THE KCP LIMITED CEMENT UNIT-II, RAMAKRISHNAPURAM

22nd National Award for "Excellence in Energy Management 2021" 24 – 27th August 2021

Leader

V.MADHUSUDANA RAO
PLANT HEAD

Team Member

P KISHORE- Sr.DGM-MECHANICAL
P RAMANA REDDY-AGM-EHS
R VARAPRASADA RAO-AGM-E&I
AVRG BHAVANARAYANA-AGM-QC
T SAMBA SIVA RAO-SR.MGR-PROCESS

GROUP COMPANIES OF KCP

THE K C P LIMITED, CEMENT
UNIT-I MACHERLA – 0.8 MTPA

THE K C P LIMITED, CEMENT
UNIT-II MUKTYALA – 3.52 MTPA

SUGAR PLANT,
VIETNAM – 6000 TPD

HEAVY ENGINEERING,
THIRUVOTTIYUR

BUILDING MATERILS, MUKTYALA

HOTEL MERCURE KCP,
HYDERABAD

GROUP COMPANIES OF KCP

THERMAL POWER PLANT,
MUKTYALA – 1X18 MW

WIND POWER,
THIRUNELVELI – 3.25 MW

SOLAR POWER PLANT,
MUKTYALA – 1.15 MW

TOTAL – 13.6 MW UNDER EXECUTION

HYDEL POWER PLANT,
NEKARIKALLU – 8.25 MW

WHR – 9.0 MW

SOLAR – 4 X 1.15 MW

UNIT MILESTONES

KCP's Ultimate goal is to achieve the status of "Greenest Cement Plant" among all Cement Units in India and Be the role model

2011

Line-1 Plant Commissioned Capacity Clinker-1.32 MTPA, Cement-1.52 MTPA

2012

Enhancement of Kiln production from 4000 to 4500 TPD

2013

Installed 1 x 1.15 MW Solar Power Plant

2014

1. **All motors are Energy Efficient**
2. **All motors replaced with VFD's**
3. **Installed 1x18 MW CPP**

2015

Installed Pyro Box for PC firing

2016

Recorded Lowest Clinker Power Consumption 43.32 kwh/T.Clinker

2017

1. **Capacity Enhanced Clinker-1.32 to 1.55 , Cement-1.52 to 1.86.**
2. **Kiln Shell painting with Lithophone & Sodium Silicate**
3. **Preheater Cyclones painting with HR Aluminum.**

2018

Line-2 Kiln Erection started

2019

Line-2 Kiln commissioned Total Capacity Clinker-3.06 MTPA, Cement-3.52 MTPA

2020

Highest Clinker & Cement Production

2021

Recorded Lowest Clinker Power Consumption 42.62 kwh/T. Clinker.

KCP'S STATE OF ART TECHNOLOGY

Low Electrical

Consistent Quality

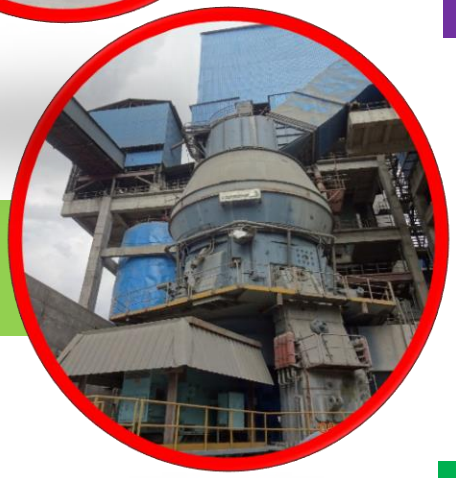
PH 8864-6 stage

CCR

LOESCHE LM-46.4

PSC3-103.12 T

LOESCHE LM-53.3+3 C/S

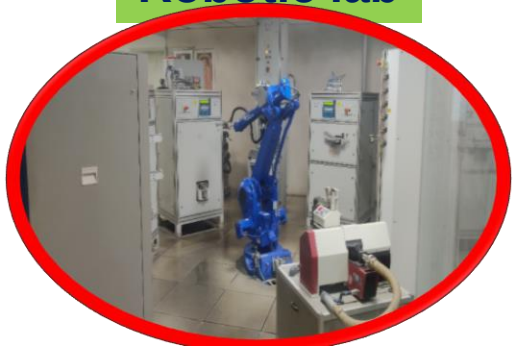


Low Thermal

Low Emissions

Pyro Jet HPJ 286 KO

Robotic lab



Pulse Jet Bag Filter

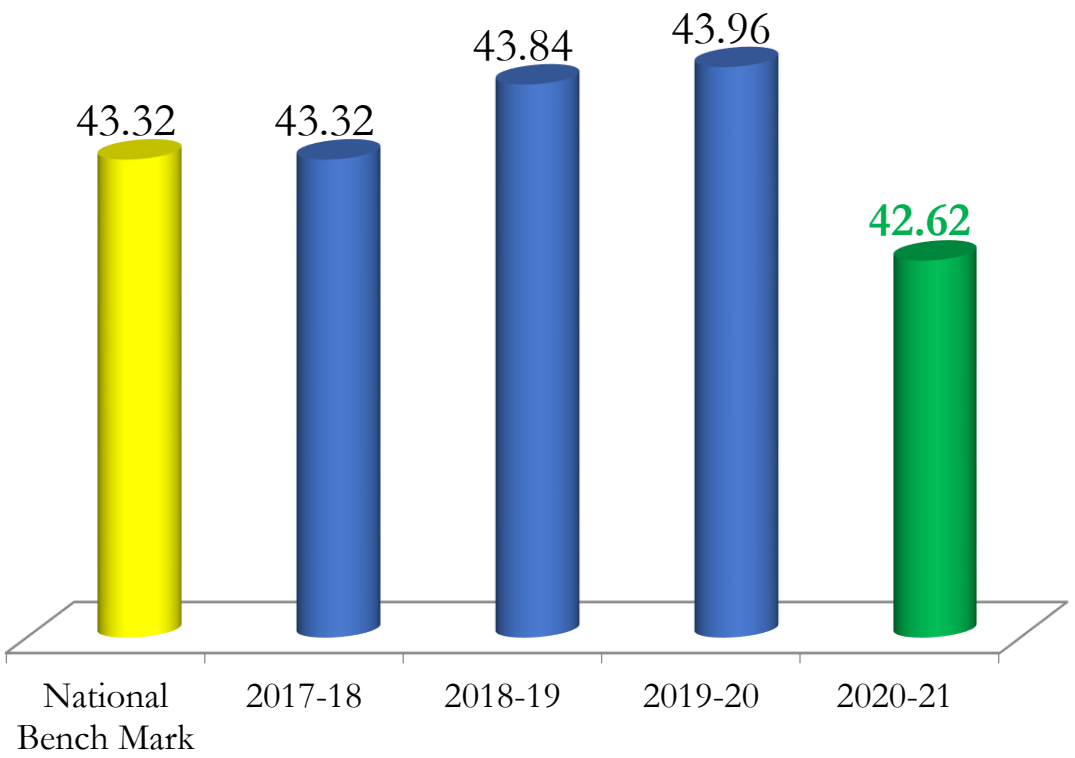
Impact of COVID-19

Covid-19 has impacted the entire universe and we too have no exemption from that. We were forced to face some confrontations in the following areas due to Novel Virus Covid-19 .

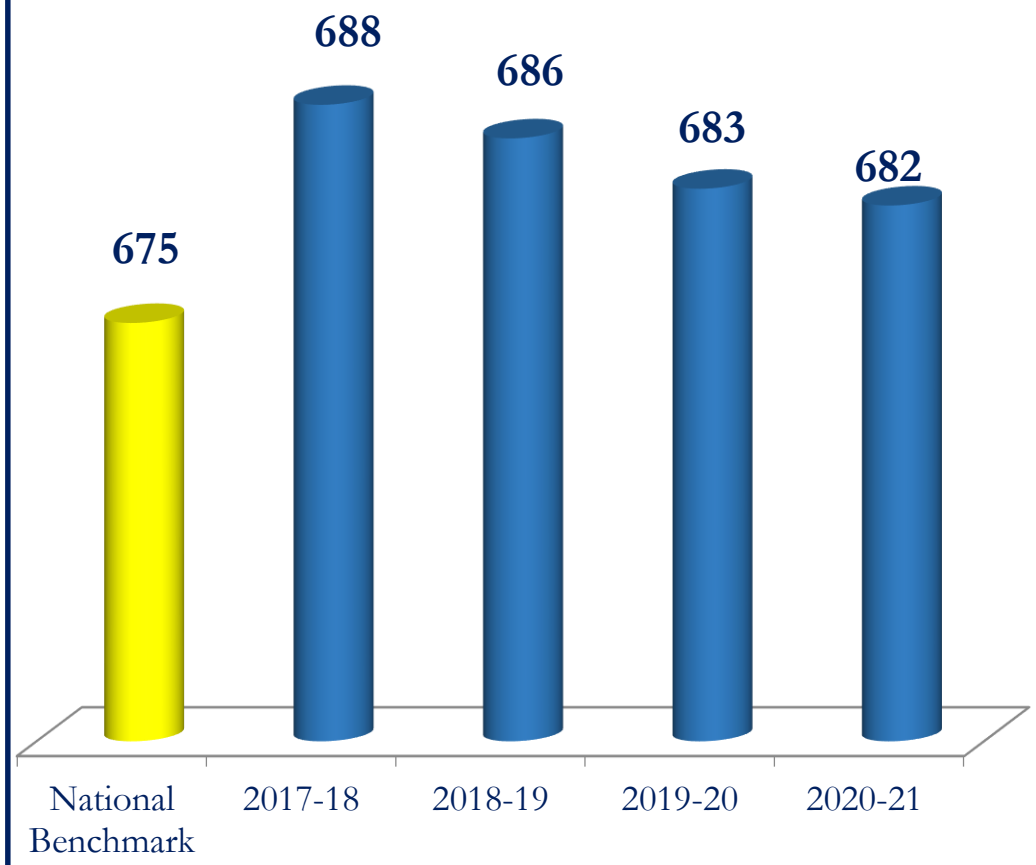
- ✓ **Fly ash absorption has come down by 3 % due to non-availability of fly ash – as NTPC was under lockdown during first quarter of the year**
- ✓ **Quality of fly ash is not up to the mark and hence consumed more energy to maintain the standard specifications.**
- ✓ **Due to shortage of migrated manpower, preventive maintenance has differed frequently from the schedule and leads to loss of production and hence more power consumption.**
- ✓ **Disruptions in supply chain management leads to non-availability of required material and leads to loss of production and hence more power consumption.**
- ✓ **Forced to use OPC in place of PPC and hence more energy consumption.**
- ✓ **Our Production schedules have been hampered and disrupted due to Covid-19**

Electrical & Thermal Energy Performance

Specific Power Consumption, kwh/ T. Clinker

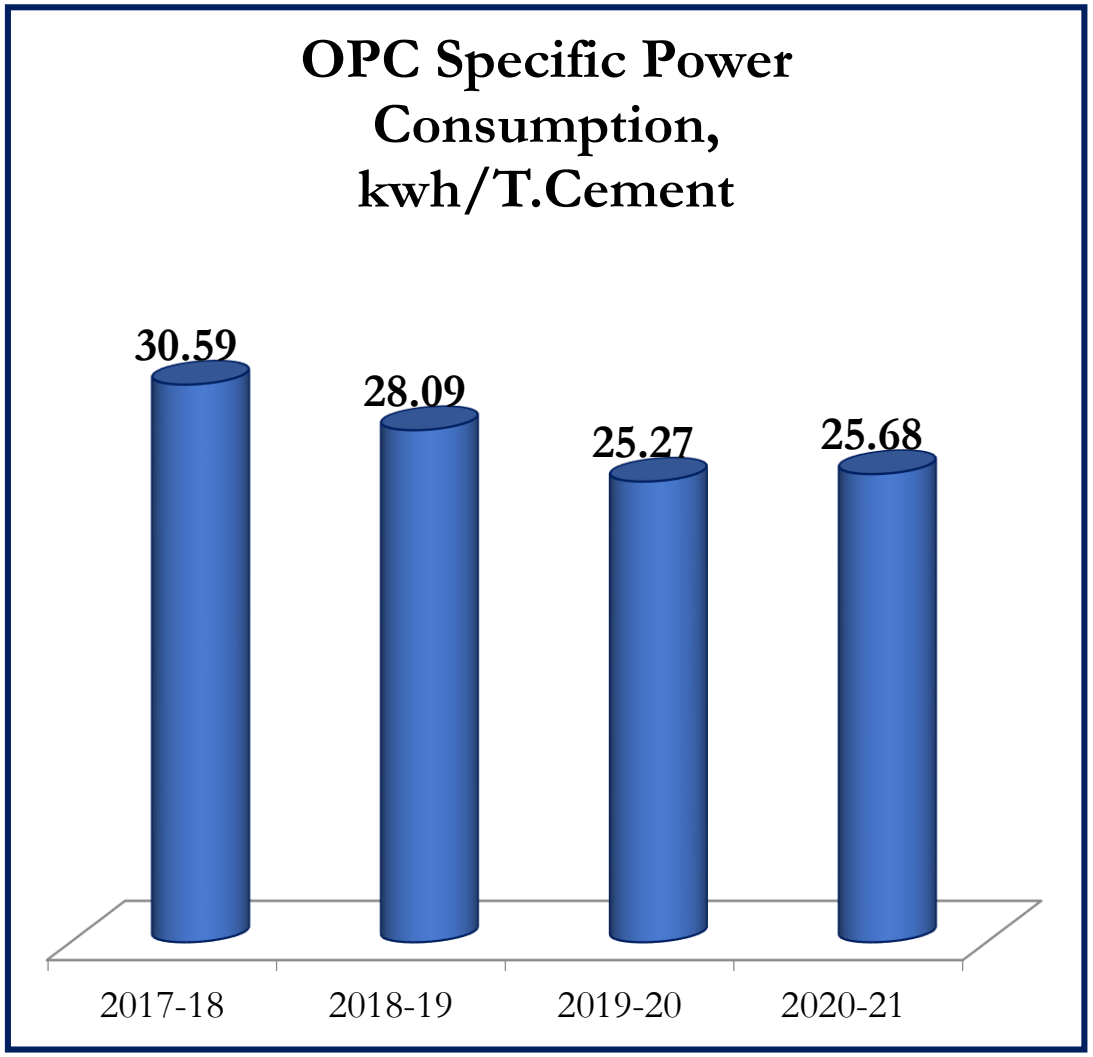


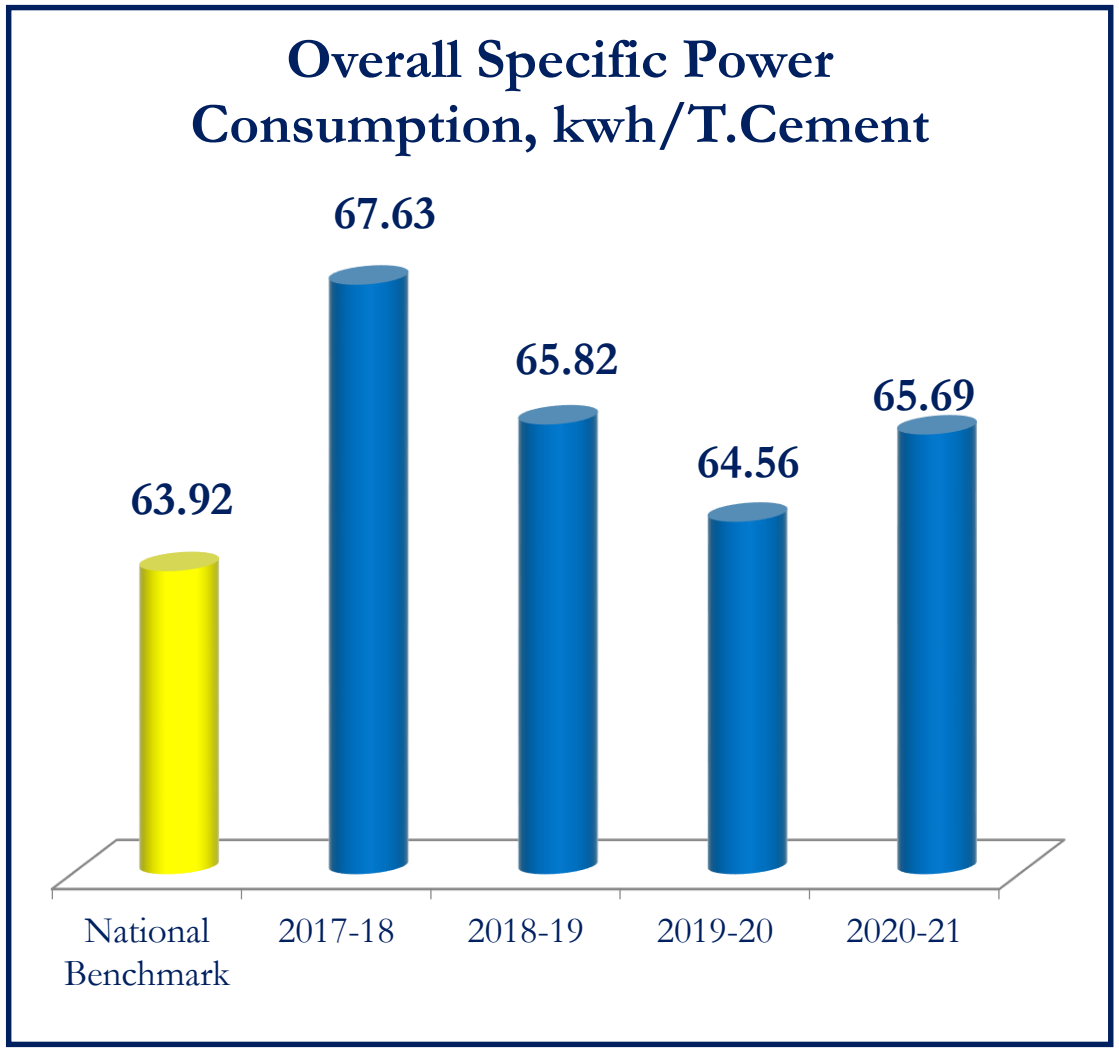
Specific Heat Consumption, kcal/Kg.Clinker



SEC & SHC Values are combined for both Lines

Energy Performance in Last 4 years



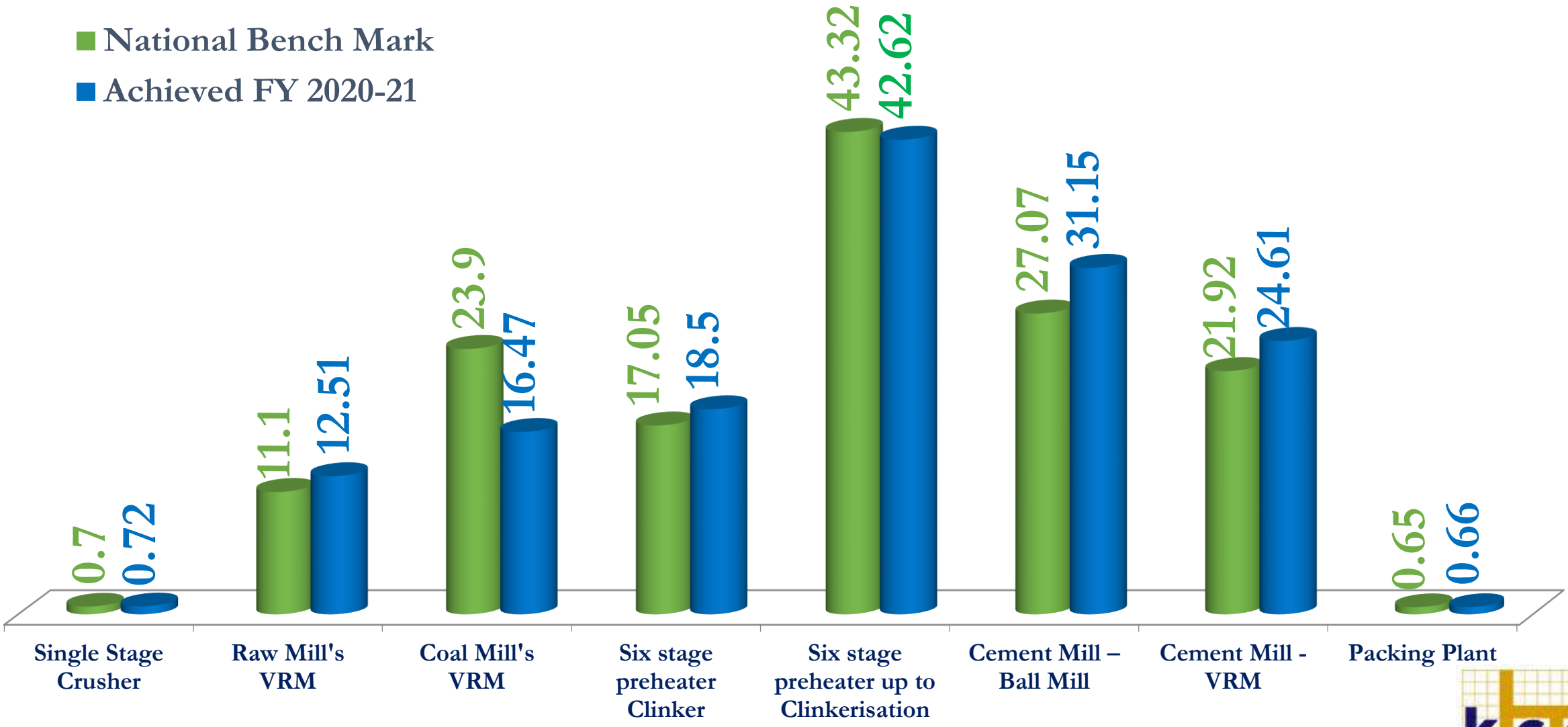


(OPC:PPC:RHPC)
(62:34:2)

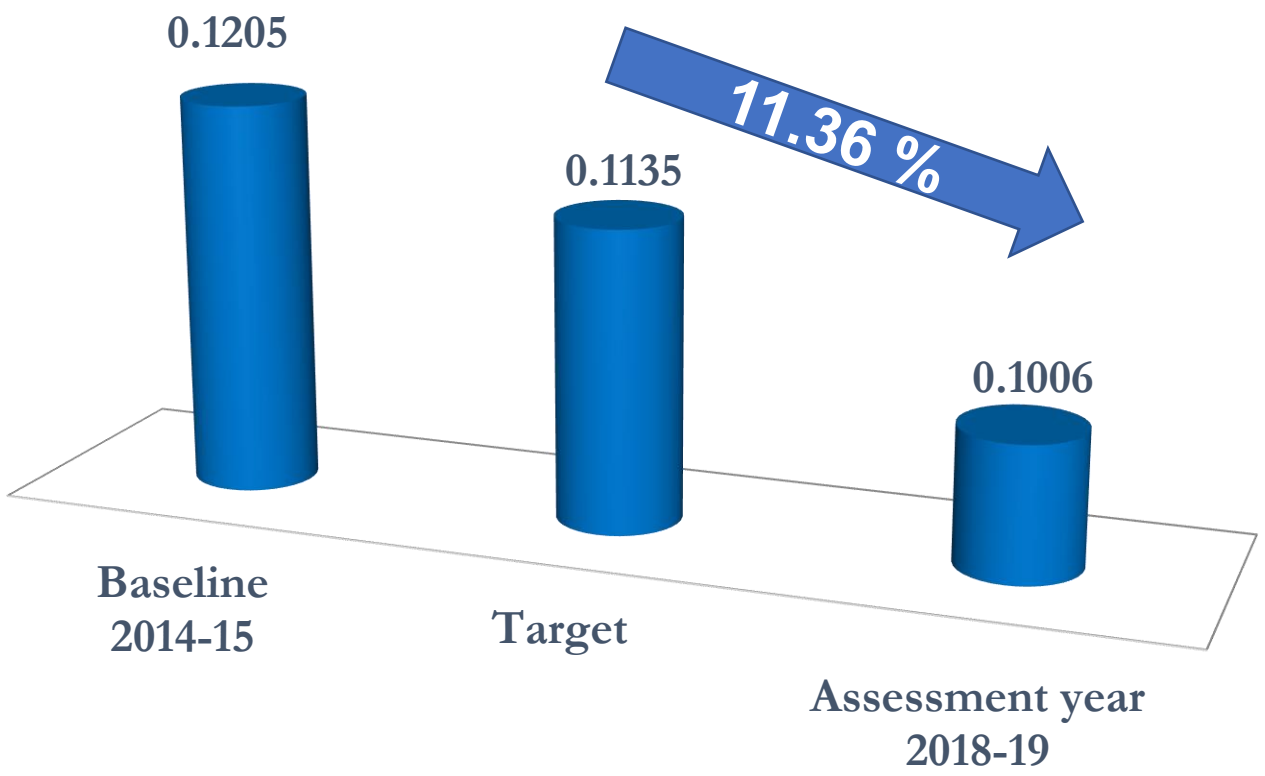
SEC increased due to the impact of Novel Virus Covid-19 & Increased RHPC Production

SEC Values are combined for both Lines

SECTION WISE ELECTRICAL ENERGY
NATIONAL BENCHMARK VS ACHIEVED



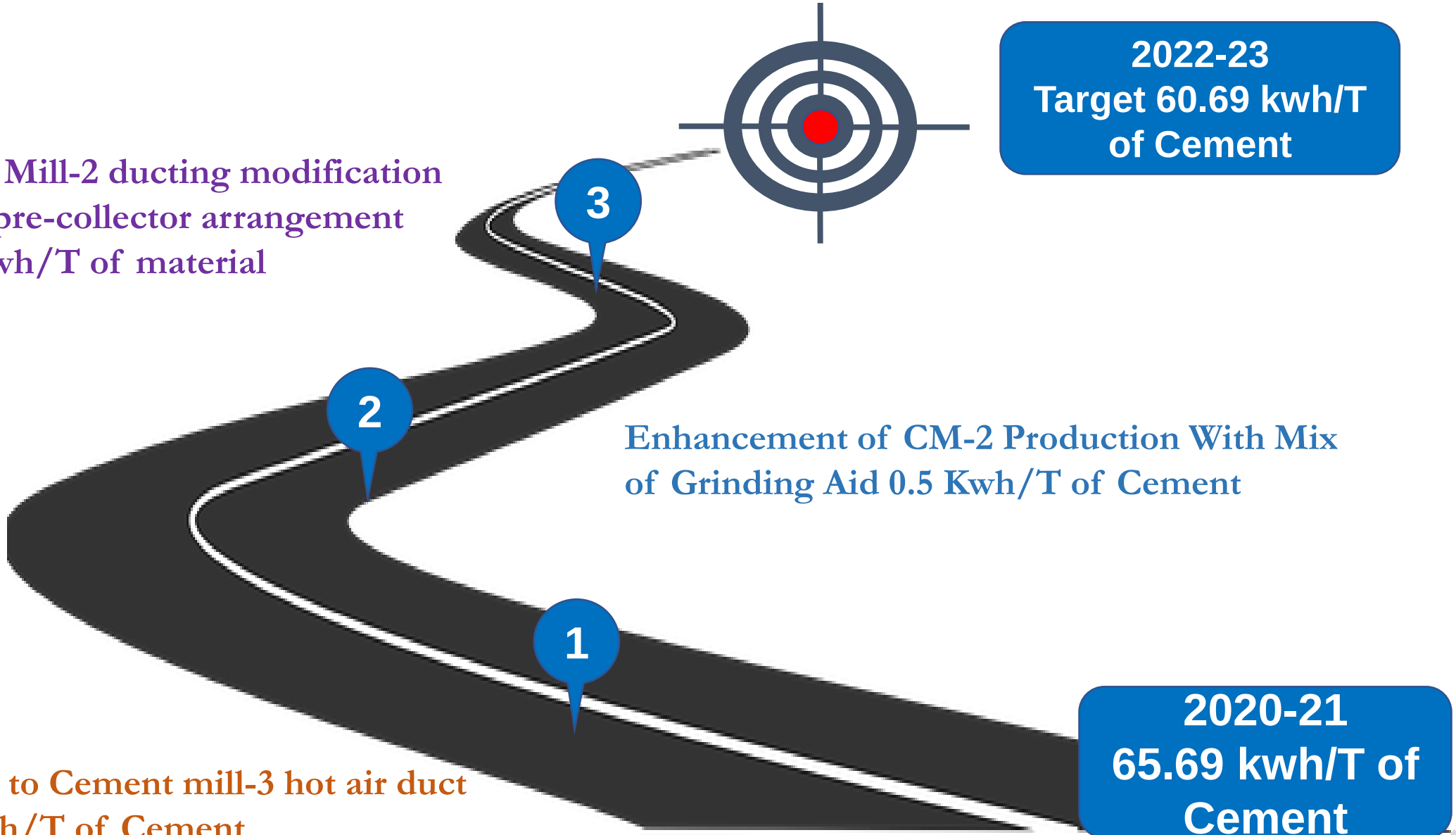
Pat cycle-2 status



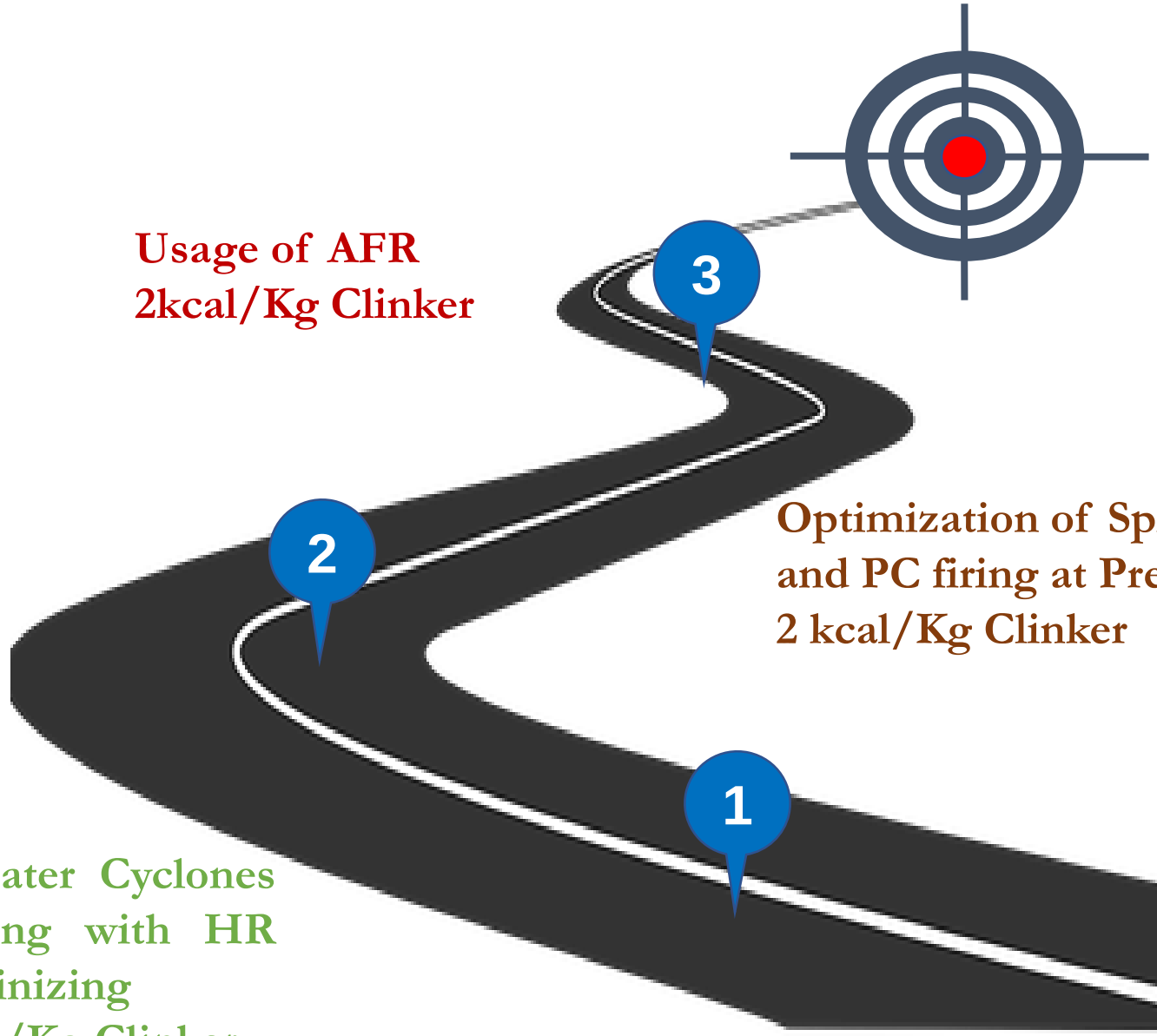
ESCerts gained after PAT Monitoring & Verification for Cycle-2 Assessment Year 2018-19: +10095 No's

Assessment carried out by BEE for PAT Cycle-II in 2019, Next cycle audit schedule is awaiting…

Road map for achieving Target Electrical energy



Road map for achieving Target Thermal energy



Target to achieve National Benchmark 675 kcal/Kg Clinker

3 — Usage of AFR
2kcal/Kg Clinker

2 — Optimization of Split Kiln Feed and PC firing at Preheater
2 kcal/Kg Clinker

1 — Preheater Cyclones painting with HR Aluminizing
3 kcal/Kg Clinker

682 kcal/Kg Clinker

Long Term Vision on Energy Efficiency

S.No	Project	Estimated Investment, Rs. Crores	Target	Payback, Months
1	Line-2 Preheater HR Aluminizing	0.9	2021	24
2	Arrangement of AFR Feeding System (Carbon Black, Plastic Waste, Wooden Chips, Bio Mass)	4.0	2022	24
3	Installation of 9.0 MW Waste Heat Recovery for Line-2 Kiln	50.0	2022	48
4	Installation of 4x1.15 MW Solar Power Plant	20.0	2022	85

Energy Conservation Projects

Detail	Unit	2018-19	2019-20	2020-21	Over All (FY 18, 19, 20)
Total no.of Encon Projects	Nos.	15	14	13	42
Encon Projects with Nil Investments	Nos.	7	7	8	22
Total Investment made	Rs.Lakhs	127.98	176.86	16.4	321.24
Total Savings made	Rs.Lakhs	191.62	103.64	232.3	527.56
Electrical Energy Saved	Lakh Units	25.84	8.73	39.89	74.46
	Rs.Lakhs	140.62	81.44	215.45	437.51
Thermal Energy Saved	Tons of Coal	470	343	284.02	1093
	Rs.Lakhs	51	22.2	16.64	90
Impact on SEC	**KWH/Ton of Cement**	**65.82**	**64.56**	**65.69**	**Slight increase is due to Impact of COVID-19 pandemic**
	Kcal/ Kg of Clinker	**686**	**683**	**682**	

Energy Saving Projects Implemented in 2020-2021

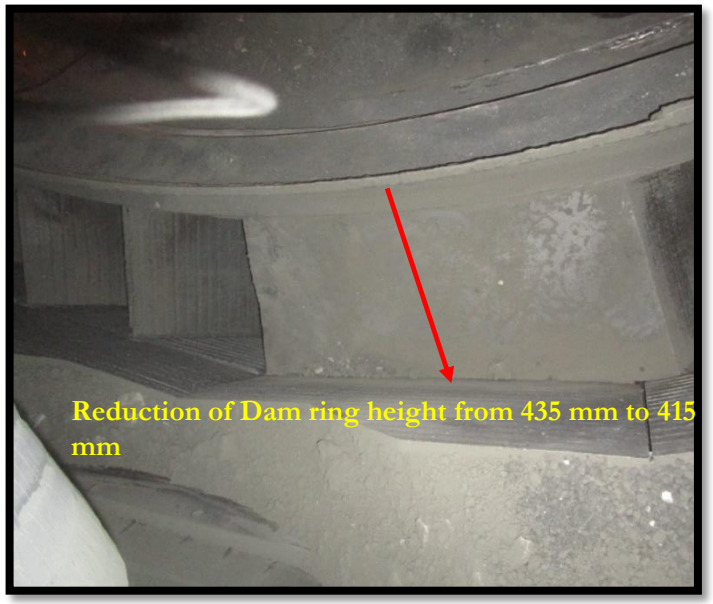
S.No	Energy Saving Project	Energy Saving, Rs. Lakhs/Annum	Investment, Rs/Lakhs	PaybackMonths
No Investment				
1	Reduction Of Dam Ring Height In Cement Mill-3	85.5	0	0
2	Extension Of Raw Mill-2 Grit Cone Feed Chute	23.3	0	0
3	Optimization Of Cement Silos Vent Bag Filter Fans Operation	2.1	0	0
4	Raw mill-2 water spray system pipe line modification	0.8	0	0
5	Reduction in False Air at Raw Mill-2 Circuit	7.8	0	0
6	Removal of damper for Cement mill-3, Rawmill-1 Fan by reducing the damper losses	5.5	0	0
7	Raw Mill-2 , Coal Mill-2 Fan Inlet Duct Modification	8.9	0	0
8	Coal Truck tippler modification	3.82	0	0

Energy Saving Projects Implemented in 2020-2021

S.No	Energy Saving Project	Energy Saving, Rs. Lakhs/Annum	Investment, Rs/Lakhs	Payback, Months
With Investment				
9	Optimizing Kiln operation by conducting Heat Balance, Mass Balance and by Operating Kiln in PXP mode	145	15.0	2
10	Replacement of 70W SV lamp with 40W LED light for plant lighting - 100 Fixtures	1.1	1.6	18
11	Replacement of 4x14W T5 with 36W LED Panel Light for Fall Celling - 30 Fixtures	0.2	0.04	28
	Total	**284.02**	**16.64**	

Optimization of Raw Mill-2, Cement Mill-3 and Coal Mill-2

Cement Mill-3



Description: Optimization of production and power in Cement Mill-3

Modification:

DAM ring height reduced by 20mm(from 435 to 415 mm)

Benefits:

Increased mill output from 190 to 194 TPH

Main Drive power reduced 200 kwh

200 kw x 24 hrs x 330 days x Rs.5.44/- = Rs.85,53,600/- per annum

Raw Mill-2

Description: Un even material dispersion on the table is observed causes Raw mill-2 vibration and leads to un wanted trippings.

Modification: Feed chute extended by 300 mm

Benefits:

Uniform dispersion of material on table resulted improvement in grinding efficiency.

Stable bed grinding.

Mill body vibration decreased.

Mill out put increased by 5 MT

Power saving by 0.15 Kwh / MT

Coal Mill-2

Description: Optimization of production & power in Coal Mill-2

Modification:

1. Extension of Mill feed chute and reduction of Dam ring height.
2. Reduction of Dam ring height from 100 to 90 mm
3. Removal of Stump cone

Benefits: Increased coal mill output from 65 to 68 TPH and power saving by 1kwh/T. Material

Cost Saving: 1 kw x 10 hrs x 330 days x Rs.5.44/- = Rs.17,900/- per annum

Removal of dampers at Cement Mill-3, Raw Mill-1 and Cooler ESP-2 Fans inlet to reduce the pressure losses

Before

After

Cement Mill-3 Savings:7 kwh in terms of Rs.2,72,160/-

Before

After

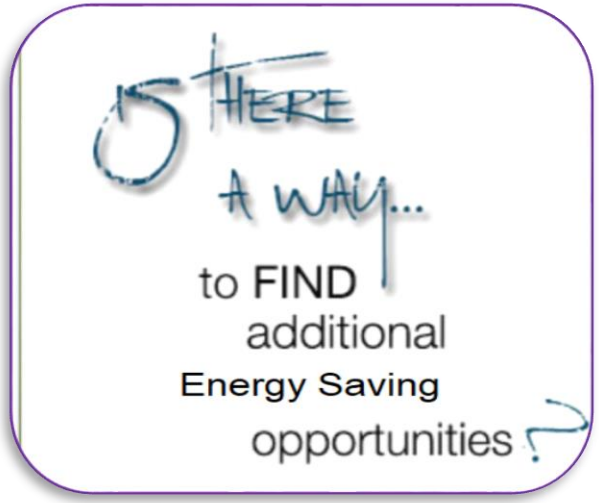
Raw Mill-1 Savings: 6 kwh in terms of Rs.2,33,250/-

Cooler ESP-2 Savings: 5 kwh in terms of Rs.1,94,400/-

Investment: Zero (in house modification)

Total Savings: 17 kwh in terms of Rs.6,99,810 /- annum

INNOVATIVE PROJECT: Coal Truck Tippler Modification



Work:-

- Coal Truck Tippler Hydraulic Cylinders 2no's Position Changed Up to 200mm Towards Lifting Side

Before Modification

- ✓ Hydraulic Truck Tippler No Load Lifting Pressure =38kg/Cm2
- ✓ Lifting Load=38ton.
- ✓ HTU Load Lifting Pressure= 155-180kg/Cm2
- ✓ Tippler Angle = 55deg

After Modification

- ✓ Hydraulic Truck Tippler No Load Lifting Pressure =30kg/Cm2
- ✓ Lifting Load=50 ton.
- ✓ HTU Load Lifting Pressure= 155-180kg/Cm2
- ✓ Tippler Angle = 45deg

Savings:

- Avoided Usage Of 130PC Machine, for removal of partial quantity of coal.

Thermal Energy Savings:

Diesel saving approx. 20 Liters per Day. Cost Saving: Rs:6.5 Lac per annum.

Coal Truck Tippler Modification:

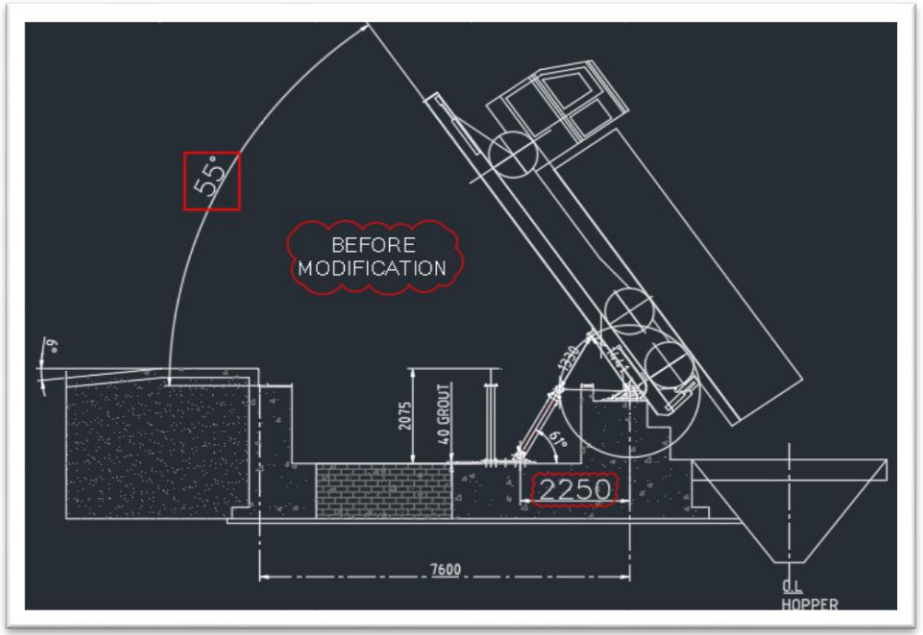
MAKE = JAYPEE ENGINEERING&HYDAULIC EQUIPMENT.CO.LTD

MODEL = 40T HTU

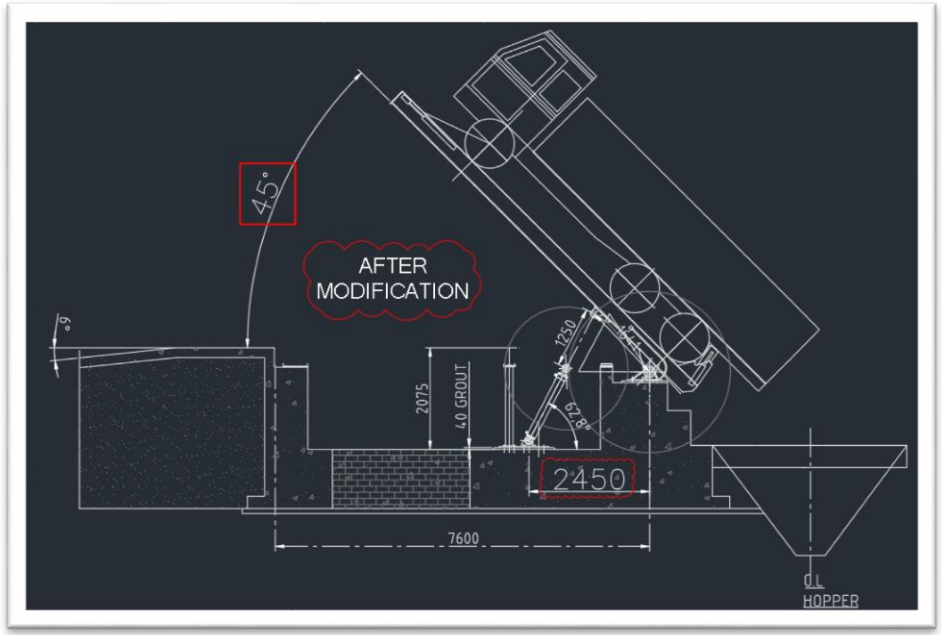
HYDRAULIC CYLINDER BORE = 250DIA

PISTON STOKE LENGTH = 1420

Before Modification



After Modification



UTILIZATION OF RENEWABLE ENERGY

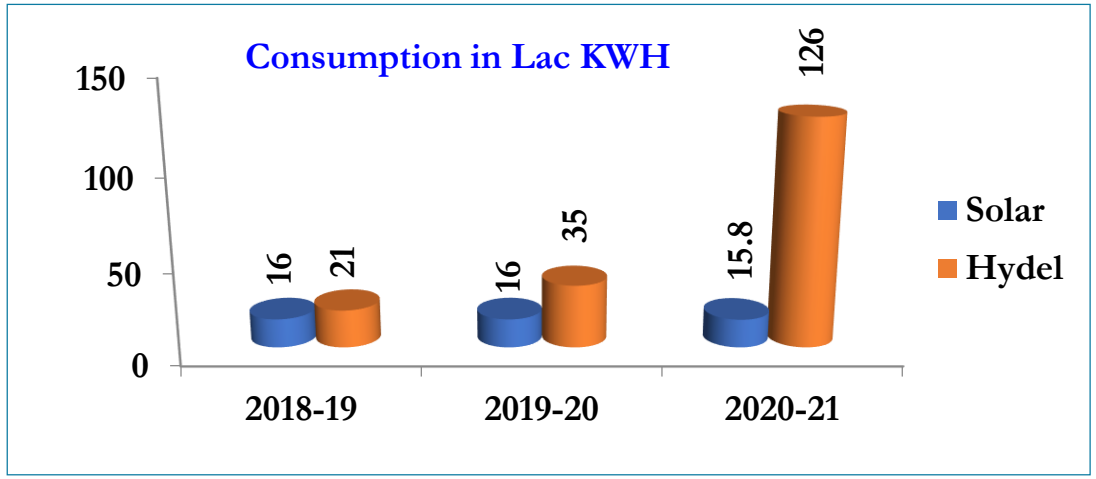
Total Renewable Energy

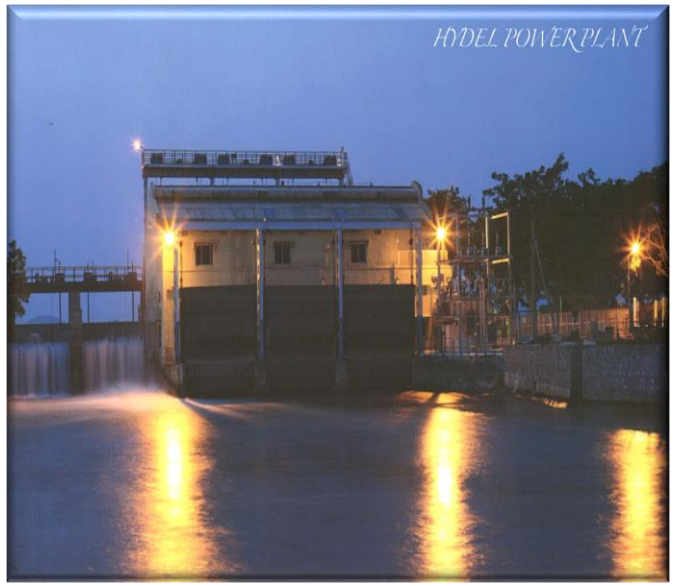
- 12.65 MW

1.15 MW Solar Power

8.25 MW Hydel Power

3.25 MW Wind Power





Hydel Power Plant

Wind Power

Solar Energy Utilization

Solar Street lights

INVESTMENT MADE: 6.0 LAKHS
SAVING: 1.0 LAKHS/ANNUM

Solar Water Pump at Mango Garden

INVESTMENT MADE: 5.0 LAKHS
SAVING: 1.2 LAKHS/ANNUM

Solar Water Heaters for Colony – 150 Flats

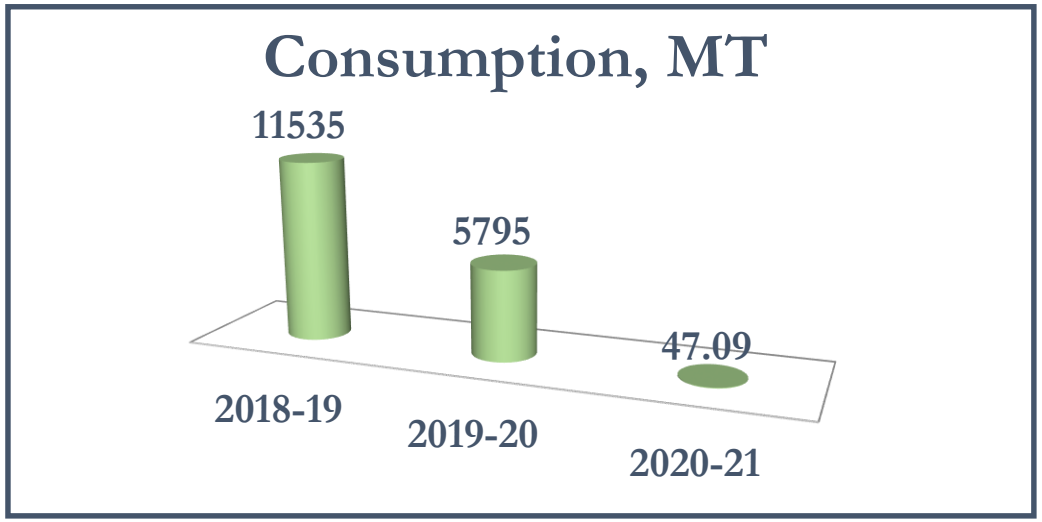
INVESTMENT MADE: 8.5 LAKHS
SAVING: 5.2 LAKHS/ANNUM

Solar Fencing around the Residential Colony

INVESTMENT MADE: 1.2 LAKHS

Utilization of Waste Material As Fuel

- WOODEN CHIPS
- CARBON BLACK
- PHARMA LIQUID
- PLASTIC WASTE
- MIX AGRO WASTE
- WASTE LUBRICANT



Use of Pharma Liquid AFR

Collection of Garbage in Colony

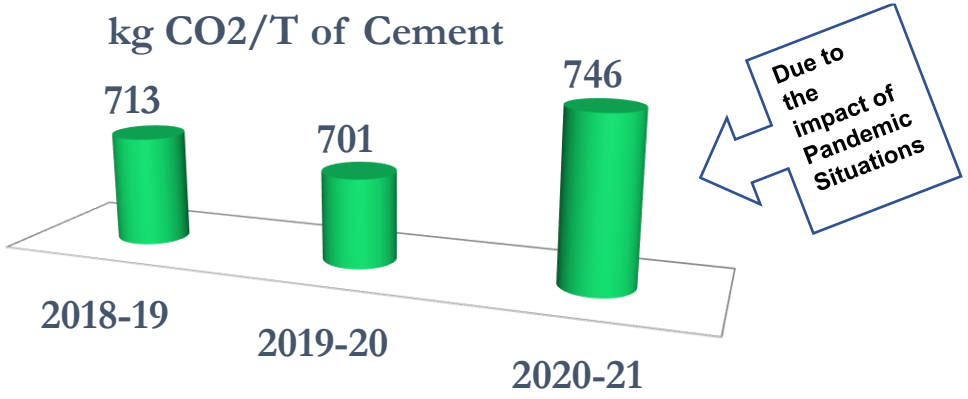
Incineration in Kiln

Firing Waste Lubricant oil in PC

Learning from CII Awards ...

- **To bring in recognition to the Organisation through unique innovative practices.**
- **Creating platform for sharing of knowledge which takes to sustainable growth through optimum utilization of resources, diversified Quality Products, Processes and Services for all our Stakeholders.**
- **Understand the Industry best and implement the same in our Organisation.**
- **Creating a competitive edge amongst the industries through right person is assigned for the right job and that they grow and contribute towards organizational excellence**
- **Employee engagement & belongingness increased**

GREEN HOUSE GAS Emissions



Efforts to reduce GHG emissions

- Miyawaki Plantation.
- Installation of WHR
- Installation of 4.60 MW Solar power plant
- Promoting blended cements
- Colony Street lighting & Plant lighting with LED lights.

- Battery operated vehicle inside the plant for internal people transportation
- Reducing the lead distance of transporting the cement by selecting the nearest distance either from UNIT-I or UNIT-II Cement manufacturing units.
- Reduction of NOx emission levels by adoption of newer technologies like by installation of low NOx pyro jet burner along with long pre-calciner with pyro top supplied by Humboldt Wedag.
- Utilization of fly ash to the maximum permissible extent and promotion of higher PPC volumes to the maximum extent.
- Following Reverse Logistics for transportation of Cement and bringing Coal, Gypsum and Additives.

Miyawaki Plantation performed in 2 Acres

Green supply chain

The KCP Limited
Cement Unit-II, Ramakrishnapuram

Green Purchase Policy

Following standard systems & procedures defined for selecting vendors for critical equipment supplies/Major equipment and compliance of same is monitored from time to time.

- KCP is having a purchase manual with pre-defined procedure for all procurements.
- Procurement of EEF LT Motors.
- Procurement of Eco Friendly A/C package units, and VOC free paints.
- Reduce environmental footprint by means of material, energy & water conservation.
- Ensure that asbestos products not procured in the plant.
- Sourcing raw materials from nearby sources so that travel distance is reduced and vehicle usage is curtailed thereby helping environment in minimizing carbon & sound pollution. Usage of Roads and other relevant resources like diesel/ lubs/ tyres shall also be reduced.
- Installation of speed controllers in our new heavy vehicles.
- Procurement of Energy Efficient rated electrical appliances. All the transporters including raw materials transporters shall be advised for strict compliance of Green supply chain transport policy.

Vice President - Operations

Dated: 01 April 2019

Green Supply Chain Implementations:

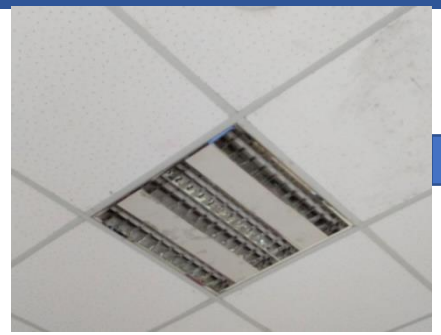
1. Creating awareness on Environmental Impacts.
2. Rethinking of material requirements and consumption for sustainability.
3. Reducing the use of hazardous material.
4. Improved energy efficiency Materials Purchase.
5. Reducing the pollution and noise levels and using recycled materials and recycling waste.
6. Customer preference.
7. Continuously compliance the environmental regulations.

- Manufacturing of fly ash based pavers, Hallow & Concrete bricks Capacity: 20,000 – 25,000 no's per day (Investment: Rs. 2.0 cores.)
- The fly ash & Bed material generated in CPP are being used for the manufacturing of Hallow bricks, Concrete solid bricks & Colored Pavers.
- Recycling of CPP waste neutralization water to Cement Plant for equipment process & Cooling to avoid scaling in Pipe lines.`

Green supply chain Best Practices

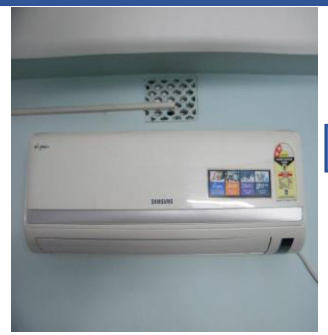
Before:
All bag filter fans in DOL Operation

After:
Installed 22 No's VFD s for all the bag filter fans

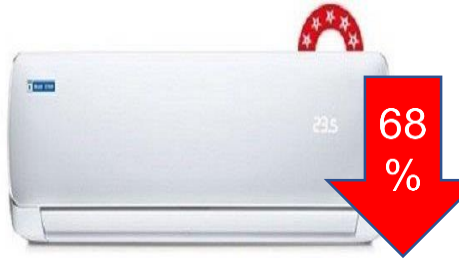


FTL Lights

150 No's LED Lights

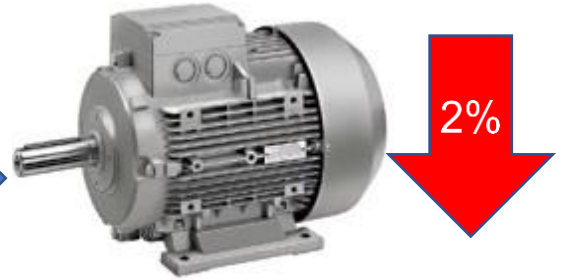


Switch over 3 Star Rating AC



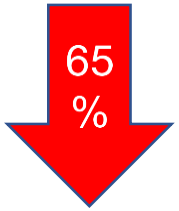
5 Star Inverter Rating

Before: IE2 Motor



After: IE3 Motor

3 Star Rating

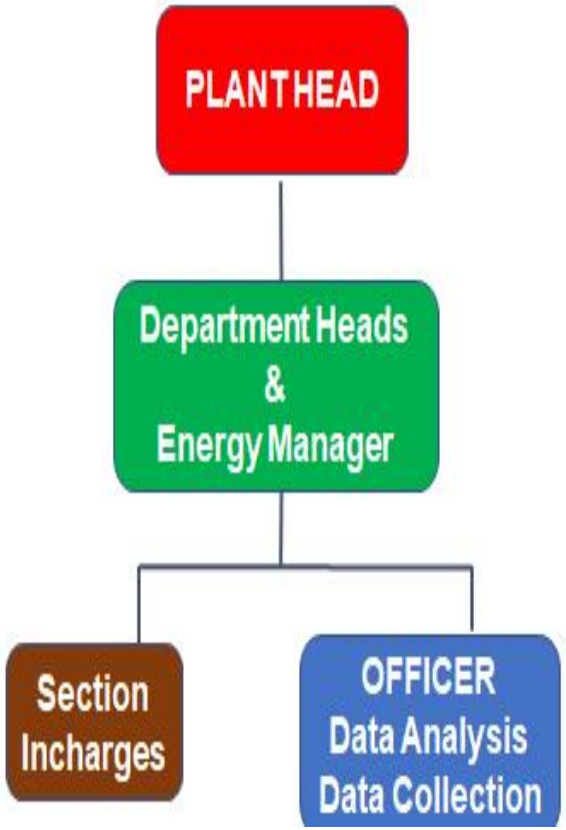


5 Star Rating

Initiatives:

- 100% safety on roads as voice enabled GPS is installed which alerts the driver on possible risk.
- Ship more cement covering more distance than before.
- Better planning is ensured by the company with its stakeholders - transporter, dealer, trucker and society.
- Vehicle service center.

Daily Energy Monitoring Report



Designation	Roles & Responsibilities
Plant Head	• Drives energy saving culture in the organization. • Set targets for reduction in various parameters inline with the vision & Energy policy. • Fiscal validation of Energy saving projects and necessary financial allocation.
Department Heads, Energy Manager	• Review status of Energy saving projects through Daily Review Meetings. • Drive employee involvement initiatives.
Team Members	• Identification & Implementation of energy conservation projects. • Drive employee involvement initiatives. • Generate energy conservation ideas. • Measure, Monitor & analyze section wise energy consumption in the factory.

THE KCP LIMITED

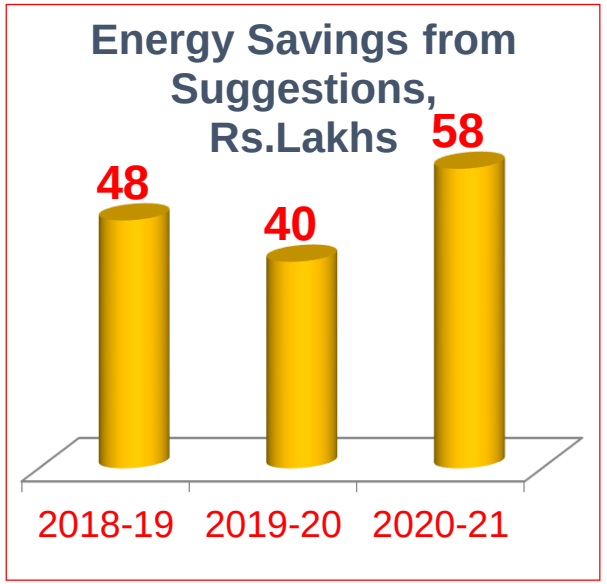
CEMENT UNIT-II, RAMAKRISHNAPURAM

DAILY POWER MONITORING REPORT - 31.03.2021

Sl No	SECTION	Target KWh/T mat (2020-21)	Responsibility	Actual Consumption			Variance	
				On Date	MTD	YTD	MTD	YTD
1	CRUSHER	0.73	GM-Mines	0.78	0.72	0.72	-0.01	-0.01
2	RAW MILL-1	12.5	AGM-E&I /M-Process(R) & Sr.DGM - Mech	12.45	12.71	12.36	0.21	-0.14
3	RAW MILL-2	12.5	AGM-E&I /M-Process(R) & Sr.DGM - Mech	12.55	12.63	12.56	0.05	0.06
4	COAL MILL-1	15.0	AGM-E&I /M-Process(R) & Sr.DGM - Mech	15.32	15.65	15.12	0.65	0.12
5	COAL MILL-2	18.0	AGM-E&I /M-Process(R) & Sr.DGM - Mech	15.89	16.98	17.14	-1.02	-0.86
6	KILN-1	19.00	AGM-E&I / Sr M-Process(P) & Sr.DGM - Mech	17.48	18.76	18.95	-0.24	-0.05
7	KILN-2	19.00	AGM-E&I / Sr M-Process(P) & Sr.DGM - Mech	16.34	16.90	18.29	-2.1	-0.71
8	Up to CLINKER	43.00	AGM-E&I / Sr M-Process(P) & Sr.DGM - Mech	41.72	42.49	42.62	-0.51	-0.38
9	CEMENT MILL	24.50	AGM-E&I / Sr M-Process(P) & DGM - Mech	29.89	30.85	29.28	6.35	4.78
10	PACKING	0.70	Sr.DGM-Mech /M-Packing plant	0.75	0.68	0.66	-0.02	-0.04
11	Utilites- pre clinker	1.70	AGM-E&I	2.46	2.11	1.76	0.41	0.06
12	Utilites- post clinker	1.30	AGM-E&I	1.25	1.20	1.29	-0.1	-0.01
13	UP to Cement	65.0	AGM-E&I/ Sr M-Process & AGM – QC	67.46	67.27	65.69	0.27	0.69
14	Specific Heat-Kcal/kg	680	Sr Manager-QC / AGM-Process	685	684	682	4	2

Strategies adopted for Team work & employee involvement

- ✓ kaizen & Suggestion Scheme
- ✓ Cross Functional Team
- ✓ Young Leaders Forum
- ✓ Chat with Unit Head
- ✓ Employee Energy Score Card
- ✓ Participation in Seminars
- ✓ External trainings
- ✓ Energy Conservation week
- ✓ Safety Messages sharing in Gate meeting / monthly safety magazine
- ✓ National Safety Day Celebrations various contests
- ✓ Safety Committee meeting members participation
- ✓ Monthly Energy committee meeting
- ✓ Safety Walks

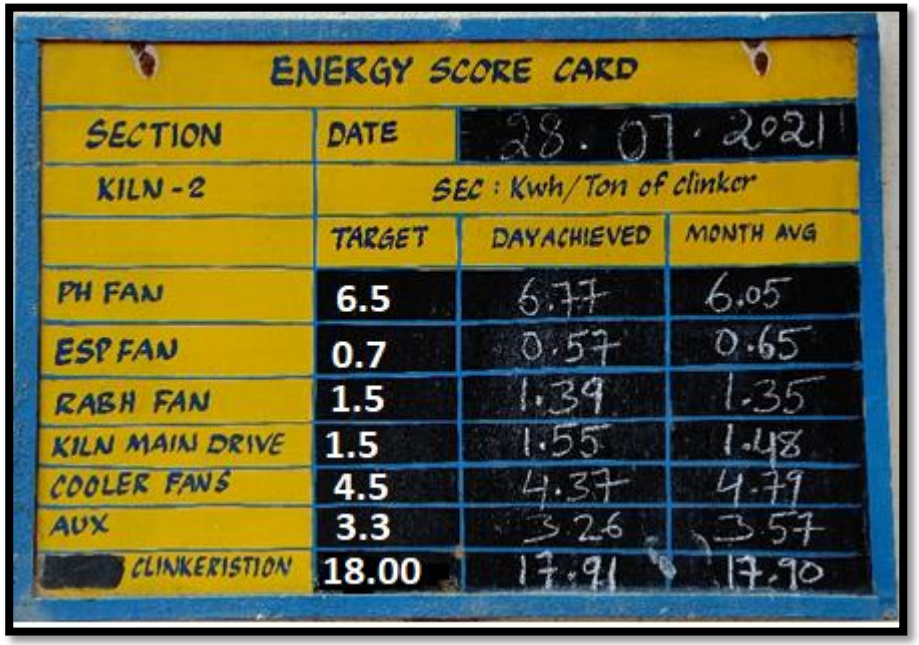


Employee Recognition at shaft floor level

Energy Scorecard for Monitoring the performance of major Equipment's by the team members

ENERGY TEAM RESPONSIBILITIES

S.NO.	DESCRIPTION	SEC	NAME	TARGET FY 20-21	ACTUAL
1	LS CRUSHER	Kwh/Ton of Lime Stone	Y.SUBBARAO	0.73	0.72
2	RAW MILL-1	Kwh/Ton of Raw meal	M.SATYANARAYANA	12.00	12.36
3	RAW MILL-2	Kwh/Ton of Raw meal	Y.KISHORE BABU	12.50	12.56
4	KILN-1	Kwh/Ton of Clinker	P NARASIMHA RAO	19.00	18.95
5	KILN-2	Kwh/Ton of Clinker	J V S GUNNAIAH RAJU	19.00	18.29
6	COAL MILL-1	Kwh/Ton of Coal	M.INNA REDDY	14.50	15.12
7	COAL MILL-2	Kwh/Ton of Coal	E RAMU	18.00	17.14
8	CEMENT MILL-1	Kwh/Ton of Cement	P.SRINIVASARA RAO	26.00	31.64
9	CEMENT MILL-2	Kwh/Ton of Cement	CH SURESH REEDY	26.00	30.97
10	CEMENT MILL-3	Kwh/Ton of Cement	CH V RAMARAJU	24.50	24.61
11	PACKING PLANTS	Kwh/Ton of Cement	P BIXAM & N S RAJU	0.70	0.66
12	UTILITIES	Kwh/Ton of Clinker	G.MALLESH	1.6	1.29
13	SERVICES	Kwh/Ton of Cement	MD.RAHIM	2.0	1.52
14	HEAT CONSUMPTION	KCal/Kg of Clinker	T SAMBASIVA RAO	675	682
15	EXPLOSIVE ENERGY	Tons/Kg of Explosive	P.RAMAKRISHNA	8.12	8.43



Focus for the Energy Efficiency

- Daily Monitoring
- Trainings
- Innovative Modifications
- Periodical upgradation of new technological equipment's

Integrated Management System

ISO 9001:2015 | ISO 50001:2018 | ISO 14001:2015 | ISO 45001:2018

DNV

MANAGEMENT SYSTEM CERTIFICATE

Certificate no.: 258117-2018-AQ-IND-RvA | Initial certification date: 08 September 1994 | Valid: 01 May 2021 – 30 April 2024

This is to certify that the management system of

The KCP Limited
Cement Unit - II (Manufacturing Division)
Ramakrishnapuram, Muktyala (V), Jaggayyapet (M), Krishna Dist - 521 457, 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 & sale of clinker and cement

Place and date: Chennai, 13 April 2021

For the issuing office: DNV - Business Assurance, ROMA, No. 10, GST Road, Alandur, Chennai - PIN - 600 016, India

Sivadasan Madiyath, Management Representative

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

DNV

MANAGEMENT SYSTEM CERTIFICATE

Certificate no.: 10000450431-MSC-RvA-IND | Initial certification date: 24 May 2016 | Valid: 21 August 2021 – 21 August 2024

This is to certify that the management system of

The KCP Limited - Cement Unit - II (Manufacturing Division)
Ramakrishnapuram, Muktyala Village, Jaggayyapet Mandal,Krishna District - 521 457, Andhra Pradesh, India

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

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

Place and date: Barendrecht, 30 June 2021

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

Erle 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.: 197474-2016-AE-IND-RvA | Initial certification date: 15 April 2016 | Valid: 01 May 2021 – 30 April 2024

This is to certify that the management system of

The KCP Limited
Cement Unit - II (Manufacturing Division)
Ramakrishnapuram, Muktyala Village, Jaggayyapet Mandal, Krishna District - 521 457, Andhra Pradesh, India

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

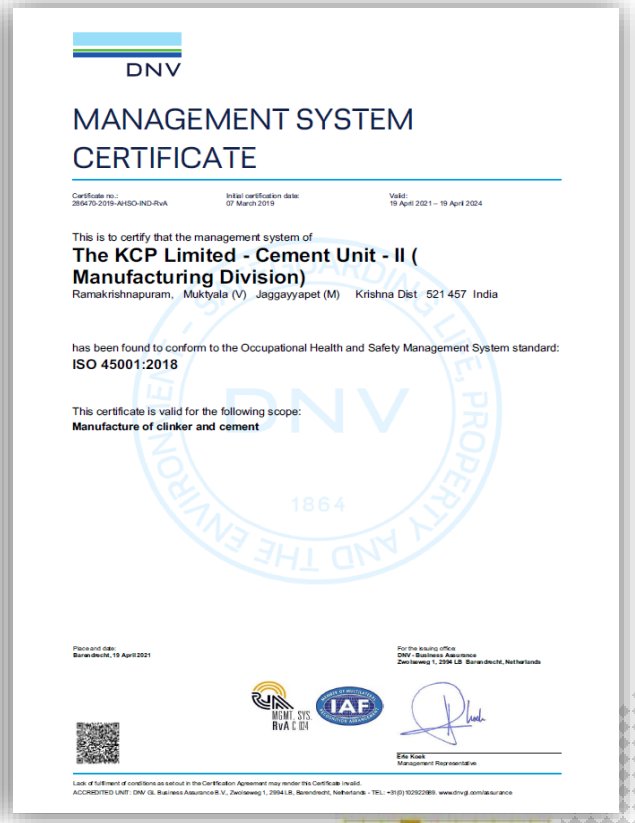
This certificate is valid for the following scope:
Manufacture of clinker and cement

Place and date: Chennai, 13 April 2021

For the issuing office: DNV - Business Assurance, ROMA, No. 10, GST Road, Alandur, Chennai - PIN - 600 016, India

Sivadasan Madiyath, Management Representative

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



DNV

MANAGEMENT SYSTEM CERTIFICATE

Certificate no.: 286470-2019-AHSO-IND-RvA | Initial certification date: 07 March 2019 | Valid: 19 April 2021 – 19 April 2024

This is to certify that the management system of

The KCP Limited - Cement Unit - II (Manufacturing Division)
Ramakrishnapuram, Muktyala (V) Jaggayyapet (M) Krishna Dist 521 457 India

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

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

Place and date: Barendrecht, 19 April 2021

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

Erle Koek, Management Representative

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

kcp

Certified ISO 50001 & Implementation of GreenCO

Energy Policy

THE KCP LIMITED
CEMENT UNIT-II, RAMAKRISHNAPURAM

ENERGY POLICY

We at **KCP CEMENT UNIT-II, Ramakrishnapuram**, are committed to achieve Sustainable growth and continual improvement in energy performance in Production, Services and associated activities.

To fulfill the above commitment, we will :

- Establish, implement and maintain Energy Management system based on ISO 50001 standard,
- Identify the potential areas and equipment significant energy use to achieve improvement in energy efficiency,
- Ensure the availability of information and of necessary resources to achieve energy objectives and targets,
- Comply with applicable legal requirements and other requirements related to energy use, consumption and efficiency,
- Explore the possibility of using modern technology and to purchase the energy efficient equipment to improve the energy performance, and
- Setting objectives, achieve targets and continually improve energy performance.

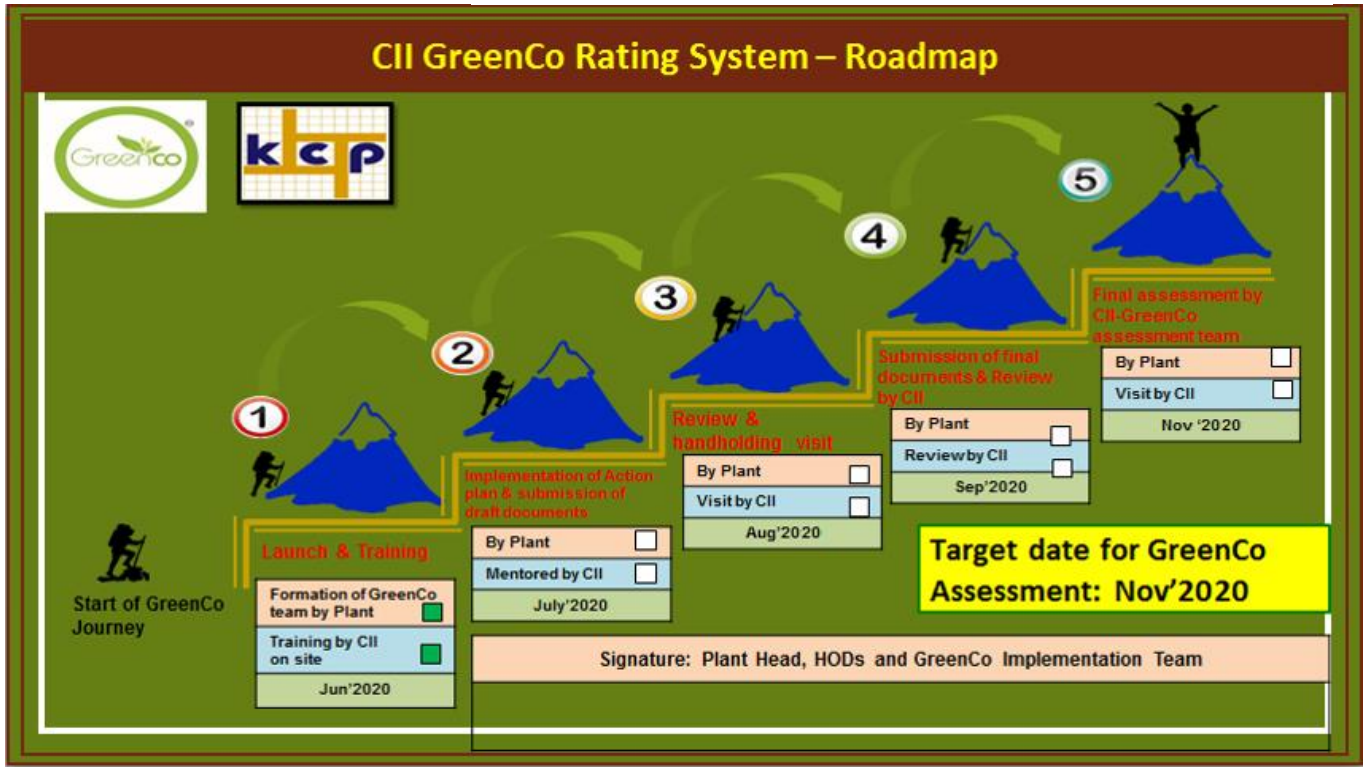
This Energy policy is communicated to all levels of personnel working for and on behalf of KCP and made available to the public & other interested parties on request.

Dr V L INDIRA DUTT
MANAGING DIRECTOR

Dated : 01 January 2018

Total Investment made in last three years – 321.24 lakhs

Journey Towards GreenCo Rating System



We aimed to achieve Organizational Excellence through Innovation and become role model to top Green Co rating Cement industries". In line with this, action plan has been initiated and implementing all qualitative measures for successful completion of final assessment to be done in 2022-23.

THE KCP LIMITED CEMENT UNIT-II - MUKTYALA

Awards Received as on:

- 2020: 5 Star for Excellence in EHS practices
- 2020: National Award for Excellence in water Management
- 2020: Bagged First Place in Sectorial and Sustainability, in recognition of best practices in Environment, Health & Safety.
- 2020: National Excellence Energy Efficient in Energy Management
- 2019: 5 Star for Excellence in EHS practices
- 2019: Excellence in Sustainability by Manufacturing Today
- 2019: National Excellence Energy Efficient in Energy Management
- 2018: National Energy Efficient in Energy Management
- 2017: National Excellent Energy Efficient in Energy Management
- 2016: National Energy Efficient in Energy Management
- 2016: 3 Star for Appreciation in EHS practices
- 2015: National Excellent Energy Efficient in Energy Management
- 2015: Most useful Presentation Award
- 2014: National Excellent Energy Efficient in Energy Management
- 2014: National Energy Conservation Award (BEE) in Cement Sector by Government of India, Ministry of Power
- 2018-19: NCB-Excellence in the field of Energy and Environment
- 2017-18: NCB-Excellence in the field of Energy and Environment
- 2016-17: NCB-Best Electrical Energy Performance Award
- 2014-15: NCB-Best Electrical Energy Performance Award
- 2013-14: NCB-Best Electrical Energy Performance Award

Thank You

Contact Details:
Sri.V.Madhusudana Rao
Vice President-Operations
Email: vmr@kcp.co.in
Ph.No:08654-296006/7/8

Save
Energy & Environment