



**DCM TEXTILES**  
**HISAR**

# UNIT PROFILE

–DCM Textiles, a unit of DCM Ltd., started its production in 1991 and is a part of the Rs. 160 crores DCM Group. DCM Ltd. is headed by Dr. Vinay Bharat Ram, CMD, a famous Industrialist and an eminent Scholar of India. The DCM Group reputed for their product quality, dynamism, business integrity and for quick response to changes in environment.

# UNIT PROFILE

DCM Textiles is a Spinning Mill located in Hisar (Haryana) engaged in the manufacturing of 100% Grey Cotton Yarn and Mélange Yarns in the count range of 12s to 40s, mainly for knitting use. The unit has a line of new generation machines having a capability of producing good quality yarn.

# UNIT PROFILE

The machines are from various renowned manufacturers like M/s. Schlafhorst A.G., M/s. Rieter, M/s. Crosrol, M/s. Lakshmi Machine Works (LMW), M/s. Trumac Mumbai, M/s. Texmaco Howa, M/s. Mafatlal Engineering Industries, M/s. Padmatex, M/s. Vijay Laxmi, Textool, Sieger, Veetal & M/s Luwa etc. A modernization drive is underway to further enhance the competitive edge of the unit by installing new ring frames of LMW and additional Autoconers.

# UNIT PROFILE

To meet the stringent quality requirement, the unit has testing laboratory well equipped with sophisticated equipment like Uster Tester (UT-3 & UT-5 Model) Cascade Wrapping System, ART (Cotton Testing), aQUARA (In process testing), Projection Microscope and has also implemented the quality system in line with the international standards. It subjects all the purchased items to inspection and testing before acceptance to ensure compliance with quality requirements.

# UNIT PROFILE

The unit is supplying yarn to Indian as well as to international market and is in process of further expansion of its international markets. The quality management system for unit has been certified by Bureau Veritas Certification since May 1995.

# QUALITY POLICY

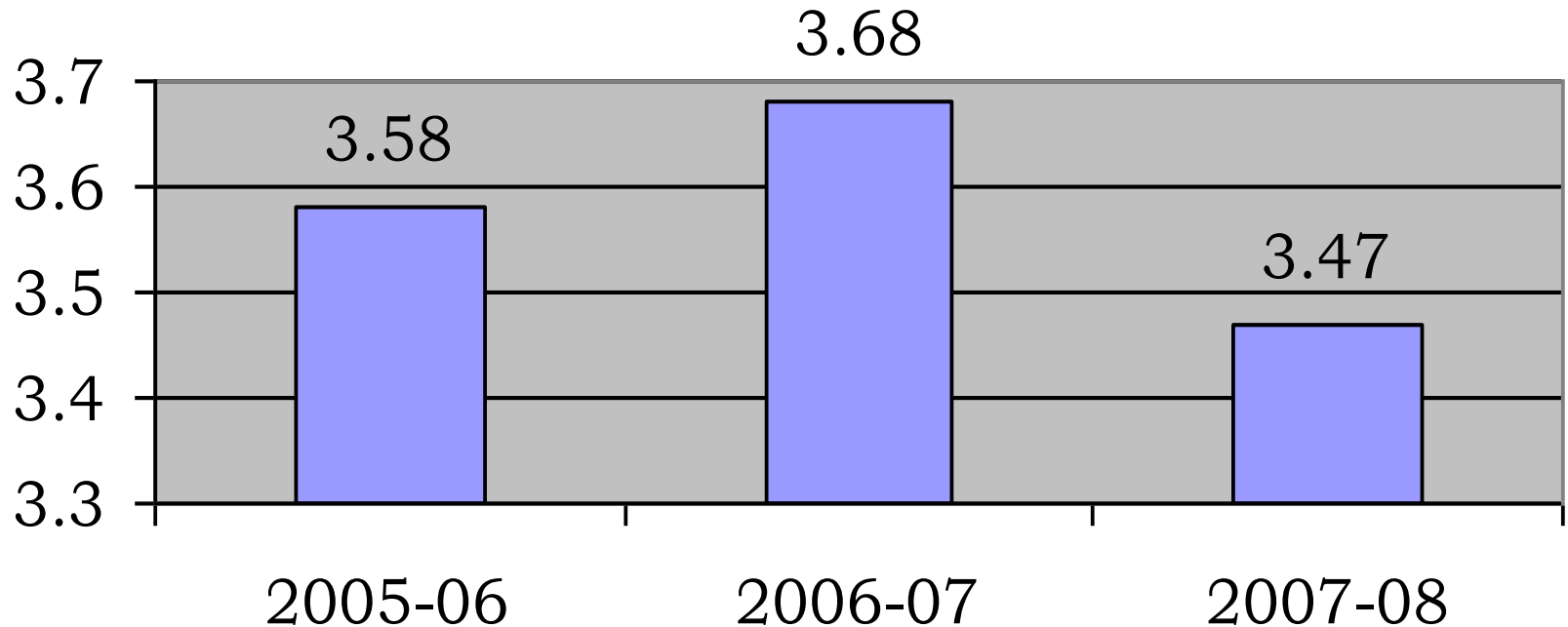
DCM Textiles is committed to deliver goods and services which satisfy its customers at all times and enhance value of this business for all stake holders through active involvement of all employees and continuous process improvements.

# **SAFETY HEALTH AND ENVIRONMENT POLICY**

“DCM Textiles and its all employees are committed to create and continuously maintain such working environment which is safe, healthy, pollution free and invigorating.”

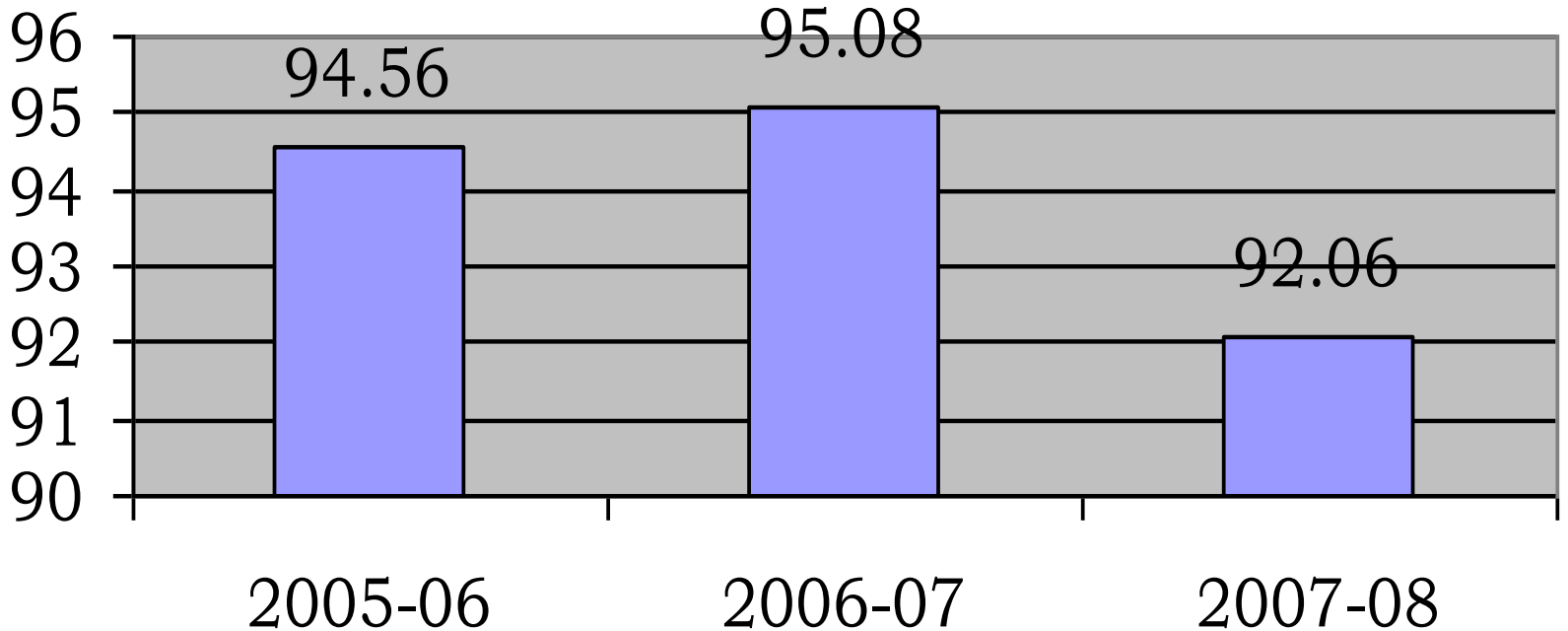
# ACCIDENT FREQUENCY RATE ANALYSIS

Accident Frequency Rate

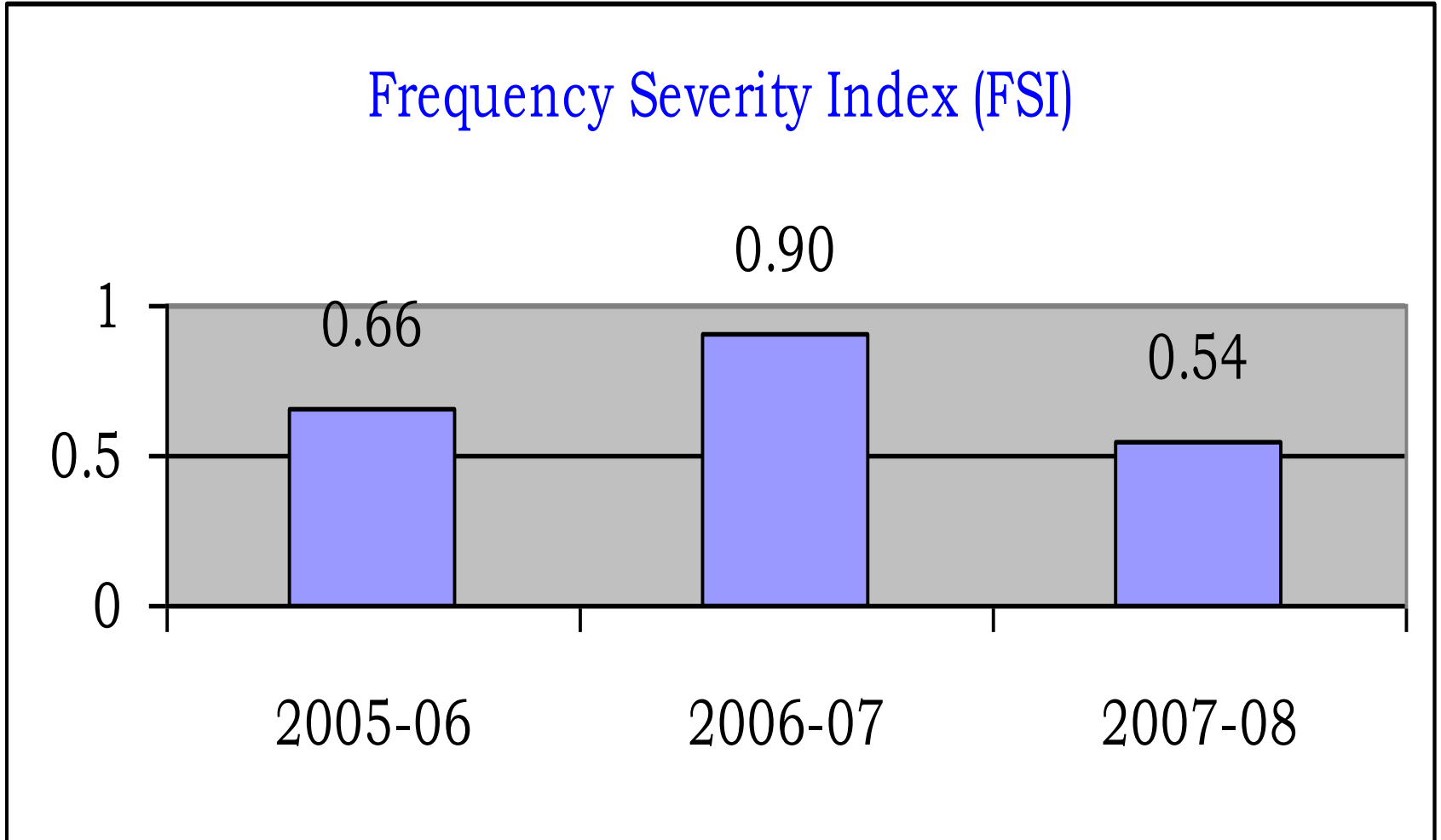


# ACCIDENT SEVERITY RATE ANALYSIS

Accident Severity Rate



# FREQUENCY SEVERITY INDEX



# ENERGY POLICY

DCM Textiles is committed to continuously improve energy conservation in all processes and for its sustainable availability for future generations.

To meet the above goals, we shall strive to:

- Adopt cleaner and efficient energy sources for all our operations.
- Benchmark with the best in business and install systems and practices to match them.

# ENERGY POLICY

- Enrich our experience on energy conservation by exchange of ideas with other organizations.
- Enhance use of renewable energy/waste heat, wherever feasible.
- Incorporate energy efficient designs and technology in all future projects.
- To carry out regular internal and external energy audits to identify areas for improvement.
- Promote awareness among all members of the DCM family

# ENERGY POLICY

- Train employees to make DCM Textiles the pace setter in the area of energy conservation.
- Undertake social responsibility to educate, share and promote energy and environment aspects with other industries in its vicinity.

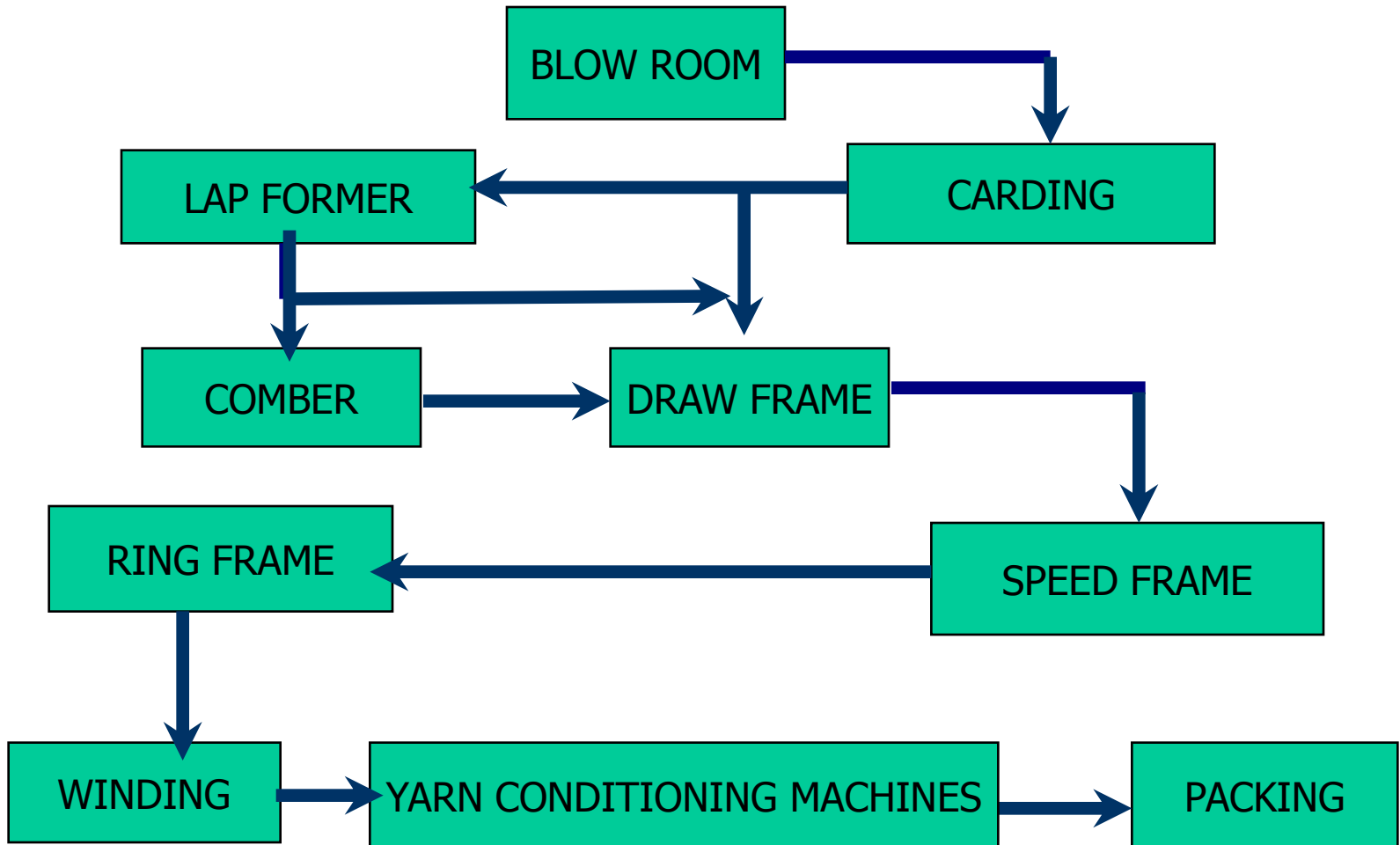
5<sup>th</sup> March, 2005

Chief Executive Officer

# **T.Q.M. (TOTAL QUALITY MANAGEMENT) AT DCM TEXTILES**

- The DCM Textiles has initiated the process of Total Quality Management leading to across the board employee participation.
- The process encompasses the techniques of 5S, 3-M (MUDA), Autonomous Maintenance, Kaizen etc.
- The employees are encouraged to give suggestions, improvement opportunities and involve themselves in decision making thus keeping their morale high.
- The above process has also contributed to the energy conservation.

# SCHEMATIC DIAGRAM SHOWING PRODUCTION PROCESS



ENERGY

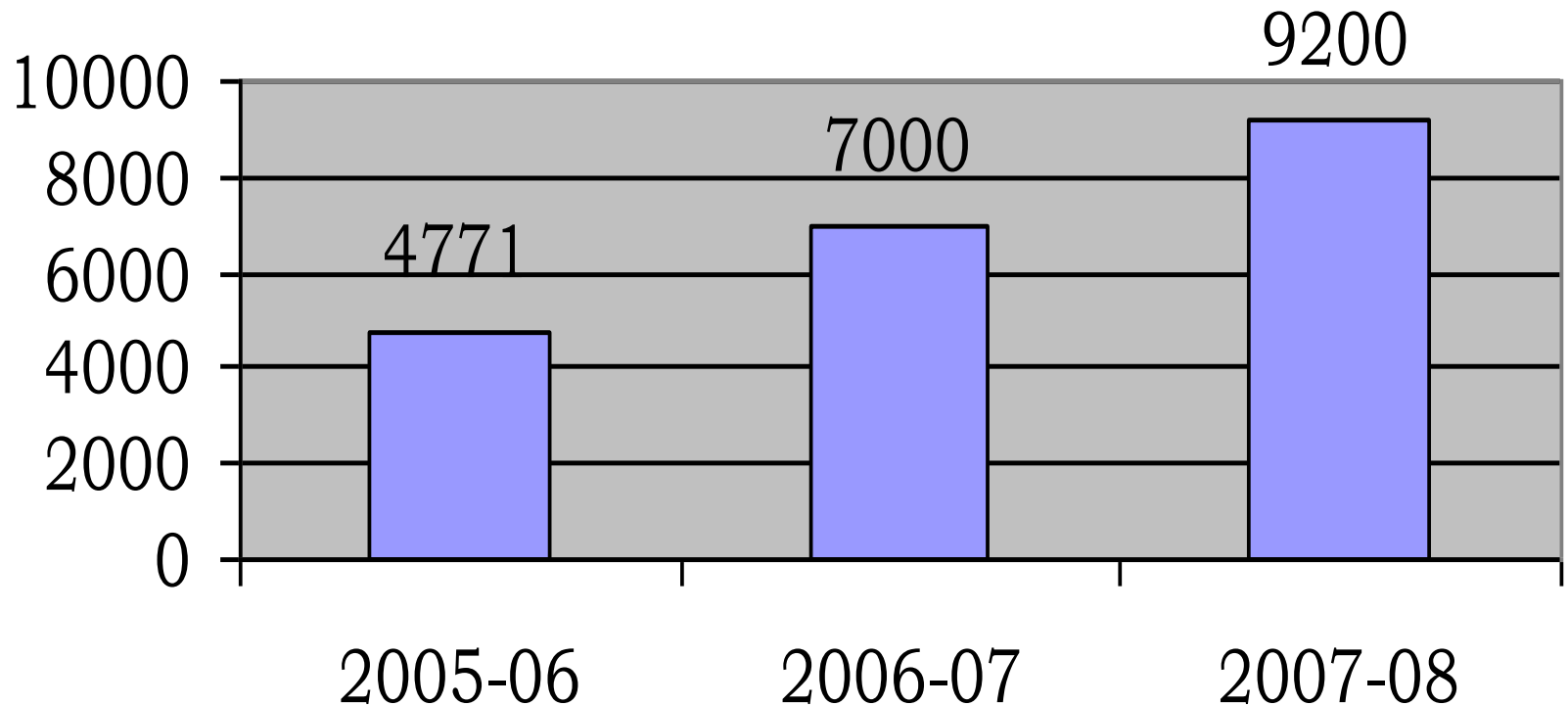
CONSERVATION

# ENERGY CONSERVATION

During period 2005 – 2007 DCM has implemented many energy saving measures for conservation of energy. This has resulted to reduction in specific energy consumption and reduction in energy losses.

# CONNECTED LOAD DETAILS IN KW

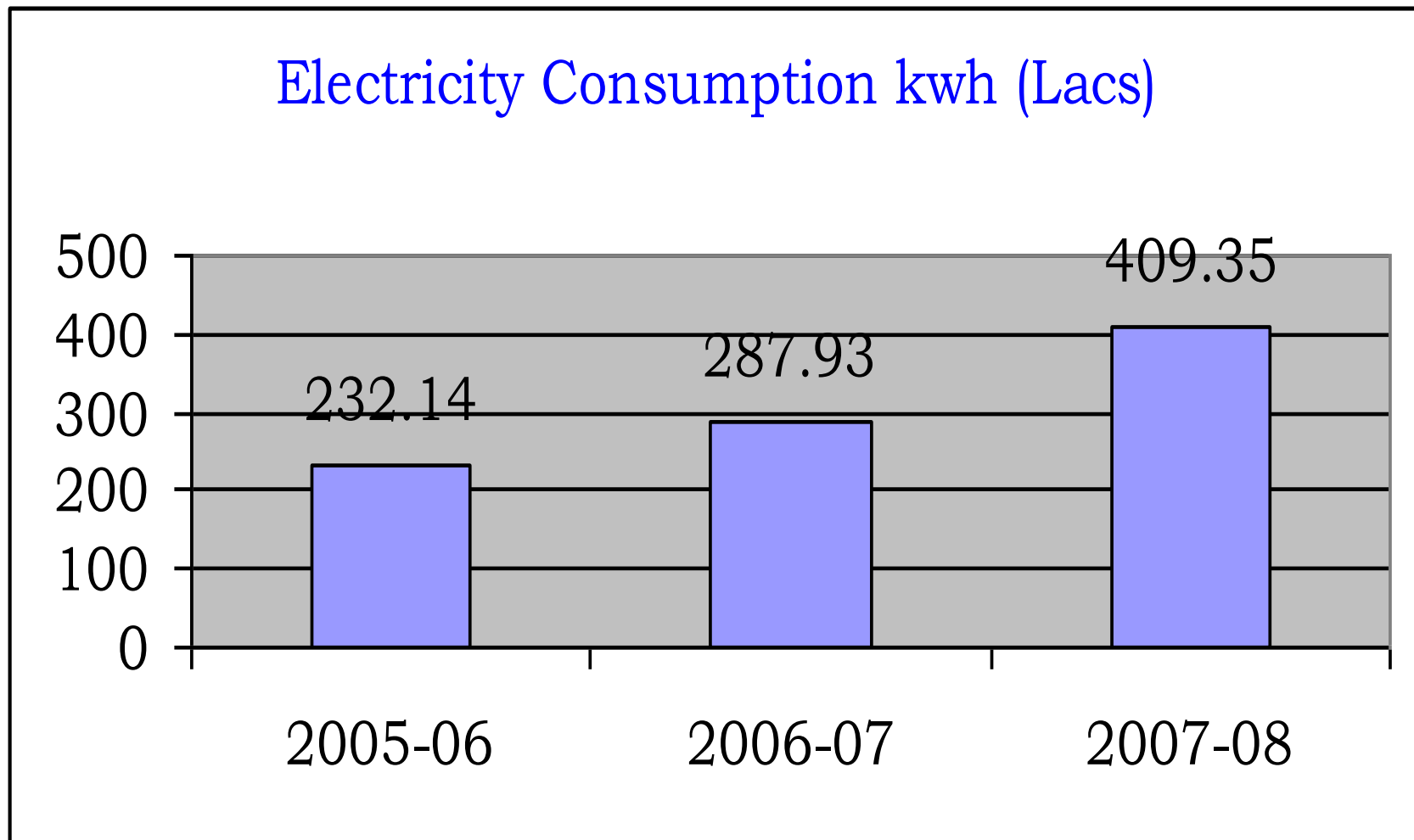
Connected Load (KW)



# SPECIFIC ENERGY

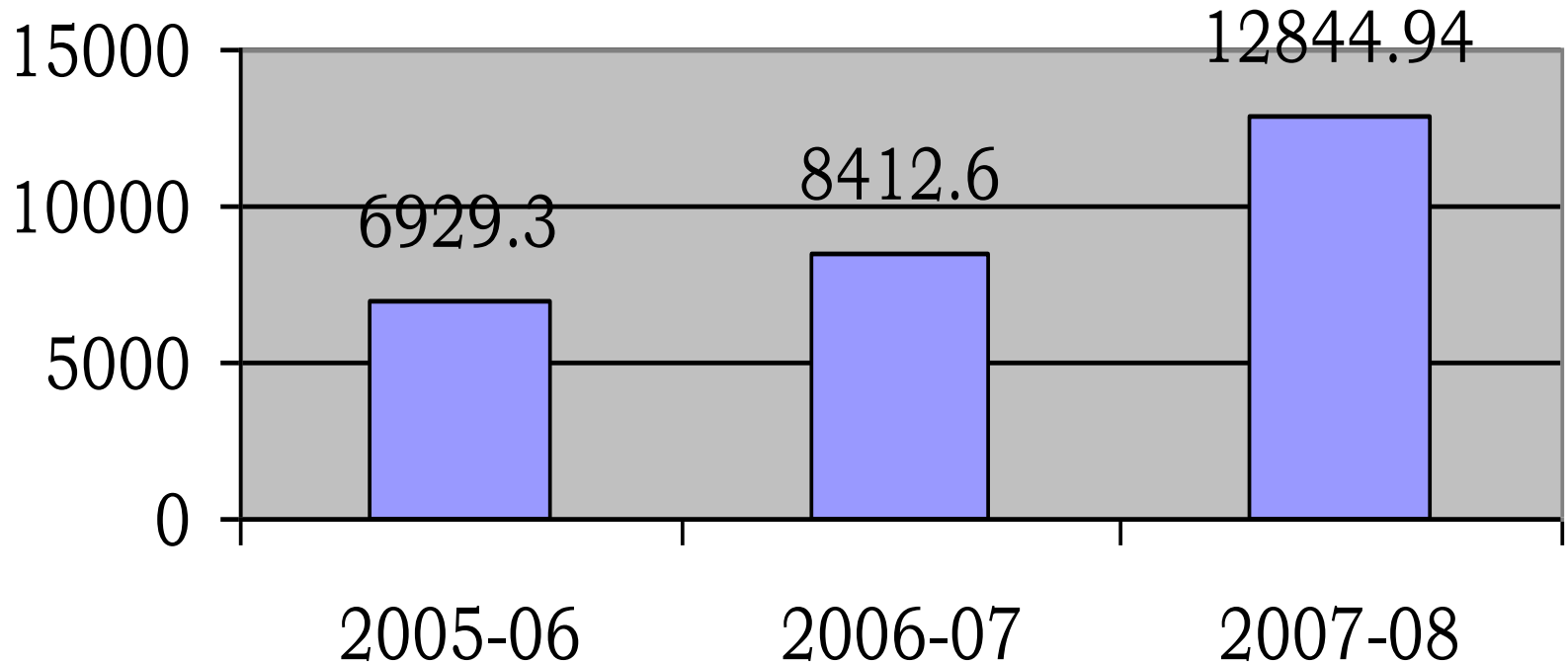
YEAR	2005-06	2006-07	2007-2008
ELECTRICITY CONSUMPTION IN KWH (LACS)	232.14	287.93	409.35
PRODUCTION IN MT ON AVG. 28 <sup>S</sup> COUNT	6929.3	8412.6	12844.94
UNIT PER KG	3.35	3.42	3.19

# Electricity Consumption in kwh (Lacs)



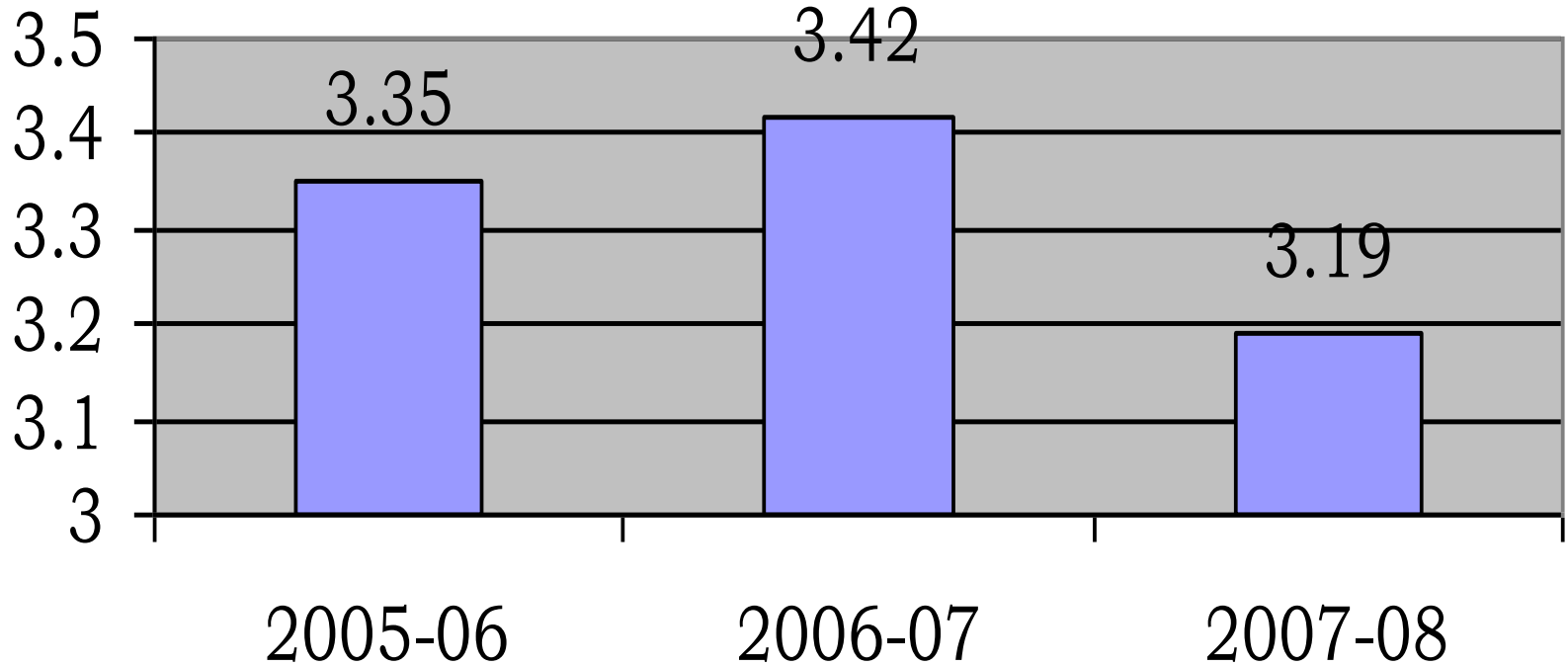
# Production in M.T. on Avg. 28s Count

Production (M.T.)



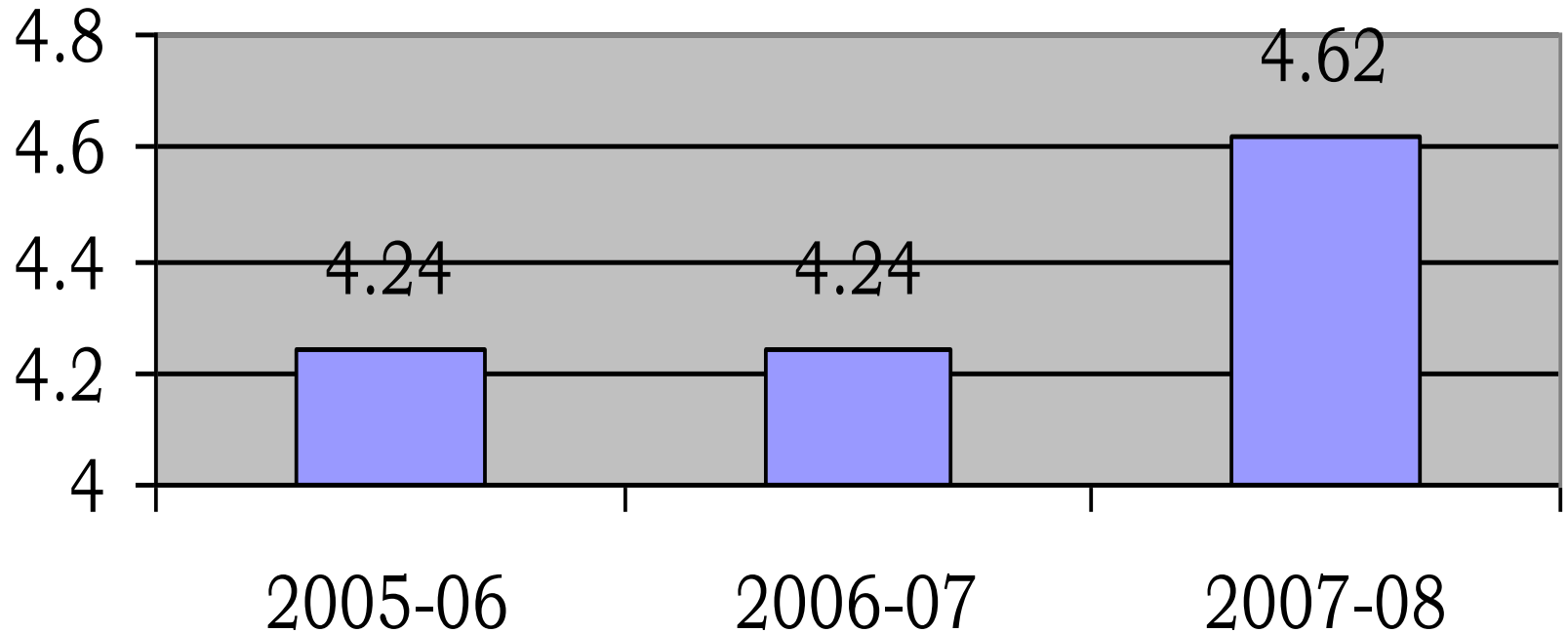
# SPECIFIC ENERGY

Unit/Kg

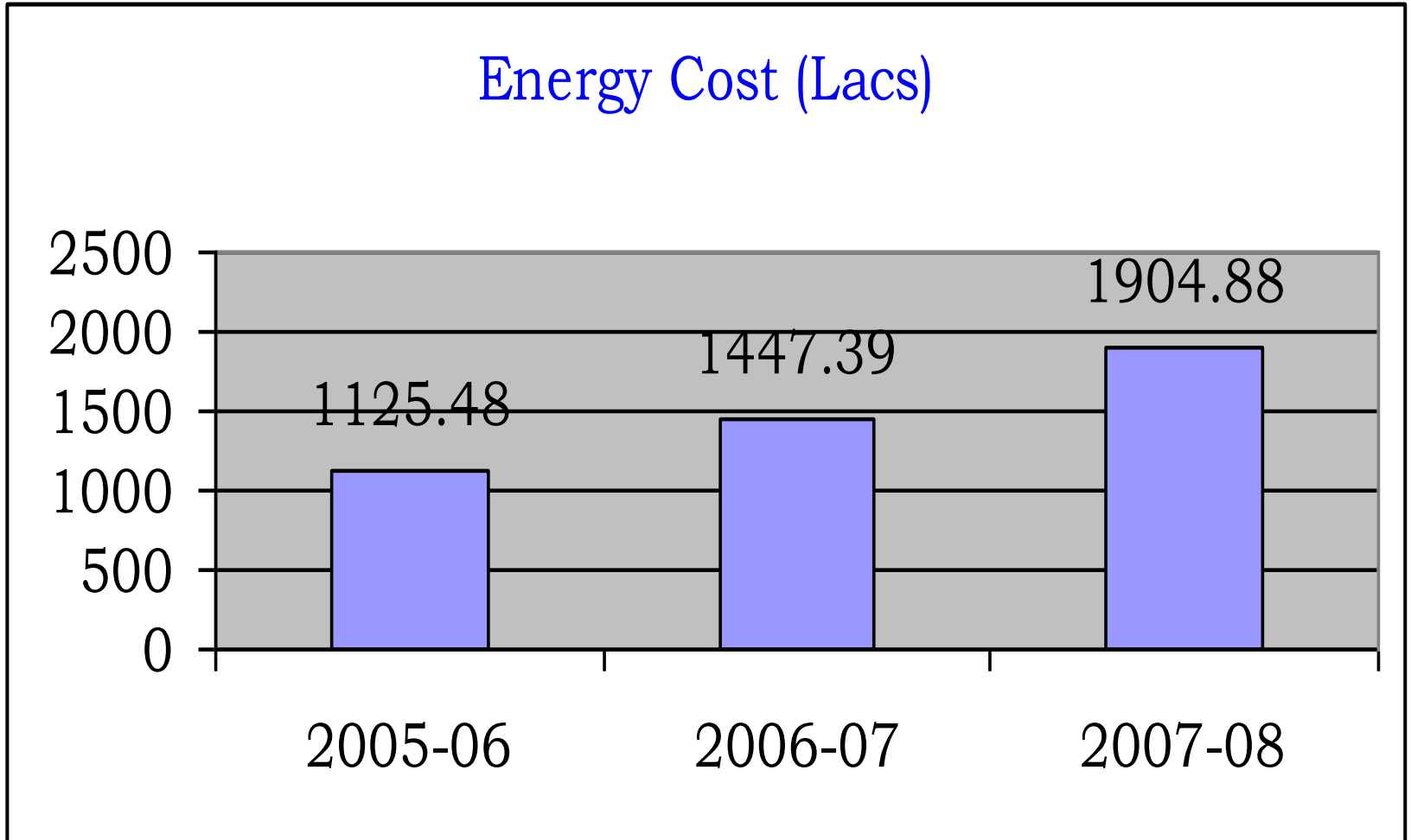


# UNIT COST

Unit Cost (Rs.)



# Total Energy Cost (Rs. Lacs)

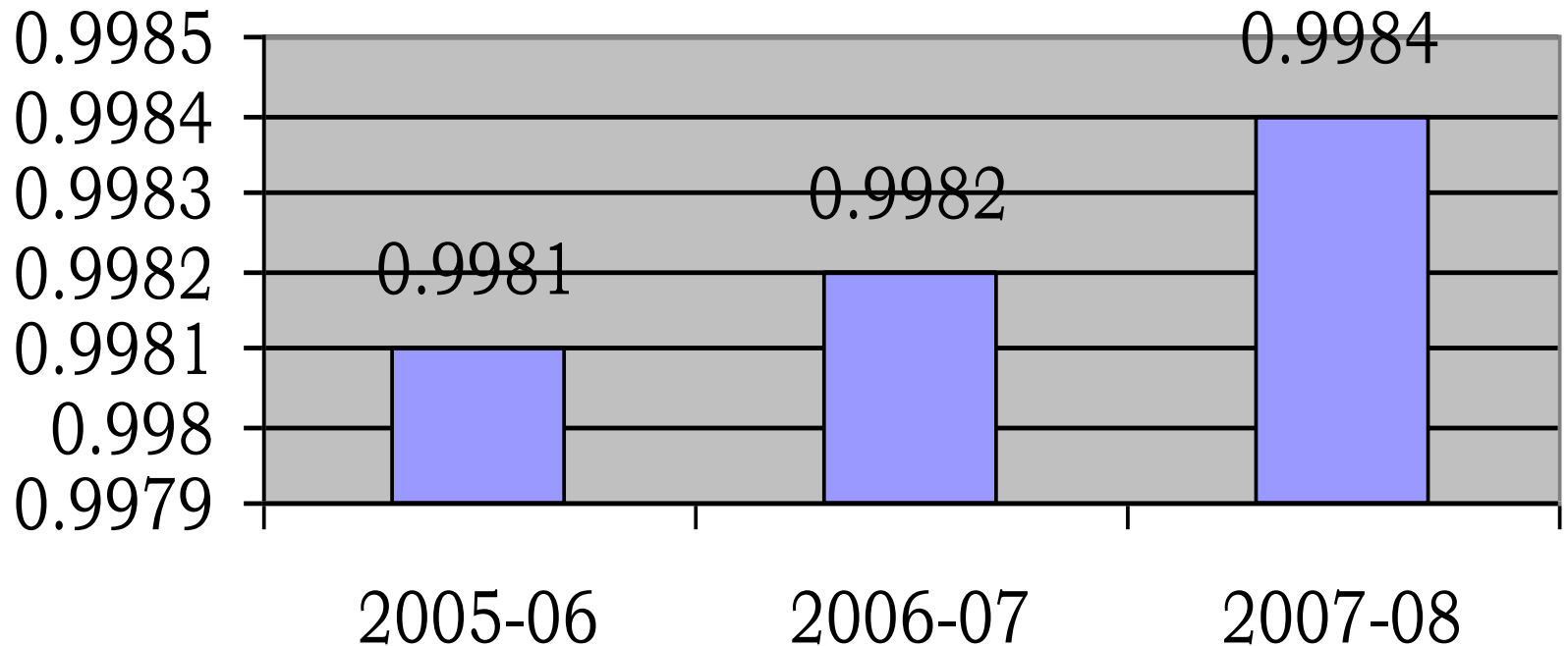


# POWER FACTOR

- Investment made for improvement of power factor.
- Losses reduced.
- Availing cash incentive scheme (5% of energy charges) from State Electricity Board for better power factor.
- Equipment life increased.

# TREND OF POWER FACTOR IMPROVEMENT

Power Factor



**INVESTMENT  
MADE FOR  
ENERGY  
CONSERVATION**

# Use of CFL

<b>Investment</b>	<b>Rs. 0.18 Lacs</b>
<b>Energy Saving/P.A.</b>	<b>0.27 Lacs kwh</b>
<b>Total Saving in (Rs. Lacs)</b>	<b>Rs. 1.18 Lacs</b>
<b>Pay Back</b>	<b>1.5 Month</b>

**Energy Efficient new machinery**  
**purchased with A.C. Drives**  
**(Autoconers and Pumps)**

<b>Investment</b>	<b>Rs. 12.00 Lacs</b>
<b>Energy Saving/P.A.</b>	<b>2.49 Lacs kwh</b>
<b>Total Saving in (Rs. Lacs)</b>	<b>Rs. 11.01 Lacs</b>
<b>Pay Back</b>	<b>13 Months</b>

**Energy Efficient new machinery purchased  
with A.C. Drives (Autoconers and Pumps)**



# Purchased energy efficient tube lights for our new plant

<b>Investment</b>	<b>Rs. 6.00 Lacs</b>
<b>Energy Saving/P.A.</b>	<b>1.08 Lacs kwh</b>
<b>Total Saving in (Rs. Lacs)</b>	<b>Rs. 4.77 Lacs</b>
<b>Pay Back</b>	<b>15 Months</b>

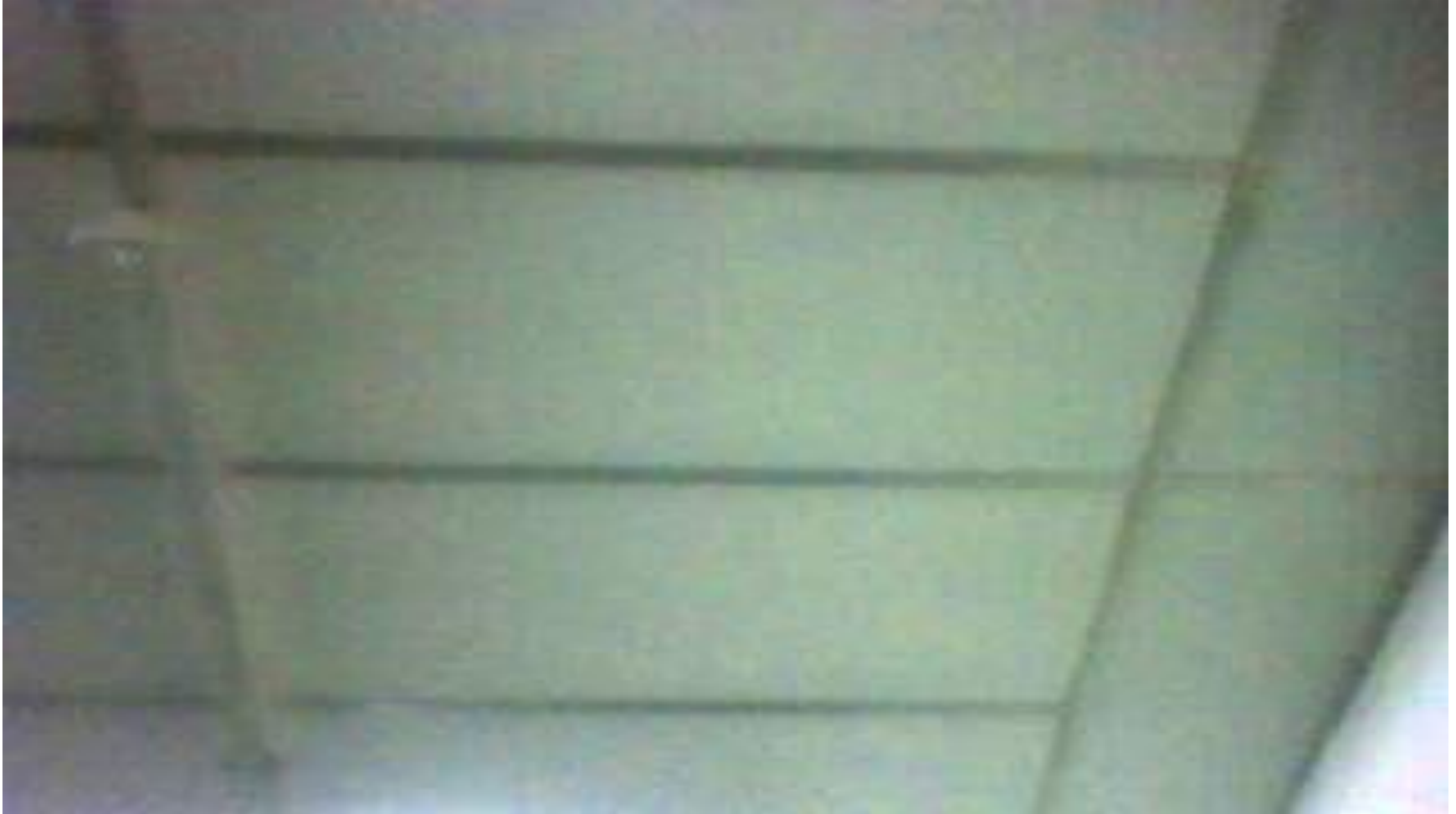
**Purchased energy efficient tube lights for  
our new plant**



**G5/1 (Ring Frame) false ceiling**  
**resulting in 125 units**  
**conservation/day**

<b>Investment</b>	<b>Rs. 4.50 Lacs</b>
<b>Energy Saving/P.A.</b>	<b>0.45 Lacs kwh</b>
<b>Total Saving in (Rs. Lacs)</b>	<b>Rs. 1.99 Lacs</b>
<b>Pay Back</b>	<b>2.25 Years</b>

**G5/1 (Ring Frame) false ceiling resulting in  
125 units conservation/day**



# Replacement of worn out motors with energy efficient motors

<b>Investment</b>	<b>Rs. 2.39 Lacs</b>
<b>Energy Saving/P.A.</b>	<b>0.54 Lacs kwh</b>
<b>Total Saving in (Rs. Lacs)</b>	<b>Rs. 4.24 Lacs</b>
<b>Pay Back</b>	<b>6 Months</b>

# Optimizing the suction pressure of Carding Waste Collection System

<b>Investment</b>	<b>Rs. 0.10 Lacs</b>
<b>Energy Saving/P.A.</b>	<b>0.50 Lacs kwh</b>
<b>Total Saving in (Rs. Lacs)</b>	<b>Rs. 2.21 Lacs</b>
<b>Pay Back</b>	<b>15 Days</b>

# Optimizing the tube lights from different sections

<b>Investment</b>	<b>Rs. Nil</b>
<b>Energy Saving/P.A.</b>	<b>2.60 Lacs kwh</b>
<b>Total Saving in (Rs. Lacs)</b>	<b>Rs. 11.49 Lacs</b>

**Installed low loss (No Load & Load) Transformer of 2500 kva for new plant.**

<b>Extra Investment vis-à-vis normal transformer</b>	<b>Rs. 4.00 Lacs</b>
<b>Energy Saving/P.A.</b>	<b>0.36 Lacs kwh</b>
<b>Total Saving in (Rs. Lacs)</b>	<b>Rs. 1.59 Lacs</b>
<b>Payback</b>	<b>2.5 Years</b>

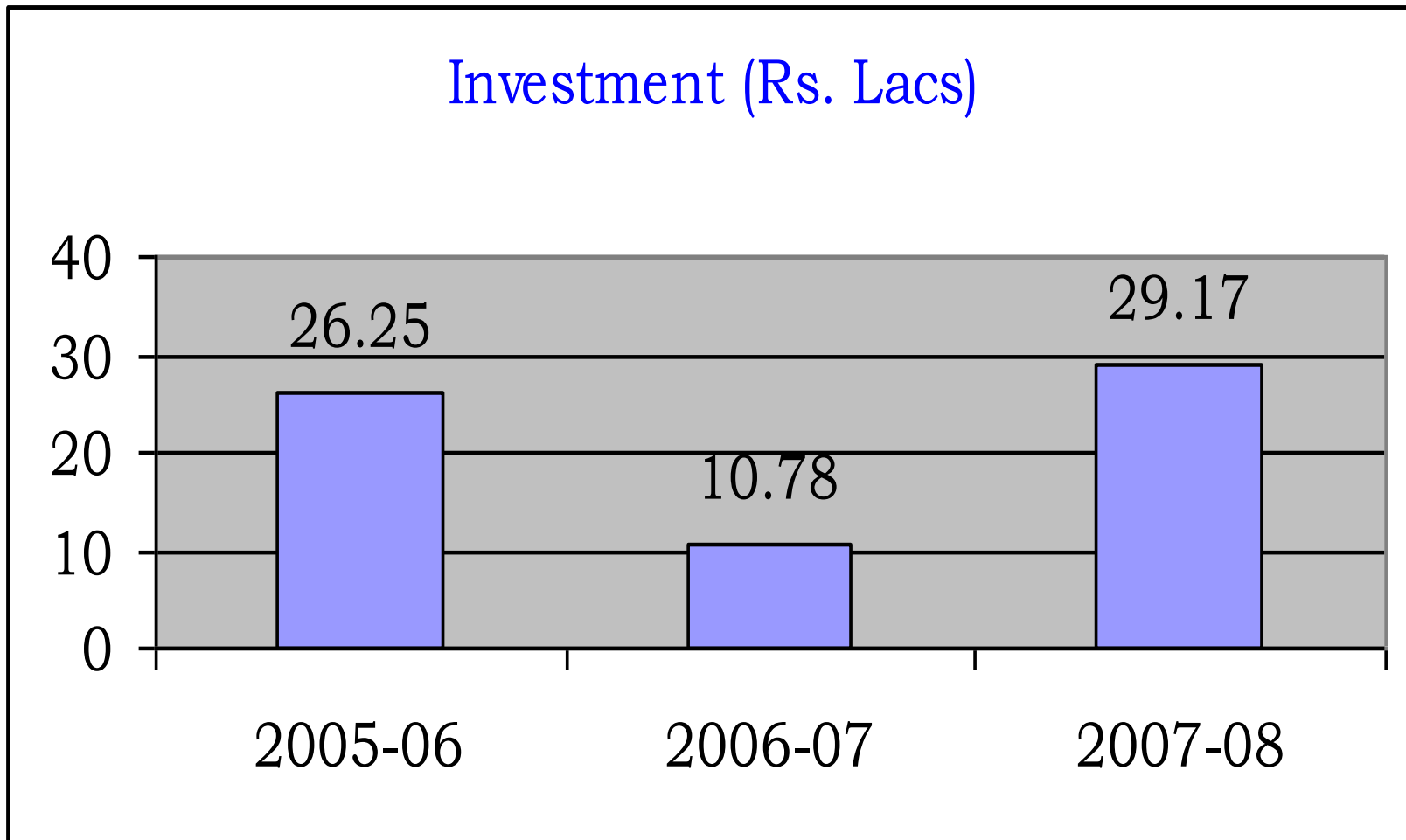
# Transformer of 2500 KVA



# Total Energy Conservation in 2007-08

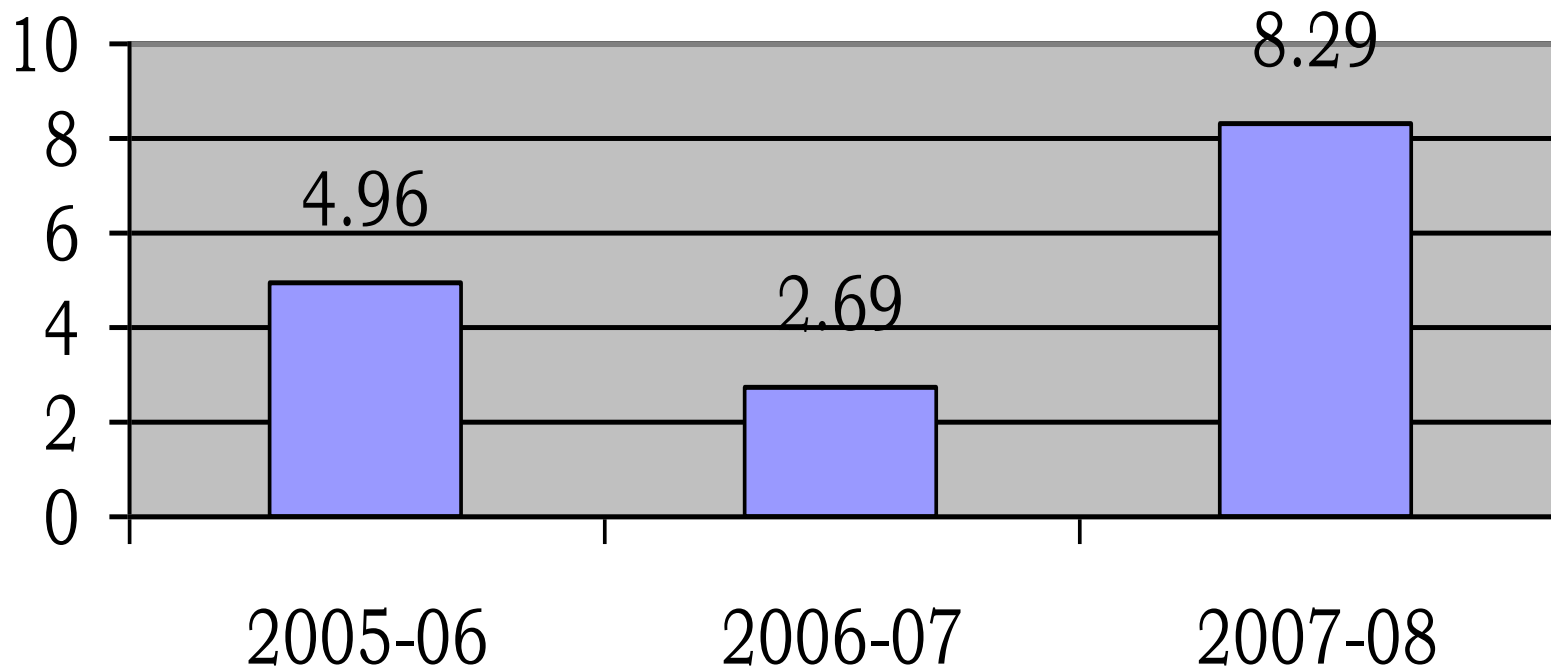
<b>Investment</b>	<b>Rs. 29.17 Lacs</b>
<b>Energy Saving/P.A.</b>	<b>8.29 Lacs kwh</b>
<b>Total Saving in (Rs. Lacs)</b>	<b>Rs. 38.48 Lacs</b>
<b>Pay Back</b>	<b>10 Months</b>

# Investment for Energy Conservation (Rs. Lacs)



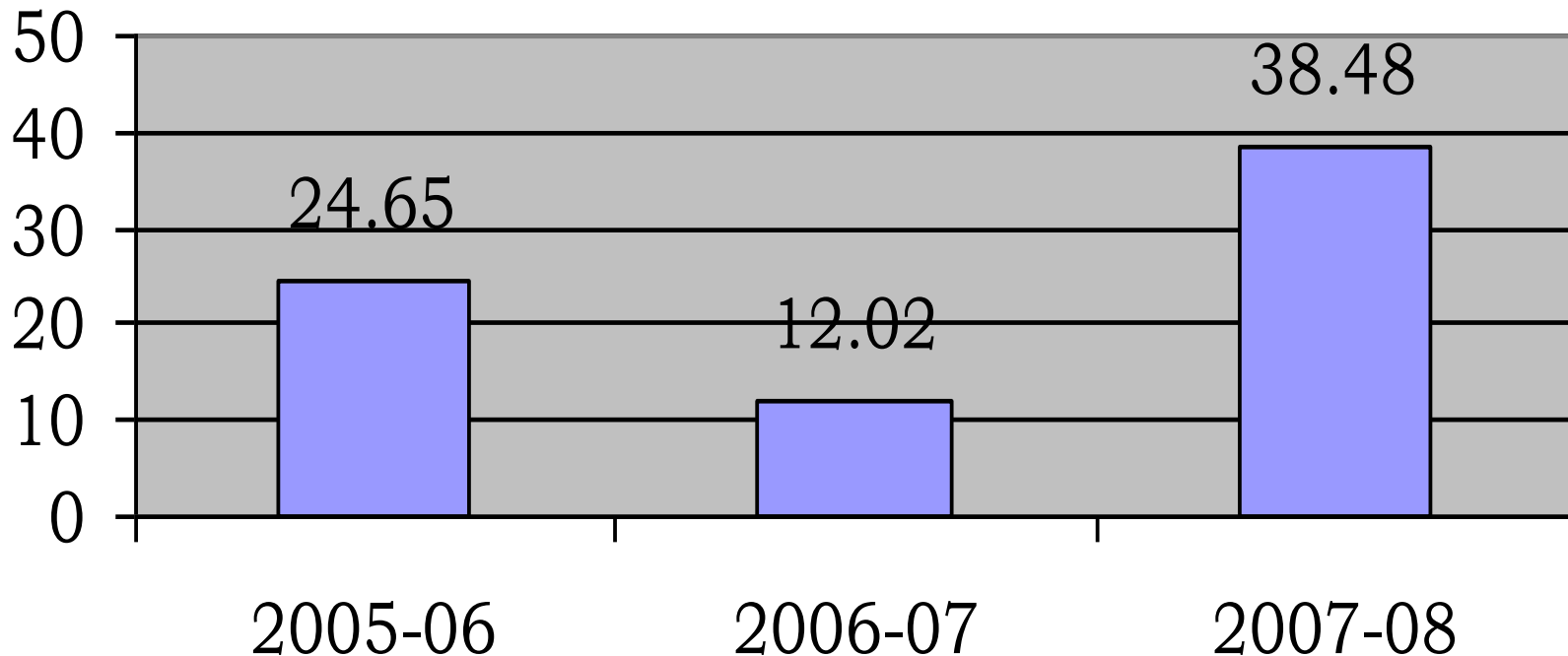
# Energy Conservation (Lacs kwh)

Energy Savings (Lacs kwh)



# Total Savings in (Rs. Lacs)

Total Savings in (Rs. Lacs)





# Kry-Card ALM-30



**CONSERVATION  
MEASURES  
PLANNED FOR  
THE FUTURE**

# **Conservation Measures Planned** **For The Future**

- Replacement of Energy Efficient Motors.
- Replacement of Pneumafil fans.
- Replacement of Capacitors with low loss capacitors.

# **Conservation Measures Planned** **For The Future**

- Optimization of speeds of Humidity Plants Supply & Return Air fans.
- Optimization of speeds of Draw Frame pneumafil.
- Solar Water Heater.
- Repetition of detailed Energy Audit.