Presentation By:

Mr. Rajkumar Mishra (HOD-E&I)

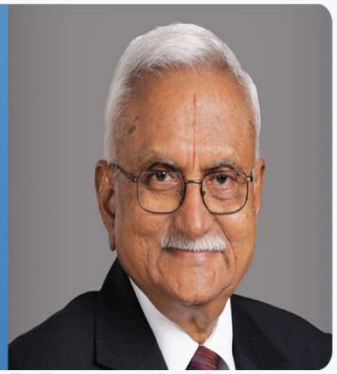
Mr. Amlan Shyam (HOD-P&QC)

The Ramco Cements Limited

Clinker Grinding Unit

Jajpur- Odisha

Ramco Group



Shri.P.A.C. Ramasamy Raja
Founder (1894 - 1962)

Shri.P.R.Ramasubrahmaneya Raja
Ex Chairman & Managing Director
(1935-2017)

Shri.P.R.Venketrama Raja
Chairman & Managing Director

Well diversified Group :

Cement
Ready Mix Concrete
Cement Fiber Products
Cotton and Synthetic Yarn
Software Systems

Wind Farms
Research & Development
Dry Mortar Plants
Cotton Textiles
Surgical.

The Ramco Cements Limited

- Current Cement Capacity 23 MTPA
- One of the top 10 Cement Producer in India
- Single largest Cement Brand in South India
- Turnover : Rs. 4607.03 crores
- Total Employees : 3267

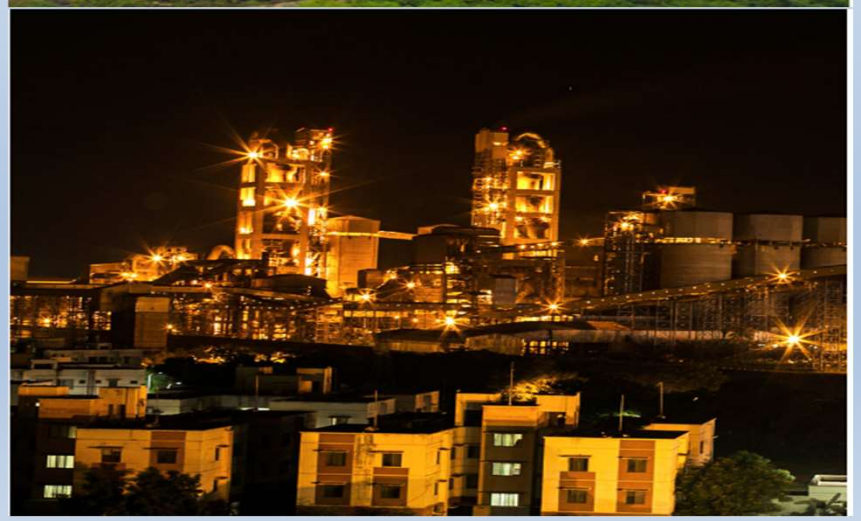
VISION & MISSION

Vision

Build. Strengthen. Nurture

Mission

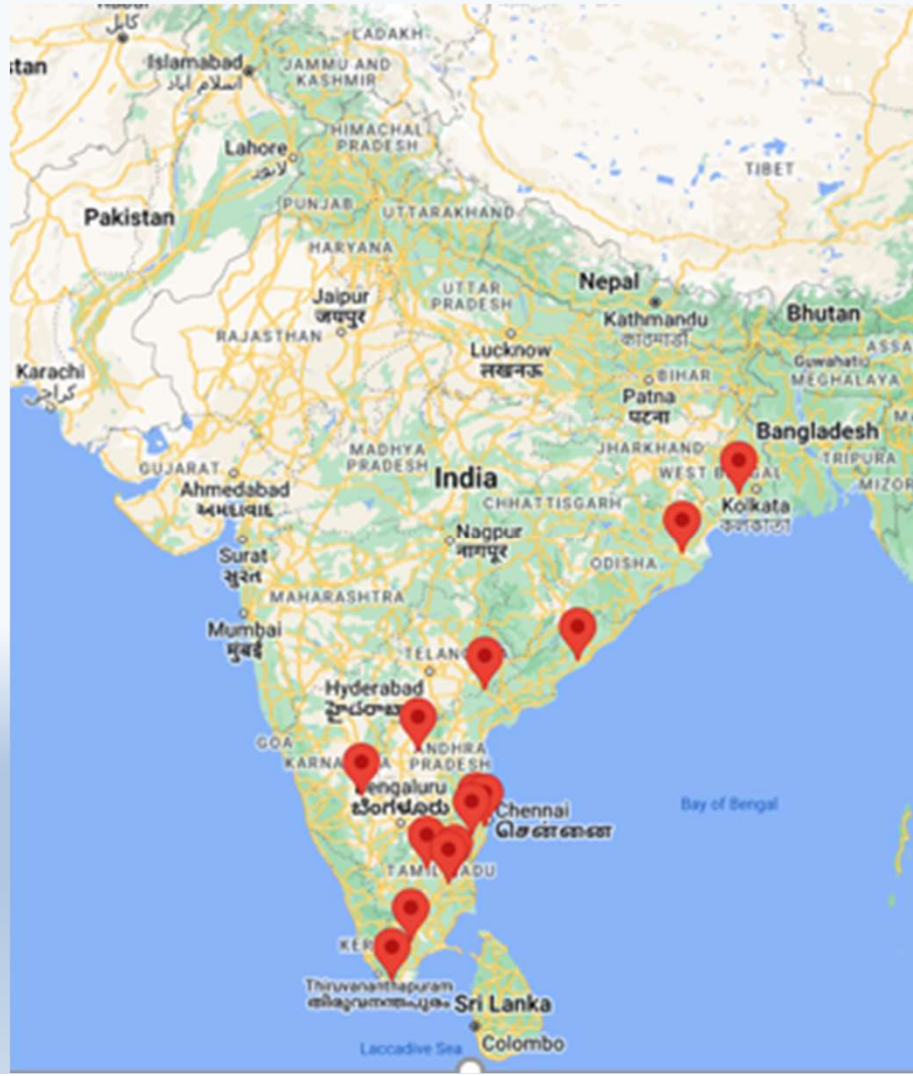
Becoming the most trusted construction solution partner by creating innovative products which are market leaders for each type of application without compromising our commitment to ethics, environment, our people and our society and responsibly building long term relationships with every one of our stakeholders.



COMPANY PROFILE & PRODUCTION FACILITIES ACROSS INDIA

Ramco Cements embarked on its journey in 1961 under the stewardship of Shri P.A.C. Ramasamy Raja. Over the years, we have established ourselves as one of the largest cement manufacturers in the country, producing cement, dry mix and concrete across 15 state-of-the-art production facilities located in India.

- From an initial capacity of 200 Tonnes Per Day (TPD) to capacity of 23 MTPA today
- From operating the business in a single unit with single product in a heavily controlled era to becoming multi product, multi location company.
- From a team of few hundred people in 1961 to a team of more than 3,000 people today.
- With a total capacity of 23 MTPA we serve Tamilnadu, Andhra Pradesh, Karnataka, Odisha & West Bengal.



THE RAMCO CEMENTS LIMITED – GRINDING UNIT, JAJPUR

2020 : Line-1 VRM Production started
Plant Cap.: 0.90 MTPA

2024 : Line-2 Ball Mill Commissioned
Plant Cap.: 0.90 MTPA

Total Production Capacity -1.8 MTPA

Unit Overview

Unit : **The Ramco Cements Limited, Odisha Grinding Unit**

Address :**AT/PO-Haridaspur, Dist-Jajpur, Odisha**

Capacity : **1.8 MTPA**

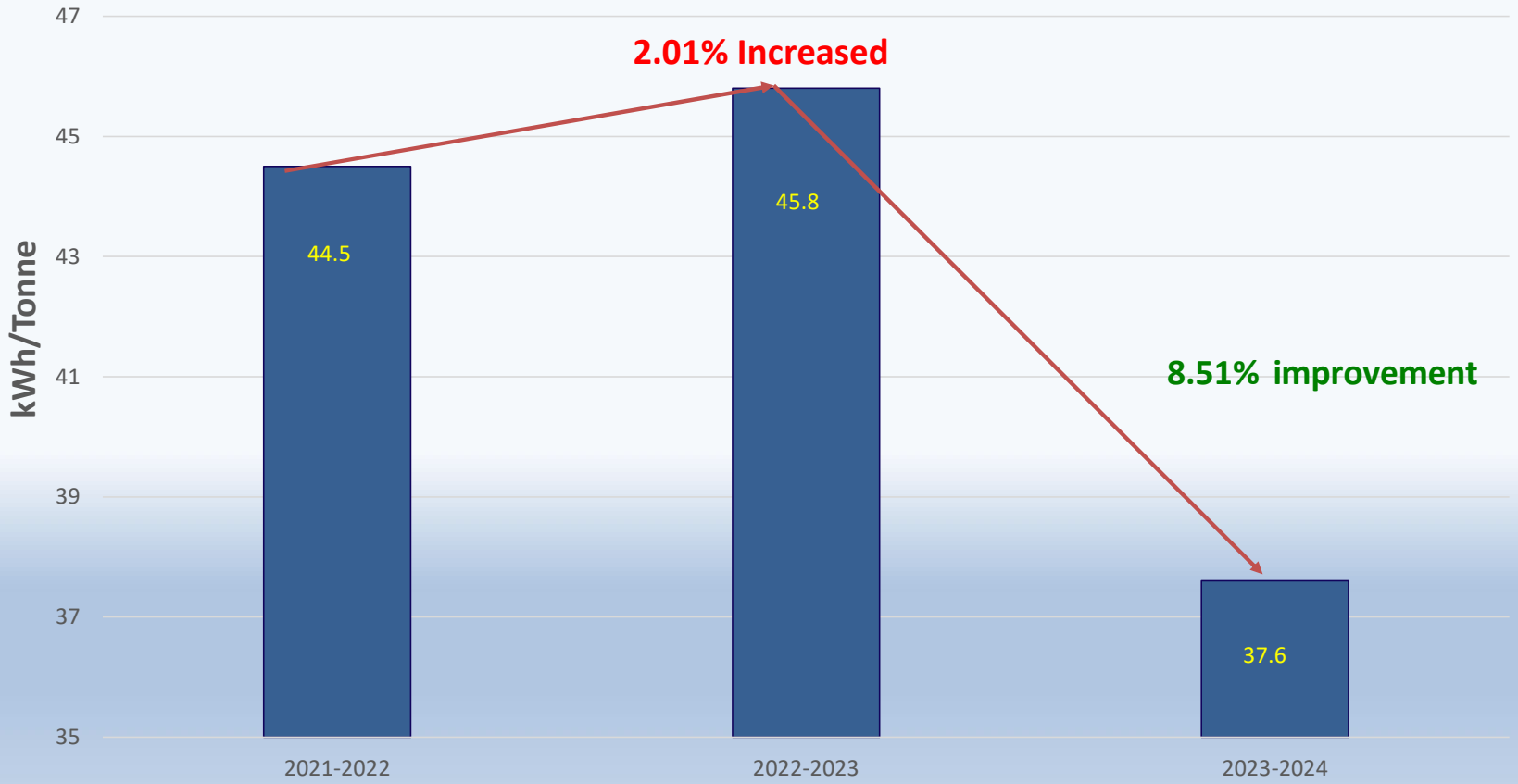
Major Equipments Available :
1.Line-1 (Vertical Roller Mill circuit supplied by M/s Loesche)
2.Line-2 (Ball Mill circuit supplied by M/s FLSmidth)

PRODUCTION DETAILS

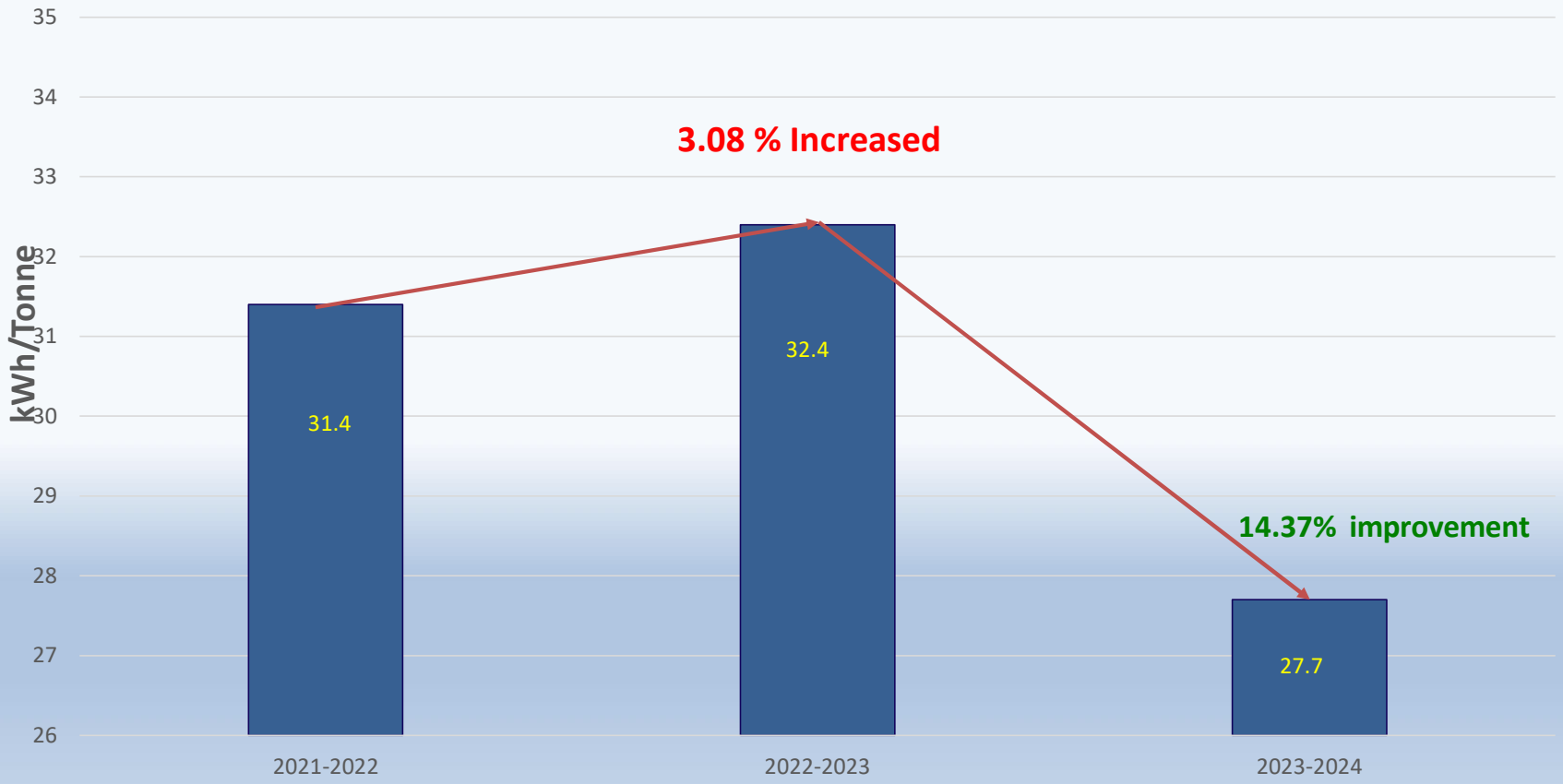
Parameters	UoM	2021-2022	2022-2023	2023-2024
Installed Cement Capacity	MMTPA	0.9	0.9	0.9
Cement Production	MMTPA	0.9	0.9	0.9
Production Contribution of PPC	%	49.3	42.7	43.9
Production Contribution of OPC	%	41.2	45.9	40.5
Production Contribution of PSC	%	9.4	11.1	15.4
Clinker Factor for OPC	#	0.96	0.97	0.97
Clinker Factor for PPC	#	0.67	0.66	0.63
Clinker Factor for PSC	#	0.31	0.32	0.32

SPECIFIC POWER CONSUMPTION OPC GRADE

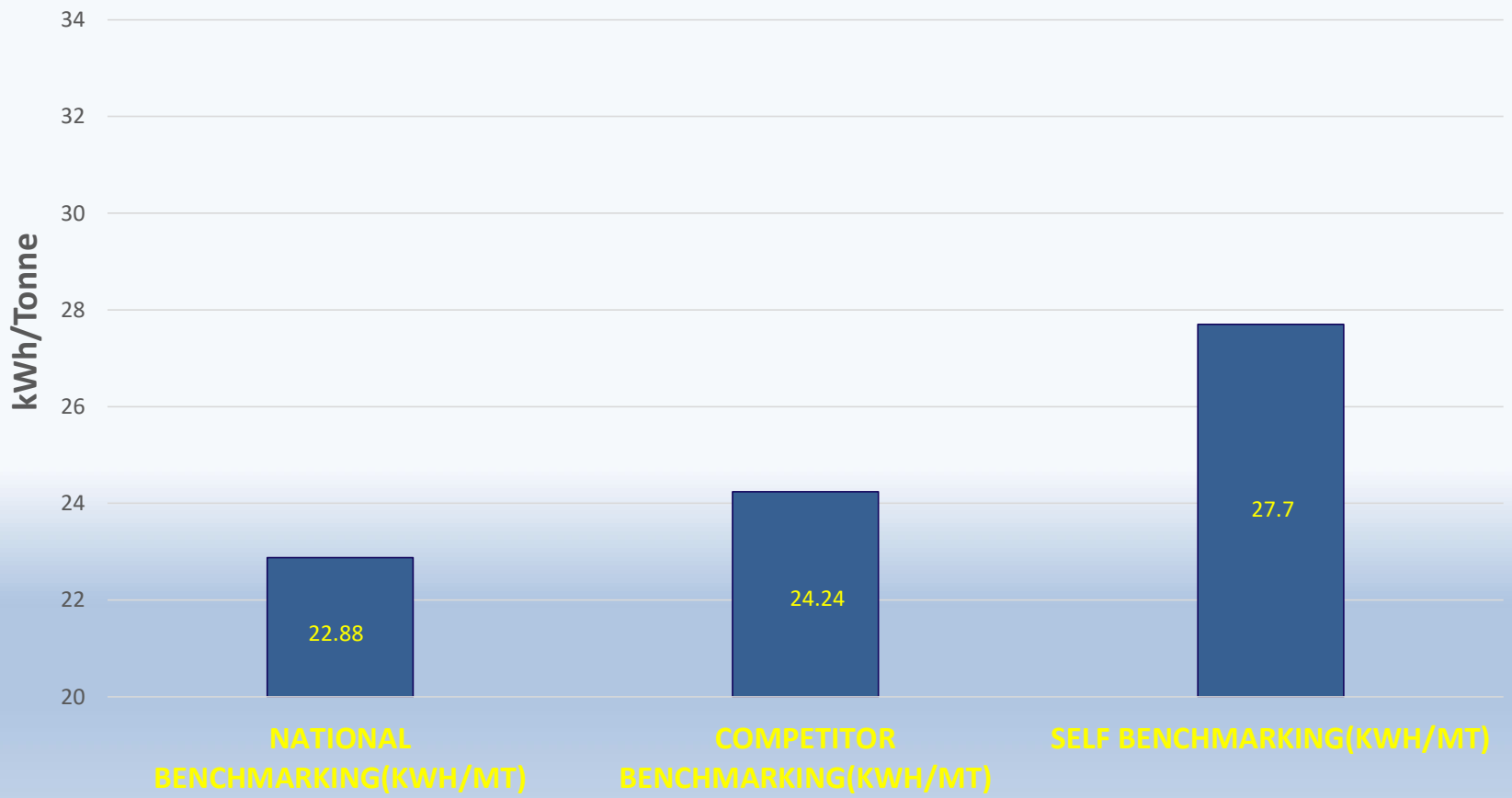
SPECIFIC POWER CONSUMPTION PSC GRADE



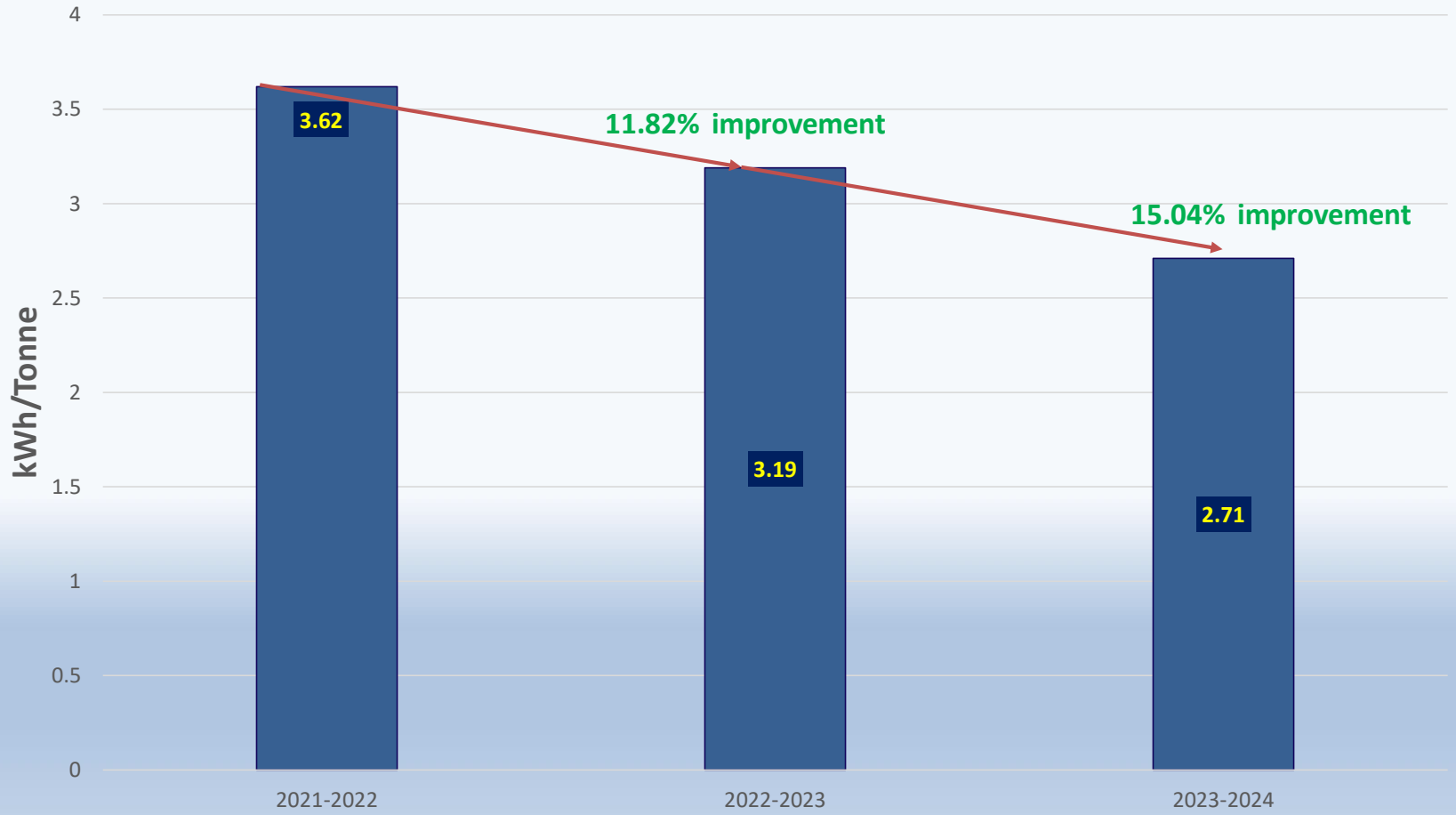
SPECIFIC POWER CONSUMPTION PPC GRADE



NATIONAL BENCHMARKING



SPECIFIC POWER CONSUMPTION PACKER



LIST OF ENCON PROJECTS TO BE IMPLEMENTED 2024-25

Sr.	Title of Project	Annual Electrical Saving (kWh)	Annual Electrical Cost Saving (Rs. Million)	Investment Made (Rs. Million)	Payback (Months)
1	Installation of VFD for Unbalance Vibro Motor for Wagon Tippler Discharge Chute	24000	0.15	0.04	4
2	Installation of VFD for other 55kW FD Fan Motor	110880	0.7	0.12	5
	Total	**134880**	**0.85**	**0.16**	**9**

LIST OF ENCON PROJECTS IMPLEMENTED DURING 2021-22

Sr.	Title of Project	Annual Electrical Saving (kWh)	Annual Electrical Cost Saving (Rs. Million)	Investment Made (Rs. Million)	Payback (Months)
1	Installation of Slip Power Recovery System	110880	0.72	5.46	93
	Total	**110880**	**0.72**	**5.46**	**93**

LIST OF ENCON PROJECTS IMPLEMENTED DURING 2022-23

Sr.	Title of Project	Annual Electrical Saving (kWh)	Annual Electrical Cost Saving (Rs. Million)	Investment Made (Rs. Million)	Payback (Months)
1	Installation of Bag Counter at Truck Loading and Wagon Loading	237600	0.15	0.33	24
	Total	**237600**	**0.15**	**0.33**	**24**

LIST OF ENCON PROJECTS IMPLEMENTED DURING 2023-24

Sr.	Title of Project	Annual Electrical Saving (kWh)	Annual Electrical Cost Saving (Rs. Million)	Investment Made (Rs. Million)	Payback (Months)
1	Installation of VFD For FD Fan in HAG	110880	0.72	0.12	2
2	Delta to Star Conversion of Below 50% Loaded LT Motors	234794	1.48	0	0
3	Stopping additional 11kW Bag Cleaning Motor(Single Fan Air Line Connected to both side belt to Stop other Fan Belt)	370862	2.52	0.12	0.57
	Total	**716536**	**4.72**	**0.24**	**2.57**

INNOVATIVE PROJECTS IMPLEMENTED 2023-24

Sr No	Innovative ideas	Benefits
1	Truck Loading Machine extension, Travel length extension in 8nos Truck loading Machine to avoid ideal runnning hour of rotot packer	**Availability of Cement loading from multiple truck loading machine.**
2	Manual feeding arrangement and modification in all 4nos of Packer bucket elevator feeding .	**Improvement in Packer reject handling and thereby the reduction in Fugitive Dust Emission.**
3	Install 1no common stand by air slide fan for all 4nos packer reject air slide so that during breakdown of any air slide fan packer can run with the stand by fan	**Availability of Packer machine in case of any air slide break down to any of the individual air slide fan.**
4	Single Roots Blower running for 2nos of Packer, earlier it was running 1no for each packer	**Saving of Power upto 5.5 kW**
5	Installation of Grizzle size 120X120mm Over Clinker Hopper feeding Belt Chute	**To minimize the frequency of clinker weigh feeder over load due to bigger size clinker lumps.**

GHG INVENTORISATION

Reduction in GHG emission in Ton of CO2/Ton of Cement by

- Optimization on the use of Rice Husk & saw dust as a substitute to for Coal and reduced an annual consumption of 10.8 MT to 10.0 MT. Thus reduced 1512 MT of CO2 Emission.
- Total 33 % of green cover at plant site.
- Railway logistics to reduce GHG emission due to road transportation
- Reduction in water consumption to sustain water positive status
- In last 2 Financial year we have planted 22000 Trees inside our plant periphery bringing it to a total of 42000.

Average Emission Intensity of Last Two Years

Emission Parameters	FY 22-23	FY 23-24	Prescribed Standard
Stack temperature (Deg C)	91.9	89.8	
velocity of flue gas (m/sec)	7.3	7.8	
quantity of gas flow (Nm3/hr)	54547.4	110157.6	
PM (mg/Nm3)	22.6	23	30
Sox (mg/Nm3)	34.5	32.8	100
Nox (mg/Nm3)	31.9	35	600
CO (mg/Nm3)	12.1	12.3	
Hg (mg/Nm3)	0.1	0.017	

Energy Monitoring System

PLANT CONSUMPTION	
LINE1 - TOTAL MONTHLY UNITS	1686225
LINE2 - TOTAL MONTHLY UNITS	351115
WAGON - TOTAL MONTHLY UNITS	0
PACK - TOTAL MONTHLY UNITS	5351780
PLANT TOTAL MONTHLY UNITS	909846

- We are using Energy Monitoring System to track all the consumption details and Section wise power consumption in our SCADA.
- This Energy Monitoring system helps us to identify the individual section power which enables us to give special focus in particular areas to improve power reduction.
- This EMS helps us to identify and reduce the power consumption for ideal running equipment.

POWER - TOTALIZER

	LINE1/LINE2	KWH	TODAY UNITS	YESTERDAY UNITS	MONTHLY UNITS
LINE1	MRSS Main Incomer	148606128.0 kWh	61355	44577	909704
	CM Incomer HT Panel.	122937936.0 kWh	29919	25879	1686160
	Mill Main Drive HT Panel	77162040.0 kWh	19838	14613	544589
	ID Fan HT Panel	20892412.0 kWh	4763	4473	134645
	O/G To Raw Matl. Handl. IMCC	2585570.0 kWh	556	336	24305
	Mill Inlet IMCC	2697564.5 kWh	546	430	30794
	O/G To Mill Outlet IMCC	0.0 kWh	890	1230	52659
	O/G To Mill Aux. IMCC	2826663.5 kWh	617	534	36160
	HAG PCC	0.0 kWh	654	433	30831
	Utilities IMCC	0.0 kWh	1485	2136	114729
	O/G To Clin. And Addi. Truck Unload. IMCC	1101115.1 kWh	202	1345	13453
	Wagon Trippler Incomer HT Panel	2562602.5 kWh	0	0	0
	Incomer From Packing Plant Dist. Trafo.	10967.6 kWh	2531	10577	5351640
LINE2	2.5 MVA TF1 (Node -1)	0.1 kWh	-1254	-27	-16829
	Line2 Incomer (Node 10)	5828402 kWh	27873	100	351045
	Ball Mill Main Motor-1 (Node - 6)	2139869 kWh	10130	0	127981
	Ball Mill Main Motor-2 (Node - 8)	2235087 kWh	10367	0	132785
	Seperator Fan (Node -12)	777039.8 kWh	4005	0	48238
	2.5 MVA TF2 (Node -13)	716258.1 kWh	1159	428	22619
	O/G CM Silo Feed (Node-19)	255338.4 kWh	1130	409	20173
	O/G Ball Mll (Node-16)	351870 kWh	1863	38	24148

ERP Electrical Efficiency Data

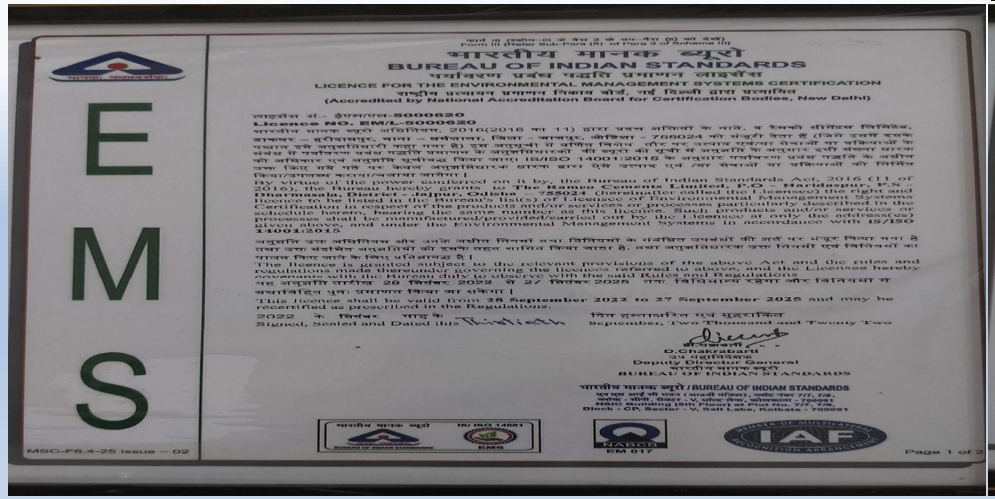
Process Unit	RUN HOURS		PRODUCTION		CONSUMPTION UNITS		ON KWH/H	KWH T/CEMENT	
	OTD	MTD	OTD	MTD	OTD	MTD		OTD	MTD
CEMENTMILL-1	4.30	319.25	`	50,442.00	28,714.00	16,44,204.70	6,380.89	40.33	32.60
CEMENTMILL-2	0.00	56.15	0.00	6,995.00	0.00	3,28,264.30	0.00	0.00	46.93
FOR COMBINED CEMENTMILL	4.30	375.40	712.00	57,437.00	28,714.00	19,72,469.00	6,380.89	40.33	34.34
SERVICE-1	0.00	0.00	0.00	0.00	6,403.40	1,40,388.00	0.00	8.99	2.78
FOR COMBINED SERVICE	0.00	0.00	0.00	0.00	6,403.40	1,40,388.00	0.00	8.99	2.44
PACKER-1	10.40	191.35	1,081.10	11,728.60	2,906.80	30,086.50	272.43	2.69	2.57
PACKER-2	9.55	171.50	736.50	14,907.60	1,980.20	42,248.40	199.62	2.69	2.83
PACKER-3	11.55	109.45	890.80	9,642.40	2,395.10	27,420.10	200.93	2.69	2.84
PACKER-4	5.55	93.15	555.30	8,496.58	1,493.00	23,973.40	252.20	2.69	2.82
FOR COMBINED PACKER	37.05	565.45	3,263.70	44,775.18	8,775.10	1,23,728.40	236.65	2.69	2.76
BULKER-1	0.00	0.00	39.66	3,376.68	1,664.90	44,323.40	0.00	41.98	13.13
FOR COMBINED BULKER	0.00	0.00	39.66	3,376.68	1,664.90	44,323.40	0.00	41.98	13.13
PROJECT UNITS	0.00	0.00	0.00	0.00	642.60	11,420.30	0.00	0.00	0.00
GRAND TOTAL.	**0.00**	**0.00**	**0.00**	**0.00**	**46,200.00**	**22,92,329.10**	**0.00**	**93.99**	**52.67**

Teamwork, Employee Involvement & Training Programme

TRAINING AND AWARENESS PROGRAMME

External Training Programme Attended	
S.No.	**Topic**
1	EnMS ISO- 50001
2	SHIELD - (Personal Risk Awareness & Conscious Risk Reduction Program)
Internal Training Programs Conducted	
1	Training Programme on LT Motor Maintenance
2	LOTOTO Training Program
3	Hot Work Permit System Training Program
4	Training Program on Fire Safety

ISO Implementation



AWARDS


QUALITY CIRCLE FORUM OF INDIA
HYDERABAD CHAPTER
36th Annual Chapter Convention
CCQC-2022
Presented to
Ramco Kings
The Ramco Cements Ltd.
Haridaspur
15th & 16th September 2022
GOLD WINNER


QUALITY CIRCLE FORUM OF INDIA
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Ramco Jagannath
The Ramco Cements Ltd.
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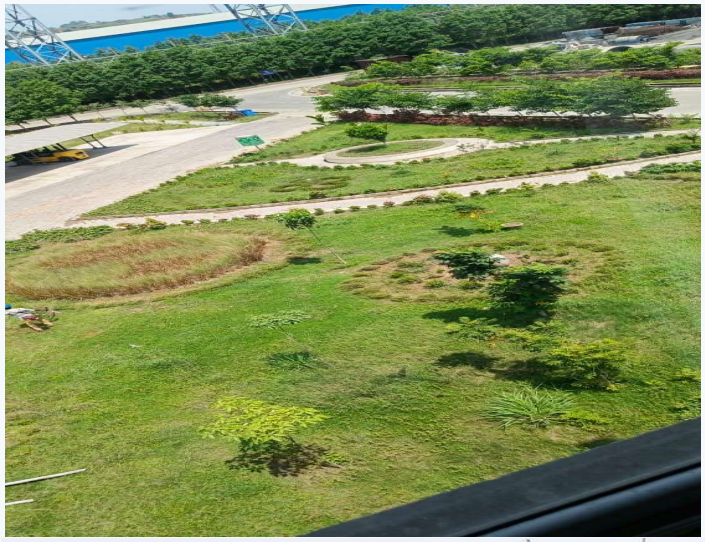
NCQC-2022
AURANGABAD
AWARD PAR EXCELLENCE

RAIN WATER HARVESTING

- We are zero discharge unit, domestic sewage generated is being treated in STP and reused in green belt development
- Constructed 08 number of rainwater harvesting structures at various locations.
- The total recharge capacity of all rainwater harvesting unit is 64 Cubic Meter.
- We are water positive plant .

GREEN BELT AT PLANT PREMISES



PROVIDING NATURAL HABITAT TO BIRDS & ANIMALS



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