

## IV-B. Central Electronics Limited

### 1. INTRODUCTION

Central Electronics Limited (CEL) continues to hold top position among other Public Sector Undertakings particularly in the field of SPV. CEL's operations are in the following areas:

- a) To be a global player and a major domestic player in the area of Solar Photovoltaic Cells, Modules by capacity enhancement and by manufacturing higher wattage modules with special emphasis on use of thinner wafers to become price competitive in domestic and international market.
- b) To maintain leadership in the development, supply and commissioning of signalling, safety equipment to Indian Railways to meet their existing and emerging modernization needs as per their future strategies.
- c) Expand capacity and product profile using new technology and sub-assemblies for the supply of strategic components such as PCM to DRDO Labs. Ministry of Defence, Product portfolio in respect of PZT and Dielectric material for newer and newer applications using powder composition for Naval applications and consumer items
- d) To diversify in the area of Security Systems and equipment to counter terrorist threats in India by way of commercializing the latest state-of-the-art technology available 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 in the table.

(Rs. in crores)

	2008-09	2007-08
Production	154.06	167.66
Sales	146.11	161.33
Net Profit before Tax	2.52	12.37
Net Profit carried forward to Balance Sheet	—	1.02

#### 2.2 Exports

During the year, total exports of the company were Rs.14.96 Crores as against Rs.18.57 Crores in previous year.

#### 2.3 Major achievements of CEL during 2008-09

- Company won the 1st award for excellence in cost management for its continuous efforts towards cost management techniques, quality, delivery and working capital management from ICWAI
- Received a prestigious order to install 50 KWp Solar Power Plant and 100 Solar Street Lights in 'Rashtrapati Bhawan'.
- Achieved 17% efficiency in 5" solar cells.
- Process parameters for 6" solar cells optimized to achieve more than 14.5% efficiency in volume production.
- Entered in to an Agreement for technology transfer to Mozambique for solar module manufacturing line.
- Development of point zone Digital Axle Counter.
- Commissioned facility to manufacture SPV modules up to 250 Wp.

- Implemented up-scaling and enhancing the production facility of SPV Cells and Modules from 2 to 10 MWp.
- Standardized the process for using 6" wafers (Multi Crystalline and mono crystalline) to produce 250 Watt modules.
- Processing of 200-micron wafers in commercial production of SPV.
- Executed a project for electrification of 101 villages in Afghanistan, spread over the whole country including Kandahar
- Based on successful field trial of MSDAC (catering to 40 detection points), RDSO approval obtained for validation and verification of software as per CENELEC SIL-4 standard by independent agency leading to type approval by RDSO.
- Action initiated for fabrication of prototype model and software for 3D/4D version of DAC for approval of RDSO.
- Obtained type approval of SSDAC conforming to latest RDSO specification No. RDSO/SPN/177/ 2005 Amendment No.2.
- Development of ASIC-3 for X-Band PCM from BEL Microsystems, Belarus was completed 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.



SPV Street Lighting System in a Remote village of Jharkhand

- Obtained type approval of Piezo Generator for Heat Fuse 551 from FFV, Sweden and subsequently received an order from Ordnance Factory, Khamaria, Jabalpur.
- Proposal for 'grant-in-aid' project on 'Public Area Security System' approved by Technology Development Board. The system for demonstration to be installed during 2008-09.
- Streamlined the facilities of CZT to produce 300 crystals per annum.

### 3. FUTURE STRATEGY

- Dye-sensitized solar cells
- Development of Automatic Equipment Identification System
- Expansion of manufacturing capacity of PCMs to produce 30,000 to 40,000 Nos. per year
- Creation of infrastructure for Technology Absorption and Commercialization of Security System



Training Programme on Installation, Operation and Maintenance in the State of Jharkhand.

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- To diversify in the areas like Public Area Security Systems and Communications, which has huge market potential due to increased threat perceptions from terrorism.

### 4. FOREIGN EXCHANGE RECEIPTS AND OUTGO

During the year 2008-09, the company spent Rs.34.92 Crores in foreign exchange.

The company earned foreign exchange worth Rs.14.75 Crores during the year 2008-09.

### 5. ENERGY CONSERVATION

The company being an electronic industry, its operations are not energy intensive. However, the company frequently evaluates its processes and plant & machinery to economize on the energy consumption. It has done redistribution of the leads in 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. Initiated action to plant Jetropha saplings in open land. Thus the company is putting in efforts towards improvement of environment.

### 6. 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 review was in receipt of remuneration more than minimum prescribed in the Rules.

### 7. IMPLEMENTATION OF HINDI, INDUSTRIAL RELATIONS & HUMAN RELATIONS

The company had very cordial industrial relations during the year. The management also initiated



SPV System for a School in Mozambique



Signing of MOU between CEL and Ministry of Science & Technology Sudan for electrification of 200 Villages in SUDAN



Solar Street Lights in Parking area of Patel Chowk Station of Delhi Metro Rail Corporation Ltd

programmes for upgrading the skills of employees.

In order to ensure the use of Hindi, the employees continued to be trained in Praboth, Praveen, Pragya Hindi Courses, Hindi typewriting and use of Hindi Computers. Hindi fortnight was organized from 14.09.2008 to 28.09.2008. 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.

## **8. 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 187, which represents about 28% of the total strength of the company as on 31<sup>st</sup> March 2009.