**ANNEXURE-I**

## List of Objectors

| Objection No. | Name & address of the objector |
|---|---|
| 1 | Shri P.C.Dewan, Induction Furnace Association of North India, Room No.212, $2^{nd}$ Floor, Savitri Complex, G.T.Road, Ludhiana-141003 |
| 2 | Shri Bhupinder Singh, General Secretary, PSEB Engineers' Association,<br>45, Ranjit Bagh, Near Modi Mandir, Passey Road, Patiala. |
| 3 | Shri A.Puri, General Manager, (Proj. & Materials), Punjab Alkalies & Chemicals Limited, SCO 125-127, Sector 17-B, Post Box No.152, Chandigarh-160017. |
| 4 | Er Padamjit Singh,<br>Patron, PSEB Engineers Association, 45, Ranjit Bagh,<br>Opp. Modi Mandir, Patiala-147001. |
| 5 | Punjab State Power Corporation Ltd. The Mall, Patiala |
| 6 | Government of Punjab |

**ANNEXURE-II**

**Objections filed by various stakeholders, response 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 received 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: Induction Furnace Association of Northern India**
**Issue No. 1: ARR Petition**
The ARR presented by PSTCL contains highly inflated figures on almost all the issues without reporting the present status of most of the projects envisaged.
**Response of PSTCL**
The contention of the objector association that ARR contains highly inflated figures is not correct for the reasons given in the following responses to the respective issues.
**View of the Commission**
The Commission processes the ARR according to the notified Regulations, determines costs under various heads to arrive at the cumulative revenue gap and accordingly revises the tariff.

**Issue No. 2: Capital Expenditure**
The progress of 400 kV Muktsar, Makhu and Nakodar substations has not been given. Also, the present status of other 400 kV lines has not been given. Projected capital expenditure of Rs. 1367 crore for FY 2011-12 appears to be unrealistic.
**Response of PSTCL**
PSTCL has engaged Power Grid Corporation of India Limited (PGCIL) for consultancy services and turnkey execution of 400 KV transmission system associated with Talwandi Sabo transmission Project. The progress of the project is as under:

i. The order for procurement and erection works of all the 400 kV Sub-stations related to Talwandi Sabo TPS has been placed.
ii. The land for all these Sub-stations has been acquired and initial civil works have already started.
iii. Orders for procurement and erection work for 400 kV transmission lines for this project have been placed.
iv. The work of survey for all the lines has been completed and work of stubbing is in progress.

The requirement of Rs.1367.44 crore for 2011-12 is not meant only for these 400 KV works but includes Rs.627.62 crore for 220 KV and 132 KV Transmission works associated with evacuation of power from above noted 400 KV S/Stations and other system improvement works as per details given in Annexure-B of the ARR. The funds requirement is not unrealistic and is based on the detailed planning carried out for providing adequate transmission system. The progress/present status of other transmission improvement schemes is as per Annexure-I (of the reply).
**View of the Commission**
The Commission takes into account the actual investments in the previous years, while determining the investment plan. Also refer paras 2.8.2 & 3.7.2.

**Issue No. 3: Capital Works in Progress (CWIP) & Asset addition**
For FY 2010-11, CWIP mentioned is Rs. 235 crore whereas for FY 2011-12 it is Rs. 740 crore respectively. The details of the capital works proposed to be started in FY 2011-12 of Rs. 627.62 crore and their present status have not been submitted.
**Response of PSTCL**
400 KV lines covered under Para 7.13 relate to evacuation system associated with Rajpura Thermal Power Station (2x660MW). The tenders for turn-key erection of these 400 KV lines have been opened and are under process. Likewise NIT for the 400 KV Sub-station part have already been floated. The projection of CWIP for FY 2011-12 is higher due to the fact that bulk 400 kV transmission works related to Talwandi Sabo project will be in progress during FY 2011-12. PSTCL has already mentioned in the ARR Petition for FY 2011-12 that there would

be substantial requirement of funds during FY 2011-12 for the work of 132 kV lines, 220 kV lines and 400 kV lines, however, out of total fund requirement of Rs 1367.44 crore, loan funds of around Rs.627.62 crore will be utilised towards capital works to be completed during FY 2011-12. It's important to mention here that PSTCL has considered interest only on completed work(fixed assets) i.e., Rs. 627.62 crore as per Table no 7.

The fixed assets shown in para 7.16 are assets added during the year. The details of the works to be started in FY 2011-12 is as per Annexure B of the Petition. The detailed project reports have already been sent to REC for sanction of loan and some are in the pipeline. The funding for the implementation of all the projects programmed for 2011-12 will be tied up.

**View of the Commission**

Refer paras 2.5.4, 2.8.2 & 3.7.2.

**Issue No. 4: Manpower Requirement**

The plans of PSTCL and the recommendations of PwC about manpower rationalisation have not been disclosed by PSTCL. The suggestion of PwC for recruiting about 1100 more employees will further increase the employee cost. It is not necessary for any organization to follow the recommendations of the consultant without looking at its resource mobilisation possibilities.

**Response of PSTCL**

The report of PWC with regard to manpower requirement of PSTCL and the Implementation Action Plan is yet to be finalized as this is linked to finalisation of manpower study report of PSPCL. The additional manpower proposed to be recruited during 2010-11 and 2011-12 was assessed considering the requirement of the corporation and the action plan report of PWC which was submitted to PSTCL in October 2010. The recruitment comprises both direct and on contractual basis and is purely need based. The manpower available with PSTCL is considerably less than the requirement. Considering the large number of vacancies at various levels, the proposed addition of manpower is just and proper for efficient operation of the transmission business.

**View of the Commission**

The immediate need is to properly determine manpower requirements over short and medium term and gradually right size the staff strength of the Utility.

**Issue No. 5: Employee Cost**

PSTCL has neither considered WPI for projecting its employee expenses in paras 8.8 and 8.21 of Petition, nor has it submitted any reason for not considering WPI, disregarding instructions of the Commission.

Employee cost of H1 is Rs. 114.25 crore, whereas for H2 it is estimated to be Rs. 156.70 crore. The rise of 33% has not been explained by PSTCL.

**Response of PSTCL**

The average annual WPI increase for the year 2011-12 would only be available next year. Although it is the normal practice of the Commission to apply the WPI increase of the previous year while allowing enhancement in employee cost, such a practice is relevant only in a situation where there is a gradual increase in WPI each year, but not when abnormality being caused by the worldwide economic recession. Therefore, WPI has not been considered, instead an overall average increase of 8.79% has been considered for making such projections.

The PSTCL came into existence on 16-04-2010. Being a first year of operation and opening Balance Sheet still to be finalized, most of the expenses relating to the employees have been booked in the books of PSPCL for which adjustments will take place in the H-2 i.e. the reason the expenses are on the higher side as compared to H-1.

**View of the Commission**

The Commission determines the employee cost in accordance with its notified Regulations. Also refer paras 2.4 & 3.3.

**Issue No. 6: Repair & Maintenance Expenses**

The Repair & Maintenance expenses for H1 are Rs. 9.77 crore, whereas for H2 it is estimated to be Rs. 39.87 crore without assigning any reason. R&M expenses for additional assets has been separately claimed without providing the list of assets added or proposed to be added along with their present status.

**Response of PSTCL**

Accounting divisions of PSTCL normally book large part of expenses at the financial year end (say January to March). PSTCL has claimed the R&M Expenses of Rs.10.85 crore in FY 2010-11 for assets addition during the year as per PSERC Tariff Regulations. The same is not claimed in FY 2010-11 (6 Months). Expenditure incurred by PSTCL as submitted in the petition up to 30th Sep. of FY 2010-11 does not include the expenditure incurred by PSPCL on account of R&M etc. relating to PSTCL. Steps are being taken to segregate all such expenditure which will be accounted for in the books of accounts of PSTCL in due course.

**View of the Commission**

Refer paras 2.5 & 3.4.

**Issue No. 7: Administrative & General (A&G) Expenses**

Though PSTCL has submitted in its Petition that it has made efforts to contain A&G expenses, the efforts made in this direction have not been disclosed.

**Response of PSTCL**

PSTCL has aggressive and massive capital expenditure plan, which will result in increase in indirect cost to manage such immense capital expenditure. However, the proportionate estimated indirect expenditure proposed by PSTCL is at lower end.

**View of the Commission**

Refer paras 2.6 & 3.5.

**Issue No. 8: Working Capital**

PSTCL has submitted higher receivables for FY 2011-12 as compared to FY 2010-11, while computing the working capital requirement. No reason has been submitted by PSTCL in this regard.

**Response of PSTCL**

As per PSERC Tariff Regulation 2005, interest on working capital shall be computed as per CERC norms notified dated 19th January, 2009, for the period 2009-14, as follows:-

a) Receivables equivalent to two months of fixed cost.
b) Maintenance spares @ 15% of O&M expenses
c) O&M expenses for one month

Whereas, with the increase in fixed cost, the receivables are ought to be increased.

**View of the Commission**

Refer paras 2.8.4 & 3.7.4.

**Issue No. 9: Capital Expenditure for SLDC**

PSTCL has not submitted a copy of the schedule for up-gradation of SLDC. Moreover, the suitable system proposed to be installed has not been selected so far. Hence, it is highly improbable that the projected expenditure of Rs. 94 crore on this account shall be spent in FY 2011-12.

**Response of PSTCL**

| Sr. No. | Description | Cost |
|---|---|---|
| i) | ABT compliant intra-State Boundary metering scheme (RFP has already been floated and the work is likely to be completed by Aug/2011) | Rs. 15.00 crore |
| ii) | Provision of 65 Nos. RTUs at balance 132 KV S/Stns. | Rs.7.50 crore |
| iii) | Expansion of ULDC (Phase-II) to be implemented by PGCIL on unified basis for all Northern Region Constituents (Subject to approval of CERC). | Rs.17.50 crore |
| iv) | Misc. Jobs e.g. S/Stn. Automation, Automatic load shedding, UFR Monitoring etc. | Rs.10.0 crore |
| | Total | Rs.50.00 crore |

An amount of Rs. 94 crore is required during FY 2010-11, FY 2011-12 and FY 2012-13. The capex plan for improvement and expansion of SCADA scheme under SLDC and the projected expenditure on the same during FY 2011-12 is Rs. 50.00 crore as per details as under:

**View of the Commission**
Refer para 3.7.2.

**Objection No. 2 & 4: PSEB Engineers' Association**
**Issue No. 1: Clean Balance Sheet**
One of the main objectives of restructuring is to give a clean Balance Sheet to the new Utilities. Retaining loan amount of Rs. 870 crore in the Balance Sheet of PSTCL is contravening to para 5.4.3 of the National Electricity Policy.
**Response of PSTCL**
In the absence of availability of opening Balance Sheet as on April 16, 2010, PSTCL has considered long term loans of Rs. 870 crore as on April 01, 2010 in consultation with PSPCL which were availed by erstwhile PSEB mostly for transmission projects. This has been indicated in paragraph 3.2 of the Petition. It has been submitted in para 3.3 that in the event GoP issues the final notification for transfer of assets and liabilities under rule 9(1) of Punjab Power Sector Reforms Transfer Scheme 2010 during pendency of the Petition, PSTCL shall submit revised figures of ARR and tariff for consideration of the Commission. As on date, no notification has been issued. The actual loan liability shall be known after the opening Balance Sheet as on April 16, 2010 is notified by GoP.
**View of the Commission**
The final transfer scheme has not been notified by GoP. The issue falls within the ambit of GoP.

**Issue No. 2: System Capacity**
For determining transmission system capacity, net MW rather than gross MW generation capacity should be considered. For own thermal and hydel generation, the gross MW capacity of each station may be reduced by the normative auxiliary consumption, to arrive at the net MW transmitted. For Central Sector, the gross MW is to be reduced by normative auxiliary consumption as well as the percentage loss of the Northern/Inter-State grid.
**Response of PSTCL**
The transmission system capacity has been computed on the gross transmission capacity basis, which was also adopted by the Commission in its Tariff Order for FY 2010-11. In case the Commission considers the transmission capacity on net MW basis, the transmission charges per MW per day proposed by PSTCL for recovery of its ARR will be increased. Accordingly, PSTCL has no objection if transmission capacity is considered on net MW basis after deducting normative auxiliary consumption, for recovery of total ARR as approved by the Commission.
**View of the Commission**
The Commission processes the ARR including determination of 'average transmission capacity' according to its notified Regulations. However, PSTCL may workout the transmission capacity on net MW basis in the next ARR.

**Issue No. 3: Overloaded Substations and Lines**
PSTCL should submit the list/details of 220 kV and 132 kV grid substations and lines, which were subjected to overloading during paddy season of 2010. Along with this, the priority list of augmenting/ load reduction of these overloaded substations and lines may be submitted by PSTCL.
**Response of PSTCL**
The list of overloaded 220 kV and 132 kV Sub-Stations and transmission lines during FY 2010-11 is enclosed as Annexure-V (of the reply).
**View of the Commission**
PSTCL has furnished the requisite information regarding overloaded substations and lines. The Commission trusts that augmentation of the transmission network is planned and carried out to avoid any overloading of the system. Refer Annexure-IV, Directive no. 4 given during FY 2010-11.

**Issue No. 4: Evacuation System for new Thermal Power Projects**
There appears to be a mismatch between the commissioning schedules of the transmission system for Talwandi Sabo Thermal Power Project. The 400 kV transmission lines will be commissioned by April 2012 whereas the COD of generating station is repeatedly changing and as per press reports would be during 2013-15, which implies underutilisation of

transmission assets for over one year with corresponding implication of paying transmission charges without getting proportional benefit.

Also the estimate of PSTCL regarding generation from Rajpura Thermal Power Project in FY 2013-14 does not appear realistic. PSTCL may get confirmation of the same from PSPCL so that mismatch between transmission system and generation station commercial operation date is avoided.

**Response of PSTCL**

As per information received from PSPCL, the first Unit of TSTPP is scheduled for commissioning by 31.08.2012. The transmission system associated with the above project has also been planned to be erected keeping this in view to ensure matching of the transmission system with commissioning of Tawandi Sabo generating station. As regards COD of Talwandi Sabo Units, the issue is related to PSPCL. For construction of 400 kV transmission systems, first and foremost requirement is that the system should be ready before generation is ready. The construction work involves uncertainties which may delay the work. Construction of lines involves forest clearance, railway crossings and public resistance. Court cases can stop the work altogether. Similarly there is great public resistance for acquiring land for sub-stations. In addition, execution delays due to unforeseen reasons may creep in at any time. Keeping all these aspects in view, one cannot plan completion of work very close to the last date since the delay cannot be afforded. Secondly, when a 400 kV system is ready, it can be utilised as an alternative route for power supply in case of breakdown of 220 kV system.

As per information received from PSPCL, the first unit of Rajpura Thermal Power Project is scheduled for commissioning by 17.01.2014. The transmission system associated with the above project has also been planned to be erected keeping this in view to ensure matching of the transmission system with commissioning of Rajpura generating station.

**View of the Commission**

The Commission trusts that there would be proper coordination between PSTCL & PSPCL to ensure synchronisation of the commissioning of the evacuation system with that of the generating station.

**Issue No. 5: Additional Generating Units**

As per the information available on PSPCL website, PSPCL has signed MoUs with TSPL and NPL for installing an additional Unit each, with the understanding that 5% power would be given to PSPCL at variable rate, 10% at the bid rate and balance 85% would be available to the developer for merchant sale. However, the PSTCL Petition is based on the original station capacities. The power generation policy of GoP is silent on this aspect. The Commission may direct PSTCL to disclose the following:

a. Plans regarding augmentation of transmission system for handling additional power from Talwandi Sabo and Rajpura TPPs.
b. At whose cost the additional transmission capacity, corresponding to 85% of merchant sale, would be constructed.
c. Whether TSPL and NPL have signed any MoU or Bulk Power Transmission Agreement with PSTCL for transmission of power from the additional Unit(s).

The Commission may also direct PSTCL to obtain prior permission before finalising any Agreements for transmission of additional power from the fourth Unit.

**Response of PSTCL**

PSTCL has not been approached by TSPL and NPL for transmission of 85% power for the purpose of Merchant sale from the additional unit to be installed at Talwandi Sabo and Rajpura respectively. As regards 15% power from additional Units, which is to be supplied to PSPCL, the margins available in the already proposed transmission system can take care of the same. It may also be mentioned that net power available for transmission at both the TPPs would be less by about 7-8% (equivalent to the auxiliary consumption of the generating units).

**View of the Commission**

It is between the generating companies & the transmission entity to decide upon the various terms and conditions of their contract(s) for transmission of electricity. The Commission will allow costs on a normative basis. However, it may be ensured by PSTCL that the first right of

PSPCL on the transmission capacity is not violated.

**Issue No. 6: Approval of CEA**

The transmission system of 400 kV in Punjab should be planned in an integrated manner including transmission system for Rajpura and Talwandi Sabo TPSs, and has to be interlinked with Gidderbaha NTPC STPS and PGCIL Moga and Amritsar substations. It is essential that the approval of Standing Committee of CEA on Transmission Planning is obtained. However, PSTCL's Petition does not indicate that the transmission system proposed to be executed for evacuation of power from Rajpura and Talwandi Sabo are approved by CEA.

**Response of PSTCL**

The Transmission systems for Talwandi Sabo and Rajpura Power Project have already been approved by Central Electricity Authority in the 26th Meeting of the Standing Committee on transmission system planning of Northern Region held on 13.10.2008. The abstract of Minutes of Meeting indicating the same is enclosed as Annexure-I (of the reply).

**View of the Commission**

The Commission trusts that the requisite approvals, statutory or otherwise, would be obtained by PSTCL well in time.

**Issue No. 7: Evacuation of Power from 400 kV grid sub-stations**

PSTCL Petition does not provide details of the proposed method to evacuate power from 400 kV grid substations through 220 kV system to load centres in Punjab.

**Response of PSTCL**

The details regarding evacuation of power over the 220 kV system to load Centres in Punjab from 400 kV Grid Sub Stations has been given in Annexure-B along with ARR Petition and the list is enclosed as Annexure-II (of the reply).

**View of the Commission**

PSTCL has provided the requisite information.

**Issue No. 8: Year Wise Phasing of Expenditure**

PSTCL may submit year-wise phasing of expenditure on Talwandi Sabo and Rajpura transmission projects and construction schedule of various 440 kV grid and substations.

**Response of PSTCL**

The year-wise phasing of expenditure on Talwandi Sabo and Rajpura Transmission projects is enclosed as Annexure-III (of the reply). Construction Schedule of various 400 kV Transmission systems is enclosed as Annexure-IV (of the reply).

**View of the Commission**

PSTCL has provided the requisite information.

**Issue No. 9: Operation and Maintenance Norms**

CERC has specified O&M norms for Central Sector transmission utilities, in terms of per bay and per Ckt. km, which have been further segregated voltage-wise. Applying relevant norms of CERC on the basis of number of bays and transmission line length of PSTCL, the overall O&M expenses of PSTCL work out to Rs. 400 crore. However, total O&M cost claimed by PSTCL in its Petition is Rs. 365.09 crore only.

**Response of PSTCL**

The O&M charges claimed by PSTCL comprising employee cost, R&M expense and A&G expenses are not based on the CERC norms, stipulated in CERC Tariff Regulations, 2009. The basis of claim of O&M cost has been elaborated in the Petition to meet the actual requirement of PSTCL.

**View of the Commission**

The Commission allows costs including O&M expenses according to the notified Regulations.

**Issue No. 10: Interest Capitalisation**

The closing balance of loans for FY 2010-11 and FY 2011-12 is Rs. 1031.25 crore and Rs. 2260.04 crore, respectively. However, the amount of interest capitalised is only Rs. 29.88 crore and Rs. 35.57 crore respectively. This implies that majority of utilisation of loan is for existing system (chargeable to revenue head) with only marginal increase in capital works for which interest is capitalised. PSTCL may give the details of utilisation of Rs. 801 crore of loans proposed to be taken for FY 2010-11 and Rs. 1270 crore to be taken for FY 2011-12 from REC.

**Response of PSTCL**

The details of utilization of Rs.800 crore loan for FY 2010-11 and Rs.1270 crore for FY 2011-12, have been provided under (capex sheet) of formats attached with ARR petition for FY 2011-12. The proposed loan of Rs 1270 crore for FY 2011-12 is partly for construction of transmission lines (220 kV) and substations as attached under Annexure B and partly for construction of Talwandi Sabo Transmission lines (400 kV) and Rajpura Transmission lines (400 kV). Capitalisation has been considered only for 220/132 kV projects to be completed during FY 2011-12. There has been no capitalisation in case of 400 kV projects. The projected fund requirement for FY 2011-12 for these projects is inclusive of interest liability.

**View of the Commission**

PSTCL has provided the break up of loans to be utilised for different projects. Moreover, loan requirement is separately assessed by the Commission. Also refer paras 3.7.2 and 2.8.2.

As regards interest capitalisation, refer paras 2.8.3 & 3.7.3.

**Issue No. 11: Return on Equity**

As per CERC norms, ROE allowed is 15.5 % (post tax). In case the Utility is not in profit, the tax liability is nil and thus, admissible ROE is 15.5%. Assuming a tax rate of 33.99% and grossing up RoE to 23.48% is not in order, since tax payable is not indicated in the ARR.

**Response of PSTCL**

PSTCL has claimed ROE in accordance with CERC Tariff Regulations 2009-14. According to the sais Regulations, the ROE for transmission Utility shall be computed on pre-tax basis at the base rate of 15.5% to be grossed up with applicable tax rate.

**View of the Commission**

Refer paras 2.9 & 3.8.

**Issue No. 12: Short-term Open Access Charges**

The Commission may specify that the short-term open access charges recovered on account of open access may be earmarked for plough back into specific schemes or projects for augmenting or de-loading of PSTCL system. Also, revenue earned from SLDC operation charges while providing short term open access may be included in Non-Tariff Income.

**Response of PSTCL**

As short term open access requirement is uncertain in nature, PSTCL could not project the income from short open access in the non-tariff income of SLDC ARR.

**View of the Commission**

The open access charges are to be treated according to the Commission's notified Regulations. The revenue earned from SLDC operation charges from short-term open access is to be included in Non-Tariff Income.

**Issue No. 13: Long term Open Access Charges**

The long-term open access charges should be 100% of the transmission charges payable in PSTCL system, since a long-term open access consumer is an existing PSPCL generation user without discrimination. In case of short-term open access, it is proposed that short-term open access charges should be 75% of the transmission charges payable by long term customers.

**Response of PSTCL**

Open access charges have been computed as per Punjab State Electricity Regulatory Commission (Terms and Conditions for determination of Tariff) Regulation 2005.

**View of the Commission**

The long term open access charges are to be calculated according to the Commission's notified Regulations.

**Issue No. 14: Computation of Open Access Charges**

The open access charges may be computed in paisa per unit instead of Rs./MW/Hour or Rs. /MW/day.

**Response of PSTCL**

Open access charges have been computed as per Punjab State Electricity Regulatory Commission (Terms and Conditions for determination of Tariff) Regulation 2005 and

amendments issued from time to time.
**View of the Commission**
Refer issue no. 13 above.

**Issue No. 15: Payment Security Mechanism**
The proposed Letter of Credit (LC) arrangement is not justified for payment between two Government Companies created out of re-structuring of PSEB.
**Response of PSTCL**
Payment security mechanism is a prudent commercial arrangement, which is prevalent in the power sector and is in the interest of PSTCL. PSTCL and PSPCL are separate legal entities with different business mandates and are required to operate in an efficient manner. PSTCL has a long term plan of mobilising funds from different sources, including from banks and also through private placement of bonds/debentures, which will require PSTCL to go for its rating from the recognised rating agencies. Establishment of a proper payment security mechanism will help PSTCL in complying to Basel II guidelines stipulated by RBI for availing loans from banks on competitive rates and terms. This arrangement will, therefore, enhance the credit worthiness of PSTCL. The letter of credit arrangement has been insisted upon to ensure timely payment of monthly transmission charges by PSPCL to PSTCL.
**View of the Commission**
The matter does not strictly pertain to the ARR. However, PSPCL has been directed to make timely payments to PSTCL in Tariff Order FY 2011-12 for PSPCL, Annexure-IV, Directive no. 1 (pertaining to FY 2011-12).

**Issue No. 16: Payment of transmission charges by PSPCL**
Measurement of MW on daily basis would be liable to error. A simple method may be adopted, where once the Commission determines the ARR of PSTCL, the same will be payable by PSTCL in 12 equal instalments.
**Response of PSTCL**
No Response.
**View of the Commission**
Refer para 4.2.4.

**Issue No. 17: List of overloaded S/Stns., Power T/Fs and Transmission Lines**
PSTCL may be directed to list out those 220 kV and 132 kV sub-stations, power transformers and transmission lines, that have been declared as overloaded and where new industrial connections have been held up on account of substation overloading. Short-term or long-term open access may not be allowed to industrial consumers getting supply from these overloaded transformers.
**Response of PSTCL**
The list of overloaded 220 KV and 132 KV Sub-Stations and Transmission lines during 2010-11 is enclosed as Annexure-V (of the reply). However, suitable remedial measures like augmentation of capacity, creation of new 220 kV or 132 kV Sub-Stations and lines for providing relief to the overloaded Sub-Stations and lines are already being taken. The supply through open access is being limited to contract demand of Industrial Consumers, which stand considered while assessing transmission capacity of the connections.
**View of the Commission**
The Commission agrees with the response of PSTCL. Also refer issue no. 3 above.

**Issue No. 18: Spare Capacity of Optical Fibre Network**
PSTCL may be directed to give a proposal for optimum utilisation of the spare capacity of the optical fibre system being installed by PSTCL including leasing out, in order to earn extra revenue.
**Response of PSTCL**
PGCIL is laying optical fibre network in Punjab as well as for other Northern region constituents. Some material/cable under this scheme for PSTCL has been received at PGCIL store at Lalton Kalan (Ludhiana) and is under testing. The associated termination equipment is likely to reach the site by the end of March-2011. Balance cable will be supplied as per schedule. The work of laying cable will start from first week of March 2011 and the entire cable laying job/installation of terminating equipments will take approximately 6 months to

complete. In the meanwhile, modalities for leasing out spare fibres shall be worked out by PSTCL so as to earn extra revenue.

**View of the Commission**

The Commission trusts that PSTCL is fully capable to utilise its assets optimally.

**Issue No. 19: Recruitment & Training**

PSTCL has not given any plan for recruitment and training of manpower for construction, operation and maintenance of the 400 kV system proposed to be constructed for evacuation of power from Talwandi Sabo, Rajpura and Gidderbaha Generating Stations.

**Response of PSTCL**

A study is being carried out for requirement of man power for operation and maintenance of 400 kV system. The programme for their deployment or training will be chalked out during 2011-12.

**View of the Commission**

The Commission trusts that PSTCL takes all steps necessary for efficient cadre management, mans its installations and provides in-service training to its personnel. A Directive to this effect has been given by the Commission. Refer Annexure-IV, Directive no. 2 of FY 2010-11.

**Issue No. 20: Details of Existing Manpower**

PSTCL may provide details of personnel manning the existing 220 kV and 132 kV substations and lines along with sanctioned strength, existing strength and vacancy positions of key posts.

**Response of PSTCL**

The details of present man power for existing 220 kV and 132 kV Sub-Stations and lines are enclosed as Annexure-VI (of the reply).

**View of the Commission**

PSTCL has provided the requisite information.

**Issue No. 21: Deteriorating Debt Equity Ratio**

The debt equity ratio has deteriorated from 27% at the beginning of FY 2010-11 to 17% at the beginning of FY 2011-12 and then to 11% at the end of FY 2011-12. This shows the deteriorating financial position of a newly created company.

**Response of PSTCL**

No response.

**View of the Commission**

GoP and PSTCL need to ponder over the deteriorating debt equity ratio and decide upon measures necessary to contain the same so that financial health of the utility improves over time.

**Issue No. 22: Commissioning of Proposed Transformers**

PSTCL has proposed 27 nos. 220 kV/66 kV 100 MVA transformers to be commissioned in FY 2010-11 and an equal no. in FY 2011-12. PSTCL may provide the details of actual or estimated commissioning dates against each of the above transformers. PSTCL may further indicate whether dispersal of power at 66 kV from the above 100 kVA transformers has been coordinated with PSPCL.

**Response of PSTCL**

The details of commissioning status or estimated completion month in respect installation of Transformers for FY 2010-11 and FY 2011-12 are enclosed as Annexure-VII and Annexure-VIII (of the reply) respectively. The dispersal of power at 66 kV from 100 MVA, 220/66 kV Transformers listed above has been co-ordinated with PSPCL.

**View of the Commission**

PSTCL has provided the requisite information, though the matter does not strictly pertain to the ARR.

**Issue No. 23: Memorandum of Association and Articles of Association**

Memorandum of Association and Articles of Association have not been provided in Volume-II. These documents may be provided by PSTCL.

**Response of PSTCL**

No response.

**View of the Commission**

PSTCL has submitted the Memorandum of Association and Articles of Association in the ARR Petition, Volume - II.

**Issue No. 24: Evacuation of Power from Talwandi Sabo and Rajpura Projects**

PSTCL has not provided details of how power from Talwandi Sabo and Rajpura Projects will be further evacuated from 400 kV transmission lines to PSPCL system at 66 kV. The Commission may direct PSTCL to provide the complete transmission scheme for evacuation of power from these stations along with the time frame for execution of lines and sub-stations. Since the 400 kV system of PSTCL is to be linked up with Powergrid (PGCIL) system at Moga and Amritsar, PSTCL may indicate whether any further 400 kV or 220 kV ICTs would be installed at PGCIL Moga and Amritsar sub-stations. As per CERC norms, the transmission tariff of such ICTs is to be loaded entirely on the State which draws the power and this tariff is not to be pooled with the Northern Region transmission tariff. Before finalising any transmission system for evacuation of power, it is essential that PSTCL should disclose the load flow studies on the basis of which such transmission system has been finalized.

**Response of PSTCL**

The details regarding evacuation of power over the 220 kV system to load centres in Punjab from 400 kV grid substations has been given in Annexure-B of the ARR Petition. A sketch showing 220 kV inter-connections from the 400 kV Substations is enclosed as Exihibit-1, which shows the complete scheme. The 400 kV Transmission System is based on load flow studies carried out by PGCIL. The proposed 400 kV system of PSTCL is to be integrated with northern region system of Power Grid at Moga and Amritsar substation for reliable operation of the power projects. The presently proposed 400/220 kV ICTs at 400 kV substations of PSTCL would be sufficient to take care of the power transmission from Talwandi Sabo and Rajpura Thermal Projects for PSTCL/PSPCL.

**View of the Commission**

PSTCL has submitted the requisite information. However, it must ensure that transmission works are completed well in time.

**Issue No. 25: Transmission Capacity**

PSTCL has projected new capacity of 1022 MW (based on the share of Punjab from the new Generating Stations) for FY 2011-12 for determining average capacity for FY 2011-12. However, as per information from CEA, 525 MW capacity of Maithon RB, DVC and 800 MW of Mundra UMPP are going to be commissioned in FY 2011-12, which is higher than the capacity considered by PSTCL. PSTCL is required to plan its transmission system augmentation to handle the additional generation capacity in FY 2011-12.

As per the Report of the Working Group on Power for the XI$^{th}$ Plan, the funds requirement for State transmission sector works out to Rs. 0.94 crore per MW. Thus, for new capacity of 1400 MW in FY 2011-12, the funding requirement comes to Rs. 1316 crore. PSTCL may be directed to give details of augmentation and funding of transmission projects for an estimated capacity addition of 1400 MW in FY 2011-12.

**Response of PSTCL**

Time-frame for Transmission system of PSTCL for FY 2011-12 has been designed considering power share to be available to Punjab from various projects by that time and this transmission system is being executed accordingly to coordinate its matching with additional generation. The already proposed transmission system for FY 2010-11 and FY 2011-12 takes care of the additional loads and generation capacity likely to be available to meet these loads besides ensuring optimum loading of the system.

**View of the Commission**

The Commission trusts that PSTCL will ensure that there are no transmission constraints for transmitting power to PSPCL system in the eventuality of additional power becoming available.

**Issue No. 26: Emoluments of SLDC Personnel**

PSTCL has given the summary of recommendations of the GoI Committee on ring fencing of SLDCs. The GoI had, in 2009, set up a Task Force on capital expenditure of Load Despatch Centres and issues related to emoluments of personnel. The Committee, in its Report, recommended that extra emoluments up to 150% of those prevailing in the Transco may be given to the SLDC personnel. Since the total number of personnel in the SLDC organisation is 102, the Commission may direct PSTCL to examine and implement the above Report.

**Response of PSTCL**

The issues raised by the objector will be considered by PSTCL.

**View of the Commission**

PSTCL may intimate the outcome to the Commission. Also refer para 1.1.

**Issue No. 27: Depreciation Charges for SLDC**

As per Format 9 of SLDC ARR, depreciation at the beginning of the year is shown as Rs. 3.63 crore, depreciation on the addition of assets is shown as Rs. 0.67 crore, and depreciation at the end of the year is shown as Rs. 4.30 crore. However, on page 43 of the petition, depreciation has been taken incorrectly as Rs. 0.67 crore, i.e., only on the addition of assets. Depreciation is required to be worked out on total assets and not on addition of assets only.
The depreciation rates for SLDC equipment, which are primarily electronic/computer based, need to enhanced considering seven years life for such equipments.

**Response of PSTCL**

Depreciation charges in the format SLDC, Page-9 has been worked out correctly, and the provision for depreciation for addition of assets includes the depreciation on the assets added during the year as well as at the beginning of the year. The depreciation rates have been considered with due regard of Tariff Regulations. Regarding the depreciation rate on equipment of SLDC, the Commission may allow the enhanced rates as per the objector.

**View of the Commission**

The Commission has determined depreciation charges by applying depreciation rates of the assets derived from the audited accounts of the erstwhile Board for FY 2009-10. Also refer para 3.6.3.

**Issue No. 28: Capital Expenditure for SLDC**

i. PSTCL has submitted that Rs. 50 crore would be spent on integrated SCADA scheme of SLDC during FY 2011-12. PSTCL may provide the project implementation details for the scheme.
ii. The existing SCADA scheme was required to be functional up to FY 2017. Now PSTCL has proposed that the existing system would be discarded and a new scheme called integrated SCADA scheme would be installed. PSTCL should provide the reasons for replacing a system in FY 2011-12, which was supposed to provide service till FY 2017.
iii. PSTCL has indicated an expenditure of Rs. 50 crore in FY 2011-12, but it has not stated the total cost of the integrated system and the phasing of expenditure in FY 2012-13 and FY 2013-14.
iv. PSTCL should give details of functions and packages for which the existing SCADA scheme was designed vis a vis the actual utilisation of the functions and packages. It is suggested that the existing SCADA scheme may be utilised up to FY 2017 with necessary modifications and upgrading on low cost basis.
v. PSTCL has shown a proposed expenditure of Rs. 41.27 crore on optic fibre cable to replace microwave communication. It is known from PGCIL, that the decision to replace microwave with optic fibre system was taken on the assumption that frequency bandwidth allocated to microwave system may be withdrawn. This matter may be taken up with Ministry of Communication through MoP that when a bandwidth has been allocated and equipment has been installed, then it is not justified to withdraw the bandwidth. In case, Ministry of Communication intends to sell the bandwidth, a part of the revenue realised from sale should be used for compensating the users of present ULDC scheme and meet the funding requirement of optic fibre cable.

**Response of PSTCL**

i&iii. The SCADA Systems as commissioned by PGCIL in the year 2010 is in operation till date and hardware/software related operational problems/maintenance of existing system, which also includes supply of material for replacement of defective items is being maintained through AMC contract awarded by PGCIL on unified basis. But, due to advancement in hardware/software, AMC Contractors have been facing difficulties in arranging spares to attend to the routine defects. Such issues were taken up by Northern Regional Constituents with PGCIL at ULDC Scheme Monitoring Group (USMG) meeting as well as NRPC meetings, where it has already been decided to go for expansion of scheme (ULDC-II). PSTCL has conveyed its consent to execute the job through PGCIL on turnkey basis. The Project implementation details of Rs. 50 crore along with item-wise breakup of cost of integrated SCADA scheme is shown in Table below:

| Sr. No. | Particulars | FY 2011-12 (Rs. in crore) (Projected) | Tentative Year of Completion | Project Execution |
|---|---|---|---|---|
| 1 | **Integrated SCADA Scheme consisting of following breakup:** | **50.00** | **2013-14** | |
| | 1. ABT compliant intra-State Boundary metering scheme | 15.00 | | By PSTCL |
| | 2. 65 Nos. RTUs at balance 132 KV S/Stns. | 7.50 | | By PSTCL |
| | 3. Expansion of ULDC | 17.50 | | By PGCIL on Unified Basis ** |
| | 4. Misc. Jobs e.g. S/Stn. Automation, Automatic load shedding, UFR Monitoring etc. | 10.00 | | By PSTCL |

** PGCIL has filed Petition in CERC regarding claim of expenditure to be incurred on expansion of ULDC scheme on unified basis. The expenditure to be incurred by PGCIL will be payable either as transmission charges or as advance quarterly payment as per decision of CERC.

ii. Due to advancement in hardware/software and as a result, difficulties being faced by AMC contractors of the SCADA system to arrange spares to attend to the routine defects and as per the decision taken at ULDC Scheme Monitoring Group (USMG) as well as NRPC level to go for Expansion of Scheme (ULDC-II) to tackle the above issue. PSTCL has conveyed its consent to execute the job through PGCIL on turnkey basis. Other NR constituents are also following the same.

iv. Power system applications along with SCADA system installed in the year 2002 at SLDC Control Centre are operational but their use has become restricted in the present ABT regime due to its lack of support of ABT features.

v. The matter was taken up in the meeting convened by PGCIL with constituents of Northern Region on 23.11.08. The Constituents expressed the following:-

a) The Micro Wave frequencies can be released only after back up communication links are established.

b) As the Micro Wave network is in commercial operation since last around six years only, the cost for implementation of Fibre Optical (FO) links should be borne by DoT.

c) Implementation of FO links would require around two years after funding is tied up, and hence, Micro Wave links should be allowed to keep in operation till then.

During discussions, it also emerged that Fibre Optic Network to replace Micro Wave link would be beneficial for the constituents. Further, PGCIL took up the matter with Wireless Advisor (T) on 04.11.08 wherein the issues were discussed and DoT decided that POWERGRID will replace the Microwave links with Optical Fibre Cable in 2 years' time frame for which in-principle decision has already been taken.

**View of the Commission**

i,ii&iii. PSTCL had originally proposed an investment plan of Rs. 56.66 crore, which was subsequently revised to Rs. 30 crore. Also refer para 3.7.2.

iv. PSTCL has provided the requisite information during processing of the ARR.

v. The Commission shall examine the allowability of this expenditure as and when it is included in the ARR Petition for the ensuing year(s).

**Issue No. 29: Employee Training**

Regarding training of manpower, the Working Group on Power for the XI$^{th}$ Plan has recommended that 5% salary budget should be earmarked exclusively for training by every organisation. Expenditure on training may be included while costing power tariff. Also, every employee should be provided refresher training of minimum one week per year as mandated in National Electricity Policy.

**Response of PSTCL**

These observations are of advisory nature and will be considered by the PSTCL.

**View of the Commission**
Refer issue no. 19 above.

**Issue No. 30: Load Flow Study**
The load flow study for power flow has not been provided by PSTCL. It is necessary that the load flow study should be carried out for different conditions such as paddy season, non-paddy and winter night conditions. It appears that when state demand reduces, the generation from Talwandi Sabo would flow on the inter-connecting line to Moga and get injected to PGCIL system. There is every possibility of the Talwandi-Sabo Moga line getting overloaded. The copy of load flow studies needs to be supplied and made public.
**Response of PSTCL**
For the 400 kV system, load flow study has been carried out by PGCIL. First study was with generation at Talwandi-Sabo(1980 MW), Rajpura(1320 MW) and Goindwal Sahib(540 MW) at 220 kV. Accordingly, the transmission system was designed by PGCIL. For future, second study was carried out with Gidderbaha addition. Third study is being carried out with Mansa and Kotshamir addition and enhancement of generation at Talwandi Sabo and Rajpura. The detailed system study report is still under preparation with PGCIL.
As per this, during paddy season (high load), the flow in Talwandi Sabo-Moga 400 kV Section is from 327 MW to 407 MW under different contingencies. During winter nights, the flow ranges between 680 MW to 794 MW under different contingencies. The thermal load ability of the line is 1035 MW at 0.95 power factor lagging. For the above study, power from central sector has not been considered. If the central sector power is considered and reduced from Punjab export, then these figures will fall down to appreciable level. Above figures refer to 2600 MW export from Punjab. 400 kV transmission system design is under revision by PGCIL because generation in Punjab has been increased.
**View of the Commission**
The Commission trusts that PSTCL is taking all necessary steps for proper planning and efficient operation of its transmission network.

**Issue No. 31: Overloaded Sub-stations**
In the list of overloaded 220 kV sub-stations PSTCL has included Sahnewal, Dhandhari and Lalto Kalan. Power grid has constructed 400 kV substation at Ludhiana where two nos. 400/220 kV ICTs were commissioned in June/July 2008 and a third ICT was commissioned in April 2010. However, for a total ICT capacity of 945 MVA, the outgoing lines constructed by PSTCL are only two with the result that only 200-250 MVA capacity of PGCIL is getting utilised while PSPCL is paying the full tariff of about Rs. 12 crore per year to PGCIL as the transmission charges for 3 x 315 MVA ICTs. The PGCIL 400 kV substation was to give supply to Sahnewal, Dhandari and Lalto Kalan which have been shown as overloaded substations in the list by PSTCL. The Commission may direct PSTCL to expedite the 220 kV lines for evacuating the power from PGCIL 400 kV sub-stations.
**Response of PSTCL**
For evacuation of power from 400 kV Ludhiana, four no. of additional bays are to be commissioned. Line construction work is already going on and all the four bays shall be commissioned in the month of May/June 2011. Moreover at 220 kV Sahnewal, additional 220/66 kV, 100 MVA power transformer has been commissioned on load in February 2011. A 66/11 kV, 20 MVA transformer has been commissioned in March 2011 at 220 kV Pakhowal substation, which will give relief to 220 kV Lalton. Solution to overload problems is normal practice.
**View of the Commission**
PSTCL must ensure that the issues raised are addressed and the related works completed efficiently. Also refer Annexure-IV, Directive no. 4 given during FY 2010-11.

**Issue No. 32: Shortage of Manpower**
There is desperate shortage of technical manpower in the grid substations. While PSTCL has not been able to fill up the regular sanctioned posts in the existing 220 kV and 132 kV substations, there is an urgent need to recruit and train the technical personnel for manning of 400 kV substations and lines which are under construction. As per Section 5 of Indian Electricity Grid Code (IEGC):
“h) The control rooms of the NLDC, RLDC, all SLDCs, power plants, substation of 132 kV and above, and any other control centres 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."

The State Grid Code issued by the Commission does not have a specific provision as above, but the State Grid Code stipulates that the provisions of IEGC would prevail in such cases. The Commission may direct PSTCL to provide its action plan to man the sanctioned posts of technical nature for O&M of EHV system and in particular the action plan for manning of 400 kV system under construction.

**Response of PSTCL**

PSTCL is definitely short of manpower. Grid substations definitely require full manpower as per sanctioned posts. The power has to be supplied 365 x 24 continuously. Technical skill is essentially required. Punjab Government has been requested to give sanction for the recruitment of required manpower for 220 kV, 132 kV as well as for 400 kV grid substations which shall come up in 2012. Prior posting shall be beneficial since the staff and officers shall be able to know the functioning and construction of 400 kV system. In the list provided by the objector, one important category of SSAs is missing. This is an additional and essential requirement.

For 220 kV and 132 kV, technical training is being imparted regularly by the training department of PSPCL. This training is useful. For 400 kV system, training shall be given by PGCIL at their running substations and at PSTCL constructed grid substations. The training department of PSTCL is regularly sending officers of PSTCL for training at other Central Government Organisations. For 400 kV training, PSTCL needs the required manpower in the first instance.

**View of the Commission**

Refer issue no. 19 above.

**Issue No. 33: Cost Estimates of 400 kV lines**

The 400 kV lines for evacuation of power from upcoming thermal power stations are being constructed by PGCIL. It was brought to the notice of the Commission that PGCIL is known for excessive spending and there is every possibility that the capital cost of the works executed by PGCIL would be on the higher side since the cost is to be borne by PSTCL. The Commission may direct PSTCL to supply the terms and Conditions including cost estimates on which the 400 kV works were awarded to PGCIL.

**Response of PSTCL**

As per the decision taken by the erstwhile PSEB in its 08/2008 meeting held on 30.04.08, PGCIL was engaged for taking up the work on chargeable basis. PGCIL is a Central Government Organisation and has got the proper know how for the work. They are executing the work through tendering process.

**View of the Commission**

The Commission trusts that PSTCL follows the prescribed rules, regulations and guidelines while allotting execution of work(s) to external agencies.

**Objection No 3: Punjab Alkalies and Chemicals Ltd.**

**Issue No. 1: Abnormal Increase in ARR**

Both PSPCL and PSTCL have submitted their revised estimates of ARR for FY 2010-11. The combined ARR (revised estimate) for FY 2010-11 shows a percentage increase of 35.87 % over the ARR approved by PSERC for FY 2010-11 for the integrated PSEB in the Tariff Order for FY 2010-11. There is a need to bring fiscal discipline in the Utilities, for which the Commission is requested to take suitable measures.

**Response of PSTCL**

The gross revenue requirement of Rs.647.30 crore was approved in the Tariff Order of PSERC for FY 2010-11. The revised estimate for FY 2010-11 is Rs.702.19 crore. The increase is only 8.48% over the approved amount and is only 3.95% if ROE is not considered.

**View of the Commission**

Refer objection no.1, issue no.1.

**Issue No. 2: Transmission System Capacity**

While working out transmission system capacity, many projects, which are yet to be commissioned have been considered, while some projects that are to be commissioned in FY 2011-12 have been left out. It will be better if transmission capacity commissioned on 31$^{st}$ March of the previous year is taken into consideration for working out yearly transmission charges.

**Response of PSTCL**

While working out the transmission system capacity, the projects which were yet to be commissioned like Parvati-3, Chamera-3, Koteshwar, Karcham Wangtu and Teesta-2 were considered as per their status at the time of filing the ARR. Some of the projects like Maithon (Tata), which are to be commissioned in FY 2011-12, will start supplying the energy to Punjab in FY 2012-13. In case of Bhilangana (PTC) there is some legal dispute regarding the supply of its energy to Punjab in FY 2011-12. Thus, PSTCL has taken into consideration the likely availability/slippages of plants for computing the transmission system capacity.

**View of the Commission**

The Commission trusts that the transmission system is planned matching with the additional generation likely to be available in the corresponding years.

**Issue No.3: Power Evacuation from Talwandi Sabo & Rajpura TPPs**

PSTCL has submitted the Investment Plan, which shows that majority of investment would be done on 400 kV systems, which are being set up for evacuation of power from Talwandi Sabo and Rajpura Power Stations. It is stated in the ARR Petition that the Rajpura Project will be commissioned in FY 2013-14, while Talwandi Sabo project will be commissioned in FY 2012-13. However, there are already reports of slippages in Talwandi Sabo project due to delayed financial closure and non availability of skilled manpower from China. Investment in transmission systems should be linked to commissioning of individual Units of Talwandi Sabo and Rajpura Power Stations and capital investments should be reworked accordingly. Also, the status of various components of 400 kV system have not been brought out in the ARR Petition.

**Response of PSTCL**

As per information received from PSPCL, first Unit of Talwandi Sabo TPS is scheduled for commissioning by 31.08.2012 and first unit of Rajpura STPS by 17.01.2014. The Transmission system associated with these Thermal Projects has also been planned to be erected to ensure its matching with commissioning of generating plants. To ensure no extra burden on consumers for interest charges and fixed charges, phasing of expenditure for 400 kV transmission system associated with Talwandi Sabo and Rajpura TPs has been planned.

The order for procurement and erection works of all the 400 KV Sub-stations related to Talwandi Sabo TPS have been placed. The land for all these sub-stations has been acquired and initial civil works have already started. Similarly, orders for procurement and erection works for 400 KV Transmission lines for this project have been placed. The survey work for all the lines has been completed and work of stubbing is in progress.

**View of the Commission**

Refer objection no. 2 & 4, issue no. 4 & 24.

**Issue No. 4: Employee Expenses**

The combined employee expenses (revised estimates) of PSPCL and PSTCL for FY 2010-11 have increased by 25.71% over the expenses approved for PSEB for FY 2010-11. Subsequent to the date of submission of ARR, the Government of Punjab (GoP) has decided to release the pay arrears in three equal instalments, the first instalment of which will be due in FY 2011-12. Hence, pay arrears should be factored accordingly, instead of 40% in FY 2011-12 and 20% each in FY 2012-13 and FY 2013-14.

**Response of PSTCL**

The revised employee cost of PSTCL for FY 2010-11 is only 7.25% higher than the amount approved by the Hon'ble Commission and in respect of arrear of Pay, PSTCL has considered 50% of impact in 2010-11, 25% in FY 2011-12 and 25% in FY 2012-13.

The final report of PwC including implementation action plan is expected shortly. Follow up action for its acceptance will be taken thereafter.

**View of the Commission**

Refer para 3.3.

**Issue No. 5: Additional Manpower**

The study on staffing pattern was awarded to PwC and the report was submitted in October 2010. However, the follow up action is being delayed. The Commission may take suo motu action to set right the situation. The additional manpower recruitment proposed in the Petition is not acceptable, as the employee expenses have already been projected much higher than the approved expenses.

**Response of PSTCL**

After unbundling of erstwhile PSEB, PSTCL has to set up separate Finance and Accounts wing, General Section, Company Secretary, Audit wing etc. PSTCL also requires additional man power for the new grid sub-stations and lines for smooth functioning. Accordingly, PSTCL has proposed the minimal manpower for effective operation of its commercial business and huge capital assets base. The employee cost is thus justified.

**View of the Commission**

Refer objection no.1, issue no. 4.

**Issue No. 6: Repair & Mtc. (R&M) and A&G Expenses**

The revised estimated R&M and A&G expenses of PSPCL and PSTCL combined is higher than the R&M and A&G expenses approved by the Commission for erstwhile PSEB for FY 2010-11, by 11.05% and 23.72%, respectively. The practice of allowing these expenses on the normative basis with WPI increase or at actuals, whichever is lower as per PSERC Tariff Regulations, needs to be adopted here.

**Response of PSTCL**

The increase in revised estimated expenses on Repair & Maintenance costs is only 11.05% as per the objector. The reasons for the proposed increase on R&M expenses of PSTCL for 2011-12 are adequately explained in para 8.15, 8.17 and 8.18 of the ARR and Tariff Petiion for 2011-12. Further, the revised Repair & Maintenance expenses of PSTCL for FY 2010-11 is 27.69% higher than amount approved in Tariff Order for FY 2010-11. As per para 28 (6) of 'The Punjab State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2005, O&M expenses for gross fixed assets added during the year shall be considered from the date of commissioning on pro-rata basis. PSTCL has claimed the R&M expenses on assets added during the year of Rs 10.85 crore as per tariff regulation, which were not allowed in the Tariff Order of FY 2010-11, however, after exclusion of R&M expenses on assets added during the year, the increase in revised R&M would be only 1.24% of approved R&M expenses. The A&G expenses include, the cost of professional charges, audit fee, license fee, consultancy charges etc. and the revised A&G expenses are 15.68% higher than the approved one. Nothing is written in the PSERC Regulations regarding linking of actual or normative O&M expenses.

**View of the Commission**

Refer paras 3.4 (R&M expenses) & 3.5 (A&G expenses).

**Issue No. 7: Interest and Finance Charges**

a. The investment in 400 kV system needs to be reworked in line with the realistic synchronisation schedule of various units of Talwandi Sabo and Rajpura Projects.
b. The capital investment plan provides for investment in telemetering system for 2200 number of feeders. However, as per the boundaries of PSTCL and PSPCL, metering is to be carried out on 66 kV interfaces only. Therefore, the investment plan needs to be reworked and the interest charges should be revised.
c. The rate of interest on REC loans is indicated as 13.5%, which seems to be higher than prevailing rates of interest. PSTCL may review and re-negotiate the interest rate as per prevailing market rates.

**Response of PSTCL**

a. The position has already been explained in response at issue no. 3 above.
b. The objection relates to PSPCL.
c. The rate of interest of REC has been shown at the rate the loans were executed and now after the period of reset the rate of interest is 11%.

**View of the Commission**

a. Refer issue no. 3 above.
b. Refer paras 2.8.2, 3.7.2 and response of PSTCL to objection no. 2 & 4, issue no. 28.
c. PSTCL has clarified this issue in its above response.

**Issue No. 8: Interest on Working Capital**

The quantum of working capital may be reviewed considering the above objections. Further, the maintenance spares seems to be included in R&M expenses, as there is no such provision in ARR /Tariff Order for FY 2010-11. If this provision is to be kept, then R&M expenses need to be reviewed accordingly.

**Response of PSTCL**

As per Punjab State Electricity Regulatory Commission (Terms and Conditions for determination of Tariff) Regulations, 2005, interest on working capital shall be as per CERC norms notified dated 19.01.09 for the period 2009-14 and PSTCL has considered the above Regulations for the computation of interest on working capital.

**View of the Commission**

Refer para 2.8.4.

**Issue No. 9: Return on Equity**

In Tariff Order for FY 2010-11, grossing up of RoE was not permitted as the Utility was a defaulter in implementation of directives made by PSERC. Till successor Companies improve their working and comply with the directives in toto, the grossing up may not be allowed as per earlier practice.

**Response of PSTCL**

PSTCL has claimed ROE in accordance with CERC Tariff Regulations 2009-14. According to the said Regulation, the ROE for transmission utility shall be computed on pre-tax basis at the base rate of 15.5% to be grossed up with the tax rate applicable to the utility.

**View of the Commission**

Refer paras 2.9 & 3.8.

**Issue No. 10: Capital Expenditure of SLDC**

The ARR of SLDC needs to be reviewed as the capital expenditure linked to SLDC for current and next year is not likely to be materialised. It will be better to phase out the capital expenditure and commission the individual projects in synchronisation with the tail end schemes. For example, the first priority should be boundary metering of Punjab system. Only after installation of intra-State boundary metering, the performance of successor utilities can be improved.

**Response of PSTCL**

As already explained in response of issue no. 3, phasing of expenditure has already been planned, and Boundary Metering scheme has been separated out from the integrated SCADA scheme and is already being executed separately for providing metering on Punjab Boundary.

**View of the Commission**

Refer para 3.7.2.

**Issue No. 11: Existing ULDC Scheme**

Payments for ULDC scheme would continue up to FY 2017, but the spare parts of the scheme are not available and it is not serving the required purpose. This may be looked into and the matter needs to be taken up with PGCIL for optimum utilisation of existing ULDC scheme.

**Response of PSTCL**

Payments to PGCIL against ULDC scheme are being paid as per the directives of CERC and shall be paid till 2017, SCADA System under ULDC Scheme as commissioned by PGCIL in the year 2010 is in operation till date and hardware/software related operational problems/maintenance of the existing system, which also include supply of material for replacement of defective items is being maintained through AMC contract awarded by PGCIL on Unified basis. But due to advancement in hardware/software, AMC contractors have been facing difficulties in arranging spares to attend to the routine defects. Such issues were taken up by Northern Regional Constituents with PGCIL at ULDC Scheme Monitoring Group (USMG) meetings as well as NRPC meetings, where it has already been decided to go for Expansion of Scheme (ULDC-II). PSTCL has conveyed its consent to execute the job through PGCIL on turnkey basis. Other NR constituents are following the same.

**View of the Commission**

As per response of PSTCL, ULDC scheme involves many States, whose implementation is entrusted with PGCIL and the payments for the same are being made under the directive issued by CERC. Also refer objection no. 2 & 4, issue no. 28 (i, ii & iii).

**Objection No. 5: Punjab State Power Corporation Ltd.**
**Issue No. 1: Return on Equity**
As per PSERC Regulations, RoE shall be equivalent to the rate specified by CERC. CERC in its Tariff Regulations, 2009 has specified pre-tax RoE as 15.5% for generation and transmission business. However, RoE specified represents the maximum entitlement of the Utility, which can be reduced by the Utility, if it so desires.
PSTCL in its ARR Petition has sought the pre-tax RoE of 14%. Hence, the Commission may allow RoE based on the submission of PSTCL rather than the entitlement.
**Response of PSTCL**
PSTCL has claimed ROE in accordance with CERC Tariff Regulations 2009-14. According to the said Regulations, ROE for transmission utility shall be computed on pre-tax basis at the base rate of 15.5% to be grossed up with the tax rate applicable to the utility.
**View of the Commission**
Refer paras 2.9 & 3.8.

**Issue No. 2: Transmission Charges**
Because of the unbundling of the erstwhile Board, PSPCL is liable to pay transmission charges to PSTCL for FY 2010-11 and FY 2011-12. As there is no precedence of these charges, PSPCL has made provisions in the ARR for transmission charges based on the Tariff Order for FY 2010-11. Accordingly, PSPCL has assumed a growth rate of 10% in the transmission charges payable to PSTCL for FY 2011-12. Transmission charges for FY 2010-11 based on the Tariff Order for FY 2010-11 are Rs. 647.30 crore and for FY 2011-12 it is assumed to be Rs. 712.03 crore(10% escalation). PSPCL requests the Commission to allow transmission charges payable to PSTCL as determined by the Commission for FY 2010-11 and FY 2011-12.
**Response of PSTCL**
The gross revenue requirement of Rs. 647.30 crore was approved in the Tariff Order for FY 2010-11. The ARR as per Petition filed by PSTCL for FY 2011-12 is Rs. 824.08 crore which has been computed in accordance with the provisions contained in PSERC Tariff Regulations and CERC Tariff Regulations, 2009.
**View of the Commission**
Refer paras 2.11, 3.11 & Chapter 4.

**Issue No. 3: Pay Revision Arrears**
PSPCL in its ARR Petition has projected the impact of pay revision arrears to be payable in three equal years instalments starting from February 2011. The one time liability was estimated to be around Rs. 285 crore in FY 2010-11 and Rs. 285 crore again in FY 2011-12. However, the Government of Punjab has subsequently notified that no arrears shall be payable in FY 2010-11 and 40% of the total arrears shall be payable in FY 2011-12, i.e., Rs. 342 crore. The Commission may kindly consider the above mentioned changes in ARR. The Commission may re-compute the impact of pay revision arrears for PSTCL, in the light of the above.
**Response of PSTCL**
PSTCL agrees with the submission of PSPCL. The Commission may decide/approve the amount of pay revision arrears keeping in view the latest notification of Punjab Government in this regard.
**View of the Commission**
Refer paras 2.4.2, 3.3.3 & 3.3.9.

**Issue No. 4: Escrow Mechanism**
PSPCL does not agree with the contention made by PSTCL for getting escrow mechanism in addition to Letter of Credit (LC) mechanism (already agreed by PSPCL). LC mechanism is provided as per standard agreement document. LC mechanism is more than sufficient for ensuring the payment security of PSTCL. There has not been a single incident of LC, which has been operationalised. Hence there is no need for this additional measure of this escrow being put in place. Contract negotiations are still in progress and the terms and conditions may be agreed bilaterally. Once the TSA is finalized, it may be submitted to the Commission for approval.
**Response of PSTCL**
Payment security mechanism is a prudent commercial agreement, which is prevalent in the

power sector and is in the interest of PSTCL. Both PSTCL and PSPCL are separate legal entities with different business mandates and are required to operate in an efficient manner. PSTCL has a long term plan of mobilising funds from different sources, including from banks and also through private placement of bonds/debentures, which will require PSTCL to go for its rating from the recognised rating agencies. Establishment of a proper payment security mechanism will help PSTCL in complying to Basel II guidelines stipulated by RBI for availing loans from banks on competitive rates and terms. This arrangement will, therefore, enhance the creditworthiness of PSTCL. The escrow mechanism has been insisted upon to ensure security of payment of monthly transmission charges by PSPCL to PSTCL.

**View of the Commission**

Refer objection no. 2&4, issue no. 15.

**6. Government of Punjab**

Department of Power, GoP has conveyed its observations on the ARR of PSTCL in its letter dated 19.4.2011 which are summarized hereunder, alongwith the view of the Commission:

The ARR amounting to Rs. 824 Crore and Transmission Charges of Rs. 2825.67/MW/day as demanded by PSTCL be examined on merits.

**View of the Commission**

The Commission has determined the ARR (Refer para 3.11 of this Order) and Transmission Charges (Refer para 4.2 of this Order) of PSTCL in accordance with its Tariff Regulations.

**ANNEXURE-III**

**Minutes of the Meeting of State Advisory Committee of the Punjab State Electricity Regulatory Commission held on March 8, 2011.**

The meeting of the State Advisory Committee was held in the office of the Commission at Chandigarh on March 8, 2011. The following were present:

| | | |
|---|---|---|
| 1. | Mrs. Romila Dubey,<br>Chairperson, PSERC,<br>Chandigarh | Ex-officio Chairperson |
| 2. | Sh. Virinder Singh,<br>Member, PSERC,<br>Chandigarh | Ex-officio Member |
| 3. | Sh. Gurinderjit Singh,<br>Member, PSERC,<br>Chandigarh | Ex-officio Member |
| 4. | Shri M.R.Aggarwal,<br>Spl. Secretary/Power,Govt. of Punjab<br>(on behalf of Secy/Power,Punjab), | Member |
| 5 | Shri G.S.Kalkat,<br>Former Vice Chancellor,PAU,<br># 706, Sector-11-B, Chandigarh | Member |
| 6. | Shri Arun Sekhri,<br>Addl. Secretary/Food & Supplies<br>& Consumer Affairs<br>(on behalf of Secy/Food & Supplies &<br>Consumer Affairs,Punjab), | Ex-officio Member |
| 7. | Shri Jacob Pratap,<br>Asst.Labour Commissioner, Punjab,<br>(on behalf of Labour Commissioner, Pb), | Member |
| 8. | Shri Amarjit Goyal & Shri R.S. Sachdeva<br>on behalf of Chairman, PHDCCI,<br>Punjab Committee, Sec. 31-A, Chandigarh, | Member |
| 9. | Shri Akshey Bector,<br>Chairman,CII, Punjab State Counsel,<br>Sector-31-A, Chandigarh, | Member |
| 10. | Sh.S.K. Kashyup,<br>Chief Elec. Distribution Engineer,<br>(on behalf of Chief Electrical Engineer)<br>Northern Railway, New Delhi, | Member |
| 11. | Director/Distribution,<br>PSPCL,Patiala | Member |

| | | |
|---|---|---|
| 12. | CE/ARR & TR<br>PSPCL, Patiala | Member |
| 13. | Sh.Y.P.Mehra,<br>Ex-Tech. Member, PSEB,<br># 12 Ram Bagh Colony, Patiala | Member |
| 14. | Prof. R. S. Ghuman,<br>Deptt. of Economics, Punjabi University,<br>Patiala | Member |
| 15. | Shri G.S.Bhati, Zonal Manager,<br>(on behalf of Chief Project Manger)<br>Rural Electrification Corporation,<br>Panchkula | Member |
| 16. | Shri Kuldip Singh,<br>S/O Shri Sujan Singh,<br>Brindpur,Shekhupura, Kapurthala | Member |
| 17. | Sh. Bhagwan Bansal,<br>Punjab Cotton Factory,<br>Ginners Association (Regd.),<br>Shop No. 109, New Grain Market,<br>Muuktsar | Member |
| 18. | Sh. Jagtar Singh,<br>Director, Social Work &<br>Rural Development Centre<br>Vill Nurpur Bedi, Distt. Ropar | Member |
| 19. | Shri Gurmit Singh Palahi,<br>Secretary,<br>National Rural Development Society,<br>V & P.O Palahi,<br>Teh. Phagwara (Kapurthala) | Member |
| 20. | Smt. Namita Sekhon, IAAS,<br>Secretary, PSERC | Secretary |

1. The **Chairperson** welcomed the members of the State Advisory Committee and requested them to give valuable suggestions on the issues having a bearing on the Annual Revenue Requirement (ARR) of PSPCL and PSTCL for 2011-12.

2. **Dr. G.S.Kalkat** raised a query about the ARR petition showing an increase in electricity consumption every year despite the fact that there was no increase in the area under cultivation.

   Reacting to this query, Shri A.K. Verma, Director/Distribution PSPCL informed the house that the increase in consumption was due to the fact that 1.2 lac AP connections have been released during the year 2009-10 and 2010-11 under the OYT scheme, in addition to declaration of load under VDS in the year 2009. He further informed that due to the falling water table, consumers are installing submersible pump sets which consumed more energy. He suggested that the consumers should install ISI marked motors.

The Chairperson advised the utility to initiate the process of monitoring of standardization of equipment. She also observed that most of the consumption in the agriculture sector was unmetered and hence the data on agricultural consumption was not accurate.

3. **Mr. R.S. Ghuman** raised the following points:

- Generation, transmission and distribution needs to be more efficient so that T&D losses could be minimized.
- Irrigation by flooding leads to wastage of water and power. A regular co-ordination between the PSPCL, Directorate of Agriculture, Punjab Agricultural University and farmers' leaders is needed to curb this practice.
- During the Rabi season crops need less water for irrigation. Night time supply leads to flooding resulting in wastage of water and damage to the crops. It is suggested that during the Rabi season the agriculture sector should be given day-time supply of 8 hours a day on alternate days. Alternatively, the supply may be given twice a week, for 12 hours a day
- Additional capacity in Punjab is being created in the Private Sector. In the coming 5 years, 65% to 70% generation would be with the private sector. The Commission should advise the Government to ensure that the public sector has a larger share in power generation.
- Hydel power generation potential should be explored as thermal power generation is not only more expensive but also effects the environment adversely. Non conventional energy sources (NRSE) such as solar energy should also be exploited.
- Every successive ARR shows enhanced supply to the agriculture sector even though the area under crop has reduced. This needs to be reviewed. The entire supply to the agriculture sector needs to be metered so as to ascertain accurate figures of supply.

- Financial health of PSPCL needs to be reviewed in the context of power purchase and increased debt liability.
- Forecasting of power purchase should be done.
- Power Subsidy to the agriculture sector should not be at the cost of other consumers.

Member (V) observed that private distribution is a global concept and has shown positive results the world over. Mr. Ghuman, however, opined that Indian economy was essentially agrarian and any comparison between India and other world economies would not be feasible.

4. **Mr. Amarjit Goyal** welcomed the new Chairperson and Member of the Commission. While appreciating the banking arrangement made by PSPCL , Mr. Goyal observed that a steep hike of 67% in the tariff rate in the ARR for 2011-12 may not be acceded to as the industry in Punjab is already over burdened due to 20% cross subsidization and hence any hike in the power would be counterproductive. Suggestions to improve the overall efficiency of power generation and transmission system were made as follows:
   - PSPCL could follow the Tamil Nadu model to enhance its current efficiency by reducing losses and manpower cost and bring about reforms by introducing IT enabled services and e-working in their system.
   - Delay in release of subsidy by the state Government forces the PSPCL to raise short term loan which needs to be curbed.
   - Commission may consider a Voltage supply based tariff as this would lead to reduction in cross subsidy level.
   - Mandatory rain water harvesting would help save water and also replenish the water table leading to lower water consumption.
   - Open access may be continued as it is in compliance with the Electricity Act, 2003 which would also help bridge power deficit till the time PSPCL's generation projects get commissioned and becomes surplus in power.
   - PSPCL should honor & respect the orders of the Commission. The observation was made in the context of non refund of charges of 3% and 5% on supply of 66 kV and above, due since April 1, 2010.

- There should be metered supply for all categories of consumers in order to avoid theft and wastage especially in the case of agriculture consumers.
- Need for immediate financial restructuring of the unbundled companies with special regard to:
  a) No outsourcing of manpower.
  b) Litigation should be reduced.
  c) The system of power purchase should be strengthened.
- Cross subsidization should be reduced to zero level by year 2015. A roadmap in this regard may please be issued.
- No hike in the power tariff as the industry is already burdened with Electricity duty of 13% and Octroi of 10 paise per unit.
- The expenses of unbundling should not be passed on the consumers but must be borne by the Centre & the State Government. This is in line with the Electricity Act, 2003 which provides for a clean balance sheet to successor companies after unbundling.

Detailed comments on issues emerging from the ARR Petition of PSPCL are annexed as **Annexure 'A".**

5. **Mr. R.S.Sachdeva** made the following suggestions pertaining to ARR;

- Efficiency would increase with introduction of IT and E-working.
- Rain water harvesting is beneficial and should be adopted.
- Government should be advised to pay subsidy in time. This would reduce interest burden on the Utility as most short term borrowings are made in order to meet the deficit on account of late payment of subsidy.
- Open Access be allowed without levy of any extra burden on the consumers.
- No further increase in tariff be effected.

6. **Mr. Y.P. Mehra** stated that financial restructuring and curbing of inefficient practices of the utility was the need of the hour. He suggested that the Commission fix efficiency parameters for the utility. This was essential as the Board/PSPCL has not reduced expenditure under any head despite capping of expenditure by the Commission. He made the following observations/ suggestions pertaining to the ARR:

- There is a need to find a solution to the prevailing practice whereby the Commission imposes cuts on the projections relating to establishment/power purchase costs and other allied items of expenditure and efficiency norms. The resulting revenue deficit is met by PSPCL by diverting /utilizing investible assets and raising loans from the market. It is felt that amounts actually spent on establishment are unavoidable and do not warrant a cut.
- Delay in payment of subsidy as also the methodology of adjusting it against loans has deteriorated the financial health of PSPCL.
- No headway has been made by PSPCL in matters like improving efficiency standards and finalizing proposals on issues like two-part tariff, KVAH tariff, improving T/W efficiency, minimizing establishment, providing meters on all the connections, working out voltage wise cost etc.
- There is a need to make cost benefit analysis of investment plans of PSPCL.
- Subsidy for release of tube well connections should be borne by the Government rather than the consumers.
- There is an urgent need to take up generation projects in the Public Sector and the commissioning of projects under execution should be staggered.
- Benefits of carbon credits need to be analyzed.
- Existing regulations on wheeling charges need to be reviewed as both PSPCL and PSTCL would claim such charges separately.
- Dis-continuation of purchase of electricity by LS consumers under Open Access is against the very spirit of Electricity Act 2003. The solution to PSPCL's difficulties lies in adopting two part tariff only. On the other hand, PSPCL is also trying to discourage CPP Owners from selling power under open-access which again is against the provisions of Electricity Act 2003 and Regulations of the Commission. The CPP owners should be free to sell to PSPCL or outside on short term or long term basis.
- PSPCL's proposal to enhance annual maintenance charges to 3% as demanded by RSD authorities be not acceded to as annual maintenance charges on Hydro Projects are not more than 0.5%.

- The proposal to increase ROE charges from 14% to 23% is without any justification.
- The AP tariff rates are much below even the average cost of supply. The same should be brought up to at least 80% of the same as per National Tariff Policy.
- PSPCL has been asking for the refund of Rs. 520/- crore from Punjab Govt. which it had recovered as excess interest charges in the past. The Commission should pass suitable orders in this regard.
- Rates of P.F. incentive be brought at par with PF surcharge. The present policy on the subject is highly unfair to consumers.
- The Commission should come out with a fresh policy with regard to H.V surcharge and HV rebate to provide relief to the aggrieved parties.
- During recent review of tariff order for the year 2010-2011, Commission has agreed to permit carrying cost on deferred payment from the Punjab Govt. This should be recovered from the Punjab Government and not passed on to the consumers.

Reacting to Mr. Mehra's request for implementation of Two Part Tariff, Mr. Akshey Bector stated that the industry had reservations about implementation of Two Part Tariff.

7 **Shri S.K. Kashyup,** CEDE, Northern Railway made the following observations:

- The average traction tariff (including demand charges and other charges) in other states is around Rs.4.40/unit whereas it is extremely high in Punjab (Rs.5.40/ unit).
- Difference between tariffs of HT industry & Railway is largest in case of Punjab. This appears to be arbitrary & against the recommendations of Ministry of Power in letter dated 01.05.1991. This is despite the fact that Railways take supply at 132 KV/220 KV where T&D losses are negligible.
- As per Tariff Order of PSERC for FY 2010-11, Cross Subsidy for railway traction is highest at 31.68% which is violation of the provisions of National Tariff Policy, which mandates that latest by the end of year 2010-11, tariffs should be within +/- 20% of the

average cost of supply. Although, there is a gradual reduction in cross subsidy, cross subsidy for railway traction is still the highest.

- PF rebate for railway traction should be provided for PF above 0.90 instead of 0.95, as in case of other consumers as there is no basis to differentiate it with other HT consumers. Railways should not be deprived of PF rebate for maintaining high PF by providing capacitor banks.
- There is 46.96% increase in revenue gap in 2010-11 in comparison to 2009-10 which can be attributed to very high T & D losses and shows the inefficiency of PSPCL. .Revenue gap should be bridged by govt. subsidy or by reduction in cost. Tariff of consumers should not be increased.
- Railway is expanding its electrification network in Punjab and higher traction tariff will act as a dampener for future plans of electrification as Railways work on a thin operating margin.

**8.** **Mr. Kuldip Singh** made the following observations /suggestions:

- AP applications are pending since 1990 whereas LS/MS/other categories connections are being released regularly. He suggested that pending connections be released quickly by getting a non refundable security deposit.
- A process of de-loading should be initiated.
- A 12 hour supply ,once a, week for the period April to mid May be effected.
- An additional hydel generation plant should be commissioned on the Anadpur Sahib line.

Reacting to the last suggestion, Director (Distribution) pointed out that such commissioning would be violative of the master plan.

**9.** **Mr. Bhagwan Bansal**

Mr. Bhagwan Bansal suggested that there should be installation of branded or ISI mark AP motors and farmers should be made aware of the benefits of such use. He requested that there should be no hike in the current tariff.

**10** **Sh. Gurmeet Singh Palahi** observed that applications for release of AP connections are pending since 1990. He also suggested that water recharging policy should be put in place in the State of Punjab.

11. **Mr. G.S. Bhati,** informed the house that scheme – based cost benefit analysis was made by REC before grant of loan. He also informed that schemes financed by REC are being monitored by them at regular intervals.

12. **Mr. Akshey Bector** made the following observations
    - Category-wise cost of supply be assessed.
    - Increase in manpower cost of the utility should be curtailed.
    - There should be different tariff rates for day and night power.
    - Return on Equity of 23% as claimed by the utility should not be allowed by the Commission.
    - Rate of interest charged by REC is very high. Therefore, restructuring of loans should be considered.
    - National Tariff Policy stipulates that variation in average tariff of all categories should not be more than +/-- 20%. He suggested increase in tariff of the agriculture consumer.

13. **Mr. Jacob Pratap,Asstt. Labour Commissioner** made a reference to the Building and Construction Act as well as Building & Construction Welfare Cess Act and requested PSPCL to ensure payment of appropriate cess while installing power plants.

14. **Mr. M.R. Aggarwal** informed the house that subsidy payable by the Government of Punjab had been paid and no subsidy payment was pending. He also stated that comments of Government would be sent in writing as in the past.

15. **Chief Engineer/ARR**, PSPCL observed that the maximum AP consumption is during the months of June to Sept. The Govt. should, therefore, release the subsidy for these months on the basis of consumption and not in 12 equal monthly installments.

16. **Mr. A.K. Verma, Director/Distribution, PSPCL** informed the house that serious efforts are being made by the Corporation to render best and efficient services to the consumers. He pointed out that IT implementation is being carried out in various fields alongwith system strengthening and improvement in efficiency parameters.

    Reacting to the various queries /observations made by members of SAC, he pointed out that despite manpower reduction on account of retirement the employee cost has increased due to implementation of the Pay Commission Report. He further informed that cross subsidies to various categories of consumers have been reduced in percentage terms.  He pointed out that various generation projects are in the pipeline and by the year 2016-17 about 5000 MW generation capacity will be added. Also, various DSM projects have been undertaken by PSPCL, like shifting of meters, replacements of GSL with CFL lamps, installation of new capacitor banks, de-loading of transformers, and replacement of inefficient AP motors etc. In the end he requested for approval of fuel surcharge on quarterly basis for short term purchase.

The meeting ended with the Chairperson thanking all present for their advice and suggestions. She assured the house that a follow up meeting on the issues raised and their status of implementation would be held soon.

**Annexure-A**

1. **T&D losses:** PSPCL has indicated that they will reduce losses from 18% for the year 2010-11 to 17% in the year 2011-12. This will be achieved after the implementation of certain schemes which are in the pipeline as all the schemes envisaged will require a capital investment which is not likely to be available with PSPCL. As such, the achievement of reduction in losses appears to be an eyewash. The above referred schemes by PSPCL are:
   - Conversion of LVDS tube wells to HVDS tube wells.
   - Replacement of electromagnetic meters with electronic meters.
   - Shifting of consumer meters outside premises
   - Reactive power management
   - IT implementation plans.

   Out of the above, except for the scheme on reactive power management, none of the schemes are likely to reduce the technical losses. It may, however, reduce the thefts.
2. **Power Purchase:** As per the ARR submitted by the PSPCL, purchase of power has been indicated to the tune of 4527.6 crores to 6349.7 crores which is on the higher side. Moreover, this purchase of power is mainly done to meet the paddy requirement and during the same period heavy cuts are imposed resulting in heavy loss to the industry. Due to good monsoon there was no purchase of power for industry. Government should bear the cost of extra power purchased for agriculture.
3. **Employee cost:** As per ARR, employee cost has been indicated as Rs.3607.75 crores which is 120 crores in excess of employee cost indicated in the revised estimate of the year 2010-11. On the one hand PSPCL has indicated that the employee strength has reduced considerably but on the other hand they are claiming higher expenditure on this account. The extra expenditure cannot be justified as per unit cost of PSPCL is higher than other states. The number of senior employees is much more than required and should be reduced by offering VRS to them. The employees cost should not be more than Rs.2400 crore p.a. The Hon'ble Commission can get the figures of

Tamil Nadu State where the total consumers are more than in Punjab and employee cost is much less (Tamil Nadu State's area is much more than Punjab State).

4. **Interest and finance charges:** As per the ARR submitted by the PSPCL, the interest for the year 2011-12 has been indicated as Rs.2203.27 crores which is almost 200 crore higher than the interest and finance charges provided in the revised estimate for the year 2011-12. The reason for increase in interest is mainly due to the short term borrowing for meeting working capital requirement. Interest on short term borrowing for the year 2011-12 has been projected as 938 crores which is 145 crores higher than the interest charges provided in the revised estimate for the year 2010-11. This is due to delayed payment of Govt subsidy. PSERC in its earlier order has clearly indicated that subsidy has to be given in cash and not to be adjusted against any loans. As such this increase in interest may not be allowed. Further, the subsidy for the period when free supply to the agriculture was announced is still pending. As such the loans may be adjusted against the pending subsidy and not against the current subsidy. As per the Indian Electricity Act, 2003, at the time of unbundling of state electricity board, the successor companies were to be given a clean balance sheet. So the question of interest and finance charges to the tune of 2203 crores does not arise and hence may not be allowed.

5. **Agriculture consumption:** The computation of agriculture consumption is on the basis of 10% sample energy meters. This method of arriving at the agriculture consumption has not been approved by the Commission and report submitted by PAU in this regard has also indicated certain measures which have not been implemented by the PSPCL. As such it is requested that PSPCL may be asked to provide energy meters to all the tube well connections for the purpose of arriving at agriculture consumption in the State. The supply to Agri-Sector is also misused in farm houses.

6. **KVAH tariff:** Chamber has been repeatedly requesting PSERC to impress upon PSPCL to start KVAH based tariff but this is being delayed by PSPCL. Though the committee constituted for the purpose has drawn up the TOR(Terms of Reference) for short listing the contractors, no further progress has been made.

7. **Average Cost of Supply:** Average cost of supply has been calculated at 357.39 paisa from 349.69 paisa for the year 2010-11 which is 2.2% higher than the last year. Chamber is of the view that this increase is meagre and since industry is already cross subsidizing other sectors, there should be no increase in cost of supply to the industry.

8. **Open Access:** The levy of cross subsidy on power purchased through open access by various companies is not correct as wheeling and line losses have already been charged in the tariff. Moreover the Cross–subsidization in tariff to the industry and Commercial consumers is to be eliminated between the year 2005-2015. But no road map is provided by the Commission. The Punjab industry is not in a position to bear heavy burden of cross-subsidization in coming years.

9. **EHV Tariff:** Where the industry has installed their own Sub-station of 66 kV and above, they may be given a rebate of 10% (instead of 3% on 66 kV and 5% on 220 kV) as the industry has to bear huge installation cost and maintenance cost.

10. **Power Factor Surcharge:** At present, the power factor surcharge is being charged at the rate of 1% if the power factor falls from 0.90% to 0.89% while rebate of 0.25% is given for the same increase. PHD Chamber feels that this power factor surcharge and rebate should be at par.

11. The large industry requests the Commission to fix the tariff rates on voltage supply basis i.e. 440 Volts, 11 kV & 220 kV. This will simplify the procedure and reduce litigation.

**ANNEXURE-IV**

# PSERC DIRECTIVES

A. An overview of the Directives issued to the Board and its Successor Entities in the Tariff Order 2010-11 and status of their implementation is summarized below:

| Sr. No. | Issues | Directive in Tariff Order FY 2010-11 | PSTCL's reply | PSERC's comments |
|---|---|---|---|---|
| 1 | **Energy Audit and T&D loss Reduction (Ref: Directive 1 of Tariff Order 2010-11)** | The Commission notes that the Board has quantified the specific steps that it proposes to take in 2010-11 with a view to reducing T&D losses. The Commission expects that the Successor Entities would put in every effort to see that quantitative targets and time-lines are achieved. It is also crucial to ensure that IT plan is initiated at the earliest and implemented in the scheduled 18 months.<br><br>In addition to capital intensive measures proposed by the Board, sustained low cost technical interventions such as reduction in earthing resistance, tightening of joints and balancing of loads needs also to be considered.<br><br>**Background:**<br>Measures to reduce Transmission Loss in a phased manner and its implementation | Post unbundling of erstwhile PSEB, Transmission and Distribution losses were being worked out by CE/Planning for PSEB as a whole. Earlier, the losses were not worked out for Distribution and Transmission separately. It is the first time that the losses are to be worked out for Transmission separately. The losses of 132 and 220 KV could not be worked out as large number of meters had been sent for testing by P&M organization. Losses for 2008-09 and 2009-10 have been worked out on the basis of energy available at Punjab periphery and the energy pumped to each operation zone of Powercom at 11/33/66/132/220KV. On the basis of this, the losses for 2008-09 and 2009-10 come out to 4.59% and 4.63% respectively.<br><br>Regarding reduction in transmission losses, it is intimated that 29 No. 220 KV, 100 MVA transformers and 56 No. 66KV/11KV, 20 MVA transformers will be added to the system during the year 2010-11. In addition to this, 977 CKT Kms of 220KV/66KV lines will be added to the system. Some of the existing 66 KV substations will also be upgraded to 220 KV during this financial year. This will definitely reduce the transmission losses.<br><br>During 2009-10, 718 MVAR capacitors were added to the system. During 2010-11, 264 | The Commission notes that the transmission losses of PSTCL are high as compared to other STUs. Effort must be made to reduce the transmission losses.<br><br>Steps undertaken by PSTCL to add HT shunt capacitor banks at its 220 kV and 132 kV substation is in right direction.<br><br>PSTCL is directed 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. |

| Sr. No. | Issues | Directive in Tariff Order FY 2010-11 | PSTCL's reply | PSERC's comments |
|---|---|---|---|---|
| | | | MVAR capacity has already been added that 250 MVAR is lying in store which shall also be installed during the current financial year. In addition, order for the procurement of 775 MVAR capacitors already stands placed. Delivery against which is expected to commence shortly. | |
| **2** | **Employee Cost (Ref: Directive 8 of Tariff Order 2010-11)** | The Commission directs the Successor Entities to ensure that the study is completed and the action plan in the light of its findings finalized by 31.3.2011.<br><br>The Successor Entities should also, as a part of the manpower study or otherwise finalize its views on the restructuring of various wings on a functional basis and prepare the road map for its implementation by 31.3.2011.<br><br>Simultaneously, the time frame to implement manpower saving technologies such as unmanned sub-stations, AMR of high end consumers, distribution SCADA etc. should also be considered and decided upon. | PwC have submitted a complete staff study with action plan in the last week of October, 2010. The report will be placed before the Board of PSTCL for consideration.<br><br>After approval of the Board the study report shall be furnished to PSERC and steps will be taken for its implementation.<br><br>PSTCL has identified 5 no. 220 kV Grid Sub-stations namely Ablowal, Mandi Gobindgarh-I, II, III and Lalton Kalan(Ludhiana) for unmanned operation and the matter is under active consideration of PSTCL. As soon as details are finalised, this work shall be done on turn-key basis through open tender and all these 5 Grid Sub-stations shall be made unmanned. | The Commission directs PSTCL to finalise Work Study Report on Manpower and submit Implementation Action Plan to the Commission.<br><br>Cost benefit analysis of unmanned sub-stations be submitted to the Commission and a plan for their further rollout may be made.<br><br>Adequate training to officers and staff be provided to handle 400 kV, 220 kV, 132 kV systems along-with communication system as per the provisions of Indian Electricity Rules, 1956 (as amended from time to time), National Training Policy and erstwhile PSEB's approved Training Policy.<br><br>Application of modern management techniques across PSTCL to optimise its functioning and efficiency be undertaken.<br>Implementation of |

| Sr. No. | Issues | Directive in Tariff Order FY 2010-11 | PSTCL's reply | PSERC's comments |
|---|---|---|---|---|
| | | | | quality circles, 5S, six sigma, Organisation Development (OD), etc. be done in a time bound manner to improve PSTCL's performance, reduce costs, increase efficiency and optimise manpower output. |
| **3** | **Management Information System (MIS). (Ref: Directive 10 of Tariff Order 2010-11)** | The Commission notes that development of MIS is a part of the IT plan to be rolled out shortly.<br><br>**Background:**<br>The Commission regularly requires authenticated ARR and Regulatory Information Management System (RIMS) related data. It is desirable that the Board creates a system where the Commission can directly access such data online. Modalities for the same need to be worked out at an early date. | SLDC website, "punjabsldc.org" is already in place and real time data like frequency, State drawl against Central sector schedule; State's own generation is also available at the website.<br><br>Other information relating to Open Access consumers/ customers is also updated regularly on SLDC website and PSTCL website i.e. "pstcl.org". It is further brought out that one Expression of Interest for Boundary Metering etc. has already been issued by SLDC. The completion of this project which is likely to take 2 years, will help in energy accounting. | PSTCL is advised to upload RIMS data on its website in the format prescribed by Forum of Regulators (FOR) so that the Commission can directly access the same online. |

Additional Directive during FY 2010-11

| Sr. No. | Issues | Additional Directive during FY 2010-11 | PSTCL's replies | PSERC's comments |
|---|---|---|---|---|
| 4 | **Loading Status of PSTCL transmission lines and sub-stations.** | Present loading status of PSTCL transmission lines and sub-stations be given and expansion program to optimally load them over next 5-10 years. | It is brought out that the overloading of 220/132 and 66 kV Grid Sub-Stations is predominant during paddy season. PSTCL has already chalked out a plan to de-load 220/132 and 66 kV Grid Sub-Stations during the year 2010-11 and 2011-12. A total of 337 no. Transmission Works including new Grid Sub-Stations, augmentation and up gradation shall be carried out thus adding additional capacity of about 7749 MVA during 2010-11 and 2011-12. In addition, the PSTCL is also in the process of constructing 5 No. 400 kV | The list of overloaded transmission lines and sub-stations of PSTCL along with works planned and target dates to optimally load them be displayed on PSTCL website.<br><br>Suitable addition of 220 kV and 132 kV sub-stations and transmission lines to transfer additional power to PSPCL's sub-transmission system (66 kV and 33 kV) be ensured and |

| Sr. No. | Issues | Additional Directive during FY 2010-11 | PSTCL's replies | PSERC's comments |
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| | | | Grid Sub-Stations for evacuation of power from Talwandi Sabo and Rajpura Thermal Power Stations. First 400 kV Grid Sub-Stations shall be commissioned by the end of year 2012. With the completion of these Transmission Works, overloading of PSTCL Transmission System shall almost be eliminated. In the subsequent years, the planning shall be done as per the prevailing system loading conditions at that time. | intimated to the Commission. |

B. NEW DIRECTIVES

| Sr. No. | Issues | Directives in Tariff Order FY 2011-12 |
|---|---|---|
| 1 | **Financial Autonomy and independent functioning of SLDC (Refer para 1.1 of Tariff Order 2011-12)** | The Electricity Act, 2003, National Electricity Policy as well as the endorsement of MoP/GoI envisages independent functioning and financial autonomy of the Load Despatch Centres.<br><br>In line with the above, the Commission directs PSTCL to ensure financial autonomy and independent operation of SLDC at the earliest. . |
| 2 | **Boundary Metering (Refer para 2.3.4 and 3.2.2 of Tariff Order 2011-12)** | The Commission directs PSTCL to take necessary steps to install the energy meters at various 220 kV & 132 kV substations at the earliest and intimate the Commission. |
| 3 | **Maintenance of category-wise details of fixed asset (Refer para 2.7.5 of Tariff Order 2011-12)** | The Commission directs PSTCL to maintain category-wise details of assets as per provisions of The Companies Act, 1956 |
| 4 | **Adequacy of existing switchgear and earthmat at PSTCL sub-stations** | The Commission directs that the short circuit studies be carried out to check adequacy of rupturing capacity of the existing switchgears installed and suitability of the existing earth mats to absorb the short circuit current. Replacement of switchgears and strengthening of earth mats be done wherever required and earthing parameters may be kept as per IEEE Earthing Guide 80. A report in this regard be submitted to the Commission. |