



2016-17



भारत हेवी इलेक्ट्रिकल्स लिमिटेड

तथा

भारी उद्योग विभाग

भारी उद्योग एवं लोक उद्यम मंत्रालय

भारत सरकार

के बीच

समझौता ज्ञापन

**Memorandum
of
Understanding**

between

Bharat Heavy Electricals Limited

and

Department of Heavy Industry

Ministry of Heavy Industries & Public Enterprises

Government of India



MoU 2016-17 between BHEL and Ministry of Heavy Industries & Public Enterprises

CONTENTS

1. About BHEL	1
2. Form - I (Part – A) - Evaluation Criteria and Targets	2-3
3. Annexures - Project Milestone Targets for MoU 2016-17 (Annexure – I)	4
4. Form - I (Part-B) - Trend analysis as per DPE Guidelines	5-6
5. Form- IV - MoU Targets and Achievements for Past Five years as per DPE Guidelines	7-16
6. Self-Declaration	17



About BHEL

Bharat Heavy Electricals Ltd. (BHEL) was incorporated on 13.11.1964 with an objective to have an indigenous Heavy Electrical Equipment industry in India. It is a Schedule-A / listed Maharatna CPSE in Heavy Engineering sector under the administrative control of Department of Heavy Industry, Ministry of Heavy Industries & Public Enterprises, with 63.06% shareholding held by the Government of India.

BHEL is an integrated power plant equipment manufacturer with end to end solutions. One of the largest engineering and manufacturing company of its kind in India is engaged in the design, engineering, manufacture, construction, testing, commissioning and servicing of a wide range of products and services for the core sectors of the economy viz. Power Generation & Transmission, Industry, Transportation, Renewable Energy, Oil & Gas, Water and Defence.

BHEL is one of the few companies in the world having the capability to manufacture the entire range of power plant equipment and has proven turnkey abilities for executing power projects from concept to commissioning. BHEL has joined the elite club of select global giants having an installed base of over 170 GW of power generating equipment globally.

A widespread network of 17 Manufacturing Divisions, 2 Repair Units, 4 Regional Offices, 8 Service Centres, 6 Overseas Offices, 6 Joint Ventures, 15 Regional Marketing Centres and current project execution at more than 150 project sites across India and abroad corroborates the humungous scale and size of its operations. BHEL has created widespread overseas references in 78 countries.

The high level of quality & reliability of BHEL products is due to adherence to international standards by acquiring and adapting some of the best technologies from leading companies in the world together with technologies developed through in-house R&D efforts. Most of its manufacturing units / division have been accredited to Quality Management Systems (ISO 9001:2008), Environmental Management Systems (ISO 14001:2004) and Occupational Health & Safety Management Systems (OHSAS 18001:2007).

BHEL's greatest strength is its highly skilled and committed workforce of around 42,200 employees that have been the cornerstone of BHEL's journey ensuring success. BHEL, as a responsible Corporate Citizen is also engaged in social development initiatives.

BHEL businesses being a part of Capital Goods Industry have close linkages with growth of infrastructure in the Country and is driven by investments in the economy. These investments are cyclic in nature and is currently subdued. This has been mainly due to slowdown in the Indian power sector as well as quietude industrial activity influenced by a combination of factors prevailing since last 3 - 4 years, such as factors associated with fuel linkages / environment clearances / land and water availability, funding constraints from lending institutions, existing orders being put on hold etc. Consequently, there is decrease in fresh executable orders maturing in the market due to which there has been a reduction in level of operations and hence decline in the financial performance of BHEL in the recent past.

The Company is avidly eyeing new business opportunities emerging in defence, transportation, water, solar besides the conventional power sector. Moreover, the company is building new capabilities and exploring new business models to take advantage of the emerging opportunities and is confident of regaining the growth momentum in the near future.

FORM-I
PART-A



MoU 2016-17 BHEL Performance Targets

Sl. #	Evaluation Criteria	Unit	Wt.	Criteria Value				
				Excellent	V Good	Good	Fair	Poor
				100	80	60	40	20
i. Capacity Utilization:								
	Boiler & Parts	%	4	40	36	34	32	30
	Turbine	%	3	35	33	32	30	28
	Generators	%	1	38	33	28	26	25
	Power Transformers	%	2	75	71	68	64	60
ii. A. Efficiency Parameters (Physical Operations):								
	1) % Reduction in Energy / Fuel units in Mkal / Metric Ton (MT) over previous year for							
	a) BHEL-Trichy	%	4	4	3	2	1	0.9
	b) BHEL-CFFP Hardwar	%	3	4	3	2	1	0.9
	2) Achievement of MW target of capacity Addition by BHEL, as finalized by Ministry of Power / CEA for the year 2016-17	% of MW	3	100	95	90	89	88
B. Technology up-gradation:								
	Development of model software for Boiler and Auxiliaries for GUI based modelling tool for Thermal plant simulator and Aero-Mechanical Design of Axial flow compressor for process applications.	Date	5	15 Jan'17	31 Jan'17	15 Feb'17	28 Feb'17	15 Mar'17
iii. Leveraging Net Worth (CAPEX):								
	CAPEX excluding investment in JV (as per Annexure-B of IMC Minutes)	Rs. Cr.	15	200	190	170	150	130
iv. Monitoring Parameter:								
	Reduction of Trade Receivables of over 6 months over previous year	%	5	10	7	5	3	2
v. Turnover for Operations:								
	Revenue from Operations (Net of Excise Duty & Service Tax)	Rs. Cr.	5	31,150	29,600	28,000	27,000	26,500
vi. Operating Profit/ Surplus :								
	Reduction in Loss over previous year(excluding Other Income, Extraordinary and Exceptional Items)	%	10	100	75	60	55	50

FORM-I
PART-A



MoU 2016-17 BHEL Performance Targets								
Sl. #	Evaluation Criteria	Unit	Wt. (in %)	Criteria Value				
				Excl.	V.Good	Good	Fair	Poor
				100	80	60	40	20
vii.	Early signs of weakness:							
	Reduction in Claims against the Company not acknowledged as debt, over previous year on overall basis	%	5	10	5	4	3	2
viii.	Marketing efficiency ratios :							
	A) No. of days of Inventory of Finished Goods & Work-In-Progress to Sale of Products	Days	5	75	77	80	82	85
	B) Trade Receivables as percentage of Revenue	%	5	80	85	86	87	90
ix.	Return on Investment (Profit making CPSEs):							
	Completion of customer orders without time over-run in respect of milestones scheduled for 2016-17	%	20	100	90	80	70	60
x.	Sector / CPSE Specific Parameter:							
	Return on Investment from Joint Ventures (Operational)	%	5	10	8	7	6	5

Grand Total 100

1. At the time of MoU Evaluation, wherever the figures are not verifiable from the Annual Report, verification of the same would be done on the basis of certification by way of resolution by Board of Directors.

2. The targets decided in MoU are unconditional and no offset will be allowed in any condition. Further evaluation would be subject to compliance of additional eligibility criteria as contained in para 14.2 and 14.3 of MoU guidelines 2016-17.

3. The targets are based on Provisional/ Actual figures submitted by the CPSE for 2015-16. In case of better performance of the CPSE during the year 2015-16 as compared to provisional/ actual figures, the difference between the actual and provisional figures shall be added to the targets of 2016-17.

(Atul Sobti)
Chairman & Managing Director
Bharat Heavy Electricals Limited

(Girish Shankar)
Secretary to the Government of India
Ministry of Heavy Industries and Public Enterprises
Department of Heavy Industry

Date: 29 Aug 2016
Place: New Delhi

Annexure-I



Projects Milestone Targets for MoU 2016-17			
S/n	Project / Milestones	Rating (MW)	Target
Central sector projects			
	Mauda -II, U#4	660	
1	Boiler Light Up		Mar'17
	Gadarwara, U#1	800	
2	Hydro Test		Dec'16
	Darlipalli Stg-I, U#2	800	
3	Ceiling girder erection		Aug'16
	NPGCL Nabinagar, U#1	660	
4	Hydro Test		Jan'17
	BRBCL Nabinagar, U#3	250	
5	Hydro Test		Dec'16
	Unchahar, U#6	500	
6	Hydro Test		Nov'16
	North Karanpura, U#2	660	
7	Boiler erection start		Feb'17
	New Neyveli, U#2	500	
8	Condenser Erection start		Jun'16
State sector projects			
	Bhavnagar, U#2	250	
9	Synchronisation		Jun'16
	IB Valley, U#1	660	
10	Ceiling girder erection		Aug'16
	Suratgarh, U#7	660	
11	Light Up		Feb'17
	Wanakbori	800	
12	Condenser Erection start		Feb'17
	Kothagudem	800	
13	Condenser Erection start		Jan'17
Private sector projects			
	Nasik, U-4	270	
14	Hydro Test		Jan'17
	Hindalco Mahan U#6	150	
15	Boiler Light up		Apr'16
16	STG Syn		Sep'16
	Hindalco Aditya U#6	150	
17	Boiler Light up		May'16
18	STG Syn		Dec'16
	RUPPL Hazira, U#1	93.1	
19	STG Syn		Sep'16
	RUPPL Dahej, U#1	90.3	
20	STG Syn		Sep'16
	Shreeram Alkalies & Chemicals Ltd	60	
21	Dispatch of Steam Turbine		Jul'16

MoU between BHEL and Ministry of Heavy Industries & Public Enterprises, GoI, for 2016-17

FORM-I
PART-B



Form-I (Trend Analysis)

Sl.#	Evaluation Criteria	Unit	Financial Year					
			2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 Proj
i.	Capacity Utilization							
a.	Boiler & Parts	%	--	63	40	35	39	36
b.	Turbine	%	--	84	47	32	22	33
c.	Generators	%	--	82	62	32	35	33
d.	Power Transformers	%	--	71	75	42	69	71
ii.	Efficiency Parameters (Physical Operations)							
a.	Production Efficiency: % Reduction in Energy / Fuel units in Mkal / Metric Ton (MT) over previous year for							
a.1	BHEL-Trichy	%	--	--	--	--	2.4	3
a.2	BHEL-CFFP Hardwar	%	--	--	--	--	-2	3
b.	Achievement of MW target of capacity Addition by BHEL, as finalised by Ministry of Power / CEA for the year 2016-17	%	114	117	87	119	123	95
c.	Research and Development Projects for Technology upgradation- Completion of Milestones (as specified in respective annexures)	Nos.	--	--	7	5	3	2
iii.	CAPEX (wherever applicable)	Rs. Cr	1122	752	544	395	311	190
iv.	Paid-Up Share Capital	Rs. Cr	489.5	489.5	489.5	489.5	489.5	489.5
v.	Accumulated Reserves	Rs. Cr	24883.7	29954.6	32557.5	33595.1	32563.8	32723.9
vi.	Net worth	Rs. Cr	25373.2	30444.1	33047.1	34084.6	33053.4	33213.5
vii.	Borrowings (shown in Non-current Liability)	Rs. Cr	123	129	105	61	126	158
viii.	Borrowings /Net worth	%	0.5	0.4	0.3	0.2	0.4	0.5
ix.	Percentages of value of contracts/ projects running/ completed during the year without time/ cost overrun to total value of contracts	%	-	-	-	-	-	-
x.	Revenue from Operations (Gross)	Rs. Cr	50261	50963	41058	31588	27079	30968
xi.	Revenue from Operations (Net of ED)	Rs. Cr	47979	48424	39109	30183	25630	29600
xii.	Profit before Tax.	Rs. Cr	10302	9432	5014	2140	-1477	170
xiii.	Other Incomes	Rs. Cr						
a.	Interest		814	605	631	811	763	545
b.	Dividend		17	19	21	30	34	30
c.	Others		435	498	964	-6	653	327
d.	Total		1266	1122	1616	834	1450	902
xiv.	Extraordinary Items	Rs. Cr	-	-	-	-	-	-
xv.	Exceptional Items	Rs. Cr	-	-	-	-	-	-
xvi.	Profit before Tax (excluding Other Incomes, Extraordinary and Exceptional Items)	Rs. Cr	9036	8311	3398	1306	-2927	-732
xvii.	Profit after Tax	Rs. Cr	7040	6615	3461	1419	-913	160

Form-I
PART-B



Form-I (Trend Analysis)

Sl.#	Evaluation Criteria	Unit	Financial Year					
			2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 Proj
xviii.	Profit after Tax (excluding ERV)	Rs. Cr	6941	6471	2802	1805	-1270	60
xix.	Revenue from Operations (Net)/ Total expenses [excluding extra ordinary/ exceptional items, if shown separately and Tax (Income Tax) Expense]	Rs. Cr	1.23	1.21	1.10	1.03	0.90	0.98
xx.	Closing Inventory of finished goods	Rs. Cr	1151.01	1655.2	1805.87	1945.73	1703	-
xxi.	Closing Inventory of Work - in -progress	Rs. Cr	4820.87	4188.2	3013.69	3210.71	3253	-
xxii.	Sale of Products (Net of Excise duty)	Rs. Cr	44148	43425	33136	24464	21785	-
xxiii.	Number of Days of Inventory of finished goods and Work-in-progress to sale of Products (wherever applicable)	No. of Days	49	49	53	77	83	77
xiv.	Trade Receivables of over 6 months	Rs. Cr	9545	10630	13823	13656	14692	13664
xv.	Trade Receivables	Rs. Cr	26357	29234	28072	26224	24429	26323
xvi.	Trade Receivables as percentage of Revenue from Operations (Gross)	%	52.44	57.36	68.37	83.02	90.22	85
xxvii.	Cash and Bank Balance	Rs. Cr	6,672	7,732	11,873	9,813	10,086	8,569
xxviii.	PAT**/ Net Worth	%	27	21	9	5	-3.8	0.2
xxix.	Dividend Declared / PAT*	%	22	20	20	20	-10.7	--
xxx.	Dividend Declared / Net Worth	%	6.2	4.3	2.1	0.8	0.3	--
xxxi.	Claims against the Company not acknowledged as debt	Rs. Cr	4,189.3	5,576.5	7,576.4	7,601.3	11,096.6	10,541.7
xxxii.	Sector/ CPSE Specific Parameter :							
	Return on Investment from Joint Ventures (Operational)	%	59	61	32	32	32	8

* PAT- Including ERV

** PAT- Excluding ERV

Form-IV



MoU 2015-16 BHEL Performance Targets and Achievements					
Sl. No.	Evaluation Criteria	Unit	Wt. (in %)	V Good	Achievement* (Based on Audited Figures)
1	STATIC FINANCIAL PARAMETERS				
(i)	Growth/Size/Activity				
(a)	Sales Turnover	Rs. Cr.	14	44,000	25,138
(b)	Gross Operating Margin	%	10	24.5	14.3
(ii)	Profitability				
(a)	PBT/Net Worth	%	8	9.99	-4.47
(iii)	Efficiency of Asset use				
(a)	Average No. of Days of Inventory	No. of Days	9	97	146
(b)	Trade Receivables (as on 31.03.2016)	Rs. Cr.	9	25,500	24,429
2	DYNAMIC PARAMETERS				
(i)	Corporate Social Responsibility(CSR) & Sustainable Development				
(a)	Installation of Bio-digester toilet clusters on the bank of Ganges under Clean Ganga initiatives	No. of Clusters	1	12	14.5
(b)	Expenditure on Swachh Bharat Abhiyan Initiatives	Rs. Cr.	1	8	10.26
(ii)	Research and Development				
(a)	R&D Expenditure	% of Turnover	1	2.4	3.36
(b)	Completion of Specified Milestones of R&D Projects	-	2		100% Completion
(iii)	Initiatives for Growth				
(a)	Capacity Utilisation in Manufacturing Units of :				
(i)	Transformers	%	1	65	69
(ii)	Motors	%	1	42	40
(iii)	Boiler & Parts	%	1	41	39
(b)	Turnover from Export in 2015-16	Rs. Cr.	2	1700	1216
(iv)	Project Management / Implementation				
(a)	Capacity Addition (in MW) by BHEL for the projects finalized by Ministry of Power/CEA for the year 2015-16	% of MW	5	90%	123
(b)	Group targets: Completion of Milestones of NTPC & NHPC	Date	6		completion as per schedule
(c)	SEB & Other Projects: Completion of Milestones	Date	3		completion as per schedule
(d)	Capital Expenditure	Rs. Cr.	1	340	569
(v)	Productivity and Internal Processes				
(a)	Energy/Fuel units in K.Cal/ Gross Turnover-ED (Base Level: 132KCal/Rs. Lac in 2012-13)	% improvement	3	4	5
(b)	Certification of Two manufacturing Units (Trichy and CFFP Haridwar) for ISO 50001:2011(Energy Management System)	Date	2	30-Jan'16	29/Nov/15
(c)	Implementation of Energy Conservation projects (as per recommendation of Energy Audit conducted by the agencies like CII/PCRA/TERI etc.)	Nos.	3	34	36

*To be evaluated by DPE

Form-IV



MoU 2015-16 BHEL Performance Targets and Achievements

Sl. No.	Evaluation Criteria	Unit	Wt. (in %)	V Good	Achievement* (Based on Audited Figures)
(vi)	Technology, Quality, Innovative Practices				
(a)	Quality Management Effectiveness Review (QMER): Review and evaluation of Quality Management systems of no. of identified BHEL divisions as per QMER model. (Units identifies for QMER :HEEP Haridwar, HPEP Hyd., HPBP Trichi, EDN Bangalore, HEP Bhopal)	Score (out of 1000)	1	475	630.6
(b)	Turnover from products developed in-house during the last five years : from 01-04-2011	% of Turnover	2	22	25.11
(c)	Number of Patents and Copyrights to be filed during 2015-16	Nos. of Milestones	1	400	477
(d)	Percentage (%) reduction in Mandays lost due to reportable loss time injury in manufacturing Units with respect to year 2014-15	%	2	8	93.72
(vii)	Human Resource Management				
(a)	Building technical competence: Training interventions in new advanced technologies as envisaged in Corporate Plan	Noos. Of persons trained	2	375	800
(b)	Identifiacion of High Potential employess under the Talent Management Scheme of the Company	date	2	31-Oct'15	Completed; 29-Sept'15
(c)	Employee Satisfaction	% Improvement	1	2	2.02
(viii)	ector/Enterprise Specific Parameters				
(a)	Commissioning of one bank of generator Transformer (comprising of 3 nos. of 275 MVA, 765KV, 1 Phase Gen. Transformers as per latest technology) for 660MW Lalitpur Thermal Power Project.	date	2	15-Feb'16	Completed; 04-June'15
(b)	Commissioning of Super Critical Unit without DJU support from collaborator	date	1	31-Dec'15	Completed; 20-Sept'15
(c)	Completion of Milestones towards Development of AUSC Technology for Thermal Power Plants: i) Flow path design of HP Turbine ii) Flow path Design of HP Turbine iii) Section Design of IP Turbine iv) Finalisation of Testing protocol for Turbine Rotor v) Design for the Test Loop for experimental studies of Fire Side corrosion of Boiler Tubes.	Nos. of Milestones	2	4	5
(d)	Percentage reduction in Finished Goods(FG) inventory as % of Turnover (over previous year ratio)	%	1	2.5	-4.7
Grand Total			100		

*To be evaluated by DPE

MoU between BHEL and Ministry of Heavy Industries & Public Enterprise, Government of India, for 2016-17

FORM IV



MoU 2014-15 BHEL Performance Targets and Achievements					
Sl. No.	Evaluation Criteria	Unit	Wt. (in %)	V Good	Achievement
1	STATIC FINANCIAL PARAMETERS				
(i)	Growth/ Size/ Activity				
(a)	Sales Turnover	Rs. Cr.	12	43,320	29,542
(b)	Gross Operating Margin	Rs. Cr.	10	10,658	7,288
(ii)	Profitability				
(a)	PBT/Net Worth	%	6	13.68	6.28
(iii)	Costs and Output Efficiency				
(a)	Value Added/ Employee Cost	Ratio	8	2.53	2.23
(iv)	Efficiency of Asset use				
(a)	Average No. of Days of Inventory	No. of Days	6	98	123
(b)	Trade Receivables (as on 31.03.2015)	Rs. Cr.	8	28,000	26,224
2	DYNAMIC PARAMETERS				
(i)	CSR & Sustainability				
(a)	Avoidance of Carbon Emission on account of Energy Efficiency Measures and Generation of Renewable Energy Measures	MT CO ₂ -e	2	1820	2,410
(b)	Infrastructure Development Activities in number of Identified Villages (as specified for the year)	Nos. of villages covered	1	4	5
(ii)	Research & Development				
(a)	Completion of Specified Milestones of R&D Projects(as specified for the year)	%	2	90%	100%
(iii)	Initiatives for Growth				
(a)	Entry into New Market Segment through export of a new product into existing or new market	Date	1	15/Feb/15	completed on 11.06.14
(b)	Export Turnover during the year	Rs. Cr	1	2850	1,418
(c)	Implementation of computerised Project execution index on all 55 thermal projects (as specified for the year)	%	3	85%	100%
(d)	Capacity Utilisation in Manufacturing Units of :				
(i)	Turbine	%	0.75	25.0%	32%
(ii)	Boiler & Parts	%	0.75	41%	35%
(iii)	Transformer	%	0.75	65%	42%
(iv)	Motors	%	0.75	34%	41%
(iv)	Project Management & Implementation				
(a)	Composite Project Management Index (as specified for the year)	% Milestones achieved	2	90%	90%
(b)	Capital Expenditure	Rs Cr	1	400	395
(c)	Group Targets: Completion of Milestones of NTPC & NHPC	Date	7		Completed as per schedule
(d)	SEB & Other Projects: Completion of Milestones	Date	4		Completed as per schedule
(v)	Productivity and Internal Processes				
(a)	Energy/Fuel units in k.Cal / Gross Turnover –ED (Base level: 132 kCal/Rs Lac in 12-13)	% improvement	1	6%	7.20%
(b)	Improvement in Customer Satisfaction Survey Score over previous survey for Industry Segment (base level: 65%)	% improvement	1	5	17

FORM IV



MoU 2014-15 BHEL Performance Targets and Achievements					
Sl. No.	Evaluation Criteria	Unit	Wt. (in %)	V.Good	Achievement
	(c) Improvement in Customer Satisfaction Survey Score over previous survey for Power Segment (base level: 67%)	% improvement over base	1	2	6
	(d) Conversion of Purchase Indent to Purchase Order within 75 days	% of total nos.	1	75%	70.60%
	(e) Implementation of some of the best practices as suggested in the study on Productivity Benchmarks	% of best practices suggested	3	75%	80%
(vi)	Technology, Quality, Innovative Practices				
	(a) Number of Patents and Copyrights to be filed during 2014-15	Nos.	1	390	453
	(b) Turnover from products developed in-house during the last five years (from 1.4.2009)	% of Turnover	2	22	25
	(c) Measuring Frequency Severity Index in manufacturing Unit	Average FSI	3	0.015	0.063
	Cyber Security				
	(d) Release of Crisis Management Plan for countering Cyber attacks and Cyber terrorism across the company	Date	1	31/Oct/14	completed on 20.08.14
	(e) Implementing Cyber Security Management System in all the Units	Date	1	28/Feb/15	completed on 03.12.14
(vii)	Human Resource Management				
	(a) Talent Management: Designing a Scheme for identifying and grooming young talent in the company	Date	1	15/Feb/15	completed on 30.01.15
	(b) Building Leadership Competency: Prepare e-learning modules for development of specific Leadership Competencies.	Date	1	15-Oct-14	completed on 22.09.14
	(c) Executives undergoing e-learning modules	No. of executives	1	1200	>1500
	(d) Building Technical Competence: Training interventions in new advanced technologies as envisaged in the Corporate plan		1	375	1297
(viii)	SECTOR/ENTERPRISE SPECIFIC PARAMETERS				
	(a) Manufacture and supply of Indigenously Developed 765 kV Generator Transformer to Bajaj Infrastructure Development Company (BIDCO)	Date	1	15/Feb/15	completed on 29.11.14
	(b) Finished Goods (FG) inventory as % of Turnover (as on 31.03.15)	%	1	2.1%	5.60%
	(c) Liquidation of debtors more than 3 years old (as on 31 Mar'14)	% Improvement	1	28%	56%
	(d) Completion of Specified Milestones of R&D Projects (As per Annexure-D-VIII)	%	1	90%	100%
Grand Total			100		

FORM IV



MoU 2013-14 BHEL Performance Targets and Achievements					
Sl. No.	Evaluation Criteria	Unit	Wt. (in %)	V Good	Achievement
1	STATIC FINANCIAL PARAMETERS				
(a)	Financial Indicators - Profit Related Ratios				
(i)	Gross Margin / Gross Block	%	2	58.50	50.92
(ii)	Net Profit / Net Worth (at year end)	%	10	12.28	10.47
(iii)	Gross Profit / Capital Employed	%	10	20.63	15.75
(b)	Financial Indicators - Size Related				
(i)	Gross Operating Margin	Rs. Crs.	8	6,450	4,520
(ii)	Gross Sales (Turnover)	Rs. Crs.	4	43,000	40,338
(c)	Financial Returns - Productivity Related				
(i)	PBDIT / Total Employment	Rs. Lacs.	7	14.36	12.91
(ii)	Added Value / Gross Sales	%	9	9.41	7.10
2	DYNAMIC PARAMETERS				
(a)	Quality/Safety:				
(i)	Business Excellence: Achievement of TQM Score based on CII model in Four Units/Divisions	Score	2	376-400	Completed; PEM: 451-475; ISG : 426-450 IP : 426-450; EPD: 401-425
(ii)	Business Excellence: Recertification of TQM Score on EFQM model in Haridwar Unit	Score	1	500-525	Completed; Haridwar : 526-550
(iii)	Establishing baseline data for measurement of Frequency Severity Index in 3 major manufacturing Units	Date	1	15.02.14	Completed; 24.01.2014.
(b)	Customer Satisfaction:				
(i)	Results of a Customer Satisfaction Survey for - Power segment	Score from 1 to 10	2	Improvement over current year's score by 3%	Completed; improvement of 3%
(ii)	Completion of a Customer Satisfaction Survey for the Industry segment	Date	1	31 Dec'13	Completed in Nov'13.
(c)	Human Resource Management:				
(i)	Training programs for new technologies as envisaged in the Corporate Plan	No. of programs	1	4	Completed; 5 programs conducted.
(ii)	Training programme on Risk management for senior management personnel (at HRDI & Unit HRDC)	No. of programs	1	3	Completed. 6 nos. programs conducted.
(iii)	Employee satisfaction index	Satisfaction Index	1	6.2-6.4	Completed; Index=6.92
(d)	Research & Development				
(i)	R&D Expenditure	Rs. Cr	1	818	1114
(ii)	Turnover from in-house developed products	% of Total Turnover	1	18.0	20.09
(iii)	Number of Patents and Copyrights to be filed during 2013-14	Nos.	1	355	434
(iv)	Completion of Specified Milestones of R&D Projects	—	3		All projects Completed.

FORM IV



MoU 2013-14 BHEL Performance Targets and Achievements					
Sl. No.	Evaluation Criteria	Unit	Wt. (in %)	V Good	Achievement
(e) Growth/ Sustainability Initiatives:					
(i)	Entry into new market segment: Through export of a new product into existing market	Date	1	15.02.14	Completed; 16.04.13
(ii)	Export Orders Received in 2013-14	Rs. Crs.	1	3900	2567
(iii)	Capital Expenditure	Rs. Crs.	1	796	544
(iv)	Development of Productivity and Performance Benchmarks based on International Best Practices through an independent study	Date	1	15 Feb'14	Completed; Jan'14.
(v)	Development of computerized Project Execution Index (includes Effective Site Management & Information System)	Date	1	15 Jan'14	Completed; 31 st Dec'2013
(f) Project Implementation (Modernisation & Expansion) :					
(i)	Completion of identified Projects under Modernisation & Expansion initiatives	Date	3		2 out of 5 projects completed;
(g) Corporate Social Responsibility & Sustainable					
		---	8		Completed
3 SECTOR SPECIFIC PARAMETERS (Customer Project Implementation)					
(i)	Group Targets: Completion of Milestones of NTPC, NHPC & NLC	Date	6		100% completion,
(ii)	Other Projects: Completion of Milestones of Other Projects including SEBs & Other Customer projects	%Completion of Milestones without delay attributable to BHEL	5	95%	100% completion,
4 ENTERPRISE SPECIFIC- PRODUCTIVITY / EFFICIENCY PARAMETERS					
(i)	Value Added / Employee Cost	Ratio	1	2.63	2.57
(ii)	Inventory level (as at year end)	No.of days of Turnover	1	98	89
(iii)	Conversion of Purchase Indent to Purchase Order within 75 days	% of total nos.	1	65	70.6
(iv)	Sundry Debtors (as at year end)	No.of days of Turnover	1	280	362
(v)	Sourcing from low cost countries	% of total sourcing from outside	1	19% improvement over 2012-13	2.9% improvement over previous year
(vi)	Energy/Fuel units in k.Cal / Gross Turnover --ED	% improvement over previous year level	1	3	4.50%
(vii)	Implementation of Energy Conservation projects (as per recommendation of Energy Audit conducted by the agencies like CII/ PCRA/ TERI etc.)	Nos.	1	30	Completed; 32 projects implemented.
Grand Total			100		

FORM IV



MoU 2012-13 BHEL Performance Targets and Achievements					
Sl. No.	Evaluation Criteria	Unit	Wt. (in %)	V Good	Achievement
1 STATIC FINANCIAL PARAMETERS					
(a)	Financial Indicators - Profit Related Ratios				
(i)	Gross Margin / Gross Block	%	2	102.38	97.48
(ii)	Net Profit / Net Worth (at year end)	%	10	23.33	21.73
(iii)	Gross Profit / Capital Employed (at year end)	%	10	40.68	33.27
(b)	Financial Indicators - Size Related				
(i)	Gross Margin	Rs. Crs.	8	10,923	10,512
(ii)	Gross Sales (Turnover)	Rs. Crs.	4	47,000	50,156
(c)	Financial Returns - Productivity Related				
(i)	PBDIT / Total Employment	Rs. Lacs.	7	21.27	21.72
(ii)	Added Value / Gross Sales	%	9	17.99	15.23
2 DYNAMIC PARAMETERS					
(a)	Quality & Customer Satisfaction:				
(i)	Results of a Customer Satisfaction Survey for the Power sector conducted by an independent professional agency	Date	1	28 Feb'13	Completed; Jan'2013
(ii)	Business Excellence : Achievement of TQM Score based on CII Model for additional Three Units/ Divisions (PEM,ISG,PSWR)	TQM Score	1	376 to 400	Completed; PEM & ISG: 426-450 PSWR : 401-425
(b)	Project Implementation (Modernization & Expansion) :				
(i)	Completion of identified Projects under Modernization & Expansion initiatives	Date	1		Projects completed as scheduled;
(c)	Capital Investments :				
(i)	Investments Committed	Rs. Cr	2	3052	593
(d)	Extent of Globalisation :				
(i)	Entry into new market segment:Through export of a new product into existing market	Date	1	15.02.13	Completed. Order received from M/s. Absolute Africa of South Africa for supply of OLTC
(e)	Customer Project Implementation :				
(i)	Milestones for Group Projects	Date	3		Completed
(ii)	Milestones for Other Projects	% Achievement	4	95%	Completed No delay attributable to BHEL

FORM IV



MoU 2012-13 BHEL Performance Targets and Achievements

Sl. No.	Evaluation Criteria	Unit	Wt. (in %)	V Good	Achievement
3	SECTOR/ENTERPRISE SPECIFIC PRODUCTIVITY / EFFICIENCY PARAMETERS				
(i)	Inventory level as at year end	No. of days of Turnover	2	90	86
(ii)	Sundry Debtors as at year end	No. of days of Turnover	3	248	290
(iii)	Value Added / Employee cost	Ratio	1	3.00	3.38
(iv)	Increase sourcing from low cost foreign suppliers (e.g.China) over that of 2011-12 level	%	1	19	-25
4	CORPORATE SOCIAL RESPONSIBILITY				
(i)	Expenditure on CSR as % age of PAT of 2011-12	%	2	0.48	0.9
(ii)	CSR Projects	---	3		Completed as planned.
5	RESEARCH & DEVELOPMENT				
(i)	R&D Expenditure as % of PAT of year 2011-12	%	2.5	17.0	17.7
(ii)	Research & Development Projects	---	2.5		All projects completed.
6	SUSTAINABLE DEVELOPMENT				
		---	5		All projects completed.
7	CORPORATE GOVERNANCE				
(i)	Compliance of Corporate governance	Compliance	5		Complied as scheduled
8	HUMAN RESOURCE MANAGEMENT				
(i)	Achieving HRM targets set as per DPE	Score as per DPE-Annex-XIV	5		Completed
9	COMPLIANCE WITH DPE GUIDELINES				
a)	Compliance to DPE OM No. 3(11)/2011-DPE (MoU) dt.20.01.2012 and 30.01.2012	---	4		Complied as scheduled
b)	Submission of PE survey to DPE: Submission of completed data-sheet for PE Survey to DPE	Date	1	01.10.12	Completed; 14.9.12
Grand Total			100		

FORM IV



MoU 2011-12 BHEL Performance Targets And Achievements

Sl. #	Evaluation Criteria	Unit	Wt. (in %)	V Good	Achievement
I. STATIC FINANCIAL PARAMETERS					
(a) Financial Indicators - Profit Related Ratios					
(i)	Gross Margin / Gross Block	%	2	101.53	115.09
(ii)	Net Profit / Net Worth (at year end)	%	10	25.92	27.75
(iii)	Gross Profit / Capital Employed (at year end)	%	10	45.85	46.75
(b) Financial Indicators - Size Related					
(i)	Gross Margin	Rs. Crs.	8	9,828	11,173
(ii)	Gross Sales (Turnover)	Rs. Crs.	4	43,500	49,510
(c) Financial Returns - Productivity Related					
(i)	PBDIT / Total Employment	Rs. Lacs.	7	20.37	22.62
(ii)	Added Value / Gross Sales	%	9	18.02	18.09
II DYNAMIC PARAMETERS :					
(a) Quality & Customer Satisfaction:					
(i)	Improvement in Customer Satisfaction Index by Three additional Divisions as per Customer Satisfaction Survey conducted during 2011-12 over previous survey conducted.	%	2	4.75	Completed; Growth achieved 7.14% in PSER, 5.19% in Trichy and 5.26% in Hwr.
(ii)	Completion of Case studies w.r.t. Process improvement/ Cost reduction	Nos.	1	30	Completed; 32 projects
(b) HRM :					
(i)	Representation of Minorities in CPSEs- % nominated to Skill/ competency Development programmes	%	1	10	24.2 %
(ii)	Competency Mapping and assessment of Behavioural competencies for select levels in two additional manufacturing Units and two regions.	Date	1	15.02.12	Completed on 21.01.12
(iii)	Preparation and Implementation of Learning Modules for new Entrants for two major products (Boiler & Turbine).	Date	1	15.02.12	Completed on 23.01.12
(iv)	Coverage achieved as per job rotation policy for those promoted from E1 to E2 grade during 2011-12.	%	1	95	100%
(v)	Training of Workmen	Nos.	1	1850	Completed.
(c) Engineering and Research & Development :					
(i)	R&D Expenditure	Rs.Crs	2	875	1198
(ii)	New patents (including copyrights) to be filed	Nos.	1	180	351
(iii)	Commercialisation of inhouse developed products	Rs. Crs.	1	5250	9832
(iv)	Formulation and Updation of R&D policy for BHEL	Date	1	15.01.12	07.12.11

FORM IV



MoU 2011-12 BHEL Performance Targets and Achievements					
Sl. #	Evaluation Criteria	Unit	Wt. (in %)	V Good	Achievement
(d)	Project Implementation (Modernization & Expansion) :				
(i)	Completion of identified Projects under 20,000 MW expansion initiatives	Date	2		Completed as scheduled
(e)	Capital Expenditure for capacity augmentation	Rs. Cr.	2	750	840
(f)	Delivery Index of on time deliveries in Customer projects :				
(i)	EPC Projects	Index	2	0.75	0.79
(ii)	Non-EPC Projects	Index	5	0.70	0.85
(g)	Compliance of Corporate Governance :				
(i)	Quarterly Report confirming compliance to corporate governance. (under Para 8.3 of DPE's Guidelines on Corporate Governance for CPSEs)	# days from Qtr close	1	15	Completed ; within excellent target days.
(ii)	Compliance with statutory audit observations	Date	1	15.01.12	Q2
(iii)	Code of conduct for senior management	Date	1	15.12.11	Sep '11
(iv)	Date of submission to DPE of completed data-sheet for PE Survey	Date	1	01.10.11	15.09.11
(v)	Finalisation of Strategic Plan 2017	Date	1	31.12.11	15.11.11
(h)	Extent of Globalization :				
(i)	Entry into new market segment: Through export of a new product into existing market	Date	1	15.02.12	Aug '11
(ii)	Order Receipts (Exports)	Rs. Crs.	2	3000	234
(i)	Technology Development :				
(i)	Technology Development Projects	Date	3		Completed as scheduled
(ii)	Manufacturing of single phase 333 MVA, 1200 KV Transformer and its erection and commissioning at 1200 kV Bina substation.	Date	2	15.10.11	Sep '11
(j)	Corporate Social Responsibility :				
(i)	Expenditure commitment on CSR projects as % age of PAT of 2010-11	%	2	0.48	0.52
(ii)	Number of Initiatives for Social Welfare	Number	3	5	6
(k)	Sustainable development :				
(i)	Energy Audit in three units	Date	1	28.02.12	15.02.12
(ii)	Study of supply chain management in one Unit	Date	1	15.02.12	19.01.12
(iii)	Use of Renewable power in units	# units	1	2	3
(iv)	Completion of water harvesting initiative in one unit	Date	1	15.02.12	30.11.11
(v)	Tree Plantation	Nos.	1	17,000	27,545
(l)	Sector Specific Parameters :				
(i)	Preparedness for implementing IFRS	Date	1	15.01.12	Completed
(ii)	Inventory level as at year end	Days of TO	1	110	100
(iii)	Sundry Debtors (Collectible) as at year end	Days of TO	1	140	128
Grand Total			100		



Self-declaration/ Certification by BHEL

It is hereby certified that the targets/ actual achievements in respect of MoU parameters have been worked out as per MoU Guidelines by adopting the norms and definitions laid down in MoU Guidelines for the year 2016-17. In case, any deviation is found at any point of time, DPE is free to evaluate as per MoU Guidelines. BHEL has no right of claim in this regard.

(Atul Sobti)
Chairman & Managing Director
Bharat Heavy Electricals Limited