

## CHAPTER III: DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH

### Central Electronics Limited

#### 3.1 Unproductive expenditure on upscaling of operations

**Central Electronics Limited upscaled operations of its solar photovoltaic plant from two Mega Watt peak to 10 Mega Watt peak (MWp) per annum. However, production of solar photovoltaic cells remained even below the original capacity of two MWp per annum during 2007-08 to 2014-15 which rendered the expenditure of ₹ 22.43 crore on upscaling of operations unproductive.**

Central Electronics Limited (Company) has a solar photovoltaic (SPV) plant at Sahibabad, Uttar Pradesh for manufacturing SPV cells by processing of silicon wafers. The capacity of the plant was increased from two Mega Watt peak<sup>1</sup> (MWp) per annum to 10 MWp per annum under an upgradation and upscaling project completed in July 2007 at a cost of ₹ 22.43 crore.

Audit observed that the plant was being utilized at capacity ranging between 0.25 MWp to 1.30 MWp during 2007-08 to 2014-15. The capacity of the plant was increased ostensibly by giving a justification that the then production volume at two MWp per annum was inadequate to meet production cost and overheads and the Company could only be competitive in the domestic and global market if it upscales its existing plant capacity to at least 10 MWp per annum. However, the actual capacity utilization over the last eight years was lower than even the original capacity of two MWp which rendered the entire expenditure of ₹ 22.43 crore on upscaling of plant unproductive.

Regarding the reasons for low production, the Management's stand (August 2011) was that due to volatility in the market of silicon wafers, the Company decided to minimize the conversion of silicon wafers into cells and to maximize conversion of cells (procured from outside) to solar modules as the same was found to be more beneficial.

However, audit examination (April 2014) revealed that while considering the demand and production of silicon wafers the Company did not consider the actual position of availability of raw material (viz. silicon wafers) and source of its procurement; in fact detailed project report (November 2003) merely stated that "silicon was abundantly available as it formed about 20 per cent of the earth's crust". Moreover, records indicated that the Company was aware of the fact that the demand for silicon materials and wafers had exceeded the total production in India in 2004 itself and approx. 90 per cent of silicon wafer requirement for the Indian photovoltaic industry was met through imports. However, the GOI approved the upgradation and upscaling of solar photovoltaic operations to 10 MWp per annum on 29 March 2005.

<sup>1</sup> 1000 Kilo Watt peak is equal to one Mega Watt peak

The Management further stated (April 2014) that as the cost of production of cells was much higher than the prevailing market price and there was competition from private players, the production was not increased to avoid further loss.

The contention of the Management contradicts its earlier stand for justifying the proposal for upscaling of operations wherein it was stated that only substantial increase in production capacity would bring down the high cost of production.

Thus, the Company did not reappraise viability of the project in the light of constraints in availability of raw material and volatility in the market of wafers. This rendered the entire expenditure of ₹ 22.43 crore unproductive as the capacity utilization post upscaling of operations of the plant was kept lower than even the original capacity.

The matter was reported to the Ministry in October 2015; their reply was awaited (March 2016).