

HERITAGE FOODS (INDIA) LIMITED  
Main Dairy Plant : Gokul  
Kasipentla Village, Chittoor Dist,  
Andhrapradesh

**Unit Profile**

Heritage Foods (India) Limited founded in 1992 by Sri Nara Chandra Babu Naidu, is one of the Fastest growing enterprises in Dairy Industry in South India. The Main Dairy Plant, Gokul was commissioned in 1996 with a rated capacity of 1.5 LLPD and was subsequently expanded to 2.5 LLPD in 2007.

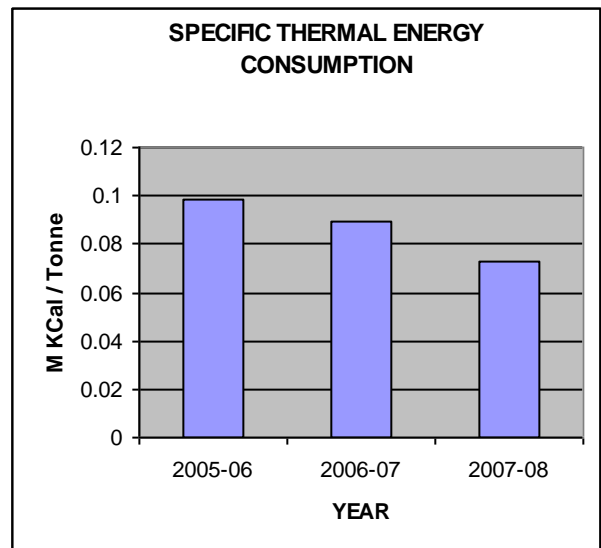
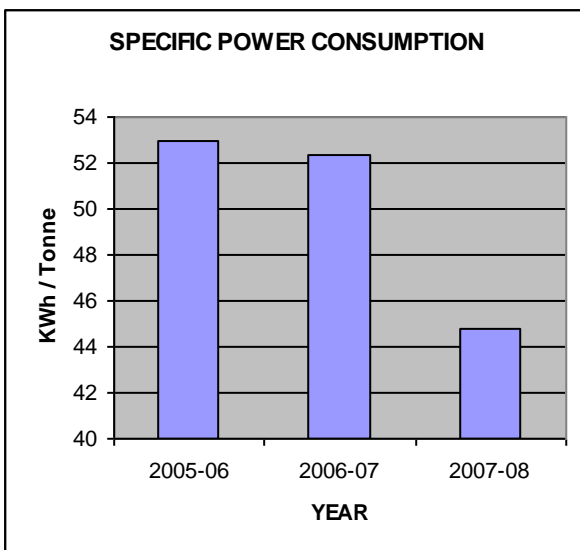
**Energy Consumption**

There has been a steady increase in the milk handled and decrease in the energy consumption since the establishment of Energy Management policy implementation in 2005.

Last 3 years Specific energy consumption figures are shown below, which depicts continual reduction in energy consumption over last 2 years due to our sustained efforts to conserve with the implementation of various energy conservation measures and ideas to increase efficiency of all our operations.

Description	Unit	2005-06	2006-07	2007-08
Electrical energy	KWh / Tonne	52.93	52.32	44.75
Thermal Energy	M Kcal / Tonne	0.0984	0.0890	0.0730
Total Manufacturing Cost	Rs. Lakhs	367.71	440.12	570.63
Total Energy cost	Rs. Lakhs	160.62	177.85	248.18
Energy as % of Total cost of production	%	43.68	40.41	43.49

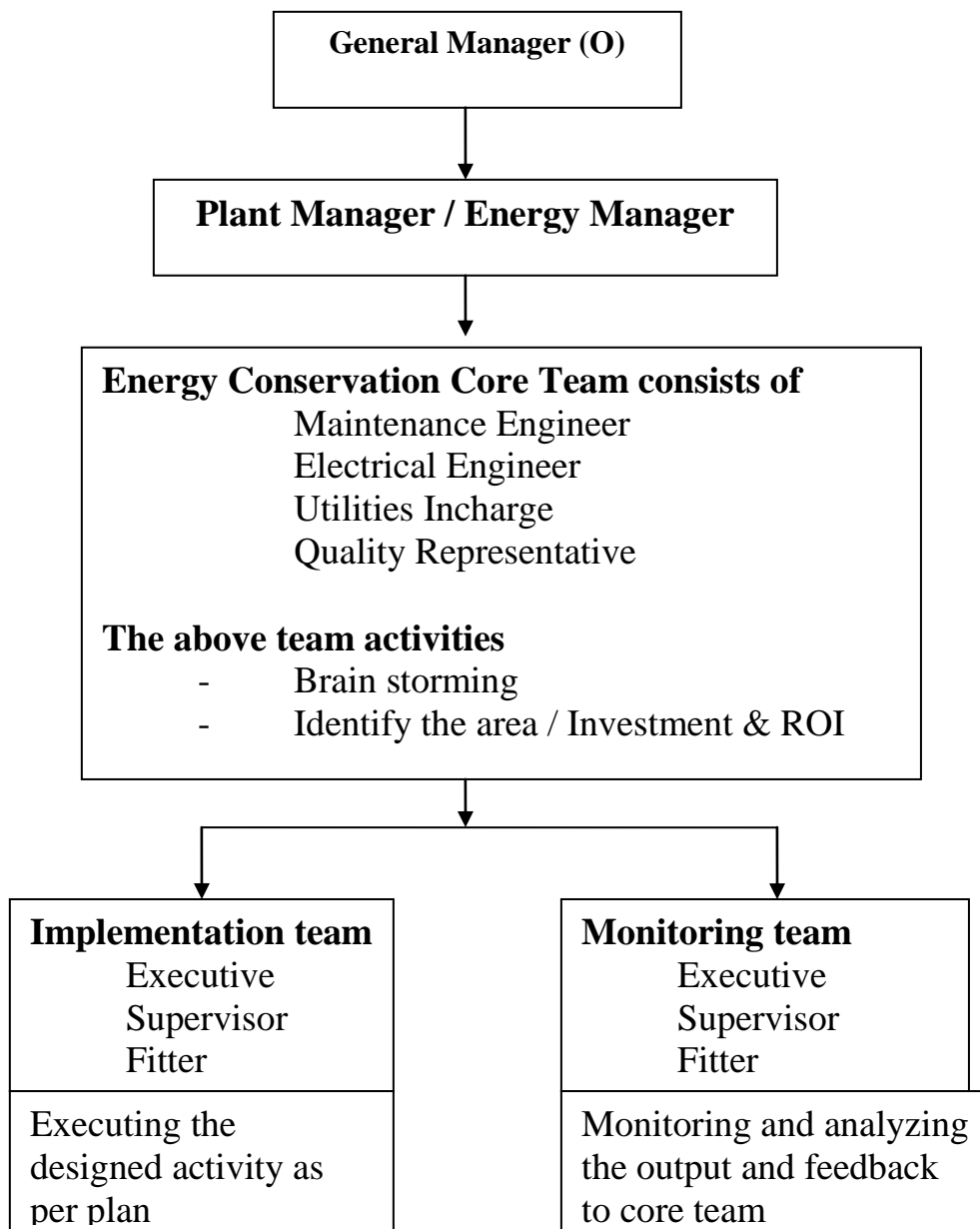
\*Despite increase in Furnace oil cost



## Energy Conservation Commitment, Policy and Set up

Heritage Foods (India) Limited, Main Dairy Plant, Gokul visualized the importance of Energy Conservation and taken measures accordingly in forming the core team and conducted several brain storming sessions section wise by creating awareness and to identify the areas to concentrate.

### Energy Conservation Team Structure



**Energy conservation achievements during 2007-2008.**

During the period 2007-2008, Our Unit implemented 13 major Energy saving Ideas through Brain Storming Sessions conducted in Energy cell and in Energy Conservation awareness classes. Annual Savings of Rs. 18.99 lakhs was achieved with an investment of Rs. 8.06 lakhs only. It has resulted in Percentage Reduction of 14.469% in Electrical Energy and 17.98% in Thermal Energy.

Project description	Achievement of energy savings per year basis					Total savings in (Rs. Lakhs)	Investment incurred on the project (Rs. Lakhs)
	Electricity	Fuels*					
	(Lakhs (kWh))	Coal (tonnes)	F.Oil (KL)	Gas (lakhs m <sup>3</sup> )	Total (fuel) in Mkcal)		
Replaced raw effluent pump of 5HP capacity with Energy Efficient 2HP pumps	0.20					0.69	0.30
Replaced CBMM rotopump 5HP capacity with Energy efficient VFD driven 1HP rotopump	0.26					0.93	1.50
Instead of Cooling tower for Cream Pasteurizer water connection taken from ATM sump.	0.06					0.19	0.00
Condensate recovery tanks provided. One tank for the pasteurizers condensate and one tank for the condensate of Khoa pan and Paneer vats			12.0		119.70	2.86	0.25
Replaced 10KL and 3KL pasteurizers Hot water pumps of 3.5HP with Energy Efficient pumps 2.0HP	0.16					0.58	0.81

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	Electricity	Fuels*			Total savings in (Rs. Lakhs)		
	(Lakhs (kWh))	Coal (tonnes)	F.Oil (KL)	Gas (lakhs m <sup>3</sup> )			Total (fuel) in Mkcal)
Multi purpose vat jacket Chilled water taken back to IBT and chiller arranged to reduce temp. from 85 degrees 50 degrees with soft water. The heated soft water used for bottle cleaning	0.55		4.0		39.90	2.88	1.50
Installed Condensed milk chiller, there by reducing the temperature of condensed milk from 55 degrees to 10 degrees and preheating the skim milk going to powder plant.	0.56		8.0		79.64	3.88	1.67
IBT make up water with the Chilled water getting from Cream silo during heating cream from 8 degrees to 13 degrees	0.04					0.13	0.00
Splash steam from all the steam traps recovered by connecting them to hot water tub and used as boiler feed.			5.0		49.88	1.19	0.25
By following sequence of operations, minimized the Ammonia compressor running hours. In 2006-07 per hour of Compressor 7534lts milk handled and in 2007-08 8063 lts handled. 391hours of KC6 compressor reduced	0.57					2.01	0.00

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	(Lakhs (kWh))	Coal (tonnes)	F.Oil (KL)	Gas (lakhs m <sup>3</sup> )			Total (fuel) in Mkcal)
By elevating the Silo avoided 2HP pump for the FCBT of Curd Pasteurizer	0.09					0.31	0.50
Arranged Electro Magnetic Water Flow meters in CIP section and monitored efficiently the qty. of water per object CIP (achieved 5000Lts/ Day hot water saving)			10.0		99.75	2.38	0.48
Replaced the IBT agitators motors 10HP 2 numbers with Energy Efficient 7.5HP motors	0.27					0.96	0.80
<b>Sub Total</b>	<b>2.76</b>		<b>38.98</b>		<b>388.87</b>	<b>18.99</b>	<b>8.06</b>