

HERITAGE FOODS LIMITED

Chittoor (Andhra Pradesh)

Unit Profile

Heritage Foods Limited founded in 1992, is one of the fastest growing enterprise in Dairy Industry in South India. The Main Dairy Plant: Gokul commissioned in 1996 with a rated capacity of 1.5 LLPD and was subsequently expanded to 2.5LLPD in 2007, 2.6LLPD in 2011 and 3.50 LLPD in 2014.

Presently, Heritage Milk and Milk products have market presence in Andhra Pradesh, Telangana, Karnataka, Kerala, Tamilnadu, Maharashtra, Delhi and Haryana with 14 Packing stations and 125 chilling centers.

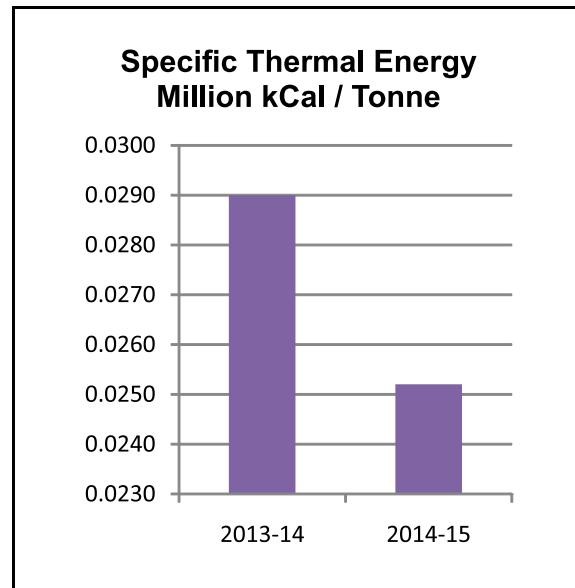
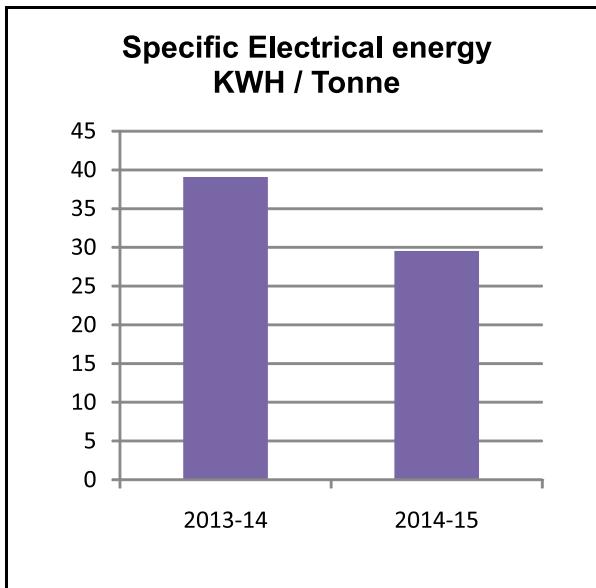


Energy Consumption

There has been a steady increase in the milk handling and decrease in the energy consumption since the establishment of Energy Commitment, Policy and set up in 2005.

Last 2 years specific energy consumption figures are shown below, which depicts continual reduction in energy consumption due to company sustained efforts to conserve it with the implementation of various energy conservation measures and ideas to increase efficiency of equipments.

Description	Unit	2013-14	2014-15	% Reduction
Specific Electrical energy	kWh / Tonne	39.069	29.551	24.36
Specific Thermal Energy	Million kCal / Tonne	0.0290	0.0252	13.33



Major Energy Conservation Measures Implemented in 2014 – 15

1. 72kW Low Steam turbine in place of pressure reducing station.

Arrangement of Low Pressure Steam Turbine in place of Pressure Reducing Station to generate Power. (From 10kgs/sqcm and 17kgs/sqcm steam pressure can be reduced to 3kgs/sqcm through the Low Pressure Steam Turbine where plant is getting around **200 kWh per day** for 30 tons of steam consumption). Generated 45117 kWh in the year 2014 -15 with help of the above turbine.



2. Commissioned 3 numbers of 120 TR de-super heaters for better condensation of Ammonia

3 numbers of 120 TR de-super heaters commissioned before 265TR Ammonia Condenser there by the discharge Ammonia gases are entering the condenser at around 60 degree against 110 to 120 degrees earlier. With this plant had stopped 1 number of 20HP mono-block cooling tower pump. This measure saved 1.0512 Lac kWh in the year 2014-15.



3. Cooling tower fan interlinking with outlet temperature (Powder Plant milk cooling taken)

The Cooling tower fan for KC6 compressor operation is interlinked with the outlet temperature of water. The Cooling tower water line is taken through the PHE where the Powder plant milk is passing which takes the cooling of the same. This stops the cooling tower fan for 10hours per day and conserves 23400 kWh.



4. Curd Milk pre cooling the Procurement Milk (Earlier 15degrees and now 5 degrees)

Earlier Curd Milk pre heating with the OHT soft water and the output chilled soft water (15 degrees) is used to pre-cool the Procurement Milk. At present, the Curd milk (5 degrees) itself is passing through the PHE to pre-cool the procurement milk where plant got 10 degrees saving and reduces the running hours of KC6 compressor which conserved 23360 kWh in the year 2014-15.



5. 30 KL Hot water and Chilled water insulated tanks commissioned to store regenerated Hot water and Chilled water.

The regenerated Hot water from the De-super Heaters and Chilled water from the Curd & Powder plant milk pre-cooling the OHT soft water which is stored in the Insulated tanks and use the same as per the requirement of process. With the commissioning of these tanks there is a saving of 33000 kWh and 31.13 tons of wood.

6. Hot and Cold well Commissioned for improved VAM Chiller performance

Hot well and Cold well Commissioned by modification of existing Ice Bank Tank systems. This will leads to an issue of constant temperature for the chilled water input to VAM chiller, which yields the best performance. Plant had observed that the variations in the Chilled water inlet temperature takes lot of time to stabilize the VAM chiller. Observed around 15% increases in the VAM chiller performance. With this project the Ammonia compressor operation reduced there by a saving of 1.285Lacs kWh achieved.

7. T5 Tube lights 122 numbers replaced with 40W twin Tube lights in Powder Plant

During renovation of Powder plant for Export Inspection Council, Chennai approval plant had changed the 122 numbers of Twin tube lights 40W each with T5 Model Twin Tube lights of 28W to save Lighting energy. The replacement saves 14054 kWh in the year 2014-15.

8. PPPPU (Pressure Powered Pump Packaged Unit) for Condensate recovery

2 numbers of 2HP condensate recovery pumps are replaced with PPPPU (Pressure Powered Pump Packaged Unit of M/S Spriax Marshall) for efficient transfer of the condensate with motive steam. Each pumping cycle will pump 30Liters of condensate at 95 degrees centigrade. This measure saved 10950 kWh in the year 2014-15.

9. Air ring Man arrangement for air line reduces the setting point

Air ring Man arrangement throughout the utilization area leads to reduction of set point from 8.5kgs/sqcm to 7.5kgs/sqcm. This reduces the Air compressor running hours there by reduction of kWh from 320 units per day to 200 units. With this measure 43800 kWh was saved in 2014-15.

10. 20 HP 2 numbers Mono block pumps replaced with 15HP energy efficient coupled pumps

20 HP 2 numbers of Mono block pumps replaced with 15 HP energy efficient KSB make coupled pumps with same output at Cooling Towers which saves around 59568 kWh in the year 2014-15.

Energy Policy

We at Heritage Foods Limited are committed to excel in Energy Performance in Process and Manufacture of Milk and Milk products on a continual basis for sustainable growth through,

- Continual improvement through up gradation of Technology, Systems and Services for improving Energy Efficiency to optimize the Energy Cost.
- Monitor and Control the Energy Consumption effectively by innovative designing and cost effective methods including procurement of Energy efficient products and services
- Providing resources to achieve measurable objectives and targets whenever necessary
- Complying with all applicable legal and other requirements related Energy use, consumption and efficiency.
- Educate and motivate all the people concerned through effective communication & recognition
- Integrating the energy policy in to our business planning, decision making and reviewing as and when necessary.
- To establish Bench marking standards in Dairy Industry in Energy Management

We commit to communicate this policy to all our employees, persons working for and on our behalf and make it available to the interested parties on request.

Date: 01.03.2015