THE RAMCO CEMENTS LIMITED,JAYANTHIPURAM

The Ramco Cements Limited
Jayanthipuram
NTR District, Andhra Pradesh

(The largest clinker manufacturing plant of the group)

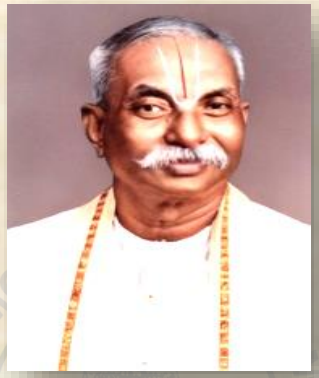
Team Members:

G. Hanumath Prasad (Sr.Manager – Process)
M.Sreedhar – (Manager – EIe)

25th – Silver Jubilee year CII National Energy Award for Excellence in Energy Management - 2024

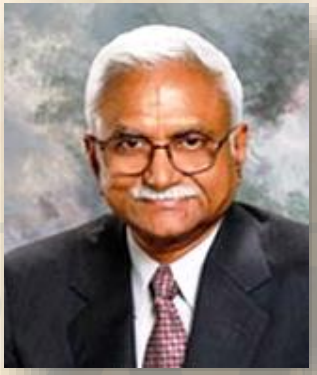
THE RAMCO CEMENTS LIMITED

FOUNDER



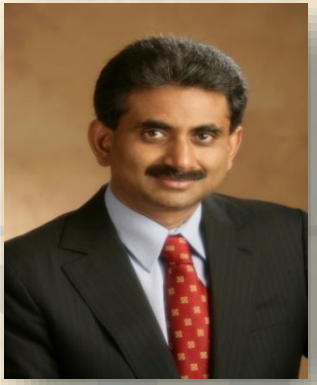
Sri P.A.C.RAMASAMY RAJA

FORMER CMD



Sri P.R.RAMASUBRAHMANEYA RAJHA

MANAGING DIRECTOR



Sri.P.R.VENKETRAMA RAJA

" Do Not look at Productivity as a game in numbers. Try to learn from others and never compromise on quality and always stay ahead in terms of technology. In the long run, they will pay off "

- Shri P.A.C Ramasamy Raja, Founder Ramco Group

The Ramco cements limited is a flag ship company of Ramco Group with interests in:

1) Cement
2) Cotton Yarn
3) Software System
4) Fiber Cement Products and
5) Wind Energy

1.THE RAMCO CEMENTS LIMITED

- The Ramco Cements limited is the 5th largest and one of the fast growing cement companies in India, with a production capacity of 21 million tonnes per Annum.
- The Company operates 5 Integrated Cement plants and 6 Cement grinding Units across the country.
- The Ramco Cements limited is known for introducing many new technologies first time in the Indian cement industry.

1.THE RAMCO CEMENTS LIMITED , Jayanthipuram Works

- Jayanthipuram Cement Works, located in the NTR District of Andhra Pradesh, Commissioned in the year 1986.

- Presently the plant is operating with a production capacity of

  Clinker – 4.685 MTPA

  Cement – 3.65 MTPA

- With support of

  Coal based Captive Power plant – 24 MW (1*18 + 1*6 MW)

  Waste Heat recovery System – 27 MW (3 * 9 MW)

The manufacturing Products are OPC,PPC and RSC

Plant Capacity at a Glance

Year	Milestone	Cumulative Clinker Capacity	Cumulative Cement Capacity
		Million TPA	Million TPA
1986	Line-1 commissioned	0.75	0.75
1995	Line-1 Up-gradation	1.10	1.10
1999	Slag Cement	1.10	1.60
2008	Line-2 commissioned	2.80	2.60
2010	Expansion (Installation of VRPM)	2.80	3.65
2016	Line-1 Upgradation	3.185	3.65
2020	Phase-1 WHRS in Line-2 Commissioned	9 MW	
2021	Phase-2 WHRS in Line-1 Commissioned	9 MW	
2021	Line-3 Commissioned	4.685	3.65
2021	Phase-3 WHRS in Line-3 Commissioned	9 MW	

At JPM unit, we have License to manufacture…

Ordinary Portland Cement

IS 269

CM/L-6028355

Portland Pozzolana Cement

IS 1489- PART-I

CM/L-6007650

Portland Slag Cement

IS 455

CM/L-6212752

Sulphate Resistant Portland Cement

IS 12330

CM/L-6600081436

Composite Cement

IS 16415

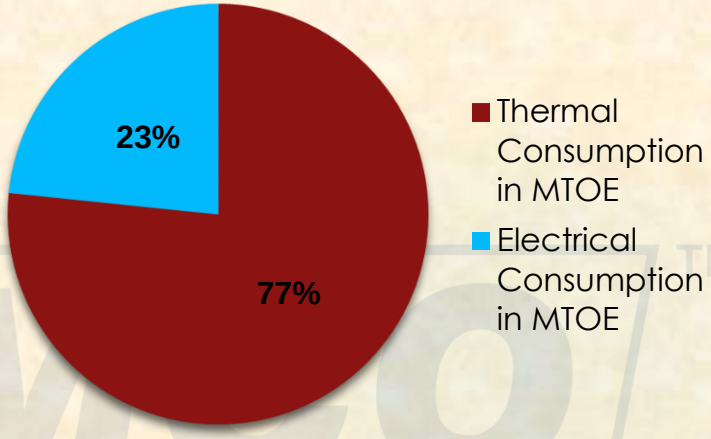
CM/L-6600033412

IS/ISO 9001,
IS/ISO 14001,
IS/ISO 45001,
ISO 50001 CERTIFIED

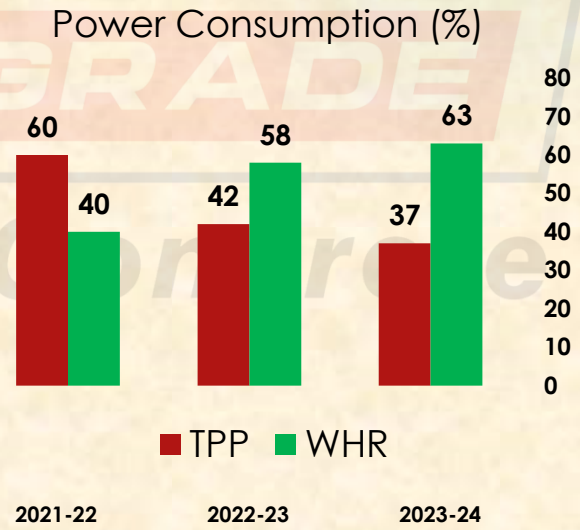
2 . Energy Consumption Details

Overall Energy Consumption – 2023-24

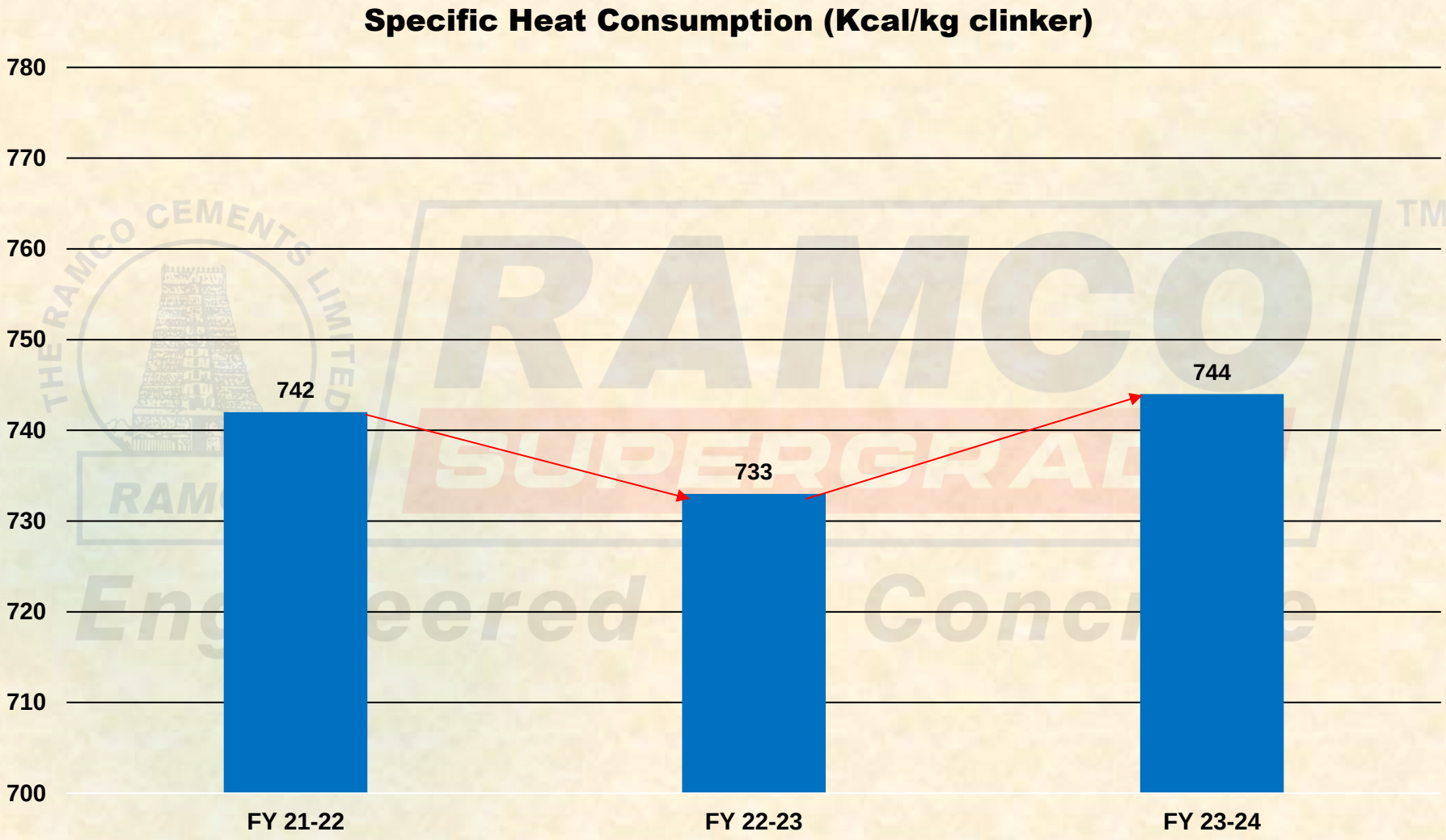
Thermal Consumption in MTOE	313465
Electrical Consumption in MTOE	95586
Total Consumption in MTOE	409051



Power Source in (%)	2021-22	2022-23	2023-24
TPP	60	42	37
WHR	40	58	63
Total	100	100	100

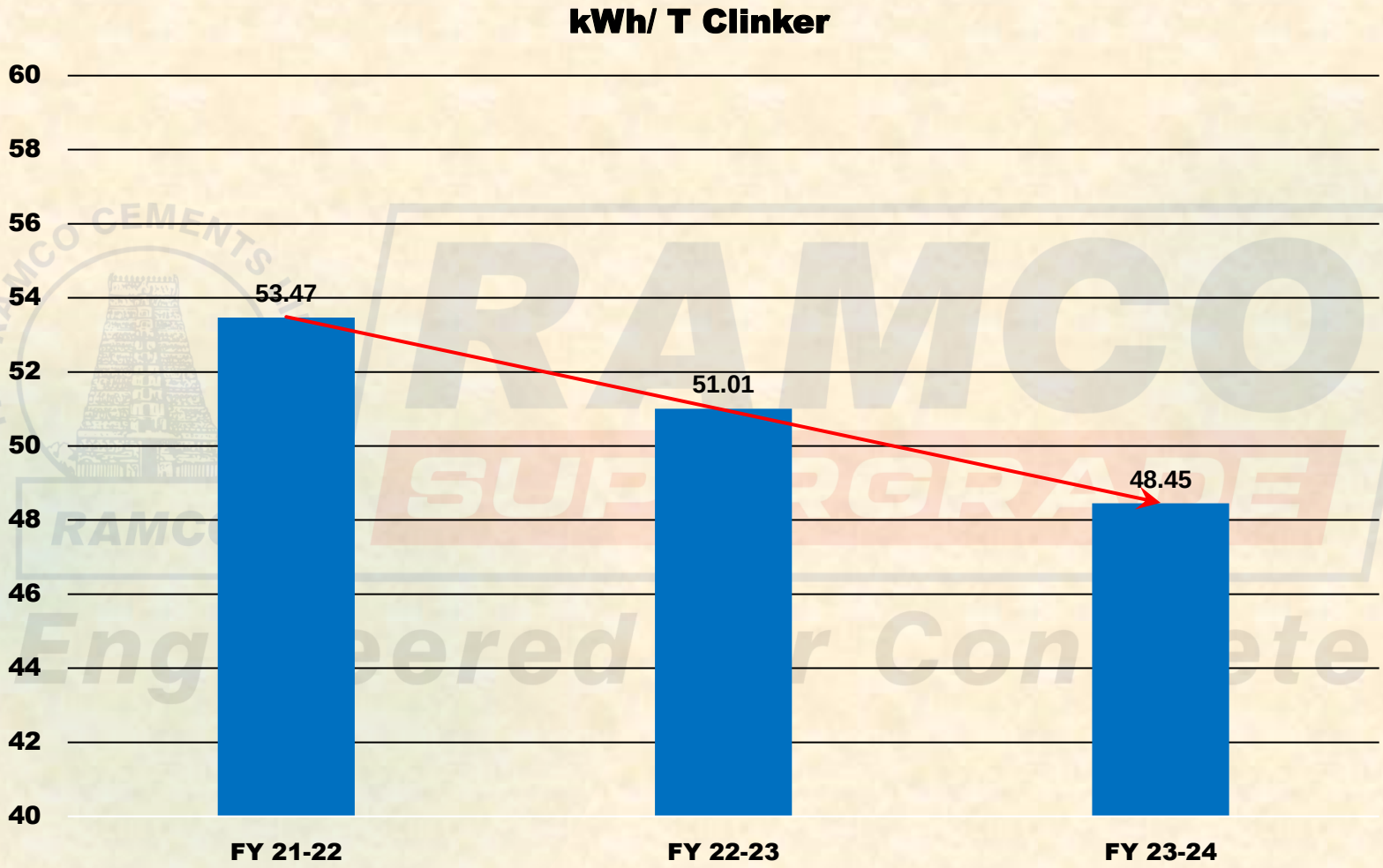


2.Thermal Energy Consumption



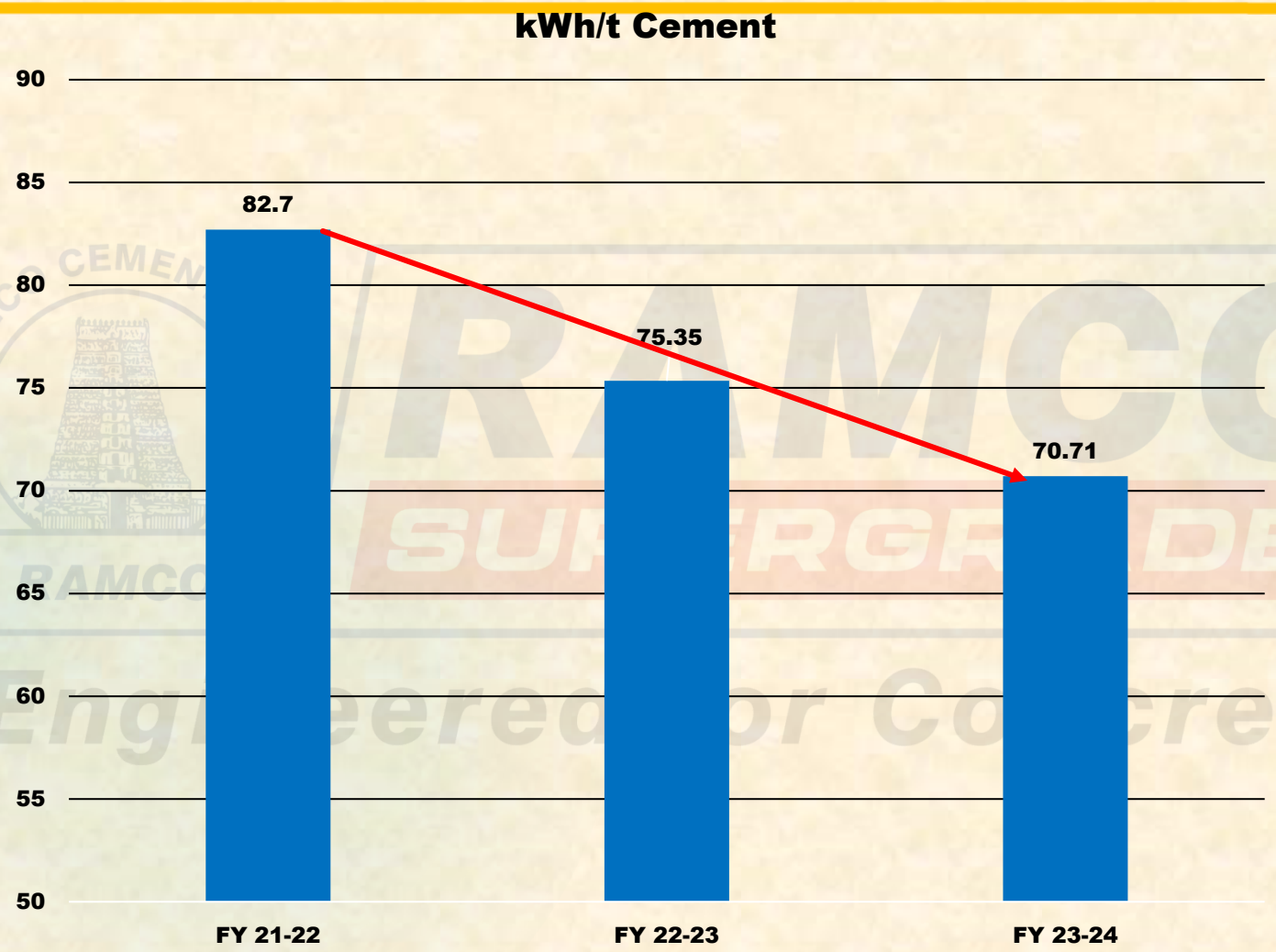
Specific Heat Consumption increased by 1.5%

2.Electrical Energy Consumption – Up to Clinker



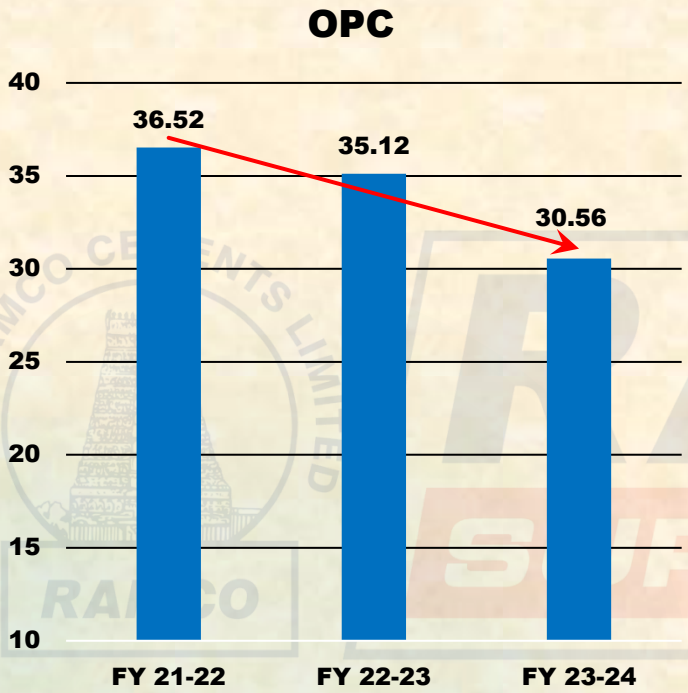
Specific Power consumption reduced by 2.17%

2.Electrical Energy Consumption – Overall Cement

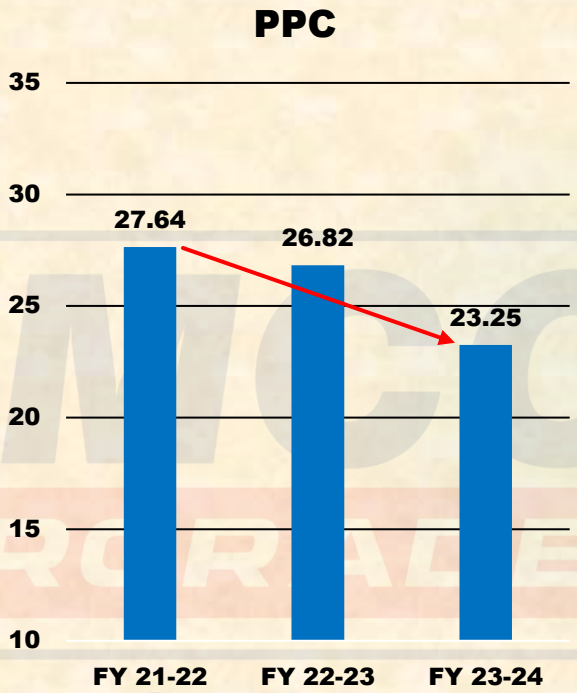


Specific Power consumption reduced by 6.3%.

2.Electrical Energy Consumption – Cement Product



SEC reduced by 12.98%



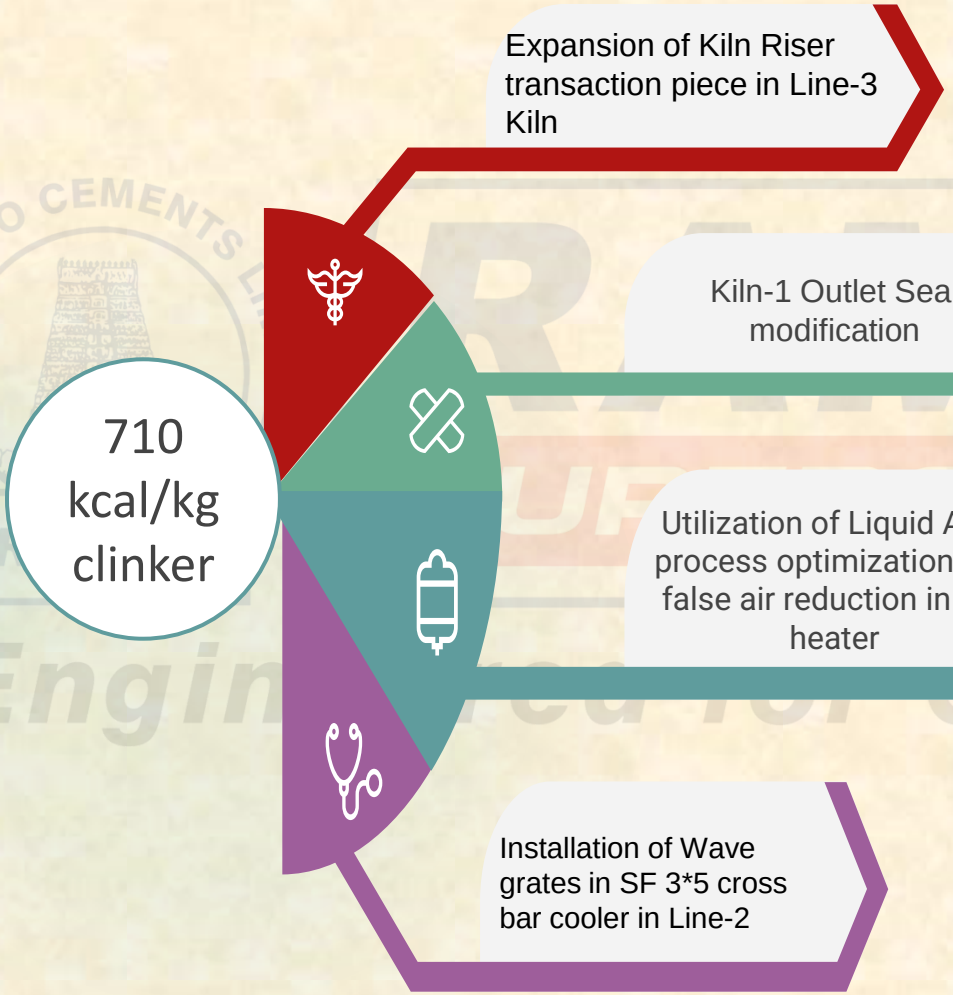
SEC reduced by 13.3%

3.Information on National and Global benchmark

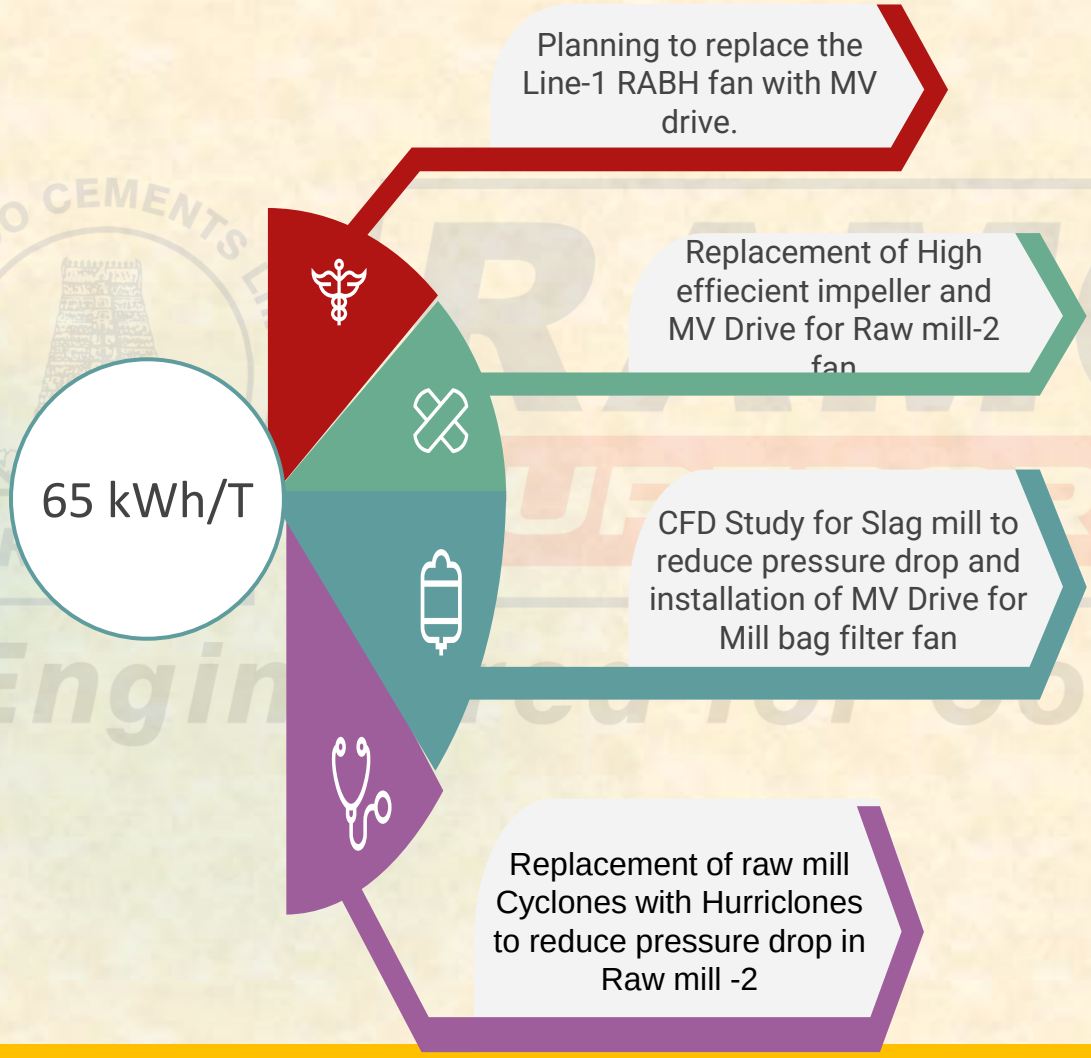
International Benchmark	• SHC-665 Kcal/Kg Clk • SEC-65 Kwh/T Cem
National Benchmark	• SHC-686 Kcal/Kg Clk • SEC-65.0 Kwh/T Cem
TRCL Jayanthipurm	• SHC-744 Kcal/Kg Clk • SEC- 70.71 Kwh/T Cem

Reference:
National Benchmark: Energy Bench Marking For Cement Industry May 2015 Version 2
International Benchmark : Indian cement and construction industries-global competitiveness-NCB-CMA special publication presented in 8th NCB International Seminar

3.Roadmap to achieve National/Global benchmark- Thermal Energy



3.Roadmap to achieve National/Global benchmark- Electrical Energy



4. Energy Conservation Projects Implemented in the years 2021-22, 2022-23 & 2023-24

No of Projects – 25

Projects with Nil investment - 07

Total Amount Invested – 275.44 Crores

Cost savings achieved – 97.90 crores

Electrical Energy Saved – 1483.40 Lakh kWh

Thermal Energy Saved – 13400 MT of coal

Major ENCON Projects during years 2021-22,23 and 24

Sno.	Team / Section	Project details	Power Savings kW/hr	Annual Power savings kWh	Annual savings (INR Lakh)	Investment (INR Lakh)
1	Kiln-2	MV Drive for Line-2 Pre heater Fan	250	2193000	164.475	150
2	Kiln-2	Expansion of kiln Riser in Line-2	180	1608200	120.615	22
3	TPP	Upgradation of Boiler-1 from 76 tph to 105 tph steam	50	54400000	79.27	2000
4	Kiln-2	Solid AFR feeding system in calciner for Line-2 Kiln	6.5 TPD	NA	285.09	85
5	Kiln-3	Solid AFR feeding system in calciner for Line-3 Kiln	7 TPD	NA	309.4	120
6	All Kilns	Liquid AFR Feeding System for all 3 kilns	15 TPD	NA	663	50
7	VRPM	Direct feeding of material to VRPM separator in cement mill	6	51260	1.53	6
8	WHRS	Reduce Auxiliary Power Consumption In Waste Heat Recovery System by installing Energy efficient blades to reduce power consumption	186	1519800	106.38	90.76
9	Slag Mill	Change of New Roller tyres and table liners in Cement mill-2 (VRM)	76	4692000	351.9	80
10	Kiln-2 & 3	Speed reduction in LRS for Coal mill-2 &3		1020 MT	132.6	0.8
11	WHRS	Installing VFD for Condensate Extraction pump in WHRB steam Turbine	27	220,320	15.42	10.42
12	Phase-1 WHR	Installation Waste heat recovery system in kiln-2 (9 MW)	1 INR/kwh	24516532	245	8500
13	Phase-2 WHR	Installation Waste heat recovery system in kiln -1 (9 MW)	1 INR/kwh	1739977	240	8200
14	Phase-3 WHR	Installation Waste heat recovery system in kiln -3 (9 MW)	1 INR/kwh	1739977	255	8200
15	Mines Auto, LOCO & DGPP	Plant water pump replaced with high discharge pump (400Cubic M/Hr water discharge instead of 285Cubic M/Hr discharge @ 175kw power.	70.8	310,104	12.4	6

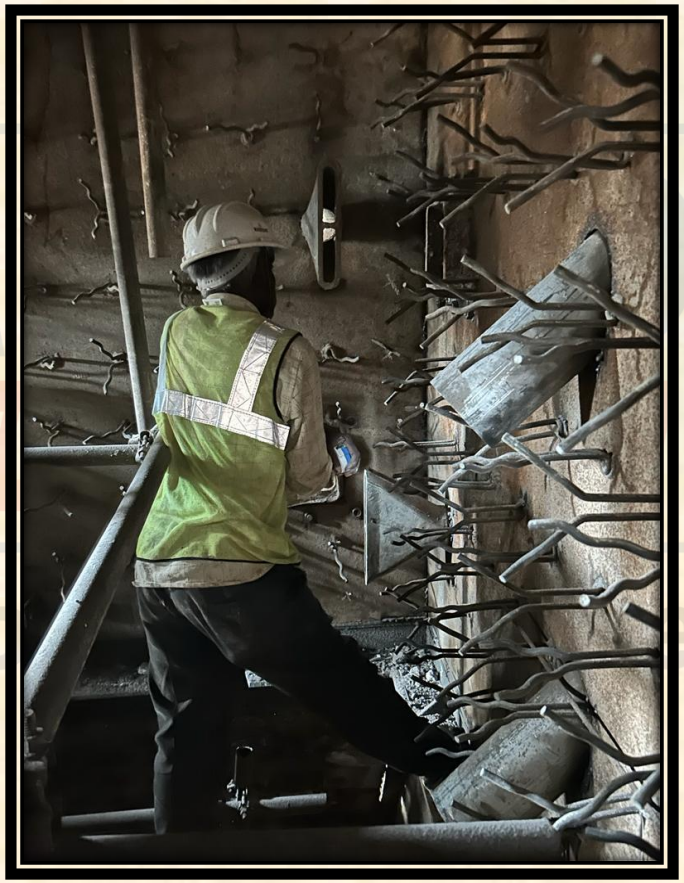
Major ENCON Projects during years 2021-22,23 and 24

Sno.	Team / Section	Project details	Power Savings kW/hr	Annual Power savings kWh	Annual savings (INR Lakh)	Investment (INR Lakh)
16	L.S.Crusher	Optimization of power consumption through idle running of B Conveyor,Secondary screen, Spillage BC-1 & 2 conveyors,A conveyor,C conveyor,CBA BC-1, Stacker feed belt, Stacker Boom conveyor by eliminating frequent overload tripping of B1 Conveyor by replacing existing 3.7kw motor & drive units with 7.5kw capacity.	162.962	15,644	0.625774	0.16
17	Coalmill-1 & Coal Handling	Optimization of Coal Mill-1 output material transport (grinding circuit) screw pumps operation for saving energy.	21.84	131,040	5.2416	Nil
18	TPP	Elgi Service air compressor New VFD installation.	20.83	165000	7	6.5
19	Mines	Power reduction in North Band Mines dewatering system by replacing the under efficiency old pumps with high efficiency pumps.		3828963	38	22.57
20	Kiln-2	Optimization of Line -2 ID Fan Specific Power (operation in SPRS mode) -by installing ID Fan SPRS to recover the power loss in slip Power			11	4.12
21	Kiln-1	Interconnected the pipe lines between these three blowers area and stopped the KF1AB07 blower as standby for remaining blowers.	5.1	36720	1	Nil
22	TPP	STG-3 CEP-2 Spare VFD was installed, pump discharge pressures were reduced depend up on the Deareator pressure. Auxiliary power consumption reduced.		9000	0	Nil
23	TPP	While 30MW power generation, operating one 260 KW (18MW) plus one 132 KW (6MW) Main cooling water pumps instead of two 260 KW pumps. Auxiliary power consumption reduced.		60000	2	Nil
24	Kiln-2	Optimization of Kiln-2 ID fan & Bag house fan after WHR	300	289005	10	Nil
25	Kiln-1	Optimization of Kiln-1 ID fan for New tower Pre heater after WHR	150	111150	4	Nil

Increase of Area in Line-2 Kiln Riser

We have increased our kiln riser area from 3.39 to 3.92 m2 by Expanding 75 mm on all sides.

Dismantling of Existing smoke chamber



Anchor fixing work in modified smoke chamber

Modified smoke chamber out side & inside area

Process parameters Before & After smoke chamber Widening

S.NO	PARAMETERS	UOM	Before	After
1	Kiln feed	TPH	280	300
2	Fuel firing Primary share	(%)	24	29
3	Smoke chamber pressure drop	mmwc	45	15
4	Smoke chamber velocity	m/sec	32	27
5	Kiln inlet temperature	°C	936	1050
6	Secondary air temperature	°C	997	1100
7	PH exit temperature	°C	375	364
8	Pre heater fan speed	Rpm	690	660
9	Pre heater fan power	kW	1440	1325
10	SPC of Pre heater fan	kWh/T clk	8.57	7.34

MV Drive for Line-2 Pre heater Fan

- Replaced GRR with Medium voltage drive
- After WHRS Commissioned, fan current load increased up to maximum current.
- Couldn't able to operate in SPRS

DESCRIPTIONS	BEFORE	AFTER
KILN FEED(TPH)	300	310
MODE OF SPEED CONTROL	GRR	MVD
PH BACK END DRAFT (mbar)	-53	-50
FAN FLOW (m^3/hr)	5,65,828	5,25,000
SPEED (RPM)	654	636
DRIVE POWER (Kw)	1740	1487
DRIVE CURRENT (Amps)	194	166
FAN EFFICIENCY (%)	60	68

SPC of Preheater fan saved by 1.2 kWh/t clinker

AFR Feeding System in Line-2 Kiln

- we have commissioned Solid AFR feeding system in calciner for Line-2 kiln on Sept -2022
- Able to feed solid agricultural waste by mixing with briquette for uniform flow of feed.
- Investment made for AFR System – 85 Lakhs
- The solid AFR was feeding into the winch, it having a capacity of 2.5 tons, then the winch was lifted to the Preheater 2nd floor and then it was unloaded in small hopper.
- After feeding into the hopper, the hopper discharge was connected with belt conveyor followed by APRON feeder.
- The APRON feeder discharge was connected with chute which joins to calciner.
- 2 Pneumatic control gate was fixed inside the feeding chute for avoiding the false air entry.
- Rice husk & spent carbon are directly grinded in coal mill along with coal/pet coke with 30:70 ratio.(30% AFR + 70% coal)

AFR Feeding System in Line-3 Kiln

Liquid AFR feeding System for all 3 Kilns

- We have commissioned liquid AFR firing system for all kilns.
- Provided 1*40 KL and 1*24 KL Tanks for Storage
- 3 Separate firing lines to calciners for all 3 kilns.

The liquid AFR system which consists:

- Unloading pump – VFD – 2 Nos
- Main pump for liquid pumping – VFD – 2 Nos
- Tank level sensor
- Pressure transmitter in pump discharge
- Spray nozzles at calciner.
- Agitator and return line for better fuel mixing

Investment made – 50 Lakhs

Savings Achieved – 15 tpd / each kiln

Waste Heat Recovery System In Line-3 (9 MW)

PH-3 Boiler

AQC-3 Boiler

WHRS in Line-3 was commissioned on 13/11/2021

Units Generated in
2021-22 : 13,877,100 kWh
2022-23 : 59,278,031 kWh
2023-24 : 70,476,256 kWh
Cost savings : INR 0.8 /kWh

WHRS Major Highlights & Achievements

- Lowest APC achieved in WHRB in the month of Dec-23 (2.56%)
- Achieved highest Power Generation(648200KWH) on 22.10.2023
- Energy saving Encon Blades & Hub Replacement done in STG6 ACC Fans – 1618 KWH/Day savings.
- VFD installation done in all STG Units CEP Pumps – 112.8KWH/Day savings.

Upgradation Boiler-1 in TPP

- Boiler -1 was upgraded from 76 tph to 105 tph. Following benefits were obtained:
  - Frequent stopping/tripping of the mills was reduced
  - All the four major mills were able to run continuously.
  - Heat rate is reduced by 50 kcal from 3300 to 3250 kcal/kwh
  - Auxillary power consumption reduced by 0.6%

Cost savings :

TPP Cost before upgradation – 7.82 Rs/kWh

TPP Cost after upgradation – 7.72 Rs/kWh

Difference in Cost - 0.10 Rs/kWh

TPP Average Consumption – 37%

Avg Specific Power up to clinker – 48.54 kWh/t clinker

Reduction in Variable clinker Cost – 1.85 Rs/Ton

Installation of VFD for CEP in WHRS

Project Title: To reduce Aux. power consumption by installing VFD for Condensate Extraction Pump in WHRB Steam Turbine

Target: Optimization of CEP Discharge pressure & Expected Power Saving Up to 240 KWh/ Day for Single pump

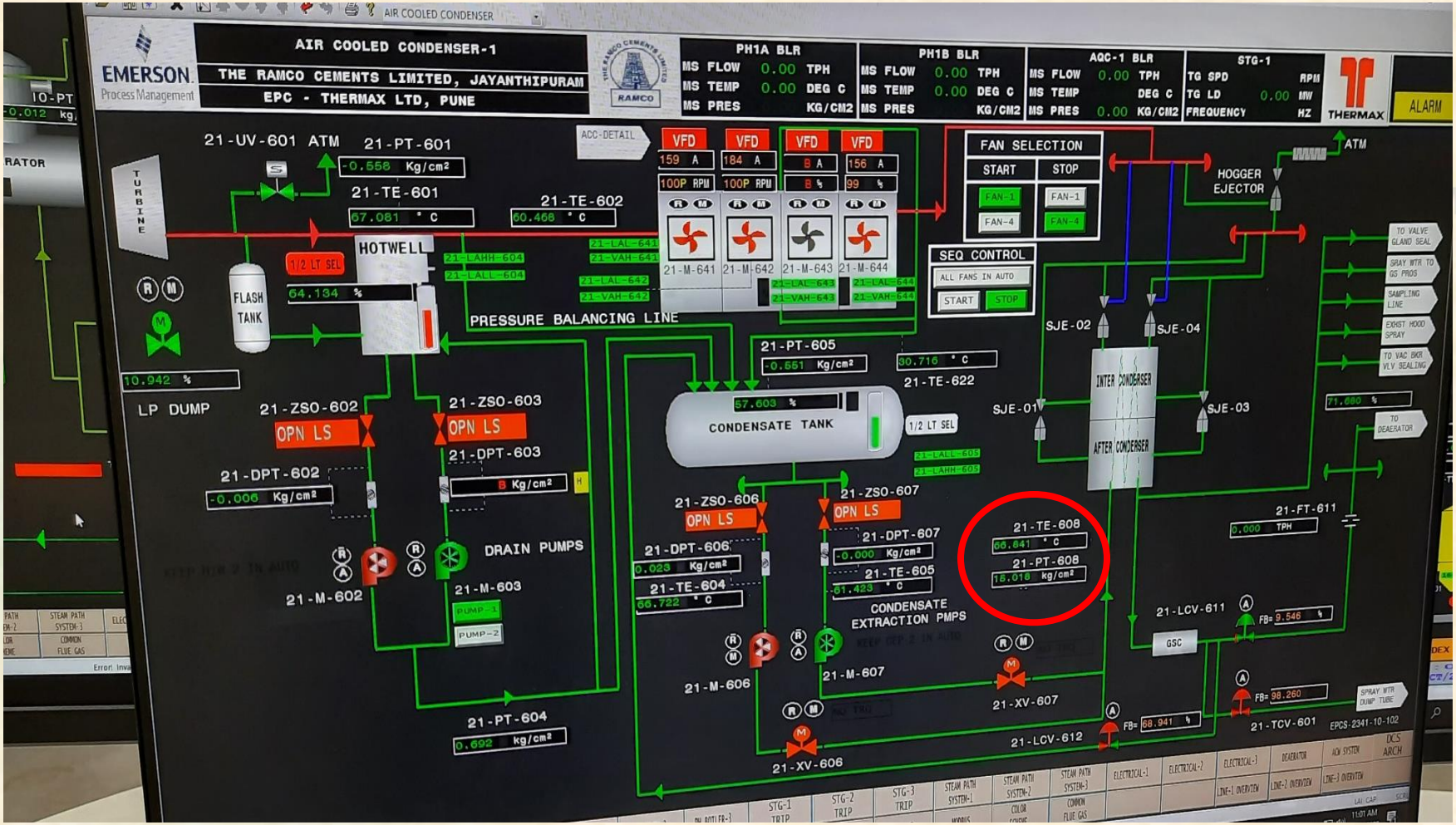
Project Description:

1. Before- CEP is running in DOL mode

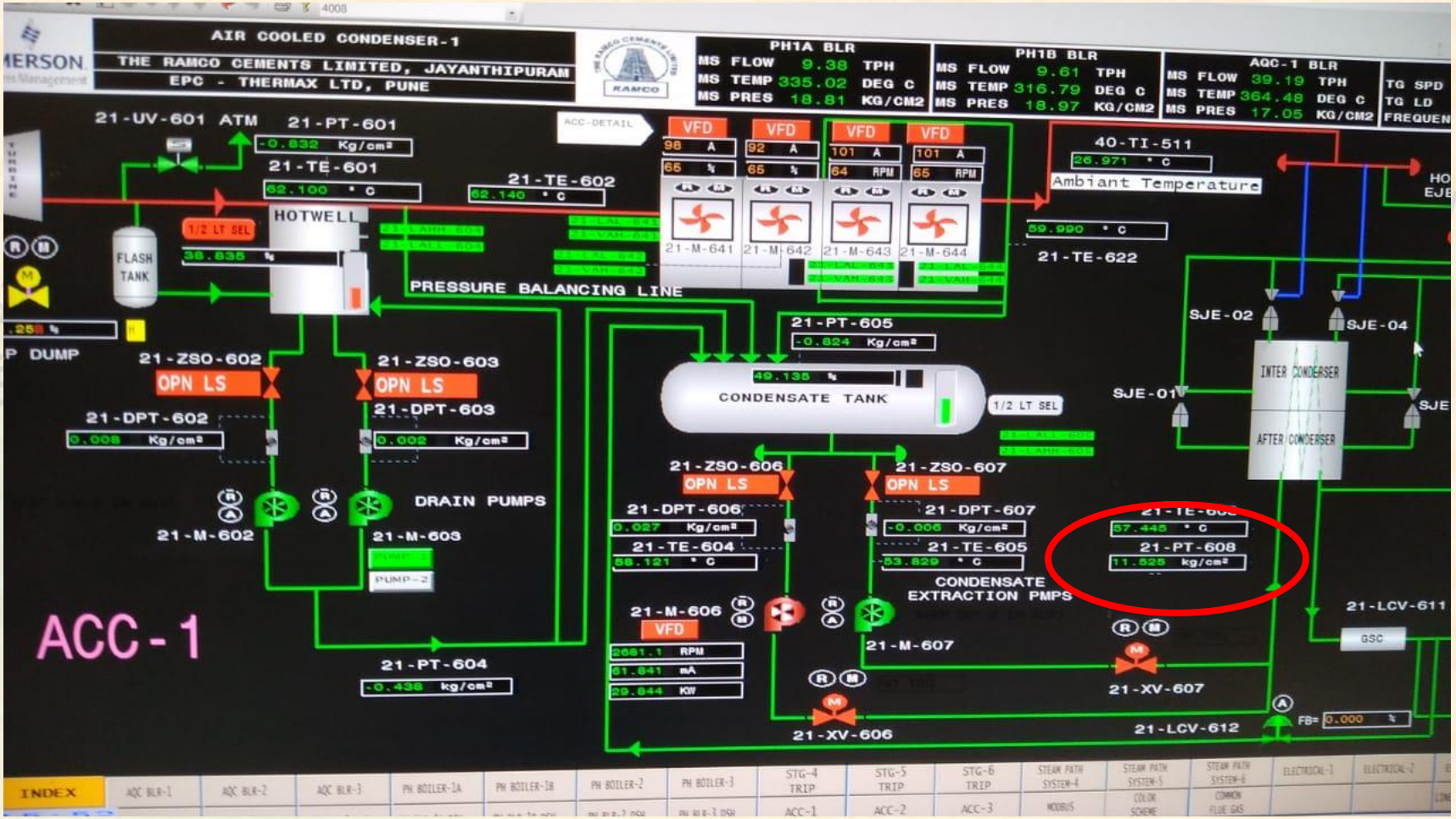
2. Installed VFD for all units.

3. Calculated Power savings 720 kwh/Day when Installed VFD for all three units. Approximate Reduction in Auxiliary Power Consumption is 0.12 % considering 20 MW as Average Load.

CEP PUMP CIRCUIT -BEFORE VFD INSTALLATION



CEP VFD CIRCUIT –AFTER STG4 UNIT



Payback calculation per unit for CEP VFD Installation

Parameter	Uom	Before	After
Load	MW	19.96	20.02
Discharge pressure	Kg/cm2	14.6	11.5
Speed	RPM	2980	2671
Power	Kw/Hr	41	31
Net power saving	Kw/Hour	10	
Run hours (250 Days)	Hours	6000	
Power saving	Kwh/Annum	60000	
Power cost	Rs/Kwh	3.74	
Cost saving/Unit	Rs /Annum	224400	
Energy savings for 3 units	KWH/day	720	
Cost Savings –Total Units	Rs /Annum	673200	
Investment cost/Total 3 Units	Rs.	10,42,000	
ROI		1.6 Years	

Replacement of Encon Blades in ACC fan in WHRS

Project Title: To Reduce Auxiliary Power Consumption In WHRS by replacement of Existing ACC Fan Blades to Energy Efficient Blades.

Target: Aux Power Saving with WHRB Energy Efficient Blades expected up to 2208 Kwh/Day/Unit i.e. 20% savings from existing blades

Project Description:

1. Power Consumed by parag Fan is 92 Kw .Total Consumption per Hour for 4 Fans is 368 kw/Hr

   Power Savings Achieved for Fan is 23 Kw/Fan/Hr after installation of New Blades i.e. So total

   Savings per day for 4 fans is 92 kw/Hr.
2. Total Savings per Day is 2208 KWH/Day./STG Unit.
3. Procurement Cost for New Blades of Rs.6,56,370./Fan
4. Total Cost Of Procurement of 4 Blades .Rs 26,25,480.
5. Total Investment Cost per Unit (4 fans) Sums upto Rs.30,25,480.
6. Total Cost for Procurement and installation for all 12 fans equals to Rs.90,76,440.

Payback calculation –Total 3 Units -12 fans

Parameter	Uom	Before	After
Average Power Consumed (12 Fans)	Kwh/Day	9252	4836
Net power saving(12 Fans)	Kwh/Day	4416	
Power Savings (12 Fans)	Kw/hr	15	
Run hours (250 Days)	Hours	6000	
Power saving	Rs/day	16515.84	
Power saving	Rs./Annum	41,28,960	
Power cost	Rs/Kwh	3.74	
Investment cost/Unit	**Rs**	**90,76,440**	
ROI	**Months**	**2.13 Years**	
Angle for Fans	**Deg**	**16-17**	**4-5**

TPP ENERGY SAVING PROJECTS

- Installed VFD to 1 no ACW Pumps with 90 Kw motor and saved 328 kwh/day. Total cost Savings Rs. 4.98 lakhs (328 kwh*365*4.16).

- Installed VFD to 3 no's of Cooling Tower Fans, each with 75 kw motor and saved 327 kwh/day. Total cost Savings Rs. 4.97 lakhs (327 kwh*365*4.16).

- Installed VFD to BFP Pump each with 425 kw motor and saved 730 kwh/day. Total cost Savings Rs. 10.93 lakhs (730 kwh*365*4.16).

- Installed VFD to 3 nos CEP Pumps each with 55 kw motor and saved 990 kwh/day. Total cost Savings Rs. 11.12 lakhs (990 kwh*270*4.16).

Innovative Project -1

5.Budawada Limestone Crusher Plant

- We have installed a new crusher at Budawada village to cater limestone requirement for our 3 kilns.
- Capacity of Crusher – 1100 TPH

5.RAILWAY TRACK & WAGON LOADING FACILITY

- Transporting limestone from Ramco Budawada Limestone Mine (RF) to cement plant through railway wagon system with a travel distance of 8.3 Kms.
- This project is the first of its kind in the country wherein a cement company transporting crushed limestone from its mines to the cement plant wagon unloading area, in an environment friendly manner.


TODAY TRAVELLING IN INDIAN RAILWAYS HAS BECOME A PLEASA


Ministry of Railways
Government of India
Shri Narendra Modi
Prime Minister
रेल मंत्रालय
भारत सरकार
श्री नरेन्द्र मोदी

Advantages through Rail Transport

- Eco friendly transport of Limestone to the plant
- Avoided transportation through Public road
- Reduction of Fugitive dust emission
- Reduction Of CO_2 Emissions by avoiding Diesel Consumption

Innovative Project -2

5.Innovative Project - Cooler DPC Tail end return spillage collection conveyor

Issue:

Heavy return spillage collection at clinker cooler discharge DPC tail end area.

Modification done

Conveyor installed at the DPC tail end to collect & carry back the spillage material into the same DPC.

Advantages of modification

- ✓ Spillage at dpc tail area avoided.
- ✓ Housekeeping can be maintained

5.Cooler DPC Tail end return spillage collection conveyor

5.Cooler DPC Tail end return spillage collection conveyor (Before)

5.Cooler DPC Tail end return spillage collection conveyor (After)

6.Utilization of Renewable Energy sources

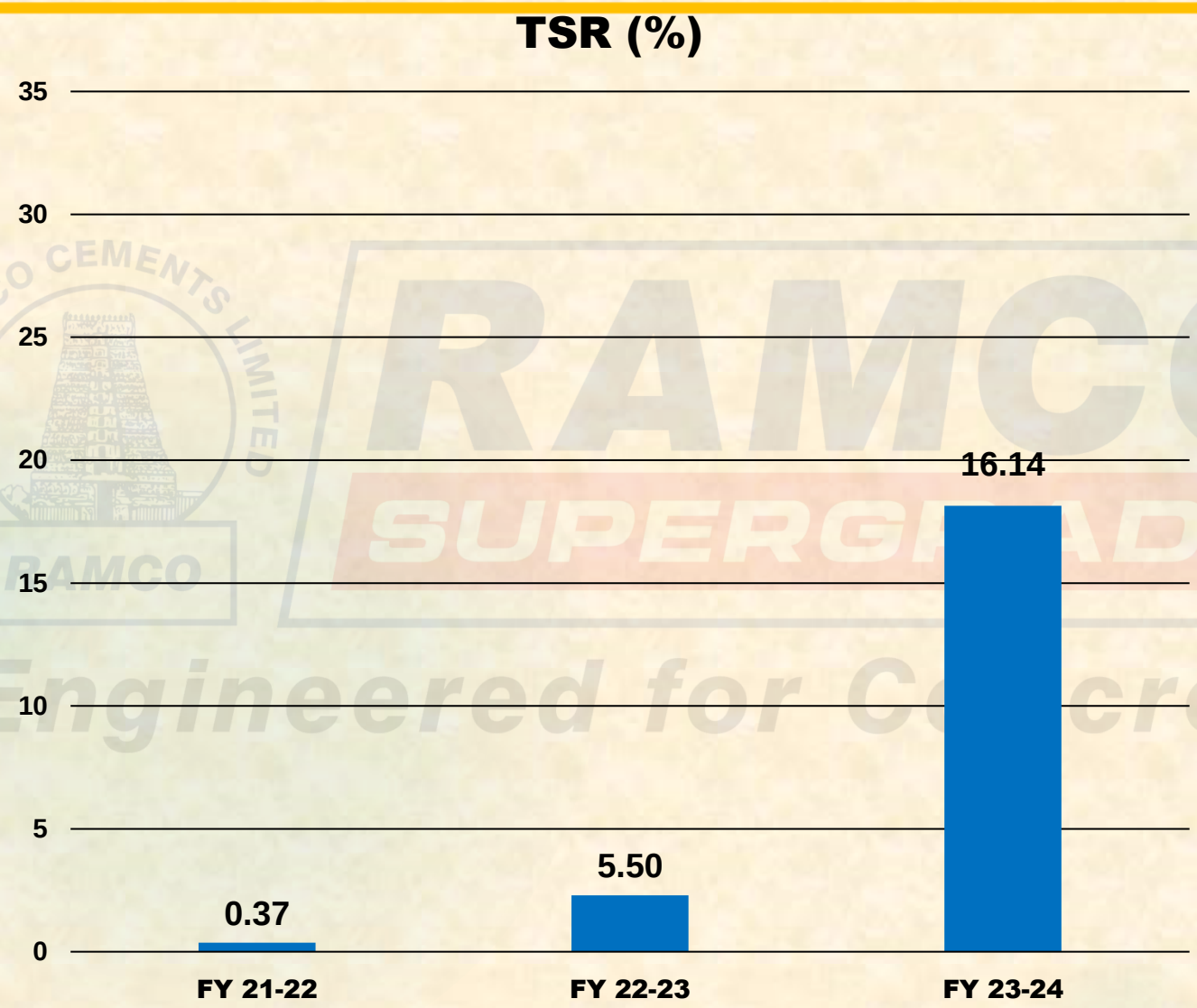
Type of Res	2021-22		2022-23		2023-24	
	Energy Generated (kWh/Kcal)	Annual Savings (Rs.)	Energy Generated (kWh/Kcal)	Annual Savings (Rs.)	Energy Generated (kWh/Kcal)	Annual Savings (Rs.)
Solar Photovoltaic	3420	20520	3392	23744	3294	21563
Bio Gass Plant	102070	28500	90500	24794	74500	18953

Technolgy (Electrical)	Type of Energy	Onsite/Off site	Installed Capacity (MW)	Generation (lakh kWh)	Year	Capacity addition & Investment made	Share Considered for plant
Renewable	Wind	Off site	39.835	333.65	2021-22	Nil	Nil
Renewable	Wind	Off site	39.835	331.27	2022-23	Nil	Nil
Renewable	Wind	Off site	39.835	364.96	2023-24	Nil	Nil

7. Waste utilization and management – AFR Usage

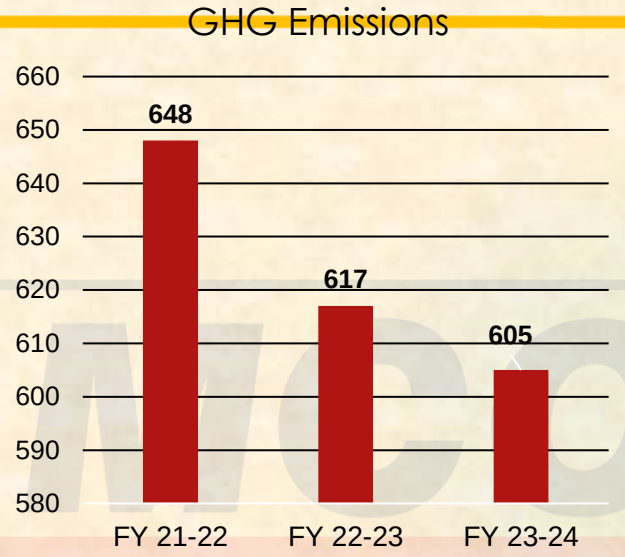
FUEL TYPE	UOM	QUANTITY
ALTERNATE FUEL - BLACK GRAM HUSK	MT	77.96
ALTERNATE FUEL - BRIQUETTE	MT	468.75
ALTERNATE FUEL - BURNT MAIZE STICK	MT	573.07
ALTERNATE FUEL - CHILLI SPENT	MT	174.38
ALTERNATE FUEL - COAL DUST	MT	0.00
ALTERNATE FUEL - COC FEED	MT	12.32
ALTERNATE FUEL - CORN WASTE	MT	28.52
ALTERNATE FUEL - GREEN MAIZE STICK	MT	2.85
ALTERNATE FUEL - MAIZE OIL EXTRACTED STICKS	MT	202.39
ALTERNATE FUEL - ORGANIC WASTE LIQUID	MT	9,855.35
ALTERNATE FUEL - PALM FIBRE	MT	12.22
ALTERNATE FUEL - PALM NUT SHELL	MT	23.49
ALTERNATE FUEL - PP WASTE	MT	4.58
ALTERNATE FUEL - PRODUCTION ASH WASTE - SPENT CARBON	MT	10,901.64
ALTERNATE FUEL - TYRE FIBRE	MT	8.04
ALTERNATE FUEL - WOOD BARK	MT	459.27
ALTERNATE FUEL - WOOD CHIPS (SRSM)	MT	12.70
ALTERNATE FUEL - WOOD SHIVES	MT	535.65
ALTERNATE FUEL BENGAL GRAM DUST	MT	172.85
ALTERNATE FUEL CARBON BLACK	MT	35.84
ALTERNATE FUEL GROUND NUT DUST	MT	300.44
ALTERNATE FUEL RICE HUSK .	MT	2,830.87
ALTERNATE FUEL SAW DUST .	MT	12.86
ALTERNATE FUEL WOODCHIPS .	MT	3,283.80

7. Waste utilization and management – TSR



8.GHG Inventorisation

Year	Total CO_2e (Kg)/T Cement
2021-22	648
2022-23	617
2023-24	605



Scope 1 emissions	Calcination, Fuel for kiln & CBPP, owned vehicle, Refrigeration & AC
Scope 2 emissions	Power consumption
Scope 3 emissions	Raw Material Supply & Product delivery

CLINKER TRASFERS

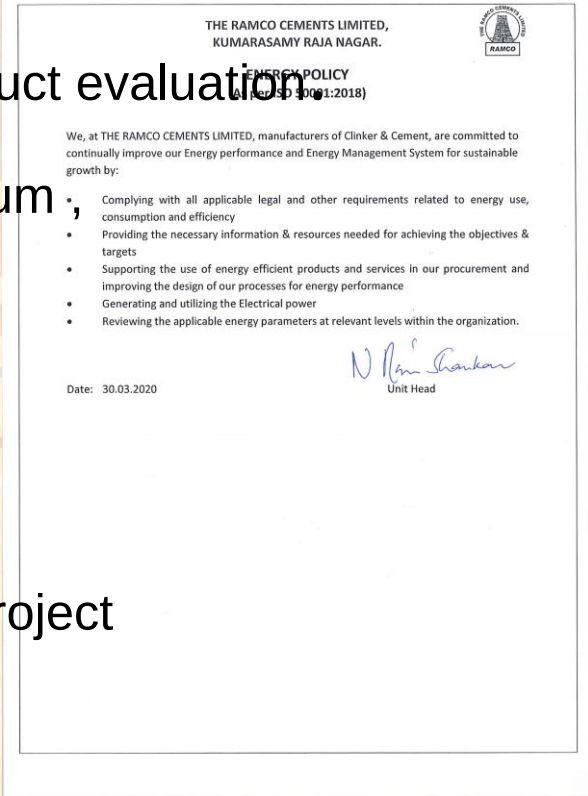
- We are mother plant for 3 Nos. of grinding units across our country. We are transporting clinker to these units through railway wagons only.
- In the financial year 2023-24, we have transported 26,73,165 Tonne of clinker (62% of total clinker production) through 654 Nos. of railway wagons.

9.EMS System and other requirements – Green Supply chain management & Energy Policy

- We are communicating the message of “Energy Efficiency” & “Technical specifications for Energy Efficiency on purchase equipment to supplier

- Awareness on green purchase policy for suppliers to evaluate.
- Going to environment friendly evaluation during product evaluation.
- Reverse logistics from port to plant for Coal & Gypsum ,

  Same rake transferring clinker to grinding units



THE RAMCO CEMENTS LIMITED,
KUMARASAMY RAJA NAGAR.

ENERGY POLICY
(ISO 50001:2018)

We, at THE RAMCO CEMENTS LIMITED, manufacturers of Clinker & Cement, are committed to continually improve our Energy performance and Energy Management System for sustainable growth by:

- Complying with all applicable legal and other requirements related to energy use, consumption and efficiency
- Providing the necessary information & resources needed for achieving the objectives & targets
- Supporting the use of energy efficient products and services in our procurement and improving the design of our processes for energy performance
- Generating and utilizing the Electrical power
- Reviewing the applicable energy parameters at relevant levels within the organization.

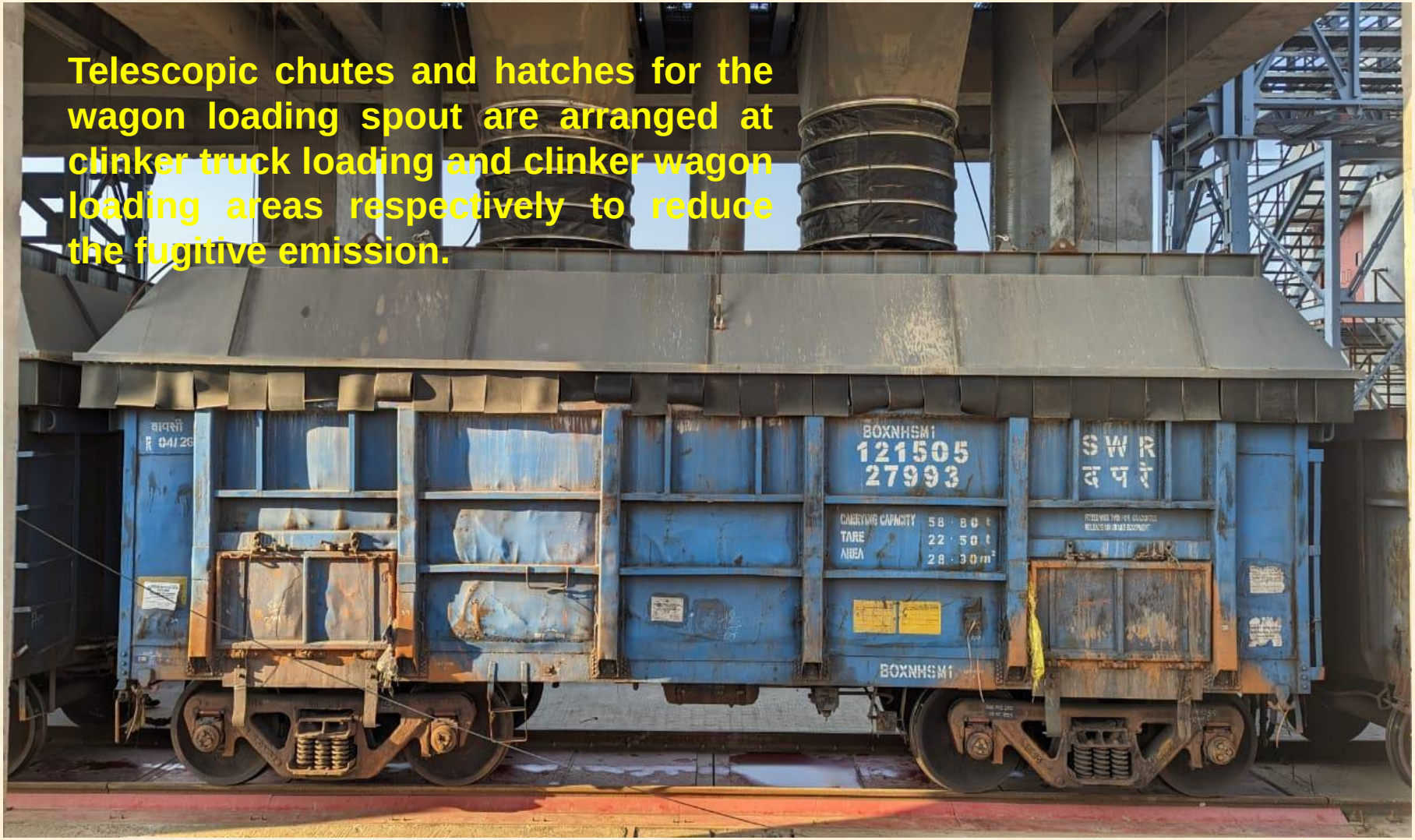
Date: 30.03.2020

Unit Head

Projects :

- All lights are replaced by LED fittings entire plant
- Procured energy efficient motors & fans for Line-3 project

WAGON LOADING SYSTEM WITH HATCH FACILITY



CRUSHER HOPPER DRY FOGGING SYSTEM

Installed Dry Fogging System at Crusher Hopper at Ramco Budawada Limestone Mine (RF).

RAIN WATER HARVESTING

48 Nos. & 4 Nos. of rain water harvesting structures are made to recharge the ground water in the colony and plant respectively.

POND

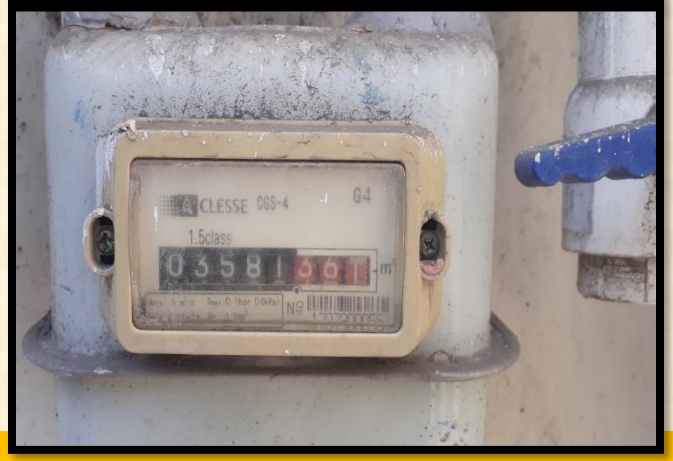
Pond is made around 160 * 30 m size pit (0.5 ha area) and all the excess treated waste water is being discharged to this pond to raise the ground water table in the vicinity.

VERMI COMPOST PITS

Installed Vermi-compost pits and garbage collected from colony is being composted. The composted manure is being used for greenbelt activities.

BIO-GAS PLANT

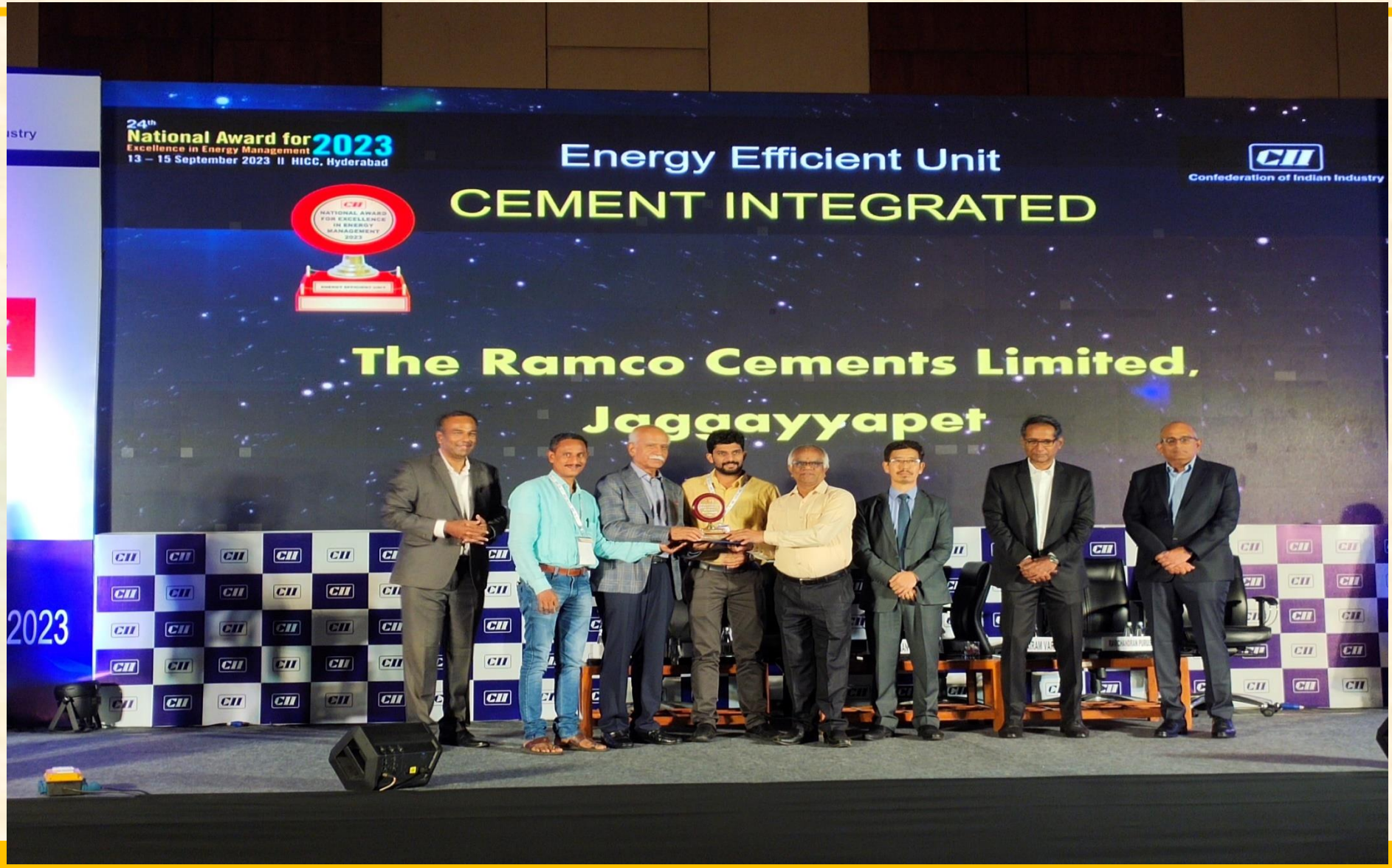
Installed bio-gas plant for compost kitchen waste. We are utilizing the bio-gas generated for industrial canteen purpose and conserving the LPG.



9.EMS System and other requirements – Learning From CII

- Great Platform to explore our company art of technology used and results achieved
- We have analyzed the plant performance of ours with respect to other competitors
- Innovative ideas for actions to reduce Energy
- Specific Electrical & Thermal consumption in Global level

CII – 24th National Award for Excellence in Management - 2023



Efficient unit in Renewable energy (WHRS)at 3rd Edition of National Awards for Various Aspects of Sustainability of cement and concrete industry and Net zero conclave by QCFI – Hyderabad Chapter

Environmental Excellence Award in WHRS Category (Southern region) at cemWHR – 2023 by Mission Energy Foundation


Save
energy
Save planet