

## Chapter

## VIII

# Conclusion and Recommendations

### 8.1 Conclusion

**8.1.1** BHEL, India's largest engineering and manufacturing company, is engaged in the design, engineering, manufacture, construction, testing, commissioning and servicing of a wide range of products and services for power and other core sectors of the economy. While preparing its strategic plan for the period 2012-17, BHEL had assessed (November 2011) that there would be a definite change in its business environment. BHEL acknowledged that the past decade ending 2010 had introduced challenges in the form of climate change; increase in intensity of competition with emergence of new competitors; and squeezed delivery schedules. Recognising the challenges in the business environment, BHEL had fixed Strategic Plan targets for the period 2012-17 with a focus on diversification and innovation. The challenge before BHEL was not only to safeguard its core business, but also to focus on diversified areas like defence, solar, wind and water businesses and also involve R&D to attempt breakthrough developments. Audit noticed that the efforts for diversification and innovation were inadequate and BHEL could not make headway in any of the identified areas; - bridging technological gap in the core power sector, renovation and modernisation, Indian Railway projects, solar energy etc. Research and Development initiatives also did not bring significant results. In the core power sector, an initiative towards development of Advanced Ultra Supercritical Technology for enhancing the plant efficiency and reducing coal consumption and CO<sub>2</sub> emission did not achieve the desired outcome due to considerable delay in approval of the project.

**8.1.2** Competitiveness of BHEL in core business area has been an area of concern as its success rate against competitors declined from 80.44 *per cent* in 2013-14 to 43.95 *per cent* in 2014-15 and to zero *per cent* in 2015-16. Lost tender analysis in audit revealed that the most significant reasons for losing tenders were pricing and technical/ commercial loadings, which together account for 85.29 *per cent* orders (in terms of value) that were lost. Costing information used by manufacturing units/regional officers of BHEL for bidding was not reflective of the actual position. In fact, the price quoted by BHEL in lost tenders could have been further rationalised, which in turn could have enhanced competitiveness. Audit noticed that market level prices, though intimated to the manufacturing units were not used at the time of cost estimation.

**8.1.3** Considerable delays were noticed in execution of both ongoing and commissioned projects. In the case of commissioned projects, customers withheld ₹1966.07 crore towards liquidated damages in 37 out of 53 projects selected. BHEL had traditionally scored over its competitors on quality. However, Audit observed quality/ workmanship issues at all stages of project execution - manufacturing, commissioning and operational stage. Trichy and Haridwar units incurred ₹138.44 crore towards re-work in the sample projects selected for review by Audit. BHEL could not achieve the e-Procurement targets and failed to expand its vendor base. Purchases against indents raised were delayed as were awards of balance of plants packages.

**8.1.4** Management of receivables is required to maintain healthy cash flow on one hand and avoid bad debts on the other. Audit, however, noticed that BHEL's performance in this regard was not impressive. The average collection period (for collectibles, deferred and accrued dues) increased steadily from 251 days in 2011-12 to 588 days in 2015-16. As a result, outstanding amounts increased from ₹38586 crore to ₹42886 crore even as the turnover dipped by 46.30 *per cent* during this period (2011-16). Collectible debts that remained outstanding for more than three years increased steadily over the period covered under performance audit indicating that debt realization was not effective.

**8.1.5** Analysis of receivables management further revealed that due to supply of material to projects of private developers without establishment of LC and subsequent declaration of projects 'on-hold', outstanding dues of BHEL against such projects accumulated to ₹2660.77 crore while inventory of ₹458.51 crore remained at different BHEL units. Interest loss to BHEL due to blockage of funds in outstanding dues and inventory amounted to ₹1099.56 crore up to October 2016. Audit noticed that in some cases where the projects were put 'on-hold', manufacturing units of BHEL continued with procurement of material, manufacture and supply of equipment to these projects. Audit noticed that there were considerable delays in completion of performance guarantee tests and pending punch points of commissioned projects. Out of 52 units of thermal power projects commissioned during the period covered in performance audit, performance guarantee test of 18 units were completed with a delay up to 50 months. Performance guarantee tests in respect of 34 thermal units were yet to be completed though two to 70 months had elapsed (up to July 2016) since their commissioning.

**8.1.6** Audit also noticed ineffective monitoring of receivables management. Outstanding dues in 17 old projects amounting to ₹515 crore were yet to be realised (31 March 2016). The state-wise Task Forces constituted for liquidating mounting receivables from State Electricity Boards could not liquidate dues within the target dates and ₹2388.10 crore (91.69 *per cent of outstanding dues as on 01 February 2014*) remained outstanding as on 31 March 2016.

## **8.2 Recommendations**

- (i) BHEL needs to develop its own products that excel over competitors through R&D initiatives. Expeditious efforts should be made to forge technological tie ups in new business areas.
- (ii) 'One BHEL' ERP system should be implemented expeditiously for processes and systems improvement and better coordination between units of BHEL.
- (iii) More orders need to be finalised by BHEL through open tender system. Purchase Indent to Purchase Order cycle time should be reduced to ensure competitive and timely procurement of inputs.
- (iv) Action plans need to be developed and implemented by BHEL within stipulated timeframe to address its weak areas vis-à-vis competitors as identified during customer surveys and as per reports of task forces constituted in this regard;

- (v) Quality controls at both BHEL manufacturing units and vendors' works may be made more effective to avoid failure of equipment during commissioning and warranty period.
- (vi) To safeguard BHEL's financial interest, dispatches, particularly to private parties, should be made against establishment of Letter of Credit. Completion of Performance Guarantee tests immediately after commissioning and completion of balance punch points in a time bound manner in close coordination with customers needs to be ensured.
- (vii) Revenue billing and debtor management systems need to be strengthened and made more effective to ensure timely billing and collection of revenue.

Ministry stated (May 2017) that recommendations of C&AG has been noted for necessary action.

New Delhi  
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Countersigned

New Delhi  
Date 11 July 2017



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