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

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



MILK 1.9 LAC LTS/DAY 212448 LTS/MON **CURD** SAMBARAM 133893 PKTS/MON 44 TONs/ MON GHEE BUTTER ICE-CREAM 11500 LTS/MON 105000 PKTS/MON SIP-UP Annual turn over Rs.150 Crores

#### **ENERGY POLICY**

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**

T.SREENIVAS
 SUSAN THOMAS
 T.V.GIREESAN NAIR
 S.SREEKANTAN NAIR
 G. VIJAYA KUMAR
 W.SAMRAJ
 XAVIER PERERA
 P.NARAYANAN NAIR

Asst. Manager (Prodn) Asst.Manager (Prodts) Tech.Supdt(ENGG) Tech. Supdt(ENGG) Ref. Technician Electrician Boiler Operator Plant Operator

## PRODUCTIONDETAILS FROM 2006-07 TO 2009-10

SI.No.	YEAR	QTY OF MILK PROCESSED IN LAKHS OF LTS
1	2006-07	760.2
2	2007-08	778.2
3	2008-09	771.6
4	2009-10	647.9

### COMPARISION 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





Year kwh FO

# 07-08 12.1 4.608-09 7.22 3.58

#### 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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