

**PUNJAB STATE ELECTRICITY REGULATORY COMMISSION**  
**SCO NO. 220-221, SECTOR 34 A, CHANDIGARH**



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**PUNJAB STATE ELECTRICITY REGULATORY COMMISSION  
SCO NO. 220-221, SECTOR-34-A  
CHANDIGARH**

**PETITION NO. 67 OF 2011**

**IN THE MATTER OF:**

**ANNUAL REVENUE REQUIREMENT  
FILED BY THE PUNJAB STATE TRANSMISSION CORPORATION LIMITED  
FOR THE FINANCIAL YEAR 2012-13**

**PRESENT** : Ms. Romila Dubey, Chairperson  
Er. Virinder Singh, Member  
Er. Gurinderjit Singh, Member

Date of Order: July 16, 2012

**ORDER**

The Punjab State Electricity Regulatory Commission (Commission), in exercise of powers vested in it under the Electricity Act, 2003 (Act) passes this Tariff Order determining the Annual Revenue Requirement (ARR) and Tariff for transmission of electricity by the Punjab State Transmission Corporation Limited (PSTCL) for FY 2012-13. The ARR filed by the PSTCL, facts presented by the PSTCL in its various submissions, objections received by the Commission from consumer organizations and individuals, issues raised by the public in hearings held at Ludhiana, Bathinda, Chandigarh and Jalandhar, the responses of the PSTCL to the objections and observations of the Government of Punjab (GoP) and PSPCL in this respect have been considered. The State Advisory Committee constituted by the Commission under Section 87 of the Act has also been consulted and all other relevant facts and material on record have been perused before passing this Order.

## **1.1 Background**

The Commission has in its previous nine Tariff Orders determined tariff in pursuance of the ARR and Tariff Applications submitted for the integrated utility by the Punjab State Electricity Board (Board) for FY 2002-03 to FY 2006-07, FY 2008-09, FY 2009-10, FY 2010-11 and by the Punjab State Transmission Corporation (PSTCL) for FY 2011-12. Tariff Order for FY 2007-08 had been passed by the Commission in suo motu proceedings.

## **1.2 ARR for FY 2012-13**

PSTCL has filed the ARR Petition for FY 2012-13 on November 29, 2011. In this petition, PSTCL has submitted that it is one of the 'successor entities' of the erstwhile Punjab State Electricity Board (Board) duly constituted under the Companies Act, 1956, on April 16, 2010, under the "Punjab Power Sector Reforms Transfer Scheme" ( Transfer Scheme). In the ARR Petition for FY 2012-13, PSTCL has submitted that the Balance Sheet of PSTCL ending March 31, 2009, appended to the Transfer Scheme, notified by GoP was provisional and till the date of filing of this Petition, GoP had not finalised the transfer of assets and liabilities to successor entities. In the absence of opening balances based on the final notification of GoP, the submission of ARR Petition by PSTCL is based on certain assumptions as detailed in the Petition. PSTCL has also submitted that in the event GoP issues the final Notification for transfer of assets and liabilities to the successor entities during pendency of this Petition, PSTCL shall submit revised figures of ARR and tariff for consideration of the Commission.

The Commission, in the Tariff Order for FY 2011-12, had observed that the Provisional Balance Sheets of the two successor entities ending March 31, 2009 as appended to the above mentioned Transfer Scheme showed significant variations when compared to the audited balance sheet of the integrated utility. Therefore, the Commission deemed it proper to rely on the information filed by erstwhile Board in its ARR Petition for FY 2010-11 and not on the Provisional Balance Sheets for the purpose of tariff determination for FY 2011-12. On the same lines, for FY 2012-13 also, the Commission has determined ARR and transmission tariff based on the submissions of PSTCL in its ARR Petition for FY 2012-13. The Commission has adhered to existing norms and principles during Review of the ARR for FY 2011-12.

PSTCL has filed an ARR for Review of its Transmission business and SLDC business for FY 2011-12. The Commission had approved ARR for the Transmission

business and SLDC business in the Tariff Order for FY 2011-12 and had also emphasized the need for 'ring fencing' and 'independent operation' of SLDC.

In the ARR petition for FY 2012-13, PSTCL has worked out a cumulative ARR of Rs. 1352.82 crore for Transmission business and Rs. 39.11 crore for SLDC business for FY 2012-13 including gap of previous year. The Commission took the ARR on record on December 1, 2011. On scrutiny, it was noticed that the ARR was deficient in some respects and in its communication dated December 22, 2011 and December 28, 2011 the Commission sought further information which was furnished by PSTCL in its letter No.23 dated January 02/04, 2012 and subsequent submissions.

The Annual Revenue Requirement determined by the Commission in this Tariff Order is based on the Petition filed by PSTCL for transmission and SLDC functions separately. The determination of transmission tariff and SLDC charges by the Commission are based on the revised estimates for FY 2011-12 and projections for FY 2012-13 as submitted by PSTCL.

The Commission also observes that PSTCL has pleaded for approval of O&M expenses in accordance with CERC Regulations. After due deliberation, the Commission is of the view that all expenses will be allowed as per PSERC Regulations as in the past.

### **1.3 Objections and Public Hearings**

A public notice was published by the PSTCL in The Tribune, The Hindustan Times, Punjab Kesri and Daily Ajit on December 10/11, 2011 inviting objections from the general public on the ARR filed by the PSTCL. Copies of the ARR were made available on the website of the PSTCL and in the office of the Financial Advisor, PSTCL, Thermal Designs Shed No.6, Shakti Vihar, Patiala, Liaison Officer, PSTCL Guest House, near Yadindra Public School, Phase-8, Ajitgarh (Mohali) and also in the offices of the Chief Engineer/P&M, PSTCL, Ludhiana and Superintending Engineers / P&M Circles of PSTCL at Ludhiana, Patiala, Jalandhar, Amritsar and Bhatinda. In the public notice, objectors were advised to file their objections with the Secretary of the Commission within 30 days of publication of public notice with an advance copy to the PSTCL. The public notice also indicated that after perusing the objections received, the Commission will conduct public hearings on the dates which would be subsequently notified.

The Commission received 5 written objections after the due date i.e. January 10, 2012. The Commission decided to take all these objections into consideration.

Number of objections received from individual consumers, consumer groups, organizations and others are detailed below:

<b>Sr. No.</b>	<b>Category</b>	<b>No. of Objections</b>
1	Industrial Associations	0
2	Industry	0
3	PSEB Engineers/Employees Associations	1
4	Punjab State Power Corporation Limited	1
5	Individuals	2
6	Govt. of Punjab (GoP)	1
	<b>Total</b>	<b>5</b>

The list of objectors is given in **Annexure-I** to this Tariff Order. The PSTCL submitted its comments on most of the objections which were made available to the respective objectors.

The Commission decided to hold public hearings at Ludhiana, Bathinda, Chandigarh and Jalandhar. A public notice to this effect was published on January 21, 2012 in The Tribune, Indian Express, Times of India, Punjabi Tribune and Amar Ujala informing the objectors, consumers and the general public in this respect as per details hereunder:

<b>Venue</b>	<b>Date &amp; Time of public hearing</b>	<b>Category of consumers to be heard</b>
<b><u>LUDHIANA</u></b> Circuit House, Ferozepur Road, Ludhiana.	<b><u>Feb. 1, 2012</u></b> 11.30 AM to 1.30 PM. (To be continued in the afternoon, if necessary).	All consumers/ organizations of the area.
<b><u>BATHINDA</u></b> Circuit House, Civil Lines, Near D.C. residence, Bathinda.	<b><u>Feb. 9, 2012</u></b> 11.30 AM to 1.30 PM (To be continued in the afternoon, if necessary).	All consumers/ organizations of the area.
<b><u>CHANDIGARH</u></b> Commission office i.e. SCO 220-221, Sector 34- A, Chandigarh.	<b><u>Feb. 10, 2012</u></b> 11.00 AM to 1.30 PM	Industry
	3.00 P.M. onwards	Agricultural consumers and their unions.
<b><u>CHANDIGARH</u></b> Commission office i.e. SCO 220-221, Sector 34- A, Chandigarh.	<b><u>Feb. 13, 2012</u></b> 11.00 AM to 1.30 PM	All consumers except Industry, Agricultural consumers and staff unions of the PSPCL and PSTCL.
	3.00 P.M. onwards	Staff unions of the PSPCL and PSTCL and other Organizations.
<b><u>JALANDHAR</u></b> Circuit House, Skylark Chowk, Opp. Skylark Hotel, Jalandhar	<b><u>Feb. 15, 2012</u></b> 11.30 AM to 1.30 PM (To be continued in the afternoon, if necessary).	All consumers / organizations of the area.

Through the public notice, it was intimated that the Commission will conduct a public hearing at Chandigarh on March 22, 2012 in which the PSTCL will reply to written objections of the public and other issues raised during public hearings in addition to presenting its own case.

The public hearings were held as per schedule and objectors, general public and the PSTCL were heard by the Commission. A summary of the issues raised, the response of the PSTCL and the views of the Commission are contained in **Annexure-II** of this Tariff Order.

- 1.4** The Government was approached by the Commission through DO letter dated December 13, 2011 followed by reminder dated February 14, 2012, memo no. PSERC/Reg/547 dated April 18, 2012 and DO letter no. 1403 dated May 15, 2012 seeking its views on the ARR to which the Government responded vide letter

no.1/2/2010-EB(PR)/217 dated June 13, 2012. The same has been taken note of by the Commission.

### **1.5 State Advisory Committee**

The State Advisory Committee set up under Section 87 of the Act, discussed the ARR of the PSTCL in a meeting convened for the purpose on February 14, 2012. The minutes of the meeting of the State Advisory Committee are enclosed as **Annexure-III** to this Order.

The Commission has thus taken the necessary steps to ensure that due process, as contemplated under the Act and Regulations framed by the Commission, is followed and adequate opportunity given to all stakeholders in presenting their views.

### **1.6 Compliance of Directives**

In its previous Tariff Order, the Commission had issued certain directives to the PSTCL in the public interest. A summary of Directives issued during FY 2011-12 and status of compliance along with the Directions of the Commission for FY 2012-13 is given at **Annexure-IV** to this Tariff Order.

# Chapter - 2

## True Up for FY 2010-11

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### 2.1 Background

The Commission had approved the ARR and Tariff for FY 2010-11 in its Tariff Order dated April 23, 2010, which was based on the costs and revenue estimated by erstwhile Punjab State Electricity Board (Board). The Tariff Order for FY 2010-11 contained its approvals of costs and revenue projections based on the integrated utility estimates for different items of costs to be incurred and revenue likely to accrue during the year.

### 2.2 Review of ARR for FY 2010-11

PSTCL in its ARR Petition for FY 2011-12 had submitted the revised estimates of costs and revenue pertaining to Transmission for FY 2010-11 (including SLDC functions). The costs related to Employee cost, R&M expenses, A&G expenses, Depreciation, Interest and Finance Charges and Return on Equity etc., of the composite Board were to be apportioned between the two successor entities i.e. PSPCL and PSTCL.

The Commission considered it appropriate and fair to re-visit and review the approvals granted by it for the Transmission function (including SLDC function) of the Board in the Tariff Order for FY 2011-12 with reference to the revised estimates made available by PSTCL, but without altering the principles and norms adopted earlier and accordingly, approved the revised ARR for FY 2010-11 in the Review.

Now, as the Board has been restructured into two successor entities i.e. PSPCL and PSTCL; PSPCL entrusted with Generation, Trading and Distribution functions and PSTCL entrusted with Transmission function and State Load Despatch functions, the total expenses were apportioned between these two entities, based on the functions entrusted.



## **2.3 True up of FY 2010-11**

- 2.3.1 The PSTCL has submitted that the Truing up exercise shall be undertaken only on the basis of Audited Accounts. The Auditing of Accounts for FY 2010-11 is under process and will be finalized after notification of the opening balances as on April 16, 2010 by the State Government. PSTCL has not submitted requisite data for True up for FY 2010-11 in the Petition. It has further submitted that the Truing up exercise may be undertaken by the Commission for FY 2010-11 after finalization of the Audited Accounts. Hence, the Commission decides to undertake the True up for FY 2010-11 along with the PSTCL ARR Petition for FY 2013-14, when the Audited Accounts for FY 2010-11 are made available.
- 2.3.2 As per earlier practice, the Commission in its review would adopt the expenses approved by the Commission in the True up (based on Audited Accounts) for the purpose of ascertaining allowable expenses for the succeeding year. However, in the absence of Audited Accounts of FY 2010-11 and the rationale given at length in this Tariff Order, the Commission has no alternative but to treat expenses in the Review of FY 2010-11 in Tariff Order for FY 2011-12 as the base figures for ascertaining the expenses for FY 2011-12.

# Chapter - 3

## Review for FY 2011-12

### 3.1 Background

The Commission had issued the Tariff Order for transmission business and SLDC business of PSTCL for FY 2011-12. PSTCL has now submitted its Petition for determination of ARR and transmission charges for FY 2012-13 for its transmission business and SLDC business along with Review for FY 2011-12.

The Commission has analyzed each of the components of ARR for FY 2011-12 in the following sections of this chapter:

### 3.2 Transmission System Availability

3.2.1 PSTCL has submitted its transmission system availability during FY 2010-11 and upto November, 2011 as shown in Table 3.1.

**Table 3.1: Transmission System availability of PSTCL (in %)**

Sr. No.	Voltage level	FY 2010-11				FY 2011-12		
		April - June	July - Sept.	Oct. - Dec.	Jan.- March	April - June	July - Sept.	Oct. - Nov.
1	2	3	4	5	6	7	8	9
1	220 kV	99.91	99.91	99.88	99.64	99.86	99.90	99.84
2	132 kV	99.84	99.57	99.91	99.82	99.50	99.84	99.60

3.2.2 PSTCL has requested an appropriate incentive for the performance of the transmission system in accordance with National Tariff Policy.

The Commission has taken note of the transmission availability of PSTCL system, but has not considered any incentive, as there is no provision in this regard in the PSERC Tariff Regulations, 2005.

### 3.3 Transmission Loss

The Commission had approved the transmission loss for PSTCL system provisionally at 2.5% for FY 2011-12 in the Tariff Order for FY 2011-12 after detailed deliberation on the issue by comparing the transmission losses with some of the utilities like HVPNL, WBSETCL and CSPTCL, the losses in which ranged from 2.1 to 4.9%. The Commission would review the loss level of 2.5%, after PSTCL installs meters at all

points connecting with PSPCL system and conducts energy audit. The energy audit would quantify the transmission loss in the PSTCL system.

PSTCL has reiterated its stand for higher transmission loss of 4.5% comparable with transmission losses in states such as Chhattisgarh and Maharashtra.

PSTCL is yet to provide boundary meters. On a query from the Commission, PSTCL vide its letter dated January 2/4, 2012 has submitted that placing of orders for energy meters for installation at various 220 kV and 132 kV substations has been delayed and that the meters will be installed by middle of 2012. In case the data for determining the transmission loss due to absence of boundary meters is not available at the time of True up for FY 2011-12, the Commission will be constrained to True up by assuming the transmission loss at 2.5%.

**Pending installation of boundary meters and conducting energy audit to arrive at the transmission loss, the Commission retains the transmission loss level at 2.5% as approved in the Tariff Order for FY 2011-12. This will be re-visited during 'Truing up' after the boundary meters are made functional and energy audit is conducted.**

### **3.4 Employee Cost**

- 3.4.1 In the ARR Petition for FY 2011-12, PSTCL claimed employee cost of Rs. 268.31 crore for its transmission business against which the Commission approved a sum of Rs. 162.82 crore in the Tariff Order for FY 2011-12. PSTCL has revised employee cost to Rs. 259.32 crore in the RE for FY 2011-12 in the ARR Petition for FY 2012-13. PSTCL further revised the employee expenses to Rs. 207.21 crore vide its Memo No. 23/FA/ARR/27 dated January 4, 2012. The details of the revised employee cost are shown in Table 3.2.

**Table 3.2: Estimates of Employee Cost for Transmission & SLDC business of PSTCL for FY 2011-12**

(Rs. crore)

Sr. No.	Particulars	Estimates for Transmission business for FY 2011-12	Estimates for SLDC business for FY 2011-12
1	2	3	4
<b>1.</b>	<b>Salaries and Allowances</b>		
2.	Basic pay	114.47	3.51
3.	Dearness allowance	55.10	1.83
4.	House rent allowance	0.00	0.34
5.	Fixed medical allowance	2.88	0.06
6.	Other allowances	18.98	0.38
7.	Over time payment	3.26	
8.	Medical reimbursement charges	1.10	0.01
9.	Generation incentive/LODA	0.00	0.08
10.	Bonus	0.00	0.04
<b>11.</b>	<b>Sub-Total</b>	<b>195.80</b>	<b>6.25</b>
<b>12.</b>	<b>Terminal benefits</b>		
13.	Leave encashment	9.37	0.23
14.	Gratuity	16.46	0.37
15.	Commutation of pension	0.00	
16.	Workman compensation	0.04	
17.	Ex-gratia	0.00	
18.	Fringe Benefit Tax	0.00	
<b>19.</b>	<b>Sub-total</b>	<b>25.87</b>	<b>0.60</b>
<b>20.</b>	<b>Pension payments</b>		
21.	Basic pension	28.40	0.02
22.	Dearness pension	-0.01	0.01
23.	Dearness allowance	0.00	
24.	Any other expenses	4.53	0.01
25.	Fixed Medical Allowance (FMA)	0.00	
<b>26.</b>	<b>Sub-total</b>	<b>32.92</b>	<b>0.03</b>
<b>27.</b>	<b>Total (10+17+23)</b>	<b>254.59</b>	<b>6.88</b>
28.	Amount capitalized	68.85	
<b>29.</b>	<b>Net amount (24-25)</b>	<b>185.74</b>	<b>6.88</b>
30.	Add prior period expenses	0.74	
<b>31.</b>	<b>Grand Total (26+27)</b>	<b>186.48</b>	
32.	Arrears	20.73	0.86
<b>33.</b>	<b>Total (28+29)</b>	<b>207.21</b>	<b>7.74</b>

The estimates of Rs. 207.21 crore for transmission business were further revised to Rs. 206.47 crore during the presentation on Feb. 22, 2012 by reducing prior period expenses of Rs. 0.74 crore. It is submitted by PSTCL that it has considered the

escalation factor of 10% on actual employees expenses in the first half of FY 2011-12 (H1) for projecting employee expenses for the latter half of FY 2011-12 (H2) based on 7% DA grossed up applicable for H2.

3.4.2 Similarly, in the ARR Petition for FY 2011-12, PSTCL had projected employee cost of Rs. 4.54 crore for its SLDC business for FY 2011-12 against which Commission had approved Rs. 3.32 crore. In the ARR Petition for FY 2012-13, PSTCL has claimed Rs. 7.74 crore as employee cost for SLDC business.

3.4.3 PSTCL has requested for approval of employee expenses for FY 2011-12 (RE) as submitted. PSTCL further requested that it be not penalized on account of employee expenses and employee expenses be approved on the basis of justification given in the Petition. PSTCL also submitted that O & M expenses should be allowed as per CERC (Terms & Conditions of Tariff) Regulations, 2009.

3.4.4 The Commission observes that employee cost is admissible in accordance with PSERC Tariff Regulations and not as per CERC Regulations as discussed in para 1.2 of this Tariff Order. PSERC Tariff Regulations provide for determination of employee cost in two parts as under:

- Terminal benefits on actual basis.
- Increase in other expenses limited to average increase in Wholesale Price Index (WPI).

Regulation 28(8) (b) also provides for consideration of any exceptional increase in employee cost on account of pay revision etc. which is to be considered separately.

3.4.5 PSTCL has claimed Rs. 58.79 crore towards terminal benefits for its transmission business in the RE for FY 2011-12 based on the actual expenses incurred in the first half of FY 2011-12. The terminal benefits include Rs. 0.04 crore towards workman compensation, which does not relate to terminal benefits, thus reducing claim of PSTCL to Rs. 58.75 crore. Further, 'Any Other Expenses' of Rs. 4.53 crore includes Rs. 1.86 crore, which is not in the nature of pension payments as intimated by utility vide letter No. 378 dated February 10, 2012. Since the terminal benefits are to be allowed on actual basis, the Commission allows the terminal benefits of Rs. 56.89 (58.79-0.04-1.86) crore in the review for FY 2011-12. Similarly, terminal benefits of Rs. 0.63 crore have been estimated by PSTCL for SLDC business for FY 2011-12. The Commission allows Rs. 0.63 crore as terminal benefits for SLDC business of PSTCL as per claim of the utility for FY 2011-12.

3.4.6 PSTCL has claimed the other employee cost of Rs. 152.18 crore (inclusive of pay revision arrears of Rs. 20.73 crore which were later revised to Rs. 23.33 crore vide letter No.438 dated February 28, 2012 ) in the RE for FY 2011-12 for transmission business. The increase in other employee cost is to be allowed based on the average increase in WPI in accordance with the PSERC Tariff Regulations. In the past, the Commission in its Review had adopted the expenses approved by the Commission in the True up (based on Audited Accounts) as the base for purposes of ascertaining allowable expenses. However, in the absence of Audited Accounts of FY 2010-11 and the rationale given at length in Chapter 2 of this Tariff Order, the Commission has no alternative but to treat the approved other expenses in the RE of FY 2010-11 in Tariff Order for FY 2011-12 as the base expenses for purposes of arriving at the allowable other expenses for FY 2011-12. The approved other employee cost of PSTCL for FY 2010-11 was Rs. 96.45 crore. After allowing average WPI increase of 7.4% based on available WPI for 9 months (April 2011 to December 2011), the allowable other employee cost of PSTCL works out to Rs. 103.59 crore.

Similarly, applying average WPI increase of 7.4% on approved other expenses of Rs. 2.55 crore in the review of FY 2010-11, the allowable other employee cost for SLDC business for FY 2011-12 works out to Rs. 2.74 crore.

3.4.7 In its ARR Petition for FY 2012-13, PSTCL has pleaded that the Commission may take into consideration the impact of revision of pay scales in the base 'other employee cost'. PSPCL vide letter dated January 24, 2012 intimated that the impact of revision of pay scales is Rs. 306.04 crore for FY 2011-12 for both utilities and is inclusive of 9% escalation on account of annual incremental increase in basic pay and DA etc. PSTCL vide its letter dated February 6, 2012 has intimated that the impact of revised pay scales of Rs. 306.04 crore for FY 2011-12 includes impact of pay revision of Rs. 24.26 crore relating to the employees of PSTCL. The Commission observes that any increase on account of pay/DA is taken care of by allowing WPI increase as per Regulations. A separate increase of 9% on revised pay is not provided for and hence cannot be allowed. Instead, a WPI increase of 7.4% on pay revision would be reasonable. The revised pay impact for PSTCL for FY 2011-12, after excluding escalation of 9%, as intimated by the Utility, is Rs. 22.25 crore. Allowing a WPI increase of 7.4% on this amount, the Commission ascertains impact of pay revision for PSTCL for FY 2011-12 as Rs. 23.90 crore. The Commission has been determining employee cost of PSTCL on normative basis in accordance with the Tariff Regulations. Therefore, the increase on account of pay revision cannot be

allowed over and above the normative employee cost and on actual cost basis as proposed by PSTCL. For FY 2009-10 and onwards, the Commission had been approving employee cost of the utility after reducing the claim of pay revision/arrears by 28.48% based on average disallowance in the approved employee cost for FY 2007-08, FY 2008-09 and FY 2009-10 (projections).

The Hon'ble APTEL in Appeal No 76 of 2011 in the case of PSTCL (Tariff Order for FY 2011-2012) has passed an order stating that it does not find any logic behind reducing the arrears of Rs. 35.49 crore by 28.48%. The Commission's reasoning that in the past it has been reducing the figure by the said percentage is held to be no ground for maintaining that reduction particularly when the appellant is a separate entity and as per the Govt. of Punjab Notification, the appellant has to pay 40% of the total arrears amounting to Rs. 35.49 crore. The Hon'ble APTEL has held that the matter of the fact is that the appellant (PSTCL), being a new entity projected all its figures provisionally. The transfer of assets and liabilities of the bi-furcated entities is yet to be finalized. As such, the Hon'ble APTEL has held that there is ample scope for Review and True up. Therefore, subject to review, which may happen after the expiry of FY 2011-12, the Commission will re-examine the matter and pass an appropriate order.

The Commission considers it appropriate to discuss this issue at length in the Tariff Order. The Commission observes that the employee cost of the erstwhile Board has remained a contentious issue since the Commission came into existence in April 2001 and the Commission in all its Tariff Orders has underlined the fact that the employee cost of the Board was one of the highest in the Country. The Board itself had admitted that it had surplus manpower. This aspect was also highlighted by the various categories of electricity consumers during public hearings held for finalization of ARR. The Commission had been emphasizing the necessity of bringing the Employee Cost at par with other well managed Utilities of the Country. The Board in its various ARRs, had been pleading that a number of initiatives have been taken to bring down its employee cost. The Commission noted that nothing effective was done to contain the employee cost. No steps were taken for rationalization and re-deployment of its manpower. The Commission, in line with the Regulations, has been allowing only the justified costs and not the actual costs claimed by the utility. The Commission has time and again reinforced the need to improve various performance parameters of the utility relating to all the three functions viz., Generation, Transmission and Distribution. Over the years the manpower of the

Board did reduce but only on account of retirements which was a matter of natural attrition and not on account of efforts made by the utility. The work study report, for which a consultant Pricewaterhouse Coopers was engaged in 2007 is yet to be implemented. In the meantime, the Board was unbundled into two successor entities on April 16, 2010 by Government of Punjab. The successor entities inherited the inefficiencies of the erstwhile Board not the least being manpower inefficiencies. The Commission cannot in all fairness overlook such glaring inherited inefficiencies of the successor entities i.e. PSPCL & PSTCL.

Here it would be in the fitness of things to mention that the Hon'ble APTEL has upheld the decision of the Commission to cap employee cost of the utility. In this regard reference is made to the order of Hon'ble APTEL dated May 26, 2006, in Appeal No.4,13,14 and others of 2005, the relevant extracts of which are reproduced as under:

*“The process of reforms which has been triggered by the Act of 1998 and the Act of 2003 will lose its momentum in case salaries/incentives are not linked to the performance of the employees. There is nothing on record to show that there has been improvement in the performance of the employees of the Board. Benefit should be made available for rewarding efficiency in performance. Automatic availability of benefits generates inefficiency and indolence.*

*As already pointed out, the comparative analysis of various parameters clearly establish that the employees of the PSEB are not productive and performance linked incentive shall be the requirement of the day.*

*At the same time we make it clear that in case the employees of the Board do not improve their efficiency, the aforesaid employees cost allowed by the Commission will remain capped till the performance of the Board employees improve.*

*No worthwhile measures were adopted by the Board to reduce the employee cost during the years in question. Even Voluntary Retirement Scheme, which could have been one of the options, was not adopted on the ground that the State Government was not in a position to find funds. These are mere excuses. The State Government itself had taken a stand during the year 2002-03 that the employee cost of Rs. 1316.50 crores claimed by the Board*



*was quite high. Subsequently, the same Government changed its stance for the year 2004-05. It seems to us that it is not prudent for the Board to employ excessive manpower.*

*In the circumstances, we decline to interfere with the decision of the Commission disallowing increase in the employees cost”.*

In view of the above decision of Hon’ble APTEL, the Commission continued to cap the employee cost as the utility showed no improvement in various performance parameters. The Commission, however, did allow terminal benefits and BBMB share on actual basis and WPI increase on the ‘other employee cost’. The revised pay scales, based on the recommendations of the 5<sup>th</sup> Pay Commission, were implemented in the Board w.e.f. August, 2009. Therefore, in the Tariff Order of FY 2010-11, the Commission worked out the average disallowance of 28.48% based on the disallowance in employee cost in FY 2007-08 (True up), FY 2008-09 (True up) and FY 2009-10 (projections). During processing of the ARR of FY 2010-11, the Commission was of the view that since the Commission had been disallowing the Employee Cost of the Board by 28.48%, it will be appropriate to reduce the arrears as also any other increase in Employee Cost falling within the ambit of Regulation 28 (8) (b) by 28.48%. Accordingly, the arrears of the Board employees were also reduced by 28.48% in the Tariff Orders of FY 2010-11 and FY 2011-12.

The Hon’ble APTEL in a recent judgment dated January 11, 2012 in Appeals Nos. 57 of 2008, 155 of 2007 and 125 of 2008 etc. has once again upheld the stand of the Commission to cap employee cost. The relevant extracts are reproduced as under:

*“In the order dated 26.05.2006 this APTEL directed that the cost of the employees should remain capped at the level of 2005-06..... but later in Appeal No. 99 of 2009 the APTEL observed that the employee’s cost has to be increased only to the level of WPI till the Board shows significant improvement in its working.*

*This point was answered by this APTEL in Appeal No. 153 of 2007 in these words:-*

*“It is noticed that the State Commission has allowed reasonable cost in the tariff order as fixed in the previous order after following the relevant regulation in this regard. As a matter of fact, the State Commission has referred to the APTEL orders and applied the principles contained in the*

*APTEL's order for fixing the employees cost. As a matter of fact, the Commission went by the materials placed by the appellant before the State Commission and found that no worthwhile measures were adopted by the Board to reduce the employees cost during the year in question. Even the voluntary retirement scheme which has been suggested by the APTEL was not adopted. In the above background that too on the basis of the principles laid down by this APTEL in 2007 APTEL, 931 (Siel Vs. Punjab State Electricity Commission), State Commission has approved Rs. 1661.41 crores as employees cost for the year 2007-08. There is nothing wrong in this finding.”`*

*This order in Appeal No. 153 of 2007 was decided by the Full Bench of this APTEL on 4<sup>th</sup> March, 2011 and a month thereafter that is, on 13<sup>th</sup> April, 2011 this issue was again considered in Appeal No. 99 of 2009 preferred by the same PSEB challenging the order dated 03.07.2008 wherein the Commission determined the ARR and tariff for the FY 2008-09. In the said order the Commission disallowed the employees cost claimed by the appellant and kept the employees cost at the capped levels and allowed only the wholesale price index escalation.....*

*While deciding the Appeal No. 99 of 2009 this APTEL had the occasion to refer to a reported decision of this APTEL namely SIEL Vs. Punjab State Electricity Regulatory Commission & Ors. Reported in 2007 APTEL, 931. In this reported decision the APTEL declined to interfere with the decision of the Commission disallowing increase in the employees cost. In this decision it was observed by the APTEL in concurrence with the Commission that unless there has been substantial improvement in the performance of the employees of the Board, there cannot be any automatic allowance with reference to the actual expenditure as the automatic availability of benefits generates inefficiency and indolence. The APTEL approved the stand of the Commission and held that :*

*“State Commission has taken into account the Regulation 28(6) of the Tariff Regulations and has given reasons as to why the entire claim made by the appellant on employees cost could not be allowed. As a matter of fact, the State Commission has specifically held that the State Commission does not find justification to deviate from the Regulations in*

*determining the employees cost of the appellant as the WPI increase as on March, 2008 against the corresponding period in the previous year stands at 6.68% and applying the same on employees cost determined for the year 2007-08.....*

*This issue was again raised in Appeal No. 40 of 2010. It appears that in the ARR for 2009-10 the Commission by its order dated 8-9-2009 approved Rs. 1856.60 crore as employees cost from Rs. 3454.68 crore as was projected by the Board. As such, it cannot be said that the Commission's approach to the issue is unjustified; on the contrary the Commission adopted a consistent reasonable approach throughout the years preceding the FY 2010-11. This issue is answered accordingly."*

From a perusal of the above judgments, it is clear that the Hon'ble APTEL has time and again upheld the Commission's stand as also rationale for disallowing employee cost. Consistent with its stand on disallowance of employee cost, the Commission has also disallowed claim of arrears and pay revision which are a part of the employee cost. The Commission would be failing in its duty if it adopted an inconsistent methodology whereby although employee cost was disallowed, the arrears of pay or impact of pay revision would be allowed in totality. Bearing this in mind, the Commission in all its orders has adopted a uniform and consistent approach to disallowance of employee cost. To be fair, the Commission attempted to bring both the disallowances under the head employee cost at par and hence disallowed the arrears by a percentage similar to the disallowance affected under the head 'employee cost'. The Commission at that point in time had adopted the percentage figure of disallowance based on the disallowance in employee cost for FY 2007-08, FY 2008-09 and FY 2009-10 (projections). The rationale for disallowance is, thus, logical and in line with the overall disallowance affected in the claim of employee cost. This rationale has also been upheld by Hon'ble APTEL as discussed above and thus has judicial sanction.

However, the Commission in all fairness also admits that disallowances are dynamic entities which vary from year to year. Up to the Tariff Order for FY 2011-12, the disallowance of employee cost had been ascertained on the basis of available data of FY 2007-08, FY 2008-09 and FY 2009-10 (projections). However, now the Commission is in possession of data based on Audited Accounts for FY 2006-07, FY 2007-08, FY 2008-09 and FY 2009-10. The Commission notes that FY 2006-07, FY 2007-08 and FY 2008-09 are comparable years as up to FY 2008-09 there was no

impact of pay revision (consequent upon 5<sup>th</sup> Pay Commission Report) or amendment of Regulations which allowed terminal benefits on actuals. The Commission, therefore, ascertains the weighted disallowance of employee cost for the aforementioned years as 17.22% as detailed in Table 3.3:

**Table 3.3: Disallowance of Employee Cost for FY 2011-12**

(Rs. crore)

Financial Year	Claim of the Utility	Approved by the Commission	Amount disallowed	Percentage of disallowance
1	2	3	4	5
2006-07 (True up)	1751.48	1558.40	193.08	11.02%
2007-08 (True up)	2035.28	1631.02	404.26	19.86%
2008-09 (True up)	2202.04	1768.19	433.85	19.70%
Total	5988.80	4957.61	1031.19	
Weighted Average Percentage of disallowance				17.22%

The Commission considers it prudent to adopt this figure for purposes of calculating allowable pay revision/ pay arrears of the Utility. The Commission is, therefore, of the view that the claim of PSTCL amounting to Rs. 23.90 crore, being impact of pay revision for FY 2011-12, needs to be reduced by 17.22% and the reduction works out to Rs. 4.12 crore. The allowable cost towards impact of pay revision for FY 2011-12 works out to Rs. 19.78 crore which is allowed by the Commission. No separate claim on this account has been filed for SLDC business of PSTCL and hence is not separately allowed.

3.4.8 PSTCL has claimed an amount of Rs. 23.33 crore towards payment of arrears during FY 2011-12 vide letter No.438 dated February 28, 2012 against Rs. 24.95 crore approved in the Tariff Order for FY 2011-12. In the past Commission had disallowed the employee cost by 28.48% based on the disallowance in employee cost for FY 2007-08, FY 2008-09 and FY 2009-10 (projections). However, as discussed in para 3.4.7 above, the Commission is of the view that the claim of arrears of PSTCL amounting to Rs. 23.33 crore for FY 2011-12 now needs to be reduced by 17.22%. The Commission ascertains the disallowance at Rs. 4.02 crore and the allowable cost towards arrears is thus calculated at Rs. 19.31 crore. The Commission, accordingly, allows arrears of Rs. 19.31 crore for FY 2011-12 for transmission business of PSTCL.

Similarly PSTCL has claimed Rs. 0.86 crore as payments of arrears in its SLDC business. Applying the same principle here, the Commission restricts the claim by 17.22 % and allows Rs. 0.71 crore for SLDC business towards pay arrears for FY 2011-12.

**Thus, the Commission approves the total employee expenses of Rs. 199.57 (56.89+103.59+19.78+19.31) crore for transmission business and Rs. 4.08 crore (0.63+2.74+0.71) for SLDC business of PSTCL for FY 2011-12.**

### **3.5 Repair and Maintenance (R&M) Expenses**

3.5.1 In the ARR Petition of FY 2011-12, PSTCL claimed R&M expenses of Rs. 97.15 crore for its transmission business and Rs. 4.86 crore for its SLDC business for FY 2011-12 against which the Commission allowed R&M expenses of Rs. 55.89 crore for transmission business and Rs. 0.17 crore for SLDC business.

In the ARR Petition for FY 2012-13, PSTCL has claimed R & M expenses of Rs. 61.22 crore for its transmission business and Rs. 2.24 crore for its SLDC business. PSTCL has submitted that the transmission system of the state is very old and the same has to be maintained efficiently with appropriate replacement of equipment and renovation to ensure uninterrupted power transmission in the state. It has accordingly submitted that PSTCL has to incur major R&M expenses.

3.5.2 Regulation 28 (4)(6) of the PSERC Tariff Regulations provides for adjusting the base O&M expenses (which includes R&M expenses) in proportion to the annual increase in WPI. As discussed in para 3.4.2 of Tariff Order for FY 2011-12, the Commission adopts approved R&M expenses of Rs. 51.32 crore (Rs. 48.10 crore being the approved R&M expenses for transmission business of PSTCL for FY 2010-11 and Rs. 3.22 crore being R&M expenses allowed on approved asset addition during the year) as ascertained in Review of FY 2010-11 in the Tariff Order for FY 2011-12 as base R&M expenses for FY 2011-12. The actual increase in WPI (April 2011 to December 2011) is ascertained as 7.4%. After allowing WPI increase of 7.4% on the base figure of Rs. 51.32 crore, the R&M expenses for FY 2011-12 for transmission business of PSTCL work out to Rs. 55.12 crore. Applying the same principle, the Commission allows WPI increase of 7.4 % on the base R&M expenses of Rs. 0.16 crore for SLDC business of PSTCL and the R&M expenses work out to Rs. 0.17 crore for FY 2011-12.

3.5.3 In the ARR Petition for FY 2012-13, PSTCL has also claimed Rs. 5.81 crore towards R&M expenses on asset addition during FY 2011-12. It has proposed to capitalize assets to the extent of Rs. 477.55 crore in the RE for FY 2011-12 against the proposed Investment Plan of Rs. 1042.39 crore. Based on the capital expenditure actually incurred up to December 2011, the Commission has approved the investment outlay of Rs. 800 crore for FY 2011-12 in para 3.8.3 of this Order and capitalization of Rs. 393.57 crore in the ratio of opening capital works in progress (CWIP) to total capital expenditure estimated/approved for the year.

3.5.4 In accordance with Regulation 28 (6) of the PSERC Tariff Regulations, the R&M expenses are allowable for assets added during the year on pro-rata basis from the date of commissioning of assets. The approved R&M expenses of Rs. 55.12 crore on the Opening Gross Fixed Assets (GFA) of Rs. 2407.48 crore work out to 2.29%. Accordingly the additional R&M expenses on the asset addition of Rs. 393.57 crore work out to Rs. 4.51 crore, considering the asset addition for six months, on an average during the year. PSTCL has not claimed any R&M expenses for addition of assets for its SLDC business for FY 2011-12 and are hence not allowed. The Commission also observes that any replacement of major equipment is a part of Capital Expenditure and not Revenue Expenditure.

**Thus, the Commission approves the R&M expenses of Rs. 59.63 (55.12 + 4.51) crore of transmission business and of Rs. 0.17 crore for SLDC business of PSTCL for FY 2011-12.**

### **3.6 Administration and General (A&G) Expenses**

3.6.1 In the ARR Petition of FY 2011-12, PSTCL had claimed the A & G expenses of Rs. 21.44 crore for Transmission business and Rs. 5.43 crore for SLDC business for FY 2011-12 against which the Commission allowed A&G expenses of Rs. 11.17 crore for transmission business and Rs. 0.033 crore for SLDC business of PSTCL in the Tariff Order for FY 2011-12. In the ARR Petition of FY 2012-13, PSTCL has revised the claim of A&G expenses to Rs. 23.69 crore inclusive of Rs. 2.25 crore on account of A&G expenses on assets added during the year. Similarly PSTCL has claimed A&G expenses of Rs. 0.836 crore for its SLDC business (inclusive of Rs. 0.003 crore of A & G expenses on assets added during the year).

3.6.2 PSTCL has submitted that as an independent entity with a separate function of transmission, it would have different business requirements as compared to an integrated utility. It is also submitted that it has considered various expenses like

license fees, audit fees, expenses incurred for security of substations, ARR & Tariff Petition fees, consultancy charges, electricity and water charges, lease rentals, out sourcing expenses etc. In projecting the A&G expenses, it has stated that 5% escalation factor is applied on actual A&G expenses in the first half of FY 2011-12 (H1).

- 3.6.3 Regulation 28(4) of the PSERC Tariff Regulations provides for adjusting the base O&M expenses (which includes A&G expenses) in proportion to the increase in WPI. Based on the WPI data available for 9 months (April 2011 to December 2011), Commission has calculated average WPI increase of 7.4%, which is adopted for purpose of calculation of allowable A&G expenses. As discussed in para 3.4.6 and para 3.5.2, the Commission adopts approved A&G expenses ascertained in Review of FY 2010-11 in the Tariff Order of FY 2011-12 as base A&G expenses for FY 2011-12. The base expenses of Rs. 10.29 crore are bifurcated as Rs. 10.26 crore and Rs. 0.03 crore for transmission and SLDC business respectively in the ratio of GFA as adopted in the Tariff Order of FY 2011-12. Applying this increase of 7.4% to the base figure of Rs. 10.26 crore, the A&G expenses for transmission business work out to Rs. 11.02 crore for FY 2011-12. Similarly, applying a WPI increase of 7.4% on the base A&G expenses of SLDC business of Rs. 0.03 crore approved for FY 2010-11, the allowable, A&G expenses for SLDC business of PSTCL work out to Rs. 0.032 crore.
- 3.6.4 PSTCL has also claimed Rs. 2.25 crore towards A&G expenses on assets of Rs. 239 crore added during the year. PSTCL revised this claim to Rs. 2.20 crore vide letter dated January 4, 2012. In the ARR Petition for FY 2012-13, PSTCL has proposed to capitalize assets to the extent of Rs. 477.55 crore for FY 2011-12 against the proposed Investment Plan of Rs. 1042.39 crore. Based on the capital expenditure of Rs. 459.15 crore incurred up to December, 2011 and a 25% increase on the extrapolated amount, the Commission has approved the investment at Rs. 800 crore and capitalization of Rs. 393.57 crore for FY 2011-12 in the ratio of opening capital works-in-progress (CWIP) to total capital expenditure estimated/proposed for the year as discussed in para 3.8.3 of the Tariff Order.
- 3.6.5 In accordance with Regulation 28 (6) of the PSERC Tariff Regulations, the A&G expenses are permissible for assets added during the year on pro-rata basis. The approved A&G expenses of Rs. 11.02 crore on the Gross Fixed Assets (GFA) of Rs. 2407.48 crore works out to 0.46%. Accordingly the additional A&G expenses on the approved asset addition of Rs. 393.57 crore work out to Rs. 0.91 crore,

considering the asset addition for six months on an average during the year. Similarly PSTCL has also claimed additional A&G expenses of Rs. 0.003 crore for assets of Rs. 0.10 crore added during the year for its SLDC business. Applying a similar principle, the additional A&G expenses on asset addition for FY 2011-12 works out to nil for SLDC business of PSTCL. Thus the total allowable A&G expenses work out to Rs. 11.93 (11.02+0.91) crore and Rs. 0.032 crore for transmission and SLDC business respectively for FY 2011-12.

- 3.6.6 The Commission observes that A & G expenses are being allowed on normative basis as provided in the PSERC Tariff Regulations, 2005. However, the Commission notes that the utility has claimed an amount of Rs. 0.25 crore on account of Annual license fee paid during FY 2011-12 also. The Commission also observes that the license fee is a mandatory payment to be made by the utility in line with the current Regulations. The Commission, therefore, is of the considered view that the Utility's claim towards expenses of annual license fee of Rs. 0.25 crore, which are justified expenses, need to be allowed over and above the normative A&G expenses. The Commission, therefore, allows expenses of Rs. 0.25 crore on this account.

**The Commission thus approves Rs. 12.18 (11.93 + 0.25) crore towards A&G expenses for the transmission business of PSTCL and Rs.0.03 crore towards SLDC business of PSTCL for FY 2011-12.**

### **3.7 Depreciation Charges**

- 3.7.1 In the ARR Petition of FY 2011-12, PSTCL had claimed depreciation charges of Rs. 151.80 crore for its transmission business against which Rs. 115.80 crore was approved by the Commission in the Tariff Order for FY 2011-12. In the ARR Petition for FY 2012-13, PSTCL has claimed depreciation of Rs. 132.80 crore by applying an average rate of 5.28% across the asset class on assets of Rs. 2753.90 crore which include assets of Rs. 477.55 crore added during the year.
- 3.7.2 The Commission had approved the depreciation charges of Rs. 115.80 crore for FY 2011-12 in the Tariff Order on an opening balance of Gross Fixed Assets (GFA) of Rs. 2407.48 crore. The Commission allows depreciation on the opening balance of GFA of Rs. 2407.48 crore as ascertained by the Commission in the Tariff Order for FY 2011-12 which works out Rs. 127.11 crore.
- 3.7.3 PSTCL has claimed depreciation charges at Rs. 0.36 crore on the opening Gross Fixed Assets (GFA) of Rs. 7.47 crore against Rs. 0.37 crore approved by the



Commission in the Tariff Order for FY 2011-12 for its SLDC business. The Commission allows depreciation charges of Rs. 0.36 crore for the SLDC business of PSTCL.

The Commission also observes that no depreciation on assets added during the year is considered as the utility has not submitted Audited Accounts for FY 2010-11. Also, it is noted with concern that the Fixed Asset Register (FAR) is pending finalization despite clear directions of the Commission in this regard. Moreover, the utility has submitted the asset segregation post unbundling as provisional in nature. Hence, depreciation on assets added during the year will be considered during True up. It may be pointed out that allowability of depreciation on opening Gross Fixed Assets (GFA) has been upheld by Hon'ble APTEL in its Order dated March 2, 2012 in Appeal No.76 of 2011 in the case of PSTCL.

- 3.7.4 Accordingly, the Commission approves the depreciation charges for transmission and SLDC business of PSTCL for FY 2011-12 as shown in Table 3.4.

**Table 3.4: Depreciation Charges for Transmission business and SLDC business of PSTCL for FY 2011-12**

(Rs. crore)

Particulars	For Transmission business		For SLDC business	
	Estimates by PSTCL	Approved in Tariff Order	Estimates by PSTCL	Approved in Tariff Order
1	2	3	4	5
Depreciation	132.80	127.11	0.36	0.36

### 3.8 Interest and Finance Charges

- 3.8.1 In the ARR Petition of FY 2011-12, PSTCL had claimed interest and finance charges of Rs. 138.04 crore for its transmission business against which the Commission allowed Rs. 86.19 crore. In the ARR Petition of FY 2012-13, PSTCL has claimed interest and finance charges of Rs. 158.80 crore (net of capitalization of Rs. 25.43 crore and inclusive of Rs. 1.50 crore as guarantee fee/financial charges) for its transmission business.

- 3.8.2 Similarly, PSTCL had claimed interest and finance charges of Rs. 0.33 crore for SLDC business for FY 2011-12 against which the Commission had approved interest and finance charges of Rs. 0.55 crore. In the ARR Petition of FY 2012-13, PSTCL has claimed interest charges of Rs. 0.14 crore. The interest and finance charges allowable to PSTCL are discussed in the ensuing paragraphs.

### 3.8.3 Investment Plan for Transmission Business of PSTCL

In the ARR petition of FY 2011-12, PSTCL had estimated a capital expenditure of Rs. 1367.44 crore against which the Commission had approved an investment plan of Rs. 600 crore for the transmission business of PSTCL in Tariff Order of FY 2011-12. PSTCL has estimated the capital expenditure at Rs. 1042.39 crore in the RE for FY 2011-12 in the ARR Petition of FY 2012-13. The details of capital expenditure submitted by PSTCL are shown in Table 3.5.

**Table 3.5: Estimates of Capital Expenditure and Capitalization for Transmission business for FY 2011-12**

(Rs. crore)					
Sr. No.	Particulars	Opening WIP as on March 31, 2011	Expenditure during the year 2011-12	Transferred to Assets	Closing WIP as on March 31, 2012
1	2	3	4	5	6
[1]	<b>Transmission Lines</b>				
a	132 kV	1.45	3.75	3.17	2.03
b	220 kV	58.05	171.47	84.13	145.38
	<b>Total</b>	<b>59.50</b>	<b>175.22</b>	<b>87.30</b>	<b>147.41</b>
[2]	<b>Sub-stations</b>				
A	132 kV	6.50	33.73	38.20	2.03
B	220 kV	102.97	239.44	242.05	100.37
	<b>Total</b>	<b>109.47</b>	<b>273.17</b>	<b>280.25</b>	<b>102.40</b>
[3]	<b>Talwandi Sabo Project - 400kV System</b>	<b>167.00</b>	<b>484.00</b>	<b>110.00</b>	<b>541.00</b>
[4]	<b>Rajpura – 400kV System</b>	<b>0.00</b>	<b>110.00</b>	<b>0.00</b>	<b>110.00</b>
	<b>Grand Total</b>	<b>335.97</b>	<b>1042.39</b>	<b>477.55</b>	<b>900.81</b>

The Commission observes that PSTCL has proposed an ambitious investment plan for its transmission business for FY 2011-12. PSTCL has furnished the actual expenditure up to December, 2011 at Rs. 459.15 crore against proposed capital expenditure of Rs. 1042.39 crore in the RE for FY 2011-12. Based on the actual capital expenditure upto December, 2011 and an enhancement on the extrapolated expenditure, the Commission approves the capital expenditure at Rs. 800 crore for FY 2011-12. Considering the approved capital expenditure of Rs. 800 crore and the fact that PSTCL has not projected any capital grant for capital works in FY 2011-12, the loan requirement of PSTCL for its transmission business works out to Rs. 800 crore.

PSTCL has proposed to capitalize expenditure to the extent of Rs. 477.55 crore in the RE for FY 2011-12 against the proposed capital expenditure of Rs. 1042.39 crore. The Commission has approved an investment of Rs.800 crore in the review

and the corresponding capitalization works out to Rs. 393.57 crore in the ratio of opening capital work in progress (CWIP) to total estimated/approved capital expenditure of PSTCL and as determined by the Commission.

### 3.8.4 Investment Plan for SLDC business

In ARR Petition of FY 2012-13, PSTCL has proposed an investment of Rs. 3.13 crore for FY 2011-12 against Rs. 25 crore approved by the Commission in the Tariff Order for FY 2011-12 as detailed in Table 3.6.

**Table 3.6: Estimates of Capital Investment for SLDC business for FY 2011-12**

(Rs. crore)		
Sr. No.	Particulars	Projected for SLDC
1	2	3
1	47 No. RTUs	2.00
2	Procurement of additional RTUs for remaining/upcoming substations of PSTCL	0.00
3	Replacement of existing RTUs	0.00
4	Implementation of Intrastate boundary metering scheme based upon ABT type energy meter	1.00
5	Purchase of computer items for SLDC	0.10
6	Furniture and Fixtures	0.03
7	Tools and Plants	0.00
8	Building expenditure for Energy Center	0.00
<b>9</b>	<b>Total</b>	<b>3.13</b>

**Accordingly, the Commission approves an investment plan of Rs. 3.13 crore as estimated by PSTCL for its SLDC business in the review for FY 2011-12.** Considering the approved capital expenditure of Rs. 3.13 crore, the loan requirement for SLDC business of PSTCL works out to Rs. 3.13 crore.

The Commission, however, observes that initial investment plan of SLDC business as filed in the ARR Petition of FY 2011-12 was Rs. 56.66 crore which was scaled down to Rs. 30.00 crore against which the Commission had allowed Rs. 25 crore. In the ARR Petition of FY 2012-13, the investment plan has been drastically reduced to Rs. 3.13 crore. The Commission advises the utility to furnish a realistic investment plan even at the projection stage in future.

PSTCL has submitted that it has proposed capitalization of Rs. 0.10 crore out of capital expenditure of Rs. 3.13 crore estimated for SLDC. The Commission allows

capitalization of expenditure of Rs. 0.10 crore for SLDC in the Review for FY 2011-12 as proposed.

- 3.8.5 PSTCL has claimed Rs. 158.80 crore (net of capitalization of Rs. 25.43 crore but inclusive of guarantee charges of Rs. 1.50 crore payable to GoP) towards interest on Loans (other than WCL and Government Loans) for its transmission business in the R.E for FY 2011-12. The interest on allowable loans (other than working capital loan) is worked out as detailed in Table 3.7.

**Table 3.7: Interest on Loans (Other than WCL)**

(Rs. crore)

Sr. No.	Particulars	Loans as on April 1, 2011	Receipt of Loan during FY 2011-12	Repayment of Loan during FY 2011-12	Loans as on March 31, 2012	Amount of Interest
1	2	3	4	5	6	7
1	As per data furnished in ARR Petition (other than WCL)	1054.37	953.30	138.32	1869.35	182.73
2	Approved by the Commission (other than WCL)	1054.37	800.00	138.32	1716.05	173.15

PSTCL has shown the opening balance of loan as on April 1, 2011 as Rs. 1054.37 crore against Rs. 1159.11 crore approved in the Tariff Order for FY 2011-12. It appears that PSTCL has taken the opening balance of Rs. 1054.37 crore based on their accounts for FY 2010-11. The Commission, therefore, adopts the opening balance as on April 01, 2011 of Rs. 1054.37 crore for calculation of interest on loan. The figures would be Trued up based on Audited Accounts of FY 2010-11.

- 3.8.6 The Commission observes that PSTCL has proposed to fund the estimated capital expenditure partly through ploughing back the Return On Equity (ROE) for FY 2011-12 and balance through borrowings both for transmission business and SLDC business. The Commission also observes that the Audited Accounts for FY 2010-11 are not submitted and the provisional transfer scheme has not yet been finalized by GoP. In the absence of Audited Accounts, it cannot be ascertained whether PSTCL has any accumulated losses or accrued surplus /general reserve to be ploughed back as internal resources to meet the equity contribution. The Commission, therefore, considers it appropriate to source the funding of capital expenditure through debt only in the review for FY 2011-12. The Commission thus approves the

interest on loans at Rs. 173.15 crore for the transmission business of PSTCL for FY 2011-12.

PSTCL has claimed Rs. 0.14 crore towards interest on Loans (other than WCL and Govt. Loans) in the RE for FY 2011-12 for its SLDC business. The interest on allowable loans (other than working capital loan) is worked out as detailed in Table 3.8.

**Table 3.8: Interest on Loans for SLDC (Other than WCL)**

(Rs. crore)						
Sr. No.	Particulars	Loans as on April 01, 2011	Receipt of Loan during FY 2011-12	Repayment of Loan during FY 2011-12	Loans as on March 31, 2012	Amount of Interest
1	2	3	4	5	6	7
1	As per data furnished in ARR Petition (other than WCL)	0.00	2.19	0.00	2.19	0.14
2	Approved by the Commission (other than WCL)	0.00	3.13	0.00	3.13	0.20

**The Commission approves the interest on loans at Rs. 0.20 crore for FY 2011-12 for the SLDC business of PSTCL.**

### 3.8.7 Finance Charges

The Commission has not approved any guarantee fee/finance charges in the Tariff Order for FY 2011-12 as no claim in this regard had been filed by the Utility. However, the Utility has claimed guarantee fee/finance charges of Rs. 1.50 crore in the ARR Petition of FY 2012-13. The Commission has been allowing finance charges in the ratio of finance charges claimed to the borrowings by utility. Thus the Commission allows finance charges of Rs. 1.28 crore @ 0.16% being the percentage rate of finance charges claimed to the total borrowings. PSTCL has not claimed any finance/guarantee charges for its SLDC business and are hence not allowed.

### 3.8.8 Capitalization of Interest Charges

PSTCL has claimed Rs. 25.43 crore towards capitalization for its transmission business. The Commission determines the capitalization of interest of Rs. 36.28 crore. The Commission approves capitalization of interest of Rs. 36.28 crore in the ratio of Work In Progress (WIP) and total WIP and GFA for the year in the review for FY 2011-12 for the transmission business of PSTCL. Capitalization of interest charges of SLDC of Rs. 0.06 crore are also approved.

### 3.8.9 Diversion of Capital Funds

The Commission, in para 2.15.7 of the Tariff Order of PSPCL for FY 2011-12 had determined the diversion of capital funds for revenue purposes at Rs. 2458.56 crore based on the Annual Audited Accounts of FY 2009-10. The amount of diverted funds carrying interest liability were worked out to Rs. 1821.21 crore. The Commission retains its decision to make similar disallowance for PSTCL by adopting a figure of Rs. 1821.21 crore ascertained on the basis of Audited Accounts of FY 2009-10 in the absence of audited accounts of FY 2010-11. The interest on diverted funds of Rs. 1821.21 crore @ 13%, being SBI Advance Rate as on April 01, 2011, works out to Rs. 236.76 crore. For FY 2011-12, the share of PSTCL out of Rs. 236.76 crore works out to Rs. 24.39 crore of which Rs. 10.30 crore is to the account of PSTCL and the balance of Rs. 14.09 crore is to the account of GoP. Thus Rs. 24.39 crore is disallowed from the approved interest charges for transmission business. However, the amount of diversion and interest thereon will be reconsidered by the Commission in the True up after receipt of Audited Accounts for FY 2010-11.

In the light of the above, the approved interest charges for transmission business are shown in Table 3.9.

**Table 3.9: Interest Charges for Transmission business for FY 2011-12**

(Rs crore)						
Sr. No.	Particulars	Loans as on April 01, 2011	Receipt of Loan during FY 2011-12	Repayment of Loan during FY 2011-12	Loans as on March 31, 2012	Amount of Interest
1	2	3	4	5	6	7
1	Interest on institutional loans taken by PSTCL	1054.37	800.00	138.32	1716.05	173.15
2	Finance charges					1.28
3	Total (1+2)					174.43
4	Less Capitalisation					36.28
5	Net interest charges					138.15
6	Less: Interest disallowed on account of diversion of capital funds a) PSTCL: Rs. 10.30 crore b) GoP: Rs. 14.09 crore					24.39
7	Interest allowed (5-6)					113.76

**The Commission, accordingly, approves the interest and finance charges of Rs. 113.76 crore for transmission business of PSTCL for FY 2011-12.**

Similarly, the approved interest charges for SLDC business of PSTCL for FY 2011-12 are shown in Table 3.10.

**Table 3.10: Interest Charges for SLDC Business for FY 2011-12**

(Rs crore)

Sr. No.	Particulars	Loans as on April 01, 2011	Receipt of Loan during FY 2011-12	Repayment of Loan during FY 2011-12	Loans as on March 31, 2012	Amount of Interest
1	2	3	4	5	6	7
1	Interest on institutional loans	0.00	3.13	0.00	3.13	0.20
2	Finance charges					Nil
3	Total (1+2)					0.20
4	Less Capitalization					0.06
5	Net interest charges allowed					0.14

Accordingly, the Commission allows Interest charges of Rs. 113.76 crore for transmission business and Rs. 0.14 crore for SLDC business of PSTCL for the FY 2011-12.

### 3.9 Interest on Working Capital

In the ARR Petition for FY 2012-13, PSTCL has claimed interest on working capital at Rs. 19.79 crore on its transmission business on normative basis as per PSERC Tariff Regulations on a total working capital of Rs. 158.34 crore.

The Commission has considered the working capital as per PSERC Regulations. The interest on working capital works out to Rs. 20.60 crore for FY 2011-12 by applying an interest rate of 13%, being the SBI Advance Rate as on April1, 2011 as detailed in Table 3.11.

**Table 3.11: Interest on Working Capital for Transmission business for FY 2011-12**

(Rs crore)

Sr. No.	Particulars	FY 2011-12	
		Projected by PSTCL in the RE	Approved in the Review
1	2	3	4
1	Receivables equivalent to two months fixed cost	78.02	*95.12
2	Maintenance spares @ 15% of O&M expenses	51.63	40.71
3	Operation & Maintenance expenses for one month	28.69	22.62
4	<b>Total working capital</b>	<b>158.34</b>	<b>158.45</b>
5	Interest rate (%)	12.50	13.00
6	Interest on working capital	19.79	20.60

\*Based on approved ARR in Review for FY 2011-12.

**The Commission thus approves the working capital of Rs. 158.45 crore and interest thereon of Rs. 20.60 crore for transmission business of PSTCL.**

In the ARR Petition for FY 2012-13, PSTCL has claimed interest on working capital of Rs. 0.80 crore on the total working capital of Rs. 6.42 crore for its SLDC business. Applying the principle used in transmission business, the Commission works out the interest on working capital of Rs. 0.46 crore by applying a rate of 13% (Advance Rate of SBI as on April 1,2011) on total working capital of Rs. 3.56 crore as given in Table 3.12.

**Table 3.12: Interest on Working Capital for SLDC business: FY 2011-12**  
(Rs. crore)

Sr. No.	Particulars	FY 2011-12	
		Projected by PSTCL for SLDC in the R.E	Approved in the Review
1	2	3	4
1	Receivables equivalent to two months fixed cost	3.89	* 2.56
2	Maintenance spares @15% of O&M expenses	1.62	0.64
3	Operation & Maintenance expenses for one month	0.90	0.36
4	Total working capital	6.42	3.56
5	Interest rate (%)	12.50	13.00
6	Interest on working capital	0.80	0.46

\*Based on approved ARR in Review for FY 2011-12.

**The Commission thus approves the working capital of Rs. 3.56 crore and interest thereon of Rs. 0.46 crore for SLDC business of PSTCL.**

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

PSTCL has claimed a Return on Equity of Rs. 89.09 crore for the transmission business for FY 2011-12 @ 15.5% (pre tax) to be grossed up to 23.48% as per CERC Regulations on the opening equity of Rs. 379.42 crore.

The opening equity, considered by the Commission for FY 2011-12 in the Tariff Order for FY 2011-12, was Rs. 328.50 crore and the same is considered as the opening equity for purposes of allowing ROE as discussed in para 3.8.6 of this Oder.

The Commission in the past, had been allowing ROE of 14% as per CERC Regulations prior to amendment of the same in 2009. In the 2009 amendment, CERC adopted a figure of 15.5% (pre-tax) for allowing ROE to power utilities which was to be grossed up as per tax paid by the utility. The Commission took refuge in its clause that 'CERC Regulations will be followed as far as possible' and refrained from



adopting a figure of 15.5% (pre-tax) holding that PSPCL had not shown requisite improvement in the critical parameters like employee cost. Now, the Hon'ble APTEL in its Order dated March 2, 2012 in Appeal No. 76 of 2011, in the case of PSTCL, has directed the Commission to adopt ROE of 15.5% (pre-tax), also observing that

*Since Regulation 25 of the State Regulations speaks of being guided by the Central Regulations as amended from time to time and as the CERC has framed new Regulations in 2009 (Regulation 15), the said Regulation 15 which is applicable in the instant case shall be applied sans the Regulation 7 of the Central Regulation, 2004 in as much as Regulation 15 of CERC Regulations, 2009 has abolished the provision of Regulation 7 of CERC Regulations, 2004 and there cannot be double advantage accruable to a transmission company who is of course entitled to the benefit of the CERC Regulations, 2009 (Regulation 15). **Once we hold that Regulation 15 of the CERC Regulations, 2009 will become applicable it is implied as also it becomes explicit that tax on income cannot be a pass through to the beneficiaries.***

**In compliance to Orders of Hon'ble APTEL, the Commission allows Return on Equity (ROE) of Rs. 50.92 crore @ 15.5% on the equity amount of Rs. 328.50 crore.**

In the ARR Petition for FY 2012-13, PSTCL has claimed Rs. 0.11 crore towards Return on Equity for SLDC business at an effective rate of 23.48% as per CERC Regulations after showing an equity addition of Rs. 0.94 crore based on equity on accrual basis. The Commission observes that opening balance of equity in the books of SLDC is nil. Also, the Commission has not accepted the proposal of PSTCL to fund the projected capital expenditure through ploughing back of ROE as discussed in Para 3.8.6. The Commission, therefore, does not consider any ROE due on SLDC business for FY 2011-12.

### **3.11 Provision for Bad Debts**

PSTCL has submitted that it has incurred expenses and other debits to the extent of Rs. 0.01 crore during the first half of FY 2011-12. It has requested to consider this amount under bad debts for FY 2011-12. Regulation 29 of PSERC Tariff Regulations specifies that the Commission, after the Generating Company / Licensee gets the accounts audited; allows a provision for bad debts upto 1% of the receivables in the revenue requirement of the Generating Company / Licensee. As provided in the

Regulations, bad debts if any, will be considered after the Audited Annual Accounts are made available to the Commission at the time of True up.

PSTCL has not claimed any provision for bad debt for its SLDC business.

### **3.12 ULDC Charges**

PSTCL has claimed Rs. 10.59 crore towards ULDC charge payable to PGCIL for its SLDC business against Rs. 18.91 crore approved by the Commission in the Tariff Order for FY 2011-12. Since the ULDC charges are decided by CERC from time to time, **the Commission allows Rs. 10.59 crore for FY 2011-12 as claimed by PSTCL.**

### **3.13 Non Tariff Income**

PSTCL has estimated non tariff income of Rs. 13.05 crore in respect of transmission business in FY 2011-12. **The Commission approves Rs. 13.05 crore as non tariff income of transmission business of PSTCL for FY 2011-12.**

PSTCL has submitted that it has not received any non tariff income during FY 2011-12 for SLDC business. **The Commission, accordingly, considers the non tariff income for SLDC business as nil for FY 2011-12.**

### **3.14 Revenue from Tariff & Open Access (OA) Charges**

In the ARR Petition of FY 2012-13, PSTCL has shown Rs. 481.01 crore as revenue from tariff and OA charges for its transmission business and Rs. 34.37 crore for its SLDC business for FY 2011-12. **The Commission accordingly, allows Rs. 515.38 crore as revenue from tariff and OA charges for FY 2011-12.**

### **3.15 Annual Revenue Requirement**

The summary of the Annual Revenue Requirement for SLDC business and Transmission business of PSTCL for FY 2011-12 is shown in Table 3.13.

**Table 3.13: Annual Revenue Requirement for SLDC and Transmission Business for FY 2011-12**

(Rs. crore)

Sr. No.	Particulars	For SLDC			For Transmission		
		Approved in Tariff Order for FY 2011-12	Estimates for FY 2011-12 (RE)	Approved by the Commission in the review for FY 2011-12	Approved in Tariff Order for FY 2011-12	Estimates for FY 2011-12 (RE)	Approved by the Commission in the review for FY 2011-12
1	2	3	4	5	6	7	8
1	Employee Cost	3.32	7.74	4.08	162.82	259.32	199.57
2	R&M expenses	0.17	2.24	0.17	55.89	61.22	59.63
3	Administration and General (A&G) expenses	0.03	0.84	0.03	11.17	23.69	12.18
4	Depreciation	0.37	0.36	0.36	115.80	132.80	127.11
5	Interest charges	0.55	0.14	0.14	86.19	158.80	113.76
6	Interest on Working Capital	0.55	0.80	0.46	15.47	19.79	20.60
7	Return on Equity	0.00	0.11	0.00	45.99	89.09	50.92
8	Provision for Bad Debts and other Debits	0.00	0.00	0.00	0.00	0.01	0.00
9	ULDC Charges	18.91	10.59	10.59	0.00	0.00	0.00
<b>10</b>	<b>Annual Revenue Requirement</b>	<b>23.35</b>	<b>22.82</b>	<b>15.83</b>	<b>477.86</b>	<b>744.72</b>	<b>583.77</b>
11	Less: Non tariff income	0.00	0.00	0.00	9.76	13.05	13.05
<b>12</b>	<b>Net Revenue Requirement (10-11)</b>	<b>23.35</b>	<b>22.82</b>	<b>15.83</b>	<b>468.10</b>	<b>731.67</b>	<b>570.72</b>
13	Revenue from tariff and OA charges	0.00	34.37	34.37		481.01	481.01
<b>14</b>	<b>(Gap)/Surplus* (13-12)</b>	<b>0.00</b>	<b>(+) 11.55</b>	<b>(+) 18.54</b>		<b>(-) 250.66</b>	<b>(-) 89.71</b>

\*Surplus (+)/deficit (-)

Thus, the Commission approves the Annual Revenue Requirement of Rs. 570.72 crore for Transmission business and Rs. 15.83 crore for SLDC business of PSTCL in the Review for FY 2011-12.

The summary of the Annual Revenue Requirement of PSTCL as a whole in the Review for FY 2011-12 is shown in Table 3.14.

**Table 3.14: Annual Revenue Requirement for PSTCL for FY 2011-12****(Rs. crore)**

Sr. No.	Particulars	For PSTCL		
		Approved in Tariff Order for FY 2011-12	Projected by PSTCL in RE for FY 2011-12	Approved in Review for FY 2011-12
1	2	3	4	5
1	Employee Cost	166.14	267.06	203.65
2	R&M expenses	56.06	63.46	59.80
3	Administration and General expenses(A&G)	11.20	24.53	12.21
4	Depreciation	116.17	133.16	127.47
5	Interest charges	86.74	179.53	134.96
6	Return on Equity	45.99	89.20	50.92
7	Provision for Bad Debts and other Debts	0.00	0.01	0.00
8	ULDC Charges	18.91	10.59	10.59
<b>9</b>	<b>Annual Revenue Requirement</b>	<b>501.21</b>	<b>767.54</b>	<b>599.60</b>
10	Less: Non tariff income	9.76	13.05	13.05
<b>11</b>	<b>Net Revenue Requirement (10-11)</b>	<b>491.45</b>	<b>754.49</b>	<b>586.55</b>
12	Revenue from tariff and OA charges	0.00	515.38	515.38
13	<b>(Gap)/Surplus* (13-12)</b>	0.00	(-)239.11	(-)71.17

\*Surplus (+)/deficit (-).

The ARR of Rs. 586.55 crore of PSTCL for FY 2011-12 are the transmission charges payable by PSPCL during FY 2011-12. However, the Commission approved the transmission charges of Rs. 491.45 crore in Tariff Order for FY 2011-12. As such, PSTCL will be receiving transmission charges of Rs. 491.45 crore only from PSPCL during FY 2011-12. The gap of Rs. 71.17 crore is being carried forward to Table 4.14 of this Tariff Order.



## Chapter - 4

# Annual Revenue Requirement for FY 2012-13

### 4.1 Introduction

PSTCL has projected the Annual Revenue Requirement (ARR) for FY 2012-13, separately for its transmission business and SLDC business. The Commission has analysed the projections for each item and determined the ARR for FY 2012-13, separately, for transmission business and SLDC business of PSTCL in this chapter.

### 4.2 Transmission System Capacity

4.2.1 PSTCL has projected the transmission capacity of the system as 10082 MWs for FY 2012-13 based on the generating capacity connected / likely to be connected to the transmission system from the generating stations within the State and share from Central Generating Stations and others as given in Table 4.1.

**Table 4.1: Generating Capacity Connected to the Transmission System**

<b>Generating Stations of PSPCL</b>	<b>Capacity (MW)</b>
<b>1</b>	<b>2</b>
<b>Thermal</b>	
GNDTP, (unit #1 to 4), Bhatinda	440.00
GGSTP, Ropar	1260.00
GHTP, Lehra Mohabbat (Unit #1 & #2)(Stage-I)	420.00
Talwandi Sabo, TPP	1227.60
Mundra, Ultra Mega Project	455.00
GHTP, Lehra Mohabbat (Unit #3 & #4)(Stage-II)	500.00
<b>Total Thermal</b>	<b>4302.60</b>
<b>Hydel</b>	
Shanan HEP, Joginder nagar	110.00
UBDC-I HEP, Malikpur	45.00
UBDC-II HEP, Malikpur	46.35
Ranjit Sagar HEP, Shahpurkandi	600.00
ASHP, Anandpur Sahib	134.00
Mukerian HEP, Talwara	207.00
Micro HEPs	5.60
<b>Total Hydel</b>	<b>1147.95</b>
<b>Renewable Energy</b>	
PEDA Projects	11.55
Other NRSE Projects	68.95

<b>Total Renewable Energy</b>	<b>80.50</b>
<b>Total Joint Venture</b>	<b>0.00</b>
<b>Central Stations (PSPCL Share)</b>	---
<b>NTPC (TPPs)</b>	
Singrauli	200.00
Rihand – I	110.00
Rihand – II	102.00
Rihand – III	67.00
Anta (G)	49.00
Auraiya (G)	83.00
Dadri (G)	132.00
Unchahar – I	36.00
Unchahar – II	60.00
Unchahar – III	17.00
Farakha	22.00
Kahalgaon – I	51.00
Kahalgaon – II	120.00
Bokaro, TPS	200.00
Raghunathpura, TPP	300.00
<b>Total NTPC</b>	<b>1549.00</b>
<b>NHPC (HEPs)</b>	
Bairasiul	84.00
Salal	184.00
Tanakpur	17.00
Chamera –I	55.00
Chamera –II	30.00
Uri	66.00
Dhauliganga	28.00
Dulhasti	32.00
SEWA – II	7.00
Parbati – III	80.00
Chamera – III	23.00
Uri – II	39.00
<b>Total NHPC</b>	<b>645.00</b>
<b>Other Generating Stations (PSPCL Share)</b>	
Udupi TPP (UPCL)	102.00
Pragati – III Power Project Bawana	137.00
Durgapur (DVC)	200.00
Nathpa Jhakri (SJVN)	152.00
Tehri (THDC)	77.00
Koteshwar (THDC)	25.50
Malana – II (TPC)	100.00

<b>Nuclear Power Corporation of India Limited (NPCIL) (PSPCL Share)</b>	
NAPP	51.00
RAPP #3	50.00
RAPP #4	50.00
RAPP-C #5	23.00
RAPP-C #6	23.00
<b>Total Nuclear</b>	<b>197.00</b>
<b>Tala (Located in Bhutan)</b>	<b>29.40</b>
<b>Common Pool Stations (PSPCL share)</b>	
Bhakra HEP	684.00
Dehar HEP	475.00
Pong HEP	99.00
<b>Total</b>	<b>1258.00</b>
<b>Grand Total</b>	<b>10082.05</b>

**The Commission has taken note of the transmission capacity of PSTCL transmission system as 10082 MWs.**

#### **4.3 Transmission Loss**

- 4.3.1 PSTCL has projected the transmission loss at 4.5% for FY 2012-13. PSTCL has submitted that it could not instal boundary meters to conduct energy audit to arrive at realistic losses. PSTCL has further submitted that it had invited bids and the bids were scheduled for opening by Dec.7, 2011 and the project of providing meters and conducting energy audit is expected to be completed in FY 2012-13. Hence PSTCL requested the Commission to approve transmission loss at 4.5% which is comparable to the transmission loss of States of Maharashtra and Chhattisgarh.

The Commission had approved the transmission loss at 2.5% for FY 2011-12 in the Tariff Order for FY 2011-12 after detailed deliberations on the issue comparing the transmission loss in some of the other utilities. The Commission had stated that it would review the transmission loss of 2.5% for PSTCL while undertaking the review of FY 2011-12. Since PSTCL has not completed the boundary metering so far and is expected to be completed during **FY 2012-13, the Commission retains the transmission loss level at 2.5% for FY 2012-13. The Commission would revisit the transmission loss in the review for FY 2012-13 after the boundary meters are provided and energy audit is conducted.**

#### **4.4 Transmission System Availability**

- 4.4.1 PSTCL has submitted its transmission availability for FY 2010-11 and for three quarters of FY 2011-12 as in Table 4.2 and Table 4.3.



**Table 4.2: Transmission System Availability during FY 2010-11****(%)**

Sr. No.	Voltage Level	FY 2010-11			
		Apr –Jun	July-Sep	Oct.-Dec	Jan-Mar
1	2	3	4	5	6
1	220 kV	99.91	99.91	99.88	99.64
2	132 kV	99.84	99.57	99.91	99.82

**Table 4.3: Transmission System Availability during FY 2011-12****(%)**

Sr. No.	Voltage Level	FY 2011-12		
		Apr –Jun	July-Sep	Oct.-Nov
1	2	3	4	5
1	220 kV	99.86	99.9	99.84
2	132 kV	99.50	99.84	99.60

PSTCL has requested to appropriately incentivize the performance of the Transmission System in accordance with National Tariff Policy.

**The Commission has taken note of the performance of the transmission system availability of PSTCL but has not considered any incentive as there is no provision in this regard in the PSERC Tariff Regulations.**

#### **4.5 Employee Cost**

- 4.5.1 In the ARR petition for FY 2012-13, PSTCL has projected employee expenses of Rs. 310.00 crore for transmission business (net of capitalisation of Rs. 95.35 crore) inclusive of arrears of Rs. 26.17 crore on account of pay revision and expenses of new employees of Rs. 26.59 crore. While furnishing clarification / additional information in Memo No.23/FA/ARR/27 dated January 4, 2012, PSTCL has revised the employees cost to Rs. 229.15 crore (Net of capitalisation of Rs. 79.17 crore) including arrears of Rs. 15.55 crore. PSTCL has also projected the employee expenses of Rs. 8.89 crore for SLDC business inclusive of arrears of Rs. 0.65 crore for FY 2012-13 as shown in Table 4.4.

**Table 4.4: Employee Cost Projected by PSTCL for FY 2012-13**

(Rs. crore)

Sr.No.	Particulars	Projected for Transmission business for FY 2012-13	Projected for SLDC business for FY 2012-13
1	2	3	4
<b>[I]</b>	<b>Salaries and Allowances</b>		
1.	Basic pay	131.64	4.03
2.	Dearness allowance	63.37	2.10
3.	House rent allowance	0.00	0.39
4.	Fixed medical allowance	3.31	0.07
5.	Other allowances	21.83	0.43
6.	Over time payment	3.74	-
7.	Medical reimbursement charges	1.27	0.01
8.	Generation incentive /LODA	0.00	0.10
9.	Bonus	0.00	0.05
<b>10.</b>	<b>Sub-Total</b>	<b>225.16</b>	<b>7.18</b>
<b>[II]</b>	<b>Terminal Benefits</b>		
11.	Leave encashment	10.77	0.42
12.	Gratuity	18.93	0.59
13.	Commutation of pension	0.00	-
14.	Workmen compensation	0.05	-
15.	Ex-gratia	0.00	-
16.	Fringe Benefit Tax	0.00	-
<b>17.</b>	<b>Sub-Total</b>	<b>29.75</b>	<b>1.01</b>
<b>[III]</b>	<b>Pension Payments</b>		
18.	Basic pension	32.66	0.02
19.	Dearness pension	-0.01	0.02
20.	Dearness allowance	0.00	-
21.	Any other expenses	5.21	0.01
22.	Fix Medical Allowance (FMA)	0.00	0.00
<b>23.</b>	<b>Sub-Total</b>	<b>37.86</b>	<b>0.05</b>
<b>24.</b>	<b>Total (10+17+23)</b>	<b>292.78</b>	<b>8.24</b>
25.	Amount capitalised	79.17	-
26.	Net amount (24-25)	213.61	-
27.	Add Prior period expenses	0.00	-
<b>28.</b>	<b>Grand Total (26+27)</b>	<b>213.61</b>	<b>8.24</b>
29.	Arrears	15.55	0.65
<b>30.</b>	<b>Total (28+29)</b>	<b>229.15</b>	<b>8.89</b>

4.5.2 In addition to the expenses on existing employees in Table 4.4 above, PSTCL has projected the cost of additional (new) employees for FY 2012-13 to be recruited by March 2012 as Rs. 26.59 crore for the Transmission business and Rs. 0.55 crore for its SLDC business.

4.5.3 PSERC Tariff Regulations provide for determination of employee cost in two parts as under:

- Terminal benefits on actual basis
- Increase in other employee expenses limited to average increase in WPI

Regulation 28 (8) also provides for consideration of any exceptional increase in employee cost on account of pay revision etc., which is to be considered separately.

4.5.4 PSTCL has claimed Rs. 67.61 crore towards terminal benefits for transmission business for FY 2012-13. It is submitted by PSTCL that it has escalated the terminal benefits by 15% over and above the figures for FY 2011-12 (12% due to increase in DA and 3% on account of increase in basic pay) as it is difficult to project the exact expenses on account of terminal benefits for FY 2012-13. PSTCL has claimed expenses of Rs. 5.21 crore for FY 2012-13 against Rs. 4.53 crore claimed for FY 2011-12 under the subhead. 'Any Other Expenses'. The items accounted for under this head for FY 2011-12 included expenses of Rs. 1.86 crore which were not in the nature of Terminal benefits as discussed in para 3.4.5 of this Order. Keeping this in view, the Commission treats the expenses of Rs. 2.14 ( $1.86 \times 5.21/4.53$ ) crore as expenses not related to Pension Payments included under subhead 'Any Other Expenses' for FY 2012-13. The terminal benefits claimed also include Rs. 0.05 crore under the head 'workman compensation' which is not in the nature of terminal benefits. The Commission thus ascertains the terminal benefits of Rs. 65.42 ( $67.61 - 0.05 - 2.14$ ) crore for Transmission business of PSTCL for FY 2012-13 and allows the same.

Similarly terminal benefits of Rs. 1.06 crore have been projected by PSTCL for SLDC business. The Commission allows Rs. 1.06 crore towards terminal benefits for SLDC business of PSTCL for FY 2012-13.

4.5.5 PSTCL has claimed the other employee cost of Rs. 148.18 crore excluding pay arrears in the tariff petition for FY 2012-13. The increase in other employee cost is to be allowed based on the average increase in WPI in accordance with the PSERC Tariff Regulations. The average annual WPI increase for FY 2012-13 would only be available next year and it is the normal practice of the Commission to apply the WPI increase of the previous year for projecting the expenses for the ensuing year. Accordingly, based on the WPI indices available for 9 months (April 2011 to December, 2011), the Commission has calculated the average annual increase in WPI of 7.4%. The Commission has approved the other employee cost of Rs. 103.59 crore in the review for FY 2011-12 in para 3.4.6. Applying a WPI increase of 7.4% on this amount, the other employee cost works out to Rs. 111.26 crore for transmission business of PSTCL for FY 2012-13.

Similarly, applying average WPI increase of 7.4% on the approved other employee cost of Rs. 2.74 crore in the review of FY 2011-12, the allowable other employee cost of SLDC business works out to Rs. 2.94 crore for FY 2012-13.

4.5.6 In its ARR Petition for FY 2012-13, PSTCL has pleaded that the Commission may take into consideration the impact of revision of pay scales in the base 'other employee cost'. PSPCL, vide letter dated January 24, 2012, has intimated that the impact of revision of pay scales for FY 2012-13 is Rs. 333.57 crore for both utilities and is inclusive of 9% escalation on account of annual incremental increase in basic pay and DA etc. PSTCL, vide its letter dated February 6, 2012, has intimated that the impact of revised pay scales of Rs. 333.57 crore for FY 2012-13 includes impact of pay revision of Rs. 26.44 crore for FY 2012-13 relating to the employees of PSTCL. The Commission observes that any increase on account of pay/DA is taken care of by allowing WPI. A separate increase of 9% on revised pay is not provided for and hence cannot be allowed. Instead, an increase of WPI of 7.4% would be reasonable. The revised pay impact for PSTCL for FY 2012-13 after excluding escalation of 9% as intimated by the utility is Rs. 24.26 crore. Allowing a WPI increase of 7.4% on this amount, the Commission ascertains impact of pay revision for PSTCL for FY 2012-13 as Rs. 26.06 crore. The Commission has been determining employee cost of PSTCL on normative basis in accordance with the Tariff Regulations. Therefore, the increase on account of pay revision cannot be allowed over and above the normative employee cost and on actual cost basis as proposed by PSTCL. For FY 2009-10 and onwards, the Commission had been approving employee cost of the utility after reducing the claim by 28.48% based on average disallowance in the approved employee cost for FY 2007-08, FY 2008-09 and for FY 2009-10 (projections).

As discussed in para 3.4.7 of this Tariff Order, the claim of PSTCL amounting to Rs. 26.06 crore, being impact of pay revision for FY 2012-13, needs to be reduced by 17.22% and the reduction works out to Rs. 4.49 crore. The allowable cost towards impact of pay revision for FY 2012-13 works out to Rs. 21.57 crore which is allowed by the Commission. No separate claim on this account has been filed for SLDC business of PSTCL and therefore is not separately allowed.

4.5.7 In the ARR petition for FY 2012-13, PSTCL has claimed an amount of Rs. 15.55 crore towards payment of arrears on account of implementation of Pay Commission report during FY 2012-13. The Commission has been determining employee cost of the Board on a normative basis in accordance with its Regulations and thus, the pay arrears cannot be allowed as claimed. As discussed in para 3.4.7 and 3.4.8 of Chapter 3 of this Tariff Order, PSTCL's claim of Rs. 15.55 crore as pay arrears payable during FY 2012-13 also needs to be reduced by 17.22%. A reduction of this

order amounts to Rs. 2.68 crore and the allowable cost on this account would be Rs. 12.87 crore for transmission business of PSTCL.

Similarly, PSTCL has claimed Rs. 0.65 crore towards payment of arrears in its SLDC business. Applying the same principle here, the Commission restricts the claim by 17.22% and allows Rs. 0.54 crore for SLDC business towards pay arrears for FY 2012-13.

#### **4.5.8 New Employees**

PSTCL has projected employee cost of Rs. 26.59 crore for the proposed recruitment of 797 additional (New) employees during FY 2012-13. PSTCL has submitted that its current employee strength is 4037 and that it plans to recruit 797 new employees for its efficient working. PSTCL has submitted that the proposal was approved by GoP and the recruitment includes requirement for O&M of 400 kV network programmed to be commissioned during FY 2012-13. PSTCL has also submitted that while finalizing the total requirement, the PwC Report on Manpower requirement of PSTCL has been duly considered. PSTCL has further stated that the process of recruitment is programmed to be completed by April 2012.

PSTCL also proposes to take 14 new employees for operation and maintenance of its SLDC business. It has projected additional employee cost of Rs. 0.55 crore on this account.

The Commission observes that the Regulations provide for allowing terminal benefits on actual basis and an increase in other employee expenses limited to average increase in WPI. Also, Regulation 28 (8) (b) allows for consideration of any exceptional increase in expenses on account of pay revision. There is no separate provision for allowing employee cost for new employees. Accordingly, the Commission is of the view that the claim on account of new employees falls under the 'other employee' head and is treated as such. A 7.4% WPI increase on the approved expenses for FY 2011-12 is allowed as determined in para 4.5.5. The Commission emphasizes that no additional employee cost on account of projected new recruitment is admissible as per Regulations and hence no such cost is allowed. However, this issue shall be reconsidered by the Commission during Review in subsequent Tariff Order.

**Thus, the Commission approves 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 and Rs. 4.54 (1.06+2.94+0.54) crore for SLDC business of PSTCL for FY 2012-13.**

#### **4.6 Repair and Maintenance (R&M) Expenses**

4.6.1 In the ARR petition of FY 2012-13, PSTCL has projected the R&M expenses of Rs. 120.12 crore for its transmission business (which includes R&M expenses of Rs. 29.81 crore for assets added during the year) and Rs. 3.19 crore for its SLDC business (which includes R&M expenses of Rs. 0.14 crore on assets added during the year).

PSTCL has submitted that there is an urgent need for strengthening the transmission system after unbundling and separation of transmission functions as existing system is very old and requires to be maintained effectively with appropriate replacement of equipment and renovation to ensure uninterrupted power transmission in the State. PSTCL has, therefore, requested the Commission to approve the R&M expenses as projected by PSTCL.

4.6.2 The Commission has been approving the R&M expenses in accordance with the provisions of Regulations 28 (8) of PSERC Tariff Regulations by adjusting the base R&M expenses in proportion to the increase in WPI. The base R&M expenses of Rs. 64.14 crore, (Rs. 59.63 crore being approved R&M expenses for transmission business for FY 2011-12 and Rs. 4.51 crore being additional R&M expenses for six months on assets added during the year) have been considered for FY 2012-13. Applying WPI increase of 7.4% (April 2011 to December 2011), as discussed in para 4.5.5 allowable R&M expenses for FY 2012-13 work out to Rs. 68.89 crore. Similarly, the Commission allows WPI increase of 7.4 % for its SLDC business on the base R&M expenses of Rs. 0.17 crore, being approved R&M expenses for FY 2011-12. The R&M expenses for SLDC business of PSTCL work out to Rs. 0.18 crore for FY 2012-13.

4.6.3 In the ARR Petition for FY 2012-13, PSTCL has also claimed Rs. 29.81 crore towards R&M expenses on likely asset addition of Rs. 1818.39 crore during the FY 2012-13. As regards this claim of Rs. 29.81 crore on proposed addition of assets in terms of the PSERC Tariff Regulations, the Commission is of the view that the increase in R&M expenses demanded on this account cannot be allowed at this

stage and will be considered at the time of review next year when more accurate figures of asset addition are available.

**Thus, the Commission approves the R&M expenses of Rs. 68.89 crore for transmission business and of Rs. 0.18 crore for SLDC business of PSTCL for FY 2012-13.**

#### **4.7 Administrative and General (A&G) Expenses**

4.7.1 In the ARR petition for FY 2012-13, PSTCL has projected A&G expenses of Rs. 74.89 crore for its transmission business (net of capitalization of Rs. 2.96 crore) which includes A&G expenses of Rs. 18.59 crore for asset addition during the year. Subsequently, while submitting clarifications / additional information sought by the Commission, PSTCL revised the A&G expenses due to asset addition to Rs. 11.51 crore in Memo No. 23 dated April 01, 2012. Thus the revised claim for A&G expenses for FY 2012-13 is Rs. 67.81 crore. In the ARR petition for FY 2012-13, PSTCL has also projected A&G expenses of Rs. 1.40 crore for its SLDC business (net of capitalization of Rs. 0.095 crore) which includes A&G expenses of Rs. 0.137 crore for asset addition during FY 2012-13.

4.7.2 PSTCL has submitted that it has not considered increase in WPI for projecting A&G expenses for its transmission business, but considered 15% escalation on the A&G expenses for FY 2011-12. PSTCL has submitted that it has different business requirements as compared to an entity with integrated function of generation, distribution and transmission. It has considered various expenses like licence fees, consultancy fees, audit fees, expenses incurred for security of substations, ARR and Tariff petitions fees, consultancy charges, electricity/water charges, lease rentals, out sourcing expenses etc. to project A&G expenses in future.

PSTCL has also submitted that it has not considered increase in WPI for projecting A&G expenses of its SLDC business. It has further submitted that since FY 2012-13 is an abnormal year in which very high asset addition during the year is projected, it has considered A&G expenses as 1% of assets to be added during FY 2012-13 for SLDC business.

4.7.3 The Commission has been approving the A&G expenses in accordance with the provisions of Regulation 28 (8) of PSERC Tariff Regulations by adjusting the base A&G expenses in proportion to the increase in WPI. The base A&G expenses of Rs. 12.84 crore (Rs. 11.93 crore being approved A&G expenses for FY 2011-12 and

Rs. 0.91 crore being additional A&G expenses on assets added during the year) have been considered for FY 2012-13. Applying the WPI increase of 7.4% (as discussed in para 4.5.5), the allowable A&G expenses for FY 2012-13 work out to Rs. 13.79 crore for transmission business of PSTCL.

Similarly, after applying WPI increase of 7.4% on the base A&G expenses of Rs. 0.03 crore for SLDC business of PSTCL approved for FY 2011-12, the Commission allows the A&G expenses of Rs. 0.032 crore for FY 2012-13.

4.7.4 PSTCL has also claimed Rs. 11.51 crore towards A&G expenses for assets of Rs. 1818.39 crore likely to added during the FY 2012-13. PSTCL has further claimed Rs. 0.137 crore towards A&G expenses on likely asset addition of Rs. 27.31 crore for SLDC for FY 2012-13. As per past practice, the claim of A&G expenses on proposed asset addition in terms of the PSERC Tariff Regulations, is not allowed at this stage but will be considered at the time of review next year when more accurate figures of asset addition are available.

4.7.5 In addition to normal A&G expenses, PSTCL has claimed Rs. 21.44 crore towards outsourcing of O&M of 400 kV network which PSTCL is commissioning for the first time in the State. It is submitted by PSTCL that commissioning of the 400 kV system will be completed during FY 2012-13 and FY 2013-14. The operation and maintenance of 400 kV system is a specialized job and new for PSTCL and requires trained manpower. This training is being imparted by PGCIL but till this is done a decision has been taken to outsource the O&M job of 400 kV grid substation and associated transmission lines to PGCIL, a leading Central PSU having requisite skill and expertise. The Commission observes that A&G expenses are allowed on normative basis by adjusting base expenses in proportion to increase in WPI as discussed in para 4.7.3. There is no provision for allowing expenses of Rs. 21.44 crore towards outsourcing over and above the normative limits specified in the Regulations. The plea for allowing expenses of Rs. 21.44 crore towards outsourcing is, hence, not acceptable. The Commission shall revisit this issue in the next Tariff Order.

Besides, PSTCL has also claimed expenses of Rs. 0.25 crore an account of Annual Licensee Fee. The Commission will consider the same in the next Tariff Order on actual payment basis.



**The Commission, thus approves A&G expenses of Rs. 13.79 crore for transmission business and Rs. 0.032 crore for SLDC business of PSTCL for FY 2012-13.**

#### **4.8 Depreciation Charges**

4.8.1 PSTCL has projected depreciation charges of Rs. 193.41 crore for FY 2012-13 in the ARR and Tariff Petition on assets of Rs. 2753.90 crore as on April 1, 2012 and assets of Rs. 1818.39 crore likely to be added during the FY 2012-13. PSTCL has submitted that depreciation expenses for FY 2012-13 have been calculated on the average rate of depreciation of 5.28% which is applied across the asset classes on the average of opening and closing balance of assets for the year.

4.8.2 In the absence of Audited Accounts for FY 2010-11, the Commission adopted the asset value of Rs. 2407.48 crore as on April 1, 2011 as determined in Tariff Order for FY 2011-12. Taking into account the approved asset addition of Rs. 393.57 crore during FY 2011-12 (para 3.6.4 and para 3.8.3), the asset value as on April 1, 2012 is considered at Rs. 2801.05 crore. Adopting the depreciation rate of 5.28%, as claimed by the utility, the allowable depreciation on assets of Rs. 2801.05 crore works out to Rs. 147.90 crore.

PSTCL has projected depreciation charges of Rs. 1.07 crore in the ARR Petition for FY 2012-13 for its SLDC business. The Commission determines depreciation of Rs. 0.40 crore for FY 2012-13 on asset value of Rs. 7.57 crore as on April 1, 2012 (Rs. 7.47 crore as on April 01, 2011 and Rs. 0.10 crore as asset addition during FY 2011-12) by applying rate of depreciation of 5.28% as claimed.

The Commission also observes that no depreciation on assets added during the year is considered as the utility has not submitted Audited Accounts for FY 2010-11. Also, it is noted with concern that the Fixed Asset Register (FAR) is pending finalization despite clear directions in this regard by the Commission. Moreover, the utility has submitted the asset segregation post unbundling as provisional in nature. Hence, depreciation on assets added during the year will be considered during True up. It may be pointed out that allowability of depreciation on opening Gross Fixed Assets (GFA) has been upheld by Hon'ble APTEL in its order in Appeal No.76 of 2011 in the case of PSTCL.

The Commission, accordingly, approves the depreciation charges of Rs. 147.90 crore for transmission business and Rs. 0.40 crore for SLDC business of PSTCL for FY 2012-13.

#### 4.9 Interest and Finance charges

4.9.1 In the ARR petition for FY 2012-13, PSTCL has claimed interest charges of Rs. 251.58 crore (net of Capitalization of Rs. 40.02 crore) for transmission business and Rs. 1.34 crore for SLDC business.

The interest and finance charges are discussed in the ensuing paragraphs.

#### 4.9.2 Investment Plan for Transmission Business

In the ARR Petition for FY 2012-13, PSTCL has projected a capital expenditure of Rs. 1100.66 crore for FY 2012-13. The details of capital expenditure and capitalisation projected by PSTCL are given in Table 4.5.

**Table 4.5: Capital Expenditure projected by PSTCL for its Transmission business for FY 2012-13**

(Rs. lac)				
Sr. No.	Particulars	Expenditure during FY 2012-13	Transferred to Assets	Closing WIP as on March 31, 2013
1	2	3	4	5
[1]	<b>Transmission Lines</b>			
a	132 kV	178.00	381.14	0.00
b	220 kV	16201.88	29931.11	809.03
		<b>16379.88</b>	<b>30312.25</b>	<b>809.03</b>
[2]	<b>Sub-stations</b>			
a	132 kV	518.50	721.15	0.00
b	220 kV	16668.00	26705.13	0.00
		<b>17186.50</b>	<b>27426.27</b>	<b>0.00</b>
[3]	<b>Talwandi Sabo Project - 400kV system</b>	<b>50000.00</b>	<b>104100.00</b>	<b>0.00</b>
[4]	<b>Rajpura - 400kV system</b>	<b>26500.00</b>	<b>20000.00</b>	<b>17500.00</b>
	<b>Grand Total</b>	<b>110066.38</b>	<b>181838.53</b>	<b>18309.03</b>

PSTCL has submitted that it is executing two major 400 kV transmission schemes.

- (i) 400 kV system for evacuation of power from Talwandi Sabo Thermal Power project of 1980 MWs (3 x 660 MWs).

- (ii) 400 kV system for evacuation of power from Rajpura Thermal Power Project 1320 MWs (2 x 660 MWs).

Both the Power projects are being executed under private sector. PSTCL has to provide the transmission system for evacuation of power from these projects. Talwandi Sabo Thermal Power project is scheduled to be commissioned during FY 2012-13 and Rajpura Thermal Power project during FY 2013-14. All the transmission lines and substations under Talwandi Sabo 400 kV system are programmed to be completed during FY 2011-12 and FY 2012-13. The works under Rajpura scheme are programmed to be completed during FY 2012-13 and FY 2013-14.

It is stated by PSTCL that the 400 kV system for Talwandi Sabo Power Project is entrusted to PGCIL on cost plus basis and the 400 kV system for Rajpura Power project is being executed by PSTCL with engineering consultancy from PGCIL. Since both the transmission projects have to be completed and charged ahead of commissioning of the power plants at both the projects, the transmission schemes have to be completed during the years FY 2011-12 , FY 2012-13 and FY 2013-14. The works of both the transmission projects are under progress. It is stated that the projects are being funded by REC. The downstream 132 kV and 220 kV system has also to be strengthened to utilize the power from the two thermal projects with an installed capacity of 3300 MWs.

The Commission has examined the capital expenditure projected for FY 2012-13. PSTCL has estimated capital expenditure of Rs. 1042.39 crore for FY 2011-12 in the review for FY 2011-12. On the basis of capital expenditure actually incurred up to the end of December 2011, of Rs. 459.15 crore and the proposed expenditure up to March 2012, the Commission estimated the capital expenditure for FY 2011-12 at Rs. 800 crore. The Commission has examined the Investment Plan of Rs. 1100.66 crore projected by PSTCL for FY 2012-13 and observes that establishment of 400 kV system for evacuation of power from Talwandi Sabo Thermal Power Project and Rajpura Thermal Power Project is essential for increased/improved power supply in the state. **The Commission, accordingly, approves an Investment Plan of Rs. 1100 crore for the transmission business of PSTCL for FY 2012-13.**

However, this increase is a one-time increase allowed by the Commission keeping in view the transmission system required for evacuation of power from new Thermal plants. This increase shall be reconsidered in the Review on the basis of actual expenditure incurred on this account and progress made.

PSTCL has proposed to capitalize expenditure to the extent of Rs. 1818.39 crore for FY 2012-13. The Commission has approved an Investment Plan of Rs. 1100 crore for FY 2012-13 and the corresponding capitalization works out to Rs. 1673.87 crore in the ratio of capital work in progress (CWIP) to total capital expenditure of PSTCL and as determined by the Commission.

#### 4.9.3 Investment Plan for SLDC Business

In the ARR Petition for FY 2012-13 PSTCL has projected the capital expenditure of Rs. 24.28 crore for its SLDC business for FY 2012-13. The details of capital expenditure and capitalisation projected by PSTCL for SLDC business are given in Table 4.6.

**Table 4.6: Capital Expenditure projected by PSTCL for SLDC business for FY 2012-13**

Sr. No.	Particulars	(Rs. crore)
		FY 2012-13 (Projected)
1	2	3
1	47 No. RTUs	4.00
2	Procurement of additional RTUs for remaining/upcoming substation of PSTCL	2.00
3	Replacement of existing RTUs	2.00
4	Implementation of Intrastate boundary metering scheme based upon ABT type energy meter	14.00
5	Purchase of computer items for SLDC	0.20
6	Furniture and Fixtures	0.03
7	Tools and Plants (Frequency Meters, etc.)	0.05
8	Building expenditure for energy center	2.00
9	<b>Total</b>	<b>24.28</b>

#### Capitalization for FY 2012-13

Sr.No.	Particulars	(Rs. crore)
		FY 2012-13
1	2	3
1	Capitalization	27.31

PSTCL estimated capital expenditure of Rs. 24.28 crore and capitalization of Rs. 27.31 crore during FY 2012-13 as detailed above.

It is seen from Table 4.6 that the major item of expenditure of Rs. 14.00 crore is for Intra-State boundary meters which are proposed to be installed during FY 2012-13. Also, procurement of RTUs for upcoming substations as well as replacement of existing RTUs is essential to stabilize the current system. Therefore, the **Commission considers it appropriate to allow investment expenditure of Rs. 20.00 for FY 2012-13 for SLDC business of PSTCL.**

The Commission has approved an Investment Plan of Rs. 20.00 crore for SLDC business of PSTCL and the corresponding capitalization works out to Rs. 23.03 crore which is approved.

- 4.9.4 The interest on allowable loans (other than Working Capital loan) is worked out for Transmission business as detailed in Table 4.7.

**Table 4.7: Interest on Loans (Other than WCL) for Transmission business**

(Rs. crore)						
Sr. No.	Particulars	Loans as on April 01, 2012	Receipt of Loan during FY 2012-13	Repayment of Loan during FY 2012-13	Loans as on March 31, 2013	Amount of Interest
1	2	3	4	5	6	7
1	As per data furnished in ARR Petition (other than WCL)	1869.35	990.65	127.69	2732.32	287.60
2	Approved by the Commission (other than WCL)	1716.05	1100.00	127.69	2688.36	275.27

- 4.9.5 The Commission observes that PSTCL has proposed to fund the estimated capital expenditure partly through ploughing back the Return on Equity (ROE) for FY 2012-13 and balance through borrowings both for transmission business and SLDC business. The Commission also observes that the Annual Audited Accounts for FY 2010-11 are not audited and the provisional transfer scheme has not yet been finalized by GoP. In the absence of Audited Accounts, it cannot be ascertained whether PSTCL has any accumulated losses or accrued surplus /general reserve to be ploughed back as internal resources to meet the equity contribution. The Commission, therefore, considers it appropriate to source the funding of capital expenditure through debt only in the Review for FY 2012-13. The Commission thus approves the interest on loans of Rs. 275.27 crore for the transmission business of PSTCL for FY 2012-13.

- 4.9.6 Similarly, PSTCL has projected interest and finance charges of Rs. 1.34 crore for SLDC business of PSTCL for FY 2012-13. The interest on allowable loans (other than working capital) is worked out as detailed in Table 4.8.

**Table 4.8: Interest on Loans (Other than WCL) for SLDC****(Rs. crore)**

Sr. No.	Particulars	Loans as on April 1, 2012	Receipt of Loan during FY 2012-13	Repayment of Loan during FY 2012-13	Loans as on March 31, 2013	Amount of Interest
1	2	3	4	5	6	7
1	As per data furnished in ARR Petition (other than WCL)	2.19	17.00	0.00	19.19	1.34
2	Approved by the Commission (other than WCL)	3.13	20.00	0.00	23.13	1.65

**The Commission, accordingly, approves the interest on loans (other than Working Capital Loans) of Rs. 275.27 crore for Transmission and of Rs. 1.65 crore for SLDC business of PSTCL for FY 2012-13.**

#### 4.9.7 Finance Charges

PSTCL has claimed guarantee charges/finance charges of Rs. 4.00 crore in the ARR Petition of FY 2012-13. The Commission has been allowing finance charges in the ratio of finance charges claimed to the borrowings by utility. The allowable finance charges work out to Rs. 3.96 crore @ 0.36% being the percentage rate of finance charges claimed to the total borrowings. PSTCL has not claimed any finance/guarantee charges for its SLDC business and are hence not allowed.

#### 4.9.8 Capitalization of Interest Charges

PSTCL has claimed Rs. 40.02 crore towards capitalization of interest charges for its transmission business. The Commission approves the capitalization of interest of Rs. 9.99 crore in the ratio of net works in progress to the total capital expenditure for FY 2012-13 for the transmission business of PSTCL.

#### 4.9.9 Diversion of Capital Funds

The Commission, in paras 2.15.7 and 2.15.8 of the Tariff Order for FY 2011-12, had determined the diversion of capital funds for revenue purposes at Rs. 2458.56 crore based on the Board's Annual Audited Accounts for FY 2009-10. The amount of diverted funds carrying interest liability was worked out to Rs. 1821.21 crore. The Audited Accounts for FY 2010-11 have not been made available to the Commission by PSTCL, as FRP is yet to be finalized by GoP. Therefore, the amount of the diverted funds of Rs. 1821.21 crore based on the Audited Accounts for FY 2009-10,

as determined in the Tariff Order for FY 2011-12, is being considered for FY 2012-13. The interest on these diverted funds @ 13%, being SBI advance rate as on April 01, 2011, works out to Rs. 236.76 crore. Of this amount, interest of Rs. 24.39 crore is to be considered in the Tariff Order for PSTCL and the balance amount of Rs. 212.37 crore is to be considered in the Tariff Order for PSPCL.

Retaining the rate of disallowance between PSTCL and GoP, the Commission disallows interest amount of Rs. 10.30 crore of PSTCL on account of deficiencies in its functioning and the balance amount of Rs. 14.09 crore is to the account of GoP. However, the amount of diversion and interest thereon will be reconsidered by the Commission in the True up after receipt of Audited Accounts.

The Commission approves interest charges for PSTCL for its transmission business for FY 2012-13 as shown in Table 4.9.

**Table 4.9: Interest Charges for Transmission Business for FY 2012-13**

(Rs. crore)						
Sr. No.	Particulars	Opening balance of loans as on April 01, 2012	Receipt of loans during FY 2012-13	Repayment of loans	Loans as on March 31, 2013	Interest charges approved by the Commission
1	2	3	4	5	6	7
1.	Interest on institutional loans	1716.05	1100.00	127.69	2688.36	275.27
2.	Finance charges					3.96
3.	Total (1+2)	1716.05	1100.00	127.69	2688.36	279.23
4.	Less: Capitalization					9.99
<b>5.</b>	<b>Net Interest Charges</b>					<b>269.24</b>
6.	Less Interest disallowed on account of diversion of capital funds a)PSTCL: Rs.10.30 crore b)GoP : Rs.14.09 crore					24.39
<b>7.</b>	<b>Interest allowed (5-6)</b>					<b>244.85</b>

**The Commission, accordingly, approves the interest and finance charges of Rs. 244.85 crore for the transmission business of PSTCL for FY 2012-13.**

Besides, as discussed in para 3.8.9 and the para above of this Tariff Order, GoP is liable to pay an amount of Rs. 28.18 (14.09 + 14.09) crore to PSTCL for FY 2011-12 and FY 2012-13 on account of interest on capital fund diverted for revenue purposes.

Similarly, the approved interest charges for SLDC business of PSTCL for FY 2012-13 are shown in Table 4.10.

**Table 4.10: Interest Charges for SLDC business for FY 2012-13**

(Rs. crore)						
Sr. No.	Particulars	Opening balance of loans as on April 01, 2012	Receipt of loans during FY 2012-13	Repayment of loans	Loans as on March 31, 2013	Interest charges approved by the Commission
1	2	3	4	5	6	7
1	Interest on institutional loans	3.13	20.00	0.00	23.13	1.65
2	Finance charges					0.00
3	Total (1+2)	3.13	20.00	0.00	23.13	1.65
4	Less: Capitalization					0.00
5	Net interest charges allowed					1.65

**Accordingly, the Commission allows Interest Charges of Rs. 244.85 crore for the transmission business and Rs. 1.65 crore for the SLDC business of PSTCL for FY 2012-13.**

#### **4.10 Interest on Working Capital**

In the ARR Petition for FY 2012-13, PSTCL has claimed interest on working capital of Rs. 42.14 crore for Transmission business, on normative basis, on a total working capital of Rs. 337.10 crore.

The Commission has considered the working capital as per PSERC Regulations. The interest on working capital of Rs. 193.48 crore works out to Rs. 25.15 crore for FY 2012-13 at an interest rate of 13.00 %, being the SBI Advance Rate as on April 1, 2011, as detailed in Table 4.11.



**Table 4.11: Interest on Working Capital for Transmission business of PSTCL for FY 2012-13**

(Rs. crore)

Sr. No.	Particulars	Projected by the PSTCL	Approved by the Commission
1.	2	3	4
2.	Receivables equivalent to two months	225.47	124.93
3.	Maintenance spares at 15% of operation and maintenance expenses	71.76	44.07
4.	Operation and Maintenance expenses for one month	39.87	24.48
5.	Total working capital	337.10	193.48
6.	Rate of Interest	12.50%	13%
7.	Interest on Working Capital	42.14	25.15

**The Commission, thus, approves the Working Capital of Rs. 193.48 crore and interest thereon of Rs. 25.15 crore for the transmission business of PSTCL for FY 2012-13.**

In the ARR petition for FY 2012-13, PSTCL has claimed interest on Working Capital of Rs. 1.09 crore for SLDC business on the total Working Capital of Rs. 8.69 crore. Applying the above principle, the Commission has worked out the interest on Working Capital by applying rate of 13%, being Advance Rate of SBI as on April 1, 2011, as detailed in Table 4.12.

**Table 4.12: Interest on Working Capital for SLDC business of PSTCL for FY 2012-13**

(Rs. crore)

Sr. No.	Particulars	Projected by the PSTCL	Approved by the Commission
1.	2	3	4
2.	Receivables equivalent to two months	5.55	4.78
3.	Maintenance spares at 15% of operation and maintenance expenses	2.02	0.71
4.	Operation and Maintenance expenses for one month	1.12	0.40
5.	Total working capital	8.69	5.89
6.	Rate of Interest	12.5%	13%
7.	Interest on working capital	1.09	0.77

**The Commission, thus, approves the Working Capital of Rs. 5.89 crore and interest thereon of Rs. 0.77 crore for SLDC business of PSTCL for FY 2012-13.**

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

In the ARR and Tariff Petition for FY 2012-13, PSTCL has claimed a Return on Equity (ROE) of Rs. 110.01 crore for its transmission business for FY 2011-12

@ 15.5% (pre tax) to be grossed up to 23.48% as per CERC Regulations on an opening equity of Rs. 468.51 crore.

The opening equity considered by the Commission for FY 2012-13 is Rs. 328.50 crore as considered in the Review of FY 2011-12 and as discussed in length in para 4.9.5. As discussed in Para 3.10 of Chapter 3 of this order, the Commission considers the rate of return on equity at 15.5% on the opening equity of Rs. 328.50 crore which works out to Rs. 50.92 crore for FY 2012-13 and is allowed.

**Hence, the Commission approves Rs. 50.92 crore as Return on Equity for transmission business of PSTCL for FY 2012-13.**

In the ARR Petition for FY 2012-13, PSTCL has claimed Rs. 1.08 crore towards Return on Equity for SLDC business at an effective rate of 23.48% as per CERC Regulations after showing an equity addition of Rs. 7.28 crore based on equity on accrual basis. The Commission observes that opening balance of equity in the books of SLDC is nil. Also, the Commission has not accepted the proposal of PSTCL to fund the projected capital expenditure through ploughing back of ROE in the review for FY 2011-12 as discussed in para 3.8.6 and para 4.9.5. The Commission, therefore, does not consider any ROE for SLDC business for FY 2012-13.

#### **4.12 Non Tariff Income**

PSTCL has not projected any non tariff income in respect of transmission business in FY 2012-13. PSTCL has submitted that it has assumed that there will be less number of Open Access Applications which will result in less non tariff income after levying of cross-subsidy surcharge. However, based on the non tariff income of Rs. 13.05 crore approved in the review for FY 2011-12 the Commission considers the non tariff income at Rs. 13.05 crore for FY 2012-13. Besides, the utility will also receive Open Access (OA) charges of Rs. 23.93 crore as in FY 2011-12. **The Commission, thus, approves Rs. 36.98 crore as non tariff income of transmission business of PSTCL for FY 2012-13. The Commission will reconsider quantum of Non Tariff Income after receipt of Audited Accounts in the True up.**

PSTCL has submitted that it has not received any non-tariff income during FY 2011-12 for SLDC business and so has not projected any non-tariff income for FY 2012-13. **The Commission, accordingly, considers the non tariff income for SLDC business as nil.**

The Commission also advises the utility to account for OA charges under the head 'Non Tariff Income' in future.

#### 4.13 ULDC Charges

PSTCL has claimed Rs. 21.00 crore towards ULDC Charges for its SLDC business for FY 2012-13 payable to PGCIL. Since the ULDC charges are decided by CERC from time to time, **the Commission allows the amount of Rs. 21.00 crore for FY 2012-13 as claimed by PSTCL.**

#### 4.14 Incentive Scheme

PSPCL has claimed Rs. 0.05 crore towards incentive scheme for SLDC business. PSTCL has not provided details of the incentive scheme and expenditure likely to be incurred under this scheme. The Commission, therefore, does not allow such expenditure claimed for the SLDC business of PSTCL at this stage.

#### 4.15 Carrying cost for Revenue Gap

The Commission has determined a revenue gap of Rs. 71.17 crore for FY 2011-12. The Commission considers it appropriate to allow carrying cost of Rs. 4.63 crore @ 13% being Advance Rate of State Bank of India as on April 01, 2011 for six months of FY 2011-12, as per Tariff Regulations.

#### 4.16 Annual Revenue Requirement

The Summary of the Annual Revenue Requirement for SLDC business and Transmission business of PSTCL for FY 2012-13 is shown in Table 4.13.

**Table 4.13: Annual Revenue Requirement for SLDC and Transmission business of PSTCL for FY 2012-13**

(Rs. crore)

Sr. No.	Particulars	For SLDC		For Transmission	
		Projected for FY 2012-13	Approved by the Commission for FY 2012-13	Projected for FY 2012-13	Approved by the Commission for FY 2012-13
1	2	3	4	5	6
1	Employee costs	8.89	4.54	310.00	211.12
2	R&M expenses	3.19	0.18	120.12	68.89
3	Administration and General expenses	1.40	0.03	74.89	13.79
4	Depreciation	1.07	0.40	193.41	147.90
5	Interest charges	1.34	1.65	251.58	244.85
6	Interest on working capital	1.09	0.77	42.14	25.15
7	Return on Equity	1.08	0.00	110.01	50.92

Sr. No.	Particulars	For SLDC		For Transmission	
		Projected for FY 2012-13	Approved by the Commission for FY 2012-13	Projected for FY 2012-13	Approved by the Commission for FY 2012-13
8	Provision for Bad Debts and other Debits	0.00	0.00	0.00	0.00
9	ULDC Charges	21.00	21.00	0.00	0.00
<b>10</b>	<b>Annual Revenue Requirement</b>	<b>39.06</b>	<b>28.57</b>	<b>1102.15</b>	<b>762.62</b>
11	Less: Non tariff income	0.00	0.00	0.00	36.98
12	Add: Incentive Scheme	0.05	0.00	0.00	0.00
<b>13</b>	<b>Net Revenue Requirement (10-11)</b>	<b>39.11</b>	<b>28.57</b>	<b>1102.15</b>	<b>725.64</b>

Thus, the Commission approves the Annual Revenue Requirement of Rs. 725.64 crore for Transmission business and Rs. 28.57 crore for SLDC business of PSTCL for FY 2012-13.

The summary of the Annual Revenue Requirement of PSTCL and SLDC as a whole for FY 2012-13 is shown in Table 4.14.

**Table 4.14: Annual Revenue Requirement for PSTCL for FY 2012-13**

(Rs. crore)

Sr. No.	Particulars	For PSTCL	
		Projected by PSTCL for FY 2012-13	Approved by the Commission for FY 2012-13
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
1	Employee cost	318.89	215.66
2	R&M expenses	123.31	69.07
3	Administration and General (A&G) expenses	76.29	13.82
4	Depreciation	194.48	148.30
5	Interest charges	296.15	272.42
6	Return on Equity	111.09	50.92
7	Provision for Bad Debts and other Debits	0.00	0.00
8	ULDC Charges	21.00	21.00
<b>9</b>	<b>Annual Revenue Requirement</b>	<b>1141.21</b>	<b>791.19</b>
10	Less: Non tariff income	0.00	36.98
11	Add: Incentive Scheme	0.05	0.00
<b>12</b>	<b>Net Revenue Requirement (9-10)</b>	<b>1141.26</b>	<b>754.21</b>
13	Add: Revenue gap carried forward	250.66	71.17

Sr. No.	Particulars	For PSTCL	
		Projected by PSTCL for FY 2012-13	Approved by the Commission for FY 2012-13
14	Add: Carrying cost for Revenue Gap of Rs. 71.17 crore for FY 2011-12		4.63
15	<b>Cumulative Revenue Requirement</b>	<b>1391.92</b>	<b>830.01</b>

The ARR of Rs. 830.01 crore of PSTCL for FY 2012-13 are the transmission and SLDC charges payable by PSPCL during FY 2012-13. Hence this amount is carried forward to Table 4.32 of the Tariff Order of PSPCL for FY 2012-13.

# Chapter - 5

## Determination of Transmission and SLDC Charges

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### 5.1 Annual Revenue Requirement

The Commission has determined the ARR for PSTCL for FY 2012-13 at Rs. 830.01 crore. Out of Rs. 830.01 crore, the ARR approved for transmission business is Rs. 801.44 crore and the ARR approved for SLDC business of PSTCL is Rs. 28.57 crore.

### 5.2 Determination of Transmission Tariff

5.2.1 The PSERC (Terms and Conditions for Determination of Tariff) Regulations, 2005 specify that transmission tariff will have the following components:

- i) SLDC Operation Charges,
- ii) Reactive Energy Charges,
- iii) Charges for use of network.

5.2.2 The Commission has approved the ARR of SLDC business for FY 2012-13 as Rs. 28.57 crore against Rs. 39.11 crore projected by PSTCL, as shown in Table 4.13 of this Tariff Order. The transmission system capacity projected by PSTCL for FY 2012-13 in the Table 2 of the ARR is 10082.05 MWs, which is the sum of installed capacity in MW of all generating stations connected to the transmission system of PSTCL and the contracted capacities in MW of other long-term transactions to be handled by the transmission system of PSTCL. These generating/allocated capacities are gross i.e. inclusive of transformation losses and auxiliary consumption. The Commission has worked out the generation (net) capacity connected to the transmission system of PSTCL as 9376.74 MWs by assuming an average auxiliary consumption of 8.5% and 0.7% in case of Thermal and Hydel Generating Plants respectively. Since, there is only one Distribution Licensee in the State of Punjab, thus whole of the SLDC charges will be borne by PSPCL, at present, which works out to Rs. 2.38 crore per month. **Thus, the Commission approves SLDC charges at the rate of Rs. 2.38 crore per month for PSPCL and for long term / medium term open access customers at the rate of Rs. 2538.19/MW/month of the contracted capacity.**

- 5.2.3 As provided in Regulation 24 (2) (c) of the Open Access Regulations, notified by the Commission, Short Term Open Access customers shall pay composite operating charge at the rate of Rs. 2000 per day or part of the day for each transaction to the SLDC.
- 5.2.4 The reactive energy charges raised by NRLDC on PSTCL will be directly recoverable by PSTCL from PSPCL.
- 5.2.5 The ARR for transmission business of PSTCL for FY 2012-13 has been approved at Rs. 725.64 crore, as shown in Table 4.13 of this Tariff Order. Taking into account the revenue gap of Rs. 71.17 crore at the end of FY 2011-12 and Rs. 4.63 crore towards carrying cost of revenue gap of Rs. 71.17 crore as shown in Table 4.14, the ARR of PSTCL works out to Rs. 801.44 crore. The Commission, for determining charges for use of the transmission network, has considered the fact that the ARR of transmission business of PSTCL is 'fixed' in nature. Hence, the Commission decides that the entire ARR for transmission business of PSTCL be recovered through a demand charge based on the transmission system capacity. The Commission has worked out in para 5.2.2 the transmission capacity of PSTCL as 9376.74 MWs (net).

The Commission determines the transmission charges at the rate of Rs. 66.79 crore per month payable by PSPCL.

### 5.3 Determination of Open Access Transmission Charges

- 5.3.1 As per the Open Access Regulations notified by the Commission, the Open Access Transmission Charges for Long-term Open Access during FY 2012-13 are computed in Table 5.1:

**Table 5.1: Long-term Open Access Transmission Charges for FY 2012-13**

Sr.No.	Particulars	Quantum
1	2	3
1	Annual Revenue Requirement (ARR) (Rs. crore)	801.44
2	Transmission System Capacity (MW) (net)	9376.74
3	Transmission Tariff (Rs./MW/month)	71226
4	Long Term and Medium term Open Access Charges Rs./MW/Month) of the contracted capacity (same as above)	71226
5	Transmission Charges based on energy transmission of 42580 MUs (paise/unit) as approved in Table 4.5 of PSPCL Order for the Year 2012-13.	19

5.3.2 As per clause (2) (b) of Regulation 23 of the Open Access Regulations, 2011, full Open Access Transmission charges for Short-term Open Access will be levied, which works out to 19 paise per unit for FY 2012-13. For Long Term and Medium Term Open Access customers, these charges shall be Rs. 71226/MW/Month of the contracted capacity.

**5.4 Amount payable by GoP to PSTCL on account of Interest disallowed for diversion of capital funds.**

As discussed in para 2.8.5 of Tariff Order for FY 2011-12, GoP is liable to pay Rs. 14.47 crore to PSTCL on account of interest on diverted capital funds for revenue purposes upto FY 2010-11. The amount payable by GoP for FY 2011-12 is determined at Rs. 14.09 crore as discussed in para 3.8.9 and Rs. 14.09 crore for FY 2012-13 as discussed in para 4.9.9 of this Tariff Order. Thus, the GoP is liable to pay a total amount of Rs. 42.65 (14.47 + 14.09 + 14.09) crore to PSTCL up to FY 2012-13.

**5.5 Payment Security Mechanism for payment of Transmission charges**

5.5.1 PSTCL, in para 4.18 of its ARR for FY 2012-13, has requested for creation of Payment Security Mechanism to ensure timely recovery of monthly transmission charges from PSPCL. It has proposed that PSPCL should open a monthly irrevocable revolving Letter of Credit for an amount equivalent to its monthly transmission charges. Further it has submitted that the LC (Letter of Credit) shall be opened in a bank mutually agreed upon between PSPCL and PSTCL. PSTCL shall also have a default escrow mechanism with PSPCL for recovery of its monthly transmission charges within the due date and shall have first charge over the receivable of specified circle/area which shall flow into the escrow account. It has also desired that the LC shall be opened within 15 days from the date of the issue of the Tariff Order by the Commission. In the event of default in payment of the transmission bills within the due date, i.e. within 30 days of the presentation of the transmission bills, PSTCL will be entitled to recover the default amount from the escrow account and in case the same is not sufficient to cover outstanding dues, PSTCL shall be entitled to negotiate and encash the Letter of Credit to the extent of the default amount. Upon such negotiation and encashment of the LC amount, PSPCL shall recoup LC amount within 3 days.



5.5.2 In this regard, Central Electricity Regulatory Commission has notified CERC (Sharing of Inter-state Transmission Charges and Losses) Regulations, 2010. As per clause 11.2 of these Regulations:

*“The bill for the use of the ISTS shall be raised by the CTU on the concerned Designated ISTS Customers. The SEB/STU may recover the transmission charges for the use of the ISTS from the distribution companies, generators and bulk customers connected to the transmission system owned by the SEB/STU/intra-state Transmission Licensee in a manner approved by the Appropriate Commission.”*

Further, the definition of Designated ISTS Customers as per the above said Regulations is as under:

*“Designated ISTS Customers (‘DIC’s) means the users of any segments/elements of the ISTS and shall include all generators, state transmission utilities, SEBs or load serving entities directly connected to the ISTS including Bulk Customer and any other entity/person;”*

5.5.3 Further as per clause 15(1)(d) of the above said Regulations, the CTU (PGCIL) has drafted a procedure for billing and collection of charges by the PGCIL on behalf of Transmission Licensee (Central) and redistribution of the same (including amounts over or under collected), which is yet to be approved by CERC.

5.5.4 The Commission had, in para 4.5.3 of the Tariff Order (PSPCL) for FY 2011-12, directed PSTCL to make back to back arrangements with PSPCL to collect Inter-State transmission charges as per the approved procedure of CERC, with effect from the commencement of aforementioned Regulations. Further, any rebate availed or surcharge paid by PSTCL while paying Inter-State transmission charges to PGCIL under such back-to-back arrangement shall be passed on to PSPCL. This issue was also raised before the Hon’ble APTEL in Appeal No. 76 of 2011 by PSTCL. The Hon’ble APTEL in its judgment dated March 02, 2012 has held that the Commission in the impugned Order (Tariff Order for FY 2011-12) has already directed the Appellant to make back to back arrangement with PSPCL to collect Inter-State transmission charges as per the CERC Regulations. It has also observed that PSPCL has also confirmed that it will open LC for intra-state transmission charges payable to the Appellant.

Further, PSPCL vide its letter No.384 dated March 15, 2012 while conveying its comments on ARR has communicated its concurrence to provide LC to PSTCL towards transmission charges.

**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.**

## **5.6 SLDC Fund**

In the ARR Petition of FY 2012-13, PSTCL has prayed for establishment of an SLDC fund. In para 5.18 of its ARR Petition it has stated as under:

*“CERC in its Central Electricity Regulatory Commission (Fees and Charges of Regional Load Despatch Centre and other related matter) Regulations, 2009 provide for a special provisioning for development of Load Despatch Centre through creation of LDC Development Funds in which the details of LDC Development Funds are given.”*

Further, Clause -9 of CERC (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2009 provides as under:

*“LDC Development Fund.*

*The Power System Operation Company shall create and maintain a separate fund called ‘LDC Development Fund’.*

*The charges on account of return on equity, interest on loan, depreciation and other income of the Regional Load Despatch Centre and National Load Despatch centre such as registration fee, application fee, short-term open access charges, etc. shall be deposited to the LDC development fund.*

*The Power System Operation Company shall be entitled to utilize the money deposited to the LDC development fund for loan repayment, servicing the capital raised in the form of interest and dividend payment, meeting stipulated equity portion in asset creation and margin money for raising loan from the financial institutions and funding R & D projects.*

*The LDC development fund shall not be utilized for any other revenue expenditure.*

*Any asset created by the Power System Operation Company out of the money deposited to the LDC development fund shall not be considered for computation of return on equity and interest on loan.*

*The Commission shall review the LDC development fund every year”*

PSTCL has also supported its claim based on Fee Regulations framed by Orissa Electricity Regulatory Commission during 2010.

PSTCL in para 5.18.4 of the ARR Petition for FY 2012-13 has further stated that there is no regulation at present which specifies the terms and conditions of the working and development of SLDC in the State of Punjab. SLDC is in nascent stage and will require funds in future years for development of assets so as to ensure the state of Art system to promote development of power market in the State of Punjab. Hence PSTCL has requested for creation of SLDC Development Fund in which surplus, if any, generated from SLDC business can be deposited for future utilization in the SLDC business.

The Commission has considered the issue and it has advised PSTCL to file a separate Petition for amendment of Regulations for its Transmission business and SLDC business. The Commission will take a decision in the matter during process of finalization of the Regulations.

## **5.7 Date of Effect**

The Commission notes that the ARR Petition of PSTCL for FY 2012-13 covers the complete financial year. The recovery of transmission charges, therefore, has to be such that the total revenue requirement of PSTCL for FY 2012-13 is recovered in this period.

**The Commission, therefore, decides to make the transmission charges and SLDC charges applicable from April 01, 2012 and the charges determined above shall remain operative till March 31, 2013. The Commission further**

**decides that the arrears on account of revision of transmission charges and SLDC charges with effect from April 01, 2012 shall be recovered by PSTCL in three equal monthly instalments.**

**This Order is signed and issued by the Punjab State Electricity Regulatory Commission on this, the 16<sup>th</sup> day of July, 2012.**

Date: July 16, 2012

Place: CHANDIGARH

Sd/-	Sd/-	Sd/-
_____ (GURINDERJIT SINGH) MEMBER	_____ (VIRINDER SINGH) MEMBER	_____ (ROMILA DUBEY) CHAIRPERSON

Certified

Sd/-

Secretary

Punjab State Electricity Regulatory Commission

Chandigarh.



**List of Objectors**

<b>Objector No.</b>	<b>Name and Address of the Objector</b>
1	Shri Gurnek Singh Brar, 1, Ranjit Bagh, Opp. Modi Mandir, Patiala-147 001.
2	Shri Bhupinder Singh, General Secretary and Shri H.S. Bedi, President, PSEB Engineer's Association, 45, Ranjit Bagh, Near Modi Mandir, Passey Road, Patiala.
3	Shri Gurnek Singh Brar, 1, Ranjit Bagh, Opp. Modi Mandir, Patiala-147 001.
4	Chief Engineer/ARR & TR, F-4 Shakti Vihar, PSPCL, Patiala.
5	Government of Punjab.



**Objections filed by various stakeholders, responses of PSTCL and view of the Commission**

The Commission would like to place on record its appreciation to the participating consumers and organizations for the comprehensive input given both through the objections and public hearings. In the following paragraphs, the objections filed, response of PSTCL and view of the Commission on each of the objections has been briefly discussed. Aberrations, if any, are inadvertent.

**Objection No. 1: Shri Gurnek Singh Brar****Issue No. 1: 66 kV system responsibilities**

After restructuring of PSEB on 16.04.2010, while the 66 kV system was assigned to PSPCL, practically the 66 kV system was looked after by Transco PSTCL.

**Response of PSTCL**

Post restructuring of PSEB on 16.4.2010, 66 kV transmission system though was assigned to PSPCL, was looked after by PSTCL as per the MOU signed between PSPCL and PSTCL. PSPCL took over the 66 kV transmission works w.e.f. 1.12.2011.

**View of the Commission**

This was an internal arrangement between PSPCL and PSTCL. The Commission would not like to interfere in the internal functioning of the corporations.

**Issue No. 1.1: Orders for 66 kV Power Transformers**

PSTCL had placed order for 66 kV class power transformers (66/11 kV) during 2010-11, 2011-12 against the requirement indicated by PSPCL while the funds / cost was to the account of Powercom.

**Response of PSTCL**

PSTCL has not claimed the costs on account of 66 kV system in its ARR petitions.

**View of the Commission**

PSPCL entrusted the job to PSTCL, as most of the officers/staff handling EHV equipment are working with PSTCL. Now the work of 66 kV & below has been transferred to PSPCL. Therefore, this does not call for any intervention of the Commission.

**Issue No. 1.2: Requirement of 66 kV equipment and funds as conveyed by PSPCL**

PSTCL may be directed to give the following details regarding purchase of 66 kV class power transformers for 2010-11 and 2011-12 on behalf of PSPCL as under giving the following details for 2010-11, 2011-12 separately.

(a) Requirement of transformers as conveyed by Powercom to Transco.

**Response of PSTCL**

As per priority list supplied by Powercom from time to time, 66/11 kV transformers required to complete these works are as below:

2010-11	20 MVA=113 Nos.	12.5 MVA=113 Nos.
2011-12	20 MVA=119 Nos.	12.5 MVA= 116 Nos.

Damaged transformers were also to be replaced out of above Number of 66 kV class power transformers purchased during:

2010-11	20 MVA=96 Nos.	12.5 MVA=35 Nos.
2011-12	20 MVA=115 Nos.	12.5 MVA= Nil

(b) Funds / estimated cost as conveyed by Powercom to Transco

**Response of PSTCL**

- Budget allocation of Rs.300 crores was conveyed for 66 kV works by PSPCL on date 23.2.2011 i.e. at the fag end of the year.



- For the year 2011-12, 66 kV transmission works list was issued by PSPCL on 21.11.2011. However, no specific fund allocation was made for 66 kV works.

(c) Number & list of Power transformers of 66 kV class as actually purchased by Transco for Powercom during 2010-11 and 2011-12

**Response of PSTCL**

Total no of 66/11 kV transformers procured by Transco both for Powercom and Transco:

2010-11	20 MVA	=	96 Nos	12.5 MVA	=	35 Nos
2011-12	20 MVA	=	115 Nos	12.5 MVA	=	Nil

It is clarified here that up to 30/11/2011, 106 transformers of 20 MVA capacity were received and dispatch instruction for balance 9 Nos. transformers were issued by PSPCL after 01/12/2011 onwards. 12 No. 20 MVA transformers are lying at Crane Bays to be used by PSTCL and to be kept as reserve for supply restoration.

(d) Cost of Power transformers so purchased, as compared to the funds earmarked by Powercom.

**Response of PSTCL**

2010-11:	12.5 MVA	=	35 Nos	=	Rs 34.00 crore
	20 MVA	=	96 Nos	=	Rs 95.81 crore
	Total				Rs 129.81 crore
2011-12:	20 MVA	=	115 Nos	=	Rs 132.56 crore

(e) In case of any over procurement or excess procurement the justification thereof.

**Response of PSTCL**

No excess procurement has been done.

(f) PSTCL may be directed to give details of matching equipment required to commission/utilize the 66 kV transformers purchased.

**Response of PSTCL**

Matching equipment required to commission 66 kV transformers was as under:

11 kV incoming breakers 900 – 450 / 5 Amp	=	35 Nos.
66 kV Transformer CTs 150-75/0.577 Amp	=	105 Nos.
11 kV incoming breakers 1200 – 600 / 5 Amp	=	211 Nos.
66 kV Transformer CTs 200 – 100 / 0.577 Amp	=	633 Nos.

Purchase Orders issued for the above matching equipment by PSTCL is as under:

11kV incoming breakers 900-450/5 Amp.

2010-11 = 122	2011-12	=	27	Total	=	149
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11kV incoming breakers 1200 – 600/5 Amp.

2010-11 = 77	2011-12	=	78	Total	=	155
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66 kV Transformers CTs 150 – 75/0.577 Amp.

2010-11 = 85	2011-12	=	288	Total	=	373
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66 kV Transformer CTs 200-100/0.577 Amp.

2010-11 = 285	2011-12	=	369	Total	=	654
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(g) The actual utilization/commissioning of above stated power transformers so purchased by Transco for Powercom.

**Response of PSTCL**

Transformers commissioned are as under

i) 12.5 MVA 66/11 kV = 40 Nos.      ii) 20 MVA 66/11 kV = 180 Nos.

Details have been supplied to the Objector and the PSERC.

(h) The matching commissioning /planning of new grid substation where the procured transformers were to be utilized may be supplied.

**Response of PSTCL:**

New 66 kV substations commissioned are as under:

i. 12.5 MVA 66/11 kV T/Fs = 16 Nos.

ii. 20 MVA 66/11 kV T/Fs = 2 Nos.

Details has been supplied to the Objector and the PSERC.

(i) It may be informed by Transco whether the cost of the 66 kV class power transformers was actually booked by PSPCL or included in Capex plan of Transco for 10-11 and 11-12.

**Response of PSTCL**

The Capex Plan of PSTCL during FY 2011-12 and FY 2012-13 has already been provided as Annexure – II in the Petition. PSTCL would further like to clarify that it has not included the works of any 66 kV line/ Sub-station in its Capex Plan.

**View of the Commission**

Necessary reply has been furnished by PSTCL and the Commission has taken note of the same.

**Issue 2: List of 100 MVA power transformers of 220/66 kV or 220/132 kV ordered by TRANSCO during 2010-11 and 2011-12 may be supplied**

**Response of PSTCL:**

- 100 MVA 220/66 kV transformers ordered are as under:  
2010-11 = 22 Nos      2011-12 = 28 Nos
- 100 MVA 220/132 kV transformers:  
2010-11 = 2 Nos      2011-12 = 4 Nos

**View of the Commission**

Necessary reply has been furnished by PSTCL & the Commission has taken note of the same.

**Issue No.3: The position regarding date of receipt and date of commissioning of the 100 MVA transformers may be informed.**

**Response of PSTCL**

Details has been supplied to the Objector and the PSERC.

**View of the Commission**

Necessary reply has been furnished by PSTCL & Commission has taken note of the same.

**Issue No.4: In case 100 MVA transformers have been received and are kept idle/un-utilized, the details and justification thereof may be supplied.**

**Response of PSTCL:**

Only 1 No. 100 MVA transformers is kept as reserve. All other transformers as received have been / being utilized.

**View of the Commission**

The Commission notes the reply of PSTCL.

**Issue No.5: The Commissioning of 400 kV systems for Rajpura and Talwandi Sabo projects is to be guided by the Commissioning schedule of the generating units.**

PSTCL may supply copy of latest/revised/updated schedule of Commissioning of T/Sabo units 1, 2, 3 and Rajpura unit 1, 2 as communicated by PSTCL. PSTCL may indicate if any coordination meeting has been held between PSPCL and PSTCL so as to coordinate transmission works with Generation schedule and if so the minutes of such meeting may be supplied.

**Response of PSTCL:**

The latest status regarding schedule of commissioning of Talwandi Sabo Thermal Power Project and Rajpura Thermal Project is as follows:

S.No	Unit	Talwandi Sabo	Rajpura
1	1 <sup>st</sup>	8.11.2012	17.1.2014
2	2 <sup>nd</sup>	8.02.2013	17.5.2014
3	3 <sup>rd</sup>	10.06.2013	N.A

**View of the Commission**

The Commission notes the reply of PSTCL. Meetings for co-ordination purpose should be held regularly.

**Issue No.6: PSTCL may supply the latest/revised/updated schedule of commissioning of the 400 kV lines and substations for evacuation of power from T. Sabo and Rajpura thermal projects.**

**Response of PSTCL**

The expected schedule of Commissioning of 400 kV lines for evacuation of power from Talwandi Sabo & Rajpura TPPs is as follows:

	<b>Name of the line</b>	<b>Target date</b>
•	Talwandi Sabo – Moga	30/06/12
•	Moga– Nakodar	30/11/12
•	Talwandi Sabo – Muktsar	30/11/12
•	Talwandi Sabo – Dhuri	30/04/12
•	Muktsar - Makhu	30/06/12
•	Makhu – Amritsar	30/09/12
•	Rajpura – Nakodar	31/12/12
•	Nakodar-Makhu	31/03/13
•	Rajpura TPS – Rajpura	31/12/12
•	Rajpura -Dhuri	31/12/12

It is pertinent to mention here that startup power is required to be provided as per the requirement of the respective TPPs about 6-8 months prior to the date of commissioning of first unit. However, the start up power for Rajpura TPP has been asked for by January, 2013. The target dates for commissioning of lines have been kept keeping in view the date of commissioning of respective units of both the TPPs and also keeping in view the possible

delays/slippages on account of obtaining necessary clearances from the other Deptt. such as Railways, Forest, Aviation, PTCC & court cases/stays during execution of work.

**View of the Commission**

The requisite information had been supplied by PSTCL.

**Issue No.7: List of 220 kV and 132 kV Grid sub station expected to be overloaded**

PSTCL may supply the list of 220 kV and 132 kV grid substations which are expected to be overloaded during the paddy season of 2012, and the action plan/Capex details for augmenting or de-loading the overloaded 220 kV and 132 kV grid substation.

**Response of PSTCL**

Details has been supplied to the Objector and the PSERC.

**View of the Commission**

PSTCL has furnished the requisite reply.

**Issue No.8: 220 kV line losses:**

Every 220 kV line is normally having an energy meter at both ends (while only at interstate commercial points SEM/ABT meters are provided). PSTCL may give the energy meter reading data of all 220 kV lines for the month of August 2011.

- (a) Reading of energy meters at 00 hours of 01<sup>st</sup> August at sending end and receiving end
- (b) Similar reading at 00 hours of 01<sup>st</sup> September 2011
- (c) Calculated %age loss of each 220 kV line on basis of (a) & (b) above for the month of August, 2011.

**Response of PSTCL**

ABT Meters for interface/boundary points and Conventional Energy Meters (CEMs) wherever these CEMs are not installed or faulty etc. are being procured by SLDC as part of the RFP No. SLDC/116/2011 issued for selection of a system integrator for complete implementation on Turnkey basis & Comprehensive O&M Services. In respect of Intra-state Boundary Metering cum Transmission Level Energy Audit Scheme using ABT type & conventional energy meters, the tendering process against this RFP was reinitiated in Oct/Nov 2011 and the scheduled date for receipt/opening of tenders was fixed as 07/12/2011 which was postponed to 22/12/2011 due to non-receipt of bids. Only single tender was received on 22/12/11, therefore the date has now been extended to 10/01/2012 & then again to 02/02/12 as per requests received from various parties. The techno-commercial bids have been opened and the evaluation is in process.

**View of the Commission**

The meters should have been installed much earlier. The process of procurement and installation of meters be expedited.

**Objection No.2: PSEB Engineers' Association, Patiala**

**Issue No. 1: Audited Accounts**

As stated in Para 1.1.8 of the petition, the transfer of assets/liabilities is provisional and will be made final upon the expiry of 12 months from effective date of transfer (i.e. 16.04.2010) or 6 months after audited accounts whichever is later. PSTCL may inform:

- (a) Whether audited accounts have been finalized or not.
- (b) If finalized, the audited accounts may be given, and the date on which the audited accounts were issued may be informed

**Response of PSTCL**

- (a) The Audited Accounts of PSEB as on 16.04.2010 have been finalized.
- (b) The copy of Audited Accounts is under print.

### **View of the Commission**

PSTCL is directed to submit the audited annual accounts to the Commission as well as Objector at the earliest.

### **Issue No.2: Provisional ARR**

In the absence of final figures of assets and liabilities (yet to be issued by Govt. of Punjab), the ARR petition is stated to be provisional. PSTCL may clarify, if the ARR was to be filed on provisional basis, then why the provisional figures given in transfer scheme of 16.04.2010 were not adopted.

### **Response of PSTCL**

The Balance sheet as on 31.03.09 was annexed to Transfer Scheme of 16.04.10 issued by the State Govt. These provisional figures have not been considered as these are not the figures of PSTCL as on 16.04.10. PSTCL, while submitting petition for FY 2012-13 has considered the provisional figures for GFA, Loan and Equity as considered by the Commission in last Tariff Order for FY 2011-12.

### **View of the Commission**

The Commission has not accepted the provisional figures as discussed at length in Tariff Order for FY 2010-11 and FY 2011-12. The ARR for FY 2012-13 is being finalized based on the figures supplied by the utilities in the respective ARRs.

### **Issue No.3: Picking and choose of figures from transfer scheme**

PSTCL has adopted a procedure of pick and choose, whereby one figure has been picked up from this transfer scheme, viz. long term loan of Rs.887.07 crore while the other figures have been ignored.

### **Response of PSTCL**

The long term loan figure has not been picked up from the transfer scheme. The loans had been considered with the mutual consent of PSPCL and same was also considered in petition for FY 11-12.

### **View of the Commission**

The Commission has considered the explanation and the figures furnished by PSTCL. Necessary changes will be considered during true up exercise after receipt of Audited Annual Accounts of the relevant year.

### **Issue No.4: Discrepancy in equity figure**

PSTCL has stated at page 9, that the equity figure of Rs. 328.50 crore has been taken, while the equity as per provisional figures of transfer scheme is Rs. 1548.09 crore.

### **Response of PSTCL**

Please refer to response at Issue No. 2 given above.

### **View of the Commission**

The Commission has not considered the figures in the provisional transfer scheme as there is large variation in these figures and the balance sheet of PSEB for FY 2009-10. The rationale in this regard is given at length in the Tariff Order of FY 2010-11 and 2011-12.

### **Issue No.5: Truing up for FY 2010-11**

In para 1.1.29 (Page 10) PSTCL has stated that review for 2011-12 and ARR for 2012-13 is being filed, while true up for 2010-11 has been missed out/omitted. It is submitted that true-up exercise should not be left out, and the present filing should include the true up for 2010-11 also.

### **Response of PSTCL**

PSTCL in Para-2.3.1 in its ARR and Tariff Petition for FY 2012-13 has stated as *under*:

"2.3.1 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)*

The Audit of Accounts for FY 2010-11 is under process and will be finalized upon the notification of the opening balance sheet as on 16/04/2010 by the State Government. PSTCL in its Petition requested the Commission that the Truing-up exercise may be undertaken by the Commission for the FY 2010-11 after the finalization of Audited Accounts, which is in conformity with the Tariff Regulations quoted above.

#### **View of the Commission**

PSTCL has furnished an explanation for not filing audited accounts which are the basis of a true up exercise. The true up for FY 2010-11 will be taken up after audited annual accounts are available for FY 2010-11.

#### **Issue No.6: Uniformity between PSPCL and PSTCL**

There should be some uniformity in approach. While PSPCL has filed for true up of 2010-11, review for 2011-12 and ARR/Tariff for 2012-13, PSTCL by missing out on true up has created a non uniformity in approach which is to be avoided.

#### **Response of PSTCL**

Truing up cannot be done based on provisional accounts.

#### **View of the Commission**

Truing up for FY 2010-11 is not considered by the Commission for the PSPCL also, in the absence of audited annual accounts.

#### **Issue No.7: The generation capacity to be served by the transmission system**

- (i) The generation capacity to be served by the transmission system means the net capacity (ex-bus capacity) and not the gross capacity. Since gross capacity minus auxiliaries is the net capacity, clearly the auxiliary MW is not served by the transmission system but consumed within the power plant. The interpretation of regulation-38 quoted above is that the net capacity should be counted.
- (ii) In table-2 (Page-14), whereas the gross capacity of Bathinda, Ropar, Lehra has been stated, in case of Talwandi Sabo (with 2x660 MWs units taken), the net capacity of 1227.6 MWs has been taken.
- (iii) The following projects, whose capacity has been counted in table-2, are not going to be commissioned in 2012-13 and need to be excluded.
  - (a) Bokaro 200 MWs                      Delayed
  - (b) Raghunathpur 300 MWs              Delayed
  - (c) Parbati-III 80 MWs                      Delayed
  - (d) Malana-2 100 MWs                      Under disputed
- (iv) The GOI had recently reduced the MW allocation to Punjab from BBMB/Bhakra as ordered by Supreme Court. The reduced MW availability may be taken.
- (v) Mundra UMPP of 5x800 MWs units are to be commissioned on 2/12, 5/12, 9/12, 11/12 & 2/13. The pro rata capacity from Mundra may be taken in the table.

#### **Response of PSTCL**

(i) & (ii) It is not possible to accurately estimate the auxiliary consumption in case of every Power Plant. Also, the Commission in the last Tariff Order approved a total Transmission capacity of 7990.18 MWs in the Tariff Order for FY 2011- 12 based on the gross sum of the generation capacities connected to the transmission network handled by the PSTCL.

Following the approach adopted by the Commission in last Tariff Order, PSTCL has projected a total transmission capacity of 10082 MWs after considering the central sector projects (long term) which are expected to be declared for commercial operation during the year 2012-13. The revised Transmission capacity details has been supplied to the Objector and the PSERC.

(iii) PSTCL has derived the generation capacity of the State transmission system by adding all the existing and likely coming up projects.

(iv) & (v) Same as the response for Issue Nos. (i) & (ii) above.

**View of the Commission**

(i) & (ii) The Commission has taken into consideration the net generation capacity (Ex-Bus capacity) for calculation of Transmission charges and Open Access charges. PSTCL has taken ex-bus availability of power in considering transmission capacity. However, the auxiliary consumption has been estimated based on CERC / PSERC Regulations.

(iii), (iv) & (v) The capacity as provided by PSTCL is considered by the Commission. However, PSTCL is directed to checkup the commissioning schedule again in view of the fact that some projects may get delayed and this will be considered in 'Truing up'.

**Issue No.8: Finalization of balance sheet**

In para 2.3.2 PSTCL states that audited accounts would be finalized only after balance sheet is notified by GOP as on 16.04.2010. However, in Para 1.1.8(a) PSTCL states that balance sheet would be finalized by GOP after the audited account are made available.

It is suggested that the terms/conditions contained in transfer scheme may be adopted as stated in 1.1.8 (a) and hence the contention made in para 2.3.2 is not correct. It follows that true-up exercise can be carried out. In fact the entire petition itself is provisional (pending finalization of transfer scheme balance sheet). Therefore, if the PSTCL can file petition for 2012-13 tariff and review of 2011-12, then by following same logic, true up of 2010-11 should be done.

**Response of PSTCL**

Please refer to response to issue No. 5 given above.

**View of the Commission**

Refer Objection No. 2, issue No.5

**Issue No. 9: Transmission system availability para 4.1 page 21.**

PSERC regulations do not provide method/procedure for calculating transmission system availability. The details of availability may be provided by PSTCL for 10-11. The availability is to be worked out on basis of availability of 220 kV lines, 132 kV lines, and availability of power transformer of 220 kV class and 132 kV class. It is suggested that the purpose of giving incentive, Commission may give guideline/instruction on procedure/methodology for working out the availability of transmission system.

**Response of PSTCL**

Providing guideline/ instruction on procedure/methodology for working out the availability of Transmission system for the purpose of giving incentive is the prerogative of the Commission.

**View of the Commission**

The incentive for transmission system availability is not considered as it is not provided in the Regulations. PSTCL should submit proposals for framing Regulations in this regard.

**Issue No.10: Transmission losses (Page-22 Para 4.2)**

For determination of percentage loss benchmarks/parameters, it is suggested that load flow studies may be carried out for transmission system of Punjab under different seasonal load conditions, such as summer/paddy, winter and intermediate periods such as Oct.-November, December to Feb (winter), March to May and %age loss figures could be derived on seasonal or annual basis. The provision to carryout system studies/load flow studies to determine %age loss, contained in clause 7.2 of Tariff Policy (quoted in page 25 of petition). Instead of relying upon %age loss figures of other states/commission, system (load flow) suited for Punjab power system is the preferred solution.

**Response of PSTCL**

PSTCL issued RFP No. SLDC/115/2011 for invitation of bids for undertaking the activity related to Intra-State Boundary metering. However, due to administrative reasons in the tendering process, the RFP was dropped and fresh RFP was issued. Accordingly, SLDC issued RFP No. SLDC/116/2011, i.e., Request for Proposal for Selection of System Integrator for Complete

Implementation on Turnkey Basis & Comprehensive O&M Services in respect of Intrastate Boundary Metering cum Transmission Level Energy Audit Scheme using ABT type and Conventional Energy Meters, on October 24, 2011 and the tenders / proposals were scheduled to be opened on November 21, 2011, but on request of the firms, the date was further extended. The techno-commercial bid was opened on 2.02.12. The project is expected to be completed in FY 2012-13.

**View of the Commission**

The present status of providing meters is explained above by PSTCL but the Commission directs PSTCL to provide boundary meters to work out the transmission losses and conduct energy audit.

**Issue No. 11: Talwandi Sabo transmission project**

On page 27 para 4.3.6 it is stated that the cost is Rs.1607.95 Cr, being executed by PGCIL on cost plus basis. PGCIL may be directed to supply the capital cost of each 400 kV line and 400 kV substation under the Talwandi Sabo transmission project. Further, PGCIL may be directed to give capital cost of 400 kV double circuit lines, with twin conductor constructed in past 2-3 years so that the Rs per Km cost can be compared. PGCIL may further be directed to supply capital cost of recently constructed 400 kV substation with 315 MVA or 500 MVA ICTs so that the cost comparison could be done with PSTCL substation at Dhuri, Makhu, Nakodar etc.

**Response of PSTCL**

The cost of Rs. 1607.95 crore is the estimated cost which included escalation and IDC. However the exact value shall be known after the execution of the work. As regards, the data required from PGCIL, the matter has been referred to them and the same shall be submitted immediately on its receipt.

**View of the Commission**

PSTCL has explained the position. PSTCL may obtain the final cost based on actuals since it is a cost plus contract and verify the costs submitted by PGCIL with other lines executed by PGCIL and other agencies.

**Issue No.12: Delay in commissioning of Talwandi Sabo – Moga lines**

It is learnt that 400 kV Talwandi Sabo - Moga line (which was the first priority line to give 400 kV supply to Talwandi Sabo which was to be commissioned in December 2011 upto Moga) is now delayed. This delay may be clarified by PSTCL.

**Response of PSTCL**

The targets of this line were tentatively fixed to meet with the requirement of start up power by Talwandi Sabo Thermal Plant. They have not yet given any specific date of taking the start up power. The commissioning will be linked with the requirement conveyed by them.

**View of the Commission**

The Commission agrees with the response of PSTCL.

**Issue No.13: List of new 220kV lines**

The petition at page-27 is incomplete because it has not given the list of new 220 kV lines for dispersal of power from Moga, Muktsar, Makhu, Nakodar, Dhuri & Amritsar and the commissioning schedule of these lines. Even though the 400 kV transmission system has been given in details, the utilization of the power would be through the 220 kV system of PSTCL, the details of which need to be supplied after para 4.3.7(b).

**Response of PSTCL**

The 220 kV lines from proposed new 400 kV S/S Dhuri, Muktsar, Makhu & Nakodar have already been planned and the work is in progress. PGCIL also have asked to construct 2 nos. 220 kV additional bays, the approval of the same has already been accorded in 30<sup>th</sup> Power Sub Committee meeting of CEA. The list of 220 kV lines associated with evacuation of power from Talwandi Sabo Thermal power has been supplied to the Objector and the PSERC.



### **View of the Commission**

PSTCL has provided the requisite information.

### **Issue No.14: Rajpura 400 kV Transmission System**

At page 29, it is stated that the 400 kV line to Nakodar would be from 400 kV Rajpura TPS. However, in ARR filing of 2011-12 it was stated at para 7.13 (Page 18) that 400 kV line to Nakodar would be from 400 kV Rajpura sub station. This may be clarified.

### **Response of PSTCL**

There may be some typographical error in the ARR of 2011-12. It is 400 kV line from Rajpura Thermal Power Station to Nakodar.

### **View of the Commission**

The PSTCL has clarified the position.

### **Issue No.14.1: Utility of having 400 kV S/S at Rajpura**

The logic or utility of having a 400 kV substation at Rajpura just 11 km away from TPS needs to be justified. Rajpura is already connected with 400 kV substation Patiala (Phaggan Majra). The proposed 400 kV substation Rajpura would have LILO of 220 kV Gobindgarh-Patiala double circuit line. While Gobindgarh is already having been fed from Ropar thermal and 220 kV Patiala is connected to 400 kV Phaggan Majra, the justification of 400 kV sub station Rajpura with 2x500 MVA transformers is doubtful.

### **Response of PSTCL**

The 400 kV Rajpura S/S has been proposed as per the recommendations of PGCIL based on the load flow/system studies carried out by PGCIL for evacuation of power from the proposed Rajpura Thermal Power Station.

### **View of the Commission**

PSTCL has clarified the position. Nevertheless, the Commission directs PSTCL to ensure that erection of 400 kV Rajpura Grid sub-station is on the basis of requirement of the supply system network.

### **Issue No.14.2: Load flow study**

It is most essential that PSTCL supply a load flow study to establish the usefulness and justification of having 400 kV substation Rajpura.

### **Response of PSTCL**

Supplying a load flow study to establish the usefulness and justification of having 400 kV substations Rajpura is a voluminous item which is available in the Planning Wing of PSTCL, the same can be referred to.

### **View of the Commission**

Refer Objection No. 2, issue No. 14.1.

### **Issue No.14.3: Commissioning details of 220 kV lines**

As per Capex details given in petition at Page 101-109, the following 220 kV lines are listed for dispersal of power from proposed 400 kV grids of Talwandi / Rajpura system, but their commissioning details are not given.

From 400 kV Nakodar:	220 kV D/C Rehan lattan 220 kV D/C Kartarpur 220 kV D/C Noormahal
From 400 kV Rajpura:	220 kV D/C Devigarh LILO Gobindgarh-Patiala D/C
From 400 kV Muktsar:	220 kV D/C Kotkapura 220 kV D/C Gobhaya
From 400 IN from Dhuri:	220 kV S/C Nahha 220 kV D/C Bangan 220 kV LILO Sunam-Dhuri DC
400 kV Makhu	220 kV D/C Tarn Taran

The Commissioning schedule/ target of these 220 kV works should be supplied by PSTCL.

**Response of PSTCL**

The Commissioning schedule/ target of said 220 kV works is as under:

400 kV Nakodar • 220 kV D/C Rehana lattan • 220 kVD/C Kartarpur • 220 kV D/C Noormahal	30.11.2012 31.03.2013 31.03.2013
400 kV Rajpura • 220 kV D/C Devigarh • LILO Gobidgarh- Patiala D/C	30.10.2013 30.10.2013
400 kV Muktsar • 220 kV D/C Kotkapura • 220 kV D/C Gobhaya	30.11.2012 31.03.2013
400 kV Dhuri  • 220 kV S/C Nabha • 220 kV D/C Bangan • 220 kV LILO Sunam-Dhuri	30.06.2012 31.12.2012 30.06.2012
400 kV Makhu • 220 kV DC Tarantaran	31.12.2012 2 nos. 220 kV Ckt. from Makhu have been planned from 220 kV Mastewal S/S & Algaon S/S. The Ckt. for Mastewal shall be commissioned along with the commissioning of Makhu S/S

**View of the Commission**

PSTCL has furnished the required information.

**Issue No. 14.4: Conditions under which load flow studies to be done**

The load flow studies are necessary for following conditions.

	T. Sabo	Rajpura
Units in Operation	1	0
Units in Operation	2	0
Units in Operation	3	1
Units in Operation	3	2

**Response of PSTCL**

The required study has been got conducted before finalization of the proposed system.

**View of the Commission**

Studies conducted should be submitted to Commission and to the objector also. There should be no bottleneck in evacuating/dispersing of power from these thermal plants.

**Issue No. 14.5: Some factors to be elaborated**

The following factors need to be examined/ elaborated by PSTCL.

- A) No additional 220 kV line has been shown for Moga and Amritsar.
- B) At Makhu against 2 X 315 MVA transformers, only 2 Nos. 220 kV lines are shown to Tarn Taran.
- C) Dispersal of power from 2 X 500 MVA ICTs at Dhuri and 2 X 500 MVA ICTs at Rajpura needs to be analysed from system (load flow) studies.

**Response of PSTCL**

- A) Moga and Amritsar are both 400 kV S/S of PGCIL which are well connected with PSTCL system as well as northern grid for evacuation of power. Additionally 2 nos. 220 kV bays have been asked for at 400 kV Moga S/S for evacuation of power by PSTCL. The same

have been approved by Power Sub Committee meeting of CEA in its 30<sup>th</sup> meeting.

B) From 400 kV S/S Makhu 2 nos. 220 kV Ckt. each have been planned for 220 kV Mastewal sub station and 220 kV Algaon sub station.

C) The evacuation has been planned after load flow studies by PGCIL.

#### **View of the Commission**

PSTCL should ensure that there is no bottleneck in dispersal of power from 400 kV substations in Punjab.

#### **Issue No. 15: O&M expenses**

Comparison of O&M Expenses as per CERC Norms: Page 31-33 of the Petition. In working out O&M Expenses as per CERC Norms, the following parameters need to be detailed by PSTCL.

- a) List of 26 Nos. 400 kV bays for FY 2012-13 with target commissioning dates.
- b) Number of 220 kV bays has been shown to be increased from 422 to 494, i.e., 72 extra. List of 72 bays may be supplied.
- c) Transmission Lines have been shown as under in km.

Particulars	FY 2011-12	FY 2012-13	Increase
Single Ckt 1 conductor	4171	4312	141
Double Ckt 1 Conductor	4032	4838	806
Double Ckt 2 conductor	216	1600	1384

The details/ split up of 806 km and 1384 km may be supplied with expected commissioning dates. The details of 216 km double ckt. twin conductor line shown against 2011-12 also may be supplied.

#### **Response of PSTCL**

a) The number of 400 kV bays as submitted for FY 2012-13, i.e., 26 is future projection which has been done on the basis of capital expenditure plans and Transmission system expansion plan. PSTCL would further like to submit that it is difficult to ascertain the exact date of Commissioning. However, the actual number of bays added during FY 2011-12 and FY 2012-13 will be submitted during the time of truing-up exercise of respective years.

b) The number of 220 kV bays as submitted for FY 2012-13, i.e., 494 is future projection which has been done on the basis of capital expenditure plans and Transmission system expansion plan. However, the actual number of bays added during FY 2011-12 and FY 2012-13 will be submitted during the time of truing-up exercise of respective years.

c) The addition in Transmission line as submitted for FY 2012-13 is future projection which has been done on the basis of capital expenditure plans and Transmission system expansion plan. PSTCL would further like to submit that it is difficult to ascertain the exact date of Commissioning. However, the actual addition in Transmission Line added during FY 2011-12 and FY 2012-13 will be submitted during the time of truing-up exercise of respective years.

#### **View of the Commission**

O&M costs have been determined in accordance with the provisions of PSERC Tariff Regulations.

#### **Issue No. 16: Employee Expense**

Vide para 4.4.26 (Page 38) the details of new recruitment have been given. Since under the transfer scheme it has been ensured that there will be a common cadre under PSPCL with personal being sent to PSTCL, on deputation, it is necessary to continue with that pattern/principal after 16-4-2010, and so it is suggested that all new recruitment should be on combined basis for PSPCL plus PSTCL. This will avoid multiple categories of staff, and ensure flexibility in deployment on a common basis.

#### **Response of PSTCL**

The transfer scheme provides for absorption of employees in PSTCL on permanent basis

with a view to have a separate cadre in PSTCL. The new recruitment is need based and recruitment process has been taken up with the approval of the state Govt.

#### **View of the Commission**

Recruitment process is not a part of the tariff exercise.

#### **Issue No. 16.1: Recruitment of personnel**

PSTCL has proposed to go in for recruitment of various categories of personnel. As there is already acute shortage of O&M staff in the existing 220 kV and 132 kV substations, PSTCL may give the present vacancy position in respect of 220 kV and 132 kV substations, and the vacancies to arise in 2012-13 on account of new substation and lines being commissioned for categories XEN/Sr. XEN, AEE, AE, JE, SSA, Electricians. In addition, PSTCL may confirm that the O&M staffing requirements of 400 kV grid substations will be fully met.

#### **Response of PSTCL**

A copy of the vacancy statement of Dec-2011 has been supplied to the Objector and the PSERC. PSTCL is recruiting staff for operation & Mtc. of 220/132kV sub-stations keeping in view the vacant posts lying at 220/132 kV stations.

#### **View of the Commission**

Employee cost shall be allowed as per Regulations only as in the past. Process of recruitment is not apart of the tariff exercise.

#### **Issue No. 16.2: Details of staffing & training of personnel of 400 kV S/S & lines**

In para 4.4.26, one of the justifications stated is that Additional personnel are required to operate 400 kV network to be commissioned in 2012-13. PSTCL may give the following details.

- a) Staffing norms for 400 kV Substations.
- b) Staffing norms for maintenance of 400 kV lines.
- c) While the recruitment of 117 AE and 158 JE/ Electrical has been proposed the same would be required to be trained, since untrained personnel cannot be put on 400 kV substation.
- d) Training programme of XENs, SEs for O&M of 400 kV lines and substation should be disclosed by PSTCL. It is evident that deployment/training of personnel is lagging behind the construction/commissioning schedule. Ideally the trained O&M staff should be deployed at the substation during the construction and commissioning stage itself and not after completion of the commissioning. The experience gained by the O&M staff during the construction/commissioning stage has no substitute & this opportunity appears to have been lost.

#### **Response of PSTCL**

- a) A copy of the staffing norm for 400 kV substations approved by BOD has been supplied to the Objector and the PSERC.
- b) It has been proposed that the maintenance of 400 kV lines will be done on the pattern of PGCIL by outsourcing the same.
- c) PSTCL would like to submit that it is commissioning 400 kV Transmission systems, first of its kind in the State, for evacuation of power from the upcoming thermal generating stations and its dispersal to the load centers. The commissioning of the system will commence in phases and is targeted to be completed by FY 2012-13 and FY 2013-14. Operation and maintenance of 400 kV systems is a very specialized job and new for PSTCL and any mishandling and mal-operation will lead to major system failure. PSTCL has taken steps to impart training to its manpower through PGCIL so that they get the required expertise to maintain the system efficiently. This will take time as the technical personnel proposed to be trained include the personnel to be recruited through the recruitment process which has already been initiated by PSTCL. Therefore, the WTD in their 25th meeting held on 25/11/2011 have taken in-principle decision to outsource the O&M job of the 400 kV grid substations and associated transmission lines to PGCIL, a leading Central PSU who have the requisite skill and expertise till such time the technical personnel of PSTCL are trained to take over the job.

d) 2 No. Training Programs of existing PSTCL engineers have been conducted by Power Grid. 35 No. engineers have been trained for O&M/Protection of 400 kV system. Copies of 2 no. office orders have been supplied to the Objector and the PSERC.

**View of the Commission**

PSTCL has clarified the position and explained the action being taken to train the personnel for O&M of 400 kV system with the assistance of PGCIL engineers and staff.

**Issue No.16.3: Deloading of existing grid substations**

PSTCL may give the action plan for de-loading the existing 220 kV and 132 kV grid substations, year wise, under maximum loading conditions of paddy season. PSTCL may further give its action plan for de-loading the 220 kV and 132 kV grid substations to an ideal 70% of installed MVA capacity.

**Response of PSTCL**

Action Plan for deloading the existing 220 kV & 132 kV S/Stations has already been mentioned in the ARR. However, the list of 40 no. transformers with 90% or more loading has been supplied to the Objector and the PSERC.

**View of the Commission**

Timely action should be taken to avoid overloading of system.

**Issue No.16.4: Manpower for O&M of 400 kV grid substation**

PSTCL may give its action plan for deployment of trained manpower for O&M of 400 kV grid substations and existing 220 kV and 132 kV grid substations.

**Response of PSTCL**

The recruitment of Engineers and other staff is under way who will be trained and deployed on the coming 400 kV system of PSTCL or PGCIL Sub-Stations.

**View of the Commission**

PSTCL has detailed the initiatives taken in this regard.

**Issue No. 16.5: Future construction of grid substations**

It is proposed that future construction and O&M of 400 kV grid substations must be carried out by PSTCL and not outsourced to Powergrid.

**Response of PSTCL**

The future construction and O&M of 400 kV grid substations shall be carried out by PSTCL.

**View of the Commission**

The Commission has noted the reply of PSTCL.

**Issue No. 16.6: Action plan to upgrade the standards of operation**

PSTCL may give its action plan to upgrade the standards of operation and maintenance of its 220 kV and 132 kV substations to the level of O&M practices of Powergrid Corporation.

**Response of PSTCL**

Old & defective equipments are replaced. Face lifting of substations is being done as per standards of Power Grid. PSTCL has taken up the matter for constructing new S/S as per the norms of Power Grid. New 400 kV S/Stations are already being constructed by Power Grid. Training to the staff is being given by PGCIL for operating & maintaining 400 kV S/Stations.

**View of the Commission**

Commission agrees with the reply of PSTCL.

**Issue No. 17: A&G Expenses**

Vide Para 4.6.9 (Page 44), it has been stated that O&M of 400 kV substations and lines would be outsourced for 1 year (extendable by 1 year if required) because PSTCL has not been able to train the requisite personnel. This is a clear admission of management failure since it was clearly the duty of the PSTCL management to arrange and train the personnel matching with or better in advance to the commissioning schedule of lines and substations.

### **Response of PSTCL**

There is no management failure. It is in the interest of the corporation to have O&M services of PGCIL initially for the 400 kV systems so that our engineering personnel being trained by PGCIL for taking over the O&M of the 400 kV system smoothly after a comprehensive training by PGCIL.

### **View of the Commission**

The requisite clarification has been provided by PSTCL.

### **Issue No. 17.1: Outsourcing O&M**

PSTCL has proposed (Page-45) that for outsourcing O&M, the CERC rates may be given to PGCIL. The CERC rates for O&M are to be worked out asset-wise from date of commercial operation because the rates are for full year. For FY 2011-12, it has been shown that 2 No 400 kV bays and 216 km line will be taken into commercial operation, while actually no asset would be commissioned (due to delay in Railway Crossing).

### **Response of PSTCL**

PSTCL is commissioning 400 kV Transmission systems for evacuation of power from the upcoming thermal generating stations and its dispersal to the load centers. The commissioning of the system will commence in phases and is targeted by FY 2012-13 and FY 2013-14. Operation and maintenance of 400 kV systems is a very specialized job and new for PSTCL and any mishandling and mal-operation will lead to major system failure. PSTCL would further like to submit that the outsourcing expenses for 400 kV system projected is mainly to look after R&M of 400 kV substations and lines. Therefore, it should not be linked with the dates of Commissioning.

### **View of the Commission**

Clarification has been provided by PSTCL. Expenses under various heads shall be allowed as per Regulations.

### **Issue No. 17.2: Asset wise commissioning dates**

For FY 2011-12 and FY 2012-13, PSTCL may give the asset wise commissioning dates and work out the O&M charges on pro-rata to the months of operation in FY 2012-13. The A&G Expenses shown on Page 46-47 at Table 14 include a component of Rs. 21.44 crore for outsourcing 400 kV O&M at Serial No. 18 (Page-47).

### **Response of PSTCL**

The commissioning of the system will commence in phases and is targeted to be completed by FY 2012-13 and FY 2013-14. Since the Commissioning will take place in FY 2012-13 and FY 2013-14, it is difficult to ascertain the exact date of Commissioning.

### **View of the Commission**

O&M expenses are allowed as per notified Regulations.

### **Issue No. 17.3: Details to be obtained from PSTCL**

Before considering/ allowing this expense, Commission may obtain details from PSTCL as under:

- i) Why PSTCL O&M staff was not arranged for this planned work whose schedule was known in adv.
- ii) What would have been the O&M Expenses if PSTCL personnel instead of PGCIL personnel had been deployed for O&M of 400 kV system.

### **Response of PSTCL**

PSTCL would like to submit that Operation and maintenance of 400 kV systems is a very specialized job and new for PSTCL and any mishandling and mal-operation will lead to major system failure. PSTCL has taken steps to impart training to its manpower through PGCIL so that they get the required expertise to maintain the system efficiently. This will take time as the technical personnel proposed to be trained include the personnel to be recruited through the recruitment process which has already been initiated by PSTCL.

ii) PSTCL would like to submit that it has claimed O&M Expenses for 400 kV system as per CERC Norms.

### **View of the Commission**

Detailed clarification has been provided by the PSTCL. The Commission advises to ensure that PSTCL workforce is fully trained to handle O&M and future construction work of 400 kV systems. It is, however, clarified that O&M expenses are allowed as per Regulations.

### **Issue No. 18: Documents to be supplied by PSTCL**

PSTCL may be directed by the Commission to supply the following documents.

- a) Copy of work order/ contract awarded to PGCIL for execution of 400 kV lines and substations for Talwandi Sabo and Rajpura Thermal Projects, so that justification thereof can be checked/ analysed.
- b) Copy of draft/ final contract for outsourcing of O&M of 400 kV system for 1 year.
- c) Copy of draft/ final training programme for O&M of 400 kV system.
- d) Copy of proposed O&M organization structure for 400 kV systems in view of advanced technology, a separate P&M Wing of 400 kV system would be preferred.

### **Response of PSTCL**

- a) A copy of the work order/contract document executed with PGCIL for execution of Talwandi sabo & Rajpura project has been supplied to the Objector and the PSERC.
- b) It has been proposed for out sourcing of O&M of 400 kV system to PGCIL for one year, which is yet to submit their offer.
- c) Please refer to reply made at 16.2(d).
- d) No separate O&M organization structure for 400 kV system has since been proposed.

### **View of the Commission**

PSTCL should workout the organization structure for O&M of 400 kV transmission lines and substations.

### **Issue No. 19: Comparison of O&M expenses**

Comparison of O&M Expenses as claimed w.r.t expenses admissible as per CERC Norms. Vide Page 48, PSTCL has claimed O&M Expenses of Rs. 505.01 Cr for FY 2012-13 while expenses admissible as per CERC norms are stated on Page 33 of the Petition as Rs. 454 Cr.

### **Response of PSTCL Reply**

There was an inadvertent error in calculation of employee expenses and it has been revised. The new employee expenses during FY 2011-12 and FY 2012-13 are under:

Particulars	2011-12 Petition	2011-12 Revision	Difference	2012-13 Petition	2012-13 Revision	Difference
Employee expenses	259.32	207.24	(52.11)	310.00	229.15	(80.85)

Therefore the O&M expense of PSTCL for FY 2012-13 are Rs. 424.16 crore instead of Rs. 505.01 crore which is lesser as compared to CERC norms.

### **View of the Commission**

Response of PSTCL is noted. Expenses are allowed as per Tariff Regulations.

### **Issue No. 19.1: O&M charges as per CERC Norms**

PSTCL has not taken into account the O&M Charges of 66 kV bays as per CERC norms since O&M of 66 kV bays at 220/ 66 kV and 132/66 kV substation of PSTCL is to be done by PSTCL, PSTCL may give the following details:

- a) Number of 66 kV bays at 220/ 66 kV substation
- b) Number of 66 kV bays at 132/66 kV substation

### **Response of PSTCL**

No. of 66 kV Bays = 721 Nos.

No. of 33 kV Bays = 67 Nos.

### **View of the Commission**

The requisite information has been provided by PSTCL.

**Issue No. 20: R&M Expenses**

(Ref. Table 1 page 42) R&M expenses are claimed at Rs. 120.12 Cr which includes Rs. 90.88 crore. The details of R&M expenses of Rs. 90.88 Cr are indicated in Annex-1 Pages 98-99. At Annex-1 Page 98, an expense of Rs. 10 Cr. has been shown at Sr. no. 12 on account of outsourcing of 400 kV O&M to PGCIL. On the other hand A&G expenses, Page 47 Rs. 21.44 Cr has been separately claimed for 400 kV outsourcing expenses. Thus, in Table 15 (Page 47-48) outsourcing of 400 kV expenses has been claimed two times:

- a) A component of Rs. 10 Cr out of R&M expenses of Rs. 120.12 Cr.
- b) A component of Rs. 21.44 Cr. out of Rs. 74.89 Cr A & G expenses.

PSTCL may clarify how outsourcing expenses are being claimed under separate heads, Rs. 10 Cr. under R&M and Rs. 21.44 Cr. whereas the expenses worked out on CERC norms are Rs. 21.44 Cr. (Page 45).

**Response of PSTCL**

Rs. 10 Cr claimed as a part of R&M Expenses is towards Operation and Maintenance of 400 kV substations which includes outsourcing R&M activities related to 400 kV substations whereas Rs. 21.44 Cr claimed as outsourcing expenses as a part of A&G Expense is for outsourcing activities related to A&G Expenses of 400 kV substations which includes hiring technical expertise of PGCIL in order to impart training to PSTCL employees so as to avoid any mishandling and malfunction.

**View of the Commission**

Commission allows expenses as per Regulations.

**Issue No. 20.1: R&M plan**

At Sr. no. 18 of R&M Plan it is stated that plan to outsource maintenance of 220, 132 kV transmission lines is under progress and expenses of Rs. 13.1 Lac each for 25 Nos. P&M division totaling Rs. 327.5 Lac has been claimed. Maintenance of 220 and 132 kV lines is a critically important activity which is the responsibility of PSTCL. This work has been done departmentally ever since the inception of PSEB over past 4-5 decades. The proposal to outsource this key function is not in the interest of PSTCL. When PSTCL in petition at page 21-22 has claimed transmission system availability in the range of 99.64 to 99.91% in 2010-11 (page 21 petitions), and 99.6 to 99.9% (2011-12) at Page 22 of petition, then where is the justification to outsource this activity.

**Response of PSTCL**

PSTCL would like to submit that it is in the process of recruiting additional manpower which will take some time. Meanwhile, PSTCL is arranging to undertake the R&M activities related to 220 kV and 132 kV lines through outsourcing of R&M activities.

**View of the Commission**

Commission allows expenses as per Regulations only.

**Issue No. 20.2: Capital expenditure and capitalization**

Vide Para 8.8.4 (Page 50) the capital expenditure and capitalization for 2011-12 and 2012-13 has been given.

Particulars	2011-12	2012-13	2013-14
Capital Expenditure	1042.39	1100.66	2143.05
Capitalization	477.55	1818.39	2295.94

The closing works in progress as on 31-3-2013 is stated as Rs. 183.09 Cr. This implies that capital expenditure of 183.09+2295.94-2143.05 i.e. Rs. 335.98 Cr relates to 2010-11 which was incurred in 2010-11 but capitalized later as under:

Total Capex  $335.98+2143.05=2479.03$   
 Capitalized + WIP  $2295.94+183.09=2479.03$

The details of assets capitalized and WIP capitalized may be provided.



### Response of PSTCL

PSTCL has submitted the Petition for determination of ARR and Tariff for FY 2012-13. The details of assets and WIP capitalized during FY 2010-11 will be provided during the time of true-up of FY 2010-11. As regards FY 2011-12 and FY 2012-13, PSTCL has already provided the details of assets and WIP to be capitalized in Annexure-II of the Petition.

### View of the Commission

The necessary clarification has been provided by PSTCL.

### Issue No. 21: Interest Charges

The Opening and Closing balance of loans of PSTCL is as under:

Particulars	FY 2010-11	FY 2011-12	FY 2012-13
Opening balance	870.20	1054.37	1869.35
Closing balance	1054.37	1869.35	2732.32

The Loan addition year-wise was as under:

Particulars	Amount (Rs. Cr.)
2010-11*	801.09
2011-12	953.30
2012-13	990.65

The interest and finance charges are summarized:

Particulars	Amount (Rs. Cr.)
2010-11*	91.82
2011-12	158.80
2012-13	990.65

The interest capitalized is as under:

Particulars	Amount (Rs. Cr.)
2010-11*	29.88
2011-12	25.43
2012-13	40.02

\*2010-11 figures taken from last years Petition.

Since the steep increase of loans outstanding is primarily for funding capital expansion plan, the major portion of interest should be charged to capital and not to revenue, PSTCL may give details of how 1/5<sup>th</sup> or 1/6<sup>th</sup> of total interest is being charged to capital while balance is being charged to revenue head.

### Response of PSTCL

The above query is not clear. However PSTCL is claiming interest and finance charges as a part of its ARR.

### View of the Commission

Interest charges claimed by PSTCL are being allowed as per Regulations based on actual capital expenditure and borrowings approved for the year.

### Issue No. 22: Return on Equity

(i) The entire Tariff/ ARR Petition is provisional because the GOP has not yet finalized the balance sheet/ financial parameters of transfer scheme. In Para 2.3 (Page-17) of the Petition it is stated that the true-up for FY 2010-11 is not being done because of pending GOP orders in balance sheet.

(ii) When the entire tariff/ ARR is provisional pending finalization of Transfer scheme parameters (financial), the provisional ARR/ Tariff filing must be based on the provisional balance sheet as notified by GOP in 16-4-2010 and giving in page 8-9 of the petition.

(iii) As per provisional balance sheet the equity of GOP in PSTCL is Rs. 1548.9 Cr and so the ROE is to be calculated as per this equity.

(iv) PSTCL petition by adopting Rs. 328.5 Cr as equity has contradicted the GOP notification of 16-4-2010, which is not within competence of PSTCL.

(v) Vide page 127 of petition form F-15, PSTCL has stated the value of equity as under.

Particulars	Rs. crore
Equity as per last year petition	328.50
Actual Equity H1 (11-12)	1650.67
Projected for 2012-13	328.50

(vi) Form F-16 (page 128) of petition is contradicting for F-15 (page 127), because in form F-15 the actual equity is stated as 1650.67 crore for 2011-12, but this figure is not reflecting in form F-16.

(vii) The procedure / methodology adopted by PSTCL for retaining ROE and adding it to the opening balance of equity, thereby increasing the equity from year to year needs to be analyzed.

Procedure adopted (ARR petition 2012-13)

Particulars	2011-12	2012-13
Opening Equity	379.42	468.51
ROE	89.09	110.01
Closing Equity	468.51	578.52

As per this procedure, ROE is retained and added to the existing equity, which progressively increases from year to year. By contrast, the ROE calculation procedure in previous years ARR petition for 2011-12 was as under:

Particulars	2009-10	2010-11	2011-12
Equity	328.5	328.5	328.5
ROE	77.14	77.14	77.14
Rate of ROE	23.48	23.48	23.48

The procedure for calculating / treating equity or ROE for 2012-13 petition therefore contrasts/ contradicts with the procedure adopted last year for 2011-12 petition.

(viii) From ARR summary given in Page 114 of petition, it is seen

a. For 2011-12 as against ARR of 731.67 crore revenue is Rs.481.01 crore and gap is Rs. 250.66 crore. The recovery is thus 66% of ARR with the gap of 34%.

b. The interest charge of 158.8 crore is 21.7% of ARR

c. Gap is increasing from 54.89 crore (2010-11) to 250.66 crore (2011-12)

d. ARR is increasing from Rs. 731.67 crore to 1352.82 crore i.e. 85% rise.

Under such circumstances it would not be justified to retain ROE and increase the equity base. Instead the ROE should be utilized to reduce the loan requirement, since loan is increasing steeply from year to year. Retaining of ROE to increase equity capital base would have been justified if the revenue gap had been zero and loan interest liability under control.

(ix) PSTCL may also confirm if the proposed procedure for adding ROE to equity would result in income tax liability or not.

## Response of PSTCL

(i) & (ii) Please refer to the response to issue No. 2.

(iii & iv) PSTCL has claimed the ROE on the equity base considered by the Commission in its last Tariff Order. However, once the balance sheet is finalized by Government of Punjab, PSTCL shall submit revised figures for consideration of the Commission for truing up based on audited accounts of PSTCL.

(v & vi) PSTCL has already requested the Commission that Rs. 1650.67 Cr. shown in Format-15 is typographical error, however, it has no impact on the closing balance of equity in FY 2011-12 and FY 2012-13. The revised table as given in Format-15 is submitted as under:

(Rs. crore)

Sr. No.	Particulars	FY 2011-12	FY 2012-13
1	Opening Balance of Equity	379.42	468.51
2	Equity Addition during the Year	89.09	110.01
3	Deduction in Equity on account of retirement of assets	0.00	0.00
4	Closing balance of Equity	468.51	578.52

(vii) PSTCL has considered the equity funded through internal accruals to the ROE entitlement of PSTCL for respective years in accordance with PSERC Tariff Regulations, 2005. The Calculation of Return on Equity is given below:

(Rs. crore)

Sr.No.	Particulars	FY 2010-11	FY 2011-12	FY 2012-13
1	Opening Balance-Equity Capital	328.50	379.42	468.51
2	ROE rate (%)	15.50%	23.48%	23.48%
3	Equity addition during the year through Internal Accruals	50.92	89.09	110.01
4	Closing balance-Equity Capital	379.42	468.51	578.52
5	Return on Equity	50.92	89.09	110.01

(viii) PSTCL has claimed ROE in accordance with Section-25 of PSERC Tariff Regulations Section-25 of PSERC Tariff Regulations states as under:

### "25. RETURN ON EQUITY

1. Return on Equity shall be computed on the paid up equity capital determined in accordance with Regulation 24 and **shall be guided by the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004** as amended by the CERC from time to time. The same principles will apply for distribution business also as far as possible.

." (Emphasis Supplied)

Section-15 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 states as under:

### "15. Return on Equity.

1. Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 12.
2. Return on equity shall be computed on pre-tax basis at the base rate of 15.5% to be grossed up as per clause (3) of this regulation: .....
3. The rate of return on equity shall be computed by grossing up the base rate with the normal tax rate for the year 2008-09 applicable to the concerned generating company or the transmission licensee, as the case may be:
4. Provided that return on equity with respect to the actual tax rate applicable to the generating company or the transmission licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the tariff period shall be trued up separately for each year of the tariff period along with the tariff

petition filed for the next tariff period.

5. Rate of return on equity shall be rounded off to three decimal points and be computed as per the formula given below:
6. Rate of pre-tax return on equity = Base rate / (Ft)

Where 't' is the applicable tax rate in accordance with clause (3) of this regulation."

PSTCL understands that rate of 14% was applicable in accordance with CERC Tariff Regulations, 2004 which has been superseded by CERC Tariff Regulations, 2009. Since Section-25 of PSERC Tariff Regulations states that ROE shall be guided by CERC (Terms and Conditions of Tariff) Regulations, 2004 as amended from time to time, rate of 15.5% has been considered in accordance with CERC Tariff Regulations, 2009 which supersedes CERC Tariff Regulation, 2004. Further ROE is provided to Utility in order to encourage the Utility to reinvest in the business. If ROE is not provided adequately, it will adversely affect the Capital Investment which is not desirable according to Electricity Act 2003 and Tariff Policy.

Also, Clause-5.3 of Tariff Policy states as under:

"5.3

a) Return on Investment.

*Balance needs to be maintained between the interests of consumers and the need for investments while laying down rate of return. Return should attract investments at par with, if not in preference to, other sectors so that the electricity sector is able to create adequate capacity. The rate of return should be such that it allows generation of reasonable surplus for growth of the sector. **The Central Commission would notify, from time to time, the rate of return on equity for generation and transmission projects keeping in view the assessment of overall risk and the prevalent cost of capital which shall be followed by the SERCs also.** The rate of return notified by CERC for transmission may be adopted by the State Electricity Regulatory Commissions (SERCs) for distribution with appropriate modification taking into view the higher risks involved. For uniform approach in this matter, it would be desirable to arrive at a consensus through the Forum of Regulators. While allowing the total capital cost of the project, the Appropriate Commission would ensure that these are reasonable and to achieve this objective, requisite benchmarks on capital costs should be evolved by the Regulatory Commissions.*

*Explanation: For the purposes of return on equity, any cash resources available to the company from its share premium account or from its internal resources that are used to fund the equity commitments of the project under consideration should be treated as equity subject to limitations contained in (b) below.*

*..."(Emphasis supplied)*

(ix) PSTCL has claimed Income Tax Rate of 33.99% on ROE in accordance with CERC Tariff Regulations, 2009 due to which the effective rate of Return on equity is 23.48%.

#### **View of the Commission**

The Commission has not considered the equity funded through internal accruals to the extent of ROE entitlement as proposed by PSTCL as it cannot be ascertained whether PSTCL has any accumulated losses or accrued surplus to be ploughed back as internal resources to meet the equity contribution in the absence of audited accounts for FY 2010-11. Refer para 3.10 of Tariff order.

#### **Issue No. 23: Repayment of loan and interest**

The position given in Page 130 (Form F-21) is as under: (Rs. Cr)

Particulars	FY 2010-11(Actual)	FY 2011-12(Estimated)	FY 2012-13(Projected)
Opening Balance	887	1054	1869
Loan addition	374	953	991
Loan Repaid	107	138	128
Closing Loan	1154	1869	2732
Interest	74	159	252

These figures show that the financial condition of the newly formed company is becoming more and more difficult each year since the interest liability is steeply increasing and also the loan figures are increasing exponentially.

#### **Response of PSTCL**

Substantial increase in Loan amount and consequential interest burden is due to huge investment in 400 kV Transmission system in the state. The sourcing of loan including the repayment will be a pass through in tariff.

#### **View of the Commission**

The clarification has been provided by PSTCL.

### **Objection No. 3: Shri Gurnek Singh Brar**

#### **Issue No. 1: Training requirement of O&M personnel**

The Indian Electricity Grid Code (IEGC) has the following provision on training:

*"h) The control rooms of NLDC, RLDC, all SLDCs, power plants, substations of 132 kV and above, and any other control centers of all regional entities shall be manned round the clock by qualified and adequately trained personnel. Training requirements may be notified by the Commission from time to time by orders."*

It may be noted that the Indian Electricity Rules 1956 have a specific provision for training of personnel in the O&M of grid substations. This is a statutory requirement. PSTCL may give the following details:

- Action plan to train personnel for its new 400 kV substations.
- Action plan to train the O&M personnel for the existing 220 kV and 132 kV grid substations.
- Whether the O&M engineers and technical personnel of the existing 220 and 132 kV operational substations have been trained as per the training requirements prescribed in IE Rules 1956, Annexure-XIV.
- Whether the SLDC engineers (Power Control) meet the training requirements of IEGC.

#### **Response of PSTCL**

- 2 Nos. Training programs of existing PSTCL engineers have been conducted by Power Grid & 35 no. engineers have been trained for O&M/protection of 400 kV S/Stations.
- The recruitment of engineers and other staff is under way, who will be trained and deployed on the existing 220 kV & 132 kV S/Stations.
- O&M training to engineers & technical personnel of the existing 220 & 132 kV S/Stations is being given as per PSTCL Training schedule.
- SLDC (Power Control) engineers are being trained for system operation certification course being conducted by NPTI, Bangalore.

#### **View of the Commission**

The Commission has issued directives regarding training of manpower in the Tariff Order for FY 2011-12. Initiatives taken by PSTCL in this regard are detailed above.

#### **Issue No.2: MW & MVAR of the over loaded transformers**

PSTCL has given the following list of over loaded power transformers to be de-loaded in 2012-13:

<b>MVA, kV</b>	<b>Station</b>	<b>%age load</b>
100, 220/132 kV	Verpal	92.36
100, 220/132 kV	Verpal	92.36
40/50, 132/66 kV	Naraingarh T2	90.04
40/50, 132/66 kV	Naraingarh T4	94.16
100, 220/132 kV	Moga T1	99.00
100, 220/132 kV	Moga T3	99.00

100, 220/66 kV	Sunam T1	96.18
100, 220/66 kV	Sunam T2	96.18
100, 220/66 kV	Sunam T4	96.94
100, 220/66 kV	Jagraon T1	91.02
100, 220/66 kV	Jagraon T4	91.02
100, 220/132 kV	Mahalpur T5	97.30
100, 220/132 kV	Mahalpur T4	97.03
50, 132/66 kV	Mahalpur T2	96.00
100, 220/66 kV	Sultanpur T1	96.18
100, 220/66 kV	Sultanpur T6	96.18
50, 132/66 kV	Sultanpur T3	91.52
50, 132/66 kV	Sultanpur T5	91.52
50, 132/66 kV	Nawanshahar T3	94.26

PSTCL may give the split up of MW and MVAR loading on each of the above stated overloaded transformers. In case the reactive loading is on the higher side with power factor being less than 0.9, PSTCL may be directed for installing additional capacitor banks to de-load these transformers.

#### **Response of PSTCL**

The split up of MW & MVAR loading on each of the below noted overloading T/F's is as under:

<b>MVA, KV</b>	<b>Station</b>	<b>%age load</b>	<b>MW</b>	<b>MVAR</b>
100, 220/132 kV	Verpal	92.36	90.51	19.39
100, 220/132 kV	Verpal	92.36	90.51	18.37
40/50, 132/66 kV	Naraingarh T2	90.04	44.12	8.96
40/50, 132/66 kV	Naraingarh T4	94.16	46.13	9.36
100, 220/132 kV	Moga T1	99.00		One Amperemeter installed
100, 220/132 kV	Moga T3	99.00		-do-
100, 220/66 kV	Sunam T1	96.18	92.33	26.93
100, 220/66 kV	Sunam T2	96.18	92.33	26.93
100, 220/66 kV	Sunam T4	96.94	93.06	27.14
100, 220/66 kV	Jagraon T1	91.02	90.11	12.84
100, 220/66 kV	Jagraon T4	91.02	90.11	12.84
100, 220/132 kV	Mahalpur T5	97.30	95.35	19.31
100, 220/132 kV	Mahalpur T4	97.03	95.09	19.26
50, 132/66 kV	Mahalpur T2	96.00	47.04	9.55
100, 220/66 kV	Sultanpur T1	96.18	94.25	19.14
100, 220/66 kV	Sultanpur T6	96.18	94.25	19.14
50, 132/66 kV	Sultanpur T3	91.52	44.20	11.83
50, 132/66 kV	Sultanpur T5	91.52	44.20	11.83
50, 132/66 kV	Nawanshahar T3	94.26	43.83	17.32

In no case the reactive power is on higher side resulting power factor below 0.90.

#### **View of the Commission**

Commission agrees with the reply of PSTCL.

#### **Objection No. 4: Chief Engineer/ARR & TR, PSPCL**

##### **Issue No. 1: Transmission Losses**

In its ARR & tariff Petition, the PSTCL has compared the transmission losses proposed by it with other states and has stated that in the formative years, most of the states have witnessed very high losses. Hence the losses at the rate of 4.5% as proposed by PSTCL are

reasonable when compared with other states. However, PSPCL would like to submit that the transmission losses are dependent on the maintenance of the transmission network and the plea that PSTCL is in its formative years and hence should be allowed higher transmission losses does not hold any basis. The transmission network of PSTCL is well maintained and does not warrant allowances of such high transmission losses as claimed by PSTCL.

Further, PSPCL has claimed T&D losses of 17.5% and 17% respectively for FY 2011-2012 and FY 2012-13 in its ARR & tariff petition which are inclusive of transmission losses of PSTCL as well and are already very low. Since the losses incurred in a distribution network are much higher as compared to the transmission network, hence it is prayed that the Hon'ble Commission should allow transmission losses to PSTCL only to the tune of the approvals granted in the previous year after deduction of further reduction expected from the transmission utility towards efficiency improvement.

#### **Response of PSTCL**

The Hon'ble Commission is requested to approve the transmission loss of 4.0% as comparable with the transmission loss of Maharashtra and Chhattisgarh as already submitted in detail in the ARR Petition citing references of the other states Transmission Losses/Tariff orders/CEA Tariff Policy.

#### **View of the Commission**

The objection and the response are noted. However, the Commission has provisionally approved Transmission losses as 2.5%.

#### **Issue No.2 Payment Security Mechanism (Para 4.18 of ARR of PSTCL)**

PSPCL has already concurred to provide LC to PSTCL towards transmission charges. However, providing additional security of escrow cover was not agreed by the company.

#### **Response of PSTCL**

The Hon'ble Commission is requested to approve the payment security mechanism in the form of letter of credit and Escrow arrangement as detailed out in the ARR petition.

#### **View of the Commission**

The issue is dealt in Chapter 5 para 5.5 which may please be referred to.

#### **Objection No.5: Government of Punjab**

Department of Power, GoP has conveyed its observations on the ARR of PSTCL in its letter dated 13.6.2012 which are summarized hereunder, along with the view of the Commission.

#### **Issue No. 1: O&M Expenses**

O&M Expenses as submitted by PSTCL in the instant Tariff Order are less as compared to the O&M Expenses calculated according to CERC Norms, even without considering 66 kV bays maintained by PSTCL. So the Commission is requested to allow the same on merits.

#### **View of the Commission**

The Commission has allowed the O&M expenses of PSTCL in accordance with the provisions of PSERC Tariff Regulations which provides for allowing O&M expenses for transmission functions within the State as far as possible by the principles and methodologies specified by CERC in the matter. However, the Commission has to keep in mind the fact that the CERC Regulations mainly relate to inter-state transmission of higher quantum of energy on extra high voltage over long distances, whereas the transmission tariff to be determined by the Commission will be relating to intra-state transmission of lower quantum of energy at relatively lower voltage and over short distances. This issue has been discussed in paras 3.5 & 4.6 of this Tariff Order.

#### **Issue No. 2: Employee Cost**

The employee expenses of PSTCL as reflected in the instant ARR are comparable with that approved by the Commission in last Tariff Order. In the past also, the State Government had been supporting the contention that actual employee cost should be allowed as pass through as it is a legitimate historical component of the cost of supply and a committed liability of erstwhile PSEB. The Employee Cost is the genuine cost of the Utility, which can in no way

be reduced as the Terms & Conditions of an employee can in no way be changed to his disadvantage during the course of his service. The Commission may, therefore, consider allowing the Employee Cost on an actual basis.

#### **View of the Commission**

PSTCL has been carved out after un-bundling erstwhile PSEB and as such it has the legacy of high employee cost of the erstwhile PSEB as has been observed by the Commission in its successive Tariff Orders. The work-force of the Successor Entities is yet to be rationalized and the assets and the liabilities of the Successor Entities have not been finalized as yet. The Commission has allowed the employee cost to the utility in accordance with the PSERC Tariff Regulations which do not provide for allowing employee cost on actual basis as suggested by the Govt. This issue has been discussed in paras 3.4 & 4.5 of this Tariff Order.

#### **Issue No. 3: Capital Expenditure**

PSTCL has submitted Capital Expenditure of Rs.1042.39 Crore and Rs.1100.66 Crore during FY 2011-12 and FY 2012-13 as the PSTCL is undertaking 400 kV Transmission works related to Talwandi Sabo Power Project and Rajpura Thermal Power Project. Therefore, the Capital expenditure projected to be undertaken during FY 2012-13 cannot be estimated on the basis of previous trends, as the Capital expenditure for FY 2012-13 includes 400 kV Transmission work also. Because of the capacity addition in the State Generation capacity, appropriate Transmission capacity is also required to be created, so the Commission is requested to allow these expenses on an actual basis.

#### **View of the Commission**

The Commission has approved an investment of Rs. 800.00 crore for the year 2011-12 in para 3.8.3 of this order in view of actual expenditure of Rs. 459.15 crore incurred upto December, 2011 against Rs.1042.39 crore. However, the Commission has approved an investment of Rs. 1100.00 crore for the year 2012-13 in para 4.9.2 of this order.

#### **Issue No. 4: SLDC Fund**

The SLDC is a backbone of the State's power sector. Its financial, operational and technical viability has to be maintained at every cost. PSTCL in its ARR Petition has requested to create SLDC Development Fund, in which surplus, if any, generated from SLDC business can be deposited for future utilization in the SLDC business. The CERC (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2009 provides for a special provisioning for development of Load Despatch Centre through creation of LDC Development Funds. However, there is no Regulation at present which specifies the Terms & Conditions of the working and development of SLDC in the State of Punjab. The Commission is requested to devise a mechanism to this end.

#### **View of the Commission**

The Commission has advised PSTCL in para 5.6 of this Order to file a separate Petition for amendment of existing Regulations in this context.

#### **Issue No. 5: Secure Payment Mechanism**

The Commission is requested to examine all aspects of payment security mechanism as requested in the instant ARR, on merits and may devise a stable payment security mechanism in the best interest of all the Stake holders.

#### **View of the Commission**

The Commission has considered the request of PSTCL in this regards and has decided accordingly in Para 5.5 of this Order.

Apart from the above points, Govt. has requested the Commission to take care of all the directions/ advisories of Ministry of Power, GOI concerning general well being of the Utilities while pronouncing the Tariff Order.

In this regard, it is mentioned that the Commission has invariably followed those directions/advisories of Ministry of Power, GOI, which are as per the Electricity Act, 2003, Tariff Policy and National Electricity Policy in the interest of consumer and general well being of the Utilities.





**Minutes of the Meeting of State Advisory Committee of the Punjab State  
Electricity Regulatory Commission held on February 14, 2012.**

The meeting of the State Advisory Committee was held in the office of the Commission at Chandigarh on February 14, 2012. The following were present:

- |     |  |                        |
|-----|--|------------------------|
| 1.  | Mrs. Romila Dubey<br>Chairperson, PSERC  | Ex-officio-Chairperson |
| 2.  | Er. Virinder Singh,<br>Member, PSERC   | Ex-officio-Member      |
| 3.  | Er. Gurinderjit Singh<br>Member, PSERC   | Ex-officio-Member      |
| 4.  | Sh. S.S.Randhawa, Asstt. Labour Commissioner<br>On behalf of Labour Commissioner,<br>Govt. of Punjab, Chandigarh                         | Member                 |
| 5.  | Sh. D.L.Sharma Convenor, CII,<br>On behalf of Chairperson, CII,<br>Punjab State Council, Sec-31, Chd.                                    | Member                 |
| 6.  | Shri R.S.Sachdeva, Co-Chairman<br>PHDCCI, Punjab Committee<br>Sector-31-A, Chandigarh  | Member                 |
| 7.  | Shri H.K.Sharma, Senior Electrical Engineer<br>On behalf of Chief Electrical Engineer<br>Northern Railway, Baroda House, N.Delhi- 110001 | Member                 |
| 8.  | Shri Aishyaraya Sharma, Asstt. Engineer-II<br>On behalf of Director Agriculture,<br>Deptt. of Agriculture, GoP, Chandigarh               | Member                 |
| 9.  | Sh. U.K.Panda,<br>Director/Finance & Commercial<br>PSTCL, The Mall, Patiala  | Member                 |
| 10. | Er. Arun Kumar Verma<br>Director/Distribution,<br>PSPCL, The Mall, Patiala   | Member                 |
| 11. | Er. N.S.Matharu,<br>Chief Engineer/ARR & TR, PSPCL<br>F-4,Shakti Vihar, Near 22 No. Fatak<br>Patiala.                                    | Member                 |
| 12. | Er. S.K.Anand<br>(Ex-Member, PSEB)<br>68, Ajit Nagar, Patiala  | Member                 |

- |     |   |           |
|-----|---|-----------|
| 13. | Er. Suresh Gupta<br>(Ex-member, PSEB)<br>1, Mayur Enclave, Near Kaintal School,<br>Bhupendra Road, Patiala  | Member    |
| 14. | Shri G.S.Bhati, Zonal Manager<br>On behalf of Chief Project Manager,<br>Rural Electrification Corporation Ltd.,<br>REC Project office Bay 7-8, Sec-2, Panchkula | Member    |
| 15. | Shri Bhagwan Bansal<br>Punjab Cotton Factory, Ginners Association Regd.<br>Shop No.109, New Grain Market, Muktsar.  | Member    |
| 16. | Shri Jagtar Singh<br>Director, Social Work & Rural Development Centre<br>VPO Nurpur Bedi, Distt. Ropar  | Member    |
| 17. | Shri Gurmeet Singh Palahi,<br>Secretary, National Rural Development Society,<br>218, Guru Hargobind Nagar, Phagwara Distt.. Kpt.                                | Member    |
| 18. | Shri T.P.S.Sidhu<br>Chief Executive Officer,<br>PEDA, Plot No.1, Sector-33-D, Chandigarh  | Member    |
| 19. | Er. P.S.Jindal,<br>Secretary, PSERC   | Secretary |

#### **Special Invitee**

1. Shri Pishora Singh,  
Bhartiya Kisan Union (Ekta)  
Vill. Sidhupur P.O. Malko Majra,  
Teh. Sirhind Distt. Fatehgarh Sahib.
2. Shri Amrik Singh,  
Khalilpur, Dera Baba Nanak,  
Distt. Gurdaspur (Punjab)

The Chairperson, Punjab State Electricity Regulatory Commission (PSERC), welcomed the members of the State Advisory Committee. Thereafter, she requested the members to offer their valuable suggestions on the issues emerging from the Annual Revenue Requirement (ARR) of PSPCL and PSTCL for 2012-13.

1. **Shri T.P.S. Sidhu, Chief Executive, PEDA** suggested that the ARR filed by PSPCL should include firm proposals to comply with its Renewable Purchase Obligation (RPO) prescribed by the Commission in Punjab State Electricity Regulatory Commission (Renewable Purchase Obligation and its compliance) Regulations, 2011. Concurring with the same, Chairperson, PSERC desired that PSPCL also needs to indicate source-wise

and technology-wise RE power purchase in the ARR under a separate sub-head of Generation/Purchase of electricity from Renewable Energy Sources. Chairperson advised Director/Tariff to call for the requisite information from PSPCL so as to include the same in the Tariff Order of 2012-13.

Shri R.S. Sachdeva, from PHDCCI informed that the Indian Institute of Technology, New Delhi had developed a solar energy based water pump for tube-wells and suggested that this be considered for installation to bring down the consumption of electricity by the agriculture sector. Chief Executive, PEDDA informed the house that such pumps have already been tried out at three places in Punjab on experimental basis but the proposal was not financially viable due to low water table. He further informed that Govt. of India offers a subsidy of only 30% against the actual installation cost of Rs.6 lac for running a 7.5 H.P. motor on solar energy. However, he stated that the matter has been taken up with the Ministry of New & Renewable Energy, Govt. of India for increasing the subsidy besides requesting the Govt. of Punjab to consider giving a matching subsidy.

**2. Shri D.L. Sharma, Convener, CII** observed that the impact of cross subsidy was higher on the industrial sector viz- a- viz other sectors/categories. He also pointed out that PSPCL in the ARR had projected expenses which were in excess of admissible norms by almost Rs. 2000/- crore. He made the following suggestions:

- As per National Tariff Policy, cost of supply needs to be determined and the tariffs need to be set in such a way that cross subsidy levels are within  $\pm 20\%$  of average cost of supply by 2011. He was of the view that cost of supply should be determined for all categories of consumers.
- Appropriate/justified costs should only be allowed.

Shri D.L.Sharma was of the view that there is discrimination in the Two Part Tariff proposal. He pointed out that Two Part Tariff should be designed on more consumption less cost per unit methodology whereas the proposal was otherwise. It was his apprehension that the Two Part Tariff proposal would discourage industrial consumers from obtaining power through open access.

The Chairperson informed the house that the Two Part Tariff proposal submitted by PSPCL would be examined by the Commission before initiating process of implementation.

Er. Arun Kumar Verma, Director/Distribution, PSPCL informed the house that the proposal regarding cost of supply would be submitted by May, 2012.

Besides above views given in the meeting, Sh. D.L. Sharma of CII also submitted detailed written comments which are annexed as annexure-A.

- 3. Mr. R.S. Sachdeva, PHDCCI** requested that industry's view point as represented through various objections should be taken cognizance of while finalizing the Tariff Order for 2012-13. He appreciated the initiative to reduce T& D losses through the process of remote metering of large supply consumers. He, however, pointed out that expenses claimed in the ARR for FY 2010-11 and 2011-12 were on the higher side and should not be allowed.

He also made the following suggestions:

- Cross subsidization should be reduced.
- AP consumption should be capped.
- Power cuts should be imposed instead of buying power at higher rates. Charges on continuous process industries should be limited to the period of power cut and not for full month.
- RoE should not be more than 3% if the company shows loss, whereas PSPCL is claiming RoE @ 23%.
- The proposal regarding Two Part Tariff is not logical and should not be considered.
- No new thermal plant should be allowed in the State of Punjab. Instead pit head thermal plants or hydel generation should be considered.
- The category wise cost of supply should be determined at the earliest and the tariff order should be issued after such determination.

- 4. Mr. Anurag Puri**, present on behalf of PHDCCI observed that no tariff proposal has been submitted by PSEB/PSPCL in its ARR during the last 2/3 years.

He was of the view that various norms set by PSERC should be closely monitored. He also suggested that at the time of review/True-up, PSPCL must not submit the expenses beyond norms. He asserted the need to cap AP consumption as a result of which industry was forced to go for open access. He opined that there was no need to switch over to Two Part Tariff (TPT) and the Commission should wait for cost of supply study report before introduction of Two Part Tariff. Further, he suggested that following points be kept in view while examining the ARR /Two Part Tariff proposal of the Corporation:

- Staggering of cost should be on fixed cost and not on energy charges in TPT proposal.

- TPT should be based on load curve and not on utilization factor.
- Continuous Industry is drawing power during peak load hours and paying PLEC. So, additional 10 paise/unit is not justified.
- Two Part Tariff proposal is a camouflage to discourage open access.
- Third unit of GNDTP Bathinda is under shutdown for almost two years. Fourth unit of GNDTP Bathinda is also closed due to some pollution problem as a result of which there is loss of generation of around Rs. 200 crore.
- Power purchase is essentially on account of AP consumers.

Er. N.S. Matharu, CE/ARR&TR clarified that the Two Part Tariff proposal submitted by PSPCL is not for FY 2012-13. Moreover, it is designed to be revenue neutral with reference to already approved tariff for the year 2011-12.

Er. Arun Kumar Verma, Director/Distribution clarified that third unit of GNDTP has been shut down due to R&M and it was planned to be commissioned on 1.1.2012 but the commissioning was delayed and the unit was now expected to be commissioned in April 2012. He also informed that the fourth unit of GNDTP Bathinda is closed for R&M. A majority of Members of the Advisory Committee were of the view that there is need to expedite the commissioning of the said units.

**5. Er. Suresh Gupta, Ex Member, PSEB** offered the following suggestions:

- In paddy season, the AP losses should be separately considered as these are on higher side. This factor should be considered while determining the Cost of Supply to AP.
- Connected load concept for DS consumers in TPT proposal should be avoided.

**6. Er. S.K. Anand, Ex-Member, PSEB** appreciated the fact that T&D losses in the State of Punjab were one of the lowest in the country despite the fact that AP/paddy load has doubled during the last 10 years due to water level going down, use of submersible pump sets & release of new tubewell connections.

He offered the following suggestions:

- Punjab Govt. should be asked to pay AP subsidy at Cost of Supply tariff like Haryana.
- Drastic measures were needed to improve the financial health of the Corporations.

- Employee strength in the distribution sub divisions is only 60% of the sanctioned strength as a result of which work is suffering and this needs to be looked into.

7. **Mr. Pishora Singh, BKU** informed the house that Cost of distribution transformers had increased from Rs. 33000/35000/- to 55000/- and the transformers of consumers were not being passed/cleared by the distribution licensee. He was of the view that VDS for AP category should not be closed and should continue throughout the year as the farmers can ascertain loads required for motors due to reduced water tables during its operation only. Also, the capacity of the motor should be properly checked by the checking staff at rated voltage only so that AP consumers are not unnecessarily harassed by declaring higher capacity.

Director/Distribution clarified that AP consumers can install their own transformers but these have to meet the specifications laid down by PSPCL. He informed the house that many transformers installed by AP consumers do not pass the specifications laid down by the Utility.

8. **Er. H.K. Sharma, Sr. Elect. Engineer, NR, Delhi** made the following observations/suggestions.

- That Railways are laying electrification system for 400 kilometer line in Mukerian for which they will require additional connection and requested for tariff as for HT industry category.
- Tariff to railways is more than as for HT industry. Railways must get a reasonable tariff.
- T&D losses affect the consumers and need to be controlled.
- Cumulative revenue gap should be reduced by taking effective steps.
- Security deposit in the shape of bank guarantee instead of cash should be accepted from railways.
- Two Part Tariff should have the provision of charging the demand/fixed charges as per actual CD instead of sanctioned CD.
- Proper maintenance of electricity system crossing the railway lines should be carried out to avoid snapping of conductors leading to accidents/disruption in running of trains.

9. **Mr. Bhagwan Bansal, Pb. Cotton Factory Ginners Assn.** stressed that Two Part Tariff should not be implemented for Cotton Ginning Industry since 60 to 70% Cotton Ginning Industry consumers were not consuming the power equivalent to MMC. Most

of the industries were in fact not getting enough raw materials to run the industry even to cover up the Monthly Minimum Charges. He was also of the view that no off season charges should be levied.

**10. Shri G.S. Bhati, Zonal Manager, REC** appreciated the reduction in T & D losses shown by the Utility. He also appreciated the coal planning of PSPCL thermal station vis-a-vis the state of deficit of coal in various other States. He, however pointed out that in spite of good performance by the PSPCL, PSPCL is in financial straits and suggested that the Commission may use a rational approach while determining the ARR/Tariff.

**11. Mr. U.K. Panda, Director/Finance & Commercial, PSTCL** offered the following comments:

- Suo Motu proceedings on amendment to Tariff Regulations should be taken up by PSERC.
- There is no provision in the Companies Act for 3% Return on Equity (ROE). CERC Regulations allow 23%, so claimed accordingly.
- SLDC should not be Trued-Up. Surplus should be used for upgrading/introduction of better IT system of SLDC.
- While disallowing the expenses, the Commission must keep in view the ground reality of the Utility.

Besides above views given in the meeting, Sh. U.K. Panda submitted detailed written comments which are annexed as annexure-B.

**12. Er. Arun K. Verma, Director Distribution, PSPCL** apprised the Members of the State Advisory Committee about the various measures taken by PSPCL for reduction of losses and ensuring better quality of supply to its consumers. Among the various measures, the following were highlighted by him:

- Deloading of feeders.
- Deloading of distribution transformers.
- Segregation of AP feeders.
- Replacement of old conductor.
- Losses in Patiala town brought down by 5%.
- Addition of line capacitors.
- Shifting of meters outside the premises.



Er. Arun Kumar Verma also requested the Commission to review the disallowances in expenditure being made by the Commission.

The Chairperson thanked the members of the State Advisory Committee for sparing their valuable time to offer suggestions and assured the house that their suggestions would be considered during the course of finalization of tariff.

**CII comments on ARR/TP for FY 2012-13**

P SERC has invited objections/suggestions on the PSEB's ARR and Tariff Application for 2012-13 and True-up for 2009-10 on actual basis and for 2010-11 on revised estimate bases.

PSEB in its ARR 2012-13 has projected the cumulative revenue gap of FY 10-11, FY 11-12, FY 2012-13 at Rs. 8983.97 crore (Rs. 2559.14 cr for FY 09-10, Rs. 1612.46 crore for FY 11-12 and Rs. 3966.73 crore for FY 12-13 and Rs. 845.65 crore as carrying cost on previous year gap/regulatory assets. Some of the major issues are flagged below:

The Board is regularly filing its revised revenue requirement based on actual Balance Sheet figures without excluding the portion of expenditure disallowed by the Commission based on certain provisions of the Act while passing Tariff Order. Therefore, the Board should be directed to file a separate Income and Expenditure Account along with balance sheet based on costs as approved by the Commission from year to year so that a clear picture may emerge and a comparison may be drawn between the actual expenditure and approved expenditure of the Board.

The power supplied to agriculture sector has been growing consistently at very high rate. Providing the power at the subsidized rate which is far less than the actual cost of power purchase (as high as Rs.5/unit- Rs. 6/unit) will lead to serious financial crises for the Board and ultimately seriously affects the interest of industrial consumers in the State, which are already reeling under recession. Therefore, it is imperative to cap the maximum amount of power year-wise and approved by the Commission that can be supplied to agriculture sector at subsidized rate inclusive of additional connection projected in a year.

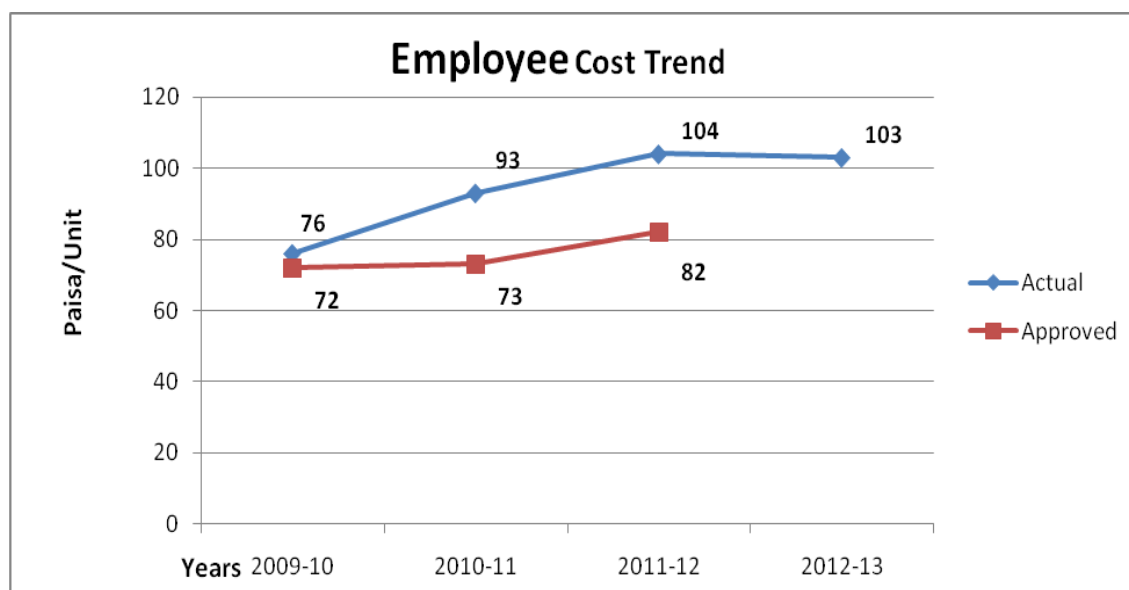
We have compared the head-wise expenses claimed by the Board for FY 2010-11 on actual basis with the approved expenses for the same period. While carrying out this exercise, we have followed the norms/guidelines followed by the Commission in the relevant Tariff Order as well as the P SERC's Regulations for Tariff Determination. It is found that the Board has claimed expenses on actual basis and not on the norms prescribed/followed by the Commission for approving expenses for various heads. If the expenses are based on approved norms, there would be almost no to negligible deficit will be there requiring no increase in tariff. At the most, some increase in subsidized class of consumers can help in meeting the deficit.

	Approved	Claimed	Excess claimed
Employee Cost	2482.37	3102.09	620.00
Return on Equity	366.47	607.55	241.00
Interest charges	1086.00	1674.03	588.00
Prior period expenses	0.00	368.98	369.00
Total	3934.84	5752.65	1818.00
Total ARR	14512.49	16378.00	1866.00
%age share of above in total excess claimed expenses			97%

Source: Table 35 of ARR for FY 2012-13, page 40.

### High Employee Cost for 2012-13

The analysis of ARR reveals that at most of places the Board has simply repeated its inability to control expenses like employee cost year after year and no new argument has been forwarded to revise the various component of employee cost upwardly. However, most of these arguments have been already considered by the Commission in its previous Tariff Order. The following chart reveals the employee cost per unit, which has been growing year after year and also capture the difference between the employee cost approved by the Commission and claimed by the Board. Therefore, increase in expenses asked by the Board should not be entertained and employee cost should be capped at approved level, however, if the same is to be increased it should be increased to cover the increase in terminal benefits and WPI.



### Cross Subsidy given by the L.S. consumers

National tariff policy stipulates that tariff progressively reflects the cost of supply of electricity and tariff should be within plus/minus 20% of the average cost of supply by FY 2010-11.

Therefore, the tariff of the subsidized class of consumers including agriculture sector and selected domestic subsidized categories (who are receiving subsidy) should be increased in such a way to reach in the range of 20% of combined average cost of supply in the current tariff order.

It is submitted that category wise cost of supply should also be worked out. It is pertinent that despite of repeated directions from the Commission from 2003 onwards, the Board has not complied with the directions or may not be doing so willfully.

We have been submitting to the Hon'ble Commission that category wise cost of supply need to be worked out to determine the cost of supply for different categories of consumers and level of cross subsidy should be calculated accordingly. As the Board has not been able to provide the necessary details for calculation of category wise cost of supply, we submit to the Hon'ble Commission to determine the cost of supply based on the available information. In this regard, we would like to submit that even in the absence of complete information from Board, Himachal Pradesh Electricity Regulatory Commission had determined category wise cost of supply for LS consumers, which is 60% of the average cost of supply. Therefore, to reduce the cross subsidy burden on LS consumers and fix the tariff based on category wise cost of supply, tariff of the LS consumers may be rationalized and tariff for subsidized class may be increased.

### **Two Part Tariff**

PSPCL has submitted a proposal for implementation of two part tariff for approval of Hon'ble PSERC. This tariff structure is designed to account for:-

- Capacity charge (usually based on fixed costs) which is priced at Rs./KVA and
- The energy charge (usually based on the variable costs) which is priced at Rs./KWH.

There are some issues that need to be addressed prior to implementation and approval of Hon'ble Commission. These are summarized below:-

- a. Fixed costs are associated with the capacity tariff and include wages, operation & maintenance, depreciation, return etc. These costs do not change with the amount of energy produced. The Board has proposed very high charges for the large supply (power intensive unit/continuous process industry), which is Rs.240/KVA against Rs.120/KVA for power intensive units having contract demand less than 1 MVA. There is no rationale in charging higher fixed charges from former category of consumer.

- b. Variable costs are directly related to the amount of electricity produced and transmitted to companies and include fuel costs. This cost per KWH decreases with increase in the quantum of electricity production. PSPCL has adopted the utilization factor for levying billing rate on the entire consumption. In the PSPCL proposal the energy charges increase with increase in utilization factor. For example, for large supply general industry power intensive and continuous process industry, the energy charges are 312 paise per KWH for utilization factor upto 21% and paise 452/Unit for utilization factor above 82%. The proposal needs review as the reduction in production cost with increase in electricity production should accordingly benefit the consumer as electricity cannot be stored. It is better utilization factor of the consumer installation resulting in improved loading factor of the generator and transmission system. The proposal benefits industries having low utilization factors and punishes those who run the factories round the clock. In other words the consumer should be given incentive for improving load factor of his installation.

The Board has proposed to charge 10 paise per unit on continuous process industry consumers. In over view, charging such addition charge is against the accepted principle of tariff determination as well as against the section 61 of the Electricity Act, 2003 which stress upon non discrimination among different category of consumer. We strongly plead to the Hon'ble Commission to not to accept such tariff proposal from the utility.

### **Promote Open Access**

The two part tariff is de\signed in such a way to discourage open access consumers. By proposing high fixed charges, the Board has ensured that the fixed cost burden on the open access consumer would increase and therefore power under open access would not be attractive for him. It is submitted that the open access should be promoted in the State.

14-2-2012

Sd/-  
(D.L. Sharma)  
Convener, CII

**Comments by Shri U.K. Panda, Director, Finance and Commercial**

1. The FRP will which include opening balance sheet as on 16-4-2010 and the business plan of both the successor utilities are yet to be finalized. The principle adopted in the Transfer Scheme for writing off the cumulative loss of PSEB to enable the successor utilities to start with a clean slate and the issues regarding funding for terminal liabilities are to be addressed by the State Govt. while finalizing the FRP.
2. Adoption of norms as per Tariff Regulations for allowing O&M expenses by the Hon'ble Commission has affected the financial position of the utility. In so far as PSTCL is concerned, the norms of allowing increase on the basis of WPI, as contained in the Tariff Regulations, are not applicable and Hon'ble Commission may consider O&M expenses as submitted by PSTCL.
3. There are no provisions under the Companies Act, 1956 to allow 3% Return of Equity to the Companies. This 3% return was applicable to the Board. PSTCL is entitled to Return on Equity as per the PSERC Regulations and CERC Regulations.
4. Hon'ble Commission in the last Tariff Order had allowed capital expenditure by extrapolating the actual expenditure incurred up to 31<sup>st</sup> December. The revised proposal and capital expenditure proposed for FY 2011-12 and the 2012-13 is based on the expected targets of 400 KV systems for evacuation of power from Talwandi Sabo and Rajpura generating stations which may be allowed by the Hon'ble Commission.
5. PSTCL has proposed creation of SLDC Fund which is in line with CERC Regulations and the practice being followed by other State Regulatory Commissions. Any surplus revenue of SLDC may be allowed to be transferred to SLDC fund which will be utilized for capital expenditure by SLDC with the prior approval of the Hon'ble Commission.

Sd/-

(U.K. Panda)

Director/Fin. & Comm, PSTCL



**PSERC DIRECTIVES**

- A. An overview of the Directives issued to the Board and its successor entity PSTCL in the Tariff Orders for FY 2010-11 and FY 2011-12 and status of their implementation is summarized below:

<b>Sr. No.</b>	<b>Issue</b>	<b>Directive in Tariff Order FY 2011-12</b>	<b>PSTCL's reply</b>	<b>PSERC's comments</b>
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.	Action is being taken to provide shunt capacitors as per planned capacity to make transmission lines to operate at a power factor nearest to unity.	The Commission has taken note of the proposed action of PSTCL. PSTCL shall compile online power factor data on monthly basis and submit to the Commission.
2	<b>Employee Cost</b>	The Commission directed PSTCL a) To finalise the Work Study Report on Manpower and submit implementation Action Plan to the Commission. b) Carry out cost benefit analysis of unmanned stations and planned for their further roll out. c) Provide training to officers and staff to handle 400kV, 220kV and 132kV systems along with communication systems as per provisions of IE Rules 1956, National Training Policy and PSEB Training Policy. d) Application of modern management techniques across PSTCL to optimize its functioning and efficiency be undertaken.	a) PWC Work Study Report on Manpower was put up to Board of Directors of PSTCL. Board of Directors constituted a Committee comprising of Director (Finance & Commercial), Director (Technical) and Special Secretary, Power, Government of Punjab. The Committee is in process of examining the report and it will put up its recommendations to the Board of Directors of PSTCL for its approval. PSTCL will submit the implementation Action Plan to the Hon'ble Commission, once the report is approved by Board of Directors of PSTCL.  b) Cost benefit analysis is being carried out.  c) Adequate training to officials & officers is being imparted regularly.  d) Study of Modern Management Techniques is being carried out and will be implemented shortly.	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 that the decision is taken early. 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.  b, c, d) Brief report



Sr. No.	Issue	Directive in Tariff Order FY 2011-12	PSTCL's reply	PSERC's comments
				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.
3	<b>Loading Status of PSTCL transmission lines and sub stations.</b>	<p>PSERC directed PSTCL to display the list of overloaded transmission lines and sub stations along with works planned and their target dates of commissioning.</p> <p>Additional 220kV &amp; 132kV sub station and transmission lines to transfer additional power to PSPCL's sub transmission system (66kV &amp; 33kV) be planned and executed</p>	<p>The list of overloaded Transmission Lines &amp; S/Stations relating to PSTCL along with planned works has been displayed on PSTCL website.</p> <p>The loading of Grid substations/lines has been carried out as per system requirements. PSTCL will be able to control overloading of substations as well as transmission lines completely by the end of FY 2012-13.</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 be prepared and submitted to the Commission within two months of issuance of this Tariff Order.</p>
4	<b>Financial Autonomy and Independent functioning of SLDC</b>	The Commission directed PSTCL to ensure financial autonomy and independent operation of SLDC at the earliest.	<p>As a measure to ring fence the operation of SLDC for its independent functioning, SLDC has started operating as a separate accounting unit of PSTCL with effect from FY 2011-12. In order to ensure independent operation of the SLDC accounting unit, the following measures have been taken:</p> <p>a) The Accounting Officer (Open Access) has been re-designated as Accounts Officer (SLDC) as the Incharge of Finance and Accounts wing of SLDC to ensure its operation as a separate accounting unit. The Accounts Officer is reporting directly to Chief Engineer(SLDC), Patiala and is responsible for maintaining of accounts of SLDC.</p> <p>b) The salary and other employee related payments of all the officers/employees posted under Chief Engineer (SLDC) including</p>	The Commission has taken note of the compliance of the directive.

Sr. No.	Issue	Directive in Tariff Order FY 2011-12	PSTCL's reply	PSERC's comments
			<p>other payments are being made at the level of Accounts Officer, SLDC, only.</p> <p>c )Separate ARRs are being filed for SLDC Functions since FY 2011-12.</p>	
5	<b>Boundary metering</b>	The Commission directed PSTCL to take necessary steps to install the energy meters at various 220 kV and 132 kV substations at the earliest.	<p>RFP No. SLDC/115/2011 for implementation of Intrastate Boundary Metering Scheme based upon ABT Energy Meters in Punjab was floated in Jan. 2011. However, the final purchase proposal had to be scrapped by the committee of Whole Time Directors of PSTCL due to commercial reasons during Sept. 2011.</p> <p>Now RFP SLDC/116/2011 has been floated after including Conventional Energy Meters for Intra-transmission energy audit along with ABT meters for Intrastate Boundary Metering. Received bids have been opened on 02.02.2012. Tenders are under Techno-Commercial Evaluation along with Compulsory (Minimum Pass/Fail Criteria) Demonstration/Testing/Presentation of the proposal especially in respect of communication activity specified for remote metering for the project. Tentatively, award shall be decided by June 2012 and basic implementation of Boundary metering shall be in place by December 2012.</p>	<p>The Commission has taken note of action taken.</p> <p>The work of Boundary metering may be got completed at the earliest to arrive at correct transmission losses in PSTCL system.</p>
6	<b>Maintenance of category-wise details of fixed asset</b>	The Commission directed PSTCL to maintain the category-wise details of assets as per provisions of the Companies Act, 1956.	M/s Sushil Jeet Puria & Company, the consultant were appointed by PSEB to prepare fixed asset register. Their contract has been extended to prepare fixed asset register as on 16.04.2010 of both PSTCL & PSPCL. After the availability of report of the consultants and notification of Opening Balance Sheet, PSTCL will take necessary steps to prepare Fixed Asset register for its area of operation.	The Commission has taken note of action taken. PSTCL shall report when the Fixed Asset Register is likely to be finalized.
7	<b>Adequacy of existing switchgear and earthmats to PSTCL substations</b>	a) The Commission directed PSTCL to undertake the short circuit studies to check adequacy of rupturing capacity of the existing	a) PSTCL has conducted in-house study based on the directive of the Commission and found that short circuit current of all the substations is within permissible limits.	The Commission has taken note of compliance of the directive. A report in this regard may be submitted to

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		<p>switchgears installed and suitability of the existing earthmats to absorb the short circuit current.</p> <p>b) The Commission further directed PSTCL to undertake the activity of replacement of switchgears and strengthening of earthmats wherever required and to maintain earthing parameters as per IEEE Earthing Guide 80.</p>	<p>b) PSTCL has also measured earth mats resistivity of each of the substations and has taken corrective actions in some cases where it has found that earthing parameters were not as per IEEE Earthing Guide 80.</p>	<p>the Commission by PSTCL.</p>

## B. NEW DIRECTIVE

Sr. No.	Issues	Directive in Tariff Order FY 2012-13
1.	Coordinated planning of transmission and sub transmission works.	PSTCL & PSPCL shall coordinate planning of transmission works (400, 220 & 132 kV) and sub transmission works (66 & 33 kV) so that there is no bottleneck in delivering power at the consumer end. A coordination committee of both companies may be notified and made responsible for compliance of this directive.