



Ruchi Soya Industries Ltd. Kandla

Organisation Profile

RUCHI Soya Industries is the 15th fastest growing Indian company, according to the Business Today Survey (edition– June 15,2008). The group has its corporate headquarters in Indore, with offices in Mumbai, New Delhi, Calcutta, Chennai and other major business centers in the country. The Group's business interests vary in different commodities. It has manufacturing and trading facilities of Soyabean products, Agri-business, Oils and Fats, Flat Steel, Galvanized Steel & Cold Rolled Steel etc. The Group also has long exposure in trading of Oil, Pulses and other agriculture crops.

Ruchi Soya Industries Limited, Kandla a, group company of RUCHI GROUP, established in the October 2004 located at Survey No. 217 / 2, Village – Mithi Rohar, Gandhidham (Kutch). The unit is basically engaged in manufacturing of Refined Oil , Vanaspati and bakery shortening with by products mainly Palm Fatty Acid distillate, acid oil used in soap industries.



It has got ultra modern, fully atomized 1000 TPD Refinery and 200 TPD Vanaspati Plant. Annual Sales Turnover of Unit for year 2007-08 was 80340 lakh. Unit is accredited ISO 9001: 2004 & Dutch HACCP.

Energy Consumption:

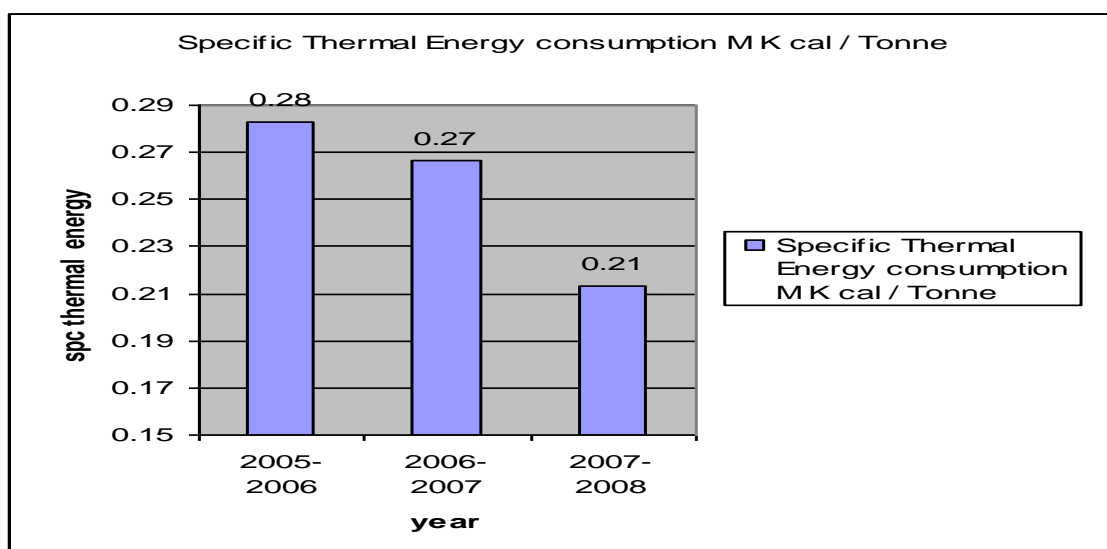
With the Suggestion & successful implementation of various energy conservation measures suggested by Core team there is continual decline of specific energy consumption& it has resulted in saving of Rs.240 Lakh with an investment of Rs.52.0 lakh. There is 27.45% reduction in specific power consumption over last year. Incase of Specific Thermal Energy consumption, there is decline of 8.84% over previous year.

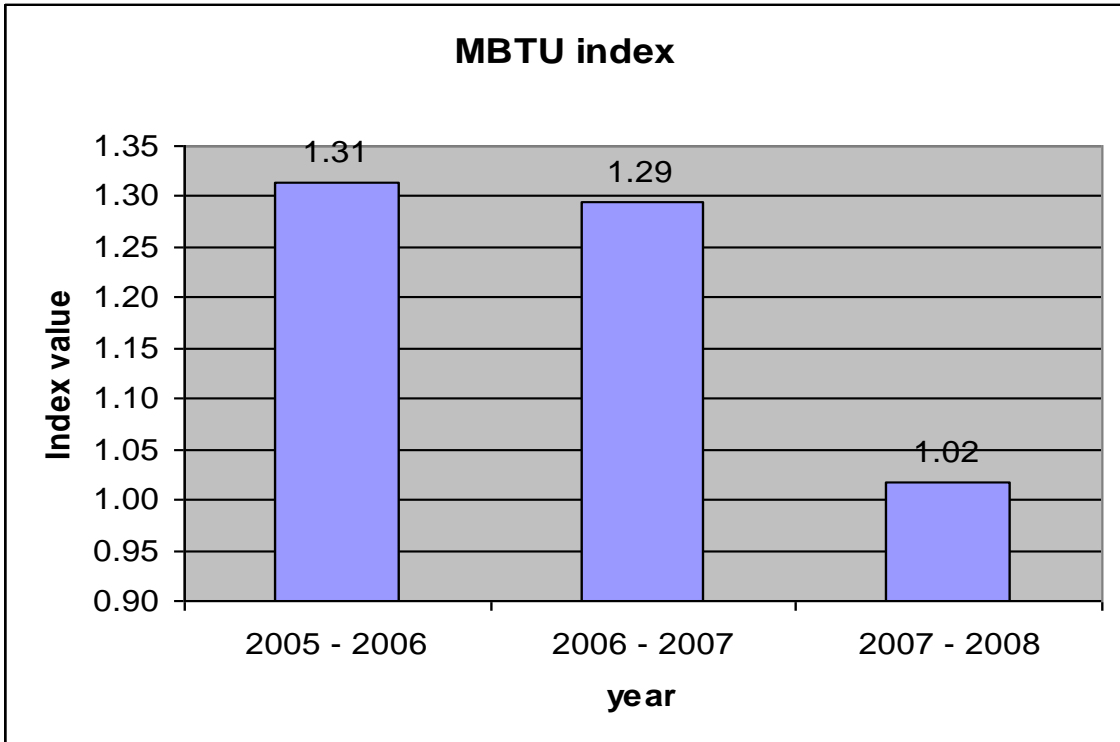
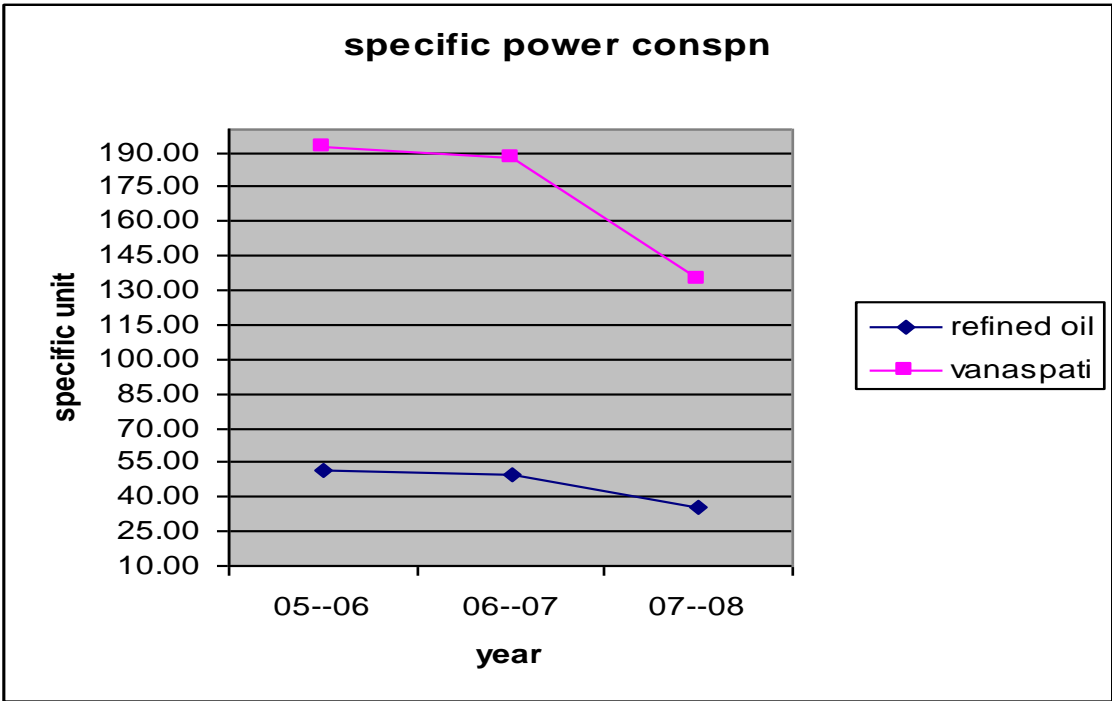
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Description	Unit	2005-2006	2006-2007	2007-2008
Annual turn over	Rs: in Lakhs	46,203.00	52,053.00	80,340.00
Total manufacturing cost	Rs: in Lakhs	46,203.00	52,053.00	80,340.00
Electrical energy	Lk KWA / Year	62.78	88.57	95.55
Thermal energy	M K Cal / Year	31,779.45	34,015.53	40,450.76
Total energy Cost	Rs: in Lakhs	406.49	559.21	694.67
Energy Cost as % of manufacturing cost	Percentage	0.88	1.07	0.86
Specific power consumption	000'KWH / Tonne	55.86	69.40	50.35
Specific Thermal Energy consumption	M K cal / Tonne	0.283	0.267	0.213

Note: Overall Specific power consumption increase in year 06-07 over the year 05-06 due to increase in vanaspati production by 10.81% which consume more power approx 79.0% than refined oil production(process flow chart attached), where as there is continual decline of specific power consumption for past three years for both the product .

YEAR	Production				
	Refined oil(MT)	Refined oil %	Vanaspati(MT)	Vanaspati %	Total
05--06	108,740.689	96.76	3638.926	3.24	112379.615
06--07	109,345.794	85.95	17878.142	14.05	127223.936
07--08	162,194.000	85.47	27583.000	14.53	189777.000





Energy Conservation Commitment ,Policy & Set- up:

We, at Ruchi Soya Industries Ltd. Kandla are committed to adopt energy conservation measures in all our activities, products and services across the unit.

Our Mission are:

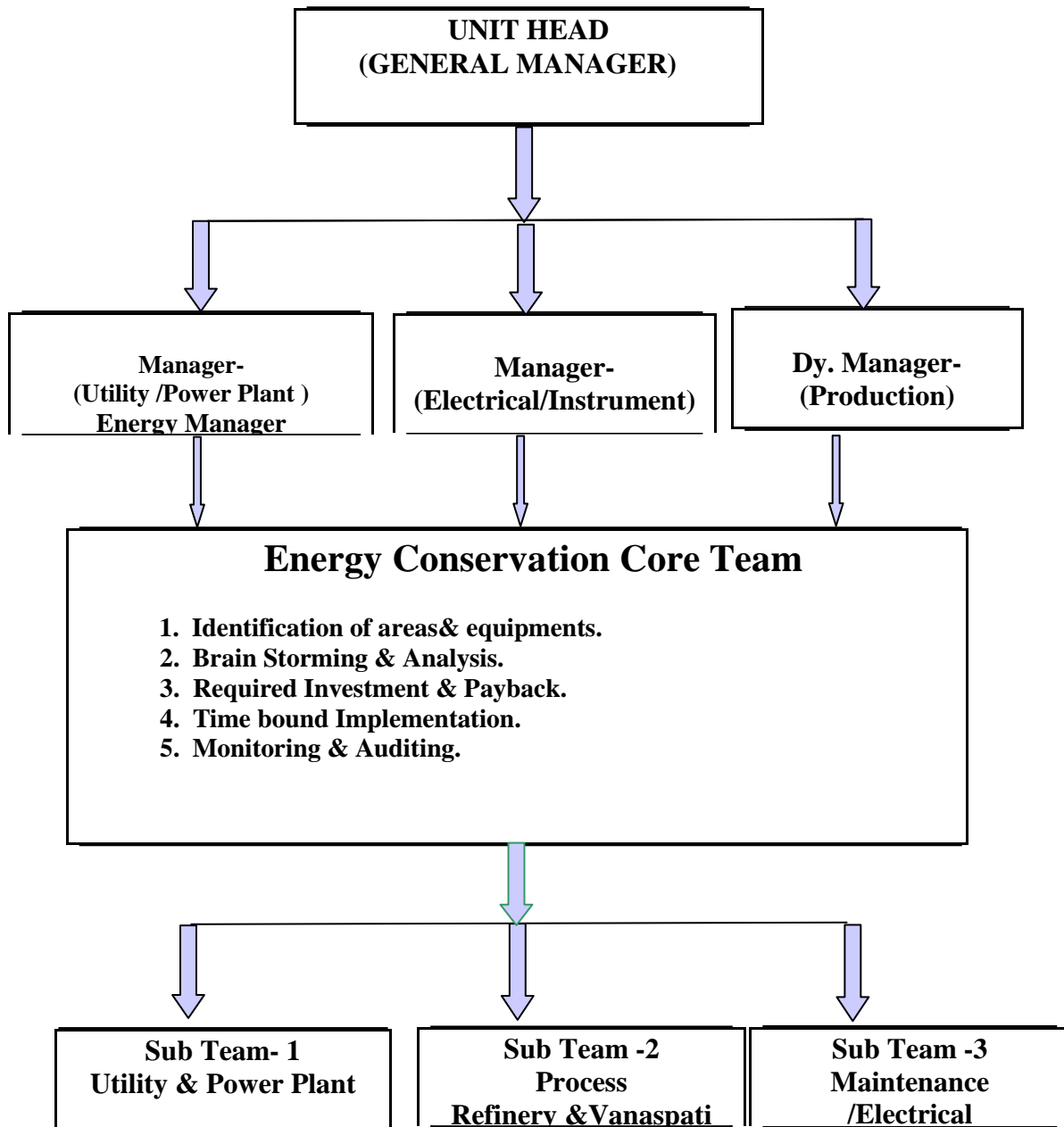
- Continuous up gradation of process with energy efficient & eco friendly technologies to optimize energy cost.
- To educate and motivate all level of employees for energy awareness activities and recognize their contribution for its successful implementation.
- To conduct regular management reviews to ensure continual improvement.

Date-

s/d

Director

Energy Conservation Team Setup:-



Energy Conservation Achievements:



- Replaced barometric cooling tower motor from 75 to 45 kw (02 sets)in refinery plant resulting in saving of Rs 16.77 lakh/year.
Investment :Nil (arranged In house)
- Replaced barometric cooling tower motor from 75 to 37.5 kw in vanaspati plant resulting in saving of Rs 12.78 lakh/year.
Investment :Rs 0.8 lakh
- Replaced Clean cooling tower pump motor from 45 to 22.5 kw(02 set) in refinery plant resulting in saving of Rs 17.16 lakh/year
Investment : Rs 0.85 lakh



1. Installed 20KL storage tank for low medium pressure steam condensate with separate piping from Refinery &Vanaspati plant resulting increase 9.84% recovery of condensate & 9745 KL D.M.Water as a saving of Rs 11.09 lacks/year
Investment :2.7 lacks

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- Installed lower rating steam consumption booster in vanaspati plant there by saving in steam consumption of 543 kg/hrs .
Net saving of steam : 4170 MT
Net saving in Rs 16.56 lakh/year
Investment: Rs 3.54 lakh



- Installed VFD in motor of Auto Clave agitator, there by resulting in saving of Rs 5.53 lakh /year.
Investment: Rs 1.6 lakh

- Installed VFD in motor of ID fan in TFH boiler, there by resulting in saving of Rs 2.8 lakh /year.
Investment: Rs 0.81 lakh

Energy Conservation Achievements:

Year of Commissioning of the projects	Project description	Achievement of energy savings per year basis					Total savings in (Rs. Lakhs)	Investment incurred on the project (Rs. Lakhs)	
		Electricity	Fuels*			Total (fuel) in Mkkal			
		(Lakhs (kWh)	Coal (tonnes)	F.Oil (KL)	Gas (lakhs m ³)				
Electrical Energy Saving									
	1	Replaced Crystallizer water circulation Motors from 18.5 kw to 9.3 - 03 set	2.67				12.00	0.58	
	2	Removed 22 kw process water pump & utilized existing cooling tower water	3.21				14.43	0	
	3	Replaced semi chilled water pump motors from 18.5 to 3.7kw-01 set	0.91				4.11	0.134	
	4	Replaced Process water pump motors from 22 to 3.7kw	1.37				6.19	0.58	
	5	Replaced Clean cooling tower pump motor from 45 to 22.5kw-02 set	3.81				17.16	0.848	
	6	Replaced barometric cooling tower motor from 75 to 37.5 kw in vanspati-01 set	2.84				12.78	0.674	
	7	Installation of VFD in auto clave agitator motor-01 set	1.23				5.53	1.64	
	8	Replaced barometric cooling tower motor from 75 to 45 kw in refinery-02 sets	3.73				16.77	1.334	
	9	Replaced Clean cooling tower pump motor from 37 to 22 kw-01 set(refinery plant)	0.96				4.30	0	
	12	Automation in cooling tower fan for clean & Dirty cooling water-04 sets	1.09				4.91		
	13	Clean cooling tower Motor replaced from 30 TO 22 KW	0.30				1.35	0	
	14	Replaced Fatty acid circulation Motors from 30 to 18.5 kw-01 set	0.55				2.49	0	
	15	Replaced Deo Feed pump Motor from 18.5 to 11.0 kw-01 set	0.38				1.75	0	
	16	Replaced deairator feed pump BP - 14 Motor from 9.3 to 3.7kw-01 set	0.47				2.12	0	
	17	Removed Hard oil filtration pump motor 15 kw-01 set	1.11				5.05	0	
	18	Replaced Post bleacher agitator motor from 15 to 7.5 kw-02 sets	0.44				2.02	0.25	
	19	Replaced dirty cooling tower motor from 75 to 30 kw-01 set(refinery plant)	2.84				12.93	0	
	20	Replaced Fatty acid circulation pump motor from 45 to 22 kw (Refinery plant)-01 set	1.11				5.04	0	
	21	Removed Fatty acid cooling water pump motor 15 kw-01 set(refinery plant)	1.11				5.05	0	
	22	Replaced Bleached oil feed pump 682B motor from 22 to 15 kw-01 set (refinery plant)	0.28				1.28	0	
	23	Replaced Neutral oil feed pump 501 Motor from 30 to 22.5kw	0.30				1.35	0.424	
	24	Installed APFC Controller to control power factor at 11 different panel location thus received 2.4% rebate from Billing Amount					5.18	0	
	25	Removed DM water pump of 5.5 kw-01 set	0.20				0.93	0	
	26	Installed VFD in ID fan motor of TFH boiler -01 set	0.61				2.80	1.61	
	27	Replaced RO reject water motor 7.5 to 3.7 kw-01 set	0.14				0.63	0	
	28	Replaced RO water motor from 45 to 37.5 kw-01 set	0.27				1.24	0	
Thermal Energy Saving									
	1	Installation of Vacuum Regenerative Heat Exchanger for effective utilization (Mk cal /year)				3744.00	30.96	31.45	
	2	Installation of steam booster with lower rating of steam consumption there by reduction in consumption of 543 kg/hrs in steam		1027.153		3081	16.56	3.54	
	3	Installation of S&T heat exchanger for deod oil to crude oil in vanaspati plant		560.000		1680	9.03	0	
	4	Replacement of lower mesh size screen with crusher hammers & liners resulting Coal to Steam ratio increased from 4.06 to 4.2 Net saving of coal(Lignite) 813 MT		813.136		2521	13.11	6.1	
	5	Condensate Recovery increased from 9.63% to 19.47% with Saving of Condensate & DM Water 9745 KL		259.867		780	11.09	2.7	
		Flash steam Recovery from condensate & blow down water		212.736		638	3.43	0.62	
	6	For D.G. Power generation using L.D.O. instead of H.S.D with same generation rate			69.848	671	6.38	0	
		Total	31.93	2872.89	69.85	0.00	13114.529	239.943	51.864

Energy Conservation Plans and Targets for the next 2 years:

	Energy Conservation Measures (Planned)	Anticipated savings in		Approx. investment (Rs.lakhs)	Project Commencement & Completion year
		Energy Value (specify units)	Rs. Lakhs		
1	Plant & Street light savings by introducing Energy saver transformer lakh kwh /year	0.59	2.66	2.10	December 2008
2	Replacement of 03 nos 15 KW Motors to 03 nos 3.7 KW with introduction of New compact Gear box lakh kwh/year	2.00	9.03	0.47	2008-2009
3	Installation of Softner for Process cooling tower instead of R.O. Water (KL/year)	48000	9.60	6.50	2008-2009
4	Further reduction in Process pump motors in fractionation plant (22 TO 3.7KW- 02 sets & 9.3 TO 3.7 KW IN 03 sets) lakh kwh /year	3.74	16.91	0.47	2008-2009
5	Increase captive power plant by installing New EC Turbine lakh kwh/year	63.36	190.08	250.00	2009-2010
6	TS - 20 to be Converted from F.O. to solid fuel		86.03	90.00	2009-2010
	Total		314.301	349.540	

Specific Energy Consumption Planned Target for the year 2008-09 & 2009-10:

Year	Electrical*	Thermal*	Reduction over the year 2007-08	
	Kwh/mt	Mkcal/mt	Electrical%	Thermal%
2007-08 (Base year)	50.35	0.21315	-	-
2008 - 09	47.08	0.19342	6.50	9.26
2009 -10	46.95	0.18851	6.74	11.56

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Environment & Safety:

Safety:

RUCHI SOYA INDUSTRIES LIMITED, Kandla is committed to ensure safe and healthy work environment impacting across the operations. It has safety committee comprising of employees from across function to ensure that safety measures are strictly adhered by one & all. Every fortnight safety meeting is conducted including the top management participation to review safety measures, resulting zero accident reported over the past four years of operation. Frequent training on fire hazard & first aid is imparted to employees to bring awareness across the unit.

Health, Hygiene & Environment:

Being a food processing unit a high importance is accorded to health & hygiene aspect & unit is accredited Dutch HACCP (Hazard analysis critical control point) and aims to get ISO 14001 & OHSAS Certification by end of March 09.

Unit has ESP & Dust collector in power plant with a stack height of 46.5 meters to meet the parameter led by GPCB.

Unit has its own ETP to treat water discharge, mainly lime sludge is generated which is disposed at GPCB authorized TSDF site.