

## CHAPTER-1

### Introduction

#### 1.1 Company Profile

Bharat Heavy Electricals Limited (BHEL), established in 1964, is a Maharatna<sup>1</sup> Central Public Sector Enterprise (CPSE) under the administrative control of Department of Heavy Industry, Ministry of Heavy Industries and Public Enterprises (Ministry). It is one of the largest engineering and manufacturing enterprises in India in energy-related/infrastructure sector. Turnover of BHEL increased to ₹ 50,157 crore in 2012-13 from ₹ 21,401 crore in 2007-08. At the end of March 2013, BHEL had supplied utility power generating sets equivalent to 1,15,500 MW which accounts for 57 *per cent* of the overall installed power generation capacity in India. Technical superiority of equipment manufactured by BHEL as compared to some other competitors from abroad was acknowledged by Central Electricity Authority (CEA) in their latest report of May 2013.

#### 1.2 Energy Sector Scenario

Development of energy resources plays a vital role in the growth of an economy. An accelerated growth of power sector being one of the energy resources is imperative for the overall growth and increase of Gross Domestic Product (GDP) of the country. In order to accelerate the economic growth of the country, Government of India (GOI) laid emphasis on efficient and rapid growth of power sector with large private investment. National Electricity Policy 2005, aimed at achieving availability of over 1,000 units of per capita electricity by year 2012 and estimated that for this purpose capacity addition of more than 1,00,000 MW would be required. The Planning Commission also increased (June 2008) targets for capacity addition in generation of Power in XI Plan compared to targets fixed for X plan so that the objective of National Electricity Policy, 2005 to provide access to electricity for all households and increase annual per capita consumption of electricity to 1,000 units by 2012, is achieved. To achieve these power generation targets, it was equally important that there was adequate power equipment manufacturing capacity available with equipment manufacturers in the country. Details of capacity addition targets of power generation through Thermal, Hydro, Nuclear and Renewable Energy, set by the Planning Commission for the country for last three Plan periods upto XI Plan, achievement there against and available manufacturing capacity with BHEL during these Plan periods were as detailed in Table 1:

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<sup>1</sup> *The Government has, vide DPE OM No.22(1)/ 2009-GM Dated 01.02.2013, granted more autonomy and delegation of powers to selected Navratna public sector enterprises called Maharatna which include, inter-alia, the decision making authority for mergers and acquisitions in core area of functioning of CPSE.*

Table-1

	IX Plan	X Plan	XI Plan
Targets for power generation capacity addition in the country (in MW)	40,245	41,110	78,700 (Revised to 62,374 in July 2010 )
Actual power generation capacity addition <sup>2</sup> in the country ( in MW)	19,119	21,180	54,964
<b>Percentage Achievement</b>	<b>47.51</b>	<b>51.52</b>	<b>69.84(88.12<sup>3</sup>)</b>
Targeted manufacturing capacity <sup>4</sup>	No target	No target fixed	63,134
Declared capacity of BHEL <sup>5</sup> to deliver power equipment (in MW)	31,500	31,960	61,919
Power equipment supplies by BHEL for power generation capacity addition (in MW)	12,605	13,723	25,405
Contribution of BHEL in the power generation capacity addition in the country (%)	65.93	64.79	46.22

(Source: As per CEA data and databank of BHEL)

As is evident from above, there was a decline in percentage contribution of BHEL in power generation capacity addition in the country from 65.93 *per cent* in IX Plan to 46.22 *per cent* in XI Plan. The share of other domestic suppliers<sup>6</sup> in power generation capacity additions was 3911 MW in XI Plan and the balance was met through foreign suppliers. There was thus, scope and necessity for BHEL, being the largest power equipment manufacturer in the country, to maintain its share and increase its capacity to manufacture power equipment. Management stated (September 2013) that their performance in terms of their own targets was satisfactory.

### 1.3 Preparedness of BHEL to Plan requirements

BHEL, being the main domestic power equipment manufacturer, planned three capacity expansion programmes to meet projected power equipment requirements during X, XI and XII Plans as detailed in Table 2.

Table 2

Plan	Planned power equipment manufacturing capacity augmentation	Plans approved	Planned for completion by	Augmentation of installed capacity declared completed by BHEL in
X	From 6,000 MW per annum to 10,000 MW per annum ( <b>Phase-I</b> )	Between 2004 and 2006	December 2007	December 2007
XI	From 10,000 MW per annum to 15,000 MW per annum ( <b>Phase-II</b> )	Between January 2007 and September 2008	December 2009	March 2011
XII	From 15,000 MW per annum to 20,000 MW per annum ( <b>Phase-III</b> )	In June 2009	December 2011	March 2012

<sup>2</sup> As per Central Electricity Authority

<sup>3</sup> This is with respect to revised target.

<sup>4</sup> Based on the targets for completion of capacity expansion schemes approved by the Board of Directors of BHEL

<sup>5</sup> Sum total of Annual Declared manufacturing capacity at the end of the each financial year of the XI Plan as per BHEL's Annual Accounts.

<sup>6</sup> Like Alstom, VA Tech and L&T, etc.

With a view essentially to examining the preparedness of BHEL in supply of power equipment for meeting the power generating capacity addition requirement in the country, a performance audit of BHEL was undertaken in accordance with audit objectives discussed in Chapter 2.