

IV-B. Central Electronics Limited

1. INTRODUCTION

Central Electronics Limited continues to hold the top position among other Public Sector Undertakings particularly in the field of SPV. CEL's objectives are as follows:

Solar Photovoltaics: To be a major global and domestic player in the area of Solar Photovoltaic cells and Modules by capacity enhancement and by manufacturing higher wattage modules with special emphasis on use of thinner wafers to become price competitive in the domestic and international markets.

Railway Equipment: To maintain leadership in the development, manufacturing, supply and commissioning of signaling and safety equipment for the Indian Railways to meet their existing and emerging modernization needs in line with their future strategies.

Defence: To expand the product portfolio using state-of-the-art technology for supply of strategic components such as PCM to be used by DRDO laboratories; PZT and di-electric material for use by BEL, NPOL and BARC; and heat fuse to be used by ordinance factories.

Safety and Security: To diversify into security systems and equipment used to counter terrorist threats in India by commercializing the latest state-of-the-art technology from abroad.

2. PERFORMANCE IN 2008-09

2.1 Operating Results

Production, Sales and Profit/Loss achieved during

the year as compared to the previous year are given below.

	<i>Rs. in crores</i>	
	2008-09	2007-08
Production	155.26	167.66
Sales	146.06	161.33
Net Profit before Tax	3.69	12.37
Net Profit carried forward to Balance Sheet	1.29	1.02

2.2 Exports

During the year, total exports of the company were Rs.14.07 crores as against Rs.18.57 crores in previous year.

2.3 Major achievements of CEL during 2008-09

- Won the First Award from ICWAI (fig 95) for excellence in cost management for its continuous efforts towards cost management techniques, quality, delivery and working capital management.
- Received a prestigious order to install 50 KWp solar power plant and 100 solar street lights (figs 96 and 97) in 'Rastrapati Bhawan'.
- Achieved 17 per cent efficiency in 5" solar cells.
- 156 mm x 156 mm mono crystalline solar cells with anti reflection coating are being routinely manufactured with efficiency greater than 15 per cent.

- Entered into an agreement for technology transfer to Mozambique for solar module manufacturing line.
- Initiated necessary action for development of 3D/4D version of Digital Axle Counter suitable for Point Zones as per European Standard CENELEC SIL-4.
- Successful development of 40 detection point Multi-Section Digital Axle Counter conforming to European standard CENELEC SIL-4. The product is under RDSO evaluation.
- Obtained RDSO clearance/type approval for Single Section Digital Axle Counter as per latest RDSO specifications no. RDSO/SPN/177/2005 with latest amendment conforming to European standard CENELEC SIL-4.
- Designed and developed solar charging station for 'SOLECKSHAW' project in association with Central Mechanical Engineering Research Institute (CMERI) a CSIR laboratory at Durgapur.
- Facility to manufacture bigger size SPV modules upto 250 Wp installed/commissioned.
- Signed an agreement with the Government of Mali worth 30 lakh Euro for supply of Solar Equipment for the next five years.
- Obtained type approval of Piezo Generator for Heat Fuse 551 from FFV, Sweden and subsequently an order from Ordnance Factory, Khamaria.
- Developed ASIC-3 for X-Band PCM for BEL-Microsystems, Belarus, and 2,500 X-Band PCMs supplied to LRDE/ BEL against orders.
- Initiated necessary action for booking fresh order for 24,000 PCMs from BEL/ LRDE.
- Executed a project for electrification of a large number of villages in Afghanistan through Norwegian Church Aid (NCA).
- Streamlined the facilities of CZT to produce 300 substrates per annum.
- Executed large projects for solar electrification of remote un-electrified village in the Northeast and other various states in the country.
- Developed dielectric material and fabricated polarizer for Rotary Field Phase Shifters.



Fig 95: Chairman and Managing Director, CEL, Dr. S.K. Kaicker with Shri JK Budhiraja Joint General Manager (Fin.) receiving ICWAI Award for 2007-08 from Shri Anurag Goel, Secretary, Ministry of Company Affairs, Govt. of India.



Fig 96: 'Roshni' celebration at Rashtrapati Bhavan – Hon'ble President of India Smt. Pratibha Patil and Hon'ble Minister Dr. Farukh Abdullah, Ministry of New and Renewable Energy visiting the project undertaken by CEL.



Fig 97: A view of Solar Street Lights installed by CEL at Rashtrapati Bhavan

3. PERFORMANCE IN 2009-10

3.1 Operating Results

	<i>(Rs. in crores)</i>	
	2009-10(Dec.)	2008-09(Dec.)
Production	63.37	74.32
Sales	62.76	72.72

3.2 Exports

During 2009-10, exports have been Rs.7.66 crores (till Dec.), as against Rs.13.32 crores in 2008-09 in corresponding period.

4. FUTURE STRATEGY

- Development of Solid State Block equipment and Universal Fail Safe Block Interface (UFSBI) for railways.
- Development of Point Zone Digital Axle Counter suitable for 3D/4D as per European Standard CENELEC SIL-4.
- Creation of infrastructure for technology absorption and commercialization of security system
- Expansion of manufacturing capacity of PCMs to produce 30,000 to 40,000 nos. per year
- Development of dye-sensitized solar cells.
- Upgradation of production and testing facilities for manufacture of 2,50,000 pcs. per annum of Piezo Electric Generators for Ordnance Factories.
- Undertake multi mega watt grid tied Solar Power Project.
- Technology transfer from IMEC Belgium, to manufacture phosphorous paste in house for production of solar photovoltaic cells.

5. FOREIGN EXCHANGE RECEIPTS AND OUTGO

During the year 2008-09, the Company spent Rs. 39.96 crores in foreign exchange and earned foreign exchange worth Rs. 8.84 crores.

6. ENERGY CONSERVATION

The company being an electronic industry, its operations are not energy intensive. However, the company frequently evaluates its processes and plant and machinery to economize on its energy consumption. To reduce power consumption, conventional tube lights and bulbs have been replaced with CFLs. It has done redistribution of the leads in the solar photovoltaic plant so as to make optimum use of its captive DG sets.

More than 1,000 poplar plants have been planted. A nursery of poplar plants has been set up to provide saplings for further plantation next year. Thus, the company is putting in efforts towards improvement of the environment.

7. PARTICULARS OF EMPLOYEES

In accordance with the Companies (particulars of employees) Rules 1975 read with Sub-section 2-A of Section 217 of Companies Act 1956 as amended in 1988, none of the employees of the Company either employed throughout the year or for a part of the year under report, was in receipt of remuneration more than the maximum prescribed in the Rules.

8. IMPLEMENTATION OF HINDI, INDUSTRIAL RELATIONS AND HUMAN RELATIONS

The company had very cordial industrial relations during the year. The management also initiated programmes for upgrading the skills of the employees.

In order to ensure the use of Hindi, the employees continued to be trained in Prabodh, Praveen, Pragya Hindi Courses, Hindi typewriting and use of Hindi Computers. Hindi week was organized from 14th to 21st September, 2008. Various short-time training programmes and workshops were conducted for workers and officers during the year. Special workshops and various competitions in Hindi were organized and awards distributed to the winners. Half-yearly Hindi Newsletter 'HAMARA CEL' was also published.



9. WELFARE OF RESERVED CATEGORIES

All Government directives relating to the reserved categories such as Scheduled Castes, Scheduled Tribes, Physically Handicapped, Ex-servicemen etc.

continued to be implemented during the year. Total number of employees in these categories was 188, which represents about 28 per cent of the total strength of the company as on 31st March, 2009.