PART - I

Chapter - II
Compliance Audit observations relating to Power Sector Undertakings

Chapter-II

Compliance Audit observations relating to Power Sector Undertakings

Audit of Transactions

Important audit findings emerging from test check of transactions of State Government companies of the power sector have been included in this chapter. This chapter contains nine paragraphs having a financial implication of ₹ 529.64 crore.

Punjab State Power Corporation Limited

Re-structured Accelerated Power Development and Reforms Programme in Punjab State Power Corporation Limited

The Company could not implement the R-APDRP scheme within the time frame stipulated by the GoI. The conversion of GoI loan for Part-A of the Scheme into grant was pending. Due to the delay in implementation of Part-B of Scheme, the Company would be deprived of conversion of interest of ₹ 179.11 crore into grant and tranche of grant of ₹ 116.07 crore. Under booking of expenditure of Patiala town executed departmentally would result in under conversion of grant of ₹ 7.17 crore. Against the envisaged target of reducing the AT&C losses to 15 *per cent*, the AT&C losses of 22 towns were still higher, which would result in non-conversion of loan of ₹ 7.74 crore into grant. The low billing and collection efficiency in 21 and 19 towns respectively, resulted in loss of revenue of ₹ 205.93 crore to the Company.

2.1.1 Introduction

The Government of India (GoI) launched (September 2008) Re-structured Accelerated Power Development and Reforms Programme (Scheme). The scheme envisaged reduction in Aggregate Technical and Commercial (AT&C[1]) losses, establishing reliable and automated systems for collection of base line data, adoption of Information Technology (IT) in the areas of energy accounting and customer care and strengthening of power distribution network in urban areas with population of more than 30,000. The scheme was to be implemented in two parts, Part-A was devoted to establishing IT systems for energy accounting, auditing and measuring AT&C losses and Part-B was towards improvement of distribution infrastructure. The scheme also envisaged establishment of Supervisory Control and Data Acquisition/

[1] AT&C Losses are the sum total of technical and commercial losses. Technical losses primarily take place due to transformation losses at transformer level, losses on distribution lines due to inherent resistance and poor power factor in electrical network. Commercial losses occur due to wrong metering, incorrect billing of power supplied and collection inefficiency.

Distribution Management System[2] (SCADA/DMS) in large[3]towns. The Power Finance Corporation (PFC) (a Government of India undertaking) was the 'Nodal Agency' for implementation of the scheme.

Project Funding Mechanism

Part-A: Initially 100 *per cent* of project cost as a loan from PFC. The loan along with interest thereon was to be converted into grant after the establishment of the IT systems and verification thereof by an independent agency appointed by PFC.

Part-B: Initially up to 25 *per cent* of project cost as a loan from PFC. Balance 75 *per cent* funds were to be raised as loan from PFC/REC/Own/other sources. 50 *per cent* of the loan along with interest of Part-B was convertible into grants in five annual tranches subject to achievement of target of 15 *per cent* AT&C losses on sustained basis for a period of five years and completion of project within the time schedule fixed by R-APDRP steering committee and not exceeding five years from the date of project approval.

2.1.2 Implementation of R-APDRP

The scheme was implemented by the Punjab State Power Corporation Limited (Company) in 47 towns/ cities. A quadripartite agreement was entered (July 2009) between the Ministry of Power (GoI), the Government of Punjab, PFC and the Company. The implementation timelines *vis-à-vis* those achieved by the Company were as below:

Table 2.1: Details of implementation of scheme by the Company

Particulars	Part-A	Part-B	SCADA
Number of towns	47	46	3
Sanctioned cost (₹ in crore)	272.85	1632.70	52.36
Date of sanctioning of projects	June 2009	March 2010 (15) June 2011 (27) September 2013 (4)	October 2011
Scheduled date of completion	June 2012	March 2015 (15) June 2016 (27) September 2016 (4)	October 2016
Actual date of completion	April 2015	March 2018	March 2019

Source: Records obtained from the Company.

The loan availed and expenditure incurred by the Company under the scheme upto March 2019 is as follows:

2 SCADA is a control system architecture that uses computers, networked data communications, graphical user interfaces for high-level process supervisory management to interface with the process plant or machinery.

3 Cities with population more than 4 lakh and annual input energy more than 350 Million Units, as per scheme guidelines.

Table 2.2: Loan availed and expenditure incurred by the Company under R-APDRP scheme

(₹ in crore)

Years	Loan			Expenditure		
	Part-A	Part-B	SCADA Part-A	Part-A	Part-B	SCADA Part-A
2009-16	155.11	539.15	15.71	172.31	592.78	3.09
2016-17	0.00	209.66	0.00	38.24	272.64	1.98
2017-18	67.83	120.15	0.00	15.40	204.40	5.76
2018-19	3.98	184.45	0.00	0.56	90.84	0.40
Total	**226.92**	**1,053.41**	**15.71**	**226.51**	**1,160.66**	**11.23**
Grand Total			**1,296.04**			**1,398.40**

Source: Information obtained from the Company.

The present audit was conducted to assess the implementation and outcome of investments made on projects in 13[4] towns/cities out of 47 towns where the scheme was implemented. The towns were selected using Stratified Random Sampling method by using IDEA[5] software. The expenditure on projects in the 13 selected towns was ₹ 915.31 crore representing 67 *per cent* of the actual expenditure incurred in the scheme upto January 2019.

2.1.3 Audit Findings

The important issues noticed in Audit relating to implementation and outcomes of the scheme are discussed in following sections:

Implementation of the scheme

Part-A works

2.1.3.1 Pending conversion of loan for Part-A into grant

The works under Part-A were scheduled to be completed by June 2012. However, the work was delayed due to failure of the Information Technology Implementation Agency (ITIA) in completing the work within scheduled time. The issue was raised as paragraph 3.3 of Report of the Comptroller and Auditor General of India on Public Sector Undertakings (Social, General and Economic Sectors) for the year ended 31 March 2015- Government of Punjab. The paragraph is under discussion in the Committee on Public Undertakings (September 2020). Thereafter, the work was executed directly by the Company through the technology partners of the ITIA.

The Company declared all the 47 towns as 'Go-live[6]' in April 2015. After establishing of IT system and verification (November 2017) thereof by the independent agency appointed by the PFC, the Monitoring Committee,

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4 Amritsar, Gurdaspur, Hoshiarpur, Jalandhar, Jalandhar Cantt., Kapurthala, Kotakpura, Ludhiana (East and West), Moga, Mohali, Pathankot, Patiala and Phagwara.

5 Interactive Data Extraction and Analysis Software

6 As per System Requirement Specification of PFC, the Company can declare a project area as 'Go live' once it has placed the IT mechanism for online data transfer for facilitating the energy audit without any human intervention.

Ministry of Power, Government of India approved (December 2017) the final executed cost and agreed to convert the loan (along with accrued interest) into grant. However, action in this regard was awaited (September 2020). The Company may like to follow up the matter with PFC.

While accepting the audit observation, ASE-APDRP[7] stated (May 2020) that the formal letter from the MoP, GoI regarding conversion of loan into grant is still awaited.

2.1.3.2 Loopholes in SAP system installed under Part-A

Subsequent to the implementation of Systems, Applications and Products (SAP) under R-APDRP (Part-A) for consumer billing, the company framed (May 2014/May 2015) instructions and prescribed control and responsibilities of competent authorities to operate the SAP billing processes and customer services in concerned distribution divisions/subdivisions. Also, the entry made by an official in the SAP billing system was to be checked/passed by the next higher authority.

It was noticed that during December 2016 to June 2018, unauthorised/wrong refunds amounting to ₹ 12.62 crore had been made in 121 SAP subdivisions of the Company. Out of ₹ 12.62 crore, only ₹ 4.90 crore had been recovered upto March 2019 and ₹ 7.72 crore was outstanding as recoverable from the concerned consumers. Audit observed that the unauthorised/wrong refund had been given through IDs of official of one subdivision to customers of another subdivision through the Customer Relationship Management (CRM) module of SAP system. This indicated that the adequate checks had not been incorporated in the SAP billing module before its rolling out in the distribution sub-divisions and the Company failed to monitor the compliance to instructions regarding SAP billing system by the field offices.

ASE-APDRP stated (May 2020) that now multiple roles are not assigned to any SAP user working in the field offices. However, the reply was silent on the pending recovery of ₹ 7.72 crore pointed out by audit. The Company may like to get its information systems independently verified and fix responsibility of its officials in the case.

Part-B works

2.1.3.3 Part-B works

The Company could not complete the works of 46 towns under Part-B within their scheduled timelines (March 2015/June 2016/September 2016). Upon Company's request (March 2015/March 2017), the GoI extended

7 The Company has not furnished the replies to the audit observation through its Chief Auditor (i.e. Internal Audit wing of the Company which liaisons with Statutory Audit). A copy of the replies submitted to the Chief Auditor by the Superintending Engineer, APDRP and Chief Engineer, Information Technology of the Company has been forwarded (May 2020) by the Additional Superintending Engineer, APDRP (ASE-APDRP) to the Audit. The replies forwarded by the ASE, APDRP have been considered and suitably incorporated.

(September 2015/July 2017) the schedule to March 2017 and subsequently to March 2018, subject to the condition that interest accrued on loan upto 31 March 2017 only shall be considered for conversion into grant.

The Company intimated (June 2016 to March 2018) to the PFC that the works of all 46 towns were physically completed upto March 2018. Audit, however, noticed that the financial closure of 8 out of 46 towns was still pending as on January 2020. The delay in implementation of Part-B works was analysed wherein Audit observed that:

- Out of 42 project towns approved (March 2010/June 2011), the Company invited (November 2011) tenders for 39 project towns divided into seven[8] packages. The finalisation of tender and issue of work orders took more than two years (May 2013). The reasons for delay were delayed finalisation of firms eligible for opening of price bids, non-preparation of base rates by the Company to work out the reasonability of rates quoted by bidders and non-freezing of scope of work of the towns with consequential revisions of Detailed Project Reports (DPRs) during tendering stage.

- In 16 out of total 39 project towns awarded to a firm[9], the work was not taken up by the due date (July 2013). The Company cancelled (February 2015) the work order and re-awarded (January 2016) the cancelled works.

- The work orders of remaining six[10] towns were placed (January 2016), after a delay of 32 months from May 2013. The reasons of the delay were non-verification of baseline data by the independent agency appointed by the PFC and revision of DPRs as per the guidelines of PFC. The delay in award of work of these towns resulted in delay in overall completion of work under the scheme.

- The Contractors did not execute the works as per schedule given in the work orders. It was noticed that the contractors requested (January 2014 to March 2017) for extension in completion period citing delay in completion of survey, delay in issue of installation orders, delay in handing over of land for new 66 KV sub-stations, delay in approval of Guaranteed Technical Particulars (GTPs) and finalisation of rates for extra items by the Company. The company not only granted (November 2014 to September 2018) repeated extensions in completion time but also refunded (December 2014/January 2017) penalty of ₹ 42.69 crore levied on the contractors.

Audit observed that the refund of penalty lacked justification since Board of Directors of the Company while approving revised completion schedule of

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8 Package-1 (16 towns), Package-2 (9 towns), Package-3 (11 towns), Package-4 (one town), Package-5 (one town) and Package-6/Package-7 (one town divided into two packages i.e. Ludhiana East & Ludhiana West).

9 M/s A2Z Maintenance & Engineering Services Ltd., Gurgaon

10 Total 46 towns *less:* (39 towns awarded during May 2013 *plus* one town of Patiala which was executed departmentally by the Company).

works had already considered all these factors and no contractor had quoted any deviation in completion schedule of the work orders at tendering stage.

ASE-APDRP stated (May 2020) that there was no delay in cancellation and allotment of work and the time taken was procedural. The Company conveyed the decision of extra items/change in scope of work to contractors in September 2014 and since the delay was on the part of the Company, extension was given to the contractors as per the provisions of the work orders.

The reply is not convincing as considerable delay in termination of the work orders resulted in delayed re-tendering of the projects with a consequence of overall delay in execution of R-APDRP works. At the time of granting extension, the Company did not compare the progress of original scope of work with reference to milestones stipulated in the work order, to quantify the delay on part of the contractors and refund penalty only for the reasons and delay attributable to the Company.

2.1.3.4 Short conversion of loan and interest into grant

As per scheme guidelines, 50 *per cent* of loan of Part-B works along with interest was convertible into grants in five annual tranches after completion of project works. The GoI had extended (July 2017) the scheduled period for completion of pending works under Part-B upto March 2018 subject to the condition that interest accrued on GoI and counterpart loan (arranged by the Company) upto 31 March 2017 shall only be considered for loan conversion into grant after achievement of the desired milestones under Part-B of the Scheme. Further, there would be no financial commitments for conversion of Part-B loan into grant, beyond 2021-22. Punjab State Electricity Regulatory Commission (PSERC) also in its Tariff Orders for the period 2016-19, directed (July 2016, October 2017, April 2018 and May 2019) the Company that any loss of grant due to delay in completion of R-APDRP works shall not be allowed/passed through Annual Revenue Requirement (ARR) if the Company failed to avail benefit of conversion of loan into grant under R-APDRP.

Audit observed that the delay in completion of work would result in non-conversion of interest on GoI as well as counterpart loan into grant after 31 March 2017 to the extent of ₹ 179.11 crore and deprive the Company of fifth tranche of grant amounting to ₹ 116.07[11] crore due in 2022-23. ASE-APDRP stated (May 2020) that the matter has been taken up by PFC with MoP/GoI and the same is under consideration.

2.1.3.5 Execution of work of Patiala town on departmental basis

The R-APDRP works were required to be implemented on turnkey basis. The Company, however, did not award the Part-B works of Patiala town on a turn-key basis and executed it departmentally (except work of shifting of

[11] 10 *per cent* of actual cost of Part-B projects booked upto March 2019 without interest on loan.

meters). The steering committee of R-APDRP sanctioned (March 2010) the project cost of ₹ 37.92 crore for Part-B works of Patiala town.

It was noticed that R-APDRP wing booked expenditure of ₹ 15.76[12] crore as on March 2019 on this work whereas the Distribution wing of the Company had booked ₹ 30.09 crore (departmental: ₹ 20.60 crore and turnkey contract: ₹ 9.49 crore) during 2010-15. The difference in two figures indicates that own funds utilised in R-APDRP (Part-B) work in Patiala town had been under booked by ₹ 14.33 crore. This under booking of own funds would result in under conversion of project expenditure into grant to the extent of ₹ 7.17 crore. The work of Patiala town had been physically closed in the year 2015 but financial closure of the project was pending (March 2019).

2.1.3.6 Curtailment of work of sub-stations

To augment the power distribution infrastructure, the company planned construction of 48 number of 66/11 KV substations in 27 towns which were curtailed to 38 due to non-availability of land at site. Out of 38 substations, one substation was yet to be constructed.

Audit observed that the company, instead of exploring scope to acquire land, curtailed the number of these substations. As DPRs of projects under the scheme were prepared by assessing future five years load growth, the curtailment in the construction of substation may entail overburdening of the existing substations and non-achievement of the envisaged load profile in future. The Company, however, did not carry an impact assessment study to assess the impact of curtailment of substations.

Further, the work of one substation at Abohar, to be constructed departmentally, was taken up by the Company on April 2018. Since the works under Part-B of the scheme had been physically closed as on March 2018 and expenditure on any work executed after that date would not be booked to the scheme, the Company would suffer additional financial burden to the extent of ₹ 1.13 crore being 50 *per cent* of the expenditure incurred (upto October 2019) on the substation.

ASE-APDRP, while accepting the audit observations stated (May 2020) that the expenditure incurred after March 2018 would be borne by the Company.

SCADA

2.1.3.7 Implementation of SCADA

Amritsar, Jalandhar and Ludhiana towns were selected for installation of SCADA system. The Company could not complete the SCADA upto scheduled date of completion i.e. October 2016 and requested (April 2017/ May 2018) extension from GoI. The GoI granted extension upto March 2019 subject to the condition that interest accrued upto 31 March 2018 only shall be considered for capitalisation/ conversion of loan into grant. It was noticed that

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[12] PFC loan: ₹ 5.69 crore, REC loan: ₹ 9.06 crore and own funds: ₹ 1.01 crore.

as on March 2019, the works under SCADA Part-A were complete on 'as built basis'. The delay was attributed to slow progress in commissioning of Remote Terminal Units (RTU), Feeder Remote Terminal Units (FRTU) and Site Acceptance Test. The delay in completion of work would result in short conversion of interest into grant to the extent of ₹ 0.97[13] crore for the period 2018-19.

The works[14] of readiness of all substations covered under Part-B of the scheme, required to make the distribution system compatible with SCADA was to be completed by March 2018. However, the same were incomplete (July 2019). The incomplete works were attributed to delay of two years in appointment (March 2015) of consultants, cancellation (August 2016) of tender enquiry floated for execution of readiness works before deciding (August 2016) to execute the works on departmental basis and slow execution of work thereafter. Since timely completion of the SCADA is dependent upon readiness of all substations, this would result in delay in completion and implementation of overall SCADA system.

The Company had incurred an expenditure of ₹ 31.82 crore on SCADA Part-B from its own funds. The delay in completion will also result in loss of opportunity of conversion of the expenditure into grant to the extent of ₹ 15.91 crore (50 *per cent* of expenditure incurred).

2.1.3.8 Monitoring by Distribution Reforms Committee

As per guidelines of the scheme, a Distribution Reforms Committee (DRC) at the State Level under the Chairmanship of the Chief Secretary/ Principal Secretary of Power was to monitor the scheme in terms of compliance to conditions and achievement of milestones and targets.

The State level DRC was constituted in April 2009 under the Chairmanship of Principal Secretary, Irrigation and Power by the Government of Punjab. Audit observed that while constituting the DRC, no terms of reference of the DRC were framed in regard to periodicity and mechanism of monitoring the R-APDRP scheme. No provision regarding meetings to be held by the DRC during the year/execution phase of the scheme was made for appraisals of the achievement of milestones/targets. The minutes of meetings held by the DRC during the execution phase were also not on the record due to which remedial action suggested in the meeting and action taken there against could not be vouched in audit. This indicates that the DRC did not monitor milestones and targets under the scheme.

ASE-APDRP replied (May 2020) that periodical meetings were held to review the progress of projects. However, documentary evidence in this regard was not available.

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[13] Calculated @ nine *per cent per annum* on ₹ 10.83 crore i.e. the expenditure incurred on SCADA Part-A upto March 2018.

[14] Supply of SCADA related equipment/ relays required for retrofitting/replacement of old equipment in existing 11KV breakers of 66/11 KV substations.

Outcomes of the Scheme

Audit analysis of the outcomes of the scheme with reference to its objectives, showed that there were deficiencies in achievement of desired outcomes as discussed below:

2.1.3.9 Aggregate Technical and Commercial losses

One of the primary objectives of the scheme was to reduce the aggregate technical and commercial (AT&C) losses in project area. To avail the benefit of conversion of loan into grants, the Company was required to complete the Part-B projects within five years of sanctioning (subsequently extended upto March 2018 by the GoI) and achieve 15 *per cent* AT&C loss on a sustained basis for a period of five years. The loans were to be converted into grant in equal tranches in five years. The works of all the towns under Part-B were completed upto March 2018.

During 2018-19, the Company had achieved the targeted AT&C losses in 25 out of 47 towns only and AT&C losses of remaining 22 towns were still higher[15] than 15 *per cent* and ranged between 15.28 *per cent* and 53.67 *per cent*. Audit observed that out of these 22 towns, AT&C losses of eight towns which were less than 15 *per cent* in 2017-18 but had increased to more than 15 *per cent* in 2018-19. Thus, the Company has not yet achieved the scheme objective of 15 *per cent* AT&C losses. PSERC expressed its concern over high AT&C losses and directed the Company to analyse the reasons and ensure achievement of targeted level of AT&C losses within the stipulated time. The Company attributed the higher level of AT&C losses to load switching between temporary/permanent feeders, outstanding payments from connections to defaulting Government entities, faulty boundary meters and non-adjustment of high billed amount against sundry charges. Audit, however, observed that all these factors were controllable on part of the Company and Company needs to initiate respective remedial actions to achieve the targeted levels of AT&C losses. The Company would suffer non-conversion of loan into grant to the extent of ₹ 7.74[16] crore for the year 2018-19 due to non-achievement of the targeted AT&C losses.

2.1.3.10 Billing and collection efficiency

AT&C losses are calculated on the basis of billing[17] efficiency and collection[18] efficiency. Thus, it was imperative upon the Company to improve its billing

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[15] The AT&C losses of Abohar (38.69 *per cent*), Giddarbaha (25.63 *per cent*), Malout (27.54 *per cent*), Patti (53.67 *per cent*) and Rampuraphul (26.78 *per cent*) were exceptionally higher i.e. more than 25 *per cent* during 2018-19.

[16] ₹ 116.06 crore (First tranche of grant due in 2018-19 being 10 *per cent* of total expenditure booked upto March 2019) *less:* ₹ 108.32 crore (proportionate grant receivable as per actual AT&C losses).

[17] Total units sold (Million units)/ Total input units (Million units)

[18] Revenue collected (₹)/ Amount billed (₹)

and collection efficiency upto the benchmark percentage of 92.20[19] *per cent* each so as to bring down the AT&C losses. After completion of works in March 2018, the average billing and collection efficiency of the Company during the year 2018-19 was 90.94[20] *per cent* and 93.30[21] *per cent* respectively.

During the year 2018-19, out of 47 project towns, the billing efficiency was lower than 92.20 *per cent* in 21 towns whereas the collection efficiency was lower than 92.20 *per cent* in 19 towns. The low billing and collection efficiency contributed in non- achieving the target of 15 *per cent* AT&C losses in the project towns and loss of revenue of ₹ 205.93[22] crore to the Company for the year 2018-19.

2.1.3.11 Communication of data by distribution transformer meters and feeder meters

The activities covered under Part-A of the Scheme also included metering of distribution transformers (DTs) and feeders and automatic data logging for all DTs and feeders. The Company has installed Meter Data Acquisition System (MDAS) to acquire data automatically from DT meters, feeder meters and consumer meters without any human intervention. The position of meters installed on DTs and feeders/meters communicating data with Central Data Centre (CDC) for the last three years ending March 2019 is tabulated as follows:

Table 2.3: Statement showing position of meters communicating with CDC

Month/ year	Number of DTs at the end of year	Meter installed on DTs (*per cent*)	Meters communicating data with CDC (*per cent*)	Meters installed on feeders	Meters communicating data with CDC (*per cent*)
March 2017	50,809	32,942 (64.83)	16,352 (49.63)	1,541	611 (39.65)
March 2018	50,809	32,960 (64.87)	20,159 (61.16)	1,541	626 (40.62)
March 2019	50,809	32,960 (64.87)	16,323 (49.52)	1,787	591 (33.07)

It was noticed that the percentage of feeder meters communicating data with CDC showed a decreasing trend from 39.65 *per cent* at the end of March 2017 to 33.07 *per cent* at the end of March 2019. The Company, however, has not analysed and ascertained the reasons for non-communication of data by DT meters and feeder meters with CDC.

The Company due to deficient feeding of data at the CDC may not be able to carry out full data analysis of performance of 47 towns, calculate distribution

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19 As per PFC guidelines, the formula for calculation of AT&C losses is {1- (Billing efficiency x Collection efficiency)} x 100. At 92.20 *per cent* Billing efficiency and Collection efficiency, the amount of AT&C loss calculates to 15 *per cent*, as envisaged in the scheme.

20 Ranging between 53.80 *per cent* to 98.28 *per cent.*

21 Ranging between 74.01 *per cent* to 99.63 *per cent.*

22 ₹ 3,094.17 crore (Minimum 85 *per cent* revenue to be billed) *less:* ₹ 2,888.24 crore (actual revenue collected).

losses and ascertain poorly performing areas in sub transmission and distribution network.

ASE-APDRP while accepting the observation, stated (May 2020) that the data transfer depends on multiple other devices like meter compatibility, network, UPS, Batteries, Loop Cable and with the procurement of these new devices the availability of meter data would improve.

2.1.3.12 Outages and interruption in power supply

The scheme envisaged improvement in distribution infrastructure to minimise the outages of power. The number and duration of outages during the years 2016-17, 2017-18 and 2018-19 in 47 project towns were as under:

Table 2.4: Statement showing number and duration of outages in 47 project towns

Particular	2016-17	2017-18	2018-19
Number of outages	1,63,590	1,82,635	1,85,733
Duration of outages (in Hours)	1,33,828.45	1,53,462.37	1,49,894.90

Source: Records obtained from the Company.

It was noted that the company did not analyse the reason for this increase in outages in order to address the root cause. Thus, even after making huge investment in improvement of distribution infrastructure under the scheme, the numbers and duration of outages had increased in the project towns.

2.1.3.13 Consumer complaints redressal

Part-A of the scheme included establishment of IT enabled consumer service centres and redressal of consumer grievances. The company has established a centralised online call centre in Ludhiana town where consumers of the 47 project towns can lodge their complaints on Interactive Voice Response System (IVRS). The company is required to handle the complaints within the time limits prescribed by PSERC in the Electricity Supply Code, 2014.

Table below shows the details of complaints received from consumers of the project towns and their redressal during the period 2016-19:

Table 2.5: Statement showing percentage of consumer complaints attended within the time limit prescribed by PSERC

Year	Complaints received and attended during year	Complaints attended within PSERC prescribed time limit	Complaints attended beyond PSERC limit	Complaints attended within PSERC limit (in *per cent*)
2016-17	8,57,620	5,40,594	3,17,026	63.03
2017-18	10,36,600	6,66,849	3,69,751	64.33
2018-19	12,32,207	5,59,977	6,72,230	45.45

Source: Records obtained from the Company.

The Company needs to improve its business processes so that complaints of consumers are attended within the time limits prescribed by PSERC.

Conclusions

The Company could not implement the R-APDRP scheme within the time frame stipulated by the GoI. The conversion of GoI loan for implementing Part-A of the Scheme into grant was still pending. The delay in implementation of Part-B works would deprive the Company of conversion of interest into grant and fifth tranche of grant. Curtailing the number of 66/11 KV substations against those envisaged in the DPRs would entail overburdening of the existing distribution network besides non-achievement of envisaged load profile. The AT&C losses of 22 towns during 2018-19 were still higher than targeted losses which would result in non-conversion of loan into grant. The low billing and collection efficiency in 21 and 19 towns respectively resulted in loss of revenue to the Company. Distribution Reforms Committee, responsible for overseeing the implementation of the scheme at State level, did not monitor milestones and targets effectively under the scheme.

Recommendations

The Company may:

- follow up the matter regarding conversion of Part-A loan into grant with the PFC;
- reconcile the under booking of expenditure of Patiala town and follow up the matter regarding conversion of loan into grant with PFC;
- assess the impact of curtailment of number of planned sub stations on existing substations;
- make efforts to achieve the scheme objectives of 15 *per cent* AT&C losses;
- analyse the reasons for increased duration and incidence of outages for remedial action; and
- ensure mapping of data of 100 *per cent* DT and feeder meters into the CDC database for performance assessment of AT&C losses.

The matter was referred to the Government (August 2019); their reply was awaited (September 2020).

2.2 Short demand of Security deposit from HT/EHT consumers

Punjab State Power Corporation Limited did not review Security (Consumption) charges of its consumers resulting in non raising of demand of ₹ 36.09 crore and payment of avoidable interest of ₹ 1.81 crore on additional cash credit availed.

As per Regulation 16.1 of the Supply Code, 2014[23] of Punjab State Power Corporation Limited (Company), all consumers shall maintain as Security

[23] Effective from 1 January 2015.

(Consumption) with the distribution licensee[24] an amount equivalent to consumption charges (i.e. fixed and variable charges as applicable) for two and a half months where bi-monthly billing is applicable and one and a half month in case of monthly billing, during the period of agreement for supply of electricity. Further, Regulation 16.4 of the Code, *ibid,* provides for annual review of adequacy of security deposit of High Tension[25]/Extra High Tension[26] (HT/EHT) consumers which will be based on the average monthly consumption for the twelve months period from April to March of the previous year.

Punjab State Electricity Regulatory Commission (PSERC) by its notification (June 2016) amended Regulation 17 of the code, *ibid*. This Regulation hitherto provided for payment of interest by the distribution licensee on the security deposit maintained by consumers, at the State Bank of India's base rate prevalent on the first of April of the relevant financial year. In amending the Regulation, the rate at which interest was payable on such Security obtained by the licensee, was changed to the applicable Bank Rate (as on 1 April of each year) notified by Reserve Bank of India. The notified rate of interest was 6.25 *per cent per annum* for the year 2018-19.

Audit observed (July 2019) that the mandatory annual review of adequacy of Security (Consumption) and its consequent revision in case of inadequacy as per regulations, *ibid,* was not ensured by the Company. A test check of records of the Company showed that 13 HT/EHT consumers[27] were having Security (Consumption) of only ₹ 34.21 crore against requirement of ₹ 70.30 crore during the year 2018-19 (based upon their consumption for the year 2017-18). The demand for additional Security (Consumption) on these consumers was not raised upto July 2019.

Further, review of records showed that the Company was availing cash credit from commercial banks at rates of interest ranging from 10.55 *per cent* to 10.60 *per cent* during the year 2018-19 whereas the payment of interest on Security (Consumption), if it had been taken from consumers would have to be paid at 6.25 *per cent per annum*. By not demanding the full security (consumption) from its consumers and consequently availing higher cash credit limits, the Company was bearing an avoidable interest burden of ₹ 1.81[28] crore ***(Annexure 3)***.

Thus, non-review of Security (Consumption) of these HT/ EHT consumers by the Company resulted in non raising of demand of ₹ 36.09 crore as also it having to bear avoidable interest burden of ₹ 1.81 crore.

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24 Punjab State Power Corporation Limited

25 High Tension (HT) consumer means a consumer who is supplied electricity at a voltage higher than 650 volts but not exceeding 33000 volts. HT consumer is billed monthly.

26 Extra High Tension (EHT) consumer means a consumer who is supplied electricity at a voltage exceeding 33000 volts. EHT consumer is billed monthly.

27 Where security recoverable was more than ₹ one crore.

28 Calculated @ 4.30 *per cent* (i.e. 10.55 *per cent* - 6.25 *per cent*) for the period June 2018 (One month's margin given after revision of tariff on 19 April 2018 for financial year 2018-19) to July 2019 for 14 months.

It is recommended that the Company may review Security (Consumption) due from its consumers and raise the demand timely in compliance of governing regulations to safeguard its financial interests.

The matter was referred to the Government and the Company (August 2019); their reply was awaited (September 2020).

2.3 Undue favour to consumers

Undue favour of ₹ 12.77 crore to arc furnace industry consumers in waiver of interest and allowance of rebate

Punjab State Electricity Regulatory Commission (PSERC) in its tariff orders for the years 2004-05 onwards levied voltage surcharge at the rate of 10 *per cent* on Large Supply (LS) consumers having contract demand exceeding 2,500 KVA and upto 4,000 KVA and at the rate of 17.5 *per cent* on all arc furnace consumers and other consumers having contract demand exceeding 4,000 KVA, catered at 11 KV against admissible supply of 33/66 KV. Induction Furnace Association of North India (IFA) filed the review petition (no. 16 of 2006) challenging the levy of the voltage surcharge which was dismissed (October 2006) by PSERC.

The Punjab and Haryana High Court also dismissed (September 2011) the appeals challenging the levy of the voltage surcharge against which the appeals were filed in the Supreme Court. The Supreme Court also upheld (March 2017 and June 2017[29]) the decision of High Court in concurrence to the consistent view taken by PSERC in all the tariff orders from 2004-05, that to offset the transmission and other losses and other incidental charges incurred in enabling the units to draw power at 11 KV supply without switching over to 66 KV supply line, levy of surcharge was necessary.

During July 2017 and August 2017, the IFA represented not to charge interest for the case period and allow to deposit the amount in installments. To consider these representations, agendas in month of August 2017, November 2017, December 2017 and February 2018 were placed before Board of Directors (BoD) of the Punjab State Power Corporation Limited (Company). BoD decided (August 2018) that 15 *per cent* of the total recoverable amount be deposited as first installment from the consumers and balance amount be recovered in 12 monthly installments with simple interest at State Bank of India’s base rate of 8.70 *per cent* on reducing balance basis. Accordingly, instructions were issued to field offices.

Despite decision of the Supreme Court in its favour, the Company failed to recover the arrears of voltage surcharge from the Consumers up to August 2018. The IFA met (September 2018) the representative of the State alongwith representatives of the Company and as per decision, field offices were

[29] Supreme Court Judgement dated 1 March 2017 in case of voltage surcharge on LS consumers (except arc furnace consumers) and Judgement dated 19 June 2017 in respect of arc furnace consumers.

instructed not to disconnect the connections of such consumers against whom recovery of voltage surcharge was pending till further orders.

The IFA again represented (October 2018) that they are ready to deposit 10 *per cent* of the basic amount of voltage surcharge within 15 days and requested to withhold all further proceedings regarding recovery of arrears on account of voltage surcharge.

The BoD reversed (21 November 2018) its earlier decision (August 2018) subject to approval of PSERC and decided to waive off full interest amount and recover the principal amount over a period of 3 months and in case of early deposit of principal amount within 15 days a rebate of 5 *per cent* shall be allowed. Accordingly, the Company waived off interest amount of ₹ 12.20[30] crore and allowed rebate of ₹ 0.57[31] crore to consumers.

Audit observed (July 2019) that as per clause 35.2 of the Supply code, 2014 and clause 111 of Electricity Supply Instruction Manual (ESIM) 2018, this case is covered under clause 5 (1) (iii) (b) of Consumer Complaint Handling Procedure and the Company was entitled to recover arrear amount along with the interest. The Finance Section of the Company took legal opinion (August 2017) and concurred that recovery of interest charges cannot be avoided and the allowing of rebate was not justifiable. The Company approached (May 2019) PSERC in pursuance of BoD decision (November 2018) and filed a petition (4 of 2019) before PSERC for waiving off interest on arrears and for allowing rebate of 5 *per cent*. By this time out of 28[32] consumers involved, only four availed it and 11 consumers had already deposited their arrear amount before decision of BoD and two after decision of BoD without availing rebate. The petition was not admitted (July 2019).

The waiver of interest and allowance of rebate to the arc furnace industrial consumers, resulted in undue financial burden of ₹ 12.77 crore on scarce financial resources of the Company and was violative of provisions of the Supply Code and ESIM.

The Management and the Government while admitting (December 2019) the facts, stated that decision of BoD regarding waiver of interest and allowance of rebate was subject to approval of PSERC and after the refusal of PSERC to admit the petition of the Company, an agenda was put up to BoD to reconsider its earlier decision. However, BoD deferred the agenda. The fact remains that waiver of interest and allowance of rebate was violative of the Supply Code and ESIM.

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[30] Six consumers

[31] Four consumers

[32] The remaining 11 consumers were permanently disconnected consumers whose dues amounting to ₹ 25.96 crore were still recoverable.

2.4 Avoidable loss of generation

Non-installation of trash rack cleaning machine and lack of co-ordination between the operational wings of the Company, during construction of Stage-II of Mukerian Hydel Project, resulted in avoidable loss of generation of power valuing ₹ 15.26 crore.

Stage-II of Mukerian Hydel Project (MHP) of Punjab State Power Corporation Limited (Company) comprising two generating Units of 9 MW each was commissioned in May 2017 and February 2018.

After commissioning of MHP, accumulation of trash on water intake gates of generation units, delay in commissioning of transmission line for evacuation of generated power and non-provision of proper drainage system at power houses resulted in generation loss of 233.35 lakh units (LUs) valuing ₹ 15.26 crore during October 2017 to May 2019.

Audit observed (March 2019) as under:

a. Flowing water to a hydel plant is accompanied by weed, logs and other refuse/trash material which have to be prevented from reaching the turbines at intake gates of each power house through trash racks. Such accumulated trash material, if not removed regularly, results in reduced pressure of water and consequent generation loss. The removal of accumulated trash material from trash racks is carried out with the help of Trash Rack Cleaning Machines (TRCM) provided at intake gates of all the four power houses of Stage-I of MHP.

Audit observed that installation of such TRCM was neither included in the original scope of Engineering, Procurement and Construction (EPC) work for Stage-II awarded to Bharat Heavy Electricals Limited (BHEL) during May 2004/September 2011, nor included at any further stage of construction. The two units of Stage-II were commissioned without TRCM.

After commissioning, the trash racks started getting choked due to accumulation of trash, thereby leading to reduced water pressure on generating Units and ultimately in loss of power generation. To prevent generation loss, the Company decided (June 2018) and installed (June 2019) TRCM at intake gates of Stage-II. In the meantime, manual cleaning of choked trash racks of Stage-II was conducted (October 2018) incurring an expenditure of ₹ 13.01 lakh. The choking of trash racks of Stage-II power house, in the absence of TRCMs, caused avoidable loss of generation of 198.85 LUs valuing ₹ 13.02 crore[33] during October 2017 to May 2019 besides expenditure of ₹ 13.01 lakh on cleaning.

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[33] Calculated at average revenue per unit allowed by PSERC in the tariff orders for the years 2017-18 (₹ 6.33), 2018-19 (₹ 6.55) and 2019-20 (₹ 6.63).

The Management/Government replied (July 2019), that original detailed project report (DPR) did not provide for TRCM. However, after feeling its requirement for efficient operation of generating units, the same was commissioned during June 2019.

The reply is not acceptable as the provision of TRCM should have been made well in time before commissioning of power house based on the experience of its necessity in existing power houses (Stage-I of MHP) so as to avoid generation loss during its operation.

b. Power generation at Stage-II is done at 11 KV and is stepped up to 66 KV. The evacuation of power from Stage-II was to be carried out through 66 KV transmission line terminating at 66 KV sub-station at Bhattian Jattan and 66 KV single circuit transmission link line between Stage-I and Stage-II which was commissioned (May 2019) after delay of up to two years from the commissioning of Stage-II. Pending commissioning of 66 KV transmission line, only one 66 KV line Bhattian Jattan was available for power evacuation from Stage-II and whenever this 66 KV line went under fault, Stage-II got tripped, thereby resulting in generation loss. It was noticed that around 149 hours of generation were lost at Stage-II due to faults on associated 66 KV transmission system up to February 2019, resulting in loss of generation of 12.80 LUs valuing ₹ 0.82 crore.

The Management/Government replied (July 2019), that the delay in commissioning of 66 KV transmission line between Stage-I and Stage-II was attributed to revision (June 2018) in the originally approved (December 2012) route plan of the line necessitated by objection (October 2017) of Defence Authorities during its construction phase.

The reply is not acceptable as the construction work of transmission line planned in 2010-11 was taken up (September 2017) only after the commissioning (May 2017) of first unit of Stage-II when it was hampered by the objection of Defence Authorities. Thus, lack of co-ordination in carrying out timely construction of transmission works in tandem with the construction activities of Stage-II, apart from not taking into account construction restrictions in sensitive zones, resulted in the generation loss.

c. Construction of service drain around switchyard and right hand side of power house was vital before commissioning of Stage-II of MHP. In the absence of service drain, rain water and seepage/leakage water from retaining walls/ civil structures would get accumulated in power house and there was risk of water entering into machine hall, turbine and generator and flooding of power house resulting in huge loss to the Company.

It was noticed that various civil works were incomplete before commissioning of the Stage-II. Amongst the pending works was non-availability of proper drainage system for rain water which posed chances of flooding of the power house. The civil works of the power house remained incomplete (March 2019) despite a lapse of 12 to 21 months from the commissioning of both the Units.

On 7 February 2019, rain water flooded one unit of the power house through cable trench leading to forced shutdown for more than eleven days[34], resulting in loss of generation of 21.70 LUs valuing ₹ 1.42 crore[35]. The unit attributed the accident to improper drainage system at power house, non erection of service drain and associated works.

The Management/Government, however, replied (July 2019), that though the drainage system and submersible pump in dewatering sump were installed, non-availability of power supply at the plant for long duration resulted in accumulation of water due to non-functioning of pumps in dewatering sumps. Temporary arrangements were then made for draining out the accumulated water by hiring two DG sets to run the drainage pumps. A new 125 KV DG set and other required equipments have since been ordered (June 2019) for meeting such future eventualities.

The reply is not acceptable as the Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2010 mandates arrangements for flowing out all drainage water through provision of pumps and also diesel generators to meet the requirement of emergency power supply for essential station services. Also, the service drainage system was inadequate.

Thus, non-installation of TRCM, non-commissioning of 66 KV transmission line and non-availability of required drainage facilities before commissioning of Stage-II resulted in avoidable generation loss of 233.35 LUs valuing ₹ 15.26 crore besides avoidable expenditure of ₹ 13.01 lakh on cleaning the trash.

It is recommended that the Company may ensure provision/completion of all necessary facilities required for smooth generation and evacuation of power before commissioning to restrict generation losses.

2.5 Electricity supply dues

Failure of the Company to timely raise energy bills on a firm with which it had a power purchase agreement, resulted into accumulation of electricity supply dues and blockade of funds of ₹ 4.90 crore.

Punjab State Power Corporation Limited (Company) entered (August 2014) into a Power Purchase Agreement (PPA) for purchase of power with M/s International Mega Food Park Ltd. (Firm) which had established a

34 00:45 hours of 7 February 2019 to 18:52 hours of 18 February 2019.

35 Calculated at average revenue per unit allowed by PSERC in tariff order for the year 2018-19.

Biomass based Co-generation power project of 4 MW capacity under New and Renewable Sources of Energy (NRSE) policy of the Government of Punjab.

The PPA provided that the Company would prepare a monthly energy account depicting the energy delivered and imported by the Firm at the interconnection point, during shut down/start-up of the power project. In case of no generation by the Firm, the Company was to deliver a monthly invoice of minimum consumption charges to the Firm. Regulation 124(4) of the Electricity Supply Instructions Manual, 2017 (ESIM) of the Company provides that a firm which is a consumer of the Company shall be billed as per tariff applicable to LS consumers and if the firm is not a consumer of the Company but seeks to avail of standby and start up power, it will sign an agreement with the Company for meeting such power requirement. Regulation no. 124 (5) of the ESIM states that if the amount payable by the Company for purchase of power is less than the total charges payable by the firm, then the Company will recover net amount from the latter in the same way as applicable to LS consumers of the Company.

The power project was synchronised with 66 KV sub-station of the Company in February 2016 and the firm supplied power to the Company up to March 2017. The Company noticed (October 2017) that since April 2017, the energy account of the firm reflected import of electricity from Company in excess to the export of electricity to the Company, hence, the excess electricity being used by the firm was required to be billed. However, the Company did not raise the electricity bill till December 2017.

The Company, after a period of eight months, raised (January 2018) first electricity bill of ₹ 3.55 crore upon the firm for the period April 2017 to December 2017 which was not paid by the firm within the due date (22 January 2018). Thereafter, regular monthly electricity bills were issued but the firm did not make full payment against these bills and the amount of bills payable by the firm to the Company accumulated to ₹ 4.90 crore (after adjusting the interim payments and generation bills of the firm). Meanwhile, the insolvency proceedings against the firm were initiated (February 2019) by the National Company Law Tribunal (NCLT) and the Company submitted (14 March 2019) its claim of ₹ 4.90 crore to the Interim Resolution Professional appointed by the NCLT. The insolvency proceedings were under process (September 2020).

Audit observed (April 2019) that in view of preparation of monthly energy account, the firm not being a consumer of the Company since February 2016 and in absence of any provision in PPA regarding billing of excess consumption by firm, it was imperative upon the Company to immediately ask the firm to enter into an agreement for Standby and Startup power for meeting its power requirements and thereafter raise the electricity bills in time as per the ESIM 2017. However, the inaction on part of the Company led to continuous import of electricity by the firm without any bill being raised. Further, the Company did not disconnect the electricity supply of the firm permanently and pursue the recovery of electricity supply dues since May 2017 which resulted in accumulation of electricity supply dues and blockade of funds to the tune of ₹ 4.90 crore.

The Management of the Company stated (October 2019) that due to non-provision of excess power consumption by the firm in PPA, liability of the firm towards the Company remained increasing and the electricity bills were issued after the directions (January 2018) of Chief Engineer, Power Purchase and Regulation. The electricity connection of the firm was not disconnected as the biomass plant was recognised by the Ministry of New and Renewable Energy, the firm had also assured to deposit the balance amount. The firm, declared bankrupt during February 2019, has been taken over by Banker of the Firm who is paying current bills of the firm. Efforts are being made to get the remaining amount deposited.

The reply is not acceptable as in absence of any agreement with the firm for standby and start up power, the electricity dues accumulated due to non-disconnection of the electricity supply of the firm and non-compliance of provisions of the PPA and the ESIM, 2017 regarding billing of firm by the Company. Further, the PPA clearly provided that failure of the firm to pay any amount due to the Company within 90 days of receipt of monthly invoice or abandonment of its generating facility shall constitute an event of default by the firm and the Company could have even terminated the agreement with the firm.

It is recommended that the Company may review and incorporate adequate provisions in other existing PPAs to safeguard its financial interests against the co-generation power projects which import electricity in excess to the export to the Company and raise the electricity bills timely to avoid accumulation of dues.

The matter was referred to the Government (June 2019); their reply was awaited (September 2020).

2.6 Execution of deposit work

The Company executed deposit work without obtaining advance deposit in violation of its provisions, resulting in blocking of funds and consequential loss of interest of ₹ 1.48 crore.

Punjab State Power Corporation Limited (Company) undertakes and executes deposit works such as erection of transformers centers, laying of transmission lines, etc. on behalf of and after being approached by Government departments, local bodies and consumers. These deposit works are executed after acceptance of deposit equal to the total amount of the estimate. Clause 7.3 of Manual on Capital Expenditure and Fixed Assets, 1988 of the Company provides that the deposit work shall not be commenced till the deposit amount is received.

The Company approved (December 2015) an estimate of ₹ 9.35 crore for deposit work of "66 KV double circuit tower line for International Airport, Mohali" on behalf of Greater Mohali Area Development Authority (GMADA). The Company started the work in June 2016 without taking advance deposit from GMADA. The work was completed in March 2017. Audit observed (April 2019) that against the advance deposit required to be recovered from GMADA, the Company recovered the amount of ₹ 9.35 crore from GMADA only on 8 February 2018 i.e. after a delay of 20 months from the start of work.

The failure of the Company to recover the estimate amount in five months time[36] before commencement of work and execution of full deposit work without advance deposit in violation of the standing orders resulted in blocking of the Company's funds of ₹ 9.35 crore and consequential loss of interest of ₹ 1.48[37] crore thereupon.

The Management stated (December 2019) that the work was started before receiving the deposit amount as the line was to be completed at the earliest, keeping in mind the interest of public for International Airport, Mohali and GMADA was still in process of arranging the funds.

The reply is not acceptable as deposit works of Government agencies are executed in public interest only and GMADA was having sufficient funds during 2015-17 to pay its dues timely to Company. As such, the execution of deposit work without acceptance of deposit amount in violation of Company's own orders lacked justification.

It is recommended that the Company may undertake deposit works from other agencies after acceptance of deposit amount against the estimated expenditure.

The matter was referred to the Government (May 2019); their reply was awaited (September 2020).

2.7 Procurement of energy meters

The Company's decision to purchase energy meters at higher rates instead of non-enhancement of ordered quantity against an earlier tender enquiry at lower rates resulted in extra expenditure of ₹ 1.30 crore.

Punjab State Power Corporation Limited (Company) floated (September 2017) an e-tender enquiry (MQP–120/2017-18/PO(M)) for procurement of nine lakh single phase energy meters conforming to ISI specifications and of Class-1 accuracy. The e-tender was responded to, by six firms.

The bids were opened (14 November 2017) in which two participating firms were disqualified for their not fulfilling the revised pre-qualification criteria (PQC) as per the amended Purchase Regulations (effective from August 2017). Another firm was disqualified (January 2018) due to its sample

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36 29 December 2015 (date of approval of estimate of the work) to 7 June 2016 (date of start of the work).

37 Calculated on ₹ 9,34,61,578 (Actual amount of estimate of the work) @ 9.36 *per cent per annum*: 7 June 2016 to 30 September 2016 (116 days), @ 9.70 *per cent per annum*: 1 October 2016 to 31 March 2017 (182 days) and @ 9.36 *per cent per annum*: 1 April 2017 to 7 February 2018 (313 days) as per the carrying costs of revenue gap determined by the Punjab State Electricity Regulatory Commission in the Tariff Order of the Company for the financial year 2018-19.

energy meter failing in technical tests. The price bids of the three qualified firms were opened (February 2018) and through reverse auctioning process and further negotiation with L-1 firm, lowest price of ₹ 571.50 each was obtained.

The Company during its decision making process observed that price of energy meters obtained in the instant tender enquiry was significantly higher (23.32 *per cent*) from the price of ₹ 463.40[38] each at which ongoing purchases were being made against the previous tender enquiry (MQP-110) of February 2017. The Company attributed the increase in price to the amended PQC as a result of which firms which were earlier supplying energy meters, at lower rates, were disqualified in the instant tender enquiry.

Audit observed (June 2018) that the amended PQC had been withdrawn by the Company in November 2017. However, the fact of withdrawal of revised PQC conditions (November 2017) and the impact of its non-consideration that led to procurement of energy meters against the instant tender at significantly higher rates was overlooked by the Company.

Audit further observed that, in view of acute shortage of energy meters and the fact that the supplies against the instant tender would have taken another two to three months to materialise, a proposal for ordering additional quantity of 1.20 lakh energy meters (20 *per cent*) at the existing rate of ₹ 463.40 each from a firm which was supplying material against previous tender was mooted (March 2018) based on proposal of the supplying firm. However, the proposal was turned down (March 2018) by Whole Time Directors (WTD) of the Company, while allocating 6.75 lakh energy meters amongst the three successful bidders at above stated negotiated rate against the present tender enquiry. Accordingly, purchase orders for supply of 6.75 lakh energy meters were placed in April 2018 upon the three successful firms.

Thus, the decision of the Company to procure 6.75 lakh single phase energy meters at higher rates without considering retendering despite withdrawal of revised PQC conditions had resulted in disqualification of firms earlier offering lower rates. Further, non-enhancement of ordered quantity against previous tender enquiry at lower rates from a firm with satisfactory performance despite acute shortage of energy meters with the Company and the supplies against the current tender taking more time to materialise, has resulted in extra expenditure of ₹ 1.30 crore (1.20 lakh energy meters @ ₹ 108.10 per piece) on procurement of single phase energy meters.

The Management/ Government replied (March/April 2019) that the instant tender enquiry had been opened (November 2017) before withdrawal (November 2017) of amended PQC. As regards non-enhancement of ordered quantity against previous tender enquiry at lower rates, the meters to be supplied against the instant tender were considered to be of better quality with new features.

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[38] Rate of previous tender enquiry

The reply is not acceptable as the proposal for withdrawal of amended PQC, based on difficulties experienced by various Company divisions in getting satisfactory competition in tenders, was under consideration (October 2017) of Company well before the opening (November 2017) of instant tender enquiry. The impact of withdrawing amended PQC was not considered while going ahead with procurement. In view of shortage of energy meters, the justification of better quality meters is not acceptable for not enhancing ordered quantity of meters against previous tender.

2.8 Loss of interest

Procurement of material without taking statutory clearances, resulted in delay in upgradation of 33 KV substation and blockage of funds of ₹ 2.16 crore along with consequential avoidable loss of interest of ₹ 0.66 crore

The Manual of Capital expenditure and Fixed Assets (Manual) of the Punjab State Power Corporation Limited (Company) provides that for every work proposed to be carried out, proper detailed estimate should be prepared and an application accompanied by a preliminary report/estimate should be submitted to the competent authority to obtain administrative approval and technical sanction.

To provide uninterrupted and good quality of the power supply to industrial units of special economic zone between Phagwara and Goraya, the Company envisaged to upgrade 33KV Substation, GT Road, Phagwara and placed (September 2014) a work order/contract agreement amounting to ₹ 3.32 crore for design, manufacture, supply, testing, laying and commissioning of 66 KV transmission line to a Firm on a turnkey basis. The material was to be supplied within two months from the receipt of clearance of the work i.e. approval of guaranteed technical particulars and route length by the Chief Engineer (Transmission System) of the Company. The installation, laying testing and commissioning of line was to be completed in next two months. The terms of payment provided that 80 *per cent* payment of the material will be paid within 45 days on receipt of the material.

Audit observed (March 2017) that the Company approved (February 2015) the guaranteed technical particulars alongwith route length of line and requested (February 2015) the Firm to commence work by arranging the required material. The Firm supplied (March 2015) the main components of required material (66 KV cable, cable end terminations, etc.) and the company released (May 2015) ₹ 2.16 crore, being 80 *per cent* of the value of the material supplied. The Company applied for statutory clearances in March 2015, May 2015 and November 2015 from Indian Railways, Forest Department and the Municipal Corporation, Phagwara respectively. The clearances were given by these agencies in August 2016, June 2018 and December 2015, respectively. Against the scheduled date of completion of April 2015[39], the work was actually completed in September 2019 i.e. a delay of more than four years. An expenditure of ₹ 6.12 crore had been incurred on the transmission line upto September 2019.

[39] Two months from February 2015 i.e. the date of clearance of work by the Company.

Audit observed that the execution of work was delayed due to non receipt of clearance from the Forest Department and Indian Railways. The Company did not comply with the instructions given in the Manual in regard to obtaining prior approvals from other departments and instead applied for statutory clearances only after giving a go ahead to the Firm to proceed with the procurement of material for the work. The injudicious decision of the Company to carry out the work without first receiving the necessary clearances from the concerned Government departments resulted in delay in upgradation of 33 KV Substation and blockage of funds of ₹ 2.16 crore along with consequential avoidable loss of interest of ₹ 0.66[40] crore.

It is recommended that the Company may ensure obtaining statutory clearance from Forest Department/ other agencies before start of any work in order to avoid any delay in execution of work and schedule the procurement of the required material accordingly, to prevent blockage of funds.

The matter was referred to the Company and the Government (July 2019); their replies were awaited (September 2020).

2.9 Shifting of feeders

Shifting/replacement of 11 KV feeders from own funds instead of executing them as deposit works, resulted in loss of ₹ 0.62 crore.

Regulation 40 of the Electricity Supply Instructions Manual (ESIM) of the Punjab State Power Corporation Limited (Company) provides that where any State/Central Government authority or an individual agency approaches for the shifting of the lines, estimate for deposit work shall be prepared by the Company covering the cost of material, wages of labour, supervision charges, etc. Further, the Manual on Capital Expenditure and Fixed Assets, 1988 of the Company provides that the deposit work shall not be commenced till the deposit amount is received.

Audit observed (October 2017) that the public representatives of the State approached (January 2014/December 2015/November 2016) the Company for shifting/replacement of 11 KV feeders passing over the residential areas of Jalandhar City with the recommendation that these shifting works be carried out at the cost of Company. Instead of executing these shifting/replacement works against deposit estimates as per existing instructions, the Company moved (January 2014/February 2016/December 2016) the proposal to the Whole Time Directors (WTDs)/ Board of Directors (BoD) of the Company for getting the works executed at its own cost. It also apprised that the finance wing of the Company has expressed its inability to agree with the proposal. Citing the Corporate Social Responsibility (CSR) obligation of the Company,

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[40] Calculated for 37 months from May 2015 (date of payment for material) upto May 2018 (one month before June 2018 i.e date of receipt of forest clearance) and taking average interest rate of 9.93 *per cent per annum* (i.e. weighted average of the yearly interest rates on working capital approved by the Punjab State Electricity Regulatory Commission in the tariff orders for the Company for financial years 2015-16 to 2018-19).

WTDs/BoD accorded (February 2014/March 2016/ December 2016) approval to the proposal. Audit further observed that during the period 2014-15 to 2018-19, the Company shifted/replaced 10 number of 11 KV overhead feeders at the cost of ₹ 0.62 crore by utilising own funds which cannot be recovered and is a loss to the Company.

The Management stated (November 2019) that with the passage of time, many residential premises were constructed under 11KV HT Supply Lines and fatal accidents had occurred in the past with the possibility of the Company having to compensate. The Company accepted that these lines had to be shifted/replaced by depositing the amount from the consumers but to avoid any future accidents and to meet the Corporate Social Responsibility (CSR), the Company had shifted these lines at its own cost.

The reply of the Management is not acceptable as the ESIM of the Company lays down that electricity connection under high tension lines can only be issued on the undertaking of the consumer that they shall be responsible for any damage in case of fatal accident. Moreover, such works do not qualify under CSR[41] policy of the Company and Company had been undertaking and executing similar works of shifting of 11 KV overhead feeders as deposit works.

Thus, work of shifting of 11 KV overhead lines worth ₹ 0.62 crore at its own cost, in contravention of the Electricity Supply Instruction Manual, was a loss to the Company.

It is recommended that the Company may execute shifting/replacement works of electrical installations after obtaining necessary deposit amount as per its standing orders.

The matter was referred to the Government (July 2019); their reply was awaited (September 2020).

[41] The CSR policy of the Company focuses on hunger, poverty, malnutrition, health education, rural development projects, gender equality, empowerment of women, environment sustainability, national heritage, art and culture only.