

# **CII National Award for “Excellence in Energy Management - 2022”**



## **ITC Limited, PSPD, Unit - Kovai**

P.Jayasankar. Designated Unit Energy Manager

G.Srikanth, Energy Cell Member

P.Saranraj , Energy Cell Member

# ITC Ltd PSPD, Unit : Kovai



# MILL INTRODUCTION

ITC Ltd. , PSPD , Unit: Kovai is located 42 km North of Coimbatore, Tamil Nadu

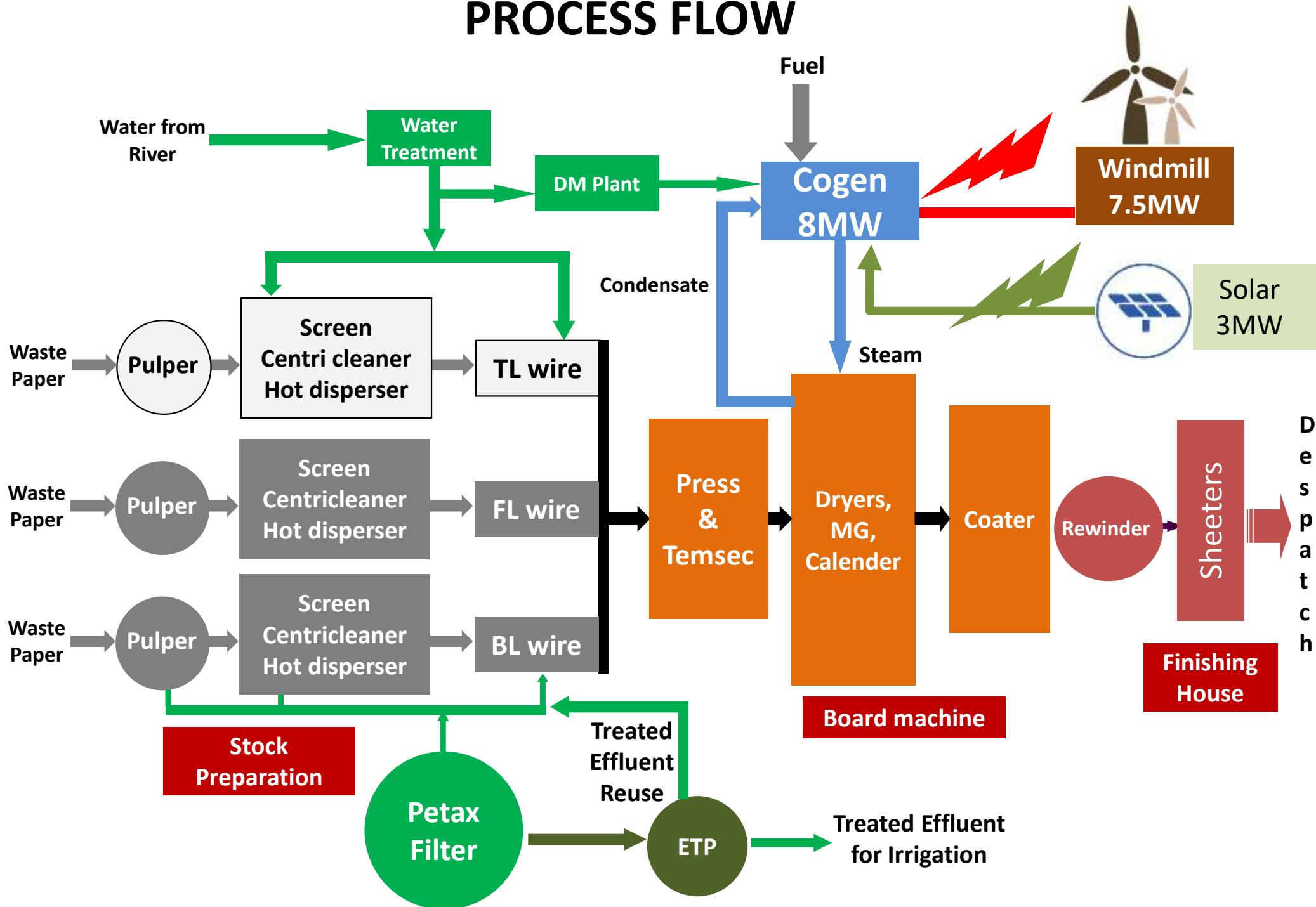
- Acquired from BIPCO in March 2004
- Manufacture Duplex Board from 100 % recycled fiber
- Production capacity of 1,20,000 Tons / year
- Employment to 1000+ people

## Certifications:

- ISO 9001 : 2015; ISO 14001 : 2015; ISO 45001 : 2018
- Certified for Forest Stewardship Council (FSC)
- First Indian Manufacturing unit to gain WWF's Global Forest Trade Network Membership
- **ITC PSPD Unit Kovai – First Company** in the Pulp and Paper Sector to receive GreenCo Platinum rating and recertified with Platinum in 2018-19
- CII Excellent Energy Efficient Unit 2010, '14, '15, '17, '19 & Energy Efficient Unit in 2018,2021
- Achieved **International Water Stewardship 2019 – Platinum level** by **AWS (Alliance for Water Stewardship)** certification. First paper mill in the world to achieve this award.



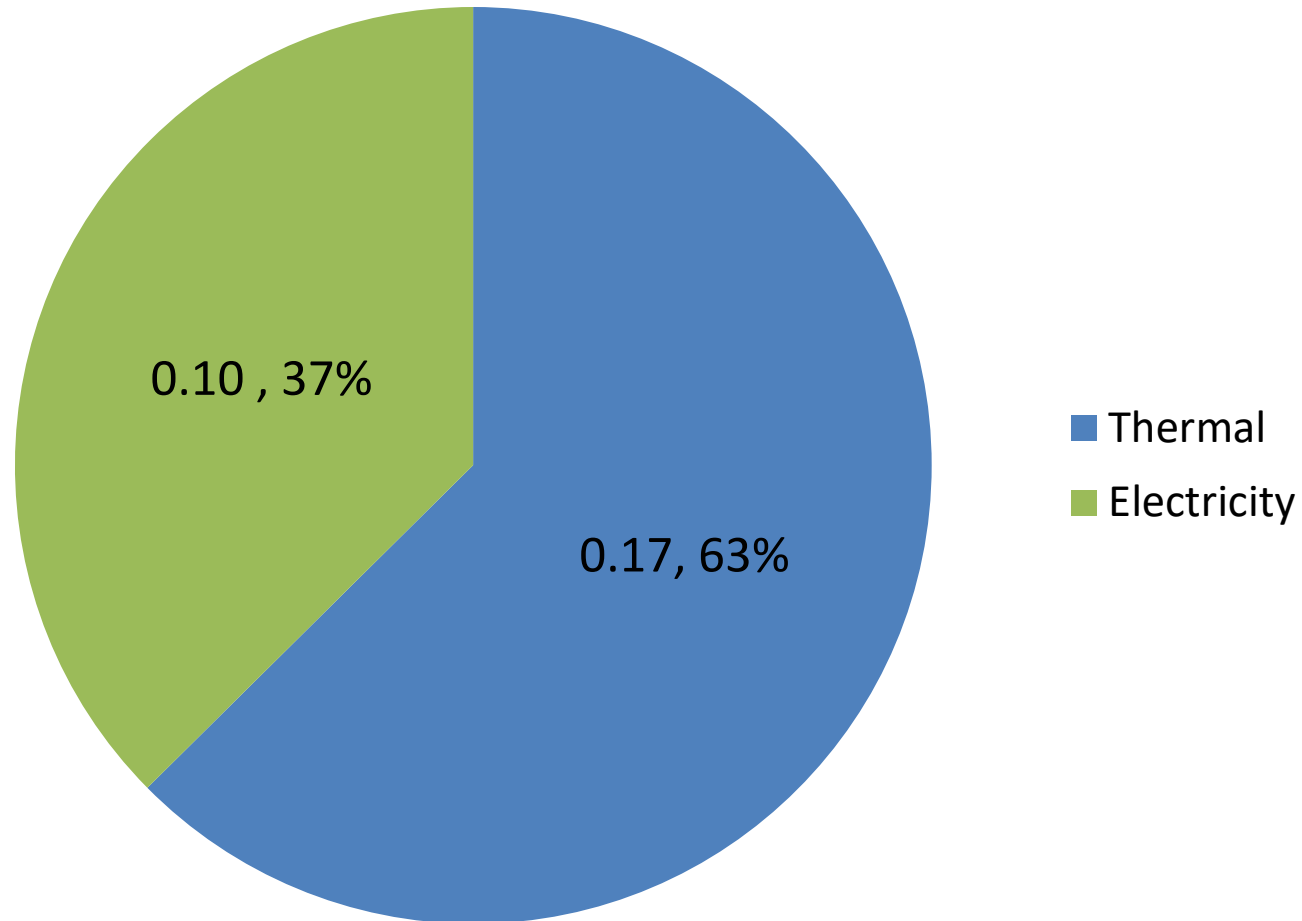
# PROCESS FLOW



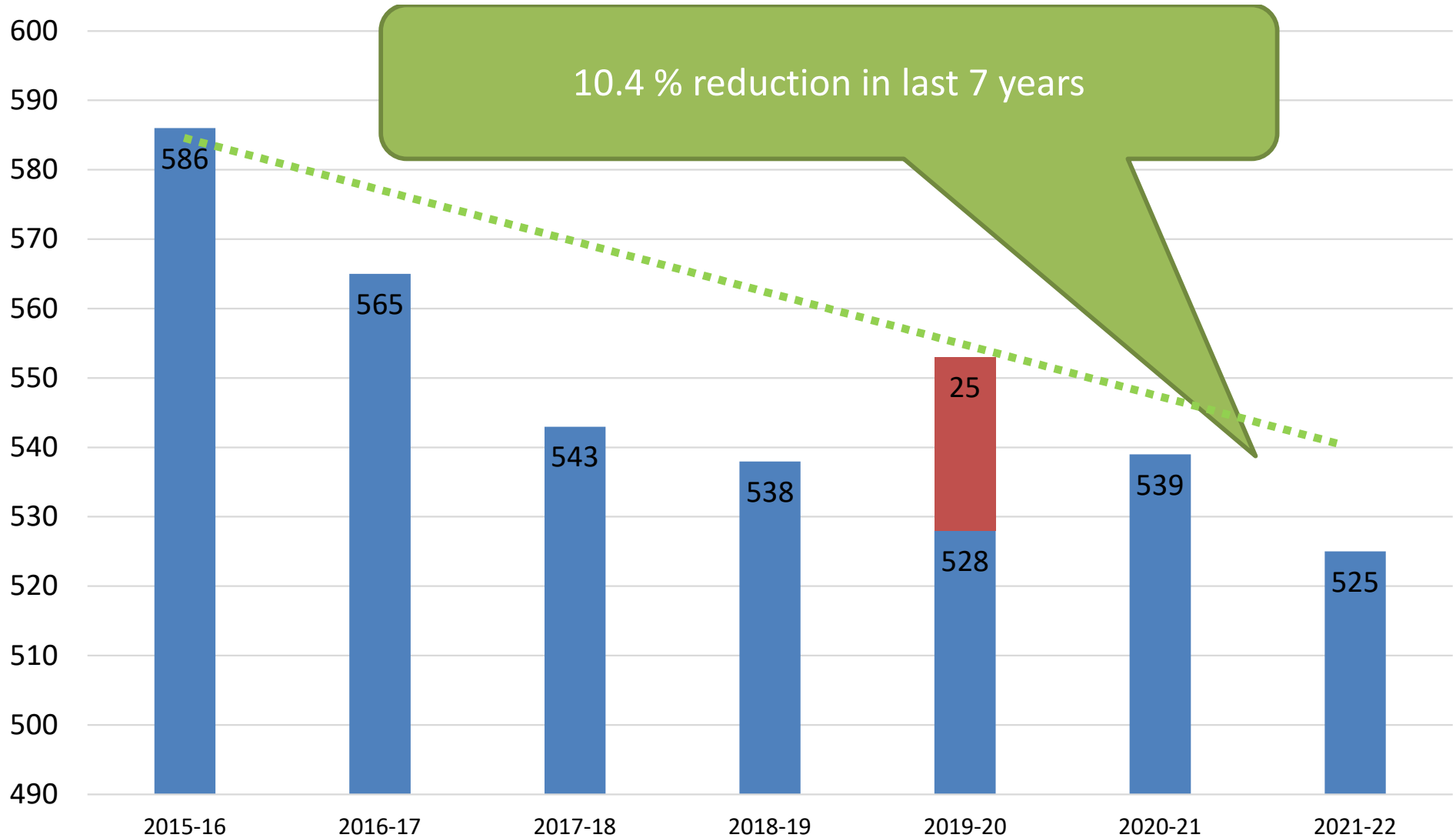
# Energy Consumption<sup>6</sup>



## ENERGY DISTRIBUTION (MTOE/MT)

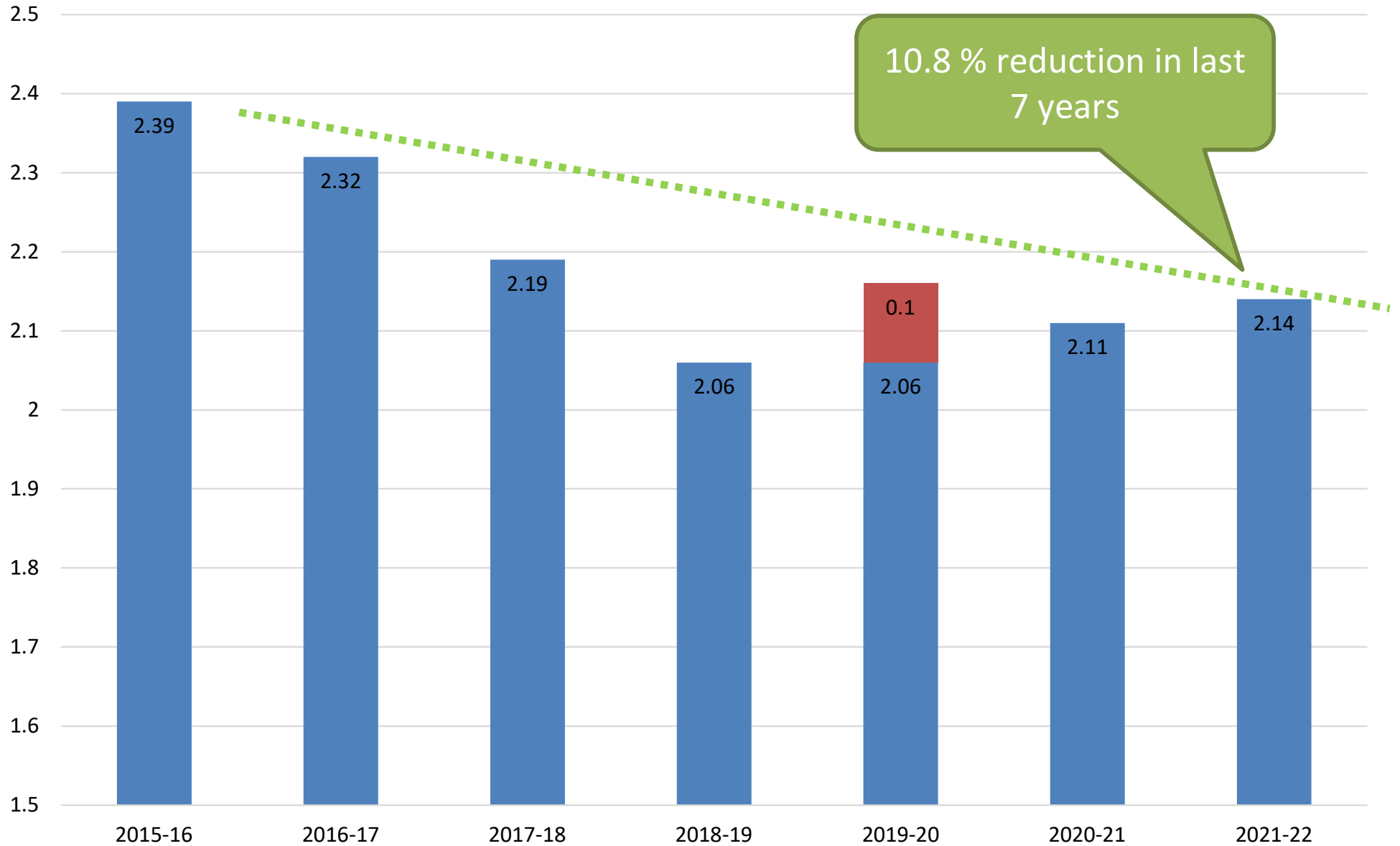


## SPECIFIC POWER (KWH/MT)



In 2019-20 Installation of Refiners and Gloss calendar to improve quality impact of 25KWH/MT

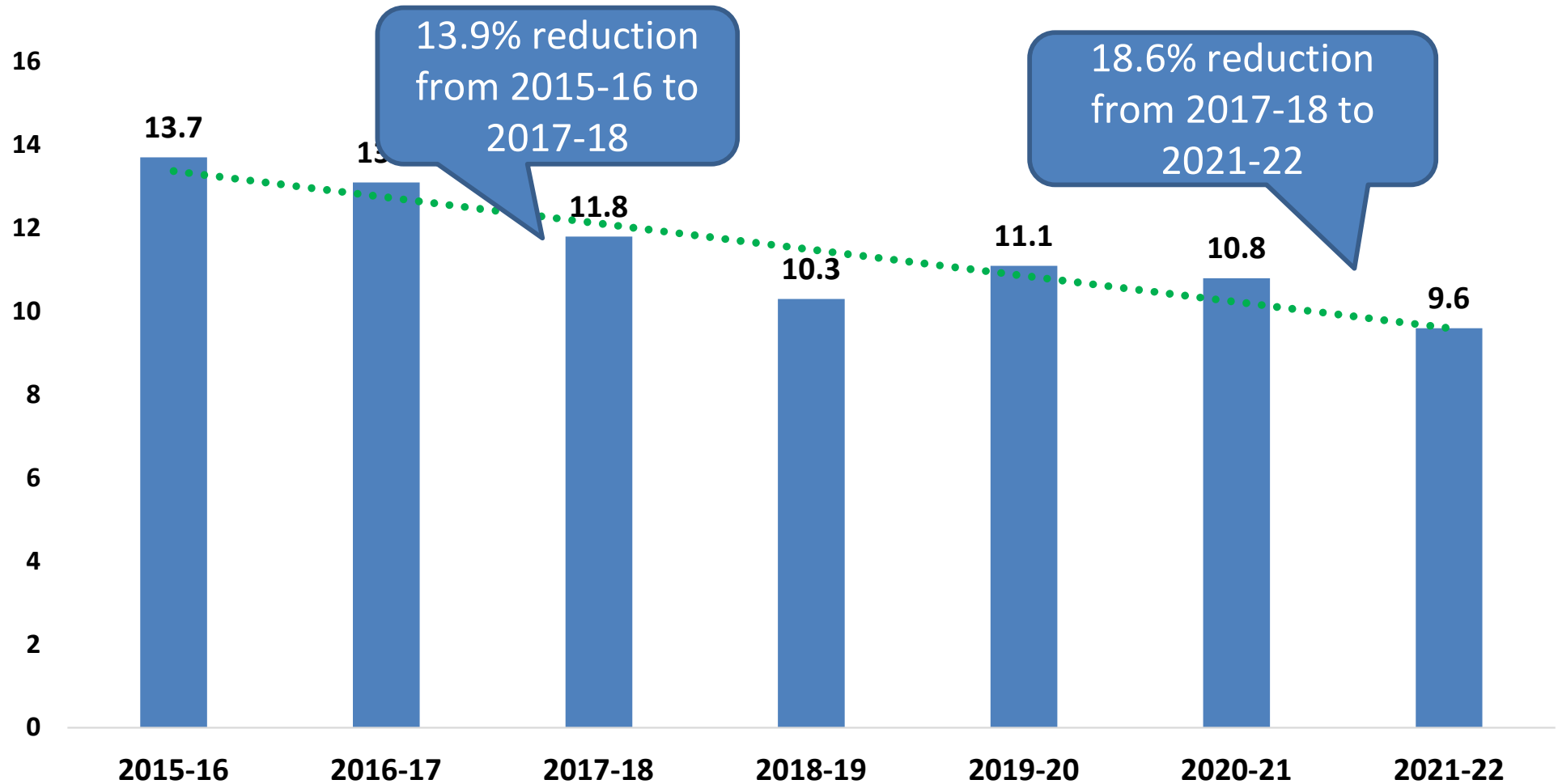
## SPECIFIC STEAM (MT/MT)



In 2019-20 Gloss calendar is installed for improving quality, Impact is 0.1MT/MT



## SPECIFIC ENERGY (MTOE/MT)



For the period 2015-16 to 2021-22  
- Specific energy consumption reduced by 30%

## SPECIFIC POWER – SECTION WISE (KWH/MT)

DEPARATMENT	2018-19	2019-20	2020-21	2021-22
Stock Preparation	224	236*	218	194
Board Machine	222	225	200	208
Utility	81	79	68	68
Others	11	13	11	12
<b>Total</b>	<b>538</b>	<b>553</b>	<b>497</b>	<b>482</b>

\* Refiners area added in stock preparation area to improve quality parameters.

# GLOBAL BENCHMARK



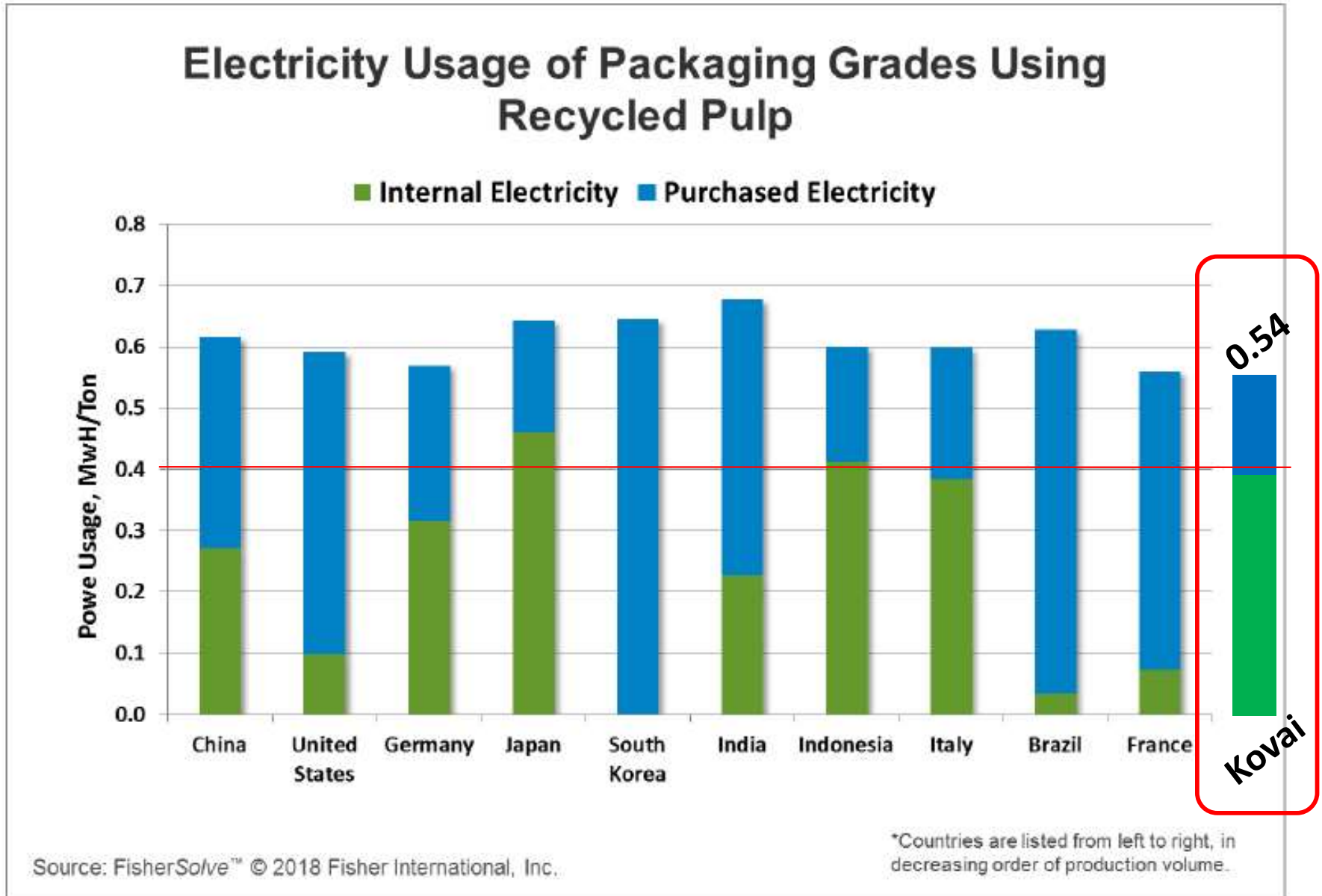
# NATIONAL BENCHMARKING

Industry Group	Particulars	Units	Global Avg.	India Avg.	Industry Benchmark	Kovai
Wood Based Mills	Specific Electrical Energy Consumption	kWh/tonne of paper	1000-1100	1400-1500	1200	
	Specific Steam Consumption	Tonne of steam/tonne of paper	7.0-9.0	12.0-13.0	9.0	
Agro Based Mills	Specific Electrical Energy Consumption	kWh/tonne of paper	-	1200-1400	1000	
	Specific Steam Consumption	Tonne of steam/tonne of paper	-	12.0-14.0	10.0	
Recycled Fiber Based Mills producing unbleached grades	Specific Electrical Energy Consumption	kWh/tonne of paper	500	450-550	400	
	Specific Steam Consumption	Tonne of steam/tonne of paper	2.5	4.0-5.0	3.5	
Recycled Fiber Based Mills producing bleached grades	Specific Electrical Energy Consumption	kWh/tonne of paper	600-650	680-800	570	525
	Specific Steam Consumption	Tonne of steam/tonne of paper	4-4.5	6.0-7.0	5.0	2.13

Table 8: Specific Energy Consumption (Global Vs India)<sup>14</sup>

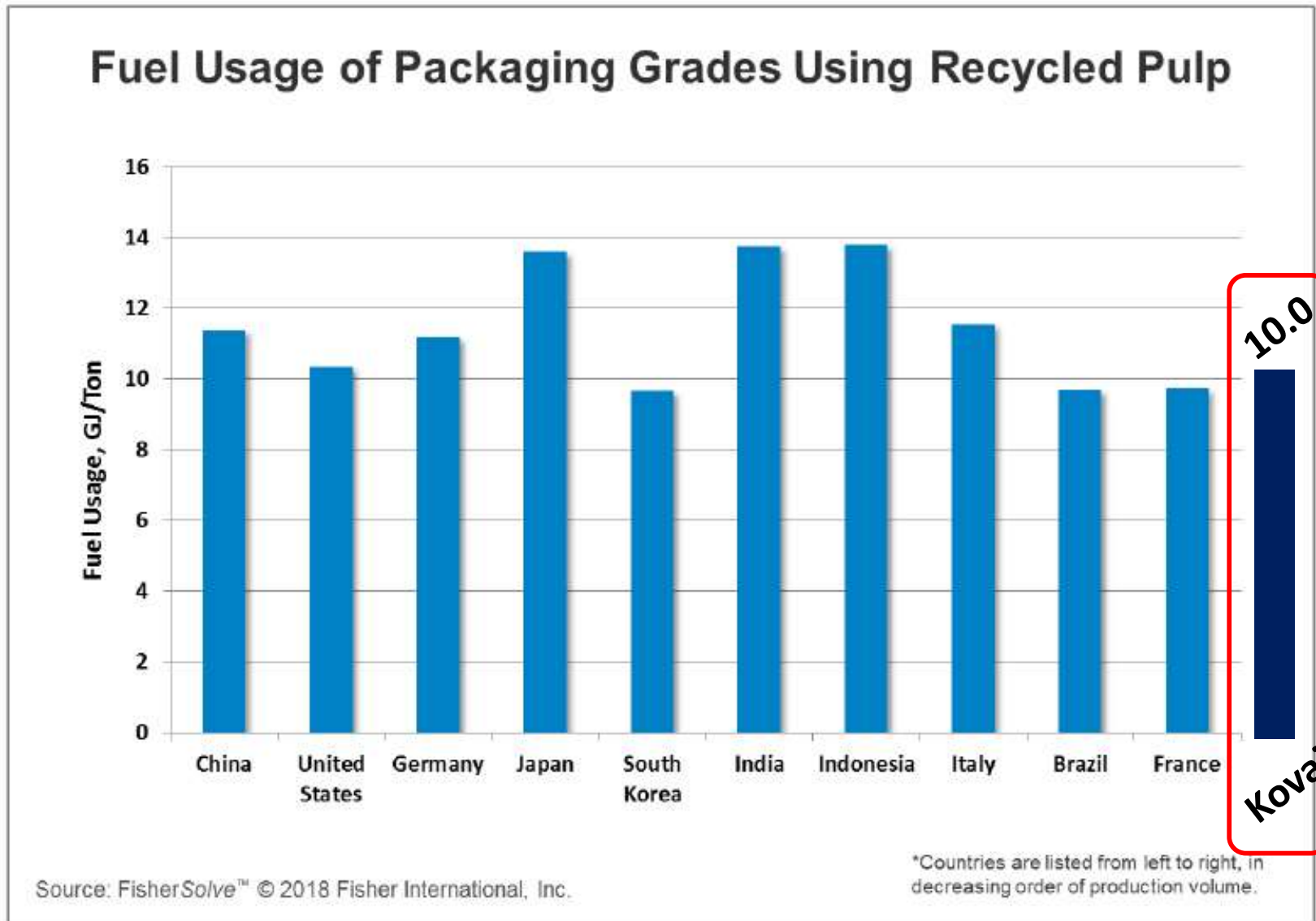
**Source:** *Benchmarking energy for Pulp & Paper Sector released by BEE, Sep 2018*

# GLOBAL BENCHMARKING – ELECTRICAL ENERGY



**Source:** *Benchmarking Paper Mill energy efficiency and GHG Emissions for major producer countries*  
Fisher International, February 2018

# GLOBAL BENCHMARKING – FUEL

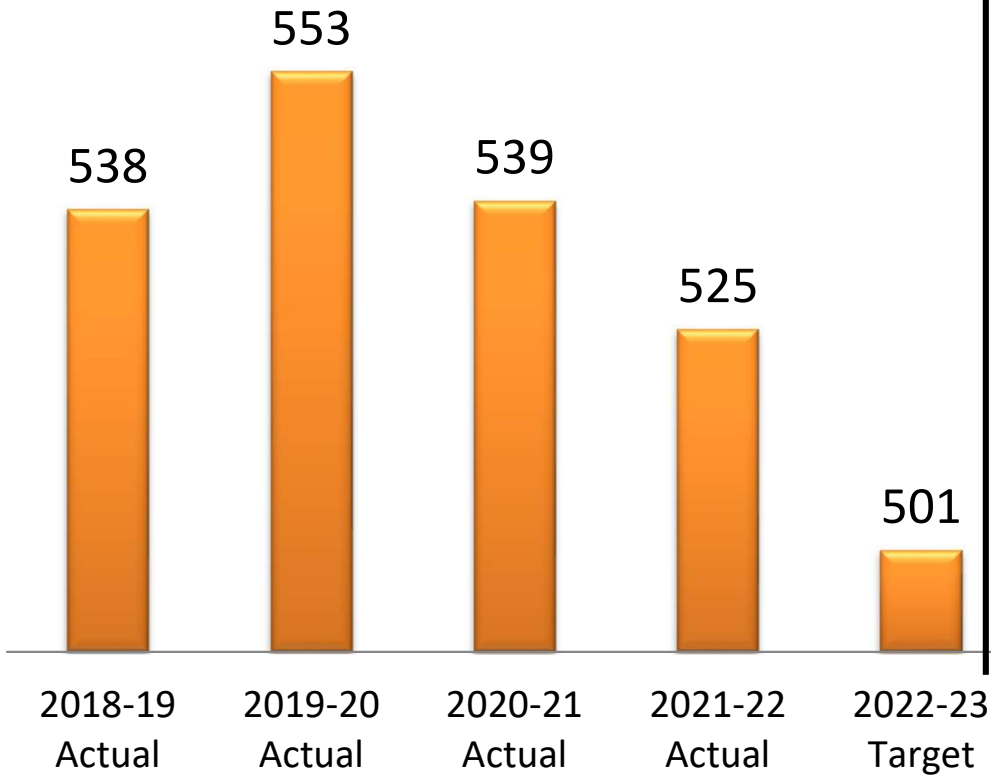


**Source:** *Benchmarking Paper Mill energy efficiency and GHG Emissions for major producer countries Fisher International, February 2018*

# ANNUAL ENERGY REDUCTION TARGETS

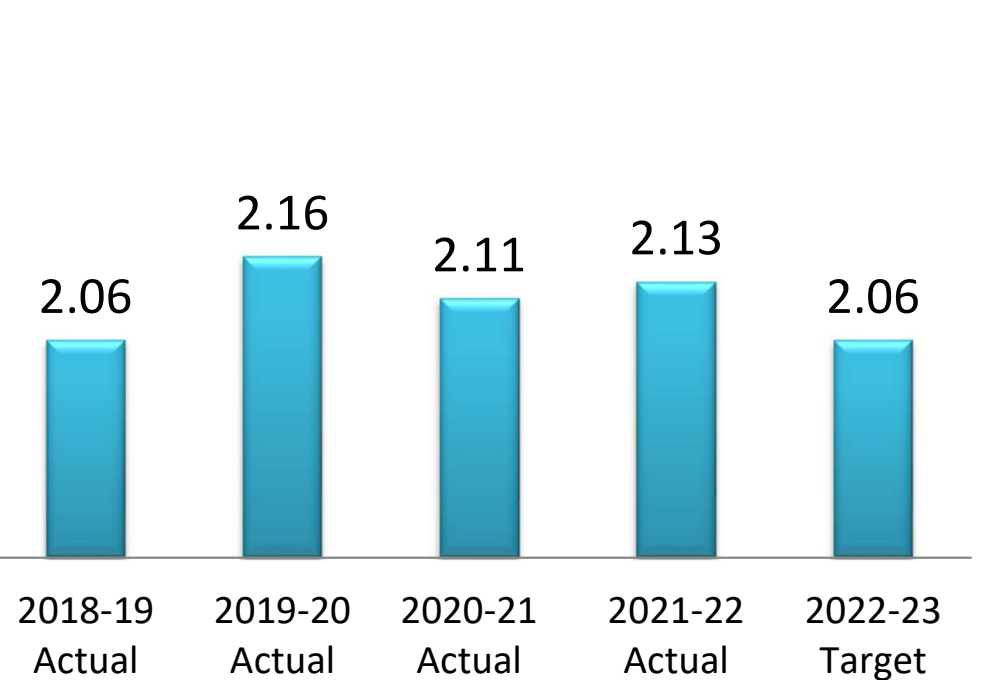
## Unit Specific Power Consumption (Saleable)

KWH/Ton of Product



## Unit Specific Steam Consumption (Saleable)

Ton /Ton of Product



Long Term Target, 3.1% Minimum Reduction year on year for next 3 years

# LAST ROAD MAP TO ACHIEVE GLOBAL BEST (ELECTRICAL AND THERMAL)

Sl.No	Description	Energy Saving per day in KWh	Annual Total Saving KWh	Annual Total Saving Rs.Lac	Implemented Month	Investment In Lacs	Payback in Months
1	Refiner Accept Pump & Agitator stopped, due to chest by Passed	888	305645	14.06	Apr-21	0.00	0
2	Top SCC pump impeller trimming	120	41303	1.90	May-21	0.10	1
3	Ultra cone to Refiner feed chest pump impeller trimming	216	74346	3.42	May-21	0.20	1
4	Sec .HD Cleaner feed pump capacity may reduce by trimming impeller	24	8261	0.38	July-21	0.10	3
5	Chest No 12/13 pump VFD interlock with Back Screw Press SR Box	48	16521	0.76	July-21	0.00	0
6	Compressor - 7 Energy Saving by installing Separate Cooling Tower	240	82607	3.80	July-21	5.50	17
7	Reel wrapping machine Hydraulic power pack pump VFD	225	77444	3.56	Aug-21	0.25	1
8	Process Cooling Tower pump pressure reduction	396	136301	6.27	Sep-21	0.75	1
9	Chest No9 Dilution pump Interlocking with Drum pulper	180	61955	2.85	Sep-21	0.00	0
10	Chest No 10 Pump interlocking with screen	148	50941	2.34	Sep-21	0.00	0
11	VAT agitator interlocking with VAT Pump	60	20652	0.95	Sep-21	0.00	0
12	Chest No5 Pump interlocking with BL screen	84	28912	1.33	Sep-21	0.00	0
13	Stock tower agitator interlocking with pump	36	12391	0.57	Sep-21	0.00	0
14	FD Fan Fine tuning	173	59477	2.74	Oct-21	0.00	0
16	PA Fan Fine tuning	70	23956	1.10	Oct-21	0.00	0
17	Feed Water pump Logic change	252	86737	3.99	Oct-21	0.00	0
18	Filler Layer SR box by pass	408	140432	6.46	Nov-21	2.00	4
19	ETP Thickner By passing ( By Stop )	108	37173	1.71	Dec-21	0.00	0
20	Installing Pasaban sheeter pailing blower with suitable lower capacity	120	41303	1.90	Jan-22	0.00	0
<b>Total Savings</b>		<b>3795</b>	<b>976757</b>	<b>44.93</b>		<b>8.90</b>	<b>2</b>

12-08-2022

Total energy saving – 164 Kw



## CURRENT ROAD MAP TO ACHIEVE GLOBAL BEST (ELECTRICAL AND THERMAL)

Sl.No	Description	Saving Kwh	Annual Total Saving KWh	Savin g/Ton	Target	Status
1	Comp Cooling Tower pump VFD installation	5.00	41303	0.32	Apr-22	Completed
2	F20 Vent Line Diverted from F20 Mini Press to T4D Stand Pipe	2.30	19000	0.15	Apr -22	Completed
3	Chest No 9 Capacity optimization to suit required dilution	25.00	129073	1.05	June-22	Completed
4	Comp Cooling Tower fan VFD Installation	1.73	14291	0.12	July-22	Completed
5	Installing VFD in Drum pulper VAT Pump	30.00	247820	2.01	Oct-22	
6	Installing VFD in Krofta feed Pump	12.00	99128	0.81	Dec-22	
7	Installing VFD in Hood Blower & Fans	15.00	123910	1.01	Dec-22	
8	Reducing Air ingress at APH & ESP	10.00	82607	0.67	Jan-23	
	<b>Total Savings</b>	<b>101</b>	<b>203667</b>	<b>1.64</b>		

Implemented ideas in FY 22 – 23 - 33.00 KWh

Steam saving around **3250 MT / Year** by Implementing flash steam heat recovery system

# ENERGY SAVING PROJECTS

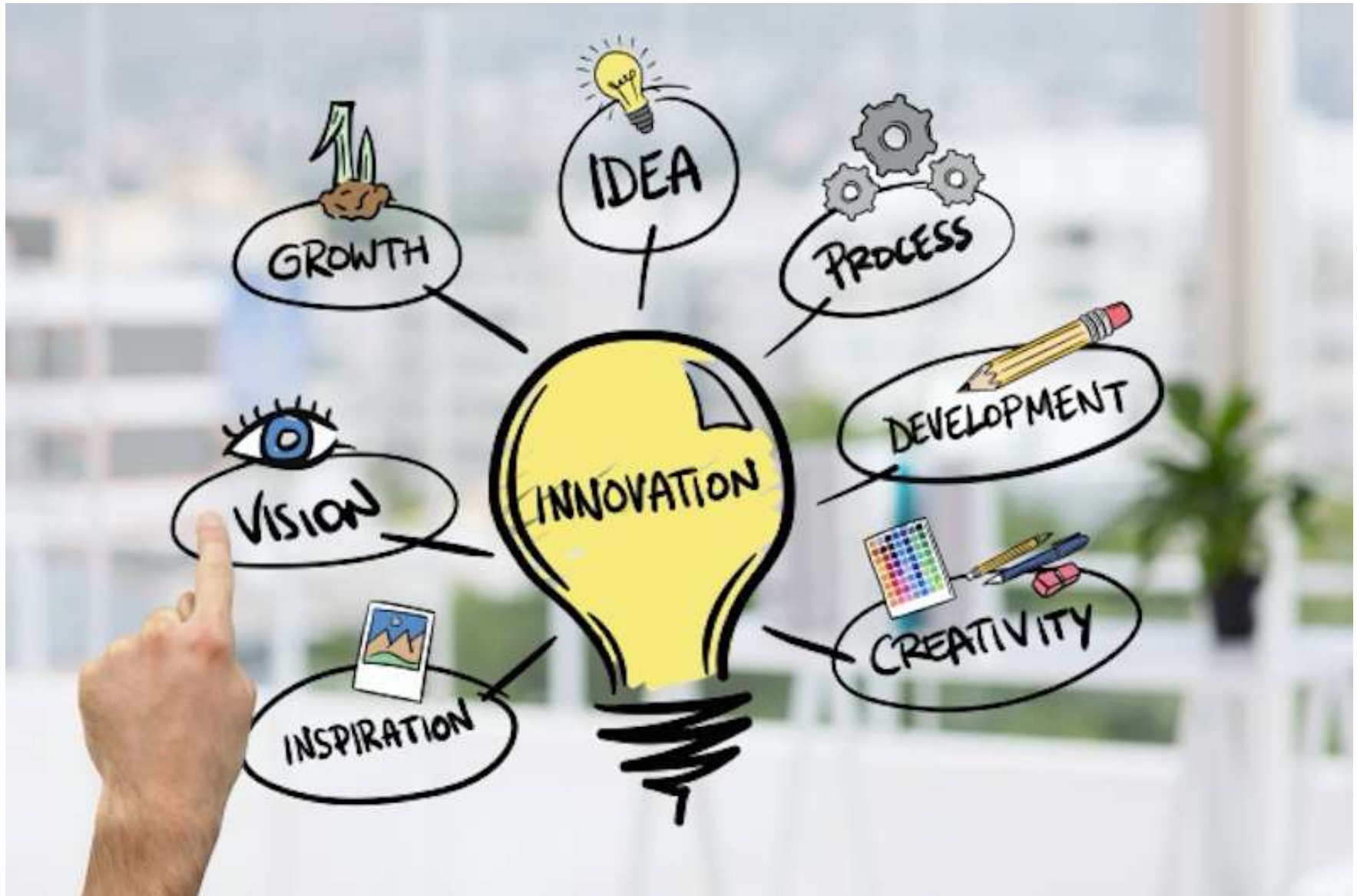


## ENCON PROJECTS IMPLEMENTED (LAST 3 YEARS)

Year	No. of Projects	Sum of Invest. Made (Rs Lakhs)	Sum of Total Annual Savings (Rs Lakhs)	Payback (Months)
2018-19	14	78	68	14
2019-20	11	141	117	14
2020-21	15	35	56	8
2021-22	20	9	45	2
<b>Total</b>	<b>60</b>	<b>263</b>	<b>286</b>	<b>11</b>

- Total 60 schemes were implemented during last 4 years. Average payback for the investment are 11 months.
- Rs.190 Lacs is allocated for year 2022-23 for energy saving schemes.

# INNOVATIVE PROJECT



## Innovative Project - 1

# BOILER EFFICIENCY IMPROVEMENT THROUGH LOSS OPTIMIZATION

## Problem Statement :

- We are having a Thermax make AFBC to meet both power and process demand (Act as a cogeneration plant).
- Average exit oxygen maintained was 5.7 % which reduces boiler efficiency as well as increase in power consumption.

## Data Analytics:

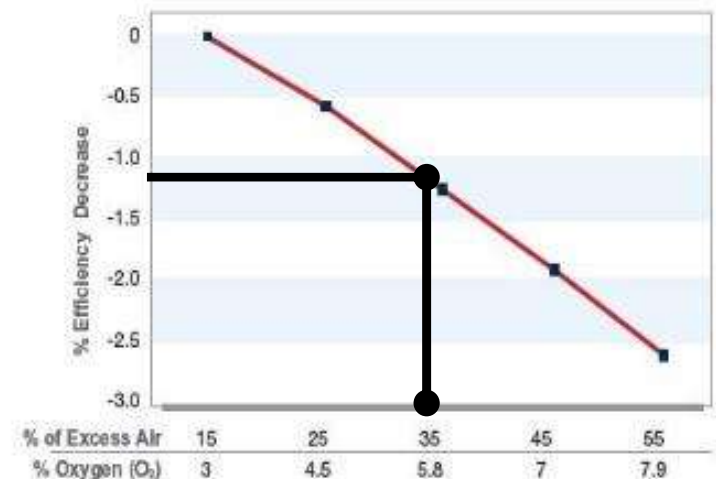
With the help of Data Analytics identify the root cause for increase in exit oxygen because for same load we are able to maintain oxygen in the range of 4 %.

## Software Used :

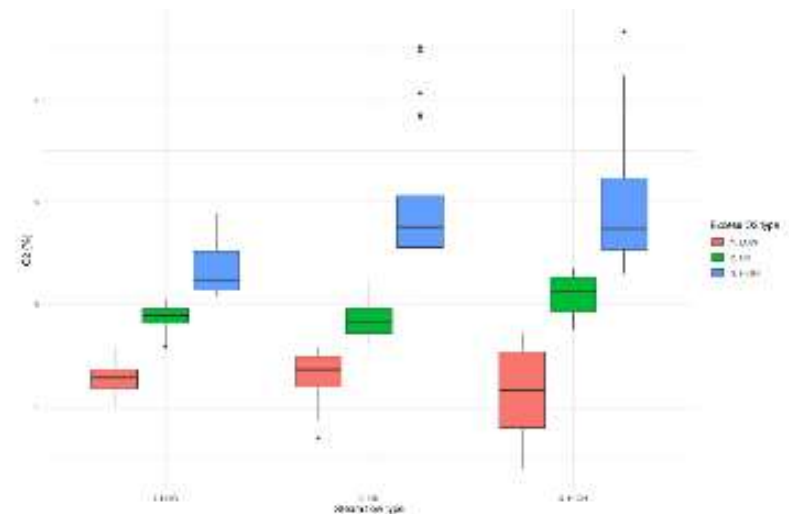
R Studio ( Data analysis software)

## Solution Implemented:

- Golden Batch created
- Auto combustion logic introduced
- PID fine tuned
- Fuel disturbance prediction

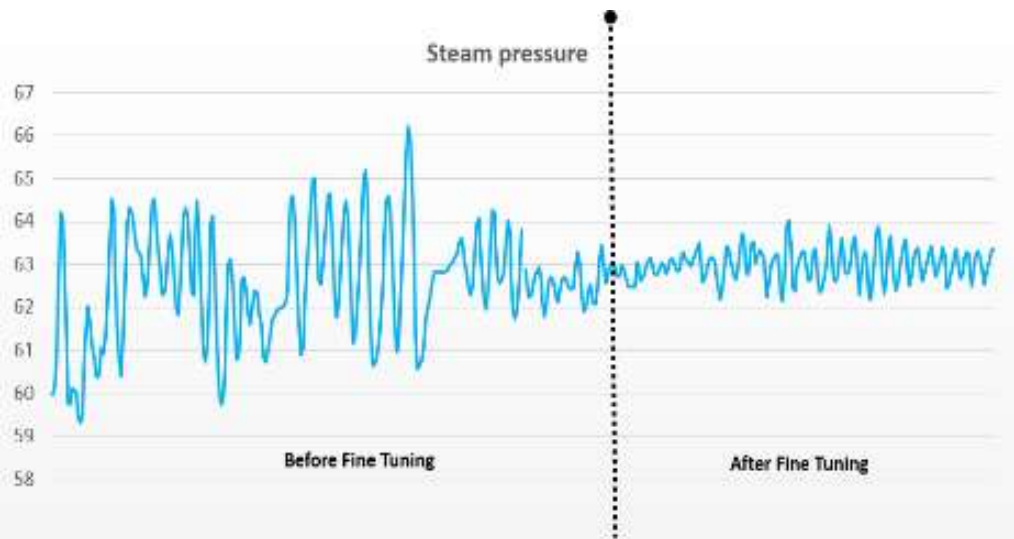


**Boiler efficiency drop due to excess air**



**Data Visualization using R studio**

# BOILER EFFICIENCY IMPROVEMENT THROUGH LOSS OPTIMIZATION



After Fine tuning PID



Fuel Prediction

**PAPERBOARDS AND SPECIALTY PAPERS DIVISION**

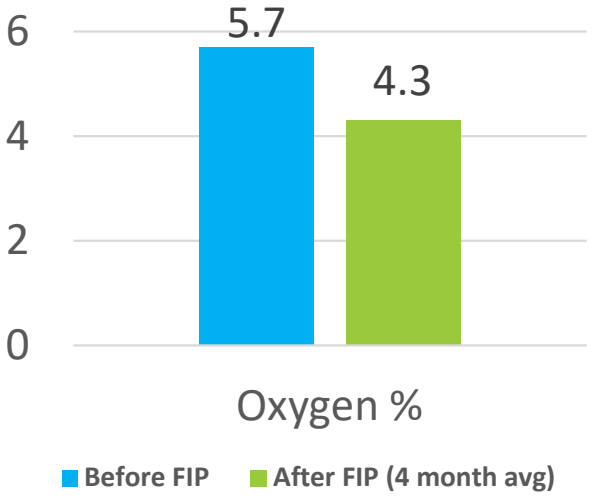
**Kovai Utility Dashboard**      Load Type >>2      Steam Flow >> 43.03

Parameter	Actual	Target	Adherence	Min	Deviation	Max
Air Pressure after APH	505.80	580.00	87.20%	570.00		600.00
Air Temp after APH	167.90	153.00	100%	150.00		158.00
Air flow	56.72	63.00	89.88%	60.00		96.00
Air temperature	4.53	4.80	94.38%	4.00		5.80
Wdg Bed level	439.55	460	95.55%	440		460
Avg furnace temperature	287.50	350	82.14%	330		370
Avg Windbox temperature	522.48	550	95.0%	530		570
Water Temp @ Furn outlet	240.58	245.00	100%	235.00		250.00
Furace output %	3.87	5.40	71.67%	5.50		3.60
Fuel gas pressure @ eco inlet	-18.22	-10.00	182.2%	19.00		8.00
Fuel gas temp @ APH inlet	161.75	170.00	95.15%	145.00		155.00
Fuel gas temp @ eco inlet	464.45	480.00	96.76%	460.00		470.00
Fuel gas temp @ eco outlet	272.00	280.00	97.14%	260.00		280.00
Furace pressure	-8.00	-1.00	48.10%	1.20		-0.50
Oil fan rpm	704.14	700.00	100.45%	700.00		770.00
Final Steam pressure mode value	62.95	63.00	99.92%	65.00		65.00
Final steam pressure	62.95	63.00	99.92%	60.00		63.50
Final steam Temperature	405.50	400.00	101.38%	410.00		483.00

Load in TPH	Load Type
35-40	1
40-45	2
More than 45	3

Golden Batch

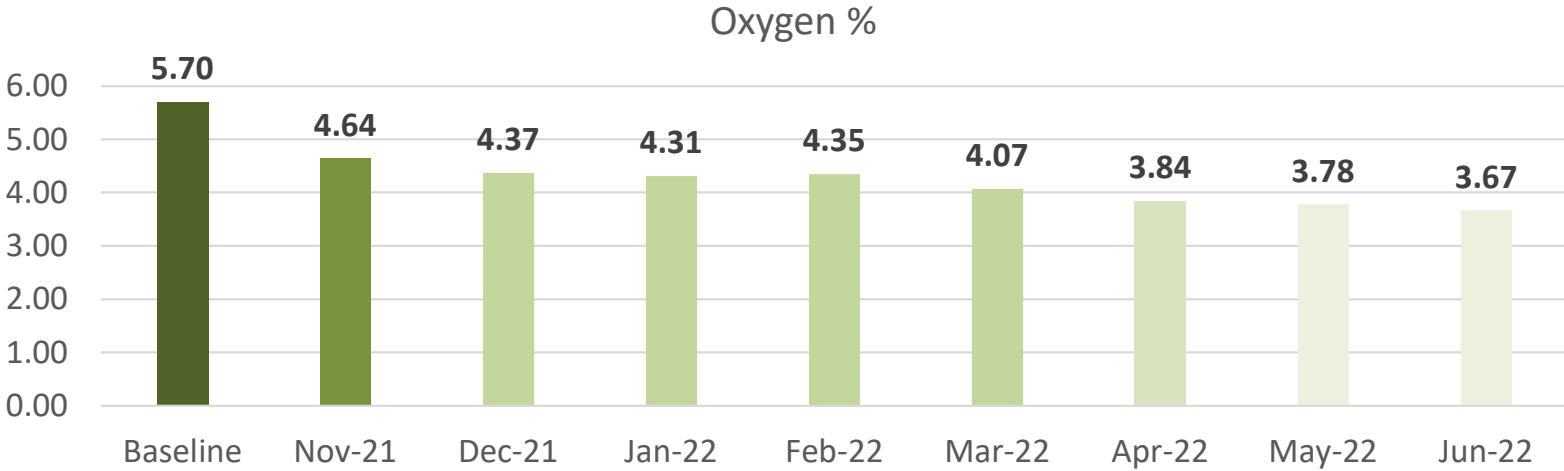
# BOILER EFFICIENCY IMPROVEMENT THROUGH LOSS OPTIMIZATION



Target – Boiler Efficiency in %	1
Boiler Efficiency improved in %	0.7
Savings due to improvement in boiler efficiency in Rs (Lacs)	22.4
Other savings ( in terms of power – KwHr per day)	1000
Savings due to power reduction in Rs (Lacs), considering 3.5 rs & 350 days runnability	12.25
Net savings in lacs	34.65

**Project result**

**Project summary**

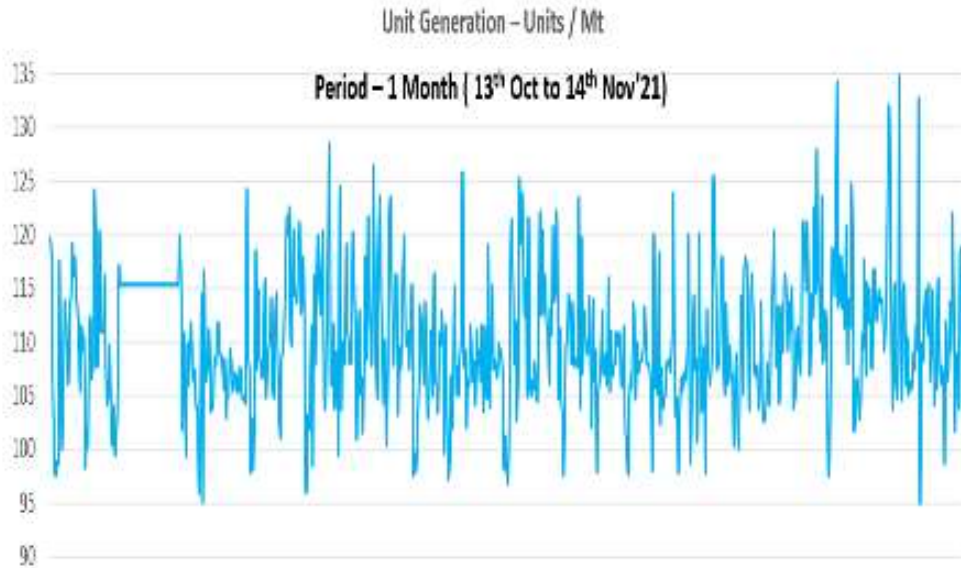


**Trend – Control Phase**



## Innovative Project - 2

# TG UNIT GENERATION IMPROVEMENT



Average Unit Generation	Turbine load - MWHR			
Machine Steam - TPH	3.3 - 4.2	4.3-4.5	4.5-5.0	5.0-7.4
21 - 28	106	111	116	123
28 - 29.5	100	108	112	120
29.5 - 31	98	106	110	118
31 - 36	97	103	107	115

## Project :

- ❖ TG Unit Generation variation is observed on daily due to various reason.
- ❖ In this Project, Team has decided to work-on improving unit generation with help of historian tools

## Inference :

Unit Generation increases with power and decreases with process steam which are variable depending on plant requirement

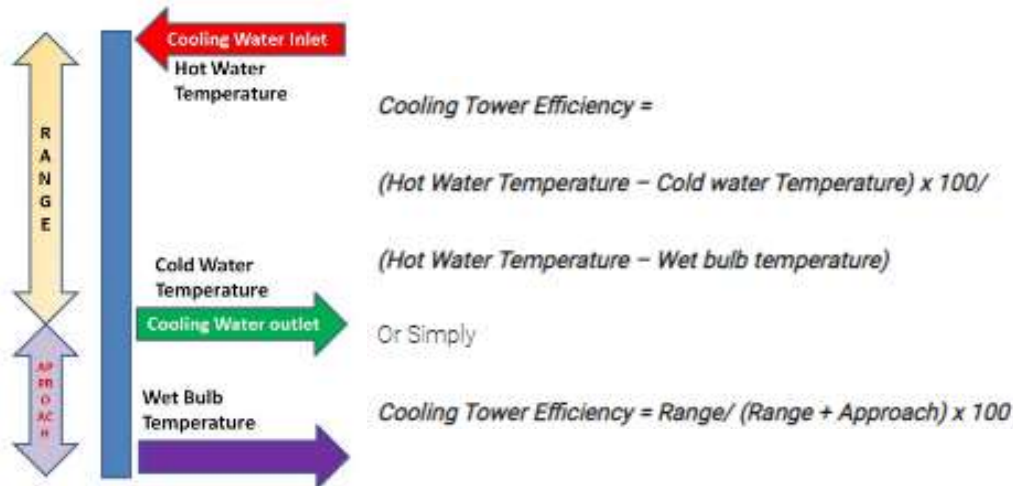
# TG UNIT GENERATION IMPROVEMENT

## Challenge

Cooling Tower is designed for worst case wet bulb temp. Based on seasonal condition wet bulb temperature will vary. But we are running cooling tower at constant inlet water temperature

## Technical Brief

Decrease in temperature difference between wet bulb and cooling tower outlet water results in increase in cooling tower efficiency. Apart from that if water temperature entering the condenser is low, there will be improvement in condenser vacuum



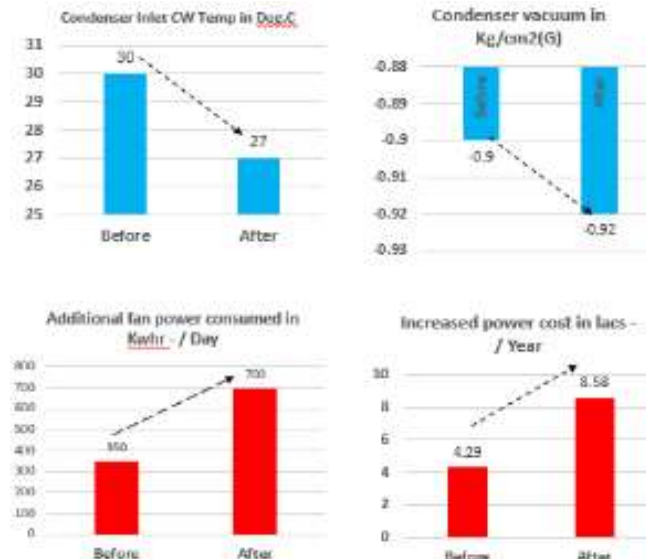
## Approach

Cooling tower consist of 3 cells. Since turbine is operating at 68 % MCR , we are using only one fan to maintain the water temperature. In order to reduce the temperature we ran one more fan and observed the performance of cooling tower and condenser

## Benefits

With our insights and recommendation on prospective strategies we able to

- Increase condenser vacuum from -0.90 to -0.92 kg/cm<sup>2</sup>(G)
- Increase unit generation by 2 units



# UTILISATION OF RENEWABLE ENERGY



## UTILIZATION OF RENEWABLE ENERGY

Year	Technology	Type of Energy	Onsite / Offsite	Installed Capacity (MW)	Generation (Million Kwh)	% of Overall Electrical Energy
FY 2019-20	Wind Mill	Electrical	Offsite	7.50	9.79	16
FY 2020-21	Wind Mill	Electrical	Offsite	7.50	12.24	22
FY 2021-22	Wind Mill	Electrical	Offsite	7.50	18.00	27

Year	Technology	Type of Energy	Onsite / Offsite	Installed Capacity (MW)	Generation (Million Kwh)	% of Overall Electrical Energy
FY 2021-22	Solar	Electrical	Onsite	2.6	4.1	7

Year	Technology	Type of Energy	Installed Capacity (MW)	Usage (Million Kcal)	% of Overall Thermal Energy
FY 2019-20	Biomass	Thermal	8.00	46934	12.67
FY 2020-21	Biomass	Thermal	8.00	51282	14.58
FY 2021-22	Biomass	Thermal	8.00	39150	19.00

# UTILISATION OF WASTE MATERIAL AS FUEL



waste



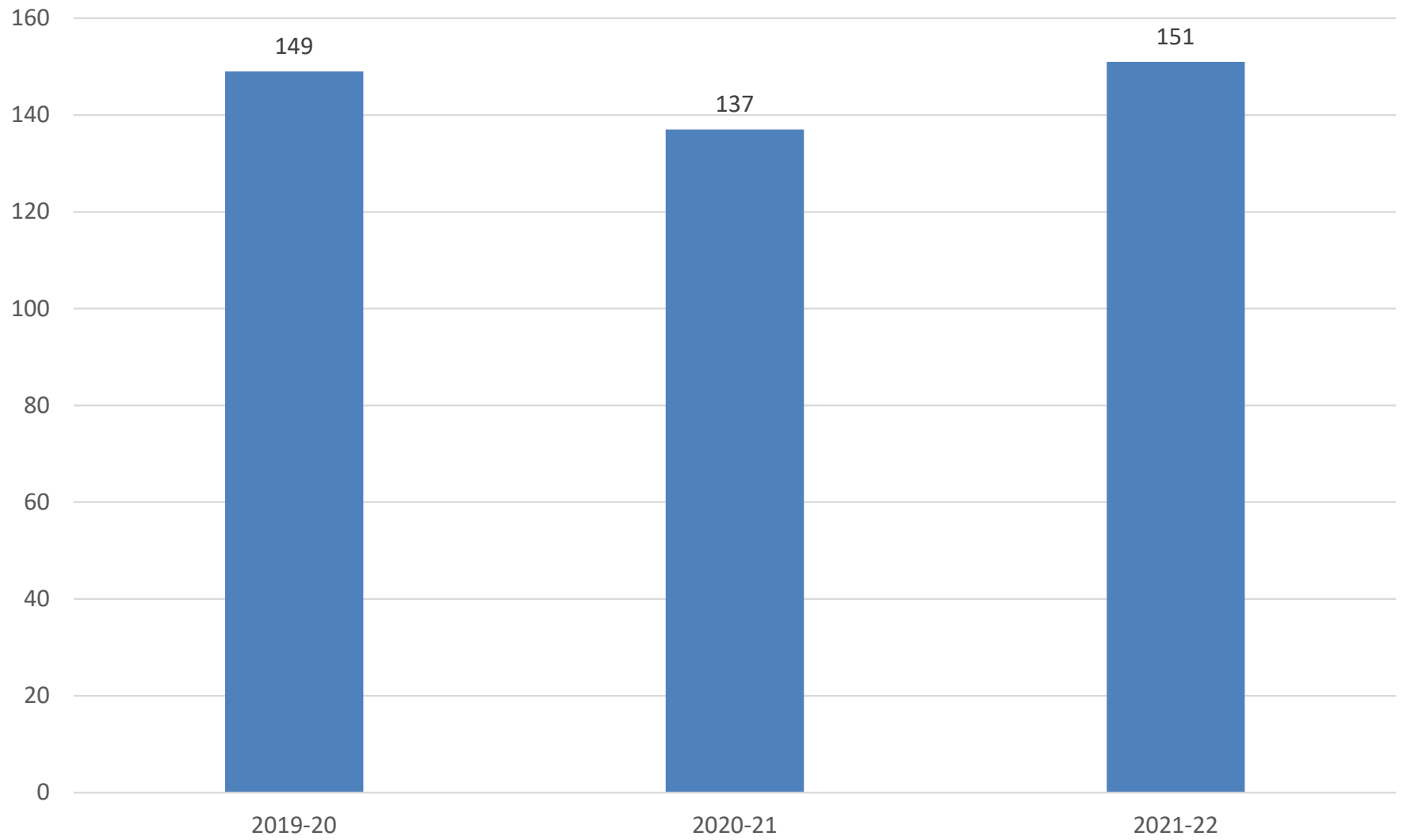
to



fuel

# SPECIFIC WASTE GENERATION DECLARATION

Sp. Waste (Kg of Waste /Tone of Production)



# UTILIZATION OF WASTE MATERIAL



## ETP Sludge

- 100% sludge generated is reused in process



## Process Plastics Waste

- 100% sent to cement plants to Co-process in kiln



## Fly Ash & Bed Ash

- 100% fly ash & Bed ash generated recycled for brick making

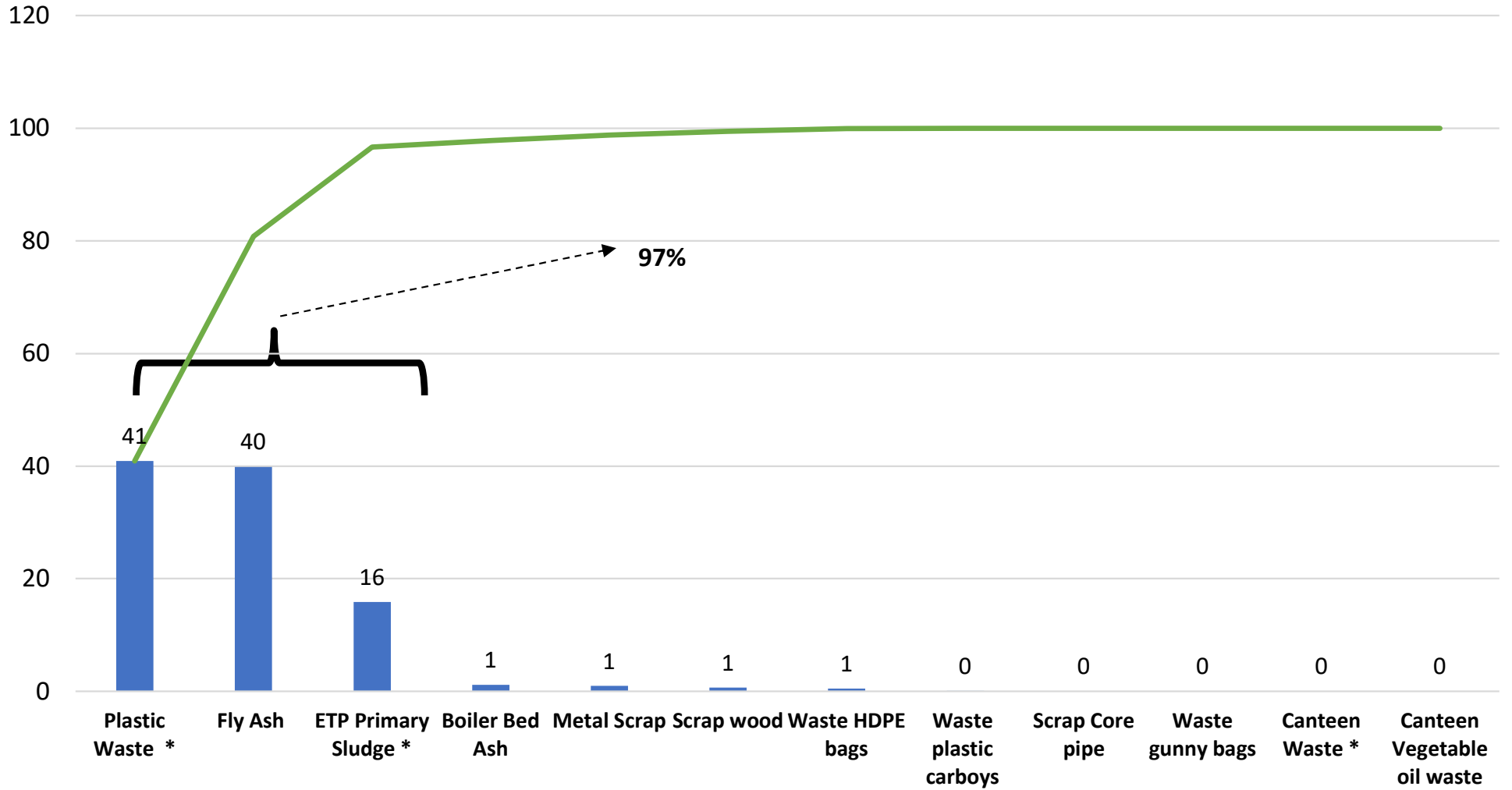


# WASTE MANAGEMENT - INVENTORISATION

Sl.No	Type	2019-20 MT	2020-21 MT	2021-22 MT
1	Plastic Waste	9285	4515	9176
2	Fly Ash	9148	7269	8940
3	ETP Sludge	1772	1317	3557
4	Boiler Bed Ash	170	732	258
5	Metal Scrap	78	391	216
6	Scrap wood	427	230	144
7	Scrap Core pipe	0	0	0
8	Waste gunny bags	10	113	0
9	Waste plastic carboys	16	53	15
10	Waste HDPE bags	147	0	112
11	Canteen Waste	1	1	0
12	Canteen Vegetable oil waste	2	0	0
	<b>Total</b>	<b>22169</b>	<b>14305</b>	<b>22418</b>

\* All waste is reported on dry basis

# WASTE GENERATION PARETO



Out of 13 category of waste only 3 category of waste has contributed to 97%

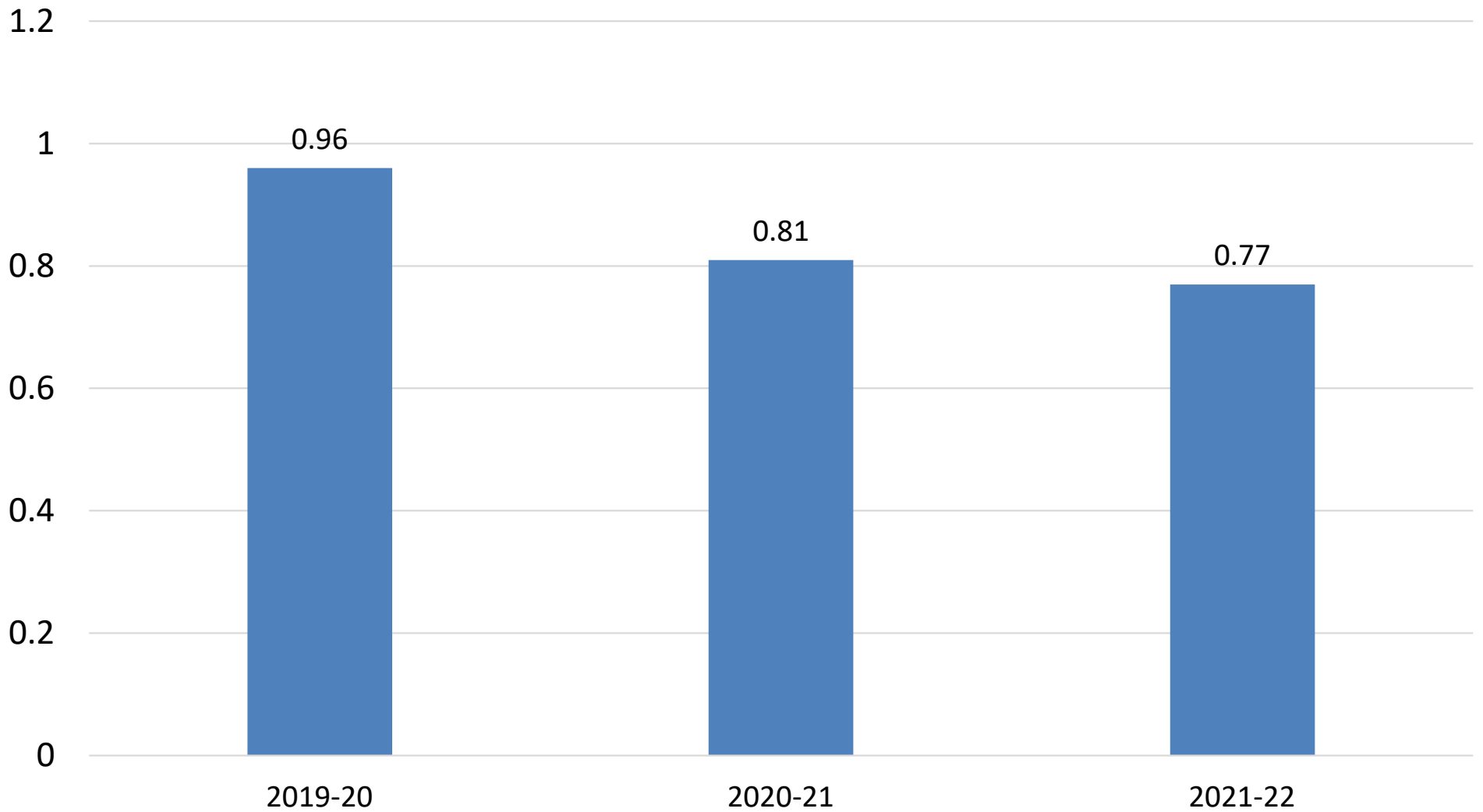
## PROJECTS IMPLEMENTED TO REDUCE NON HAZARDOUS WASTE MANAGEMENT AT PROCESS

S.No	Area	UOM	2017-18	2018-19	2019-20	2020-21	2021-22
1	Fiber Loss	%	2.13	2.03	2.18	2.08	1.82
2	Finishing Loss (B/C/D)	% of Net Production	6.87	6.02	6.21	6.14	5.7
3	Machine stage Re-Pulp (A)	% of gross production	1.79	1.50	1.70	1.56	1.39
4	Machine stage Broke Gen.	%	2.57	2.16	2.13	2.15	2.12



# GHG EMISSION INVENTORIZATION

Total GHG emission, Specific Tonnes of CO<sub>2</sub>/Tonne



# GHG EMISSION INVENTORIZATION MANAGEMENT

Ton of Co2

GHG emission Inventorization management	2018-19	2019-20	2020-21	2021-22
Direct GHG Emissions (Scope-1)	99331	104391	84672	86664
Energy Indirect GHG Emissions (Scope-2)	1281	3297	339	302
Other Indirect GHG Emissions (Scope-3)	28043	11228	12466	13383
Total	128655	118916	97477	1,00,349

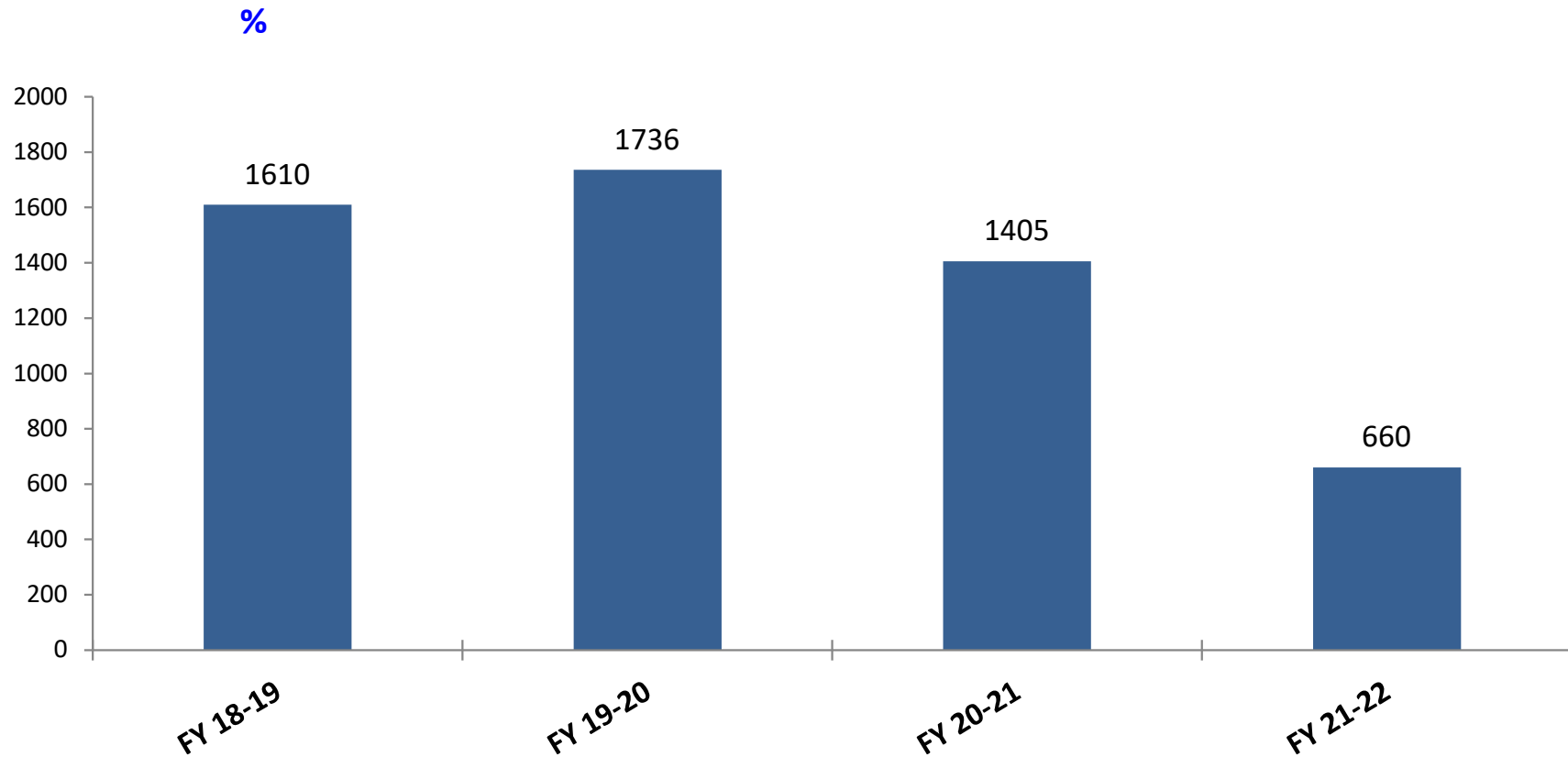
CO2 Emissions from combustion of Biomass is not considered

# Green Supply Chain



# WoW collection

WOW material receipt-Avg per month

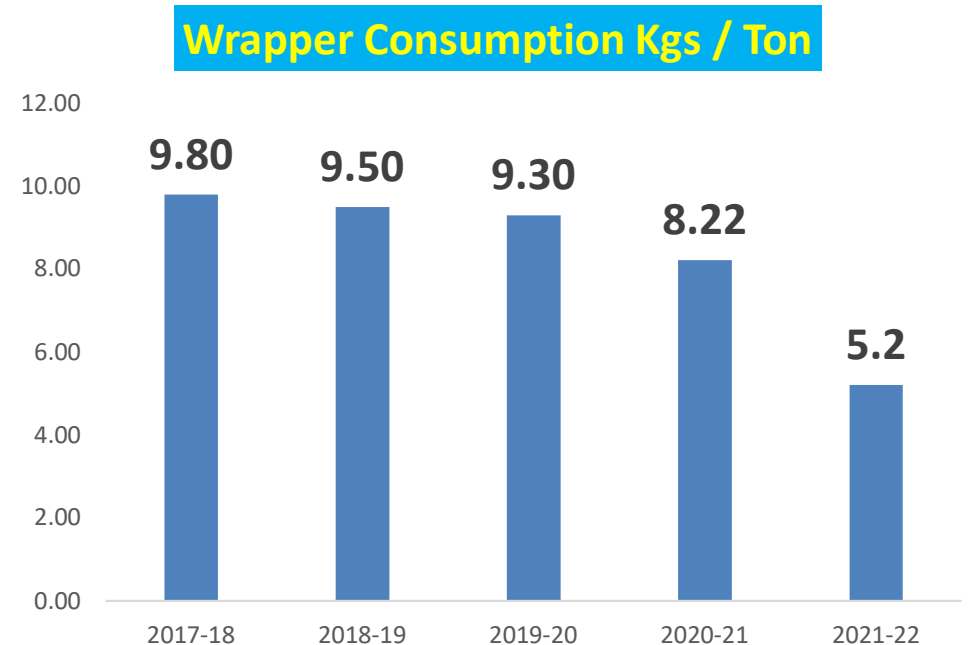
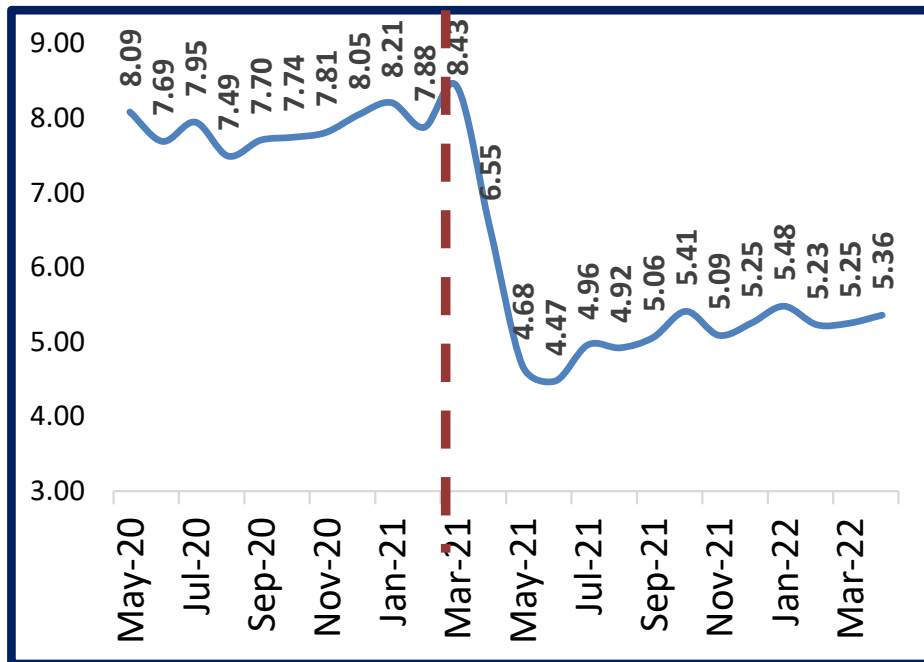


\*In FY 20-21 & 21-22, due to Covid 19, the generation itself has come down as there is less schools/colleges & commercials functioning. Hence receipt has come down.

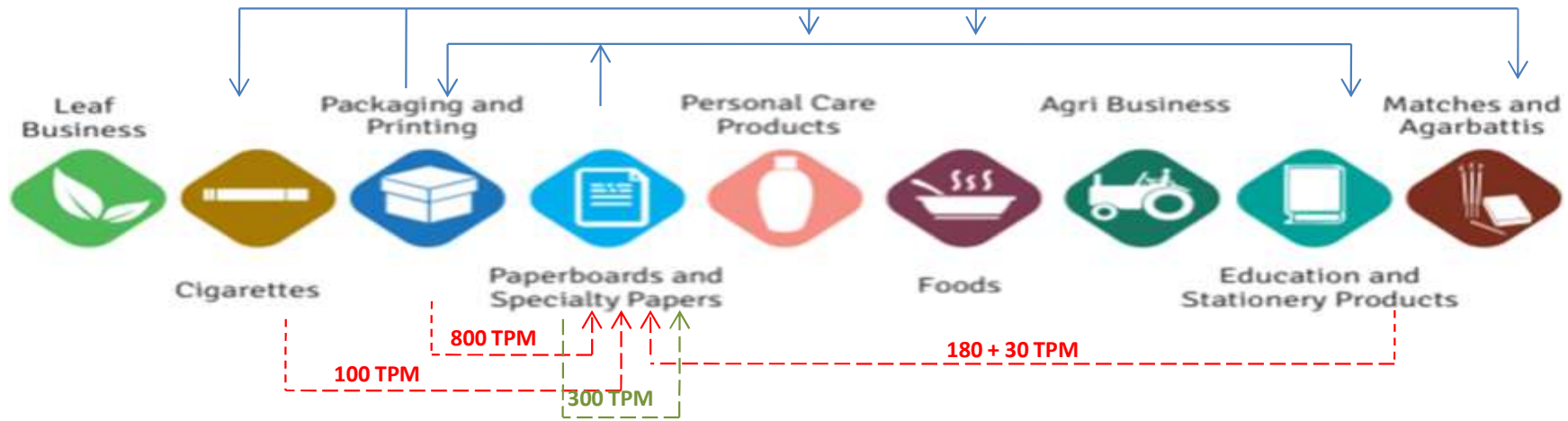


# Reduction in Consumption of wrapper

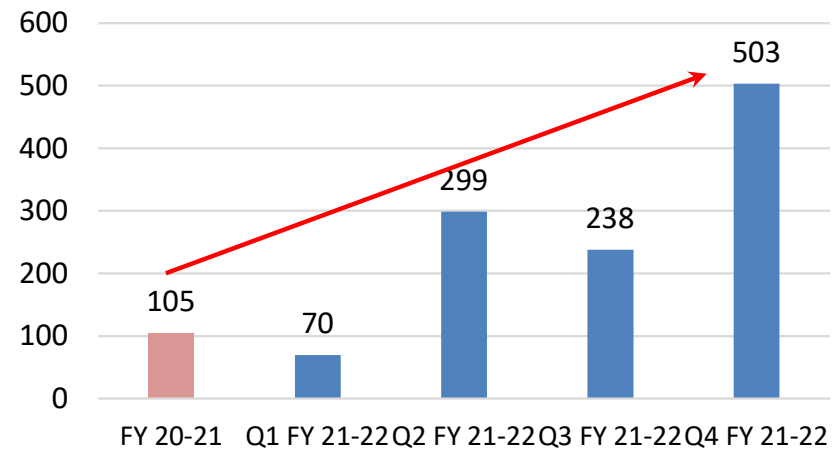
- No. of sheets per pallet has been increased from 100 to 200 No's during Apr-21.
- **35.6% reduction in consumption of wrapper**



# Sourcing through concept of Circular economy



- Started sourcing of Market Duplex cutting from our own converters.
- Earlier this was going to unorganized market vendors / landfill – No traceability
- Now diverted to ITC PSPD Kovai . Total 3 vendors developed in FY 21-22 & further 4 vendors under development



# Alternate Biofuels



**Saw Dust**



**DOB /  
Paddy Husk**



**Wood  
chips**



**Charcoal  
dust**



**Charcoal  
Chips**



**Julliflora**



**Turmeric  
waste**

Key criteria for consideration are

- *Availability (as byproduct from other plants).*
- *Road distance from the plant (transportation cost).*
- *Energy cost (Rs. per 1000 kcal).*
- *Alkali content.*

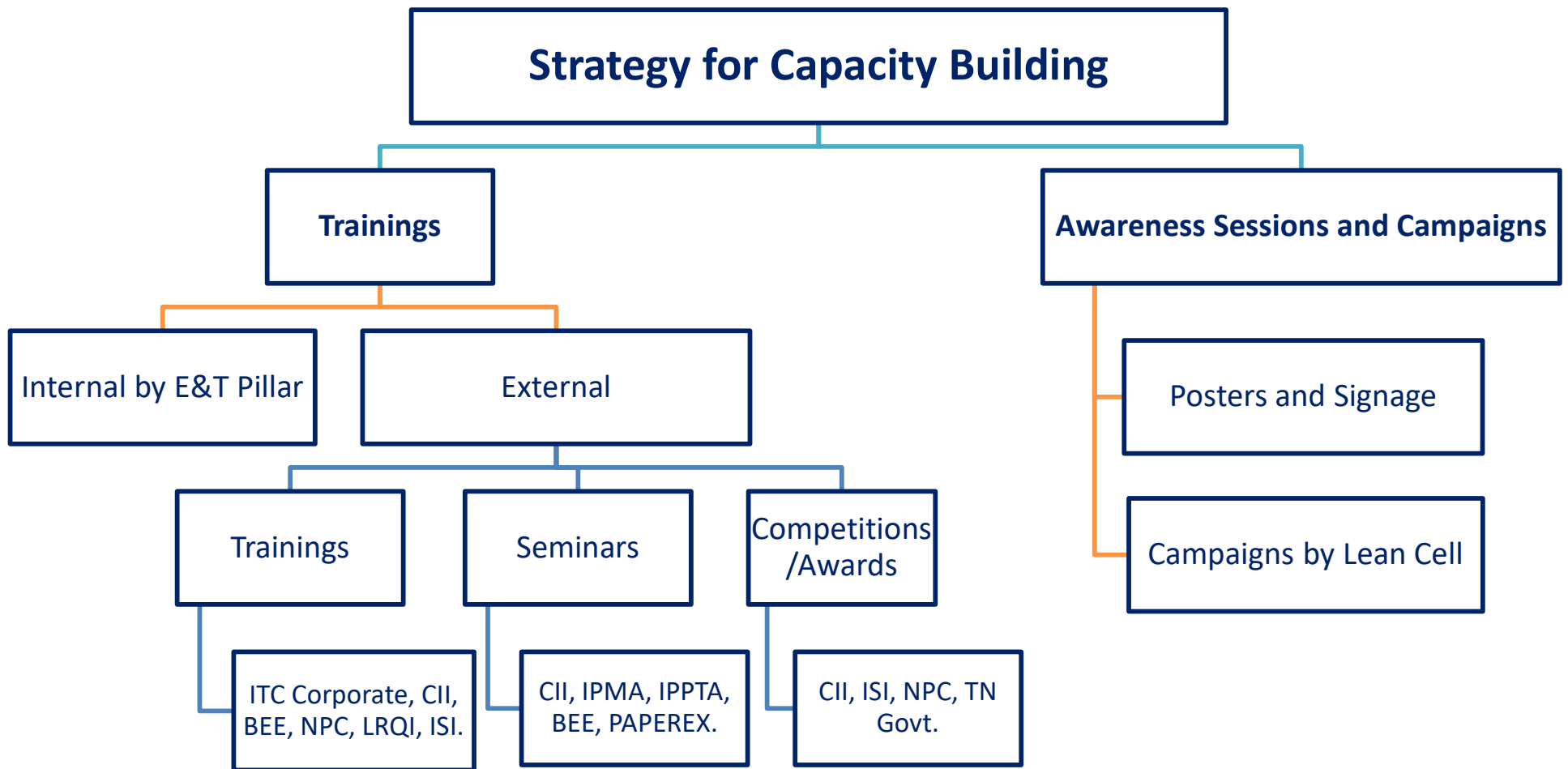


# TEAM WORK, EMPLOYEE INVOLVEMENT & MONITORING



# EMPLOYEE INVOLVEMENT & CAPACITY BUILDING

Awareness creation, Training & Capacity building

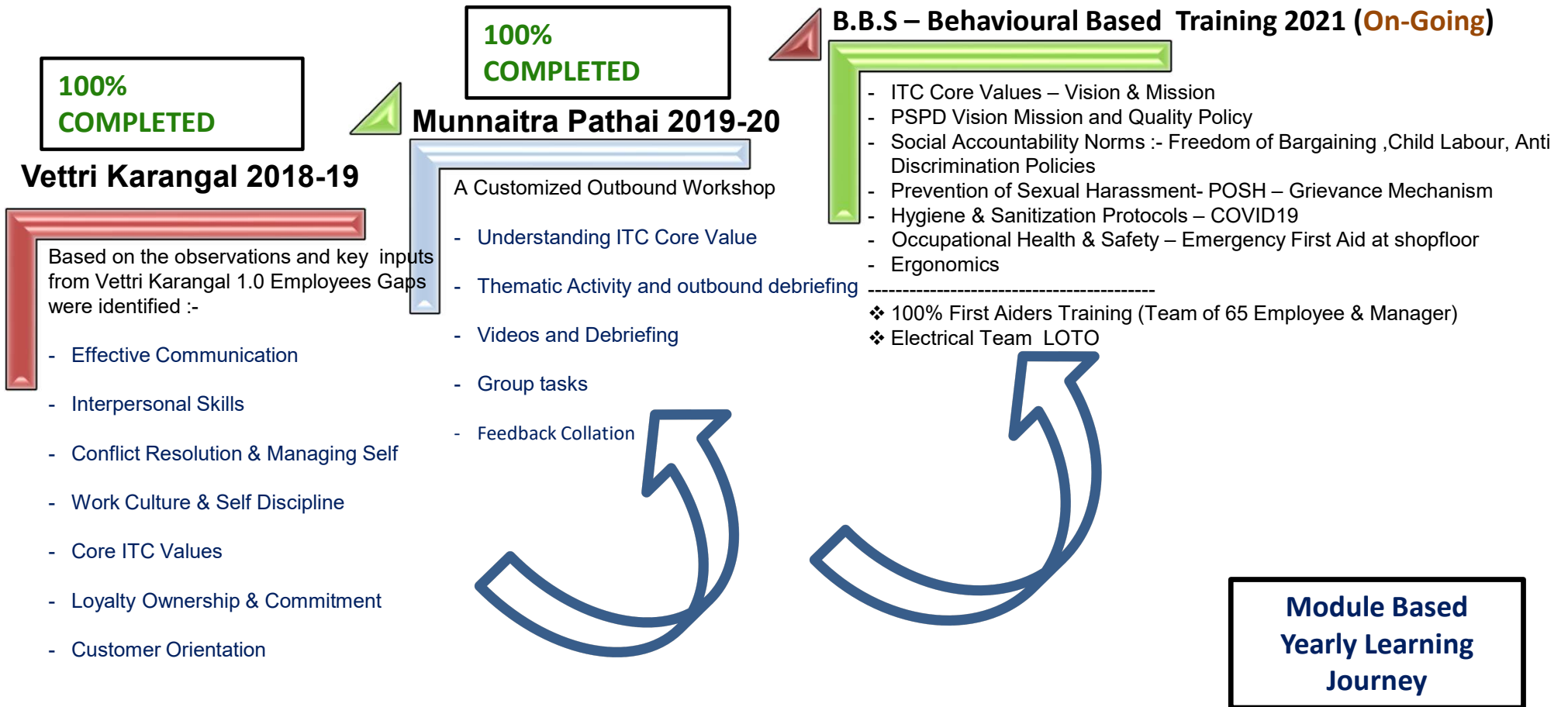


## ENERGY MANAGEMENT CELL & ENERGY MANAGER

SNo	Name	Specialization	Energy Cell Role
1	N Alagiri	<b>Energy Manager &amp; Environment</b>	Head - Engineering
2	P.Jayasankar	<b>Energy Manger</b>	Designated Unit Energy Manager
3	Iswara Prasad	<b>Energy Manager &amp; Electrical</b>	Board Machine representative
4	S.Rajaram	<b>Energy Manager &amp; Operation</b>	Utility representative
5	M.Phaneendhra	<b>Energy Manager &amp; Mechanical</b>	Engineering representative
6	G Srikanth	Electrical	Electrical representative
7	V.Abinesh	E&I	Stock representative
8	P.Saranraj	Mechanical	Stock representative
9	S Vignesh	Mechanical	Utility representative
10	R.Siva	Process	Board Machine representative
11	N.Sasi Kumar	Process	Stock representative

# BEHAVIOURAL TRAINING OF EMPLOYEES

## - Value Internalization Journey -



GI Credit 2 – Work place Safety





# Kovai Kaizen Competition – KKC 1.0

## Objective – KKC 1.0

- Kovai Kaizen Competition K.K.C 1.0 is organized for all category - Employees & Managers who are invited to showcase their Best Kaizen Contribution.
- To enhance their **Presentation Skills** ; A handholding session by respective leaders is practiced and then finally presented to Cross functional HODs in presence of Factory Manager



Unit Engagement & Performance Platforms		
Event	Participants	Award Winners
No of Managers Participated in KKC 1.0	<b>62 Presentations</b>	<b>07 Winners!!!</b>
No of Managers Participated in "Think Young Workshop"	<b>39 Presentations</b>	<b>13 Winners!!!</b>

12-08-2022



# Nurturing the Talent Pool

## Refresher Induction Employees & Badlis



Glimpses of Refresher Session taken by **Safety; QA & Business Excellence** Leaders for Employees.

Phases	Learning objective
Phase 1	Theoretical Understanding through Classroom sessions including special Interaction sessions with Functional Heads
Phase 2	On Job Training at various areas of the Mill and Practical Demo Model of <b>Miniature Factory and Equipments</b> at <b>Arivalayam Centre</b> under the guidance of Senior workmen

# REWARD & RECOGNISATION

## Reward Methodology:

- All monetary reward for employees and managers shall be credited to their salary in the subsequent months.
- For ESP & Badli of any PACT or Non-PACT members, the reward will be in kind only through ITC products, as mentioned in Category 6

Sl No	Kaizen Benefit Category	Reward Category	Frequency of Evaluation	Individual Reward Value in Rs	Team Reward Value in Rs
1	All PQCDME Ideas	Best Kaizen for the Quarter (Individual)- Each PACT	Quarterly	1000	Max 100 per head (Max Rs1000/-per team )
		Best Kaizen for the Quarter ( Group) – Each PACT		-	Max 100 per head (Max Rs1000/-per team )
2	All PQCDME Ideas	Innovator of the Quarter- Individuals who have conceived and implemented 15 or more kaizen in a Quarter –Each PACT	Quarterly	500	Max 50 per head (MaxRs500/-per team)
3	Safety and Cost (Kaizen savings upto 1 lakh)	Best Kaizen for the Quarter(Individual) – Each PACT	Quarterly	500	Max 50 per head (MaxRs500/-per team)
		Best Kaizen for the Quarter ( Group) – Each PACT			Max 50 per head (MaxRs500/-per team)
4	Inter PACT Competition	All PACTS	Quarterly		3000
5a	All ideas with savings Morethan 1 lakh upto 5 lakhs	All Kaizen with monetary benefits upto 5Lakhs ( Applicable for PACT members only)	Anytime	4000	-
5b	All ideas with savings Morethan 5 lakhs	All Kaizen with monetary benefits more than5 Lakhs ( Applicable for PACT members and managers)	Anytime	6000	-
5	Role Models	Each Role Model- Gift as and when declared by steering committee	One time	5000	-
6	Best Kaizen selected is from ESP& Badli of any PACT or of Non-PACT members	One Best Kaizen Idea / Quarterly – which got implemented by the ESP, Badli of any PACT or ESP of Non-PACT members	Quarterly	500	Max 50 per head (MaxRs500/-per team)

# Divisional Level Recognitions

**FIP of the Year : 2<sup>nd</sup> Runner-up**  
**Kovai : Utilities**

₹3

₹  
 INR  
 0.58 Cr

*"Boiler Losses Reduction & Efficiency Improvement"*

P Premaguru    P Murugesan    S Vignesh    N Vijaya Kumar

**FIP of the Year : Winner**  
**Kovai : Paper Machine**

₹1

₹  
 INR  
 3.0 Cr

*"Productivity Improvement by 0.6 TPH"*

N R Murali    S Sathiyagar    M Boopathi    R Muralidharan    N Gopal Chowdary

**I4.0 Project of the Year : Winner**  
**Unit Kovai : Paper Machine**

₹1

₹  
 INR  
 1.2 Cr

*"RDA & Sizing chemical optimization"*

S Anur Kumar    Abdulla A Basha    Sethish Kumar Sannaj    Abinash Vijayakumar

T Jagadeesh Sai Kumar    N Gopal Chowdary

**Kovai**

Spot Awards - Raisina

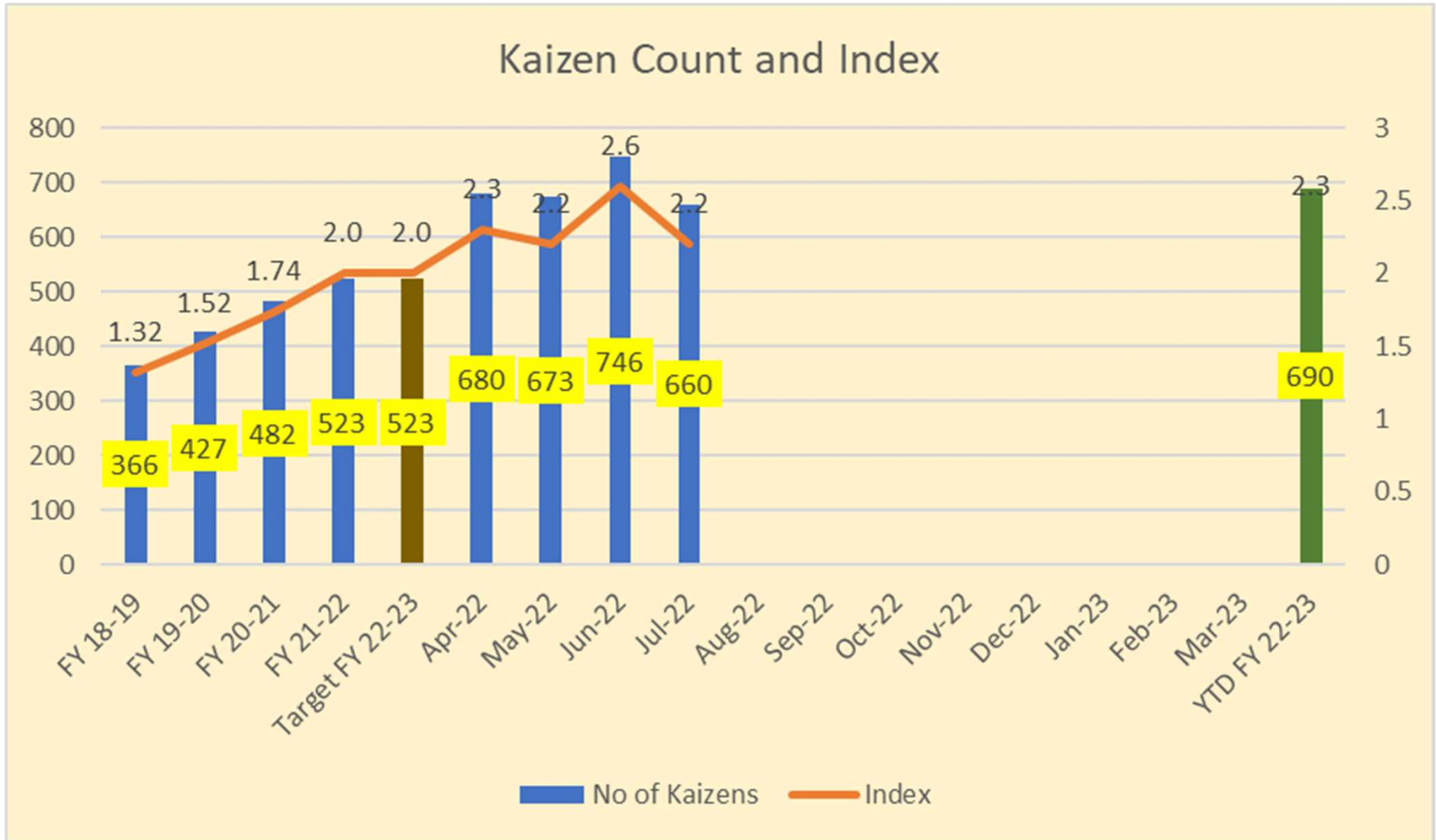
D Thangaraj    KS Rajalakshmi    R Ramaraj

K Kumaresan    Suresh Sampath    M Karthik

₹  
 INR  
 0.86 Cr

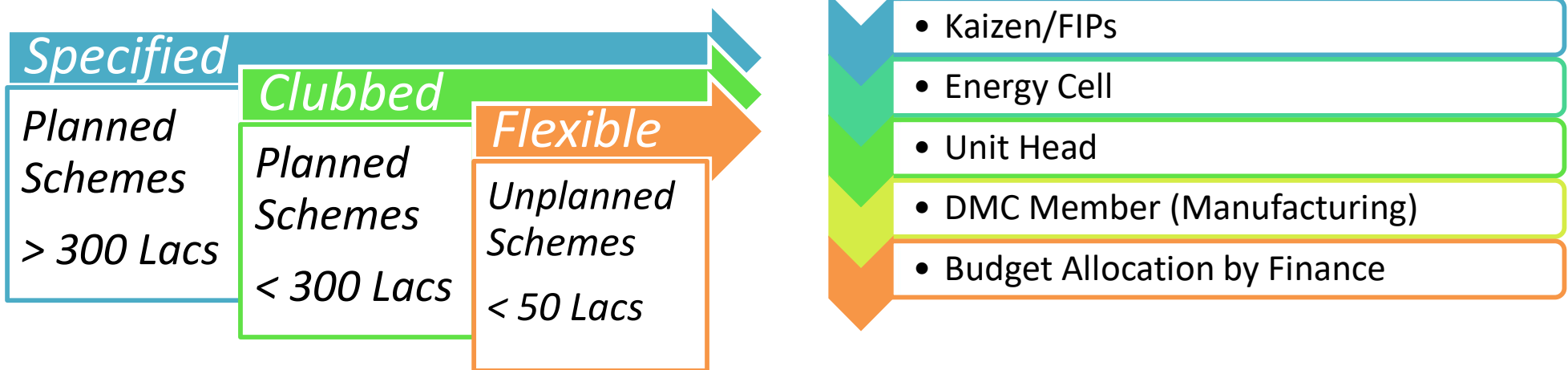
★ *"Reduction in Packing Cost : Ream packing of 200 sheets as against 100 sheets"*

# KAIZEN INDEX



# FINANCIAL RESOURCE ALLOCATION: CRITERIA & PROCESS

- Planned Initiatives → Planned Schemes.
- Kaizen/FIPs → Unplanned Schemes.



## Revenue Fund allocation & utilization

- Kaizens related to non capital asset will be implemented through revenue budget
- One time budget is reserved for Kaizens / FIPs

**Eg:** Pump efficiency coating, automation, line modification etc.

# MONTHLY REVIEWS PERTAINING TO ENERGY EFFICIENCY



Monthly review at OGM meetings by the USB

Cross functional Energy Management Cell holds weekly meetings to review the energy consumption and initiates Energy Conservation Projects

Daily area wise Energy consumptions monitored, reviewed in AET meetings and updated in AET Boards

# IMPLEMENTATION OF ISO 50001/GREEN CO/IGBC RATING





# AWARDS RECEIVED BY UNIT KOVAI

## **1. C.I.I - 22<sup>st</sup>National Award for Excellence in Energy Management 2021 - 24-27<sup>th</sup> Aug"2021**

- Unit Kovai has been awarded as "Energy Efficient Unit" by jury of National Award for Excellence in Energy Management held on **24-27<sup>th</sup> Aug"2021**

## **2. C.I.I - 22<sup>st</sup>National Award for Excellence in Energy Management 2021 - 24-27<sup>th</sup> Aug"2021**

- Unit Kovai has been awarded as "Most Useful Presentation" by jury of National Award for Excellence in Energy Management held on **24-27<sup>th</sup> Aug"2021**

## **3. C.I.I 17th Online Continuous Improvement Kaizen Competition 2022 – 30<sup>th</sup> June -1 July 22 CII Chennai**

- Unit Kovai has been awarded with 1<sup>st</sup> Prize in Large Manufacturing operator Category for Continuous Improvement (Kaizen)  
Kaizen for Sheeter productivity improvement using parallel sheeting.

## **4. C.I.I 17th Online Continuous Improvement Kaizen Competition 2022 – 30<sup>th</sup> June -1 July 22 CII Chennai**

- Unit Kovai has been awarded with Commendation Prize in Large Manufacturing operator Category for Continuous Improvement (Kaizen)  
Kaizen for White Pulp quality improvement using flap switch.

## **5. C.I.I 14thNational Competitiveness & Cluster Summit 2021 – 25 &26th Nov"2021 ; CII Chandigarh**

### **Theme- Best HR Practices (Involvement via L&D)**

- Unit Kovai HR won the Platinum award for Total employee Involvement

## **6. GreenCo Trending Performer Award – October 2020**

- Unit Kovai won the GreenCoTrending Performer Award 2020 ; For the Unit efforts to sustain and overall improve unique initiatives & Excellent Achievements in GreenCo Aspects



Confederation of Indian Industry  
125 Years - Since 1895



## CII - GreenCo Star Performer Awards 2020

*Certificate of Recognition*

**AWARDED TO**

**ITC Limited, PSPD, Unit:Kovai**

In recognition of excellence in GreenCo Performance  
and achieving GreenCo Trending Performer Award 2020

**October 2020**

**K S Venkatagiri**  
Executive Director  
CII - Godrej GBC

**Pradeep Bhargava**  
Chairman  
GreenCo Council  
CII - Godrej GBC

**L S Ganapati**  
Chairman  
GreenCo Assessor's Panel  
CII - Godrej GBC



## AWS & ISO 50001

- **Unit Kovai is the First Paper Mill in the world to achieve platinum rating – the highest rating – under the Alliance for Water Stewardship standards..**
- ITC Kovai is the first site in India and only the second in the world to be awarded this certification based on international benchmarks in water stewardship. The fact that the ITC Kovai was awarded the prestigious AWS Platinum level certification - only awarded to those sites that meet the very highest standards - is testament to the extensive actions directed beyond the site's own water use to supporting communities, vulnerable groups and local agencies to build a sustainable future.





**THANK YOU**

