CK BIRLA GROUP

ORIENT CEMENT

25th National Award for Excellence in Energy Management 2024

10 - 12 September 2024 HICC, Hyderabad

Great Place To Work® Certified MAR 2024-MAR 2025 INDIA

Orient Cement Limited

Clinker Grinding Unit
Jalgaon-Maharashtra

Mentor : Mr. Atul Kumar Agrawal (Unit Head)

Presentation By:
Mr. Chandan Parasar (HOD-Production)
Mr. Mahendra Pratap Singh (AM-Electrical)

Company Profile

- **Company Name : Orient Cement Limited**
- **Group : CK Birla Group**
- **Year of Establishment : 1979 AD**
- **No of Units : 3**

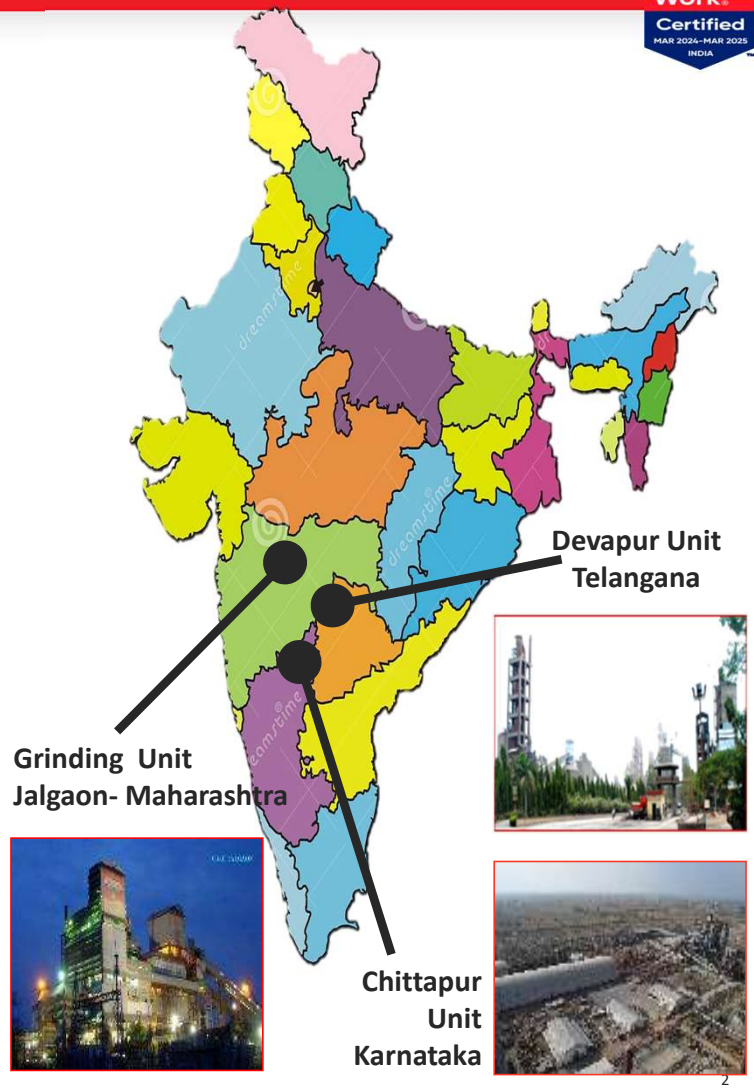
  Integrated Units : 2

  (Located at Devapur, Telangana & Chitapur, Karnataka)

  Grinding Unts : 1

  (Located at Jalgaon, Maharashtra)
- **Overall Capacity : 8.0 MTPA**
- **Unit Name : Clinker Grinding Unit, Jalgaon, Maharashtra**
- **Unit Establishment : 2000 AD**
- **Unit Capacity : 2.28 MTPA**
- **Plant Details :**

  1. **Line-1 (Roller Press + Ball Mill circuit supplied by M/s Thyssenkrupp)**
  2. **Line-2 (Roller Press + Ball Mill circuit supplied by M/s KHD)**

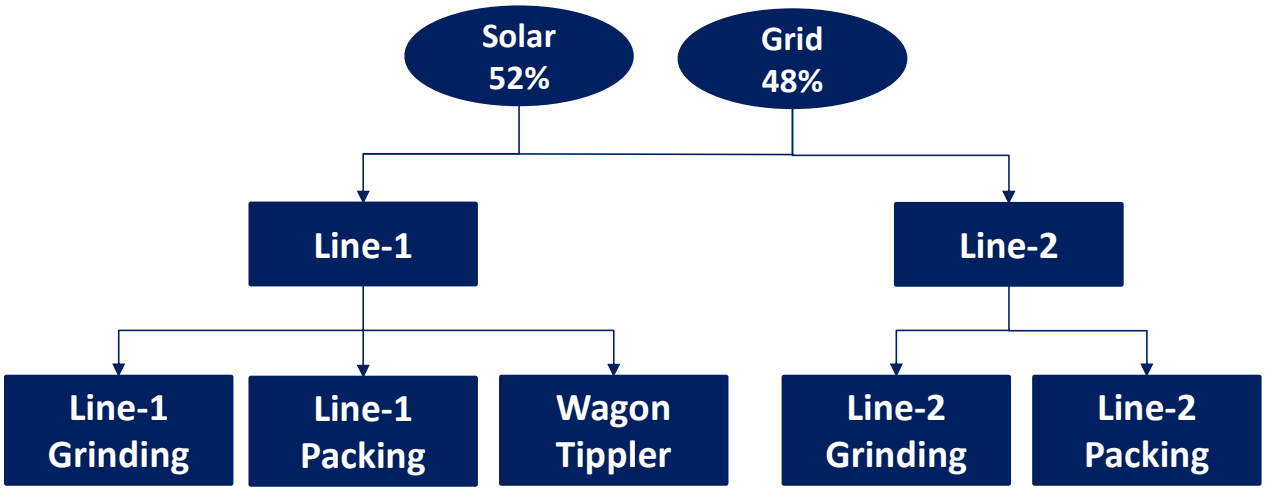


Product Portfolio

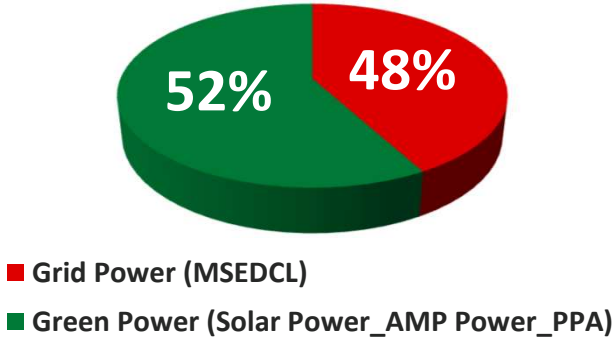
PPC

OPC

Energy Mapping



Power Consumption Scenario FY24 :



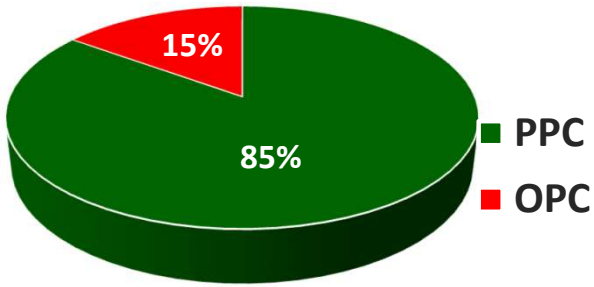
- **Total Solar Power Generation Capacity will be 17.2 MW (DC).**
  - **13.5 MW (DC) Solar Power Generation Capacity located at Osmanabad, Maharashtra (under PPA with AMP Solar).**
  - **Another 3.7 MW (DC) Solar Power Generation capacity located at Latur, Maharashtra (under PPA with CleanTech Solar).**

Comparison of Specific Power Consumption

PPC-Grinding

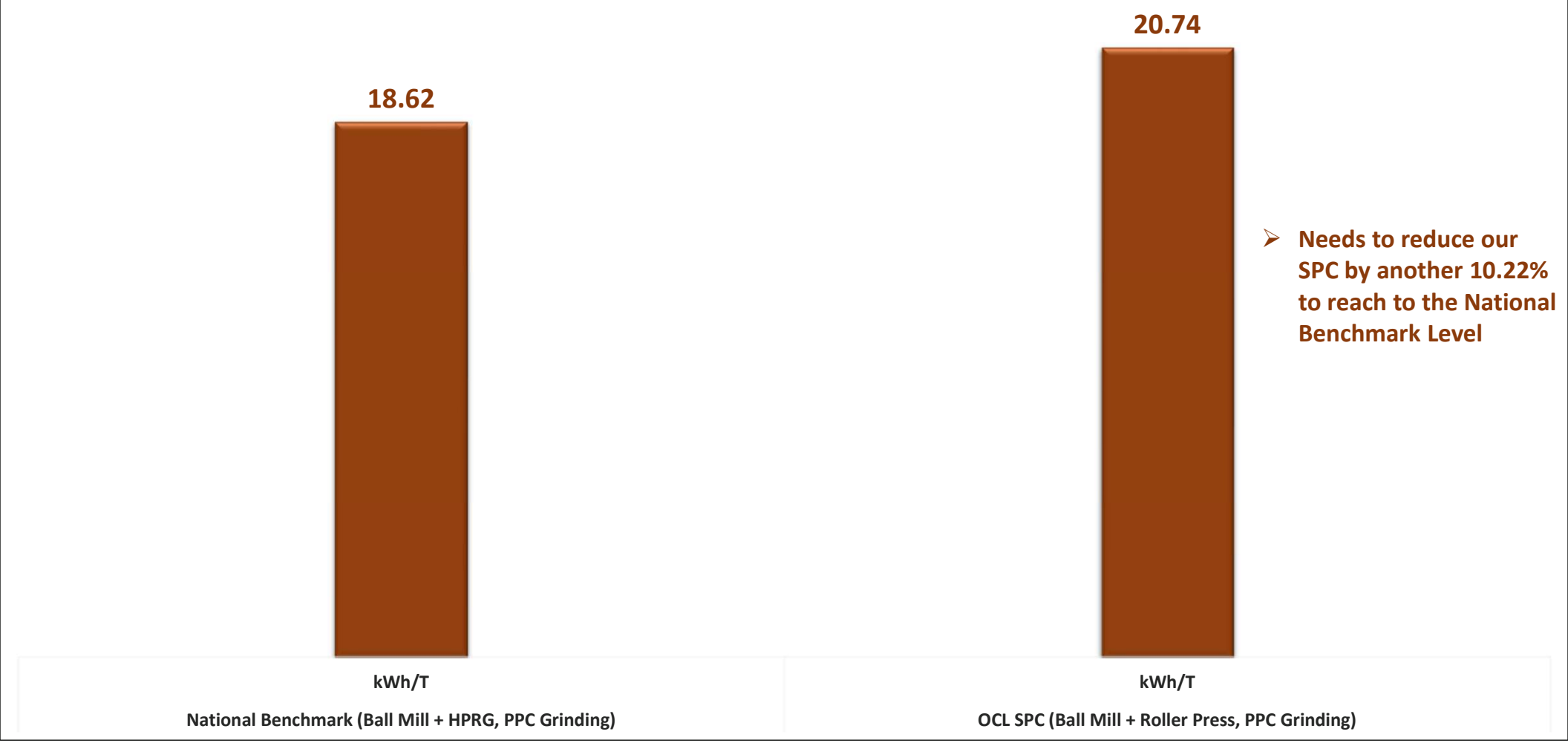
OPC-Grinding

Product Share for the year 2023-24



Our Target : 90 % of PPC Production

National Benchmark Vs OCL Specific Power Consumption



- Needs to reduce our SPC by another 10.22% to reach to the National Benchmark Level

Major EnCon Projects Planned_FY 25

Sr. No.	Title of Project	Annual Electrical Saving Potential (Million kWh)
1	Line-2 Cyclone Bottom RAL installation in place of Double Flaps	0.86
2	Low Pressure Compressor for Flyash unloading	0.30
3	Line-1 finish mode operation	0.38
4	Replacement of 244 nos of Motors (Upgradation from existing less efficient to the latest higher efficient, IE4), under BEE DEEP Scheme with EESL	0.85
5	Line-1 Roller Press outlet Cake Breaker Installation in Series against the exiting Parallel system	0.11
	Total	**2.50**

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Production Details

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Parameters	UoM	2021-2022	2022-2023	2023-2024
Installed Cement Capacity	MTPA	2.28	2.28	2.28
Cement Production	MTPA	1.24 (CU : 54%)	1.15 (CU : 50%)	1.13 (CU :50%)
Product Contribution of PPC	%	88.49%	87.02%	84.78%
Product Contribution of OPC	%	11.51%	12.98%	15.22%
Clinker Factor for PPC	#	0.62	0.62	0.62
Clinker Factor for OPC	#	0.91	0.91	0.91

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Energy Saving Projects Implemented in Last Three Years

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Year	No. of Saving Project (Major)	Investment (₹ Million)	Annual Electrical Saving (Million kWh)	Annual Cost Saving (₹ million)
2021-22	5	0.50	0.84	6.82
2022-23	5	0.015	0.64	10.06
2023-24	8	1.32	0.45	6.32

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List of EnCon Projects Implemented_FY22

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Sr. No.	Title of Project	Annual Electrical Saving (kWh)	Annual Electrical Cost Saving (Rs. million)	Investment Made (Rs. million)	Payback (Months)
1	Grinding Media Optimization	700403	5.72	0.200	0.42
2	Interconnection of compressed air line for unloading multiple Flyash bulker at a time	97912	0.80	0.025	0.38
3	Shortening of Clinker Silo tunnel (B) conveyor length by 40%.	5000	0.041	0.010	2.93
4	Installation of New Oil lubrication system for SKS separator	10000	0.082	0.065	9.51
5	Replacement of Flyash bin extraction root blower from 15 KW to 5.5 KW blower	22000	0.18	0.200	13.33
	Total	**835315**	**6.823**	**0.500**	

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List of EnCon Projects Implemented_FY23

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Sr. No.	Title of Project	Annual Electrical Saving (kWh)	Annual Electrical Cost Saving (Rs. million)	Investment Made (Rs. million)	Payback (Months)
1	Grinding Media optimization	293767	6.73	0.00	0
2	Line-2 Process Optimization	341917	2.75	0.00	0
3	Optimization of Nusense Bag Filter operation at Clinker Silo Top	1159	0.093	0.00	0
4	Removal of Wagon Tippler Bag Filter Fan inlet Damper	2800	0.23	0.005	0.15
5	Replacement of Reciprocating compressor with Screw Compressor at Wagon Tippler area	3218	0.26	0.01	1.82
	Total	**642861**	**10.063**	**0.015**	

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List of EnCon Projects Implemented_FY24

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Sr. No.	Title of Project	Annual Electrical	Annual Electrical Cost Saving	Investment Made (₹ Million)	Payback (Months)
1	Wagon Tippler			3	1.00
2	Line-2 Ball Mill			6	1.00
3	Line-1 Ball Mill			2	6.00
4	Bypass of Line-2			6	0.00
5	Derating of Cem			1	27.00
6	Installation of d 1 & 2 incomer f			6	4.00
7	121 no's HPSV L wattage LED lar			0	9.00
8	Replacement of Drag Chain Conveyor with Airslide at Cement Silo #1	693	0.01	0.07	4.00
	Total	**448858**	**6.32**	**1.61**	

Summary

Total No of Major EnCon Project	**Nos**	**8**
Energy Saving Potential	**Lakh kWh/Annum**	**8.20**
	TOE/Annum	**70.50**
Energy Saved	**Lakh kWh**	**4.50**
	TOE	**38.70**
Total Cost Saving	**Lakh ₹**	**63.20**

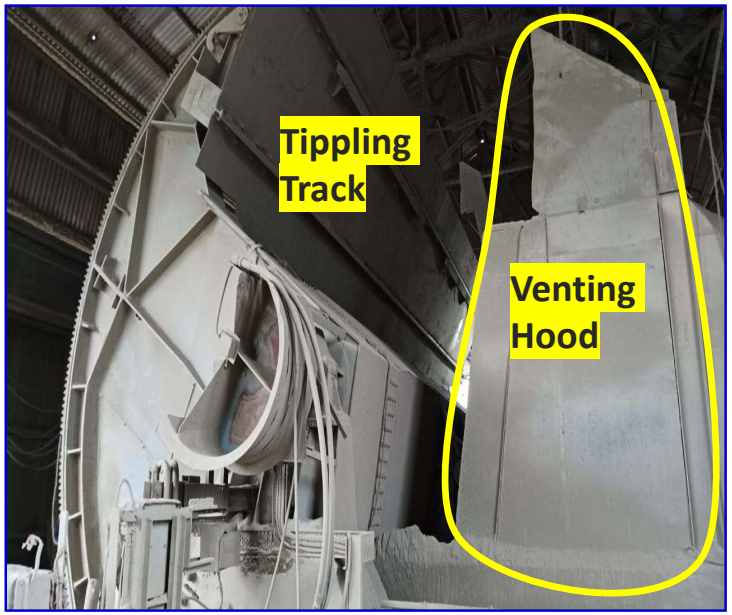
List of EnCon Projects Implemented_FY24

- **Wagon Tippler Bag Filter Optimization**

  Following activities have been carried out :

  a) Removal of Fan Inlet Damper
  b) Fan Operation converted to Variable Speed mode with installation of inhouse available VFD.
  c) The Fan Speed is being regulated with Tippler online position/Tippling angle
  d) Bag Filter operation in DP mode along with its RAL & Screw Conveyor

Benefit: The total Specific Energy Saving incurred as 0.06 kWh/T Clinker.



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List of EnCon Projects Implemented_FY24

Before Scenario :

- The Venting Bag Filter Fan for the Clinker Wagon Tippler was being operated at max speed of 1475 rpm during tippling of the rake for the duration of 7 hours.
- The Fan was running with Star-Delta mode and Damper control.
- The Power Consumption was 58 KW for handling of 4000 MT Clinker.

After Scenario :

- The Venting Bag Filter Fan operation is modified with the different position of the Tippler.
- The operating speed ranges from 750 rpm to 1300 rpm. The Power Consumption was 46 KW.

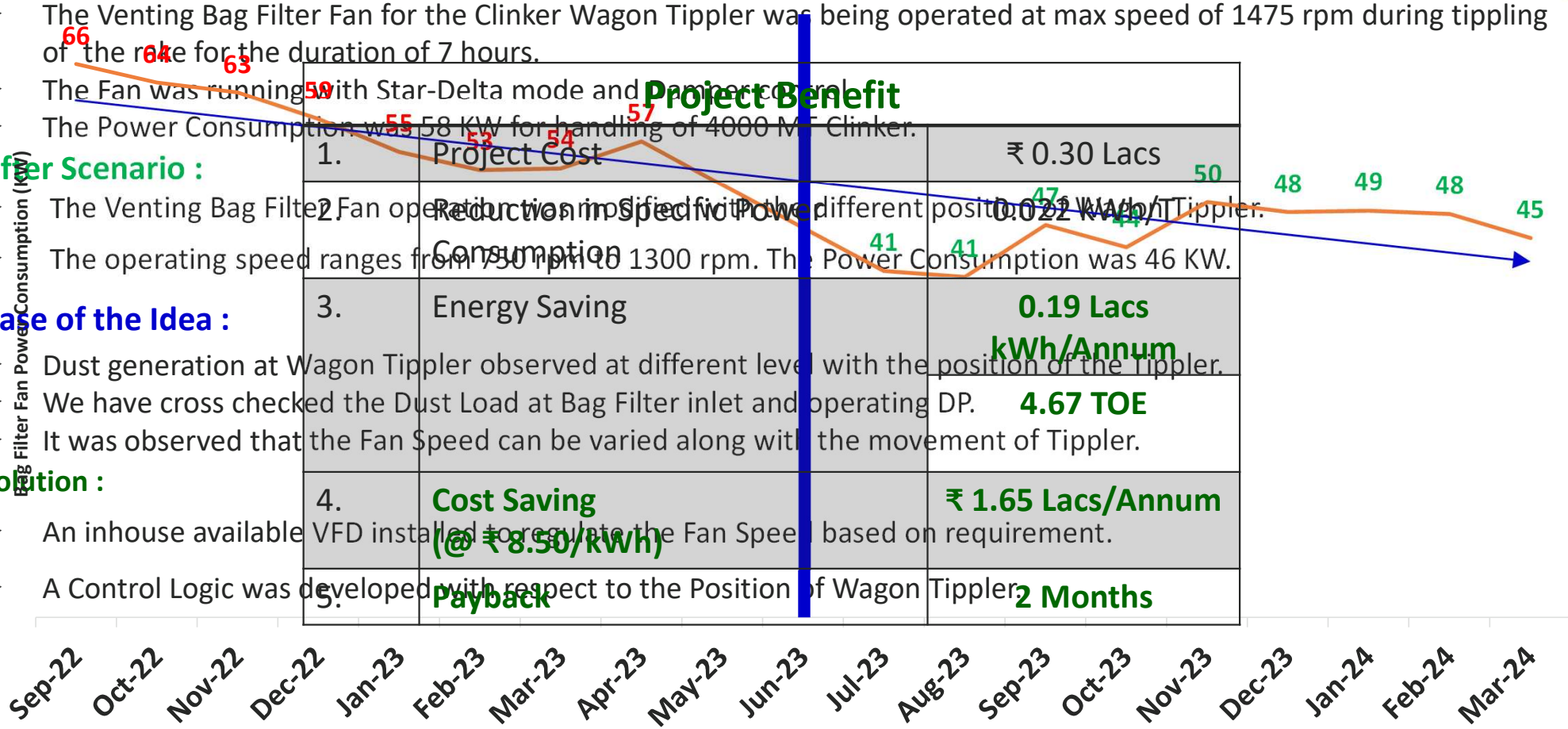
Base of the Idea :

- Dust generation at Wagon Tippler observed at different level with the position of the Tippler.
- We have cross checked the Dust Load at Bag Filter inlet and operating DP.
- It was observed that the Fan Speed can be varied along with the movement of Tippler.

Solution :

- An inhouse available VFD installed to regulate the Fan Speed based on requirement.
- A Control Logic was developed with respect to the Position of Wagon Tippler.

Project Benefit	
1. Project Cost	₹ 0.30 Lacs
2. Reduction in Specific Power Consumption	0.022 kWh/T
3. Energy Saving	0.19 Lacs kWh/Annum
	4.67 TOE
4. Cost Saving (@ ₹ 8.50/kWh)	₹ 1.65 Lacs/Annum
5. Payback	2 Months



List of EnCon Projects Implemented_FY24

➢ **Line-2 Ball**

S.No.	Parameters	UoM	Before	After
1.	Gas Velocity in Mill outlet Duct	m/s	30 m/s	7 m/s
2.	Blaine	m^2/Kg	290	310
3.	Residue	%	18%	12%
4.	Productivity	TPH	187	190
5.	Section Power Consumption	KW	3693	3693
6.	Specific Power Consumption	kWh/T	19.75	19.43

Project Benefit

1.	Project Cost	₹2.64 Lacs
2.	Reduction in Specific Power Consumption	0.32 kWh/T
3.	Energy Saving	3.26 Lacs kWh/Annum 28.02 TOE
4.	Cost Saving (@ ₹ 8.50/kWh)	₹ 27.70 Lacs/Annum
5.	Payback	1 Month

Reduction in Specific Power Consumption 0.32 kWh/T

Before : The Gas V… such a way that the Gas 30m/sec thereby th… heavier particle is now the Mill outlet Bag… being collected at the outlet being fed to the SKS… Duct Airslide.

Benefit:

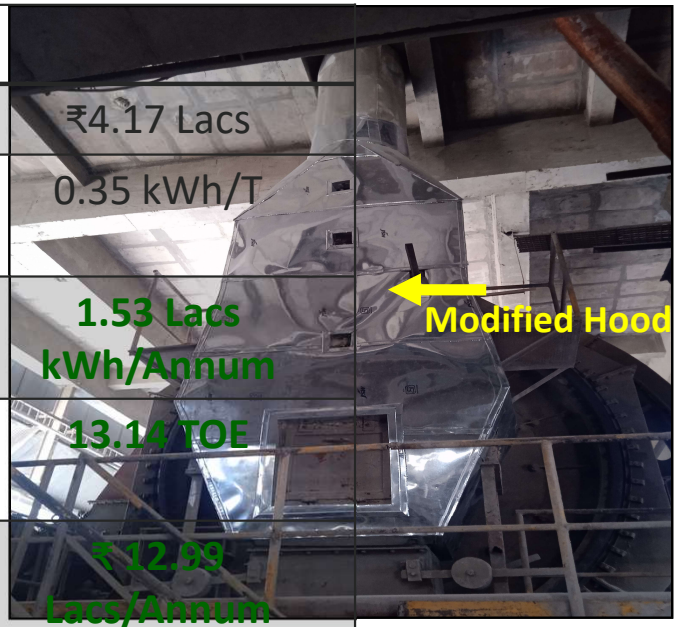
➢ Mill Productivi…

➢ Ball Mill outlet…

List of EnCon Projects Implemented_FY24

➢ Line-1 Ball Mill outlet Hood modification

Project Benefit		
1.	Project Cost	₹4.17 Lacs
2.	Reduction in Specific Power Consumption	0.35 kWh/T
3.	Energy Saving	1.53 Lacs kWh/Annum 13.14 TOE
4.	Cost Saving (@ ₹ 8.50/kWh)	₹ 12.99 Lacs/Annum
5.	Payback	4 Months



Before : The Gas Velocity at the Mill outlet was maintaining at 15m/sec thereby the gas was carrying the heavier particle also to the Mill outlet Bag Filter. And the Bag Filter collected dust was being fed to the Close Circuit separator for classification.

After : The modified Hood installed at the Mill outlet area in such a way that the Gas velocity has dropped from 15m/Sec to 4m/Sec. As a result, the heavier particle is now being trapped and falling in the outlet Airslide itself.

The Fine particle equivalent to the Product quality is now being collected at the outlet Bag Filter. After this, the dust has been diverted to the Final Product Airslide.

Benefit:

- Mill Productivity has enhanced by 1.5-2.0 tph and SPC has reduced by 0.35 kWh/T.
- Ball Mill outlet Elevator Load fluctuation minimized.

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List of EnCon Projects Implemented_FY24

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➢ Bypass of Line-2 Roller Press Reject System

		Project Benefit
1.	Project Cost	₹ 0.63 Lacs
4.	Reduction in Specific Power Consumption	0.23 kWh/T
5.	Energy Saving	2.34 Lacs kWh/Annum
		20.14 TOE
6.	Cost Saving (@ ₹ 8.50/kWh)	₹ 19.91 Lacs/Annum
7.	Payback	2 Months

Before : The Reject Material from Roller Press Feed Conveyor (Due to Metal Detection) was being fed to the Vibrating Screen for Fines screening purpose which was getting jammed during Frequent Metal detection. Due to this the Fresh feed needs to cut to clear the Jam. During this activity the Mills were running Idle and thereby losing Productivity and wasting Power.

After : A 300 mm Dia bypass line designed and erected before the vibrating screen and connected at 75% level of Reject Bin and additionally the Bin discharge Vibrofeeder opening also enlarged to increase the Bin discharge capacity. The Excess Material diverted during Frequent Metal Detection is being fed directly to the Reject Bin and the Mills remain continue with normal Feed.

Benefit:

- The Frequent Feed cut due to Reject Screen Jam was minimized, thereby Power Consumption reduced by 0.23 kWh/T.

GHG Inventorization

Reduction in GHG emission :

- Optimization of Fly ash utilization in PPC upto 35%
- Optimization of Chemical gypsum utilization upto 4.0%
- >50% of Plant area covered by green belt
- Reverse logistic to reduce GHG emission during transportation
- Maximizing the Railway logistics to reduce GHG emission of road transportation

Specific CO_2 emissions / T of Cement equivalent				
Sl.No	**Year**	**Scope 1**	**Scope 2**	**Total (Scope 1 + 2)**
1	**2021-22**	**0.11**	**16.61**	**16.72**
2	**2022-23**	**0.13**	**8.04**	**8.17**
3	**2023-24**	**0.11**	**8.98**	**9.09**

Green Purchase Policy & Procedure

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ORIENT CEMENT LIMITED

INTEGRATED MANAGEMENT SYSTEM POLICY

ISO 9001:2015, ISO 14001:2015,
(ISO 45001:2018 & ISO 50001:2018)

Orient Cement Limited aims to be a leading company by providing consistent quality products and customer satisfaction through capabilities building, use of best practices, reliable relationships with all stakeholders and innovative cement products with a commitment to maintain environment friendly, safe, healthy and sustainability working condition in all its operations.

We are committed to:

- Operating the plant energy efficiently and increase the usage of alternative fuels & minimizing the energy losses
- Complying applicable legal & other requirements
- Protection of environment includes prevention of pollution by optimizing the consumption, responsible sourcing, reuse and recycle
- Eliminating hazards, reducing risks and exploring opportunities by continual improvement of all processes to enhance the IMS performance, professional development and knowledge sharing
- Developing safety culture, safeguarding employees, workers, and their representatives from injury & ill health through their consultation and participation in safety assessment and adherence to PPE
- Available information is utilized for enhancing objectives & targets with optimal resources.

SATYABRATA SHARMA
PRESIDENT MANUFACTURING

Date: 01.04.2023

ORIENT CEMENT	DOC. TITLE: PURCHASING	DOC TYPE: INTEGRATED MANAGEMENT SYSTEM PROCEDURE - LEVEL 2	
	DOC. NO: 06-06	Issue No: 00	Issue Date: 01.07.2017

1.0 PURPOSE:

1.1 The purpose of this procedure is to establish correct procurement of material as per the requirement of in-house customer.

2.0 SCOPE:

2.1 This procedure is applicable to all Purchase requisitions/ procurement plan of raw material at CGU, Jalgaon Plant.

3.0 RESPONSIBILITY:

3.1 HOD (Procurement) is overall responsible for the operation of this procedure.

3.2 HOD (Procurement) & HOD (Stores & Purchase) are responsible for the approval of Purchase Orders depending upon the values as per the Circulars DOA issued by the management from time to time.

3.3 HOD (Stores & Purchase) is responsible for review of purchase orders related to Oils, Lubricants and Industrial Gases.

3.4 HOD (Procurement) in consultation with Central Procurement Cell (CPC) is responsible for review of purchase orders related to all raw materials procured by the company.

3.5 HOD (Stores & Purchase) is responsible for co-ordinating all purchases affected by Purchase Department. HOD (Stores & Purchase) is also responsible for maintaining Approved Vendors' list.

S.No	ACTIVITY	Responsibility	Reference
5.2.2.5	The quotations from respective approved vendors are received by HOD (Stores & Purchase) and comparative statement is prepared by HOD (Stores & Purchase).	-do-	F-04(06-06)
5.2.2.6	HOD (Stores & Purchase) gets clarification, if any, on technical points from the concerned indenting department, if required.	-do-	F-04(06-06)
5.2.2.7 a	If required, negotiations are done by HOD (Stores & Purchase) with the vendor on price, delivery schedule, packing requirements and other terms and conditions and record the same on the comparative statement.	-do-	F-04(06-06)
5.2.2.7 b	When procuring energy services, products and equipment that have, or can have an impact on significant energy use, the organisation shall inform suppliers that procurement is partly evaluated on the basis of energy performance.	-do-	F-04(06-06)
5.2.2.8	HOD (Stores & Purchase) decides for the vendor on whom the purchase order is to be placed as per Delegation of Authority (DOA).	-do-	
5.2.2.9	HOD (Stores & Purchase) prepares the computerised purchase orders which includes • Name of approved vendor • Stores Purchase Requisition No.& material code • Material description including specification/ drawing / Grade as applicable. • Quantity • Rate • Delivery schedule • Other terms & conditions	-do-	F-05(06-06)
5.2.2.10	Where applicable HOD (Stores & Purchase) stipulates inspection of manufactured goods at vendor's site / works, by company's representative in the purchase order.	HOD (Stores & Purchase)	F-05(06-06)
5.2.2.11	The purchase order contains the requirements for furnishing the test certificates indicating the conformity to the	-do-	F-05(06-06)

Green Supply Chain

RESOURCE OPTIMIZATION

- Optimization of Fly ash Utilization upto 35% resulted in clinker consumption reduction.
- Contract with Power plants to ensure regular dry fly ash supply for high blending ratio.
- Mineral conservation with optimum usage of fly ash
- Utilization of Chemical Gypsum 4.00% which is a waste of other industry

REVERSE LOGISTICS

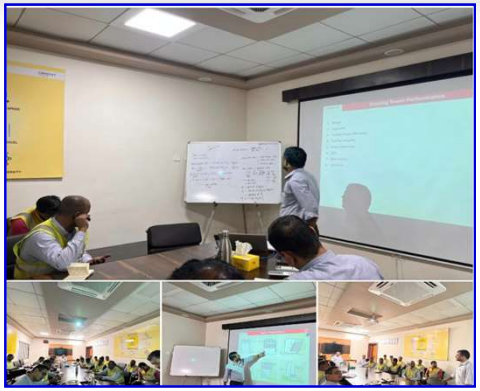
- Transportation of Cement in truck carrying gypsum to our plant

MACHINERY & SPARE PROCUREMENT

- Vendor meets
- Encouraging local vendors to reduce carbon footprint & inventory
- Vendor Stocking to have just in time concept ie. Lubricants , PP Bags, etc
- ARC contract for fast moving spares
- LED lights installation

Teamwork, Employee Involvement & Monitoring

Energy Budget		
Sr. No	**Year**	**Budget (Rs. Million)**
1	FY22	9.10
2	FY23	9.50
3	FY24	9.00
4	FY25	10.00



ORIENT CEMENT : JALGAON
CLINKER GRINDING UNIT
DAILY POWER REPORT
DATE: 20.08.2024

EQPM./SECTION	ON DATE UNITS	PRODn	R.HRS IN HRS.	PRODn.RATE	LOAD		SP.ENERGY IN KWH/T		MONTH TO DATE UNITS	PRODn	R.HRS IN HRS.	PRODn. RATE	LOAD	SP.ENGY	
NAME	KWH	TONS	Hrs	TPH	KW	%	ACT.	ACT+CS+LOSS	KWH	TONS	Hrs	TPH	KW	ACT	ACT+CS+LOSS
WAGON TIPPLER + LIGHTING	1621	4091.1	0				0.40	0.41	15828	28212	0			0.56	0.58
FLY ASH	1599	633.5	0				2.52	2.61	28565	11332	0			2.52	2.62
LINE -I															
CEMENT MILL	0				0	0%	0.00	0.00	47000				1282	10.06	10.47
POLY-FIX	0				0	0%	0.00	0.00	16086				439	3.44	3.58
POLY-MOV	0				0	0%	0.00	0.00	15384				420	3.29	3.43
SEPOL FAN	0				0	0%	0.00	0.00	8298				226	1.78	1.85
POLYCOM SEPARATOR-160KW	0				0	0%	0.00	0.00	362				10	0.08	0.08
CC SEPARATOR - 250KW	0				0	0%	0.00	0.00	1635				45	0.35	0.36
CC SEPOL FAN 70282 315 KW	0				0	0%	0.00	0.00	9899				270	2.12	2.21
OTHER AUX + LIGHTING	0				0		0.00	0.00	15792				431	3.38	3.52
TOTAL GRINDING - LINE-I	124	0	0.00	0	0		0.00	0.00	117510	4673	36.67	127.44	3205	25.15	26.18
LINE -II															
CEMENT MILL	7869				984	82%	5.17	5.35	213576				986	6.04	6.29
RP-FIX	5673				709	71%	3.73	3.86	162844				752	4.60	4.79
RP-MOV	4799				600	60%	3.15	3.26	147865				683	4.18	4.35
SKS FAN	3364				421	76%	2.21	2.29	94836				438	2.68	2.79
SKS SEPARATOR - 250KW	470				59	29%	0.31	0.32	12199				56	0.34	0.36
RP BE 2X132KW	1561				195	74%	1.03	1.06	38832				179	1.10	1.14
OTHER AUX + LIGHTING	6511				814		4.28	4.42	151969				702	4.30	4.47
TOTAL GRINDING-LINE-II	30247	1522	8.00	190	3781		19.87	20.55	827770	35365	216.50	163.35	3823	23.41	24.37
PACKER NO-1 & 2	1162								29752						
PACKER NO-3 & 4	1147								26232						
COMP.FOR P/PLANT	691								11228						
TOTAL PACKING PLANT	2999	2004.96					1.50	1.55	67212	42087				1.60	1.66
POWER CONSUMPTION	36590								1056885						
COMMON SERVICE	1103								19615						
LOSSES	152								23791						
TOTAL POWER	37845								1100290						
COMMON SERVICE FACTOR	0.0301								0.0186						
LOSS FACTOR	0.0041								0.0225						
MAINTAINANCE-1	124								3055						
MAINTAINANCE-2	0								5649						

Automatic EnMS software for daily power report generation

Energy Management Cell Details :

- **Brief :** Cross Functional Team of 15 members
- **EnCon Competition Frequency :** Quarterly Once

Energy Review Details :

- **Plant level :** Meeting is being conducted on Daily Basis and Chaired by Plant Head. Additionally, Monthly Once Energy Review Meeting is also being conducted among the Energy Management Cell Team
- **MD Level :** Overall performance review meeting is on Weekly, Monthly & Quarterly Basis and Chaired by Managing Director.

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ISO Certifications

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DNV

MANAGEMENT SYSTEM CERTIFICATE

Certificate no.: 160112-2014-AE-IND-RvA | Initial certification date: 10 April 1999 | Valid: 24 August 2023 – 23 August 2026

This is to certify that the management system of
Orient Cement Limited
P.O. Devapur Cement Works, Mancherial - 504218, Telangana, India
and the sites as mentioned in the appendix accompanying this certificate

has been found to conform to the Environmental Management System standard:
ISO 14001:2015

This certificate is valid for the following scope:
Manufacture and supply of cement

Place and date: **Barendrecht, 09 August 2023**

For the issuing office: **DNV - Business Assurance Zwolseweg 1, 2994 LB Barendrecht, Netherlands**

Eric Koek
Management Representative

Lack of fulfilment of conditions as set out in the Certification Agreement may render this Certificate invalid.
ACCREDITED UNIT: DNV Business Assurance B.V., Zwolseweg 1, 2994 LB, Barendrecht, Netherlands - TEL: +31(0)102922689. www.dnv.com/assurance

DNV

MANAGEMENT SYSTEM CERTIFICATE

Certificate no.: 10000322562-MSC-RvA-IND | Initial certification date: 24 August 2005 (based on OHSAS 18001) | Valid: 24 August 2023 – 23 August 2026

This is to certify that the management system of
Orient Cement Limited
P.O. Devapur Cement Works, Mancherial - 504218, Telangana, India
and the sites as mentioned in the appendix accompanying this certificate

has been found to conform to the Occupational Health and Safety Management System standard:
ISO 45001:2018

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Management Representative

Lack of fulfilment of conditions as set out in the Certification Agreement may render this Certificate invalid.
ACCREDITED UNIT: DNV Business Assurance B.V., Zwolseweg 1, 2994 LB, Barendrecht, Netherlands - TEL: +31(0)102922689. www.dnv.com/assurance

DNV

MANAGEMENT SYSTEM CERTIFICATE

Certificate no.: 210226-2016-AE-IND-RvA | Initial certification date: 09 February 2017 | Valid: 04 September 2023 – 23 August 2026
Expiry date of last certification cycle: 23 August 2023
Date of last re-certification:

This is to certify that the management system of
Orient Cement Limited
P.O. Devapur Cement Works, Mancherial - 504218, Telangana, India
and the sites as mentioned in the appendix accompanying this certificate

has been found to conform to the Energy Management System standard:
ISO 50001:2018

This certificate is valid for the following scope:
Manufacturing of Cement

Place and date: **Barendrecht, 04 September 2023**

For the issuing office: **DNV - Business Assurance Zwolseweg 1, 2994 LB Barendrecht, Netherlands**

Eric Koek
Management Representative

Lack of fulfilment of conditions as set out in the Certification Agreement may render this Certificate invalid.
ACCREDITED UNIT: DNV Business Assurance B.V., Zwolseweg 1, 2994 LB, Barendrecht, Netherlands - TEL: +31(0)102922689. www.dnv.com/assurance

DNV

MANAGEMENT SYSTEM CERTIFICATE

Certificate no.: 160095-2014-AQ-IND-RvA | Initial certification date: 09 April 1997 | Valid: 24 August 2023 – 23 August 2026

This is to certify that the management system of
Orient Cement Limited
P.O. Devapur Cement Works, Mancherial - 504218, Telangana, India
and the sites as mentioned in the appendix accompanying this certificate

has been found to conform to the Quality Management System standard:
ISO 9001:2015

This certificate is valid for the following scope:
Manufacture and supply of cement

Place and date: **Barendrecht, 09 August 2023**

For the issuing office: **DNV - Business Assurance Zwolseweg 1, 2994 LB Barendrecht, Netherlands**

Eric Koek
Management Representative

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Our Goal towards Net Zero

We have imbibed our Sustainable Development Goals (SDGs) as a business objective and working towards reducing our energy consumption and carbon emissions.

Net Zero Road Map for 2030
Estimated CO2 footprint reduction @ 40%
345 – Kg CO2/T of Cement

23.4%

Increase in usage of AFR

59 %

Increase in Blended Cement

14.4%

Renewable & WHR Energy

2.7 %

Reduction of Energy consumption through - ENCON Idea's

0.5%

Process Optimization

ORIENT CEMENT

Training and awareness programme

Great Place To Work. Certified MAR 2024–MAR 2025 INDIA

External training programs attended		
S.No.	**Topic**	**Man Hrs.**
1	CII - Online Certified Professional in Energy Efficiency (Cement Sector)	54
2	Power system study and relay coordination	20
Internal training programs conducted		
1	PAT awareness program	80
2	Calculation factors under PAT Scheme	80
3	Fan efficiency calculation	40
4	Bag filter Optimization	24
5	RP Maintenance	60
6	EnMS ISO - 50001	480
7	Utilities Performance Improvement	24
8	Training Programme on -L T Motor Maintenance	30
9	Optimization packing plant operation	42
10	Energy benchmark & Efficiency in Cement Industry	60

Awards

2018

2019

2022

2023

2024

ORIENT CEMENT

Learning from CII Energy Award

Great Place To Work. Certified MAR 2024–MAR 2025 INDIA

- **Active Participation in Energy Conservation Activities by getting exposure to other plant activities through such training Programs, Award Functions, Summit etc.**
- **Implementation of innovative projects/Ideas which may be applicable to us by observing the other Units presentations.**
- **Energy Conservation activities became a habit of everyone at our plant**
- **More Competitive nature builds up with such programs in Energy Conservations**

Green belt at plant premises






Providing natural habitat to Birds & Animals









Thank You. . .
Chandan Kumar Parasar
chandan.p@orientcement.com
Contact : +91-9518386733
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