

UNITED PHOSPHORUS LIMITED

Vapi (Gujarat)

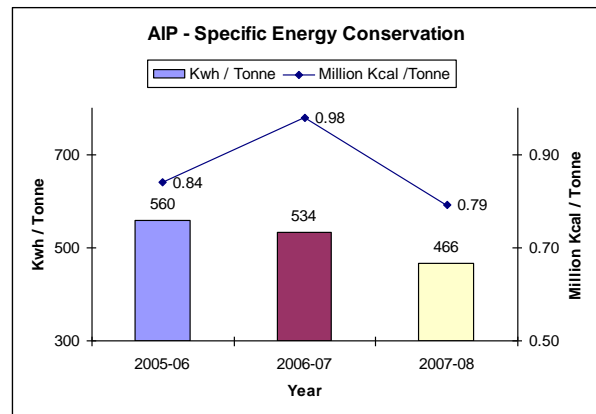
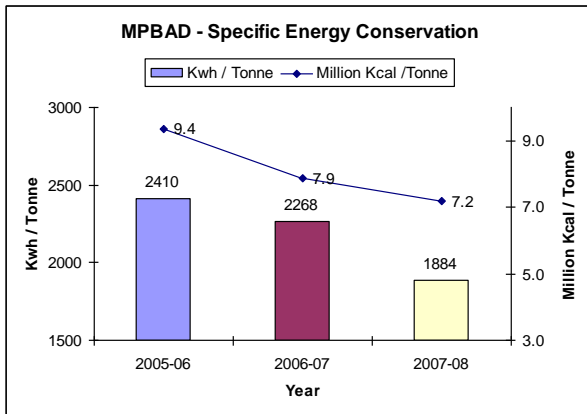
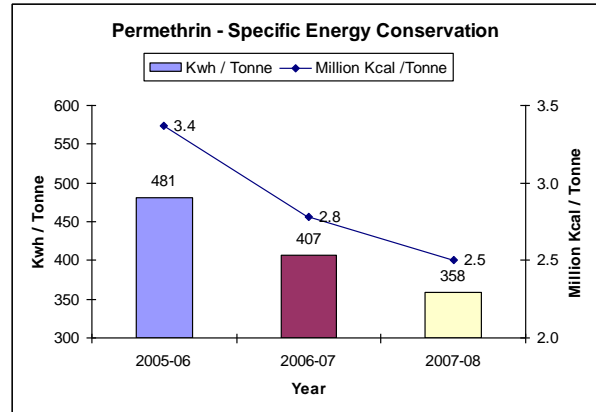
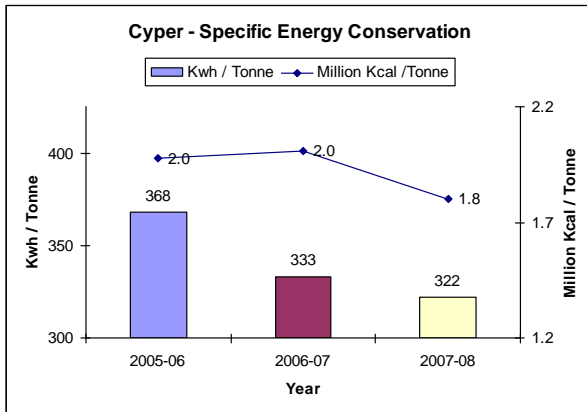
Unit Profile

United Phosphorus Limited (UPL) is the largest producer in India of crop protection products with a wide range of products that include fumigants, fungicides, insecticides, rodenticides and herbicides. The company ranks fourth amongst the generic agrochemical companies in the world. UPL is having their manufacturing units at Vapi, Ankleshwar, Jhagadia, Halol and UK. UPL-Vapi unit was the first unit established in 1969, situated 180 km from Mumbai on national highway no.8. It is an ISO 9001, ISO 14001 and OHSAS 18000 certified company. The unit sales turnover was Rs 396.87, 318.19 and 261.53 crores in the year 2005-06, 2006-07 and 2007-08 respectively. Through acquisitions, strategic alliances and subsidiaries, UPL has built a network across the globe – in Europe, America, Asia Pacific, CIS, Africa and Australia with fully owned subsidiaries in Argentina, Australia, Bangladesh, China, Cuba, Denmark, Honduras, Hong Kong, Japan, Mauritius, Mexico, Poland, Russia, South Africa, USA, UK, Zambia, Zimbabwe and representative offices in Sri Lanka & Vietnam.

Energy Consumption

The Specific Energy consumption of main products Cypermethrin, Permethrin, MPBAD & ALP are on declining trend due to various innovations, R&D for yield improvement, Energy conservation, capacity utilization, process improvements measures etc.. The scenario of UPL – VAPI unit in the past three years is as given below.

Product	Description	Unit	2005-2006	2006-2007	2007-2008
CYPERMETHRIN	Annual production of CYPERMETHRIN	MT	2832	2763	2655
	Specific Energy consumption – Electrical	Kwh / MT	368	333	322
	Specific Energy consumption - Thermal	Million Kcal / MT	2.0	2.0	1.8
PERMETHRIN	Annual production of PERMETHRIN	MT	864	806	371
	Specific Energy consumption – Electrical	Kwh / MT	481	407	358
	Specific Energy consumption - Thermal	Million Kcal / MT	3.4	2.8	2.5
MPBAD	Annual production of MPBAD	MT	1646	1802	2365
	Specific Energy consumption – Electrical	Kwh / MT	2410	2268	1884
	Specific Energy consumption - Thermal	Million Kcal / MT	9.4	7.9	7.2
ALP	Annual production of ALP	MT	1293	1671	1609
	Specific Energy consumption – Electrical	Kwh / MT	560	534	466
	Specific Energy consumption - Thermal	Million Kcal / MT	0.84	0.98	0.79



Energy Conservation Commitment, Policy and Set up

UPL is committed for Total Energy conservation, prevention of energy wastages, new technologies implementation and R&D for quality to reduce specific energy consumption of their main product lines. Because of the commitment, one of the main Objectives of the company is to reduce Energy bill by 3 %.

Energy management set up is comprising of three groups

- The Apex group indicates the commitment of the top management. It gives proper guidelines, support, and encouragement to the Energy conservation activities. The group is headed by COO.
- The core group forms the middle Management including GM (works), Dept heads, and Energy Manager.
- The working group comprises of various profession engineers at all plant level. By monthly meeting is conducted, where various energy conservation proposals are put, analyzed, discussed. With no payback proposals are implemented immediately and with investment are reported to the management. Monthly reports of Energy saving and proposal are put to the Management in MIS. The Commitment of the top management is also reflects, as every three years Energy Audit is conducted by External Auditor.

Energy Conservation Policy



UPL is committed to measure, monitor and manage energy to use the same in most efficient and eco-friendly manner for manufacturing of its wide range of agrochemicals, industrial chemicals, chemical intermediates and specialty chemicals by:

- Promoting and procuring energy efficient & upgraded technologies and equipments.
- Setting stretched goals and achieving the same to reduce specific energy consumption for products & utilities.
- Training, motivating people for creative thinking to reduce energy consumption minimum by 1% per annum on average.
- Preserving environment by conserving energy and exploring use of renewable energy resource in this industrial sector.

Mumbai

Sd/-
C.O.O/Executive Director

UNITED PHOSPHORUS LIMITED - VAPI

Energy Conservation Achievements

Description	Unit	2005-2006	2006-2007	2007-2008
Energy saving activities	Nos	13	6	7
Savings achieved	Rs Lakhs	277.37	76.00	116.44
Investment	Rs Lakhs	347.20	148.50	112.23

Details of Energy Conservation Measures implemented in 2007-2008

Project : 1

Boilers (5 & 10 TPH) Have been converted from FO to Natural Gas fired with Oxygen trimming & VFD system.

Technical & Financial Implementation:

- Cost saving due to fuel change over = 70.90 Lacs /annum
- Investment cost = 101 Lacs.



Project : 2

Thermo pack converted from LDO to Natural Gas.

Technical & Financial Implementation:

- Cost saving due to fuel change over = 29.33 Lac Rs/annum
- Investment cost = 6.9 Lac Rs



Project : 3

Replaced 93.5 kw motor by energy efficient motor

Technical & Financial Implementation:

Power saving = 81468 Rs/annum

Investment cost = 1.68 Lacs



Project : 4

Replaced 20 nos. 250 W HPMV street light by 150 W metal halide.

Technical & Financial Implementation:

Power saving = 8760 KWH/annum
= 0.41 Lacs Rs /annum

Investment cost = 0.65 Lac Rs



Project : 5

Installed Auto lighting system.

Technical & Financial Implementation:

Power saving = 19200 KWH/annum
Saving Rs. = 0.9 Lac/annum

Investment = 0.4 lac Rs



Project : 6

Installed Lighting transformer to get fixed voltage.

Technical & Financial Implementation:

With servo Voltage Transformer
Power saving achieved = 6 kw
Saving in Rs. = 2.4 lacs/annum
Investment = 4.5 lacs.



Project : 7

75 HP Rotary vacuum system is replaced by 25 HP SB centrifuge for effluent separation.

Technical & Financial Implementation:

Saving kwh = 250656 kwh/annum
Saving Rs. = 11.65 lac Rs/annum
Investment = 20 Lac Rs.

Major Energy Conservation Plans and Targets for 2008-09

United Phosphorous Limited, Vapi unit is committed to improve energy performance on continual basis by finding out new ideas / innovations in the field of electrical and thermal energy.

Sr No	Energy conservation targets	Expected Saving in Rs. Lacs.	Investment in Rs. Lacs.	Target Date
1	Conversion of 5 TPH Boiler from FO to Ngas GT 2987	128.56	17	2008-09
2	10 tph boiler economizer installation	96.71	20	2008-09
3	ZnP Furnace conversion from LPG to Natural Gas	15.62	3	2008-09
4	Canteen fuel conversion from LPG to Natural Gas	2.08	3	2008-09
5	Mpbad Mr 112 Ejector , 300kg/hr replaced by 110 kg/hr	15.96	4.5	2008-09
6	Davcl Ej 9041b Ejector ,220kg/hr replaced by 110kg/hr	9.24	4.5	2008-09
7	Mpbad Cl2 Vaporizer erection, instead of liquid cl2 toner, resulted saving of 5hp motor.	0.94	1.75	2008-09
8	Propanil Plant OTL Pump to be started instead of steam ejector	2.66	4	2008-09

For year 2008-09:

Planned investment = 57.75 Rs Lacs
Savings Expected = 271.77 Rs Lacs

Environment and Safety

United Phosphorus Ltd. has a Safety, Health and Environment department to ensure that the standards are met as per requirement. No compromise is done where Safety, Health and Environment is concerned. The safety manager ensures that all the employees are using Personal Protective Equipments (like Helmet, Safety Gloves, Safety Boots, Safety Goggles etc.) while working in plant.

UPL has also committed substantial investment to maintain and improve high standards of environmental care. This concern is designed into UPL's processes and manufacturing plants at the outset to minimize effluents and energy use. Effluent is treated on site wherever possible to ensure high standards set are not compromised by operators outside UPL's control.

As a company we place great emphasis on contributing to a sustainable society. Care is taken to ensure that raw materials and energy are used efficiently across the production process. We recognize that our processes may have an impact on the environment and as a result we are committed to continuously improving our environmental performance to minimize this.