WELCOME TO
THIRUVANANTHAPURAM
DAIRY, AMBALATHARA
ISO 9001:2000 CERTIFIED
DAIRY

COMMISSIONED IN APRIL 1992
WITH A HANDLING CAPACITY OF
1 LLPD
EXPANDED TO 2 LLPD IN JANUARY 2004
Sales

- MILK 1.9 LAC LTS/DAY
- CURD 212448 LTS/MON
- SAMBARAM 133893 PKTS/MON
- GHEE 44 TONs/ MON
- BUTTER
- ICE-CREAM 11500 LTS/MON
- SIP-UP 105000 PKTS/MON

Annual turn over Rs.150 Crores
Thiruvananthapuram Dairy is committed towards better efficacy in energy utilization by adopting energy efficient methods and minimizing energy wastages. We shall also strive for continual improvement in energy utilization systems.
ENERGY MONITORING COMMITTEE

GEORGE THOMAS Dy. Engineer Energy Manger

MEMBERS

1. T. SREENIVAS Asst. Manager (Prodn)
2. SUSAN THOMAS Asst. Manager (Prodts)
3. T. V. GIREESAN NAIR Tech. Supdt (ENGG)
4. S. SREEKANTAN NAIR Tech. Supdt (ENGG)
5. G. VIJAYA KUMAR Ref. Technician
6. W. SAMRAJ Electrician
7. XAVIER PERERA Boiler Operator
8. P. NARAYANAN NAIR Plant Operator
## PRODUCTION DETAILS FROM 2006-07 TO 2009-10

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>YEAR</th>
<th>QTY OF MILK PROCESSED IN LAKHS OF LTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2006-07</td>
<td>760.2</td>
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<tr>
<td>2</td>
<td>2007-08</td>
<td>778.2</td>
</tr>
<tr>
<td>3</td>
<td>2008-09</td>
<td>771.6</td>
</tr>
<tr>
<td>4</td>
<td>2009-10</td>
<td>647.9</td>
</tr>
</tbody>
</table>
COMPARISON OF KWH CONSUMPTION

LTS. OF MILK PROCESSED PER KWH

2006-07 19.6
2007-08 20.7
2008-09 21.4
2009-10 21.53
COMPARISON OF FO CONSUMPTION

- MILK PROCESSED PER LTR. OF FO
  - 2006-07 148
  - 2007-08 165
  - 2008-09 170
  - 2009-10 171
CONSUMPTION OF WATER /LITRE OF MILK

- 2006-07 1.7
- 2007-08 1.7
- 2008-09 1.77
- 2009-10 1.75
## Savings

<table>
<thead>
<tr>
<th>Year</th>
<th>kWh</th>
<th>FO</th>
</tr>
</thead>
<tbody>
<tr>
<td>07-08</td>
<td>12.1</td>
<td>4.6</td>
</tr>
<tr>
<td>08-09</td>
<td>7.22</td>
<td>3.58</td>
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</tbody>
</table>
Major Energy Conservation Activities

Maintenance of power factor at 0.99

- Installed 2nosx 190 KVAR automatic power factor control panels, which has resulted
  Reduction of maximum demand to the tune of 100KVA/month

Replaced all pneumatic machines by mechanical machines, which helped to stop operation of 3nosx30HP motor operated air compressors. Now only 1nox10HP motor operated air compressor for the operation of CIP, Pneumatic valves connected with pasteurizer control panel.
- Installed individual energy meters for monitoring consumption at major load points.
- Monitoring and control of energy consumption at peak load hours
- Replaced two old 125Hp motors at refrigeration section by energy efficient motors
- Provided CFL whereever luminous intensity of CFL is sufficient
- Daily draining out of oil from the accumulator of refrigeration system.
- Installed 10KL solar water heating system, which has increased processing capacity of milk from a level of 148 Litres of milk to 171 Litres of milk per litre of furnace oil.
- Temperature control of ALFA-LAVAL make Pasteurizer, which was acting as a switching was replaced with another one which controls the percentage opening of steam valve as per requirement
- Treated water from ETP being used for gardening, cleaning of open drains, manual cleaning of sachet trays.
- Pressurised water systems are being used for floor cleaning which makes considerable savings in water consumption
Action Plan

- Effective utilization of treated water from ETP
- Installation of De-super heater in discharge line of ammonia line
Thank You

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