub-total</b>   | <b>0.02</b> | <b>0.05</b> | <b>0.07</b> | <b>0.09</b> |
| <b>Total</b>       | <b>0.37</b> | <b>1.15</b> | <b>1.52</b> | <b>1.48</b> |

**b) Expenses on account of arrears**

13.2.10 SLDC has considered salary arrears of Rs 0.65 Crore in H2 of FY 2012-13. The same amount has been considered towards salary arrears for FY 2013-14.

13.2.11 The status of number of employees at the beginning of the year and the number of employees to be added during the respective years are tabulated as under:

**Table 36: Number of Employees**

| S. No | Particulars  | FY 2012-13 (Current Year) |        | FY 2013-14 (Ensuing Year) |
|-------|--|---------------------------|--------|---------------------------|
|       |  | Petition                  | Actual | Projected                 |
| 1     | Number of employees with PSEB / PSTCL-SLDC as on 1st April | 86                        | 79     | 93                        |
| 2     | Number of employees retired/retiring during the year       | 7                         | 4      | 8                         |
| 3     | Number of employees added during the year                  | 14                        | 18     | 8                         |
| 4     | Number of employees at the end of the year                 | 93                        | 93     | 93                        |

13.2.12 SLDC has projected its employee expenses based on the actual employee costs incurred by it during the month of September 2012.

13.2.13 For H1, it has considered the actual expenses incurred by it during the first six months of the FY 2012-13.

13.2.14 Based on the above discussion, the employee expenses for FY 2012-13 and FY 2013-14 are tabulated as under:

**Table 37: Employee Expenses (Rs Crore) for FY 2012-13 and FY 2013-14**

| S. No    | Particulars                        | FY 2012-13  |              |                |             | FY 2013-14   |
|----------|------------------------------------|-------------|--------------|----------------|-------------|--------------|
|          |                                    | Order       | H1 (Actuals) | H2 (Estimated) | Total       | Projected    |
| 1        | Terminal Benefits                  | 1.01        | 0.35         | 1.10           | 1.45        | 1.39         |
| 2        | Arrears on account of pay revision | 0.54        | 0.00         | 0.65           | 0.65        | 0.65         |
| 3        | Other Employee Expenses            | 2.99        | 2.75         | 4.17           | 6.91        | 8.50         |
| <b>4</b> | <b>Total Employee Expenses</b>     | <b>4.54</b> | <b>3.10</b>  | <b>5.92</b>    | <b>9.01</b> | <b>10.54</b> |

### 13.3 Repairs & Maintenance Expenses

13.3.1 The Hon'ble Commission in last Tariff Order dated July 16, 2012 applied an average annual increase of 7.40% based on available WPI Indices in FY 2012-13 and approved R&M Expenses of Rs. 0.18 Crore for SLDC for the same year.

13.3.2 As against the R&M requirement of Rs. 3.19 Crore, the Hon'ble Commission has allowed only Rs. 0.18 Crore for FY 2012-13.

13.3.3 SLDC has incurred an expense of Rs. 0.87 Crore in FY 2012-13 (H1) and the balance expenditure proposed to be incurred by 31.03.2013. SLDC is envisaging an R&M expenditure of Rs. 8.16 Crore for FY 2013-14, considering the new assets to be added during FY 2013-14.

13.3.4 The R&M expenses on account of Opening GFA during FY 2012-13 and FY 2013-14 is tabulated below:

**Table 38: R&M Expenses (Rs Crore) for FY 2012-13 and FY 2013-14**

| S. No | Particulars                          | Current Year (FY 2012-13) |                |                  |             | Ensuing Year (FY 2013-14) |
|-------|--------------------------------------|---------------------------|----------------|------------------|-------------|---------------------------|
|       |                                      | Order                     | Actuals for H1 | Estimated for H2 | Total       | Projected                 |
| 1     | Plant & machinery                    |                           | 0.85           | 1.37             | 2.22        | 3.00                      |
| 2     | Building/Renovation of SLDC Building |                           | 0.01           | 0.01             | 0.02        | 0.03                      |
| 3     | Vehicles                             |                           | 0.01           | 0.05             | 0.05        | 0.06                      |
| 4     | Furniture & fixtures                 |                           | 0.00           | 0.005            | 0.01        | 0.01                      |
| 5     | Office Equipment                     |                           | 0.00           | 0.02             | 0.02        | 0.02                      |
| 6     | <b>Sub-Total</b>                     | <b>0.18</b>               | <b>0.87</b>    | <b>1.45</b>      | <b>2.32</b> | <b>3.12</b>               |

13.3.5 The Amended Regulation 28, notified by the Hon’ble Commission on 17 September-2012 provides as under:

*“O&M expenses excluding employee expenses for gross fixed assets added during the year shall be considered for a period of six months in cases where Commercial Operation Date of the assets is not available otherwise from the date of commissioning on pro-rata basis.”*

13.3.6 In line with the above Regulation, SLDC has claimed additional R&M expenses, on the basis of asset addition during the year, as tabulated below:

**Table 39: Additional R&M Expenses for asset addition during the year (Rs Crore)**

| Particulars                               | Notation | FY 2012-13  | FY 2013-14  |
|---|----------|-------------|-------------|
| Asset Addition during the year            | A        | 11.38       | 18.40       |
| % claimed on asset addition               | B        | 30.98%      | 27.41%      |
| R & M for Assets Addition during the year | C=A*B    | <b>1.76</b> | <b>5.04</b> |

13.3.7 Based on the above discussion, the R&M expenses from FY 2012-13 to FY 2013-14 are tabulated as under:

**Table 40: R&M Expenses for FY 2012-13 and FY 2013-14 (Rs Crore)**

| S. No    | Particulars                                    | FY 2012-13  |              |                | FY 2013-14  |
|----------|--|-------------|--------------|----------------|-------------|
|          |  | Order       | H1 (Actuals) | H2 (Projected) | Projected   |
| 1        | R & M Expenses                                 |             | 0.87         | 1.45           | 3.12        |
| 2        | R & M Expenses on assets added during the Year |             | 0.00         | 1.76           | 5.04        |
| <b>3</b> | <b>Net R &amp; M Expenses</b>                  | <b>0.18</b> | <b>0.87</b>  | <b>3.21</b>    | <b>8.16</b> |

13.3.8 The head-wise expenditure of R&M Expenses in FY 2012-13 and FY 2013-14 has been provided in Form F-3 annexed along with the Petition.

13.3.9 SLDC requests the Hon’ble Commission to approve the R&M expenses as submitted

for FY 2012-13 and FY 2013-14.

### 13.4 Administration and General Expenses

13.4.1 The Hon'ble Commission in last Tariff Order applied an average annual increase of 7.41% based on available WPI Indices in FY 2012-13 and approved A & G Expenses of Rs. 0.032 SLDC for FY 2012-13.

13.4.2 SLDC has incurred expense of Rs. 0.11 Crore in FY 2012-13 (H1) without any capitalisation of expenses. SLDC has envisaged a total expenditure of Rs. 1.64 Crore and Rs. 2.11 Crore towards A&G expenses for FY 2012-13 (H2) and FY 2013-14 respectively, including the expenses on account of new asset additions during FY 2013-14.

13.4.3 The Amended Regulation 28, notified by the Hon'ble Commission on 17 September-2012 provides as under:

*“O&M expenses excluding employee expenses for gross fixed assets added during the year shall be considered for a period of six months in cases where Commercial Operation Date of the assets is not available otherwise from the date of commissioning on pro-rata basis.”*

13.4.4 In line with the above Regulation, SLDC has claimed additional A&G expenses as tabulated below:

**Table 41: Additional A & G Expenses for FY 2012-13 and FY 2013-14 (Rs Crore)**

| Particulars                                    | Notation | FY 2012-13  | FY 2013-14  |
|--|----------|-------------|-------------|
| Average Asset Addition during the year         | A        | 11.38       | 18.40       |
| % claimed on asset addition during FY          | B        | 13.33%      | 10.26%      |
| A & G Expenses for asset added during the year | $C=A*B$  | <b>0.76</b> | <b>0.94</b> |

13.4.5 Based on the above discussion, the A & G expenses from FY 2012-13 and FY 2013-14 are tabulated as under:

**Table 42: A & G Expenses for FY 2012-13 and FY 2013-14 (Rs Crore)**

| S. No | Particulars   | FY 2012-13  |              |             | FY 2013-14  |
|-------|---|-------------|--------------|-------------|-------------|
|       |   | Actuals H1  | Estimates H2 | Total       | Projected   |
| 1     | Insurance   | 0.00        | 0.00         | 0.00        | 0.00        |
| 2     | Telephone, postage & telegrams                        | 0.02        | 0.08         | 0.10        | 0.15        |
| 3     | Consultancy fees                                      | 0.00        | 0.10         | 0.10        | 0.15        |
| 4     | Technical fees  | 0.00        | 0.00         | 0.00        | 0.00        |
| 5     | Other professional charges/Legal Charges              | 0.00        | 0.00         | 0.00        | 0.01        |
| 6     | Conveyance & travel expenses                          | 0.03        | 0.04         | 0.07        | 0.10        |
| 7     | Electricity & water charges                           | 0.00        | 0.50         | 0.50        | 0.55        |
| 8     | Training  | 0.00        | 0.04         | 0.04        | 0.05        |
| 9     | Others  | 0.03        | 0.07         | 0.10        | 0.15        |
| 11    | Cost for outsourcing for peons, security guards, etc. | 0.03        | 0.05         | 0.08        | 0.01        |
| 12    | Other material related expenses                       | 0.00        | 0.00         | 0.00        | 0.00        |
| 13    | <b>Total</b>  | <b>0.11</b> | <b>0.88</b>  | <b>1.00</b> | <b>1.17</b> |
| 14    | <b>Total expenses</b>                                 | <b>0.11</b> | <b>0.88</b>  | <b>1.00</b> | <b>1.17</b> |
| 15    | Less Capitalisation                                   | 0.00        | 0.00         | 0.00        | 0.00        |
| 16    | <b>Net expenses</b>                                   | <b>0.11</b> | <b>0.88</b>  | <b>1.00</b> | 1.17        |
| 17    | A&G for Assets Addition during the year               | 0.00        | 0.76         | 0.76        | 0.94        |
| 18    | <b>Total</b>  | <b>0.11</b> | <b>1.64</b>  | <b>1.75</b> | <b>2.11</b> |

13.4.6 SLDC requests the Hon'ble Commission to approve the A&G expenses as submitted for FY 2012-13 and FY 2013-14.

## **14 ULDC Charges**

14.1.1 For Load Dispatch activities, a SCADA/ EMS system is already commissioned under NR Unified Load Dispatch and Communication (NR-ULDC) Scheme by PGCIL since 2002. Under this scheme computerized Control Centers for SCADA/ EMS (Supervisory Control and Data Acquisition/ Energy Management System) system along with necessary communication facilities such as PLCC (power Line Carrier Communication), Microwave, Optical fibre on Ground Wire (OPGW) etc. has been implemented so as to get real time data of the Power system and to efficiently operate the Northern grid.

14.1.2 Erstwhile PSEB's financial liability in the NR-ULDC scheme is as under:

- a) Liability for the ULDC in the state is around Rs.25.50 Crore.
- b) Liability due to its share in BBMB is 44.65% (i.e. Rs 12.11 Cr) of the ULDC project cost of Rs 27.14 Cr, (the percentage is to checked in reference to the recent judgment)
- c) Liability in NRLDC & other Central sector projects is around 12% (i.e. Rs. 30.702 Cr) average of Rs 255.85 Cr.

14.1.3 The above liability is being paid off by way of monthly payments towards ULDC transmission charges being decided by CERC from time to time with effect from Aug 2002 to Jul 2017, as under:

- i) Monthly payment of around Rs.24 Lacs as ULDC transmission charges i.r.o. ULDC in Punjab.
- ii) Monthly payment of around Rs.11 Lacs as ULDC transmission charges due to Punjab's share in BBMB.
- iii) Monthly payment of around Rs.68 Lacs as ULDC transmission charges due to Punjab's share in Central Sector projects.

The Commission in its last Tariff Order accepted the amount of Rs. 21.00 Crore towards ULDC Charges as submitted by SLDC. SLDC incurred an expense of Rs. 4.69 Crore towards ULDC Charges during FY 2012-13 (H1).

14.1.4 On the basis of above charges, the projection of ULDC Charges during FY 2012-13 (H2) and FY 2013-14 is tabulated as under:

**Table 43: ULDC Charges for FY 2012-13 and FY 2013-14 (Rs Crore)**

| S. No | Particulars  | FY 2012-13   |              |                |               | FY 2013-14   |
|-------|--------------|--------------|--------------|----------------|---------------|--------------|
|       |              | Order        | H1 (Actuals) | H2 (Projected) | Total (H1+H2) | Projected    |
| 1     | ULDC Charges | 21.00        | 4.69         | 12.61          | 17.30         | 31.40        |
|       | <b>Total</b> | <b>21.00</b> | <b>4.69</b>  | <b>12.61</b>   | <b>17.30</b>  | <b>31.40</b> |

## **15 CAPITAL EXPENDITURE AND CAPITALISATION**

15.1.1 The Hon'ble Commission in last Tariff Order approved Capital Expenditure of Rs. 25 Crore for FY 2012-13.

15.1.2 SLDC has planned the capital expenditure of Rs. 11.38 Crore and Rs. 18.40 Crore to be incurred FY 2012-13 and FY 2013-14 respectively. The Capital Expenditure during FY 2012-13 and FY 2013-14 is tabulated below:

**Table 44: Capital Expenditure for FY 2012-13 and FY 2013-14 (Rs Crore)**

| S. No | Particulars  | FY 2012-13<br>Estimated | FY 2013-14<br>Projected |
|-------|--|-------------------------|-------------------------|
| 1     | 47 No. RTU   | 2.50                    | 3.50                    |
| 2     | Procurement of additional RTU for remaining/ upcoming substation of PSTCL              | 0.00                    | 5.00                    |
| 3     | Replacement of existing RTUs   | 0.00                    | 4.00                    |
| 4     | Implementation of Intrastate boundary metering scheme based upon ABT type energy meter | 8.50                    | 3.50                    |
| 5     | Purchase of computer items for SLDC  | 0.20                    | 2.00                    |
| 6     | Furniture and Fixtures   | 0.03                    | 0.30                    |
| 7     | Tools and Plants (Frequency Meters, etc.)  | 0.00                    | 0.04                    |
| 8     | Building expenditure for energy center   | <b>0.05</b>             | <b>0.06</b>             |
|       | <b>Total</b>   | <b>11.38</b>            | <b>18.40</b>            |

15.1.3 The Capitalisation proposed by SLDC during FY 2012-13 and FY 2013-14 is tabulated below:

**Table 45: Capitalisation for FY 2012-13 and FY 2013-14 (Rs Crore)**

| S. No | Particulars    | FY 2012-13 | FY 2013-14 |
|-------|----------------|------------|------------|
| 1     | Capitalisation | 11.38      | 18.40      |



## 15.2 Funding Pattern

15.2.1 The funding pattern during FY 2012-13 and FY 2013-14 is tabulated below:

**Table 46: Funding Pattern during FY 2012-13 and FY 2013-14 (Rs Crore)**

| S. No | Particulars                   | FY 2012-13 | FY 2013-14 |
|-------|-------------------------------|------------|------------|
| 1     | Capital Expenditure during FY | 11.38      | 18.40      |
| 2     | Debt                          | 11.38      | 18.40      |

## 15.3 Depreciation

15.3.1 The Hon'ble Commission in last Tariff Order approved depreciation of Rs. 0.37 Crore for SLDC Business in FY 2012-13.

15.3.2 The depreciation during FY 2012-13 and FY 2013-14 on Opening GFA and assets added during the respective year of SLDC has been calculated according to the rates prescribed in CERC Tariff Regulations, 2009. The applicable depreciation rates for calculation of depreciation during FY 2012-13 and FY 2013-14 are tabulated as under:

**Table 47: Depreciation rates for FY 2012-13 and FY 2013-14 (in %)**

| S. No | Particulars                              | Depreciation Rates |
|-------|--|--------------------|
| 1     | Land and Land Rights                     | 0%                 |
| 2     | Buildings and Civil Works                | 3.34%              |
| 3     | Plant and Machinery                      | 5.28%              |
| 4     | Line and Cable Networks                  | 5.28%              |
| 5     | Computer Accessories                     | 6.33%              |
| 6     | Meters                                   | 5.28%              |
| 7     | Vehicles                                 | 9.50%              |
| 8     | Furniture and Fixtures-Office Equipments | 6.33%              |

15.3.3 Accounting Standard-VI: Clause 3 defines depreciation, depreciable assets, useful life and depreciable amount as below:

*“3.1 Depreciation is a measure of the wearing out, consumption or other loss of value of a depreciable asset arising from use, effluxion of time or obsolescence*

*through technology and market changes. Depreciation is allocated so as to charge a fair proportion of the depreciable amount in each accounting period during the expected useful life of the asset. Depreciation includes amortization of assets whose useful life is predetermined.*

*3.2 Depreciable assets are assets which are expected to be used during more than one accounting period; and have a limited useful life and are held by an enterprise for use in the production or supply of goods and services, for rental to other, or for administrative purposes and not for the purpose of sale in the ordinary course of business*

*3.3 Useful life is either (i) the period over which a depreciable asset is expected to be used by the enterprise; or (ii) the number of production or similar units expected to be obtained from the use of the asset by the enterprise.*

*3.4 Depreciable amount of a depreciable asset is its historical cost, or other amount substituted for historical cost in the financial statement, less the estimated residual value.”*

15.3.4 Note at Serial No. 4 to Schedule XIV of the Companies Act, 1956 reads as under:-

*“Where, during any financial year, any addition has been made to any asset, or where any asset has been sold, discarded, demolished or destroyed, the depreciation on such assets shall be calculated on a pro rata basis from the date of such addition or as the case may be, up to the date on which such asset has been sold, discarded, demolished or destroyed”*

15.3.5 The Hon’ble Appellate Tribunal vide its Order dated July 15, 2009 (Appeal No. 137 of 2008) allowed the Appeal and ruled as under:

*“In view of the provisions of the Tariff Regulations the Companies Act and the Accounting Standard-6, we find full justification and rationale in the contention of the appellant that proportionate depreciation has to be allowed even for part of the year when the assets have been put to use. The asset once put to use will be exposed to wear and tear which will not wait to depreciate till the start of the new financial year. We, therefore, allow the appeal in this view of the matter also.”*

15.3.6 In line with the decision of Hon’ble Appellate Tribunal, SLDC has claimed depreciation on the assets added during the year by assuming that the assets will be added during the mid of the year.

15.3.7 Depreciation entitlement for FY 2012-13 and FY 2013-14 is tabulated below:

**Table 48: Total depreciation during FY 2012-13 and FY 2013-14 (Rs Crore)**

| S. No | Particulars  | FY 2012-13 |           | FY 2013-14 |
|-------|--------------|------------|-----------|------------|
|       |              | Order      | Estimated | Projected  |
| 1     | Depreciation | 0.40       | 0.63      | 1.35       |

#### 15.4 Interest and Finance Charges

15.4.1 The Hon'ble Commission in last Tariff Order approved Interest and Finance Charges of Rs. 0.20 Crore for SLDC Business in FY 2012-13 which includes capitalisation of Rs. 0.08 Crore. The Hon'ble Commission further deducted Rs. 0.20 Crore on account of diversion of capital funds.

15.4.2 The interest on debt to be raised during FY 2012-13 and FY 2013-14 is tabulated as under:

**Table 49: Interest and Finance Charges for FY 2012-13 and FY 2013-14 (Rs Crore)**

| S.No     | Particulars                                     | FY 2012-13  |               | FY 2013-14    |
|----------|---|-------------|---------------|---------------|
|          |   | Order       | Estimated     | Projected     |
| 1        | Opening balance of loan                         | 1.45        | 0.00          | 11.38         |
| 2        | Add: addition during the year                   | 25.00       | 11.38         | 18.40         |
| 3        | Less: Repayment                                 | 0.00        | 0.00          | 0.00          |
| 4        | Closing Balance                                 | 26.45       | 11.38         | 29.78         |
| 5        | Amount of Interest                              | 0.28        | 0.71          | 2.57          |
| <b>6</b> | <b>Interest Rate</b>                            |             | <b>12.50%</b> | <b>12.50%</b> |
| 7        | Less Interest Capitalised                       | 0.20        | 0.00          | 0.00          |
| 8        | Interest Reduction on a/c of diversion of funds | 0.03        | 0.00          | 0.00          |
| <b>9</b> | <b>Net Interest Amount</b>                      | <b>0.05</b> | <b>0.71</b>   | <b>2.57</b>   |

## 15.5 Interest on Working Capital

15.5.1 The Commission in last Tariff Order approved interest on working capital as Rs. 0.55 Crore in FY 2012-13. The Commission applied the rate of 11.75% for calculating Interest on Working Capital.

15.5.2 Regulation 30 of PSERC Tariff Regulations 2005 states as under:

*“30. Working Capital and Interest Rate on Working Capital*

*For generation and transmission business, the working capital shall be as per CERC norms.*

...

*The interest on working capital shall be equal to the short term Prime Lending Rate of State Bank of India of the relevant year. The interest on working capital shall be payable on normative basis notwithstanding that the generating company / licensee has not taken working capital loan from any outside agency or has exceeded the working capital loan amount worked out on the normative figures.”*

15.5.3 SLDC has calculated Interest on working capital in accordance with Clause-18 (c) of CERC Tariff Regulations 2009 based on following parameters:

- a) Receivables equivalent to two months of fixed cost
- b) Maintenance Spares @ 15% of operation and maintenance expenses
- c) Operation and Maintenance Expenses for one month.
- d) SLDC has considered an interest rate of 12.50 % for calculating Interest on Working Capital in FY 2013-14.

15.5.4 The interest on Working Capital as projected by SLDC is tabulated below:

**Table 50: Interest on Working Capital for FY 2012-13 and FY 2013-14 (Rs Crore)**

| S.No | Particulars  | FY 2012-13 |       | FY 2013-14 |
|------|--|------------|-------|------------|
|      |  | Order      | Total | Projected  |
| 1    | Receivables equivalent to two months of fixed cost.            | 3.89       | 4.76  | 9.77       |
| 2    | Maintenance spares @ 15% of Operation and Maintenance expenses | 0.53       | 2.23  | 3.12       |
| 3    | Operation and Maintenance expenses for                         | 0.29       | 1.24  | 1.73       |

| S.No | Particulars                        | FY 2012-13    |               | FY 2013-14    |
|------|------------------------------------|---------------|---------------|---------------|
|      |                                    | Order         | Total         | Projected     |
|      | one month.                         |               |               |               |
| 4    | <b>Total Working Capital</b>       | <b>4.71</b>   | <b>8.23</b>   | <b>14.63</b>  |
| 5    | <b>Rate of Interest</b>            | <b>11.75%</b> | <b>14.75%</b> | <b>14.75%</b> |
| 6    | <b>Interest on Working Capital</b> | <b>0.77</b>   | <b>1.21</b>   | <b>2.16</b>   |

### 15.6 Non-Tariff Income

15.6.1 SLDC has received an amount of Rs 5.83 Crore from OA consumers. The same has been considered Non-Tariff Income during FY 2012-13 (H1). Further, an amount of Rs 0.015 Crore is expected to be received from its investments, which has been considered for H2.

15.6.2 With regards to projection of Income from OA consumers during H2 of FY 2012-13 or FY 2013-14, PSTCL would like to submit that the income from above charges being an infirm source of revenue cannot be estimated. The Commission may true up the same, during the consideration of the True-up Petition for respective years.

15.6.3 The component-wise NTI has been projected below:

**Table 51: Non-Tariff Income for FY 2012-13 and FY 2013-14(Rs Crore)**

| S. No | Particulars       | FY 2012-13 |              |                |                 | FY 2013-14 |
|-------|-------------------|------------|--------------|----------------|-----------------|------------|
|       |                   | Order      | H1 (Actuals) | H2 (Projected) | H1 + H2 (Total) | Projected  |
| 1     | Non-Tariff Income | 0.00       | 5.83         | 0.015          | 5.85            | 0.02       |

### 15.7 Aggregate Revenue Requirement (ARR) for SLDC Business

15.7.1 The Hon'ble Commission in last Tariff Order approved an ARR of Rs. 28.57 Crore to be recovered in FY 2012-13.

15.7.2 Based on the above discussion on projection of expenses on various heads, SLDC has calculated the ARR for FY 2012-13 and FY 2013-14 which is tabulated below:

**Table 52: SLDC ARR for FY 2012-13 and FY 2013-14 (Rs Crore)**

| S.No      | Particulars                                    | Current Year (FY 2012-13) |              |              | Ensuing Year (FY 2013-14) |
|-----------|--|---------------------------|--------------|--------------|---------------------------|
|           |  | Last Year Petition        | Order        | Estimated    | Projected                 |
| 1         | Net Employee costs                             | 8.89                      | 4.54         | 9.01         | 10.54                     |
| 2         | Net R&M expenses                               | 3.19                      | 0.18         | 4.08         | 8.16                      |
| 3         | Net Administration and general expenses        | 1.40                      | 0.03         | 1.75         | 2.11                      |
| 4         | Depreciation                                   | 1.07                      | 0.40         | 0.63         | 1.35                      |
| 5         | Interest charges                               | 1.34                      | 1.65         | 0.71         | 2.57                      |
| 6         | Interest on working capital                    | 1.09                      | 0.77         | 1.21         | 2.16                      |
| 7         | ULDC Charges                                   | 21.00                     | 21.00        | 17.30        | 31.40                     |
| 8         | Return on Equity                               | 1.08                      | 0.00         | 0.00         | 0.00                      |
| 9         | Total revenue requirement                      | <b>39.06</b>              | <b>28.57</b> | <b>34.70</b> | <b>58.30</b>              |
| 10        | Less: non tariff income                        | 0.00                      | 0.00         | 5.85         | 0.02                      |
| <b>11</b> | <b>Net revenue requirement</b>                 | <b>39.06</b>              | <b>28.57</b> | <b>28.86</b> | <b>58.28</b>              |
| 12        | Revenue gap carry-forward (with carrying cost) | <b>0.00</b>               | <b>0.00</b>  | <b>0.00</b>  | <b>0.33</b>               |
| <b>13</b> | <b>Cumulative Revenue Gap</b>                  | <b>39.06</b>              | <b>28.57</b> | <b>28.86</b> | <b>58.61</b>              |
| <b>14</b> | <b>Revenue from tariff</b>                     | <b>39.06</b>              | <b>28.57</b> | <b>28.57</b> | 58.61                     |
| 15        | Revenue Gap/ Surplus                           | 0.00                      | 0.00         | 0.29         | 0.00                      |

## **16 AGGREGATE REVENUE REQUIREMENT for FY 2012-13 and FY 2013-14**

### **16.1 Revenue Gap Recovery**

16.1.1 The Hon'ble Commission in the Tariff Order for FY 2012-13 dated July 16, 2012 determined a revenue gap of Rs. 71.17 crore for FY 2011-12 with a carrying cost of Rs. 4.63 Crore. PSTCL has considered a revenue gap carry forward of Rs. 75.80 Crore in the estimated ARR for the year FY 2012-13.

16.1.2 In the current petition, PSTCL has estimated a total revenue gap of Rs.71.20 Crore and Rs 0.29 Cr for Transmission and SLDC respectively for the year FY 2012-13.

16.1.3 The above amount, along with a carrying cost(@SBAR of 14.75%) of Rs. 10.50 Crore and Rs 0.04 Crore of Transmission and SLDC respectively, has been considered in the ARR of FY 2013-14.

## 16.2 Summary of ARR

16.2.1 The table given below summarizes the Aggregate Revenue Requirement for FY 11-12 and FY 12-13:

**Table 53: ARR of Transmission and SLDC for FY 2012-13 and FY 2013-14 (Rs Crore)**

| S. No     | Particulars                                    | Transmission Business |               |               |                 | SLDC Business      |              |              |              |
|-----------|--|-----------------------|---------------|---------------|-----------------|--------------------|--------------|--------------|--------------|
|           |  | FY 2012-13            |               |               | FY 2013-14      | FY 2012-13         |              |              | FY 2013-14   |
|           |  | Last Year Petition    | Order         | Estimated     | Projected       | Last Year Petition | Order        | Estimated    | Projected    |
| 1         | Net Employee costs                             | 310.00                | 211.12        | 232.49        | 273.22          | 8.89               | 4.54         | 9.01         | 10.54        |
| 2         | Net R&M expenses                               | 120.12                | 68.89         | 69.38         | 70.03           | 3.19               | 0.18         | 4.08         | 8.16         |
| 3         | Net A&G expenses                               | 74.89                 | 13.79         | 32.06         | 40.51           | 1.40               | 0.03         | 1.75         | 2.11         |
| 4         | Depreciation                                   | 193.41                | 147.90        | 188.60        | 267.49          | 1.07               | 0.40         | 0.63         | 1.35         |
| 5         | Interest charges                               | 251.58                | 244.85        | 205.36        | 358.84          | 1.34               | 1.65         | 0.71         | 2.57         |
| 6         | Interest on Working Capital                    | 42.14                 | 25.15         | 31.19         | 42.89           | 1.09               | 0.77         | 1.21         | 2.16         |
| 7         | ULDC Charges                                   | 0.00                  | 0.00          | 0.00          | 0.00            | 21.00              | 21.00        | 17.30        | 31.40        |
| 8         | Return on Equity                               | 110.01                | 50.92         | 75.38         | 75.38           | 1.08               | 0.00         | 0.00         | 0.00         |
| <b>9</b>  | <b>Total revenue requirement</b>               | <b>1,102.15</b>       | <b>762.62</b> | <b>834.48</b> | <b>1,128.36</b> | <b>39.06</b>       | <b>28.57</b> | <b>34.70</b> | <b>58.30</b> |
| 10        | Less: Non Tariff Income                        | 0.00                  | 36.98         | 5.76          | 2.66            | 0.00               | 0.00         | 5.85         | 0.02         |
| <b>11</b> | <b>Aggregate Revenue Requirement</b>           | <b>1,102.15</b>       | <b>725.64</b> | <b>828.71</b> | <b>1,125.70</b> | <b>39.06</b>       | <b>28.57</b> | <b>28.86</b> | <b>58.28</b> |
| 12        | Revenue gap carry-forward (with carrying cost) | 250.66                | 75.80         | 75.80         | 81.71           | 0.00               | 0.00         | 0.00         | 0.33         |
| <b>13</b> | <b>Cumulative Revenue Requirement</b>          | <b>1,352.81</b>       | <b>801.44</b> | <b>904.51</b> | <b>1,207.41</b> | <b>39.06</b>       | <b>28.57</b> | <b>28.86</b> | <b>58.61</b> |
| <b>14</b> | <b>Revenue from Tariff &amp; OA</b>            | <b>0.00</b>           | <b>801.44</b> | <b>833.31</b> | <b>1,207.41</b> | <b>0.00</b>        | <b>28.57</b> | <b>28.57</b> | <b>58.61</b> |

| S. No     | Particulars        | Transmission Business |             |              |             | SLDC Business      |             |             |             |
|-----------|--------------------|-----------------------|-------------|--------------|-------------|--------------------|-------------|-------------|-------------|
|           |                    | FY 2012-13            |             |              | FY 2013-14  | FY 2012-13         |             |             | FY 2013-14  |
|           |                    | Last Year Petition    | Order       | Estimated    | Projected   | Last Year Petition | Order       | Estimated   | Projected   |
|           | Charges            |                       |             |              |             |                    |             |             |             |
| <b>15</b> | <b>Revenue Gap</b> | <b>0.00</b>           | <b>0.00</b> | <b>71.20</b> | <b>0.00</b> | <b>0.00</b>        | <b>0.00</b> | <b>0.29</b> | <b>0.00</b> |

**Table 54: Combined ARR for FY 2012-13 and FY 2013-14 (Rs Crore)**

| S. No     | Particulars                                 | Transmission & SLDC Business |               |               |                |
|-----------|---|------------------------------|---------------|---------------|----------------|
|           |   | FY 2012-13                   |               |               | FY 2013-14     |
|           |   | Last Year Petition           | Order         | Estimated     | Projected      |
| 1         | Net Employee costs                          | 318.89                       | 215.66        | 241.51        | 283.76         |
| 2         | Net R&M expenses                            | 123.31                       | 69.07         | 73.46         | 78.20          |
| 3         | Net A&G expenses                            | 76.29                        | 13.82         | 33.82         | 42.62          |
| 4         | Depreciation                                | 194.48                       | 148.30        | 189.24        | 268.85         |
| 5         | Interest charges                            | 252.92                       | 246.50        | 206.07        | 361.41         |
| 6         | Interest on Working Capital                 | 43.23                        | 25.92         | 32.40         | 45.05          |
| 7         | ULDC Charges                                | 21.00                        | 21.00         | 17.30         | 31.40          |
| 8         | Return on Equity                            | 111.09                       | 50.92         | 75.38         | 75.38          |
| 9         | Provision for bad debts & Other Debits      | 0.00                         | 0.00          | 0.00          | 0.00           |
| <b>10</b> | <b>Total revenue requirement</b>            | <b>1141.21</b>               | <b>791.19</b> | <b>869.18</b> | <b>1186.66</b> |
| 11        | Less: Non Tariff Income                     | 0.00                         | 36.98         | 11.61         | 2.68           |
| 12        | Aggregate Revenue Requirement               | 1141.21                      | 754.21        | 857.57        | 1183.98        |
| 13        | <b>Revenue Gap Carry forward</b>            | <b>250.66</b>                | <b>75.80</b>  | <b>75.80</b>  | <b>82.04</b>   |
| 14        | Cumulative Revenue Requirement              | 1391.87                      | 830.01        | 933.37        | 1266.02        |
| 15        | <b>Revenue from Tariff &amp; OA Charges</b> | <b>0.00</b>                  | <b>830.01</b> | <b>861.88</b> | <b>1266.02</b> |
| 16        | <b>Revenue Gap</b>                          | <b>0.00</b>                  | <b>0.00</b>   | <b>71.49</b>  | <b>0.00</b>    |

16.2.2 PSTCL proposes to recover the total ARR of Rs 1207.41 Crore from PSPCL on monthly basis i.e. Rs. 75,169.82/MW towards transmission charges and also to



recover the total ARR of Rs 58.61 Crore toward SLDC charges i.e. Rs. 4.88Crore per month from PSPCL.

## **17 TRANSMISSION & LONG AND SHORT TERM OPEN ACCESS CHARGES.**

17.1.1 The Hon'ble Commission has notified the Punjab State Electricity Regulatory Commission (Terms and Conditions for Intra-state Open Access) Regulations, 2011 under Section 42 read with Section 181 of the Electricity Act, 2003. Consumers availing open access shall be required to pay the transmission charges for use of the transmission systems of PSTCL.

17.1.2 Regulations 23 of Punjab State Electricity Regulatory Commission (Terms and Conditions for Intra-state Open Access) Regulations, 2011, states as under:

“ ...

*Long term, Medium term and Short term Open Access customers availing supply at 132/220kv shall be liable to pay full transmission charges;*

... ”

### **17.2 Open Access Charges in terms of Rs./MW/Day**

17.2.1 The revenue from Short Term Open Access Charges to be charged to Short Term Open Access Customers is uncertain and therefore, PSTCL has not factored the same in to the Miscellaneous Receipts proposed in this Application for FY 2013-14. It is submitted that revenue if any from the Short Term Open Access consumers will be adjusted in the revenue as year-end-adjustments at the end of the year on actual basis. Therefore, PSTCL considers Short Term Access Charges as Nil in this Application.

17.2.2 Short term Open Access customer shall be liable to pay transmission charges determined by the Hon'ble Commission.

17.2.3 Surcharge and/ or any other charge on Long / Short Term Open Access, if any, as decided by the Hon'ble Commission will be leviable.

17.2.4 The transmission charge payable by a short-term customer will be levied on hourly basis in Rs/MWh.

17.2.5 The total State generation capacity including ISGS share which will flow through the transmission network of PSTCL is 13385.35 MW. PSTCL, therefore, proposes the LTOA charges and STOA charges as below:

**Table 55: Transmission and Open Access Charges (Rs Crore)**

| <b>Particulars</b>    | <b>Units</b>  | <b>FY 2013-14</b> |
|-----------------------|---------------|-------------------|
| ARR (net)             | Rs Crore      | 1207.41           |
| Transmission Capacity | MW            | 13385.35          |
| Transmission Tariff   | (Rs/MW/Month) | 75,169.82         |

17.2.6 Considering the methods shown above, PSTCL requests the Hon'ble Commission to determine Open Access Charges as per Punjab State Electricity Regulatory Commission (Terms and Conditions for Intra-State Open Access) Regulations, 2011 for the Aggregate Revenue Requirement of Rs. 1207.41 Crore for FY 2013-14.

### **17.3 Reactive Energy Charges**

17.3.1 As per regulation 38 (C) of PSERC (Terms and Condition for determination of Tariff) Regulations, 2005, reactive energy charges would be variable charge reflecting voltage related drawals/returns shall be payable at the rate prescribed by the CERC from time to time. The PSTCL requests the Hon'ble Commission to allow the reactive energy charges as per the Regulation.

## 18 PRAYERS

18.1.1 Based on the submissions in foregoing Chapters, PSTCL humbly prays the Hon'ble Commission to kindly approve the following:

- a) Final truing up of FY 2010-11 and FY 2011-12 may be deferred till finalisation of Audited Accounts of FY 2010-11 and FY 2011-12.
- b) Review of ARR for FY 2012-13 considering the justification and rationale submitted for Transmission and SLDC Business.
- c) Approval of ARR and Tariff determination for FY 2013-14 considering the justification and rationale submitted of Transmission and SLDC Business.
- d) To continue the Payment Security mechanism as approved in the last Tariff Order.
- e) Condone any inadvertent omissions/errors/shortcomings and permit PSTCL to add/change/modify/alter/clarify this filing and make further submissions as may be required at a future date.
- f) Pass such further orders, as the Hon'ble Commission may deem fit and proper keeping in view the facts and circumstances of the case.

18.1.2 PSTCL undertakes to place all further details and justifications as may be necessary for the disposal of the present Petition.

**BY THE APPLICANT  
THROUGH**

**Financial Advisor  
Punjab State Transmission Corporation Limited, Patiala**

## COMPLIANCE TO DIRECTIVES

### A. The latest position of the PSERC DIRECTIVES given in Tariff Order 2011-12 is as under:-

| S.No. | Issues   | Directive in Tariff Order FY 2011-12  | PSERC's Comments on PSTCL's earlier replies   | PSTCL's reply  |
|-------|--|---|---|--|
| 1     | <b>Energy Audit and T&amp;D loss Reduction</b> | The Commission directed PSTCL to ensure that its transmission lines operate at a power factor nearest to unity. Necessary studies be carried out for this purpose and submitted to the Commission.                            | The Commission has taken note of the proposed action of PSTCL.<br><br>PSTCL shall compile online power factor data on monthly basis and submit to the Commission.   | PSTCL is in the process of implementing Boundary Metering. After its completion, online power factor data will be available and compilation report for the same on monthly basis will be submitted to the commission.  |
| 2     | <b>Employee Cost</b>                           | The Commission directed PSTCL<br><br>a) To finalise the Work Study Report on Manpower and submit implementation Action Plan to the Commission.<br><br>b) Carry out cost benefit analysis of unmanned stations and planned for | a) The Commission has taken note of the action taken by PSTCL. The Commission is concerned on the delay in implementation of work study report on manpower. PSTCL may inform about the concern of the Commission to the Committee of the Board of Directors and see | a) Steps are being taken to expedite review of Manpower Report by the committee for its early implementation with the approval of Board of PSTCL.<br><br>b) Tender regarding sub-station augmentation is being processed. The cost benefit analysis can be made only |

| S.No. | Issues   | Directive in Tariff Order FY 2011-12  | PSERC's Comments on PSTCL's earlier replies   | PSTCL's reply  |
|-------|--|---|---|--|
|       |  | <p>their further roll out.</p> <p>c) Provide training to officers and staff to handle 400 KV, 220 KV and 132 KV systems alongwith communication systems as per provisions of IE Rules 1956, National Training Policy and PSEB Training Policy.</p> <p>d) Application of modern management techniques across PSTCL to optimize its functioning and efficiency be undertaken.</p> | <p>that the decision is taken early.</p> <p>PSTCL shall send a report to the Commission on action plan to implement the PWC report within two months of issuance of this Tariff Order.</p> <p>b,c,d) Brief report on the Issues in col.No.3 in 2011-12 directives may be sent to the Commission within two months of issuance of this Tariff Order.</p> | <p>after evaluation of bids. The same shall be submitted in due course of time.</p> <p>c) Adequate training to officials &amp; officers is being imparted regularly.</p> <p>d) PSTCL has initiated action to implement ERP, which will optimize the efficiency of the corporation.</p> |
| 3     | <p><b>Loading Status of PSTCL transmission lines and sub stations.</b></p> | <p>PSERC directed PSTCL to display the list of overloaded transmission lines &amp; sub stations along-with works planned and their target dates of commissioning.</p> <p>Additional 220KV &amp; 132KV sub stations and transmission lines to transfer</p>   | <p>The Commission takes note of the compliance of the directive.</p> <p>A report on loading conditions of transmission lines and substations may</p>  | <p>The list of loading conditions of Transmission Lines &amp; S/Stations is attached as per Annexure-I &amp; II.</p>   |

| S.No. | Issues  | Directive in Tariff Order FY 2011-12   | PSERC's Comments on PSTCL's earlier replies   | PSTCL's reply   |
|-------|---|--|---|---|
|       |   | additional power to PSPCL's sub transmission system (66 KV & 33KV) be planned and executed.  | be prepared and submitted to the Commission within two months of issuance of this Tariff Order.   |   |
| 4     | <b>Financial<br/>Autonomy<br/>and<br/>Independent<br/>functioning<br/>of SLDC</b> | The Commission directed PSTCL to ensure financial autonomy and independent operation of SLDC at the earliest.                              | The Commission takes note of the compliance of the directive.   | No further action is required.  |
| 5     | <b>Boundary<br/>metering</b>  | The Commission directed PSTCL to take necessary steps to install the energy meters at various 220KV and 132KV substations at the earliest. | The Commission takes note of the compliance of the directive.<br><br>The work of Boundary metering may be got completed at the earliest to arrive at correct Transmission losses in PSTCL system. | The firm for implementation of Intrastate Boundary metering scheme in PSTCL has been selected through open tender and the necessary PO is being issued. The Boundary metering shall be in place by June 2013. |
| 6     | <b>Maintenanc</b>   | The Commission directed PSTCL to   | The Commission taken note of action   | M/s Susheel Jeet Puria & Company, the   |

| S.No. | Issues  | Directive in Tariff Order FY 2011-12   | PSERC's Comments on PSTCL's earlier replies  | PSTCL's reply   |
|-------|---|--|--|---|
|       | <b>e of category wise details of fixed asset</b>                          | maintain the category-wise details of assets as per provisions of the Companies Act, 1956.   | taken. PSTCL shall report when the Fixed Asset Register is likely to be finalized.   | consultant appointed to prepare fixed Asset Register as on 16.04.10 of both PSTCL & PSPCL is in the process of preparing the same. PSTCL shall report as & when the report on fixed Asset Register is finalized |
| 7     | <b>Adequacy of existing switchgear and Earthmat at PSTCL sub stations</b> | a) The Commission directed PSTCL to undertake the short circuit studies to check adequacy of rupturing capacity of the existing maintain the category-wise details of assets as per provisions of the Companies Act, 1956. | The Commission takes note of the compliance of the directive. A report in this regard may be submitted to the Commission by PSTCL. | A copy of the Report on earth resistance of 220/132KV Grid Substation is attached as Annexure-III.  |

#### B. NEW DIRECTIVES ISSUED IN TARIFF ORDER OF FY 2012-13.

| S.No. | Issues  | Directive in Tariff Order FY 2012-13   | PSTCL's Reply  |
|-------|---|--|--|
| 1     | Coordinated planning of transmission and sub transmission | PSTCL & PSPCL shall coordinate planning of transmission works (400, 220 & 132KV) and sub transmission works (66 & 33KV) so that there is no bottleneck in delivering power at the consumer end. A coordination committee of both companies | The action regarding formation of Co-ordination committee of both companies has been initiated and office Order in this regard will be issued shortly. |



| S.No. | Issues | Directive in Tariff Order FY 2012-13                                   | PSTCL's Reply |
|-------|--------|--|---------------|
|       | works. | may be notified and made responsible for compliance of this directive. |               |



## **Annexure - I Capital Expenditure Schemes**

### **Capex Summary (in Rs Lakh)**

| S. No | Particulars                               | Opening WIP as on March 31, 2012 | Expenditure during FY 2012-13 | Transferred to Assets | Closing WIP as on March 31, 2013 | Expenditure during FY 2013-14 | Transferred to Assets | Closing WIP as on March 31, 2014 |
|-------|---|----------------------------------|-------------------------------|-----------------------|----------------------------------|-------------------------------|-----------------------|----------------------------------|
| 1     | 132 KV                                    | 3597                             | 3149                          | 6747                  | 0                                | 3023                          | 3023                  | 0                                |
| 2     | 220 KV                                    | 39661                            | 39801                         | 61949                 | 17513                            | 37095                         | 45420                 | 9188                             |
| 3     | 400 KV                                    | 60872                            | 62019                         | 83500                 | 39391                            | 55900                         | 93191                 | 2100                             |
| 4     | Capital Expenditure for general equipment |                                  | 2000                          | 2000                  | 0                                | 3000                          | 3000                  | 0                                |
|       | <b>Total</b>                              | <b>104131</b>                    | <b>106969</b>                 | <b>154196</b>         | <b>56904</b>                     | <b>99018</b>                  | <b>144635</b>         | <b>11288</b>                     |

### **400 KV SCHEMES (in Rs Crore)**

| S. No | Scope (440kV)               | Opening WIP as on March 31, 2012 | Expenditure during FY 2012-13 | Transferred to Assets | Closing WIP as on March 31, 2013 | Expenditure during FY 2013-14 | Transferred to Assets | Closing WIP as on March 31, 2014 |
|-------|-----------------------------|----------------------------------|-------------------------------|-----------------------|----------------------------------|-------------------------------|-----------------------|----------------------------------|
| 1     | 400 KV Talwandi Sabo Scheme | 570.86                           | 302.75                        | 550.00                | 323.61                           | 377.00                        | 700.61                | 0.00                             |
| 2     | 400 KV Rajpura Scheme       | 37.86                            | 317.44                        | 285.00                | 70.30                            | 161.00                        | 231.30                | 0.00                             |
| 3     | 400 KV Amloh                | 0.00                             | 0.00                          | 0.00                  | 0.00                             | 10.50                         | 0.00                  | 10.50                            |
| 4     | 400 KV Doraha (Machiwara)   | 0.00                             | 0.00                          | 0.00                  | 0.00                             | 10.50                         | 0.00                  | 10.50                            |

| S. | Scope        | Openin        | Expendit      | Transferred   | Closing       | Expenditu     | Transfe       | Closing      |
|----|--------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|
|    | now)         |               |               |               |               |               |               |              |
|    | <b>Total</b> | <b>608.72</b> | <b>620.19</b> | <b>835.00</b> | <b>393.91</b> | <b>559.00</b> | <b>931.91</b> | <b>21.00</b> |

### 220KV SCHEMES (in Rs Lakh)

| S. No | Scope<br>(220 kV)  | Opening<br>WIP as<br>on<br>March<br>31, 2012 | Expenditur<br>e during FY<br>2012-13 | Transfer<br>red to<br>Assets | Closing WIP<br>as on March<br>31, 2013 | Expenditur<br>e during FY<br>2013-14 | Transferr<br>ed to<br>Assets | Closing<br>WIP as<br>on March<br>31, 2014 |
|-------|--|--|--------------------------------------|------------------------------|--|--------------------------------------|------------------------------|---|
| 1     | 220KV Sub Station<br>RSD Sarna -Shifting<br>Of Tower no.2 Of<br>Circuit2                 | 5.25   | 70.51                                | 0.00                         | 75.76                                  | 14.20                                | 89.96                        | 0.00                                      |
| 2     | 220KV Sub Station<br>Sultanpur-Patti Line<br>Tower No.6180,82,84.<br>94 to 97 break down | 158.16                                       | 12.10                                | 0.00                         | 170.26                                 | 0.00                                 | 170.26                       | 0.00                                      |
| 3     | 220KV Sub Station<br>Goindwal To<br>Sultanpur lodhi Line                                 | 764.53                                       | 290.68                               | 1055.21                      | 0.00                                   | 0.00                                 |                              | 0.00                                      |
| 4     | 220KV Sub Station<br>Goindwal To<br>Bottianwala Line                                     | 54.88  | 133.03                               | 0.00                         | 187.91                                 | 0.00                                 | 187.91                       | 0.00                                      |
| 5     | 220KV Sub Station<br>RSD Sarna -<br>Circuit5&6   | 0.00   | 10.44                                | 0.00                         | 10.44                                  | 0.00                                 | 10.44                        | 0.00                                      |
| 6     | LILO Of 220KV Sub<br>Station Jamsher,<br>Mahilpur At Rehana<br>Jattan Line               | 265.96                                       | 25.22                                | 291.18                       | 0.00                                   | 28.40                                | 28.40                        | 0.00                                      |
| 7     | 220KV Sub Station<br>Sultanpur to Patti lina<br>at 220 KV Sub Station<br>Chohla Sahib    | 0.02   | 24.20                                | 24.22                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 8     | 220 kv Sub Station<br>ver[pal to Patti line<br>for220KV Substation<br>Taran Taaran       | 44.59  | 24.20                                | 0.00                         | 68.79                                  | 42.60                                | 111.39                       | 0.00                                      |
| 9     | 220 KV Lalton Kalan<br>To Hambrahan Line at<br>220 KV Ss Fzpr road<br>Ludhiana           | 560.69                                       | 24.20                                | 584.89                       | 0.00                                   | 42.60                                | 42.60                        | 0.00                                      |
| 10    | 220 KVPatti to Algon<br>Line   | 494.05                                       | 6.05                                 | 500.10                       | 0.00                                   | 28.40                                | 28.40                        | 0.00                                      |

| S. No | Scope<br>(220 kV)   | Opening<br>WIP as<br>on<br>March | Expenditur<br>e during FY<br>2012-13 | Transfer<br>red to<br>Assets | Closing WIP<br>as on March<br>31, 2013 | Expenditur<br>e during FY<br>2013-14 | Transferr<br>ed to<br>Assets | Closing<br>WIP as<br>on March<br>31, 2014 |
|-------|---|----------------------------------|--------------------------------------|------------------------------|--|--------------------------------------|------------------------------|---|
| 11    | 220 KV Civil Line<br>Fatehgarh Churriab -<br>220KV Sub station<br>Majitha Line        | 322.08                           | 6.52                                 | 0.00                         | 328.60                                 | 0.00                                 | 328.60                       | 0.00                                      |
| 12    | LILO Of 220KV<br>Verpal Wdala<br>Granthian Line At 220<br>LV Sub Station<br>Oodhoke   | 117.03                           | 71.57                                | 0.00                         | 188.60                                 | 14.20                                | 202.80                       | 0.00                                      |
| 13    | LILO Of 220KV<br>Khasa Civil Line -<br>Amritsar line for 220<br>KV Chogawan           | 0.70                             | 83.39                                | 84.09                        | 0.00                                   | 120.70                               | 120.70                       | 0.00                                      |
| 14    | LILO Of 220 KV Line<br>Fron Sultanpur To<br>Patti For Chohla Sahib                    | 164.53                           | 24.54                                | 189.07                       | 0.00                                   | 110.76                               | 110.76                       | 0.00                                      |
| 15    | LILO Of 220 KV<br>Jamsher Sultampur<br>Line At 220 Kv SUB<br>Station Badsha pur       | 171.43                           | 229.96                               | 0.00                         | 401.39                                 | 85.20                                | 486.59                       | 0.00                                      |
| 16    | LILO Of 220 KV<br>Ver[pal Patti Line At<br>220 Kv SUB Station<br>Raishiana            | 144.35                           | 24.26                                | 0.00                         | 168.61                                 | 35.50                                | 204.11                       | 0.00                                      |
| 17    | 220KV Sub Station<br>Raishiana -<br>UG66to220KV                                       | 0.00                             | 72.50                                | 72.50                        | 0.00                                   | 11.36                                | 11.36                        | 0.00                                      |
| 18    | 220KV Sub Station<br>Civil Line Amritsar-<br>100MVA TF Plinth                         | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 7.10                                 | 7.10                         | 0.00                                      |
| 19    | 220KV Sub Station<br>Kanjli Kapoorthala -<br>New                                      | 350.07                           | 0.00                                 | 0.00                         | 350.07                                 | 42.60                                | 392.67                       | 0.00                                      |
| 20    | 220 KV Sub Station<br>Patti- Bay For Algon  | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 21.30                                | 21.30                        | 0.00                                      |
| 21    | 220 KV Sub Station<br>Kotli Soorat Malhi-<br>Additional TF plinth<br>for66/11 KV Fdn. | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 35.50                                | 35.50                        | 0.00                                      |
| 22    | 220 KV Sub Station<br>Algon Extn to SHB   | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 2.84                                 | 2.84                         | 0.00                                      |
| 23    | 220 kv sub Station -<br>Noor Mehal UG<br>From132 to 220KV                             | 51.66                            | 0.00                                 | 0.00                         | 51.66                                  | 71.00                                | 122.66                       | 0.00                                      |

| S. No | Scope (220 kV)   | Opening WIP as on March | Expenditure during FY 2012-13 | Transferred to Assets | Closing WIP as on March 31, 2013 | Expenditure during FY 2013-14 | Transferred to Assets | Closing WIP as on March 31, 2014 |
|-------|--|-------------------------|-------------------------------|-----------------------|----------------------------------|-------------------------------|-----------------------|----------------------------------|
| 24    | 220 kv sub Station CivilLine Amritsa Additional TF Plinth 100MVA                   | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 11.36                         | 11.36                 | 0.00                             |
| 25    | 220 kv sub Station - BadshapurUG From66 KV to 220KV                                | 28.88                   | 0.00                          | 0.00                  | 28.88                            | 71.00                         | 99.88                 | 0.00                             |
| 26    | 220 kv sub Station - Chohla sahib UG From66 KV to 220KV                            | 116.12                  | 0.00                          | 116.12                | 0.00                             | 28.40                         | 28.40                 | 0.00                             |
| 27    | 220 KV sub Station Sultanpur-SGF; Cable renches For incming bay For Goindwal Sahib | 2.01                    | 0.00                          | 0.00                  | 2.01                             | 7.10                          | 9.11                  | 0.00                             |
| 28    | 220 kv sub Station - Chogawan -66to220 Kv sub Station                              | 62.17                   | 0.00                          | 0.00                  | 62.17                            | 42.60                         | 104.77                | 0.00                             |
| 29    | 220 KV sub Station Algon Add 66 KV TF Plinth-66 KV site                            | 4.77                    | 0.00                          | 4.77                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 30    | 220 KV sub Station Raishiana 2nd additional Tf                                     | 9.16                    | 0.00                          | 0.00                  | 9.16                             | 7.10                          | 16.26                 | 0.00                             |
| 31    | 220 KV sub StationRaishiana -Cap Bank  | 6.84                    | 0.00                          | 0.00                  | 6.84                             | 14.20                         | 21.04                 | 0.00                             |
| 32    | 220 KV sub Station Udhoke UG 66 Kv To 220KV  | 62.58                   | 0.00                          | 0.00                  | 62.58                            | 28.40                         | 90.98                 | 0.00                             |
| 33    | 220 KV sub Station Gauns Garh  | 29.24                   | 0.00                          | 29.24                 | 0.00                             | 28.40                         | 28.40                 | 0.00                             |
| 34    | 220 KV sub Station Khasa Relacement OF TF 12.5 MVA to 20 MVA                       | 0.20                    | 0.00                          | 0.20                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 35    | 220 KV sub Station Dsuya TRENCHES  | 10.26                   | 0.00                          | 0.00                  | 10.26                            | 28.40                         | 38.66                 | 0.00                             |
| 36    | 220 KV sub Station Himmatpura Additional TF  | 0.87                    | 0.00                          | 0.00                  | 0.87                             | 21.30                         | 22.17                 | 0.00                             |
| 37    | 220 KV sub Station Sahnewal 2 no. Bays   | 7.87                    | 0.00                          | 0.00                  | 7.87                             | 14.20                         | 22.07                 | 0.00                             |
| 38    | 220 KV sub Station Gonina 100 MV A TF  | 2.55                    | 0.00                          | 0.00                  | 2.55                             | 0.00                          | 2.55                  | 0.00                             |

| S. No | Scope (220 kV)   | Opening WIP as on March | Expenditure during FY 2012-13 | Transferred to Assets | Closing WIP as on March 31, 2013 | Expenditure during FY 2013-14 | Transferred to Assets | Closing WIP as on March 31, 2014 |
|-------|--|-------------------------|-------------------------------|-----------------------|----------------------------------|-------------------------------|-----------------------|----------------------------------|
| 39    | 220 KV sub Station Sahnewal 10.960 MVA Cap . Bank          | 0.26                    | 0.00                          | 0.00                  | 0.26                             | 7.10                          | 7.36                  | 0.00                             |
| 40    | 220 KV sub Station Mastewal SH Building                    | 6.70                    | 0.00                          | 0.00                  | 6.70                             | 0.00                          | 6.70                  | 0.00                             |
| 41    | 220 KV sub Station Botianwala bay for Mastewal             | 0.97                    | 0.00                          | 0.00                  | 0.97                             | 7.10                          | 8.07                  | 0.00                             |
| 42    | 220 KV sub Station Sadiq Additional TF Plinth 100 MVA      | 13.47                   | 0.00                          | 0.00                  | 13.47                            | 28.40                         | 41.87                 | 0.00                             |
| 43    | 220 KV sub Station Sahnewal Addl 3rd 66 kV TF Bay          | 1.82                    | 0.00                          | 0.00                  | 1.82                             | 35.50                         | 37.32                 | 0.00                             |
| 44    | 220 KV Sub Station Pakhowal 220Kv bay For Mahal Kalan      | 1.65                    | 0.00                          | 0.00                  | 1.65                             | 14.20                         | 15.85                 | 0.00                             |
| 45    | 220KV Sub Station Goryan Addl TF 100 MVA plinth            | 0.00                    | 18.29                         | 0.00                  | 18.29                            | 42.60                         | 60.89                 | 0.00                             |
| 46    | 220 KV Sub Station Kotli Soorat Malhi-Addl TF plinth       | 0.00                    | 20.38                         | 0.00                  | 20.38                            | 21.30                         | 41.68                 | 0.00                             |
| 47    | 220 KV Sub Station Wadala Granthian-Addl TF Plinth         | 0.00                    | 15.02                         | 0.00                  | 15.02                            | 21.30                         | 36.32                 | 0.00                             |
| 48    | 220 KV Sub Station Sadiq-Addl 100MVA Tf plinth             | 0.00                    | 20.79                         | 0.00                  | 20.79                            | 0.00                          | 20.79                 | 0.00                             |
| 49    | 220 KV Sub Station Kartarpur- 2Nos breakers Ptype Trenches | 0.00                    | 2.75                          | 0.00                  | 2.75                             | 4.26                          | 7.01                  | 0.00                             |
| 50    | 220 KV Sub Station Botianwala-UG66-220KV                   | 0.00                    | 13.83                         | 0.00                  | 13.83                            | 0.00                          | 13.83                 | 0.00                             |
| 51    | 220 KV Sub Station BaDshahpur-UG132 - 220KV                | 0.00                    | 15.92                         | 0.00                  | 15.92                            | 42.60                         | 58.52                 | 0.00                             |
| 52    | 220 KV Sub Station Mastewal Trenches Foundations           | 0.00                    | 58.48                         | 0.00                  | 58.48                            | 0.00                          | 58.48                 | 0.00                             |
| 53    | 220 KV Sub Station Himmatpura-Addl100Mva Tf Plinth         | 0.00                    | 29.42                         | 0.00                  | 29.42                            | 35.50                         | 64.92                 | 0.00                             |

| S. No | Scope (220 kV)  | Opening WIP as on March | Expenditure during FY 2012-13 | Transferred to Assets | Closing WIP as on March 31, 2013 | Expenditure during FY 2013-14 | Transferred to Assets | Closing WIP as on March 31, 2014 |
|-------|---|-------------------------|-------------------------------|-----------------------|----------------------------------|-------------------------------|-----------------------|----------------------------------|
| 54    | 220 KV Sub Station Chohla Sahib UG 66 KV to 220KV   | 0.00                    | 39.09                         | 0.00                  | 39.09                            | 14.20                         | 53.29                 | 0.00                             |
| 55    | 220 KV Sub Station Sarna 100 MVA Addl TF plinth   | 0.00                    | 29.48                         | 0.00                  | 29.48                            | 28.40                         | 57.88                 | 0.00                             |
| 56    | 220 KV Sub Station Chogawan UG 66 to 220 KV   | 0.00                    | 12.93                         | 0.00                  | 12.93                            | 0.00                          | 12.93                 | 0.00                             |
| 57    | 220 KV Sub Station Gauns garh UG 66 to 220 kv   | 0.00                    | 98.47                         | 0.00                  | 98.47                            | 0.00                          | 98.47                 | 0.00                             |
| 58    | 220 KV Sub Station Abohar UG 132 to 220KV   | 0.00                    | 20.88                         | 0.00                  | 20.88                            | 71.00                         | 91.88                 | 0.00                             |
| 59    | 220 KV Sub Station Talwandi Bhai UG 132 to 220KV  | 0.00                    | 25.15                         | 0.00                  | 25.15                            | 71.00                         | 96.15                 | 0.00                             |
| 60    | 220 KV Sub Station Sultanpur Iodhi-SGF Trenches for bay of 66 KV Sub station Goindwal sahib | 0.00                    | 3.20                          | 0.00                  | 3.20                             | 7.10                          | 10.30                 | 0.00                             |
| 61    | 220 KV Sub Station Raishiana -2nd addl TF plinth  | 0.00                    | 16.88                         | 0.00                  | 16.88                            | 28.40                         | 45.28                 | 0.00                             |
| 62    | 220 KV Sub Station Rehana Jattan UG 66 to 220KV   | 174.34                  | 111.56                        | 285.90                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 63    | 220 KV Sub Station Sahnewal 2 no bays for Doraha  | 0.00                    | 3.92                          | 3.92                  | 0.00                             | 7.10                          | 7.10                  | 0.00                             |
| 64    | 220 KV Sub Station Pakhowal 2no bays of 220 kv sub station Mahal Kalan                      | 0.00                    | 2.92                          | 2.92                  | 0.00                             | 7.10                          | 7.10                  | 0.00                             |
| 65    | 220 KV Sub Station Udhoke UG 66 to 220KV  | 0.00                    | 33.17                         | 0.00                  | 33.17                            | 42.60                         | 75.77                 | 0.00                             |
| 66    | 220 KV Sub Station Mahilpur-Breaker Fdn for double circuit for Hpur                         | 0.00                    | 12.23                         | 0.00                  | 12.23                            | 7.10                          | 19.33                 | 0.00                             |
| 67    | 220 KV Sub Station Fzpr Road Ludhiana-Addl 100 /160MVA TF bay                               | 0.00                    | 17.70                         | 0.00                  | 17.70                            | 42.60                         | 60.30                 | 0.00                             |

| S. No | Scope (220 kV)  | Opening WIP as on March | Expenditure during FY 2012-13 | Transferred to Assets | Closing WIP as on March 31, 2013 | Expenditure during FY 2013-14 | Transferred to Assets | Closing WIP as on March 31, 2014 |
|-------|---|-------------------------|-------------------------------|-----------------------|----------------------------------|-------------------------------|-----------------------|----------------------------------|
| 68    | 220 KV Sub Station Dasuya-T-1 Trenches  | 0.00                    | 11.35                         | 0.00                  | 11.35                            | 14.20                         | 25.55                 | 0.00                             |
| 69    | 220 KV Sub Station Dasuya-100 MVA TF Plinth                                   | 0.00                    | 8.72                          | 0.00                  | 8.72                             | 28.40                         | 37.12                 | 0.00                             |
| 70    | 220 KV Sub Station kot Karor UG 132 to 220KV                                  | 0.00                    | 38.32                         | 0.00                  | 38.32                            | 28.40                         | 66.72                 | 0.00                             |
| 71    | 220 KV Sub Station Mastewal SHB   | 0.00                    | 23.91                         | 0.00                  | 23.91                            | 0.00                          | 23.91                 | 0.00                             |
| 72    | 220 KV Sub Station Sultanpur Iodhi-Breaker Fdn for 132 KV Khera Mandir Bay    | 0.00                    | 0.42                          | 0.00                  | 0.42                             | 0.00                          | 0.42                  | 0.00                             |
| 73    | 220 KV Sub Station Sultanpur Iodhi-Breaker Fdn for T-1 TF                     | 0.00                    | 0.64                          | 0.00                  | 0.64                             | 0.00                          | 0.64                  | 0.00                             |
| 74    | 220 KV Sub Station Gobaya-100 Mva Tf plinth                                   | 0.00                    | 4.23                          | 0.00                  | 4.23                             | 0.00                          | 4.23                  | 0.00                             |
| 75    | 220 KV Sub Station Raishiana -66 KV bay For Fatehabaad                        | 0.00                    | 2.80                          | 0.00                  | 2.80                             | 0.00                          | 2.80                  | 0.00                             |
| 76    | 220 KV Sub Station Lalton Kalan-replacement of Damaged TF plinth              | 0.00                    | 1.57                          | 1.57                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 77    | 220 KV Sub Station Lalton Kalan-cooling bank foundation 100 mva plinth        | 0.00                    | 2.85                          | 2.85                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 78    | 220 KV Sub Station Noor Mehal UG 132 to 220KV                                 | 0.00                    | 43.98                         | 0.00                  | 43.98                            | 0.00                          | 43.98                 | 0.00                             |
| 79    | 220 KV Sub Station Kanjli-All tech civil Works                                | 0.00                    | 1.90                          | 0.00                  | 1.90                             | 14.20                         | 16.10                 | 0.00                             |
| 80    | 220 KV Sub Station Butari- addl 3rd 100MVA TF Plinth                          | 0.00                    | 11.67                         | 11.67                 | 0.00                             | 35.50                         | 35.50                 | 0.00                             |
| 81    | 220 KV Sub Station Jamsher-CC Foundation at 220 Kv Sub station BBMB Jalandhar | 0.00                    | 0.41                          | 0.41                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |

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|-------|---|-------------------------|-------------------------------|-----------------------|----------------------------------|-------------------------------|-----------------------|----------------------------------|
| 82    | 220 KV Sub Station-Patti-Bay For 220 KV AI On replacement Of TF 12.5.MVA to 20MVA                 | 0.00                    | 0.32                          | 0.32                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 83    | 220 KV Sub Station Khasa-Foundation For Radiator & replacement Of 12.5 MVA TF /Cap Bank           | 0.00                    | 0.49                          | 0.49                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 84    | 220 KV Sub Station Himmatpura-UG 66 to 220 Kv   | 403.24                  | 29.65                         | 432.89                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 85    | 220 KV Sub Station Katorewala All Tech Civil works  | 0.00                    | 26.01                         | 26.01                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 86    | 220 KV Sub Station Ajitwal UG 66 to 220 KV  | 0.00                    | 1.23                          | 1.23                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 87    | 220 KV Sub Station Algon Extn to SH B   | 0.00                    | 2.16                          | 0.00                  | 2.16                             | 0.00                          | 2.16                  | 0.00                             |
| 88    | 220 KV Sub Station Gobayan 66 KV bay for Ladhuka line   | 0.00                    | 1.77                          | 0.00                  | 1.77                             | 0.00                          | 1.77                  | 0.00                             |
| 89    | 220 KV Sub Station Mastewal -Approach Road  | 0.00                    | 32.57                         | 0.00                  | 32.57                            | 0.00                          | 32.57                 | 0.00                             |
| 90    | 220 KV Sub Station Sahnewal-Civil Works For Railways  | 0.00                    | 0.33                          | 0.00                  | 0.33                             | 7.10                          | 7.43                  | 0.00                             |
| 91    | 220 KV Sub Station Kotla Janga-Malian Kalan Bay & Cap Bank  | 0.00                    | 3.14                          | 0.00                  | 3.14                             | 0.00                          | 3.14                  | 0.00                             |
| 92    | 220 KV Sub Station Algon Renovation to SH B   | 0.00                    | 8.24                          | 0.00                  | 8.24                             | 0.00                          | 8.23                  | 0.00                             |
| 93    | 220 KV Sub Station Baghapurana UG 66 to 220kv   | 0.00                    | 2.51                          | 2.51                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 94    | 220 KV Sub Station Kotla Janga-Road For Providing Sufficient Path For Tractor Carrying 100 MVA TF | 0.00                    | 1.22                          | 1.22                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |



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|-------|---|-------------------------|-------------------------------|-----------------------|----------------------------------|-------------------------------|-----------------------|----------------------------------|
| 95    | 220 KV Sub Station Botianwala-220 kv Bay For Goindwal Sahib           | 0.00                    | 3.91                          | 3.91                  | 0.00                             | 7.10                          | 7.10                  | 0.00                             |
| 96    | 220 KV Sub Station Botianwala-Remaining Works 220 Kv bay For Mastewal | 0.00                    | 5.93                          | 5.93                  | 0.00                             | 28.40                         | 28.40                 | 0.00                             |
| 97    | 220 KV Sub Station Katore Wala  | 0.00                    | 0.55                          | 0.55                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 98    | 220 KV Sub Station Sultanpur 3rd 160 MVA TF Plinth                    | 0.00                    | 0.92                          | 0.92                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 99    | 220kv Sun station Pakhowal  | 149.08                  | 0.00                          | 149.08                | 0.00                             | 14.20                         | 14.20                 | 0.00                             |
| 100   | 220kv Sun station Fzpr Road Ludhiana                                  | 101.79                  | 0.00                          | 101.79                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 101   | Shifting of 220KV Rajpura-Mohali DC Line from TPS Rajpura             | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 102   | Phagan Majra Nabha  | 1779.61                 | 12.18                         | 1791.79               | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 103   | Pakhowal-Mehalkalan   | 876.92                  | 105.73                        | 982.65                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 104   | LILO of Sunam-Mansa at Jhunir   | 1239.98                 | 0.00                          | 1239.98               | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 105   | IInd Ckt. On Patran-Sunam   | 263.77                  | 37.94                         | 301.71                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 106   | LILO (LOOP IN) of 220KV Sunam-Dhuri at 400KV Dhuri (Bhalwan)          | 481.63                  | 98.75                         | 0.00                  | 580.38                           | 11.20                         | 591.58                | 0.00                             |
| 107   | LILO (LOOP OUT) of 220KV Sunam-Dhuri at 400KV Dhuri (Bhalwan)         | 320.22                  | 159.19                        | 0.00                  | 479.41                           | 11.20                         | 490.61                | 0.00                             |
| 108   | 220KV Dhuri (400KV) Nabha   | 329.72                  | 349.40                        | 679.12                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 109   | LILO of Patiala-Patran at Passiana                                    | 32.03                   | 23.32                         | 0.00                  | 55.35                            | 0.00                          | 55.35                 | 0.00                             |
| 110   | LILO of Patran-Rajla at Kakrala                                       | 8.55                    | 111.10                        | 0.00                  | 119.65                           | 0.00                          | 119.65                | 0.00                             |
| 111   | LILO of GHTP-Mansa at Talwandi Sabo                                   | 59.65                   | 548.47                        | 0.00                  | 608.12                           | 28.00                         | 636.12                | 0.00                             |
| 112   | LILO of Patran-Sunam at Bangan  | 215.26                  | 114.69                        | 0.00                  | 329.95                           | 11.20                         | 341.15                | 0.00                             |

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|-------|--|-------------------------|-------------------------------|-----------------------|----------------------------------|-------------------------------|-----------------------|----------------------------------|
| 113   | 220KV Dhuri (400KV) Bangan                                   | 463.84                  | 971.60                        | 0.00                  | 1435.44                          | 28.00                         | 1463.44               | 0.00                             |
| 114   | 220KV Muktsar (400KV) Ghubaya                                | 4.05                    | 157.88                        | 0.00                  | 161.93                           | 224.00                        | 0.00                  | 385.93                           |
| 115   | 220KV Muktsar (400KV) Kotkapura (Sandhwan) Line              | 26.81                   | 119.84                        | 0.00                  | 146.65                           | 224.00                        | 0.00                  | 370.65                           |
| 116   | 220KV LILO of Muktsar-Bajakhan at Kotkapura Line             | 33.69                   | 31.54                         | 0.00                  | 65.23                            | 5.60                          | 70.83                 | 0.00                             |
| 117   | 220KV Makhu Algon DC Line                                    | 4.99                    | 0.00                          | 0.00                  | 4.99                             | 0.00                          | 4.99                  | 0.00                             |
| 118   | 220KV LILO of BTI-Malout at BADAL                            | 0.00                    | 43.34                         | 0.00                  | 43.34                            | 168.00                        | 211.34                | 0.00                             |
| 119   | 220KV LILO of Bathinda-Muktsar at MALOUT                     | 149.26                  | 0.00                          | 149.26                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 120   | 220KV Botianwala-Mastewala Line                              | 262.63                  | 71.31                         | 333.94                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 121   | 400KV Muktsar - 220KV Abohar 220KV Line                      | 37.25                   | 299.94                        | 0.00                  | 337.19                           | 280.00                        | 0.00                  | 617.19                           |
| 122   | 220KV Dhuri (400KV) Dhanoula Line                            | 0.00                    | 113.75                        | 0.00                  | 113.75                           | 784.00                        | 897.75                | 0.00                             |
| 123   | 220KV LILO of MOGA-Muktsar at SADIQ                          | 88.96                   | 0.00                          | 88.96                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 124   | 22KV FERROZPUR SADIQ   | 2.64                    | 0.00                          | 0.00                  | 2.64                             | 0.00                          | 2.64                  | 0.00                             |
| 125   | Ind Ckt. On 220KV BTI-Muktsar Line                           | 108.99                  | 283.11                        | 0.00                  | 392.10                           | 28.00                         | 420.10                | 0.00                             |
| 126   | LILO of 220KV GHTP-Mansa line at Dhanoula                    | 0.00                    | 550.60                        | 0.00                  | 550.60                           | 560.00                        | 1110.60               | 0.00                             |
| 127   | LILO of 220KV Moga-Ferozpur line at Talwandi Bhai            | 0.22                    | 65.65                         | 0.00                  | 65.87                            | 5.60                          | 71.47                 | 0.00                             |
| 128   | LILO of 220KV Ferozpur-Talwandi Bhai at Sadiq                | 0.00                    | 276.56                        | 0.00                  | 276.56                           | 560.00                        | 836.56                | 0.00                             |
| 129   | LILO of 220KV Dhuri (Bhalwan)-Bangan at 200KV S/Stn. Chhajli | 0.00                    | 54.83                         | 0.00                  | 54.83                            | 448.00                        | 502.83                | 0.00                             |
| 130   | 400KV Muktsar - 220KV Malout Line                            | 0.00                    | 32.90                         | 0.00                  | 32.90                            | 280.00                        | 0.00                  | 312.90                           |

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|-------|---|-------------------------|-------------------------------|-----------------------|----------------------------------|-------------------------------|-----------------------|----------------------------------|
| 131   | 220KV Malout - Abohar Line  | 0.00                    | 32.90                         | 0.00                  | 32.90                            | 280.00                        | 0.00                  | 312.90                           |
| 132   | 400 KV MOGA - 220KV Mehalkalan Line   | 0.00                    | 5.48                          | 0.00                  | 5.48                             | 560.00                        | 0.00                  | 565.48                           |
| 133   | 200KV Nabha-220KV Naraingarh Line   | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 560.00                        | 0.00                  | 560.00                           |
| 134   | Restoration supply of 220KV Ablowal-Phagan Majra                                | 1.19                    | 0.00                          | 1.19                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 135   | Restoration supply of LILO of 220KV Moga-FZR at Botianwala                      | 39.45                   | 0.22                          | 39.67                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 136   | Restoration supply of 220KV Loop out P.Majra to Rajpura & Bhatari (Bahadurgarh) | 38.29                   | -4.37                         | 33.92                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 137   | 220 KV Sahnwal Doraha   | 530.33                  | 132.06                        | 662.39                | -0.01                            | 0.00                          | 0.00                  | -0.01                            |
| 138   | 220 KV MHL Derabassi Lalru  | 170.73                  | 0.11                          | 170.84                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 139   | 220 KV RTP Sahnawal at Ghulal   | 259.49                  | 89.89                         | 0.00                  | 349.38                           | 23.56                         | 372.94                | 0.00                             |
| 140   | 220 KV RTP Mohali at Kharar   | 1.65                    | 3.21                          | 4.86                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 141   | 220 KV Nalagarh Mohali line   | 510.80                  | 0.00                          | 51.08                 | 459.72                           | 0.00                          | 459.72                | 0.00                             |
| 142   | 220 KV Mohali Derabassi at Sec 80   | -2.17                   | 0.00                          | -2.17                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 143   | 220 KV Lalton Malerkotla at Pakhowal  | 5.62                    | 0.34                          | 5.96                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 144   | 220 KV Ganguwal Mohali 2nd Ckt  | 615.20                  | 59.12                         | 0.00                  | 674.32                           | 58.90                         | 733.22                | 0.00                             |
| 145   | 220 KV Lalton Kalan Dhandari line at PGCIL LDH                                  | 5.33                    | 0.00                          | 5.33                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 146   | 220 KV Lalton Jagraon line  | -1.30                   | 0.00                          | -1.30                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 147   | 220 KV Sahnawal Kanganwal   | 0.04                    | 0.00                          | 0.04                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 148   | LILO of 220 KV RTP G.Garh line at Bassi Pathana                                 | 184.80                  | 137.42                        | 0.00                  | 322.22                           | 94.24                         | 416.46                | 0.00                             |

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|-------|---|----------------------------------|--------------------------------------|------------------------------|--|--------------------------------------|------------------------------|---|
| 149   | 220 KV Lalton Sahnewal line               | 59.14                            | 3.22                                 | 62.37                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 150   | 220 KV Mohali Rajpura at Banur            | 262.60                           | 208.61                               | 0.00                         | 471.21                                 | 235.60                               | 706.82                       | -0.01                                     |
| 151   | 220 KV Noor Mahal Nakodar line            | 20.61                            | -20.61                               | 0.00                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 152   | 220 KV M.Kotla Ggarh at IKOLAHA           | 159.74                           | 202.81                               | 362.55                       | 0.00                                   | 23.56                                | 23.56                        | 0.00                                      |
| 153   | 220 KV RTP Sahnewal at Gaunsgarh          | 329.06                           | 517.18                               | 0.00                         | 846.24                                 | 58.90                                | 905.14                       | 0.00                                      |
| 154   | 220 KV Rajpura to Devigarh                | 9.32                             | 353.44                               | 0.00                         | 362.76                                 | 942.41                               | 0.00                         | 1305.17                                   |
| 155   | 220 KV Bahadurgarh Devigarh               | 153.57                           | 491.57                               | 0.00                         | 645.13                                 | 589.01                               | 1234.14                      | 0.00                                      |
| 156   | 220 KV G.Garh Patiala at Rajpuar LOOP out | 3.56                             | 353.41                               | 0.00                         | 356.97                                 | 353.41                               | 0.00                         | 710.37                                    |
| 157   | 220 KV G.Garh Patiala at Rajpuar LOOP IN  | 3.96                             | 353.43                               | 0.00                         | 357.39                                 | 353.41                               | 0.00                         | 710.79                                    |
| 158   | 220 KV Moga Jamalpur at Himmatpura        | 3.26                             | 364.93                               | 0.00                         | 368.19                                 | 706.81                               | 0.00                         | 1075.00                                   |
| 159   | 220 KV Lalton Doraha line                 | 0.01                             | 362.78                               | 0.00                         | 362.80                                 | 353.41                               | 0.00                         | 716.20                                    |
| 160   | 220 KV Rajpura Lalru                      | 2.89                             | 356.34                               | 0.00                         | 359.23                                 | 589.01                               | 0.00                         | 948.24                                    |
| 161   | 220 KV Dharamkot to Dhaleke               | 0.00                             | 58.90                                | 0.00                         | 58.90                                  | 117.80                               | 0.00                         | 176.70                                    |
| 162   | 220 KV Mohali -1 Aug. 66 KV CT & bays     | 0.42                             | 0.00                                 | 0.42                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 163   | 220 KV Mohali -1 220 KV Nalagarh Bays     | -0.61                            | 0.00                                 | -0.61                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 164   | 220 KV Mohali 1x10.860 MVAR C/B           | 0.38                             | 0.00                                 | 0.38                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 165   | 220 KV Sec-80, Mohali SDE of 66 KV C/B    | 0.31                             | 0.00                                 | 0.31                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 166   | 220 KV Sec-80, Mohali Addl. 100 MVA T/F   | 0.00                             | 599.99                               | 600.00                       | -0.01                                  | 0.00                                 | 0.00                         | -0.01                                     |
| 167   | 220 KV Sec-80, Mohali 4 x 10.860 MVAR C/B | 0.00                             | 80.00                                | 80.00                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |

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| 168   | 220 KV Sec-80, Mohali 100 MVA T/F                                      | -8.96                   | 0.00                          | -8.96                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 169   | 220 KV Rajpura Addl. 12.5 MVA T/F with ellied equipment                | 25.69                   | 150.25                        | 175.95                | -0.01                            | 0.00                          | 0.00                  | -0.01                            |
| 170   | 220 KV Focal Point Nabha U/G of 66 KV to 220 KV                        | 935.89                  | 179.19                        | 1115.09               | -0.01                            | 0.00                          | 0.00                  | -0.01                            |
| 171   | 220 KV Focal Point Nabha 2 x 10.860 MVAR C/B                           | 0.00                    | 50.90                         | 50.91                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 172   | 220 KV Focal Point Nabha Addl. 20 MVA T/F                              | -5.37                   | 0.15                          | -5.22                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 173   | 220KV Sunam 1 No. 66 KV bay for Chajali -2                             | -2.45                   | 0.00                          | -2.45                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 174   | 220KV Sunam Addl. 3rd 100 MVA T/F                                      | 824.55                  | 0.00                          | 824.56                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 175   | 220KV Sunam Addl. 12.5 MVA T/F   | 132.61                  | 0.11                          | 132.71                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 176   | 220KV Sunam 1 No. bay for Ubheywal                                     | 0.04                    | 0.00                          | 0.04                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 177   | 220KV Sunam 1 No. 220 KV bay Patran Direction                          | 7.54                    | 42.46                         | 50.00                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 178   | 220KV Sunam 3 x 10.860 MVAR C/B  | 0.00                    | 48.00                         | 48.00                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 179   | 220KV Sunam Repl. Of Damg. 100 MVA with 160 MVA T/F (Amendment No. 33) | 0.37                    | 680.59                        | 680.96                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 180   | 220 KV Amlloh Road Gobindgarh Addl. 100 MVA with allied equipment      | -0.16                   | 0.00                          | -0.16                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 181   | 220 KV Amlloh Road Gobindgarh Addl. 12.5 MVA with Allied equipment     | -0.10                   | 0.00                          | -0.10                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 182   | 220 KV Amlloh Road Gobindgarh Aug. 12.5 MVA with 20 Mva T/F            | 0.53                    | 0.00                          | 0.53                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 183   | 220 KV S/S Dhuri Addl. 100 MVA T/F                                     | -0.20                   | 0.00                          | -0.20                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |

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| 184   | 220 KV S/S Dhuri 1 No. bay for Bhasour                              | -0.65                   | 0.00                          | -0.65                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 185   | 220 KV S/S Dhuri Addl. 2x10.860 MVA R C/B                           | -11.39                  | 0.00                          | -11.39                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 186   | 220 KV S/S Dhuri Addl. 3rd 100 MVA T/F                              | 625.32                  | 3.78                          | 629.10                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 187   | 220 KV S/S Dhuri 2 x 10.860 MVAR C/B                                | 0.00                    | 50.00                         | 50.00                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 188   | 220 KV S/S Dhuri 66 KV 10.860 MVA R C/B for                         | -0.65                   | 0.00                          | -0.65                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 189   | 220 KV S/S Handiaya Aug. 12.5 MVA with 20 MVA T/F                   | 43.94                   | 0.00                          | 43.94                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 190   | 220 KV S/S Lalru U/G of 66 KV to 220 KV                             | 899.53                  | 0.00                          | 899.53                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 191   | 220 KV S/S Lalru 4 x 10.860 MVAR C/B                                | 0.00                    | 80.00                         | 80.00                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 192   | 220 KV S/S Malerkotla Addl. 3rd/ 100 MVA T/F                        | 713.26                  | 0.02                          | 713.28                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 193   | 220 KV S/S Malerkotla Aug. 12.5 MVA with 20 MVA T/F                 | 0.13                    | 0.00                          | 0.13                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 194   | 220 KV Lalto Kalan Repl. Of Damage 100 MVA with same cap.           | 26.25                   | 0.00                          | 26.25                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 195   | 220 KV Bahadargarh 66 KV O/G bay for Bahadargarh (Bhateri)          | -4.35                   | 0.00                          | -4.35                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 196   | 220 KV Bahadargarh Comp. Pending Work at 66 KV O/G bay for B.GRH    | 20.71                   | 0.00                          | 20.71                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 197   | 220 KV S/S Mansa Repl. Of 220 KV CT class to 0.5 to 0.2             | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 198   | 220 KV S/S Mansa Aug. 10/12.5 MVA with 20 MVA T/F (Amendment No. 9) | 0.00                    | 220.00                        | 220.00                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 199   | 220 KV S/S Ablowal Aug. 10/12.5 MVA with 20 MVA T/F                 | 284.66                  | 0.00                          | 284.66                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |

| S. No | Scope (220 kV)   | Opening WIP as on March | Expenditure during FY 2012-13 | Transferred to Assets | Closing WIP as on March 31, 2013 | Expenditure during FY 2013-14 | Transferred to Assets | Closing WIP as on March 31, 2014 |
|-------|--|-------------------------|-------------------------------|-----------------------|----------------------------------|-------------------------------|-----------------------|----------------------------------|
| 200   | 220 KV S/S Ablowal Prov. Control equipment on 66 KV Shakti Vihar MES bay (1 No. 66 KV MES bay) | 0.22                    | 0.00                          | 0.22                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 201   | 220 KV S/S Ablowal Aug. 10/12.5 MVA with 20 MVA T/F (T-3)                                      | -32.73                  | -0.04                         | -32.77                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 202   | 220 KV S/S Kharar U/G of 132 KV to 220 KV S/S  | -1.01                   | 0.00                          | -1.01                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 203   | 220 KV S/S Kharar Addl. 100 MVA T/F  | 1.20                    | 580.87                        | 582.07                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 204   | 220 KV S/S Kharar Addl. 12.5 MVA T/F / 20 MVA T/F  | 13.38                   | 149.76                        | 163.14                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 205   | 220 KV S/S G-4, Mandi Gobindgarh New S/Stn.  | 1159.62                 | 60.04                         | 1219.65               | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 206   | 220 KV S/S G-4, Mandi Gobindgarh 2 x 10.860 MVAR C/B   | 0.00                    | 50.00                         | 50.00                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 207   | 220 KV S/S G-4, Mandi Gobindgarh Prov. 2 No. 66 KV bay for Sirhind (Amendment No. 20)          | 29.59                   | 30.42                         | 60.00                 | 0.01                             | 0.00                          | 0.00                  | 0.01                             |
| 208   | 220 KV S/S Rajla 1 No. 66 KV bay for Balbera   | 16.53                   | 0.00                          | 16.53                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 209   | 220 KV S/S Rajla Addl. 100 MVA T/F   | 8.23                    | 0.00                          | 8.24                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 210   | 220 KV S/S Rajla Addl. 20 MVA T/F (As per Amendment No. 8)                                     | 176.44                  | 43.56                         | 220.00                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 211   | 220 KV S/S Rajla Repl. Of Damg. 20 MVA T/F with Same Cap.                                      | 16.24                   | 0.00                          | 16.24                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 212   | 220 KV S/S Patran Addl. 3rd 100 MVA T/F  | 659.54                  | 0.06                          | 659.60                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |

| S. No | Scope<br>(220 kV)  | Opening<br>WIP as<br>on<br>March | Expenditur<br>e during FY<br>2012-13 | Transfer<br>red to<br>Assets | Closing WIP<br>as on March<br>31, 2013 | Expenditur<br>e during FY<br>2013-14 | Transferr<br>ed to<br>Assets | Closing<br>WIP as<br>on March<br>31, 2014 |
|-------|--|----------------------------------|--------------------------------------|------------------------------|--|--------------------------------------|------------------------------|---|
| 213   | 220 KV S/S Patran<br>Prov. 66 KV Double<br>bus bar 2 No. to 4No.<br>Conduct.                     | 0.00                             | 9.99                                 | 10.00                        | -0.01                                  | 0.00                                 | 0.00                         | -0.01                                     |
| 214   | 220 KV S/S Patran 2 x<br>10.860 MVAR C/B   | 0.00                             | 49.99                                | 50.00                        | -0.01                                  | 0.00                                 | 0.00                         | -0.01                                     |
| 215   | 220 KV S/S Patran<br>Repl. Of Damg. 16/20<br>MVA with 20 MVA<br>T/F                              | 0.00                             | 124.23                               | 124.23                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 216   | 220 KV S/S Patran 1<br>No. O/G bay Sunam<br>Direction  | 4.92                             | 45.09                                | 50.00                        | 0.01                                   | 0.00                                 | 0.00                         | 0.01                                      |
| 217   | 220 KV S/S Pakhowal<br>2 No. 220 KV bay<br>Mehal Kalan Direction                                 | 19.62                            | 60.39                                | 80.00                        | 0.01                                   | 0.00                                 | 0.00                         | 0.01                                      |
| 218   | 220 KV S/S Pakhowal<br>2 No. 66 KV bays<br>Latala Direction                                      | 0.00                             | 50.00                                | 50.00                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 219   | 220 KV S/S Bassi<br>Pathana U/G of 66 KV<br>to 220 KV S/Stn.                                     | 690.38                           | 109.63                               | 800.00                       | 0.01                                   | 0.00                                 | 0.00                         | 0.01                                      |
| 220   | 220 KV S/S Sahnewal<br>2 No. 220 KV bay for<br>220 KV S/S Doraha                                 | 26.31                            | 73.69                                | 100.00                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 221   | 220 KV S/S Sahnewal<br>Addl. 2 x 10.860<br>MVAR C/B  | 0.00                             | 35.00                                | 35.00                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 222   | 220 KV S/S Kakrala<br>U/G of 66 KV to 220<br>KV S/Stn.   | 1.55                             | 798.46                               | 800.00                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 223   | 220 KV S/S Ikolaha<br>U/G of 66 KV to 220<br>KV S/Stn.   | 2.19                             | 797.80                               | 800.00                       | -0.01                                  | 0.00                                 | 0.00                         | -0.01                                     |
| 224   | 220 KV S/S Dera<br>Bassi Repl. Of Damg.<br>100 MVA T/F with<br>Same Cap. (Make<br>CGL with BHEL) | 572.51                           | 0.00                                 | 572.51                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 225   | 220 KV S/S Dera<br>Bassi Repl. Of Damg.<br>100 MVA T/F with<br>Same Cap. (Make<br>BHEL with ABB) | -572.57                          | 0.00                                 | -572.57                      | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |



| S. No | Scope (220 kV)  | Opening WIP as on March | Expenditure during FY 2012-13 | Transferred to Assets | Closing WIP as on March 31, 2013 | Expenditure during FY 2013-14 | Transferred to Assets | Closing WIP as on March 31, 2014 |
|-------|---|-------------------------|-------------------------------|-----------------------|----------------------------------|-------------------------------|-----------------------|----------------------------------|
| 226   | 220 KV S/S Dera Bassi Prov. Control Equip. On 220 KV Mohali-Dera Bassi Ckt. - 1 | 34.92                   | 0.02                          | 34.95                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 227   | 220 KV S/S Dera Bassi Addl. 10.860 MVAR C/B                                     | 15.55                   | 1.26                          | 16.80                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 228   | 220 KV S/S Passiana U/G 66 KV to 220 KV S/S                                     | 0.00                    | 800.00                        | 800.00                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 229   | 220 KV S/S G-1, Mandi Gobindgarh Prov. 220 KV Double bus bar Condt. 2 to 4 No.  | 0.00                    | 23.99                         | 24.00                 | -0.01                            | 0.00                          | 0.00                  | -0.01                            |
| 230   | 220 KV S/S Dhanaula U/G 66 KV to 220 KV S/S                                     | 0.00                    | 800.00                        | 800.00                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 231   | 220 KV S/S Amloh 2 x 10.860 MVAR C/B  | 0.00                    | 35.01                         | 35.00                 | 0.01                             | 0.00                          | 0.00                  | 0.01                             |
| 232   | 220 KV S/S G-2, Mandi Gobindgarh Repl. Of Damg. 20 MVA T/F with Same Cap.       | 0.00                    | 72.00                         | 72.00                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 233   | 220 kv S/S Sadiq 1X100 MVA 220/66 kv T/F  | -124.98                 | 0.00                          | -124.98               | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 234   | 220 kv S/S Sadiq Aug. of 20 132/11 KV a t/f with 20/25 66/11 KV MVA T/F         | 130.71                  | 0.00                          | 130.71                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 235   | 220 kv S/S Sadiq Addl 1X100 MVA T/F   | 0.00                    | 535.34                        | 535.34                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 236   | 220 kv S/S Malout 1X100 MVA 220/66 kv T/F                                       | -56.79                  | 0.00                          | -56.79                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 237   | 220 kv S/S Malout 2*10.860MVAR Cap. Bank  | 27.56                   | 72.00                         | 99.56                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 238   | 220 kv S/S Malout Addl 1X20 MVA T/F   | 0.00                    | 94.83                         | 94.83                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 239   | 220 kv S/S Ghubaya Addl 1X100 MVA 220/66 kv T/F                                 | 247.47                  | 0.79                          | 248.26                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |

| S. No | Scope<br>(220 kv)  | Opening<br>WIP as<br>on<br>March | Expenditur<br>e during FY<br>2012-13 | Transfer<br>red to<br>Assets | Closing WIP<br>as on March<br>31, 2013 | Expenditur<br>e during FY<br>2013-14 | Transferr<br>ed to<br>Assets | Closing<br>WIP as<br>on March<br>31, 2014 |
|-------|--|----------------------------------|--------------------------------------|------------------------------|--|--------------------------------------|------------------------------|---|
| 240   | 220 kv S/S Ghubaya<br>66KV Bay for<br>Ladhuka  | 3.03                             | 23.98                                | 27.00                        | 0.01                                   | 0.00                                 | 0.00                         | 0.01                                      |
| 241   | 220 kv S/S Ghubaya<br>Repl. of Damaged<br>16MVA                                      | 16.88                            | 39.68                                | 56.56                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 242   | 220 kv S/S Ghubaya<br>Upgradation from twin<br>Conductor<br>with Quadra<br>Conductor | 0.00                             | 10.00                                | 10.00                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 243   | 220 kv S/S<br>Botianwala Addl<br>1X100 MVA 220/66<br>kv T/F                          | 33.44                            | 0.53                                 | 33.96                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 244   | 220 kv S/S<br>Botianwala 10.860<br>MVAR 66kv Cap.<br>Bank                            | 26.67                            | 0.00                                 | 26.67                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 245   | 220 kv S/S<br>Botianwala 2Nos<br>220KV Bay for<br>mastewala                          | 88.92                            | 21.13                                | 110.05                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 246   | 220 kv S/S<br>Botianwala<br>3*10.860MVAR cap.<br>Bank                                | 19.76                            | 50.25                                | 70.00                        | 0.01                                   | 0.00                                 | 0.00                         | 0.01                                      |
| 247   | 220KV S/S Jhunir 66<br>KV Bay for Boha   | 0.00                             | 22.00                                | 22.00                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 248   | 220KV S/S Jhunir<br>1X100 MVA 220/66<br>kv T/F                                       | 35.49                            | -2.62                                | 32.87                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 249   | 220KV S/S Jhunir<br>66KV Bay for mansa   | 0.07                             | 0.00                                 | 0.07                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 250   | 220 kv S/S Baja<br>Khana Addl 1X100<br>MVA 220/66 kv T/F                             | 80.60                            | 0.44                                 | 81.04                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 251   | 220 kv S/S<br>Himmatpura 1X100<br>MVA 220/66 kv T/F                                  | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 252   | 220 kv S/S<br>Himmatpura 12.5<br>MVA 66/11 kv to<br>replace                          | -5.85                            | 0.00                                 | -5.85                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 253   | 220 kv S/S<br>Himmatpura 66KBV<br>Bay for Budhor                                     | 0.13                             | 21.86                                | 22.00                        | -0.01                                  | 0.00                                 | 0.00                         | -0.01                                     |

| S. No | Scope<br>(220 kv)  | Opening<br>WIP as<br>on<br>March | Expenditur<br>e during FY<br>2012-13 | Transfer<br>red to<br>Assets | Closing WIP<br>as on March<br>31, 2013 | Expenditur<br>e during FY<br>2013-14 | Transferr<br>ed to<br>Assets | Closing<br>WIP as<br>on March<br>31, 2014 |
|-------|--|----------------------------------|--------------------------------------|------------------------------|--|--------------------------------------|------------------------------|---|
| 254   | 220 kv S/S<br>Himmatpura Addl.<br>100MVA T/F                               | 15.16                            | 114.30                               | 129.46                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 255   | 220 kv S/S<br>Himmatpura 66KV<br>Bay for Budhor-2                          | -0.09                            | 0.00                                 | -0.09                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 256   | 220 kv S/S<br>Himmatpura Augo of<br>10/12.5MVA with<br>20MVA               | 145.11                           | -13.61                               | 131.50                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 257   | 220 kv S/S<br>Himmatpura<br>4*10.860MVAR Cap.<br>Bank himma                | 110.24                           | -20.25                               | 90.00                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 258   | 220 kv S/S Bagha<br>Purana 1X100 MVA<br>220/66 kv T/F                      | 1.27                             | 0.00                                 | 1.27                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 259   | 220 kv S/S Bagha<br>Purana Addl 20/25<br>MVA 132/66 kv T/F                 | 32.24                            | 0.00                                 | 32.24                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 260   | 220 kv S/S Bagha<br>Purana 1X20/25<br>MVA 132/66 kv to<br>replace 12.5 MVA | 0.44                             | 0.00                                 | 0.44                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 261   | 220 kv S/S Mansa 20<br>MVA 66/11 KV to<br>replace 12.5                     | 64.71                            | 12.00                                | 76.71                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 262   | 220 kv S/S Mansa 66<br>kv O/G bay for<br>Budhlada                          | -14.55                           | 0.00                                 | -14.55                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 263   | 220 kv S/S Mansa<br>66KV S/S Jogaralla<br>Bay                              | 2.28                             | 10.81                                | 13.10                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 264   | 220 kv S/S Mansa<br>Addl. 1X100 MVA<br>T/F                                 | 0.00                             | 678.89                               | 678.89                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 265   | 220 kv S/S Muksar<br>220 kv Incoming Bay<br>from GNDTP                     | -3.20                            | 0.00                                 | -3.20                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 266   | 220kv S/S Ajitwal<br>12.5 MVA 66/11 kv to<br>replace 20 MVA                | 0.00                             | 142.22                               | 142.22                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 267   | 220kv S/S Ajitwal<br>66KV Chug wan Bay                                     | 15.15                            | 0.11                                 | 15.26                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 268   | 220KV S/S Mastewala<br>100MVA T/F & S/G                                    | 900.92                           | 274.09                               | 1175.01                      | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |

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|-------|--|----------------------------------|--------------------------------------|------------------------------|--|--------------------------------------|------------------------------|---|
| 269   | 220 KV S/S Lehra Mohabbat 66KV Bay for Phool   | 16.23                            | 0.00                                 | 16.23                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 270   | 220 KV S/S Lehra Mohabbat 66KV Bay for Bucho   | 3.24                             | 0.00                                 | 3.24                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 271   | 220KV GNDTP Bathinda Aug of 16/20 MVA with 50MVA                                     | 0.91                             | 0.00                                 | 0.91                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 272   | 220KV S/S Mehalkalan 100MV AT/F & S/G  | -5.39                            | 1086.28                              | 1080.89                      | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 273   | 220KV S/S Mehalkalan Addl. 3rd 20MVA T/F   | 0.39                             | 169.61                               | 170.00                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 274   | 220KV S/S Mehalkalan 2 Nos. 66 KV Bays   | 0.00                             | 18.56                                | 18.56                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 275   | 220KV S/S Doraha 100MVA T/F  | -2.72                            | 182.08                               | 179.37                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 276   | 220KV S/S Doraha Addl. 20MVA T/F   | 130.72                           | 29.28                                | 160.00                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 277   | 220KV S/S Doraha Addl. 1X160 MVA   | 0.00                             | 720.08                               | 720.08                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 278   | 220KV S/S Malerkotla Upgra. 220KV Bus Bar  | 0.59                             | 42.00                                | 42.59                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 279   | 220KV S/S Sahnewal 2Nos 220KV Bay for Doraha   | 34.92                            | 0.02                                 | 34.94                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 280   | 220KV S/S Sahnewal U/G from twin Conductor with Quadra Conductor                     | 0.00                             | 10.00                                | 10.00                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 281   | 200KV S/S Chugawan 100MVA T/F & S/G  | 455.42                           | 500.21                               | 955.64                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 282   | 220KV S/S Raishiana Addl. 100MVA T/F   | 494.59                           | 95.57                                | 590.15                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 283   | 220KV S/S Raishiana 1 No. 66 kv O/G bay for Focal point Tarntaran (Amendment No. 30) | 0.00                             | 16.22                                | 16.22                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 284   | 220KV S/S Ghulal 100MVA T/F & S/G  | 157.69                           | 1164.75                              | 1322.44                      | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |

| S. No | Scope<br>(220 kV)  | Opening<br>WIP as<br>on<br>March | Expenditur<br>e during FY<br>2012-13 | Transfer<br>red to<br>Assets | Closing WIP<br>as on March<br>31, 2013 | Expenditur<br>e during FY<br>2013-14 | Transferr<br>ed to<br>Assets | Closing<br>WIP as<br>on March<br>31, 2014 |
|-------|--|----------------------------------|--------------------------------------|------------------------------|--|--------------------------------------|------------------------------|---|
| 285   | 220KV S/S Ghulal<br>Repl. of Damaged<br>40/50 MVA                                  | 0.00                             | 10.50                                | 10.50                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 286   | 220KV S/S Lalton<br>kalan aug of<br>12.5/20MVA                                     | 130.72                           | 0.00                                 | 130.72                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 287   | 220KV S/S Lalton<br>kalan Addl 1X160<br>MVA T/F<br>(Amendment No. 28)              | 0.00                             | 1800.67                              | 1800.67                      | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 288   | 220KV S/S Lalton<br>kalan Replacement of<br>Damaged 100 MVA                        | 0.00                             | 553.56                               | 553.56                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 289   | 220KV S/S Dhandhari<br>Kalan 2 Addl. 2nd<br>20MVA T/F                              | 130.72                           | 39.29                                | 170.00                       | 0.01                                   | 0.00                                 | 0.00                         | 0.01                                      |
| 290   | 220KV S/S Khassa<br>Repl. of damaged<br>100MVA T/f                                 | 516.20                           | 16.25                                | 532.46                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 291   | 220KV S/S Jagraon<br>Aug of 12.5 MVA<br>with 20 MVA                                | 0.00                             | 170.01                               | 170.00                       | 0.01                                   | 0.00                                 | 0.00                         | 0.01                                      |
| 292   | 220KV S/S FZR Road<br>LDH Addl 1X 160<br>MVA T/F                                   | 0.00                             | 673.07                               | 673.07                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 293   | 220KV S/S Verpal<br>Upgradation from twin<br>Conductor<br>with Quadra<br>Conductor | 0.00                             | 46.10                                | 46.10                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 294   | 220KV S/S Handaya<br>Repl. of damaged<br>100MVA T/F                                | 0.00                             | 446.77                               | 446.77                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 295   | 220 KV S/S Kanjli<br>100MVAT/F   | 919.68                           | 152.51                               | 1072.19                      | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 296   | 220 KV S/S Sultanpur<br>Addl.10/12.5MVA<br>T/F                                     | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 297   | 220 KV S/S Sultanpur<br>2No.Bays from<br>Goindwal Sahib                            | 77.47                            | 42.54                                | 120.00                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 298   | 220 KV S/S Sultanpur<br>Addl.160MVA T/F<br>(Amendment No. 18)                      | 0.00                             | 779.86                               | 779.86                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 299   | 220 KV S/S Mahilpur<br>66KV Bay<br>Chabewal,Saila Khurd                            | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |

| S. No | Scope<br>(220 kV)  | Opening<br>WIP as<br>on<br>March | Expenditur<br>e during FY<br>2012-13 | Transfer<br>red to<br>Assets | Closing WIP<br>as on March<br>31, 2013 | Expenditur<br>e during FY<br>2013-14 | Transferr<br>ed to<br>Assets | Closing<br>WIP as<br>on March<br>31, 2014 |
|-------|--|----------------------------------|--------------------------------------|------------------------------|--|--------------------------------------|------------------------------|---|
| 300   | 220 KV S/S Mahilpur<br>Repl.of 20/25MVA<br>with 40/50MVA | 162.03                           | 0.00                                 | 162.03                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 301   | 220 KV S/S Mahilpur<br>Repl.of damaged<br>12.5/16MVA     | 2.36                             | 0.00                                 | 2.36                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 302   | 220 KV S/S Mahilpur<br>Repl.of damaged<br>12.5/16MVA(N)  | 0.00                             | 3.92                                 | 3.92                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 303   | 220 KV S/S Mahilpur<br>Aug of 5MVA with<br>6.3/8MVA      | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 304   | 220 KV S/S Mahilpur<br>132KV Bay for<br>Hoshiarpur       | 0.00                             | 20.00                                | 20.00                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 305   | 220 KV S/S Kartarpur<br>Addl.100MVA                      | 754.34                           | -0.35                                | 753.99                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 306   | 220 KV S/S Kartarpur<br>Aug of 12.5MVA with<br>20MVA     | 35.07                            | 1.01                                 | 36.08                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 307   | 220 KV S/S Kartarpur<br>4x1.361MVAR<br>Capacitor Bank    | 13.52                            | 0.00                                 | 13.52                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 308   | 220 KV S/S Kartarpur<br>Addl.2x10.860MVAR<br>Cap.Bank    | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 309   | 220 KV S/S Kartarpur<br>Aug of 66KV Bus Bar              | 0.00                             | 10.00                                | 10.00                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 310   | 220 KV S/S Rashiana<br>Errection of 100MVA<br>T/F        | 2.41                             | 0.00                                 | 2.42                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 311   | 220 KV Goraya U/G<br>Rurka Kalan,Dosanjh<br>Kalan        | 6.23                             | 0.00                                 | 6.23                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 312   | 220 KV Goraya<br>Addl.100MVA T/F                         | 0.00                             | 493.97                               | 493.97                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 313   | 220 KV Goraya<br>Dismantlement of<br>50MVA T/F           | 0.00                             | 1.99                                 | 1.99                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 314   | 220 KV S/S Rehana<br>Jattan U/G 66KV to<br>220KV         | 0.00                             | 237.90                               | 237.90                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 315   | 220 KV S/S Rehana<br>Jattan 66KV Panchhtta<br>Bay        | 0.00                             | 9.41                                 | 9.41                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 316   | 220 KV S/S Dasuya<br>100MVA T/F                          | 0.00                             | 64.97                                | 64.97                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |

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|-------|---|----------------------------------|--------------------------------------|------------------------------|--|--------------------------------------|------------------------------|---|
| 317   | 220 KV S/S Dasuya<br>2x10.860MVAR<br>Capacitor Bank                   | 0.00                             | 62.96                                | 62.96                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 318   | 220 KV S/S Kotla<br>Jangan Addl.100MVA                                | 0.00                             | 37.52                                | 37.52                        | 0.01                                   | 0.00                                 | 0.00                         | 0.01                                      |
| 319   | 220 KV S/S Kotla<br>Jangan<br>2x10.860MVAR<br>Capacitor Bank          | 0.00                             | 50.00                                | 50.00                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 320   | 220 KV S/S Chohla<br>Sahib U/G 66KV to<br>220KV                       | 672.83                           | 142.74                               | 815.57                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 321   | 220 KV S/S Chohla<br>Sahib 66KV Patti Bay                             | 0.00                             | 11.28                                | 11.28                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 322   | 220 KV S/S Noor<br>Mehal U/G 132KV to<br>220KV                        | 131.76                           | 668.24                               | 800.00                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 323   | 220 KV S/S Wadala<br>Granthian<br>Addl.100MVA                         | -10.03                           | 105.27                               | 95.24                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 324   | 220 KV S/S Wadala<br>Granthian<br>10/12.5MVA T/F                      | 10.03                            | 63.01                                | 73.04                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 325   | 220 KV S/S Patti<br>Repl.of 66KV Bus Bar                              | 0.00                             | 2.01                                 | 2.00                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 326   | 220 KV S/S Udhoke<br>U/G 66KV to 220KV                                | 107.50                           | 641.82                               | 749.32                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 327   | 220 KV S/S<br>Badshahpur U/G<br>66KV to 220KV                         | 121.29                           | 599.96                               | 721.26                       | -0.01                                  | 0.00                                 | 0.00                         | -0.01                                     |
| 328   | 220 KV S/S Kotli<br>Surat Mali 100MVA<br>T/F                          | 45.15                            | 505.06                               | 550.20                       | 0.01                                   | 0.00                                 | 0.00                         | 0.01                                      |
| 329   | 220 KV S/S Kotli<br>Surat Mali<br>Addl.20MVA T/F<br>(Amendment No. 8) | 0.00                             | 159.09                               | 159.08                       | 0.01                                   | 0.00                                 | 0.00                         | 0.01                                      |
| 330   | 220 KV S/S Kotli<br>Surat Mali<br>3x10.860MVAR<br>Capacitor Bank      | 0.00                             | 60.01                                | 60.00                        | 0.01                                   | 0.00                                 | 0.00                         | 0.01                                      |
| 331   | 220 KV S/S<br>Gaunsgarh U/G 66KV<br>to 220KV                          | 530.53                           | 205.53                               | 736.07                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 332   | 220 KV S/S Butari<br>Repl.of damaged<br>100MVA T/F                    | 0.00                             | 6.55                                 | 6.55                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |

| S. No | Scope<br>(220 kV)  | Opening<br>WIP as<br>on<br>March | Expenditur<br>e during FY<br>2012-13 | Transfer<br>red to<br>Assets | Closing WIP<br>as on March<br>31, 2013 | Expenditur<br>e during FY<br>2013-14 | Transferr<br>ed to<br>Assets | Closing<br>WIP as<br>on March<br>31, 2014 |
|-------|--|----------------------------------|--------------------------------------|------------------------------|--|--------------------------------------|------------------------------|---|
| 333   | 220 KV S/S Sarna<br>Addl.100MVA T/F  | 0.00                             | 240.92                               | 240.92                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 334   | 220KV S/S Verpal<br>132KV 2nd Ckt.<br>Hakima Gate Bay                          | 3.43                             | 0.00                                 | 3.43                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 335   | 220KV S/S Verpal<br>20/25MVA 132/66-<br>33kv T/F                               | 2.93                             | 0.00                                 | 2.93                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 336   | 220KV S/S Verpal<br>Replacement of<br>30/50MVA<br>&20/25MVA T/F with<br>100MVA | 687.02                           | 0.00                                 | 687.02                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 337   | 220KV S/S Patti<br>220KV Line<br>Controlling Bay for<br>Algokothi              | 44.44                            | 0.00                                 | 44.44                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 338   | 220KV S/S Patti<br>66KV Bus Bar  | 4.95                             | 0.00                                 | 4.95                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 339   | 220KV S/S Patti Repl.<br>Of 12.5MVA with 20<br>MVA                             | 137.09                           | 0.00                                 | 137.09                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 340   | 220KV S/S Rashiana<br>Upgaration form<br>66KV to 220KV                         | 990.27                           | 0.00                                 | 990.27                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 341   | 220KV S/S Rashiana<br>66KV Bay for<br>Fatehabad                                | 14.92                            | 0.00                                 | 14.92                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 342   | 220KV S/S Rashiana<br>Aug. of 10/12.5 MVA<br>with 20 MVA                       | 138.74                           | 0.00                                 | 138.74                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 343   | 220KV S/S Butari<br>Addl. 10/12.5MVA<br>T/F                                    | 0.99                             | 0.00                                 | 0.99                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 344   | 220KV S/S Butari<br>Addl. 100MVA T/F &<br>S/G                                  | 609.73                           | 0.00                                 | 609.73                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 345   | 220KV S/S Algo<br>Kothi Upgradation<br>66KV to 220KV                           | 892.55                           | 0.00                                 | 892.55                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 346   | 220KV S/S Algo<br>Kothi 66KV Bay for<br>Amalkot                                | 17.56                            | 0.00                                 | 17.56                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |



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|-------|--|----------------------------------|--------------------------------------|------------------------------|--|--------------------------------------|------------------------------|---|
| 347   | 220KV S/S Algo<br>Kothi 66KV<br>Controlling Bay for<br>MarhiMegha& Bikhi<br>Vind | 26.65                            | 0.00                                 | 26.65                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 348   | 220KV S/S Algo<br>Kothi Addl. 20 MVA<br>T/F                                      | 175.47                           | 0.00                                 | 175.47                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 349   | 220KV S/S Khasa<br>Addl. 100MVA T/F  | 738.14                           | 0.00                                 | 738.14                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 350   | 220KV S/S Khasa<br>Aug. of 10/12.5 MVA<br>with 20 MVA                            | 150.03                           | 0.00                                 | 150.03                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 351   | 220 KV S/S Civil Line<br>Amritsar Addl. 100<br>MVA & S/G                         | 805.82                           | 0.00                                 | 805.82                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 352   | 220 KV S/S Civil Line<br>Amritsar Aug.<br>12.5/16MVA with<br>20MVA               | 186.65                           | 0.00                                 | 186.65                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 353   | 220 KV S/S Civil Line<br>Amritsar Repl.of<br>20MVA T/F with<br>20MVA T/F         | 164.10                           | 0.00                                 | 164.10                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 354   | 220KV S/S<br>SuratMalhi 66KV<br>Line Controlling Bay<br>for Shahpur Guraya       | 7.24                             | 0.00                                 | 7.25                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 355   | 220KV S/S<br>SuratMalhi 66KV<br>Line Controlling Bay<br>for Shehjada Kalan       | 16.41                            | 0.00                                 | 16.41                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 356   | 220KV S/S<br>SuratMalhi Addl.<br>20MVA   | 152.55                           | 0.00                                 | 152.55                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 357   | 220KV S/S Vadala<br>Garathian<br>Addl.10/12.5 MVA<br>T/F                         | 5.41                             | 0.00                                 | 5.41                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 358   | 220KV S/S Chohla<br>Saheb Upgradation<br>from 66KV to 220KV                      | 157.34                           | 0.00                                 | 157.34                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 359   | 220KV S/S Chogawan<br>Upgradation from<br>66KV to 220KV                          | 41.58                            | 0.00                                 | 41.58                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |

| S. No | Scope<br>(220 kV)  | Opening<br>WIP as<br>on<br>March | Expenditur<br>e during FY<br>2012-13 | Transfer<br>red to<br>Assets | Closing WIP<br>as on March<br>31, 2013 | Expenditur<br>e during FY<br>2013-14 | Transferr<br>ed to<br>Assets | Closing<br>WIP as<br>on March<br>31, 2014 |
|-------|--|----------------------------------|--------------------------------------|------------------------------|--|--------------------------------------|------------------------------|---|
| 360   | 220 KV S/S<br>Hammbhran Damaged<br>16/20 MVA T/F             | 5.32                             | 0.00                                 | 5.32                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 361   | 220 KV S/S Frozpur<br>Road Ludhiana<br>Addl.100 / 160 MVA    | 8.81                             | 0.00                                 | 8.81                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 362   | 220 KV S/S Frozpur<br>Road Ludhiana Bay<br>For Rajguru Nagar | 1.74                             | 0.00                                 | 1.74                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 363   | 220 KV S/S Doraha<br>Repl. Oil of 30/40<br>MVA               | 4.24                             | 0.00                                 | 4.24                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 364   | 220 KV S/S Doraha<br>SDE 220 KV Doraha                       | 773.05                           | 0.00                                 | 773.05                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 365   | 220 KV S/S Amloh<br>Addl 100 MVA                             | 5.77                             | 0.00                                 | 5.77                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 366   | 220 KV S/S Amloh<br>Aug.8/10 To 20 MVA                       | -2.89                            | 0.00                                 | -2.89                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 367   | 220 KV Sahnewal<br>Addl.100 MVA                              | -3.15                            | 0.00                                 | -3.15                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 368   | 220 KV Sahnewal 2nd<br>20 MVA T/F                            | 186.90                           | 0.00                                 | 186.90                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 369   | 220 KV S/S Pakhowal<br>6.3/8 MVA To 20<br>MVA                | 167.94                           | 0.00                                 | 167.94                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 370   | 220 KV S/S Pakhowal<br>Raikot Bay At<br>Pakhowal             | 17.48                            | 0.00                                 | 17.48                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 371   | 220 KV S/S Pakhowal<br>Bay For lalton kalan                  | 0.68                             | 0.00                                 | 0.68                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 372   | 220 KV S/S Pakhowal<br>66 KV Bay for<br>Narangwal            | 16.41                            | 0.00                                 | 16.41                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 373   | 220 KV S/S Pakhowal<br>Bay For Mehal Kalan                   | 28.49                            | 0.00                                 | 28.49                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 374   | 220 KV S/S Kohara<br>Aug 10/12.5 MVA To<br>20 MVA            | 0.29                             | 0.00                                 | 0.29                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 375   | 220 KV S/S Kohara<br>Addl.100 MVA                            | 5.65                             | 0.00                                 | 5.65                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 376   | 220 KV S/S Kohara<br>Bay For Chaunta                         | 25.12                            | 0.00                                 | 25.12                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 377   | 220 KV S/S Kohara<br>Addl.20 MVA                             | 210.67                           | 0.00                                 | 210.67                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 378   | 220 KV S/S Mehal<br>kalan U/G To 220 KV                      | 722.01                           | 0.00                                 | 722.01                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |

| S. No | Scope<br>(220 kV)  | Opening<br>WIP as<br>on<br>March | Expenditur<br>e during FY<br>2012-13 | Transfer<br>red to<br>Assets | Closing WIP<br>as on March<br>31, 2013 | Expenditur<br>e during FY<br>2013-14 | Transferr<br>ed to<br>Assets | Closing<br>WIP as<br>on March<br>31, 2014 |
|-------|--|----------------------------------|--------------------------------------|------------------------------|--|--------------------------------------|------------------------------|---|
| 379   | 220 KV S/S<br>Gobindgarh 2nd 20<br>MVA G-1                       | 1.38                             | 0.00                                 | 1.38                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 380   | 220 KV lalton kalan<br>Aug.10/12.5 MVA To<br>20 MVA              | 149.99                           | 0.00                                 | 149.99                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 381   | 220 KV S/S<br>Malerkotla 2 No.66<br>KV bay                       | 15.05                            | 0.00                                 | 15.05                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 382   | 220 KV Jagraon<br>10/12.5 MVA To 20<br>MVA                       | 171.62                           | 0.00                                 | 171.62                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 383   | 220 KV S/S Passiana<br>2 No. 66 KV 10.860<br>MVAR C/B            | 0.00                             | 35.00                                | 35.00                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 384   | 220 KV S/S Ikolaha 2<br>No. 66 KV 10.860<br>MVAR C/B             | 0.00                             | 35.00                                | 35.00                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 385   | 220 KV S/S Bassi<br>Pathana 2 No. 66 KV<br>10.860 MVAR C/B       | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 35.00                                | 35.00                        | 0.00                                      |
| 386   | 220 KV S/S Kakarala<br>2 No. 66 KV 10.860<br>MVAR C/B            | 0.00                             | 35.00                                | 35.00                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 387   | 220 KV S/S Kharar 2<br>No. 66 KV 10.860<br>MVAR C/B              | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 35.00                                | 35.00                        | 0.00                                      |
| 388   | 220 KV S/S Dhanola 3<br>No. 66 KV 10.860<br>MVAR C/B             | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 52.00                                | 52.00                        | 0.00                                      |
| 389   | 220 KV S/S Jhunir 2<br>No. 66 KV 10.860<br>MVAR C/B              | 0.00                             | 35.00                                | 35.00                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 390   | 220 KV S/S Badali<br>Garandian 1 No. 66<br>KV 10.860 MVAR<br>C/B | 0.00                             | 20.00                                | 20.00                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 391   | 220 KV S/S Jagraon 1<br>No. 66 KV 10.860<br>MVAR C/B             | 0.00                             | 20.00                                | 20.00                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 392   | 220 KV S/S Pakhowal<br>2 No. 66 KV 10.860<br>MVAR C/B            | 0.00                             | 35.00                                | 35.00                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 393   | 220 KV S/S Sadiq 2<br>No. 66 KV 10.860<br>MVAR C/B               | 0.00                             | 35.00                                | 35.00                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |

| S. No | Scope<br>(220 kV)  | Opening<br>WIP as<br>on<br>March | Expenditur<br>e during FY<br>2012-13 | Transfer<br>red to<br>Assets | Closing WIP<br>as on March<br>31, 2013 | Expenditur<br>e during FY<br>2013-14 | Transferr<br>ed to<br>Assets | Closing<br>WIP as<br>on March<br>31, 2014 |
|-------|--|----------------------------------|--------------------------------------|------------------------------|--|--------------------------------------|------------------------------|---|
| 394   | 220 KV S/S<br>Mastewala 2 No. 66<br>KV 10.860 MVAR<br>C/B  | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 35.00                                | 35.00                        | 0.00                                      |
| 395   | 220 KV S/S Mehal<br>Kalan 2 No. 66 KV<br>10.860 MVAR C/B   | 0.00                             | 35.00                                | 35.00                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 396   | 220 KV S/S Doraha 5<br>No. 66 KV 10.860<br>MVAR C/B        | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 85.00                                | 85.00                        | 0.00                                      |
| 397   | 220 KV S/S Ghulal 4<br>No. 66 KV 10.860<br>MVAR C/B        | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 70.00                                | 70.00                        | 0.00                                      |
| 398   | 220 KV S/S Guraya 2<br>No. 66 KV 10.860<br>MVAR C/B        | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 35.00                                | 35.00                        | 0.00                                      |
| 399   | 220 KV S/S Rehana<br>Jattan 2 No. 66 KV<br>10.860 MVAR C/B | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 35.00                                | 35.00                        | 0.00                                      |
| 400   | 220 KV S/S Kangli 2<br>No. 66 KV 10.860<br>MVAR C/B        | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 35.00                                | 35.00                        | 0.00                                      |
| 401   | 220 KV S/S Udoke 2<br>No. 66 KV 10.860<br>MVAR C/B         | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 35.00                                | 35.00                        | 0.00                                      |
| 402   | 220 KV S/S Chugawa<br>2 No. 66 KV 10.860<br>MVAR C/B       | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 35.00                                | 35.00                        | 0.00                                      |
| 403   | 220 KV S/S Mansa 2<br>No. 66 KV 10.860<br>MVAR C/B         | 0.00                             | 35.00                                | 35.00                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 404   | 220 KV S/S<br>Himatpura 4 No. 66<br>KV 10.860 MVAR<br>C/B  | 0.00                             | 70.00                                | 70.00                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 405   | 220 KV S/S Lalton<br>Kalan 3 No. 66 KV<br>10.860 MVAR C/B  | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 52.00                                | 52.00                        | 0.00                                      |
| 406   | 220 KV S/S FZR Rd.<br>LDH 5 No. 66 KV<br>10.860 MVAR C/B   | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 85.00                                | 85.00                        | 0.00                                      |
| 407   | 220 KV S/S Dhuri<br>Addl. 20 MVA 66/11<br>KV T/F           | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 220.00                               | 220.00                       | 0.00                                      |
| 408   | 220 KV S/S Doraha 1<br>No. line bay                        | 0.00                             | 30.00                                | 30.00                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |

| S. No | Scope<br>(220 kV)  | Opening<br>WIP as<br>on<br>March | Expenditur<br>e during FY<br>2012-13 | Transfer<br>red to<br>Assets | Closing WIP<br>as on March<br>31, 2013 | Expenditur<br>e during FY<br>2013-14 | Transferr<br>ed to<br>Assets | Closing<br>WIP as<br>on March<br>31, 2014 |
|-------|--|----------------------------------|--------------------------------------|------------------------------|--|--------------------------------------|------------------------------|---|
| 409   | 220 KV S/S Goraya<br>U/G of 2 No 33 KV<br>Line bay to 66 KV S/S<br>for Apra and Mathada<br>Khurd S/S | 0.00                             | 60.00                                | 60.00                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 410   | 220 KV S/S Sadiq<br>2x20 MVA 66/11 KV<br>to repl. 2x20 MVA<br>132/11 KV                              | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 440.00                               | 440.00                       | 0.00                                      |
| 411   | 220 KV S/S Doraha<br>2x20 MVA 66/11 KV<br>to repl. 2x20 MVA<br>132/11 KV                             | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 440.00                               | 440.00                       | 0.00                                      |
| 412   | 220 KV S/S Goindwal<br>Sahib-Chohla Sahib<br>2+2 No. (2 No. bays<br>are in GVK Scope)                | 0.00                             | 120.00                               | 120.00                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 413   | 220 KV S/S Mehal<br>Kalan 400 KV PGCIL<br>Moga   | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 110.00                               | 110.00                       | 0.00                                      |
| 414   | 220 KV S/S Mehal<br>Kalan 2 No. 66 KV<br>Line bay for Thuliwal<br>and Thikriwal                      | 0.00                             | 60.00                                | 60.00                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 415   | 220 KV S/S Bagha<br>Purana & BazaKhana<br>2+2 220 KV Bays  | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 220.00                               | 220.00                       | 0.00                                      |
| 416   | 220 KV S/S Kotla<br>Janga Addl. 1x20<br>MVA 66/11 KV T/F   | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 250.00                               | 250.00                       | 0.00                                      |
| 417   | 220 KV S/S Dhandari<br>Kalan-2 Addl. 1x20<br>MVA 66/11 KV T/F  | 0.00                             | 250.00                               | 250.00                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 418   | 220 KV S/S Mohali-2<br>Addl. 1x20 MVA<br>66/11 KV T/F  | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 250.00                               | 250.00                       | 0.00                                      |
| 419   | 220 KV S/S Mansa<br>Addl. 1x20 MVA<br>66/11 KV T/F   | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 250.00                               | 250.00                       | 0.00                                      |
| 420   | 220 KV S/S Tibbar<br>Addl. 1x20 MVA<br>66/11 KV T/F  | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 250.00                               | 250.00                       | 0.00                                      |
| 421   | 220 KV S/S Malout<br>Addl. 1x20 MVA<br>66/11 KV T/F  | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 250.00                               | 250.00                       | 0.00                                      |

| S. No | Scope<br>(220 kV)   | Opening<br>WIP as<br>on<br>March | Expenditur<br>e during FY<br>2012-13 | Transfer<br>red to<br>Assets | Closing WIP<br>as on March<br>31, 2013 | Expenditur<br>e during FY<br>2013-14 | Transferr<br>ed to<br>Assets | Closing<br>WIP as<br>on March<br>31, 2014 |
|-------|---|----------------------------------|--------------------------------------|------------------------------|--|--------------------------------------|------------------------------|---|
| 422   | 220 KV S/S Jhunir<br>Addl. 1x20 MVA<br>66/11 KV T/F   | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 250.00                               | 250.00                       | 0.00                                      |
| 423   | 220 KV S/S<br>Himatpura Addl. 1x20<br>MVA 66/11 KV T/F  | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 250.00                               | 250.00                       | 0.00                                      |
| 424   | 220 KV S/S<br>Malerkotla Addl. 1x20<br>MVA 66/11 KV T/F   | 0.00                             | 250.00                               | 250.00                       | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 425   | 220 KV S/S G-4,<br>Mandi Gobindgarh<br>Addl. 1x20 MVA<br>66/11 KV T/F                           | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 250.00                               | 250.00                       | 0.00                                      |
| 426   | 220 KV S/S Ajitwal<br>1x10/12.5 MVA to be<br>repl. With 1x20 MVA<br>T/F                         | 0.00                             | 20.00                                | 20.00                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 427   | 220 KV Dera Basssi<br>Addl. 1x20 MVA T/F  | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 250.00                               | 250.00                       | 0.00                                      |
| 428   | 220 KV S/S Rehana<br>Jattan 2 No. addl. 66<br>KV Line bay                                       | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 60.00                                | 60.00                        | 0.00                                      |
| 429   | 220 KV S/S Rajpura<br>repl. Of 6.3/8 MVA<br>T/F with 12.5 MVA<br>T/F                            | 0.00                             | 20.00                                | 20.00                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 430   | 220 KV S/S Rajla 2<br>No. 220 KV Line bays  | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 110.00                               | 110.00                       | 0.00                                      |
| 431   | 220 KV Jallah U/G<br>from 66 KV 2x160<br>MVA 220/66 KV  | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 1622.00                              | 1622.00                      | 0.00                                      |
| 432   | 220 KV Bhari U/G<br>from 66 KV 1x160<br>MVA 220/66 KV   | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 1060.00                              | 1060.00                      | 0.00                                      |
| 433   | 220 KV Hoshiarpur<br>U/G from 132 KV or<br>at New location 1x160<br>MVA 220/66 KV               | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 1060.00                              | 1060.00                      | 0.00                                      |
| 434   | 220 KV Pakhowal<br>Addl 1x100 MVA<br>220/66 KV as spared<br>from 220 KV Patran<br>shall be used | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 472.50                               | 472.50                       | 0.00                                      |
| 435   | 220 KV Mehal Kalan<br>Addl 1x100 MVA<br>220/66 KV   | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 472.50                               | 472.50                       | 0.00                                      |

| S. No | Scope (220 kV)  | Opening WIP as on March | Expenditure during FY 2012-13 | Transferred to Assets | Closing WIP as on March 31, 2013 | Expenditure during FY 2013-14 | Transferred to Assets | Closing WIP as on March 31, 2014 |
|-------|---|-------------------------|-------------------------------|-----------------------|----------------------------------|-------------------------------|-----------------------|----------------------------------|
| 436   | 220 KV Devigarh Addl 2nd T/F 1X 160 MVA 220/66 KV   | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 561.00                        | 561.00                | 0.00                             |
| 437   | 220 KV Patran Repl of 1x100 MVA 220/66 KV with 1x160 MVA 220/66 KV                            | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 561.00                        | 561.00                | 0.00                             |
| 438   | 220 KV Gaunsgarh Addl 1x160 MVA 220/66 KV   | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 561.00                        | 561.00                | 0.00                             |
| 439   | 220 KV Dhanaula Addl 2nd T/F 1X100 MVA 220/66 KV  | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 472.50                        | 472.50                | 0.00                             |
| 440   | 220 KV Badshahpur Repl of 1x100 MVA 220/66 KV with 1x160 MVA 220/66 KV                        | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 561.00                        | 561.00                | 0.00                             |
| 441   | 220 KV Kakrala Addl 1x100 MVA 220/66 KV   | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 472.50                        | 472.50                | 0.00                             |
| 442   | 220 kv Passiana Addl 1x100 MVA 220/66 KV  | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 472.50                        | 472.50                | 0.00                             |
| 443   | 220 KV F.P Nabha Addl 1x100 MVA 220/66 KV   | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 561.00                        | 561.00                | 0.00                             |
| 444   | 220 KV Kanjli Addl 2nd T/F 1X100 MVA 220/66 KV as spared from 220 KV Badshahpur shall be used | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 472.50                        | 472.50                | 0.00                             |
| 445   | 220 KV Doraha Addl 1x100 MVA 220/66 KV with 1x160 MVA 220/66 KV                               | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 561.00                        | 561.00                | 0.00                             |
| 446   | 220 KV Barnala Aug 1x100 MVA 220/66 KV with 1x160 MVA 220/66 KV                               | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 561.00                        | 561.00                | 0.00                             |

| S. No | Scope (220 kV)  | Opening WIP as on March | Expenditure during FY 2012-13 | Transferred to Assets | Closing WIP as on March 31, 2013 | Expenditure during FY 2013-14 | Transferred to Assets | Closing WIP as on March 31, 2014 |
|-------|---|-------------------------|-------------------------------|-----------------------|----------------------------------|-------------------------------|-----------------------|----------------------------------|
| 447   | 220 KV Sarna 1x100 MVA 220/66 KV Raising of 132 KV Sarna-Pathankot Ckt 1 &2 at Sarna end for 66 KV Link from 220/66 KV T/F to Yard at Sarna | 0.00                    | 953.00                        | 953.00                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 448   | 220KV Devi Garh 1x100MVA 220/66KV(U/G from 66KV)  | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 789.00                        | 789.00                | 0.00                             |
| 449   | 220KV Bangan 1x100MVA 220/66KV(U/G from 66KV)   | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 729.00                        | 729.00                | 0.00                             |
| 450   | 220KV Sadiq Addl. 1x160MVA 220/66KV   | 0.00                    | 561.00                        | 561.00                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 451   | 220KV Talwandi Sabu 1x100MVA 220/66KV(U/G from 66KV)  | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 789.00                        | 789.00                | 0.00                             |
| 452   | 220KV Badal 1x100MVA 220/66KV(U/G from 132KV)   | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 789.00                        | 789.00                | 0.00                             |
| 453   | 220KV Abohar 1x100MVA 220/66KV(U/G from 132KV)  | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 789.00                        | 789.00                | 0.00                             |
| 454   | 220KV Banur 1x100MVA 220/66KV(U/G from 66KV)  | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 789.00                        | 789.00                | 0.00                             |
| 455   | 220KV Lalru Addl. 1x100MVA T/F 220/66KV   | 0.00                    | 472.50                        | 472.50                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 456   | 220KV Chhajli 1x100MVA 220/66KV(U/G from 66KV)  | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 669.00                        | 669.00                | 0.00                             |
| 457   | 220KV Batriana New 1x100MVA 220/66KV  | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 669.00                        | 669.00                | 0.00                             |



| S. No | Scope (220 kV)  | Opening WIP as on March | Expenditure during FY 2012-13 | Transferred to Assets | Closing WIP as on March 31, 2013 | Expenditure during FY 2013-14 | Transferred to Assets | Closing WIP as on March 31, 2014 |
|-------|---|-------------------------|-------------------------------|-----------------------|----------------------------------|-------------------------------|-----------------------|----------------------------------|
| 458   | 220KV Sandhuar<br>1x100MVA<br>220/66KV(U/G from<br>66KV)  | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 909.00                        | 909.00                | 0.00                             |
| 459   | 220KV Humbran<br>Addl. 1x100MVA T/F<br>220/66KV   | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 531.00                        | 531.00                | 0.00                             |
| 460   | 220KV Rashiana<br>Addl. 1x160MVA T/F<br>220/66KV  | 0.00                    | 561.00                        | 561.00                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 461   | 220KV Dhandari<br>Kalan 2 Addl.<br>1x100MVA T/F<br>220/66KV as spared<br>from 220KV Rashiana<br>shall be used | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 789.00                        | 789.00                | 0.00                             |
| 462   | 220KV Butari Addl.<br>1x100MVA T/F<br>220/66KV  | 0.00                    | 472.50                        | 472.50                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 463   | 220KV Butari<br>1x20MVA 66/11KV<br>to repl. 12.5MVA<br>66/11MVA   | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 200.00                        | 200.00                | 0.00                             |
| 464   | 220KV Lalton Kalan<br>20MVA 66/11KV to<br>repl. 12.5MVA<br>66/11KV  | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 200.00                        | 200.00                | 0.00                             |
| 465   | 220KV Humba<br>20MVA 66/11KV to<br>repl. 12.5MVA<br>66/11KV   | 0.00                    | 200.00                        | 200.00                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 466   | 220KV Mahilpur<br>20MVA 66/11KV to<br>repl. 1x6.3/8MVA<br>66/11KV   | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 200.00                        | 200.00                | 0.00                             |
| 467   | 220KV Mastewala<br>1x20MVA<br>66/11KV(New)  | 0.00                    | 220.00                        | 220.00                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 468   | Const. of 220 KV S/s<br>Jhunir  | 249.08                  | 22.80                         | 271.88                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 469   | TCW at 220 KV<br>Meahal kalan   | 109.45                  | 83.56                         | 193.01                | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 470   | ASGF at 220 KV<br>Sunam (Bay for Patran<br>)  | 10.23                   | 2.45                          | 12.68                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |

| S. No | Scope (220 kV)                                  | Opening WIP as on March | Expenditure during FY 2012-13 | Transferred to Assets | Closing WIP as on March 31, 2013 | Expenditure during FY 2013-14 | Transferred to Assets | Closing WIP as on March 31, 2014 |
|-------|---|-------------------------|-------------------------------|-----------------------|----------------------------------|-------------------------------|-----------------------|----------------------------------|
| 471   | Const. of 66 KV S/s Nabha ( bay for Gurditpura) | 1.63                    | 0.24                          | 1.87                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 472   | ASGF at 220 KV S/S Rajla (bay for Balwera)      | 1.73                    | 0.00                          | 1.73                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 473   | ASGF at 220 KV Mansa (bay for Jogaralla)        | 2.43                    | 0.00                          | 2.43                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 474   | TCW at 220 KV S/S Devigarh                      | 0.08                    | 140.08                        | 0.00                  | 140.16                           | 40.00                         | 180.16                | 0.00                             |
| 475   | ASGF at 220 KV Rajla(bay for Tullewal)          | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 476   | ASGF at 220 KV Rajla(bay for Fateh Majri)       | 0.00                    | 0.00                          | 0.00                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 477   | 3rd 100 MVA T/F at 220 KV Dhuri                 | 18.99                   | 0.00                          | 18.99                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 478   | TCW atr 220 KV Dhanaula                         | 0.05                    | 230.03                        | 0.00                  | 230.08                           | 56.00                         | 286.08                | 0.00                             |
| 479   | TCW atr 220 KV Kakrala                          | 15.40                   | 191.46                        | 0.00                  | 206.86                           | 42.00                         | 248.86                | 0.00                             |
| 480   | Capacitor Bank at 220 KV S/S Nabha              | 0.02                    | 3.97                          | 0.00                  | 3.99                             | 0.00                          | 3.99                  | 0.00                             |
| 481   | TCW atr 220 KV Bangan                           | 0.04                    | 145.00                        | 0.00                  | 145.04                           | 42.00                         | 187.04                | 0.00                             |
| 482   | Add. T/F Plinth t 220KV Kaheru (Dhuri)          | 2.21                    | 12.18                         | 0.00                  | 14.39                            | 0.00                          | 14.39                 | 0.00                             |
| 483   | TCW atr 220 KV at 220 KV Passiana               | 20.89                   | 141.72                        | 0.00                  | 162.61                           | 47.00                         | 209.61                | 0.00                             |
| 484   | Cap. Bankat 220 KV Dhuri                        | 0.00                    | 5.58                          | 0.00                  | 5.58                             | 0.00                          | 5.58                  | 0.00                             |
| 485   | Add. T/F plinth at 220 KV Mehal Kalan           | 1.15                    | 3.10                          | 0.00                  | 4.25                             | 0.00                          | 4.25                  | 0.00                             |
| 486   | Capacitor bank at 220 KV Patran                 | 1.75                    | 2.74                          | 0.00                  | 4.49                             | 0.00                          | 4.49                  | 0.00                             |
| 487   | TCW at 220 KV Talwandi Sabo                     | 0.06                    | 120.70                        | 0.00                  | 120.76                           | 201.00                        | 321.76                | 0.00                             |
| 488   | Const. of NCT, Gantry Fndns. At 22 KV Ablawal   | 0.00                    | 0.16                          | 0.00                  | 0.16                             | 0.00                          | 0.16                  | 0.00                             |
| 489   | CC flooring at 220 KV Dhuri                     | 0.00                    | 11.46                         | 0.00                  | 11.46                            | 0.00                          | 11.46                 | 0.00                             |

| S. No | Scope (220 kV)                                    | Opening WIP as on March | Expenditure during FY 2012-13 | Transferred to Assets | Closing WIP as on March 31, 2013 | Expenditure during FY 2013-14 | Transferred to Assets | Closing WIP as on March 31, 2014 |
|-------|---|-------------------------|-------------------------------|-----------------------|----------------------------------|-------------------------------|-----------------------|----------------------------------|
| 490   | Addl. T/F Plinth at 220 KV Sunam                  | 0.00                    | 7.20                          | 0.00                  | 7.20                             | 0.00                          | 7.20                  | 0.00                             |
| 491   | ASGF at 220 KV Nabha ( Incoming Bhalwan)          | 0.00                    | 5.51                          | 0.00                  | 5.51                             | 0.00                          | 5.51                  | 0.00                             |
| 492   | Addl. 3rd 160 MVA at 220 KV Mansa                 | 0.00                    | 34.00                         | 0.00                  | 34.00                            | 0.00                          | 34.00                 | 0.00                             |
| 494   | Addl. Siemen Breakers Fndn. At 220 KV Handiaya    | 0.00                    | 6.73                          | 0.00                  | 6.73                             | 0.00                          | 6.73                  | 0.00                             |
| 495   | Capacitor bank at 220 KV Sunam                    | 0.00                    | 2.87                          | 0.00                  | 2.87                             | 0.00                          | 2.87                  | 0.00                             |
| 496   | U/G from 66 KV to 220KV S/Stn Badal               | 0.00                    | 63.73                         | 0.00                  | 63.73                            | 73.00                         | 136.73                | 0.00                             |
| 497   | U/G from 66 KV to 220KV S/Stn Chajli              | 0.00                    | 78.90                         | 0.00                  | 78.90                            | 230.00                        | 308.90                | 0.00                             |
| 498   | TCW at 220 KV Batriana (New)                      | 0.00                    | 62.00                         | 0.00                  | 62.00                            | 410.00                        | 472.00                | 0.00                             |
| 499   | 2nd 100MVA T/F at 220 KV Bajakhana                | 15.85                   | 0.00                          | 15.85                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 500   | Bay Chak Fateh Singh at Lehra Mohabbat            | 0.90                    | 0.00                          | 0.90                  | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 501   | 220KV Ghulal U/G 1x100MVAT/F 2x100MVAT/F          | 0.00                    | 169.00                        | 0.00                  | 169.00                           | 140.90                        | 309.90                | 0.00                             |
| 502   | 220K V Lalru (U/G) 1x100MVAT/F 2x100MVA T/F       | 169.32                  | 50.02                         | 0.00                  | 219.34                           | 43.19                         | 262.53                | 0.00                             |
| 503   | 220KV Kohara Cap.bank Extn.in SHBlg.3rd 20MVA T/F | 4.25                    | 41.19                         | 0.00                  | 45.44                            | 31.00                         | 76.44                 | 0.00                             |
| 504   | 220 KV sec.80 Mohali -II Addl100 MVAT/F cap.bank  | 5.17                    | 53.20                         | 0.00                  | 58.37                            | 0.00                          | 58.37                 | 0.00                             |
| 505   | 220KV Ikolaha 1x100MVA t/F                        | 0.00                    | 97.60                         | 0.00                  | 97.60                            | 45.12                         | 142.72                | 0.00                             |
| 506   | 220KV Bassi Pathana. 1x100MVA T/F                 | 104.76                  | 120.04                        | 0.00                  | 224.80                           | 38.00                         | 262.80                | 0.00                             |
| 507   | 220KV Banur 1x100MVA T/F                          | 0.00                    | 75.20                         | 0.00                  | 75.20                            | 345.10                        | 0.00                  | 420.30                           |
| 508   | 220KV Mandi G/garh (G-2) 1x20MVA T/F              | 15.87                   | 0.00                          | 15.87                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |
| 509   | 220KVA/R G/garh(G-3) 66KV cap.bank.               | 17.39                   | 0.00                          | 17.39                 | 0.00                             | 0.00                          | 0.00                  | 0.00                             |

| S. No | Scope<br>(220 kV)   | Opening<br>WIP as<br>on<br>March | Expenditur<br>e during FY<br>2012-13 | Transfer<br>red to<br>Assets | Closing WIP<br>as on March<br>31, 2013 | Expenditur<br>e during FY<br>2013-14 | Transferr<br>ed to<br>Assets | Closing<br>WIP as<br>on March<br>31, 2014 |
|-------|---|----------------------------------|--------------------------------------|------------------------------|--|--------------------------------------|------------------------------|---|
| 510   | 220KV G/garh-4 at<br>Mandi G/Gardh (New)<br>extn.in SHB<br>blg.1x100MVA T/F | 0.00                             | 45.10                                | 0.00                         | 45.10                                  | 75.00                                | 120.10                       | 0.00                                      |
| 511   | Mandi Gobindgarh<br>(G-4) (New)<br>1x100MVA T/F3rd<br>20MVA Tf              | 171.93                           | 29.58                                | 0.00                         | 201.51                                 | 0.00                                 | 201.51                       | 0.00                                      |
| 512   | 220KV G/G (G-4)<br>2no. 66KV bays fpr<br>sirhind cap.bank                   | 33.99                            | 0.00                                 | 33.99                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 513   | 220KV Malerkotla<br>3no.breaker   | 23.54                            | 1.13                                 | 24.67                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 514   | 220KV Amlah<br>cap.bank extn.in<br>SHBlg.3rd 20MVA<br>T/F                   | 21.32                            | 5.21                                 | 26.53                        | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 515   | 220KV Doraha<br>1x100MVA<br>T/Fextn.in SHB<br>bldg.2nd 100MVA<br>T/F        | 139.85                           | 61.78                                | 0.00                         | 201.63                                 | 37.00                                | 238.63                       | 0.00                                      |
| 516   | 220KV kharar u/g<br>1x100MVA T/F 2nd<br>100MVA T/Fextn.in<br>SHB bldg.      | 3.59                             | 62.45                                | 0.00                         | 66.04                                  | 42.20                                | 108.24                       | 0.00                                      |
| 517   | 220 KV,A/R<br>Gobindgarh 5th 20<br>MVA T/F                                  | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
| 518   | 220 KV S/S Kohara-<br>2nd 100 MVA T/F                                       | 0.00                             | 0.00                                 | 0.00                         | 0.00                                   | 0.00                                 | 0.00                         | 0.00                                      |
|       | <b>Total</b>  | <b>39661.23</b>                  | <b>39801.25</b>                      | <b>61949.27</b>              | <b>17513.20</b>                        | <b>37095.02</b>                      | <b>45420.38</b>              | <b>9187.84</b>                            |

### 132kV Schemes (in Rs Lakh)

| S. No | Scope<br>(132 kV) | Opening<br>WIP as<br>on<br>March<br>31, 2012 | Expenditure<br>during FY<br>2012-13 | Transferred<br>to Assets | Closing<br>WIP as on<br>March 31,<br>2013 | Expenditure<br>during FY<br>2013-14 | Transferred to<br>Assets | Closing<br>WIP as on<br>March 31,<br>2014 |
|-------|-------------------|--|-------------------------------------|--------------------------|---|-------------------------------------|--------------------------|---|
|-------|-------------------|--|-------------------------------------|--------------------------|---|-------------------------------------|--------------------------|---|

| S. No | Scope<br>(132 kV)  | Opening<br>WIP as<br>on<br>March<br>31, 2012 | Expenditure<br>during FY<br>2012-13 | Transferred<br>to Assets | Closing<br>WIP as on<br>March 31,<br>2013 | Expenditure<br>during FY<br>2013-14 | Transferred to<br>Assets | Closing<br>WIP as on<br>March 31,<br>2014 |
|-------|--|--|-------------------------------------|--------------------------|---|-------------------------------------|--------------------------|---|
| 1     | Shifting of 132 KV Jal. Phagwara line Tower No. 171 to 179             | 0.24   | 12.10                               | 12.34                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 2     | 132 KV Sub Statiob Sultan pur to Kheramandir Replacement of Conductor  | 48.21  | 4.34                                | 52.55                    | 0.00                                      | 14.20                               | 14.20                    | 0.00                                      |
| 3     | 132 KV Mahilpur to Hoshiarpur Line                                     | 499.97                                       | 67.83                               | 567.80                   | 0.00                                      | 113.60                              | 113.60                   | 0.00                                      |
| 4     | LILO of 132 KV Jal. Kapoorthala line at children Park Jalandhar        | 5.20   | 2.78                                | 7.98                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 5     | LILO of 132 KV Jal.Bhogpur at Kahnpur Dhogri                           | 45.22  | 6.05                                | 51.27                    | 0.00                                      | 7.10                                | 7.10                     | 0.00                                      |
| 6     | 132 KV line From 220 kV Sub Statiob Verpal to Hakima Gate Amritsar     | 0.40   | 0.00                                | 0.40                     | 0.00                                      | 14.20                               | 14.20                    | 0.00                                      |
| 7     | LILO Of 132 Kv Jal. Buttari Line At 132 kv Sub Station Focal Point Jal | 11.44  | 23.27                               | 34.71                    | 0.00                                      | 28.40                               | 28.40                    | 0.00                                      |
| 8     | 132 KV line From Kathu Nangal Batala-Veka Line                         | 74.13  | 12.10                               | 86.23                    | 0.00                                      | 14.20                               | 14.20                    | 0.00                                      |
| 9     | Replacemnt Of Conductor Of 132 KV Batala/ Verpal Line                  | 0.00   | 22.29                               | 22.29                    | 0.00                                      | 14.20                               | 14.20                    | 0.00                                      |
| 10    | Replacemnt Of Conductor Of 132 KV Batala/ Verpal Line                  | 0.00   | 22.29                               | 22.29                    | 0.00                                      | 14.20                               | 14.20                    | 0.00                                      |
| 11    | 132 KV Sub StationKahanpur Dhogri-switch House Building                | 159.34                                       | 0.00                                | 159.34                   | 0.00                                      | 21.30                               | 21.30                    | 0.00                                      |
| 12    | 132 kv sub station Focal Point Jalandhar New                           | 54.41  | 0.00                                | 54.41                    | 0.00                                      | 42.60                               | 42.60                    | 0.00                                      |
| 13    | 132 kv sub station Kot samadh Bhai - Bay                               | 0.20   | 0.00                                | 0.20                     | 0.00                                      | 7.10                                | 7.10                     | 0.00                                      |

| S. No | Scope<br>(132 kV)  | Opening<br>WIP as<br>on<br>March<br>31, 2012 | Expenditure<br>during FY<br>2012-13 | Transferred<br>to Assets | Closing<br>WIP as on<br>March 31,<br>2013 | Expenditure<br>during FY<br>2013-14 | Transferred to<br>Assets | Closing<br>WIP as on<br>March 31,<br>2014 |
|-------|--|--|-------------------------------------|--------------------------|---|-------------------------------------|--------------------------|---|
| 14    | 132 kv sub station<br>Khera Mandir Indoor<br>Cable Trenches        | 1.27   | 0.00                                | 1.27                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 15    | 132KV Sub Station<br>Jadla -Const of<br>trenches etc               | 0.00   | 1.42                                | 1.42                     | 0.00                                      | 7.10                                | 7.10                     | 0.00                                      |
| 16    | 132KV Sub Station<br>Swadhi Kalan- Bay<br>Out going 132 Kv line    | 0.00   | 2.16                                | 2.16                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 17    | 132 KV Nakian<br>Kiratpur Sahib                                    | 3.65   | 1.40                                | 5.05                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 18    | Repl. Of cond. 132<br>KV Kotla Ropar                               | 40.49  | 117.80                              | 158.29                   | 0.00                                      | 176.70                              | 176.70                   | 0.00                                      |
| 19    | Repl. Of cond. 132<br>KV line from 220 KV<br>Jamalpur Moga         | 19.68  | 117.80                              | 137.49                   | 0.00                                      | 353.41                              | 353.41                   | 0.00                                      |
| 20    | 132 KV Moga Kot<br>Krore   | 1.60   | 0.03                                | 1.63                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 21    | 132 KV S/S Ropar<br>Repl. Of Damg. 16/20<br>MVA with 20 MVA<br>T/F | 19.49  | 0.53                                | 20.02                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 22    | 132 KV S/S Ropar 66<br>KV bay for U/G 33<br>KV to 66 KV Purkhali   | 4.23   | 0.00                                | 4.23                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 23    | 132 KV Anandpur<br>Sahib Addl. 12.5/16<br>MVA T/F                  | 63.71  | 0.00                                | 63.71                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 24    | 132 KV S/S Nakian<br>New S/Stn.                                    | 11.22  | 0.00                                | 11.22                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 25    | 132 kv S/S Kotkapura<br>50 MVA 132/66 kv to<br>replace             | -479.19                                      | 24.00                               | -455.19                  | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 26    | 132 kv S/S Kotkapura<br>One no. 66kv O/G Bay                       | 7.00   | 0.00                                | 7.00                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 27    | 132 kv S/S Kotkapura<br>U/G from 33 kv 66 kv<br>& 3 Nos. O/G bays  | 0.80   | 0.00                                | 0.80                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 28    | 132 kv S/S Kotkapura<br>50 MVA 132/11 kv to<br>replace 12.5/16 MVA | 445.49                                       | 0.00                                | 445.49                   | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 29    | 132 kv S/S Kotkapura<br>Aug. of 12.5 MVA<br>with 20 MVA            | -8.03  | 4.76                                | -3.27                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |

| S. No | Scope<br>(132 kv)  | Opening<br>WIP as<br>on<br>March<br>31, 2012 | Expenditure<br>during FY<br>2012-13 | Transferred<br>to Assets | Closing<br>WIP as on<br>March 31,<br>2013 | Expenditure<br>during FY<br>2013-14 | Transferred to<br>Assets | Closing<br>WIP as on<br>March 31,<br>2014 |
|-------|--|--|-------------------------------------|--------------------------|---|-------------------------------------|--------------------------|---|
| 30    | 132 kv S/S<br>Giddarbaha Addl<br>1X12.5 MVA 132/11<br>kv       | -3.15  | 0.00                                | -3.15                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 31    | 132 kv S/S<br>Giddarbaha Repl. Of<br>Damaged 16/20 MVA         | -1.27  | 0.00                                | -1.27                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 32    | 132 kv S/S Badal<br>Addl 1X20/25 MVA<br>132/66-33 kv           | -0.86  | 0.00                                | -0.86                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 33    | 132 kv S/S Badal<br>upgradation from 33<br>kv to 66 kv         | -0.08  | 0.00                                | -0.08                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 34    | 132 kv S/S Badal<br>Addl. 1X5 MVA<br>33/11 kv T/F              | 2.52   | 0.00                                | 2.52                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 35    | 132 kv S/S Badal Aug<br>of 6/3/8MVA with<br>10/12.5 MVA        | 29.01  | 0.06                                | 29.07                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 36    | 132 kv S/S Badal<br>66KV Bay for<br>nandgarh                   | 0.06   | 0.00                                | 0.06                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 37    | 132 kv S/S Badal<br>Repl. Of Damaged<br>12.5 MVA T/F           | 0.00   | 38.66                               | 38.66                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 38    | 132 KV S/S Malout<br>1X20 MVA 132/11 kv<br>to replace 12.5 MVA | 205.15                                       | 0.54                                | 205.69                   | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 39    | 132 KV S/S Malout<br>Upgra. From 33 to<br>66KV                 | 1.25   | 0.00                                | 1.25                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 40    | 132 KV S/S Malout<br>Dismt. Of 40/50MVA<br>T/F                 | 8.51   | 0.00                                | 8.51                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 41    | 132KV S/S<br>Dharamkot Aug of<br>10/12.5MVA with<br>20MVA      | -7.25  | 0.00                                | -7.25                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 42    | 132KV S/S<br>Dharamkot Repl. of<br>damaged 50MVA T/F           | 144.64                                       | 0.56                                | 145.20                   | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 43    | 132 KV S/S Kotkaror<br>1X100 MVA T/F                           | 0.00   | 700.00                              | 700.00                   | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |

| S. No | Scope<br>(132 kV)  | Opening<br>WIP as<br>on<br>March<br>31, 2012 | Expenditure<br>during FY<br>2012-13 | Transferred<br>to Assets | Closing<br>WIP as on<br>March 31,<br>2013 | Expenditure<br>during FY<br>2013-14 | Transferred to<br>Assets | Closing<br>WIP as on<br>March 31,<br>2014 |
|-------|--|--|-------------------------------------|--------------------------|---|-------------------------------------|--------------------------|---|
| 44    | 132 kv S/S Abohar<br>Addl. 40/50MVA  | -37.05                                       | -19.19                              | -56.24                   | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 45    | 132KV S/S Smadbhai<br>Addl. 10/12.5MVA                                       | -2.23  | 0.19                                | -2.04                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 46    | 132KV S/S<br>Swadikalan 2Nos Bays  | 7.04   | 0.04                                | 7.08                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 47    | 132KV S/S Tangra<br>Aug of 12.5/Mva with<br>20MVA                            | -7.47  | -44.78                              | -52.25                   | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 48    | 132KV S/S Doraha<br>132KV Bay for Payal                                      | 2.58   | 10.69                               | 13.27                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 49    | 132KV S/S Phagwara<br>Aug. of 20/10/10<br>MVA with 20/25MVA                  | 0.00   | 70.00                               | 70.00                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 50    | 132 KV S/S Nakodar<br>Repl.of 20/25MVA<br>with 40/50MVA                      | 35.99  | 0.00                                | 35.99                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 51    | 132 KV S/S Nakodar<br>Addl.12.5MVA T/F                                       | 3.66   | 0.00                                | 3.66                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 52    | 132 KV S/S Banga<br>Addl.12.5MVA   | 143.87                                       | 0.00                                | 143.87                   | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 53    | 132 KV S/S Banga<br>66KV Bay Moula<br>Wahidpur                               | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 54    | 132 KV S/S Urban<br>Estate Jalandher Aug<br>of 12.5MVA with<br>20MVA         | 180.66                                       | 0.00                                | 180.66                   | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 55    | 132 KV S/S Urban<br>Estate Jalandher<br>Addl.2x1.361MVAR<br>Cap.Bank         | 4.10   | 0.00                                | 4.10                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 56    | 132 KV S/S Urban<br>Estate Jalandher<br>Rerpl.of 20MVA with<br>same capacity | 0.00   | 150.00                              | 150.00                   | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 57    | 132 KV S/S Phagwara<br>Addl.10/12.5MVA                                       | 79.66  | 0.00                                | 79.66                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 58    | 132 KV S/S Phagwara<br>Aug of 20/10/10MVA<br>with 20MVA<br>(Amendment No. 3) | 0.00   | 150.00                              | 150.00                   | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |



| S. No | Scope<br>(132 kV)   | Opening<br>WIP as<br>on<br>March<br>31, 2012 | Expenditure<br>during FY<br>2012-13 | Transferred<br>to Assets | Closing<br>WIP as on<br>March 31,<br>2013 | Expenditure<br>during FY<br>2013-14 | Transferred to<br>Assets | Closing<br>WIP as on<br>March 31,<br>2014 |
|-------|---|--|-------------------------------------|--------------------------|---|-------------------------------------|--------------------------|---|
| 59    | 132 KV S/S<br>Kapurthala Aug of<br>10/12.5MVA with<br>20MVA     | 207.25                                       | 0.00                                | 207.25                   | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 60    | 132 KV S/S<br>Kapurthala Repl.& Re-<br>errection of<br>20/25MVA | 4.37   | 0.00                                | 4.37                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 61    | 132 KV S/S<br>Kapurthala<br>Addl.2x1.361MVAR<br>Cap.Bank        | 3.86   | 0.00                                | 3.86                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 62    | 132 KV S/S Kahnpur<br>Dhogri New Sub<br>Station                 | 86.01  | 0.00                                | 86.01                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 63    | 132 KV S/S Kahnpur<br>Dhogri<br>4x1.361MVAR<br>Capacitor Bank   | 0.00   | 0.77                                | 0.77                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 64    | 132 KV S/S Ropar<br>Aug of 10/12.5MVA<br>with 20MVA             | 249.48                                       | 0.00                                | 249.48                   | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 65    | 132 KV S/S Chohal<br>Addl.3/4MVA T/F                            | 11.77  | 0.00                                | 11.77                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 66    | 132 KV S/S Chohal<br>Repl.of damaged<br>4MVA                    | 0.00   | 6.50                                | 6.50                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 67    | 132 KV S/S Anandpur<br>Sahib Aug of<br>12.5MVA with<br>40/50MVA | 32.93  | 0.08                                | 33.01                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 68    | 132 KV S/S Anandpur<br>Sahib<br>Addl.12.5/16MVA                 | 68.47  | 0.00                                | 68.47                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 69    | 132 KV S/S Anandpur<br>Sahib Addl.5MVA T/F                      | 17.45  | 0.00                                | 17.45                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 70    | 132 KV S/S<br>Hoshiarpur Repl.of<br>20/10/10MVA with<br>12.5/16 | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 71    | 132 KV S/S<br>Hoshiarpur 66KV<br>Ajowal Bay                     | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |

| S. No | Scope<br>(132 kV)   | Opening<br>WIP as<br>on<br>March<br>31, 2012 | Expenditure<br>during FY<br>2012-13 | Transferred<br>to Assets | Closing<br>WIP as on<br>March 31,<br>2013 | Expenditure<br>during FY<br>2013-14 | Transferred to<br>Assets | Closing<br>WIP as on<br>March 31,<br>2014 |
|-------|---|--|-------------------------------------|--------------------------|---|-------------------------------------|--------------------------|---|
| 72    | 132 KV S/S<br>Hoshiarpur Aug of<br>20/25MVA with<br>40/50MVA          | 0.00   | 24.15                               | 24.15                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 73    | 132 KV S/S<br>Hoshiarpur 132KV<br>Bay for Mahilpur                    | 0.00   | 20.00                               | 20.00                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 74    | 132 KV S/S<br>Nawanshahar<br>Addl.12.5/16MVA T/F                      | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 75    | 132 KV S/S<br>Nawanshahar Repl.of<br>12.5mVA with<br>20MVA            | 0.00   | 170.00                              | 170.00                   | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 76    | 132 KV S/S Jadla<br>Addl.20MVA  | 0.00   | 7.11                                | 7.11                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 77    | 132 KV S/S Nakkian<br>New S/Stn.                                      | 0.00   | 44.16                               | 44.16                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 78    | 132 KV S/S Khera<br>Mandir Aug of<br>12.5MVA with<br>20MVA            | 0.00   | 0.04                                | 0.04                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 79    | 132 KV S/S Dhilwan<br>Repl.of 8/4/4MVA<br>with 10/12.5MVA             | 0.00   | 0.07                                | 0.07                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 80    | 132 KV S/S Dhilwan<br>Repl.of 10/12.5mVA<br>with 12.5MVA              | 0.00   | 50.00                               | 50.00                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 81    | 132 KV S/S Bhogpur<br>Repl.of 10/12.5MVA<br>with 20MVA                | 0.00   | 1.63                                | 1.63                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 82    | 132 KV S/S Kathu<br>Nangal Aug of<br>10/12.5MVA<br>(Amendment No. 8)  | 0.33   | -19.10                              | -18.78                   | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 83    | 132 KV S/S Focal<br>point Jal New S/Stn                               | 310.04                                       | 209.11                              | 519.15                   | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 84    | 132 KV S/S Science<br>City Kapurthala Aug<br>of 12.5MVA with<br>20MVA | 0.00   | -26.23                              | -26.23                   | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |

| S. No | Scope<br>(132 kV)  | Opening<br>WIP as<br>on<br>March<br>31, 2012 | Expenditure<br>during FY<br>2012-13 | Transferred<br>to Assets | Closing<br>WIP as on<br>March 31,<br>2013 | Expenditure<br>during FY<br>2013-14 | Transferred to<br>Assets | Closing<br>WIP as on<br>March 31,<br>2014 |
|-------|--|--|-------------------------------------|--------------------------|---|-------------------------------------|--------------------------|---|
| 85    | 132 KV S/S Children<br>Park Jalandher<br>2x5.544MVAR<br>Capacitor Bank                   | 0.00   | 8.75                                | 8.75                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 86    | 132 KV S/S Mall<br>Mandi Amritsar<br>Addl.10/12.5MVA<br>(Amendment No. 4)                | 0.00   | 160.00                              | 160.00                   | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 87    | 132 KV S/S Narain<br>Garh Repl.of old &<br>used oil of 40/50                             | 0.00   | 30.00                               | 30.00                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 88    | 132KV S/S Beas<br>132KV Controlling<br>Bay at 132KV Beas                                 | 20.77  | 0.00                                | 20.77                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 89    | 132KV S/S Beas Aug.<br>of 10/12.5 MVA with<br>20 MVA                                     | 192.59                                       | 0.00                                | 192.59                   | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 90    | 132KV S/S Power<br>Colony ASR Addl.<br>10/12.5MVA T/F                                    | 59.36  | 0.00                                | 59.36                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 91    | 132KV S/S Verka<br>Addl. 20MVA T/F   | 178.49                                       | 0.00                                | 178.49                   | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 92    | 132 KV Shamshpur<br>Addl.10/12.5 To 20<br>MVA  | 207.29                                       | 0.00                                | 207.29                   | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 93    | 132 KV S/S Sabhadi<br>Kalan 2 No. Bay  | 31.86  | 0.00                                | 31.86                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 94    | 132 KV S/S Anandpur<br>Sahib 1 x 12.5 MVA<br>132/11 KV in place of<br>1x20/10/10 MVA T/F | 0.00   | 20.00                               | 20.00                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 95    | 132 KV S/S Phagwara<br>1x12.5/16 MVA<br>132/33 KV to repl.<br>1x20/10/10 MVA T/F         | 0.00   | 20.00                               | 20.00                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 96    | 132 KV S/S Dhaleke 1<br>No. bay for<br>Dharamkot   | 0.00   | 32.50                               | 32.50                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 97    | 132 KV S/S Dera Beas<br>1x20 MVA 132/11 KV<br>to repl. 1x10/12.5<br>MVA T/F              | 0.00   | 250.00                              | 250.00                   | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |

| S. No | Scope<br>(132 kV)  | Opening<br>WIP as<br>on<br>March<br>31, 2012 | Expenditure<br>during FY<br>2012-13 | Transferred<br>to Assets | Closing<br>WIP as on<br>March 31,<br>2013 | Expenditure<br>during FY<br>2013-14 | Transferred to<br>Assets | Closing<br>WIP as on<br>March 31,<br>2014 |
|-------|--|--|-------------------------------------|--------------------------|---|-------------------------------------|--------------------------|---|
| 98    | 132 KV S/S Malout<br>Addl. 1x20 MVA<br>132/11 KV                                       | 0.00   | 250.00                              | 250.00                   | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 99    | 132 KV S/S Swadi<br>Kalan Addl. 1x12.5<br>MVA 132/11 KV T/F                            | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 250.00                              | 250.00                   | 0.00                                      |
| 100   | 132 KV S/S Chohal<br>1x12.5/16 MVA<br>132/33 KV to repl.<br>1x20/25 MVA T/F            | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 20.00                               | 20.00                    | 0.00                                      |
| 101   | 132 KV S/S Phillaur<br>Addl. 1x12.5 MVA<br>132/11 KV T/F                               | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 250.00                              | 250.00                   | 0.00                                      |
| 102   | 132 KV S/S Kahanpur<br>Addl. 1x20 MVA<br>132/11 KV                                     | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 280.00                              | 280.00                   | 0.00                                      |
| 103   | 132 KV S/S Abhoar<br>Addl. 1x40/50 MVA<br>in place of already<br>planned 1x20/25 MVA   | 0.00   | 30.00                               | 30.00                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 104   | 132KV Ropar Addl.<br>12.5MVA 132/11KV  | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 10.00                               | 10.00                    | 0.00                                      |
| 105   | 132KV Alawalpur<br>Addl. 1x12.5MVA<br>132/11KV   | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 32.50                               | 32.50                    | 0.00                                      |
| 106   | 132KV Banga a)<br>1x50MVA 132/66KV<br>T/F to repl. 1x40MVA<br>132/66KV T/F             | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 10.00                               | 10.00                    | 0.00                                      |
| 107   | 132KV Banga b)<br>1x20MVA 132/11KV<br>T/F to repl.<br>1x12.5MVA<br>132/11KV T/F        | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 10.00                               | 10.00                    | 0.00                                      |
| 108   | 132KV Jaintipur<br>1x12.5MVA<br>132/11KV T/F to be<br>repl. By 1x20MVA<br>132/11KV T/F | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 10.00                               | 10.00                    | 0.00                                      |
| 109   | 132KV Philaour<br>16MVA 132/66KV<br>T/F to be repl. By<br>25MVA 132/66KV<br>T/F        | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 20.00                               | 20.00                    | 0.00                                      |

| S. No | Scope<br>(132 kV)  | Opening<br>WIP as<br>on<br>March<br>31, 2012 | Expenditure<br>during FY<br>2012-13 | Transferred<br>to Assets | Closing<br>WIP as on<br>March 31,<br>2013 | Expenditure<br>during FY<br>2013-14 | Transferred to<br>Assets | Closing<br>WIP as on<br>March 31,<br>2014 |
|-------|--|--|-------------------------------------|--------------------------|---|-------------------------------------|--------------------------|---|
| 110   | 132KV Samadhbhai<br>Addl. 1x12.5MVA<br>132/11KV                                    | 0.00   | 200.00                              | 200.00                   | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 111   | 132KV Shamaspur<br>12.5MVA 132/11KV<br>T/F to be repl. By<br>20MVA 132/11KV<br>T/F | 0.00   | 10.00                               | 10.00                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 112   | 132KV Hoshiarpur<br>1x25MVA 132/66KV<br>T/F to be repl. By<br>1x50MVA 132/66T/F    | 0.00   | 50.00                               | 50.00                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 113   | 132 KV Badni Kalan<br>1x25 MVA 132/66 KV<br>T/F to repl 1x20 MVA<br>132/66 KV      | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 10.00                               | 10.00                    | 0.00                                      |
| 114   | 132 KV Batala Addl<br>1x25 MVA 132/66 KV   | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 32.50                               | 32.50                    | 0.00                                      |
| 115   | 132 KV Bilaspur<br>1x12.5 MVA 132/11<br>KV T/F to repl 1x20<br>MVA 132/11 KV       | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 10.00                               | 10.00                    | 0.00                                      |
| 116   | 132 KV Chohal 1x20<br>MVA 132/66-33 KV<br>T/F to repl 1x25 MVA<br>132/66-33 KV T/F | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 10.00                               | 10.00                    | 0.00                                      |
| 117   | 132 KV Dhariwal<br>Addl 1X12.5 MVA<br>132/11 KV T/F                                | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 32.50                               | 32.50                    | 0.00                                      |
| 118   | 132 KV Ekalgada<br>Addl 1X12.5 MVA<br>132/11 KV T/F                                | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 32.50                               | 32.50                    | 0.00                                      |
| 119   | 132 KV Jalalabad<br>Addl 1X12.5 MVA<br>132/11 KV T/F                               | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 32.50                               | 32.50                    | 0.00                                      |
| 120   | 132 KV Kapurthala<br>Addl 1x12.5 MVA<br>132/11 KV T/F to repl<br>1x50 MVA T/F      | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 50.00                               | 50.00                    | 0.00                                      |
| 121   | Addl 1x25 MVA<br>132/66 KV T/F   | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 10.00                               | 10.00                    | 0.00                                      |
| 122   | 132 KV Mall Mandi<br>Amritsar Addl 1x12.5<br>MVA 132/11 KV T/F                     | 0.00   | 32.50                               | 32.50                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |

| S. No | Scope<br>(132 kV)   | Opening<br>WIP as<br>on<br>March<br>31, 2012 | Expenditure<br>during FY<br>2012-13 | Transferred<br>to Assets | Closing<br>WIP as on<br>March 31,<br>2013 | Expenditure<br>during FY<br>2013-14 | Transferred to<br>Assets | Closing<br>WIP as on<br>March 31,<br>2014 |
|-------|---|--|-------------------------------------|--------------------------|---|-------------------------------------|--------------------------|---|
| 123   | 132 KV Mamoon<br>1x12.5 MVA 132/11<br>KV to repl 1x20 MVA<br>132/11 KV                      | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 10.00                               | 10.00                    | 0.00                                      |
| 124   | 132 KV Moga-II Addl<br>1x12.5 MVA 132/11<br>KV T/F  | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 32.50                               | 32.50                    | 0.00                                      |
| 125   | 132 KV Panjraian<br>Addl 1x12.5 MVA<br>132/11 KV T/F  | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 32.50                               | 32.50                    | 0.00                                      |
| 126   | 132 KV Pathankot<br>Addl 1x12.5 MVA<br>132/11 KV T/F  | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 32.50                               | 32.50                    | 0.00                                      |
| 127   | 132 KV Sihora Addl<br>1x12.5 MVA 132/11<br>KV T/F   | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 32.50                               | 32.50                    | 0.00                                      |
| 128   | 132 KV Swadhi Kalan<br>Addl 1x12.5 MVA<br>132/11 KV T/F                                     | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 32.50                               | 32.50                    | 0.00                                      |
| 129   | 132 KV Tanda 12.5<br>MVA 132/11 KV T/F<br>to repl 20 MVA<br>132/11 KV T/F                   | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 10.00                               | 10.00                    | 0.00                                      |
| 130   | 132 KV Tangra 1x20<br>MVA 132/11 KV T/F<br>to repl both 1x10/12.5<br>MVA 132/11 KV<br>T/F's | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 160.00                              | 160.00                   | 0.00                                      |
| 131   | 132 KV C/L Amritsar<br>Addl 1x12.5 MVA<br>132/11 KV   | 0.00   | 32.50                               | 32.50                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 132   | 132 KV Goraya<br>1x12.5 MVA 132/11<br>KV to repl 1x20 MVA<br>132/11 KV                      | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 10.00                               | 10.00                    | 0.00                                      |
| 133   | 132 KV Mahilpur 16<br>MVA 132/66-33 KV<br>T/F to repl 20 MVA<br>132/66-33 KV                | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 10.00                               | 10.00                    | 0.00                                      |
| 134   | 132 KV Moga 12.5<br>MVA 132/11 KV T/F<br>to repl 20 MVA<br>132/11 KV T/F                    | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 10.00                               | 10.00                    | 0.00                                      |

| S. No | Scope<br>(132 kV)   | Opening<br>WIP as<br>on<br>March<br>31, 2012 | Expenditure<br>during FY<br>2012-13 | Transferred<br>to Assets | Closing<br>WIP as on<br>March 31,<br>2013 | Expenditure<br>during FY<br>2013-14 | Transferred to<br>Assets | Closing<br>WIP as on<br>March 31,<br>2014 |
|-------|---|--|-------------------------------------|--------------------------|---|-------------------------------------|--------------------------|---|
| 135   | 132 KV Ferozepur<br>12.5 MVA 132/11 KV<br>T/F to repl 20 MVA<br>132/11 KV T/F                 | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 10.00                               | 10.00                    | 0.00                                      |
| 136   | 132 KV Seh 12.5<br>MVA 132/11 KV T/F<br>to repl 20 MVA<br>132/11 KV T/F                       | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 10.00                               | 10.00                    | 0.00                                      |
| 137   | 132KV Kotkapura 1<br>Repl. of<br>1x10/12.5MVA with<br>1x20MVA 132/11KV<br>T/F                 | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 160.00                              | 160.00                   | 0.00                                      |
| 138   | 132KV IGC Bathinda<br>Repl. of existing<br>1x10/12.5MVA With<br>1x20MVA 132/11KV<br>power T/F | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 160.00                              | 160.00                   | 0.00                                      |
| 139   | 132KV Maur Repl. of<br>existing<br>1x10/12.5MVA With<br>1x20MVA 132/11KV<br>power T/F         | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 160.00                              | 160.00                   | 0.00                                      |
| 140   | 132KV Sarainaga<br>Addl. 1x20MVA<br>132/66-33KV   | 0.00   | 0.00                                | 0.00                     | 0.00                                      | 185.00                              | 185.00                   | 0.00                                      |
| 141   | 132KV Bhandida  | 0.00   | 3.78                                | 3.78                     | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 142   | Meeting hall at 132<br>KV Badal   | 43.70  | 8.00                                | 51.70                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 143   | Waiting Shed at 132<br>KV Badal   | 21.55  | 3.10                                | 24.65                    | 0.00                                      | 0.00                                | 0.00                     | 0.00                                      |
| 144   | 132KV Kiratpursahib<br>(Nakkian)  | 30.34  | 20.09                               | 50.43                    | 0.00                                      | 25.00                               | 25.00                    | 0.00                                      |
|       | <b>Total</b>  | <b>3597.45</b>                               | <b>3149.24</b>                      | <b>6746.69</b>           | <b>0.00</b>                               | <b>3023.31</b>                      | <b>3023.31</b>           | <b>0.00</b>                               |