

PRISM CEMENT LIMITED
Manakahari, Satna (Madhya Pradesh)

Unit Profile

With an objective of being an active participant – in the dynamics of future – of the Nations’ march towards total industrialization and energy conservation, Prism Cement Ltd has set up a state-of-art, energy efficient cement plant near Satna, in Madhya Pradesh. Most advanced machinery and technology imported from M/s FLSmidth Denmark and state-of-art processes lend it a futurist environment.

Company was initially incorporated under the name of Karan Cement Limited in March 1992 under the Indian Companies Act, 1956 as a joint venture between Raheja group of Mumbai, F.L.Smith & Co. A/s Denmark and Industrialization Fund for Developing Countries (IFU), Denmark. The name of the Company subsequently changed to ‘*Prism Cement Limited*’. Prism cement’s manufacturing facility is at Vill. Manakahari, Santa in M.P

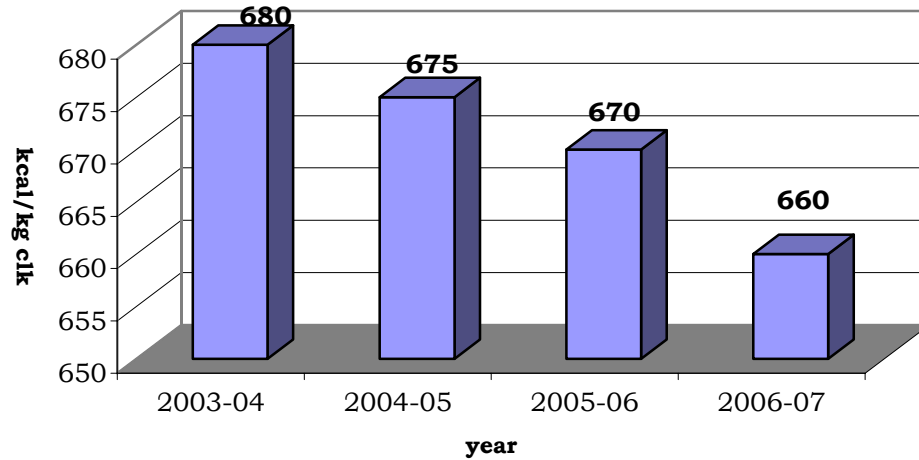
The main raw material for the plant i.e Limestone is being obtained from captive limestone mines situated at village Hinauti and Sijahatta. Prism cement has obtained clearances from MOEF covering leases for mining operation. The company has obtained MPPCB clearances and site clearances from industries department. Plant is connected to nearby railhead access of Central Railway linking of Satna, Rewa broad guage line and well connected to nearest cities by road.

Energy Consumption:

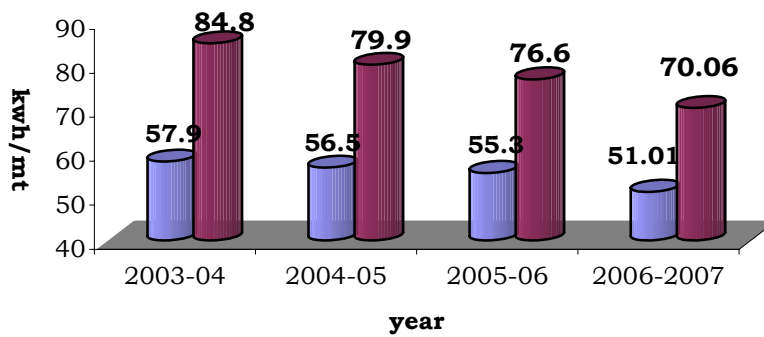
Prism Cement Limited firmly believes in attaining, retaining and reforming its’ energy conservation initiatives time to time. Originally installed efficient equipments and system, gives glare to our energy conservation drive. Year-by-year increasing production demand is associated with decreasing the specific energy consumption. Our thermal energy consumption (million kCal/year) during last 3 years is as below

2003 – 04	1368046 million kCal /year
2004 – 05	1334425 million kCal /year
2005 – 06	1477335 million kCal /year
2006 – 07	1401156 million kCal /year

The increase in absolute heat consumption is a reflection of increasing production capacity. However, the specific energy consumption is at reducing trend.

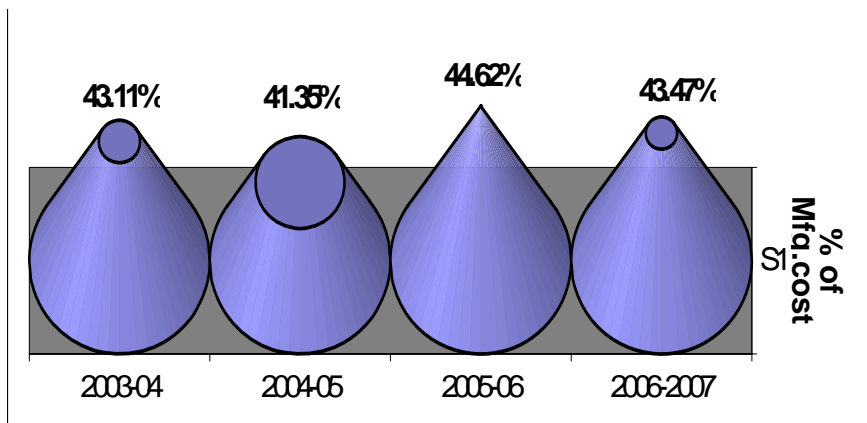


The above fact is accompanied with better electrical energy conservation also. kWh/Mt of clinker and cement witnesses' result of energy initiatives.



Perhaps, these achievements have opened broad road to move ahead in coming years.

Energy cost as % of manufacturing cost:



Energy Planning:

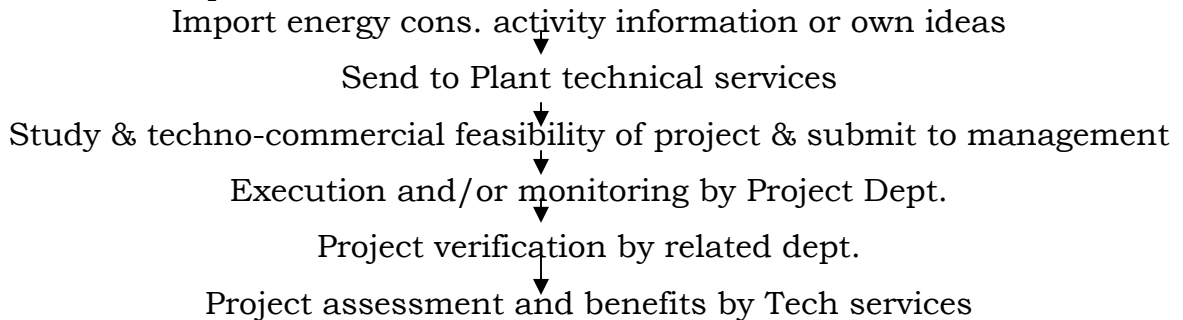
Energy planning for next 3 years with 2005-06 as base year is as follows.

Year	kWh /MT cement	kCal/Kg clinker
2006 – 07	70	660
2007 – 08	68	655
2008 – 09	66	650

Energy Conservation Commitment and Set up

The Plant is committed to explore available potential and to adopt technology advancements extending also to upcoming projects of company.

The plant has firm internal set up for execution of new energy initiatives. Normal process of this set up is as below.



Besides, periodic meeting on energy conservation will be held to organize the planning & review of activities. Unit head holds the meeting.

Energy Conservation Achievements

During the year 2006-07, the plant implemented the following projects:

- a) Conversion of PA fan, RABH RA fan, cooler seal air fan, speed regulation by damper control to V/F control.
- b) Elimination of LS crusher compressor by optimizing air requirement.
- c) Replacement of belt conveyors
- d) Installation of advanced energy management system
- e) Modification of belt conveyors in packing plant
- f) Modification of stacker boom belt.
- g) Complete replacement of water pipelining and optimization of water management for plant use.
- h) Committed process optimization i.e cooler and fan efficiency, false air reduction, secondary & tertiary air optimization, cooler recuperation efficiency optimization and bag filters optimization.
- i) Upgradation and optimization of flyash system

Energy Conservation Plans

- a) Installation of VFC system to all plant compressors.
- b) Installation of new water spray system to cooler
- c) Project for Co-generation plant
- d) Replacement of process fans by higher efficiency
- e) Up gradation of bag house
- f) Up gradation of Limestone crusher and cooler hammers from existing design to energy efficient design.

Environment and safety

Environment management is an approach of resource conservation and minimization of impact by human activities on the physical and ecological environment. Prism cement limited has a competent technical team taking care of the operation and maintenance of equipments efficiently.

The major pollutants of air in cement plant for the suspended particulate matter are from the various stacks and fugitive emission due to material handling. The following pollution control equipments have been installed at section of the plant.

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|--------------------|---|
| 1) Kiln/Raw mill | ABB 14 module Reverse air bag house 1 no. |
| 2) Cooler | ABB ESP of 6 fields 1 no. |
| 3) Cement mill | ESP of 3 fields – 2 nos. |
| 4) Coal mill | Bag filter 1 no. |
| 5) Transfer points | bag filters no.65. |

Pollution control equipments at Prism Cement are designed for emission standard of only 50 mg/nm³ for all the main stacks, which is relatively lesser than standards given by the state pollution control board for other stacks. Prism is committed to maintain this stringent standard.