Webinar on

" How Green is your Company"

JK Organization (EZ) –Group Profile

Late Lala

Juggilal Singhania

- Reputed and diversified group in business for over 125 years
- Turnover of $ 4.0 billion.
- Sales and Service network of 10,000+ distributors and retailers.
- Multi - business operations; footpoint across 6 continents, 100 countries & 29 manufacturing facilities across India.
- A team of 40,000+ committed and motivated managers and workers.

Late Lala

Kamlapat Singhania

Group Companies:

JK Tyre : Vision ,Mission, Values

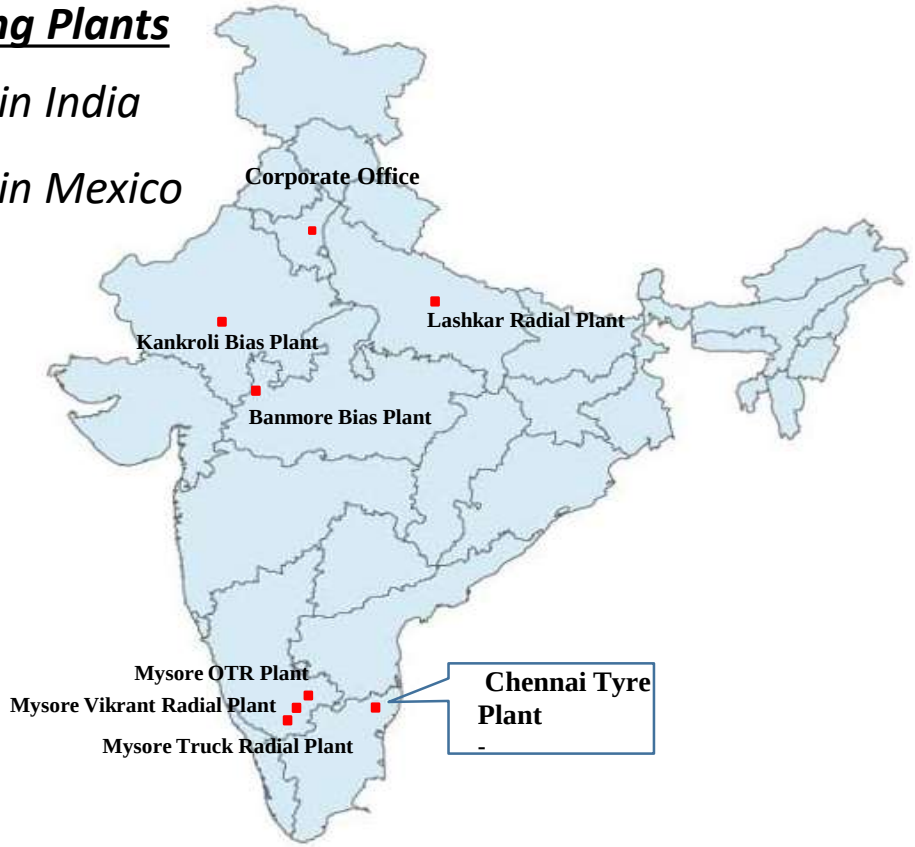
- Vision
  - To be amongst the most trusted companies with global tyre brand
- Mission
  - Be a Customer Obsessed Company–Customer First 24x7
  - Most Profitable tyre company in India – Deliver Enhanced value to all stakeholders
  - No.1 Tyre Brand in India and amongst Leading tyre brands globally
  - Lead with Premium products through Technological Edge
  - Enhance global presence through Acquisition / JV / Strategic Partnerships
  - Be a socially responsible corporate citizen
  - Be a Learning &Innovative organisation with motivated team

- Core Values
  - Caring for people
  - Integrity including intellectual honesty, openness, fairness & trust
  - Commitment to excellence

Our Manufacturing Plants and Brands

Manufacturing Plants

- *9 Plants in India*
- *3 Plants in Mexico*



Our Brands

JK TYRE

VIKRANT

TORNEL

VALIANT PACIFIC LLC

CHALLENGER

Tyres in the Range:

- *Truck & Bus Radials*
- *Truck & Bus Bias*
- *Light Truck Radials*
- *Pass Car Radials*
- *Farm Bias & Radials*
- *OTR Bias*
- *Specialty, Industrial & Implement*
- *2 & 3 Wheeler*

JK TYRE & INDUSTRIES LTD.

Glimpses of
JK TYRE & INDUSTRIES LTD
CHENNAI TYRE PLANT

Fact Sheet – Chennai Tyre Plant

Location	Sriperumbudur, Kanchipuram District, Tamilnadu : 602106
Distance from Chennai City	49.6 k.m
Distance from Port	52.8 k.m
Land Area	102.95 Acre
Total Built-Up Area	24 Acre
Green Belt Area	25 Acre
Expansion Area	52.95 Acre

- *Chennai Tyre Plant in Tamil Nadu is the **6th** manufacturing plant of JK Tyre*
- *Went on stream from **05th February 2012***
- *Investment of **24680 Million Rupees***
- *Capacity: **4.5 Million** Passenger Car Radial (PCR) tyres and **1.2 Million** Truck / Bus Radial (TBR) tyres per annum.*
- *Among the Most energy efficient tyre companies in the world (**8.84Gj/Ton**)*
- *1st Indian tyre company to have certified for **ISO 50001** (Energy Management)*
- *1st Indian tyre company to have verified Carbon Footprint as per **IS-14064***

Product Portfolio & Key Customer

Passenger Car Radials - PCR

PCR - Variants	Size	Type	No of SKU
Car Radials	12”To 18”	Tubeless	63
Jeep Radials	15” To 16”	Tubeless	2
SUV Radials	16” To 18”	Tubeless	51
Light Truck Radials	12” To 17”	Tube & Tubeless	18

Truck Bus Radials-TBR

TBR - Variants	Size	Type	No of SKU
Truck Bus Radials	20”	Tube & Tubeless	23
Truck Bus Radials	22.5”	Tubeless	25

Key Customers

MARUTI SUZUKI
Mahindra
TATA
HYUNDAI
GM
ASHOK LEYLAND
RENAULT NISSAN

ASHOK LEYLAND
TATA
DAIMLER
Daimler India Commercial Vehicles Pvt. Ltd.
FORCE
MAN
MAN FORCE TRUCKS Pvt. Ltd.
EICHER
VOLVO

STATE TRANSPORT UNDERTAKEN

Tamil Nadu State Transport Corporation(TNSTC)

Kerala State Road Transport Corporation (KSRTC)

Andhra Pradesh State Road Transport Corporation (APSRTC)

Maharastra State Road Transport Corporation (MSRTC)

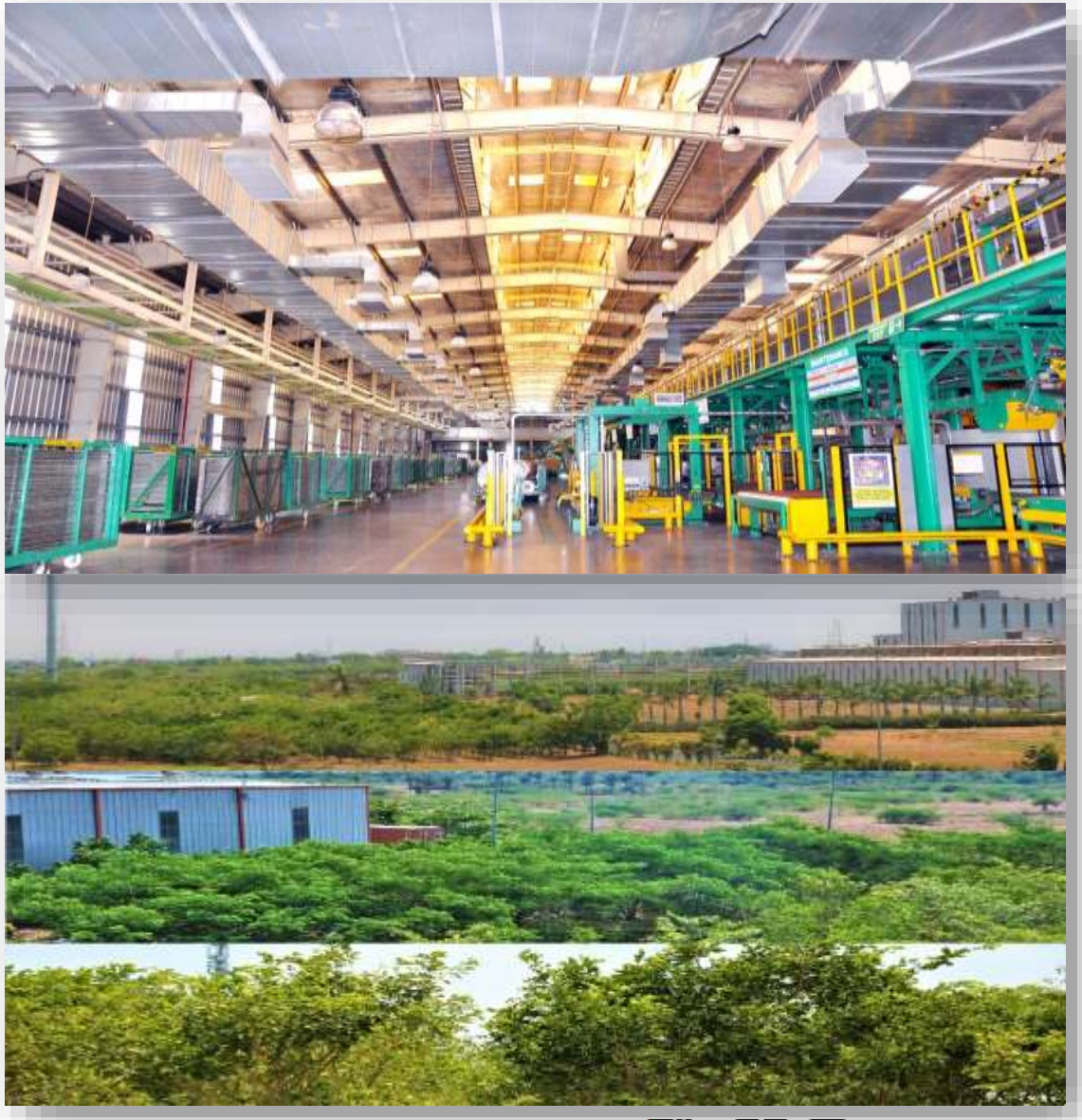
Salient Features of Chennai Tyre Plant

Exclusive Features

- *Location Selection – Automobile Hub*
- *State of the Art Equipment capable of meeting future product requirement.*
- *Modular designs for seamless expansion*
- *Highly optimized WIP material flow*
- *Zero Discharge Plant.*
- *Maximum usage of natural light and Renewable Energy.*

Manpower Specialty

- *Adopted Lean Management concept.*
- *Technically Qualified work force.*
- *Young Workforce 90% Age group < 30 years.*
- *All operatives are Diploma Engineers / Science Graduates.*
- *Business Partners - Outsourced services (Entire material handling process, Utilities & House Keeping)*



JK TYRE & INDUSTRIES LTD.

GreenCo Journey

CII GreenCo Award

"Greenco Gold" company in November 2014.

"GreenCo Platinum" company in July 2019.

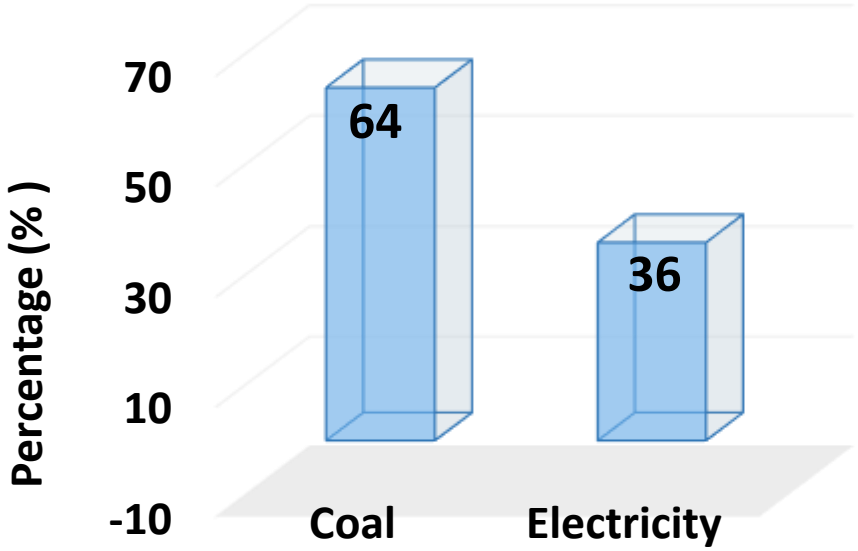
We have also achieved the distinction of becoming the "First Tyre Manufacturing Company" to be certified under GreenCo Platinum Rating in Version 3.

JK TYRE & INDUSTRIES LTD.

Energy Efficiency
&
Renewable Energy

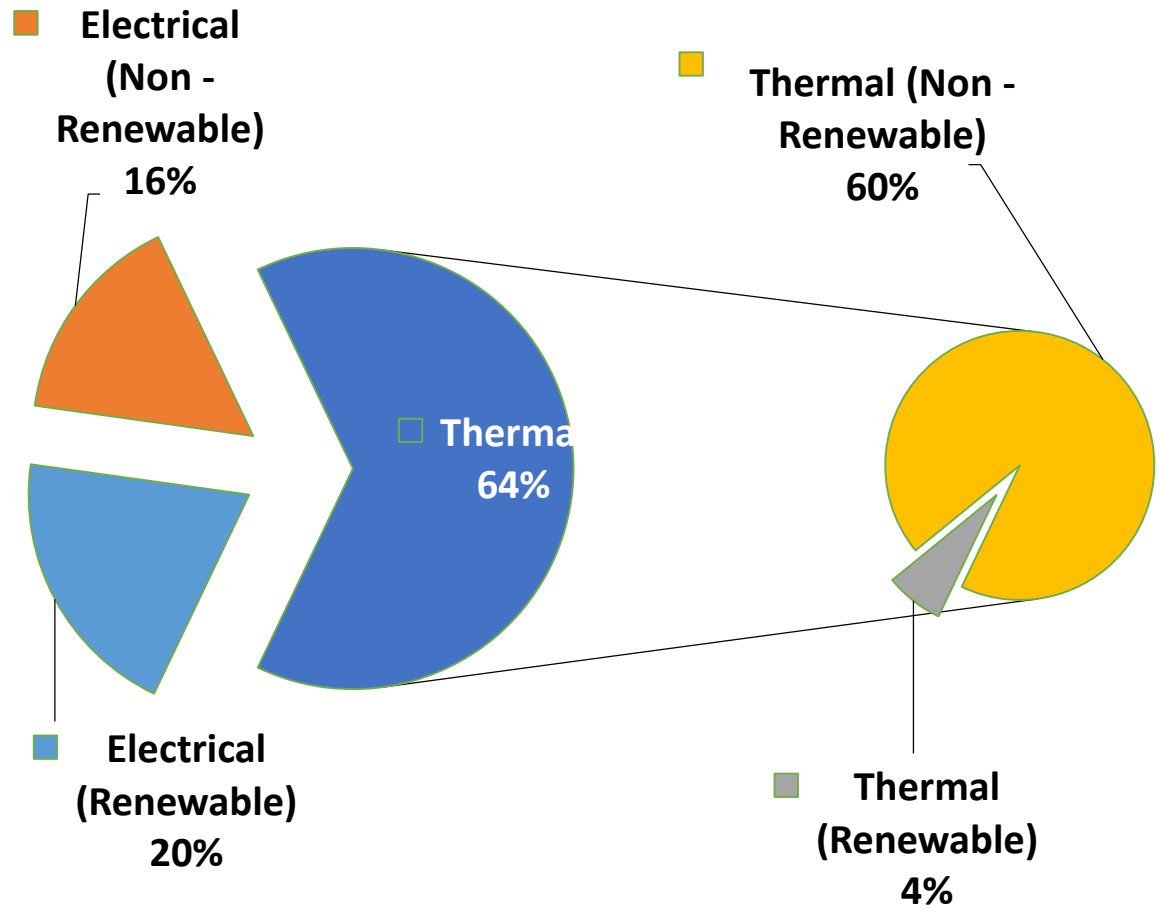
Plant Energy Mix

Plant Source wise Energy consumption (TJ) in % - for the year of 2019-20

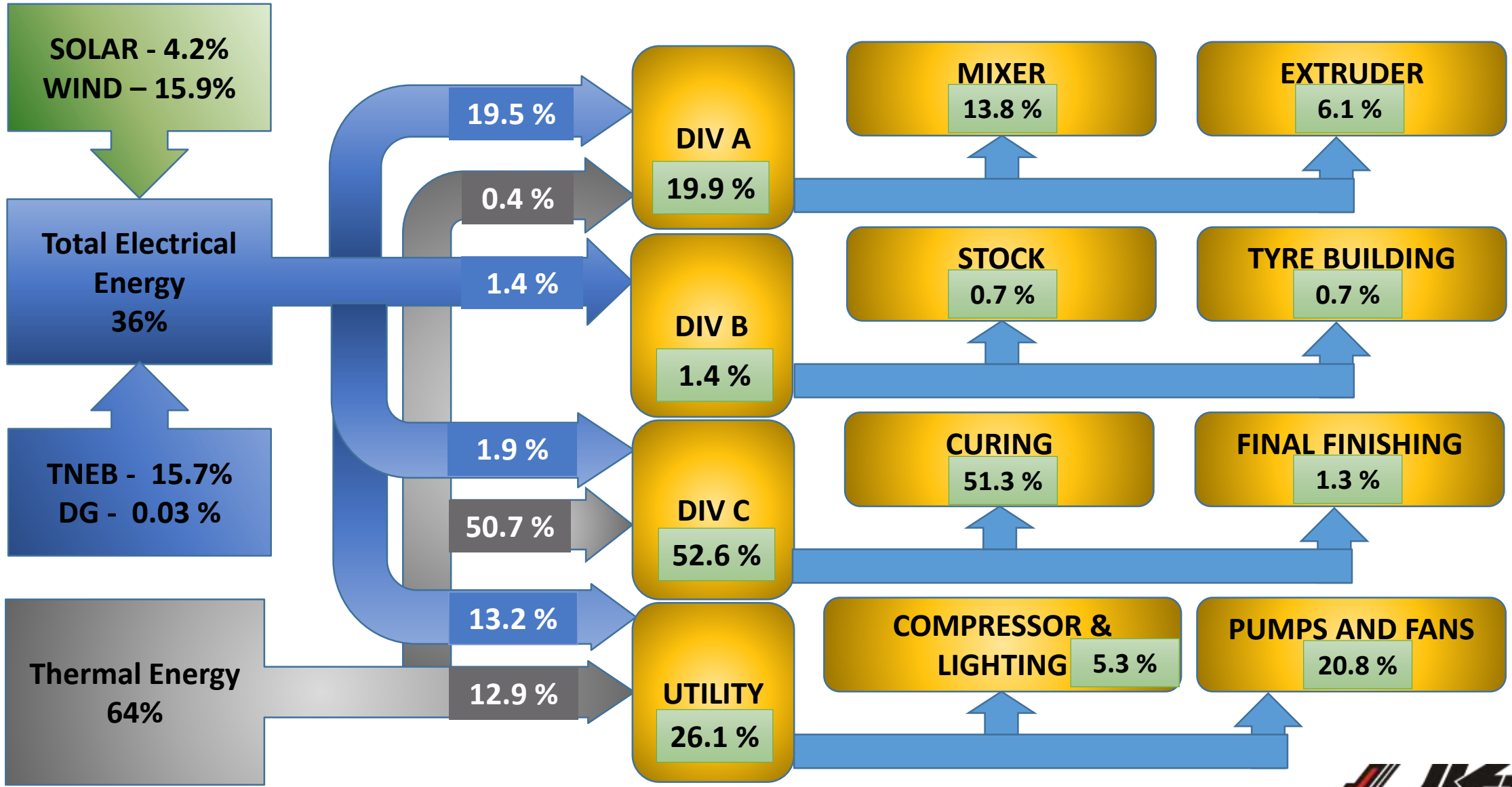


Annual energy consumption (Kcal) in % FY 2019-20

Plant Energy Mix in Percentage (%)



Energy Flow Diagram of the Plant



JK TYRE & INDUSTRIES LTD.

Energy Policy

UEnM.01-PY.01

ENERGY POLICY

We at JK Tyre are committed to design, manufacture and distribute our products & services in an energy efficient manner to meet our mission statement of becoming a green company. We will continually improve our energy performance for sustainable growth by:

- Complying with all applicable legal and other requirements related to our energy use, consumption and efficiency.
- Taking measure in Energy Management System by being proactive, innovative and cost effective including procurement of energy efficient product & services.
- Enhancing effectiveness of energy management system by ensuring the availability of information and necessary resources to achieve the objectives and targets.
- Integrating energy policy into our business planning, decision making and performance review at appropriate level.

We commit to communicate this policy to all our employees, persons working for and on our behalf and also will make it available to all interested parties on request.

Authorised and Approved by
Arun K. Bajoria
Director & President (International Operations)

01.09.2018

JK TYRE & INDUSTRIES LTD.

UMSS.01-PY.01

Mission Statement on Sustainable Growth

Being cognizant of the need of sustainable growth and dwindling stock of natural capital, we commit ourselves to the attainment of the following Ten - Natural Capital Commandments

1. Reduce specific consumption of energy and water by 2-5% every year over next ten years.
2. Reduce specific generation of waste and reduce the quantum of waste going to land fills by 2-5% every year over next ten years.
3. Increase use of renewable, including renewable energy by 2-5% every year in place of non-renewable over next ten years.
4. Reduce specific green house gas emissions and other process emissions by 2-5% every year over next ten years and explore opportunities through Clean Development Mechanism (CDM) & other Carbon Exchange Programs.
5. Increase use of recyclables and enhance recyclables of resources embedded in the product by 2-5% every year over next ten years.
6. Increase the share of harvested rainwater in the overall annual use of water by 2-5% every year over next ten years.
7. Incorporate life cycle assessment criteria for evaluating new and alternative technologies & products.
8. Strive to adopt green purchase policy and incorporate latest clean technologies.
9. Take lead in promoting and managing product stewardship program, by forging partnerships with businesses and communities.
10. Reduce depletion of natural capital, which is directly attributable to company's activities, products and services by 2-5% every year over next ten years.

We also commit to demonstrate attainment of these commandments in our pursuit to certifications such as IATF 16949, ISO 9001, ISO 14001, ISO 45001, SA 8000, ISO 50001, ISO 27001, Green Buildings, Eco Labels Sustainability reporting and the like.

Authorised and Approved by
Arun K. Bajoria
Director & President (International Operations)

01.01.2019

JK TYRE & INDUSTRIES LTD.

Reduce Specific Energy Consumption by 2-5% every year

JK TYRE & INDUSTRIES LTD.

Energy Management Cell & Energy Manager

Corporate Energy Cell

K.A. UNNI NAYAR VP (W)

S.K. SATHPATY (GM-ENGG)

T.JAYAKANTHAN (ENERGY MANAGER)

B.RAMESH KUMAR (ELECTRICAL ENERGY)

MR.VASU BABU (MIXING)
MR.ANIL (EXTRUDER)
MR.SRIDHARAN (TECH)
MR.KARTHICK (ELEC)
MR.TAMILARASAN (MECH)

MR.NARESH KUMAR
MR.GOPI (PURCHASE)

MR.SATHYA NARAYAN (ELEC)
MR. SURESH RAJAN (MECH)

M.PANDIARAJAN (THERMAL ENERGY)

MR.SIMON BABU (PROD)
MR.NIKIL (PROD)
MR.MANOJ (TECH)
MR. VIJAYABASKAR (ENGG)

MR. PRABHU (UTILITY)
MR.AJAY (BOILER)

MR.RAGAVENDRA (ELEC)
MR.RAJESHKUMAR (INST)

JK TYRE & INDUSTRIES LTD.

Monthly Review

- ***Daily Review Meeting*** *chaired by Plant Head*
- ***Monthly Energy Review*** *meeting chaired by Director Manufacturing*
- ***Monthly Business Review Meeting*** *chaired by President – India Operations*
- ***EnMS Management Review Meeting*** *chaired by Plant Head – Half Yearly*

Specific Energy Consumption

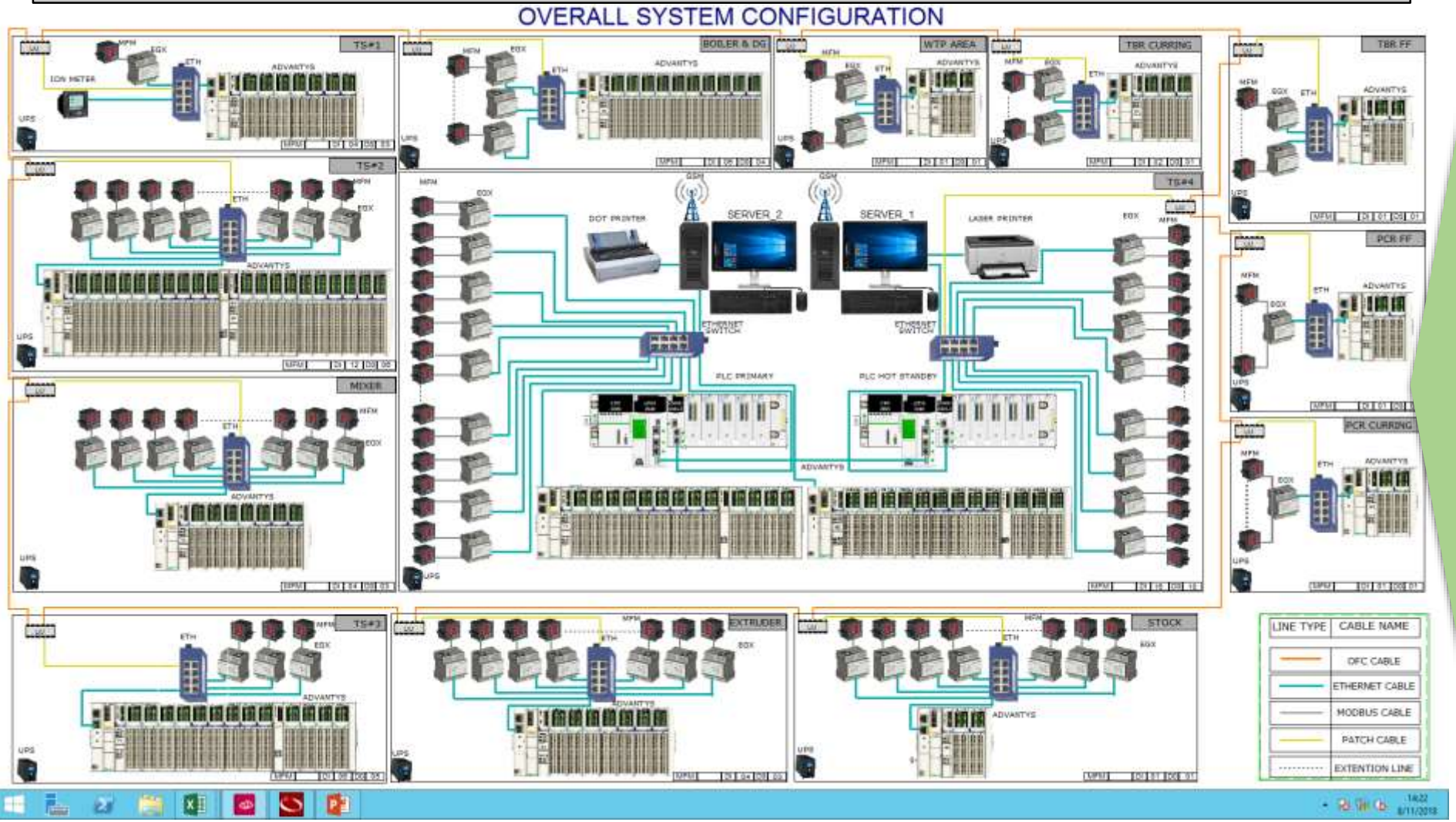
Plant specific energy consumption of power and steam continuously monitored and gaps are reviewed and necessary actions plans are taken in monthly energy review meeting to improve plant energy performance.

Power cost

Plant power cost continuously monitored and necessary actions plans are taken in monthly energy review meeting to improve plant energy cost performance

Energy Monitoring for Equipment

Energy Management System – Plus Breaker Control – Plant over all architecture



- ✓*Advance EMS system connected with 1013 Energy meters and 256 Nos Breakers*
- ✓*EMS plus breaker controlling system to control energy*
- ✓*System alerts the excess energy consumption immediately thro Auto SMS, and E-mail helps to take appropriate actions immediately rather than afterward investigation*
- ✓*System records Sag/swell and transients and all electrical parameters at the sampling rate of 1024 samples/cycle*

JK TYRE & INDUSTRIES LTD.

Energy Monitoring for Equipment

Energy Management System – Dash Board

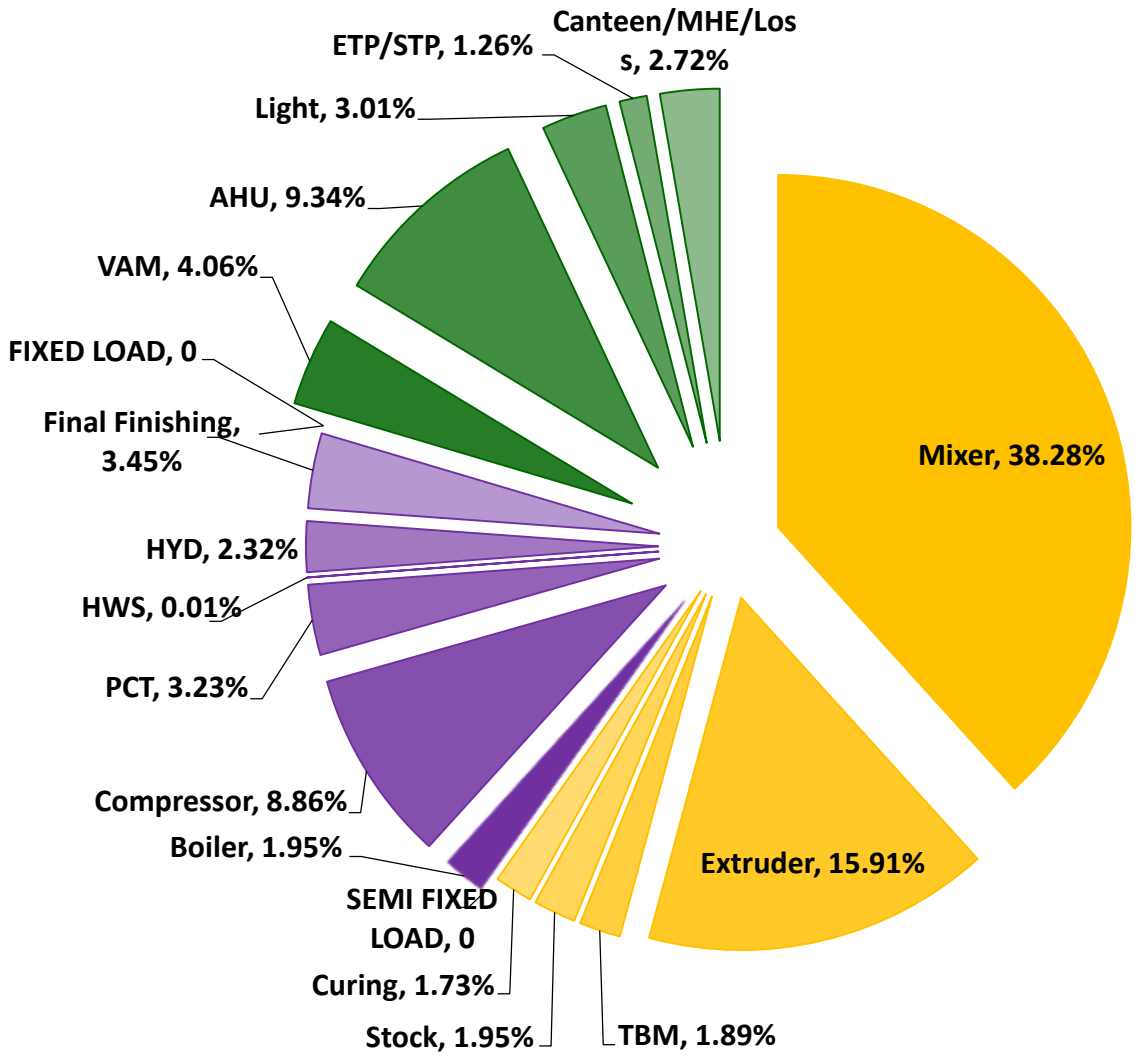
✓*System alerts the excess energy consumption (or) abnormality in power quality (Low voltage / High Voltage / KW / Amps / Breaker ON/OFF) immediately thro Alarm / Auto SMS, and E-mail helps to take appropriate actions immediately rather than afterward investigation*

JK TYRE & INDUSTRIES LTD.

Energy Monitoring for Equipment

Electrical Power consumption – Continuous monitoring done daily in standard formats and the reasons for variations analyzed

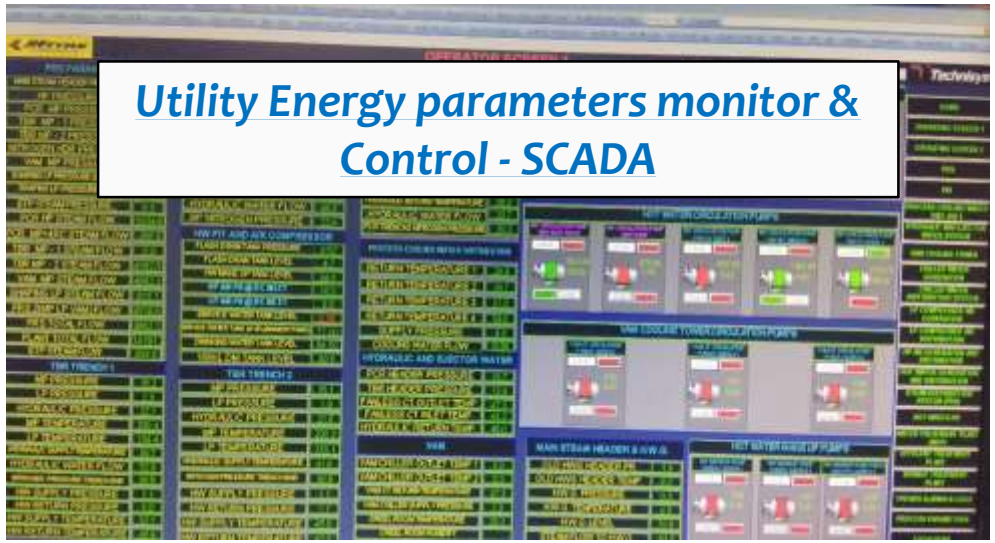
VARIABLE LOAD	
Mixer	38.28%
Extruder	15.91%
TBM	1.89%
Stock	1.95%
Curing	1.73%
SEMI FIXED LOAD	
Boiler	1.95%
Compressor	8.86%
PCT	3.23%
HWS	0.01%
HYD	2.32%
Final Finishing	3.45%
FIXED LOAD	
VAM	4.06%
AHU	9.34%
Light	3.01%
ETP/STP	1.26%
Canteen/MHE/Loss	2.72%



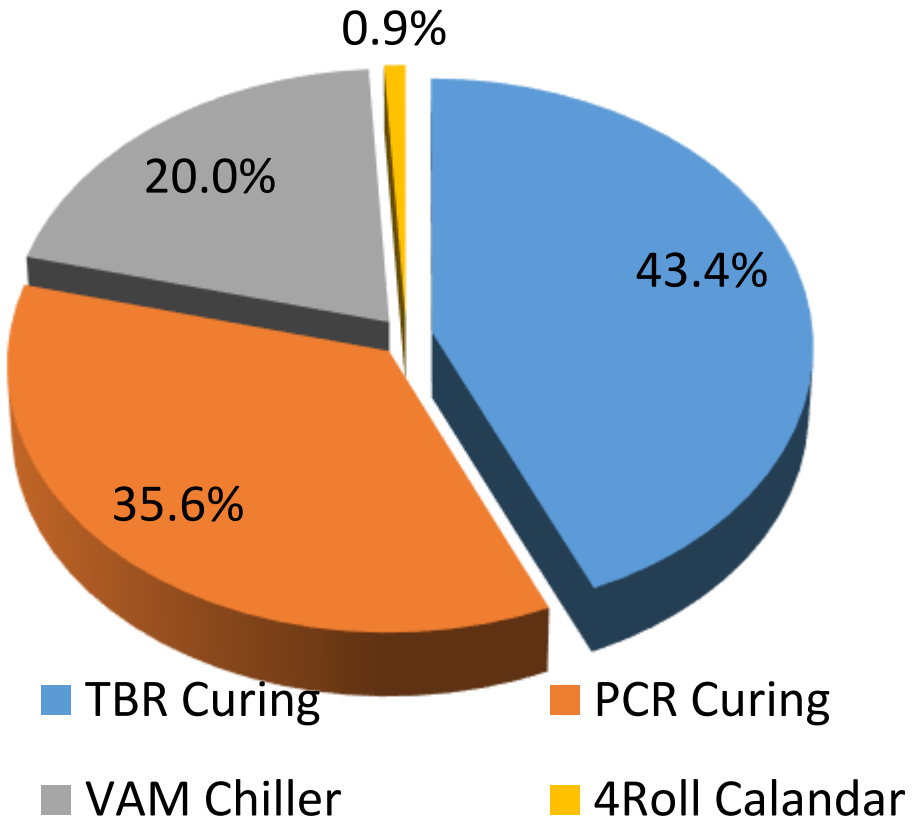
Daily monitoring done for equipments having 1% of Total plant energy consumption value

Energy Monitoring for Equipment

Steam consumption - monitoring



Overall Plant Area Wise Steam Consumption MT /Day in Percentage



Project : High Energy Efficient Axial Fan

IDEA: *High Power consuming Centrifugal Fan can be replaced with High Efficiency Axial Fan*

Result: *14 Nos of units converted with investment of 1 Crore Rs., 48% of Energy Saving achieved (9 lacs units/annum), ROI of 21 months period*

Project : Alternate Fuel for Boiler – Saw Dust

IDEA: Sawdust used as alternative fuel in certain proportion which can reduce the conventional fuel usage

Year	Coal Consumption	Saw dust consumption	Biomass equivalent coal cons reduction.
	MT	MT	MT
2019 – 20 (Till date)	20380	1702	1420

Project : Alternate Fuel for Boiler – Vegetation Waste

***IDEA**: Waste (**Vegetation**) used as alternative fuel in certain proportion which can reduce the conventional fuel usage*

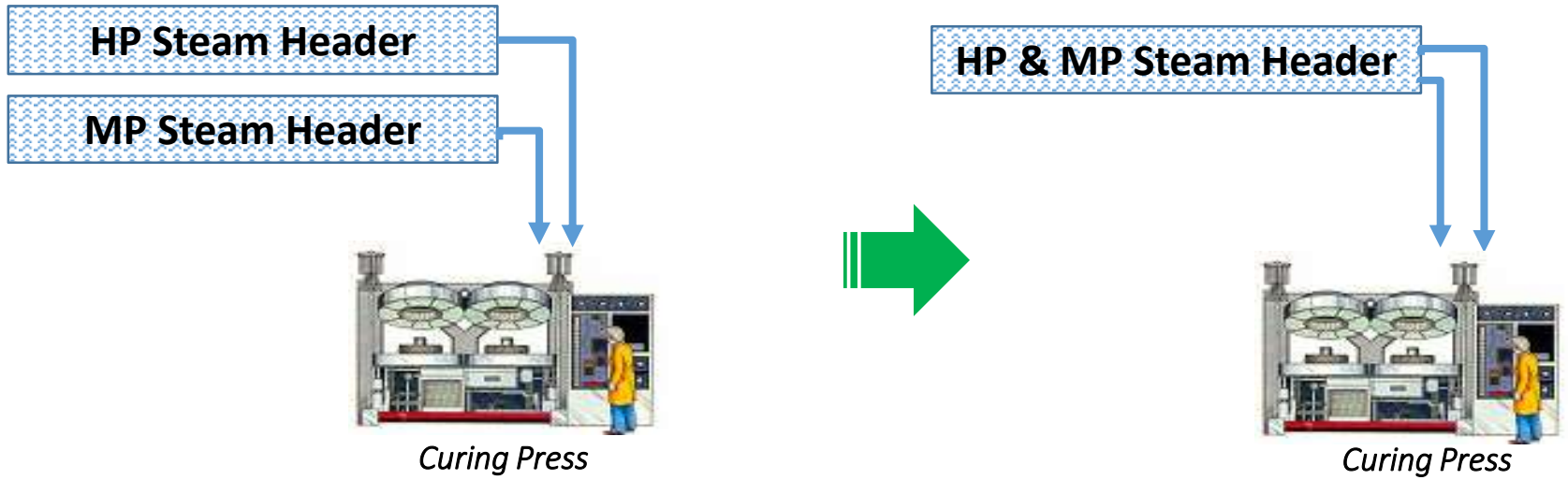
***Innovation Details:** Vegetation waste been crushed as required size by using shredder machine and Blend with coal in the fuel handling system and feeding to the boiler. GCV – 3800 – 4000 Kcal/Kg*

Result:

Equivalent coal consumption reduction is 9 MT/month

Project : Header Merging

IDEA: *Steam distribution through three individual headers (HPS, MPS & LPS) in PCR Tyre Curing Process. Individual steam headers causing more header trap losses.* ***Header merging can be done to reduce the header trap losses***



Result:

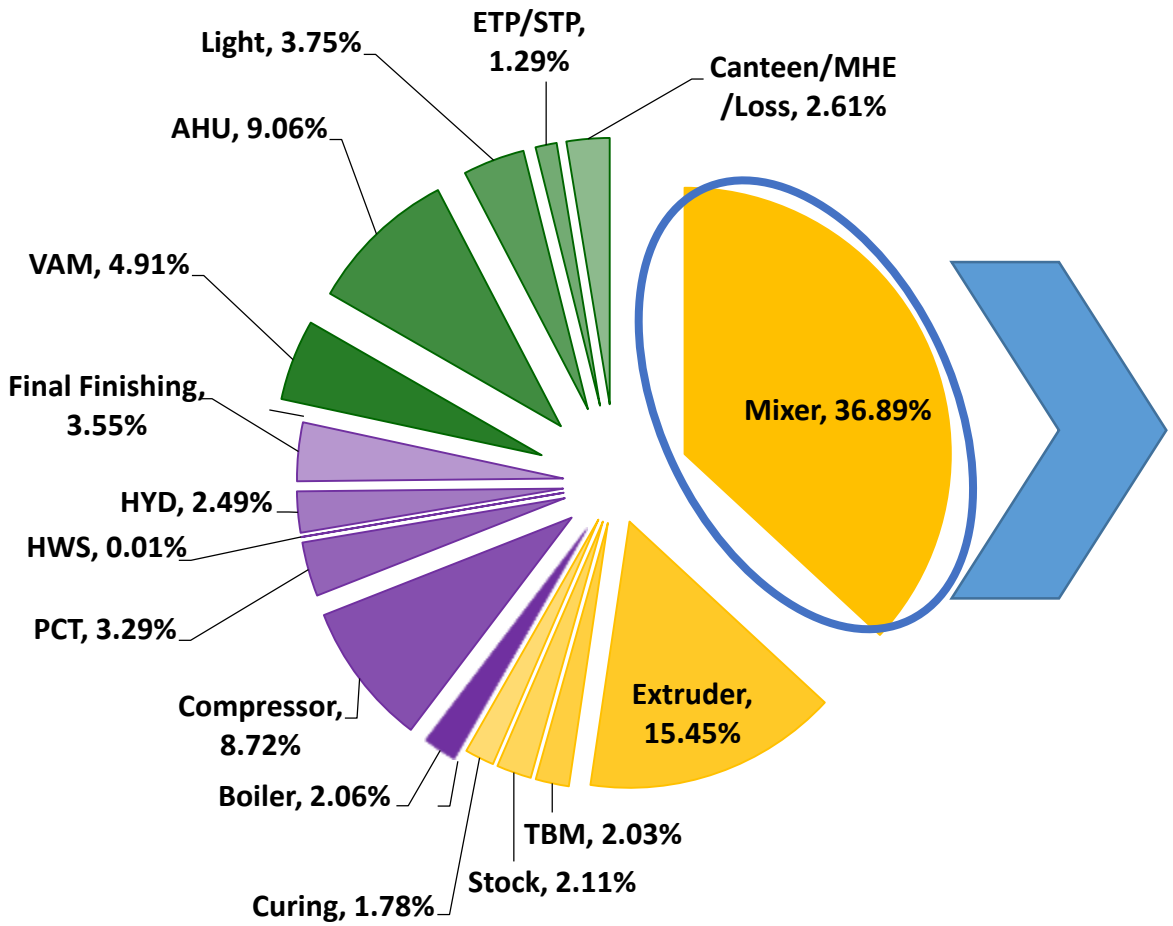
- *9 MT / day of Steam reduction in PCR Curing (i.e. Coal Consumption – 1.7 MT/day. Cost Savings of 29.7 Lacs /Annum)*

Project : Cemented Coal Yard

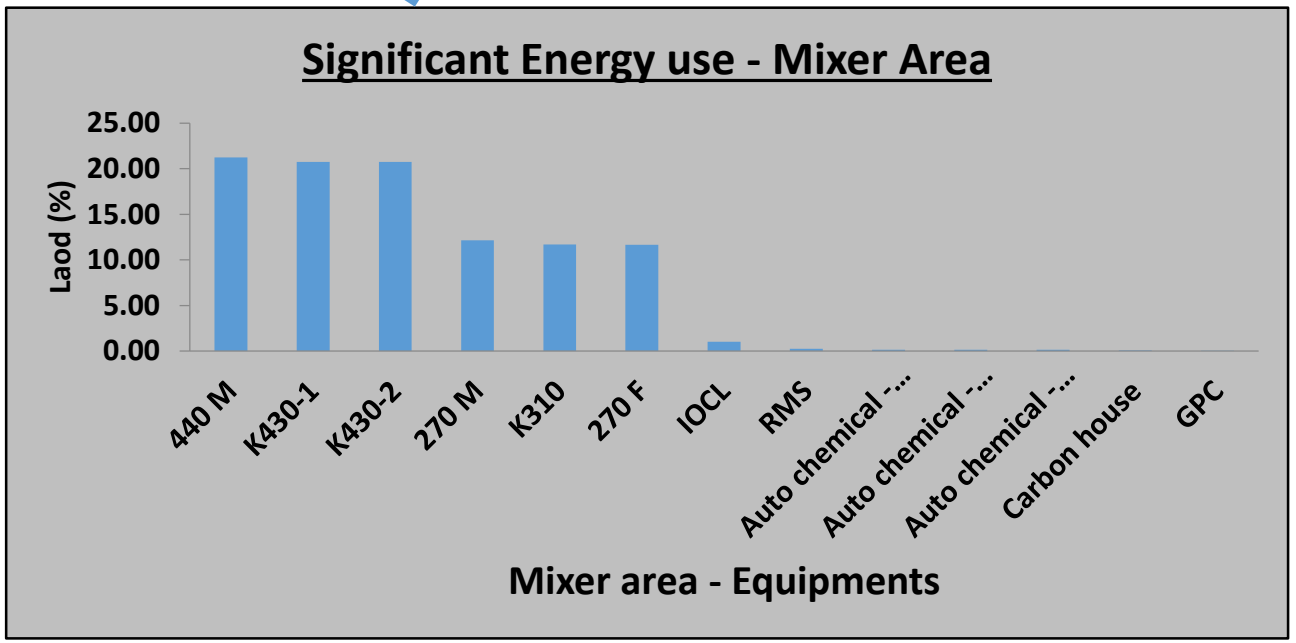
Equipment wise Efficiency Improvement

Performance evaluation of the energy intensive equipment

Energy Intensive Equipment identification - Method

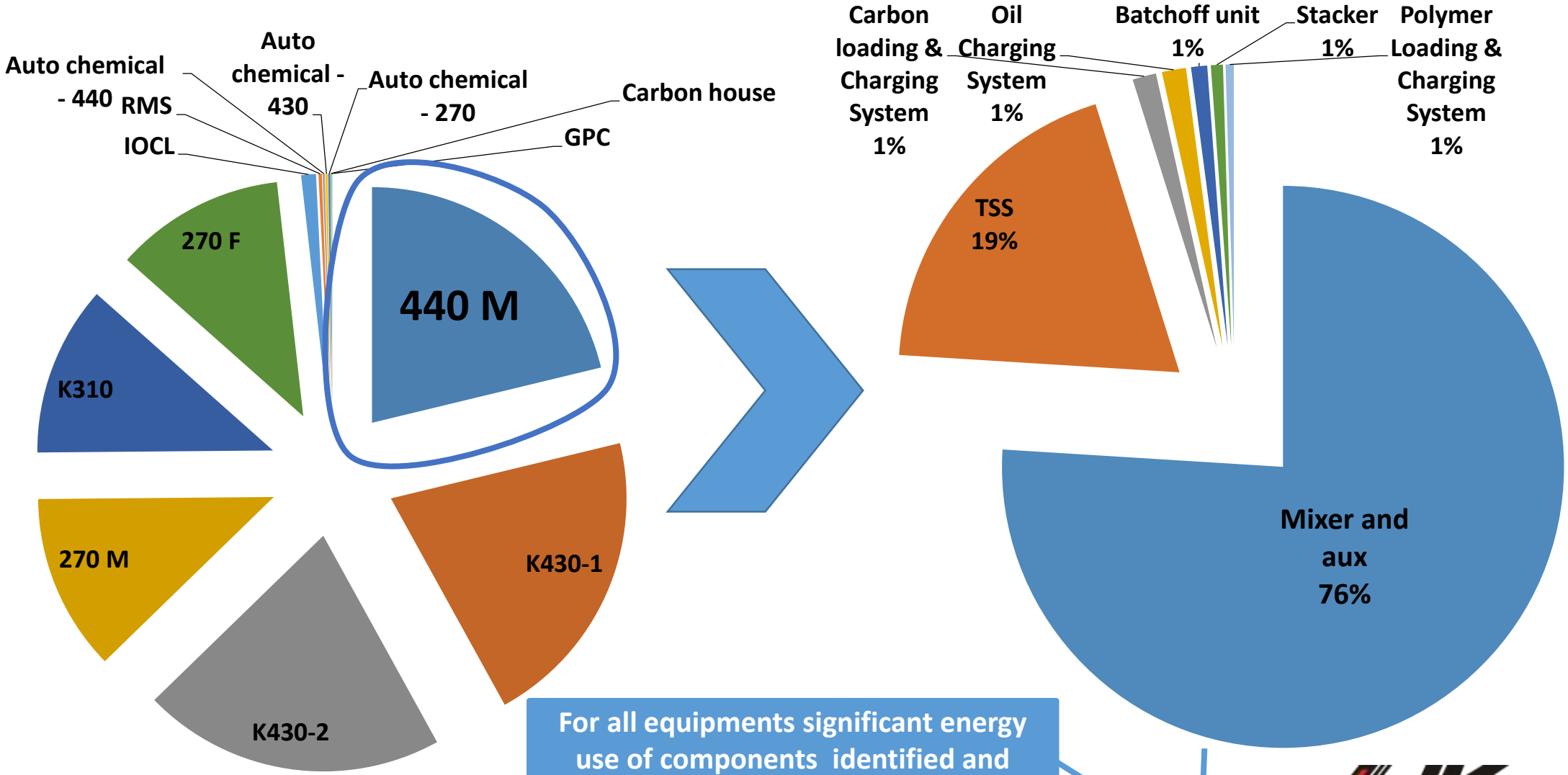


For Each and every Area, significant energy use of equipments identified and prioritized



Equipment wise Efficiency Improvement

Energy Intensive Equipment identification - method



For all equipments significant energy use of components identified and prioritized

Offsetting through Renewable Energy Sources

15.2 MW Installation Capacity

Total Off-site Renewable Energy Generation = 39 %

Dried Leaves ,Wooden waste with Coal

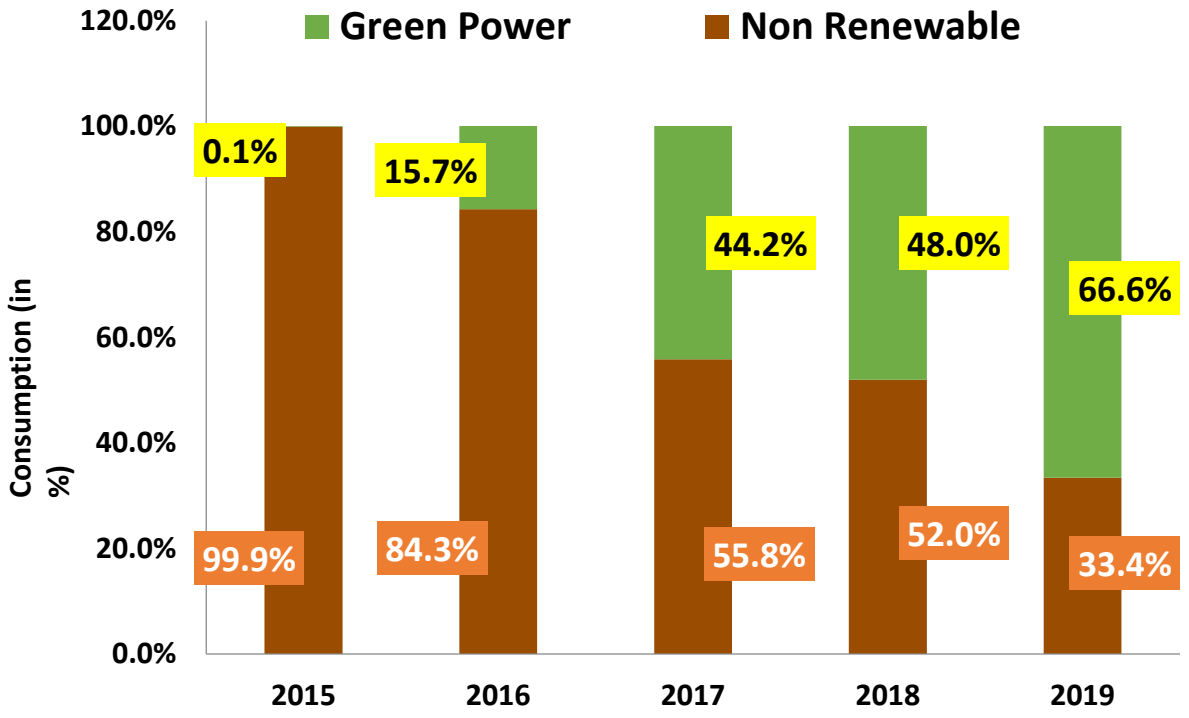
6 MW Installation Capacity

Total On-site Renewable Energy Generation = 10 %

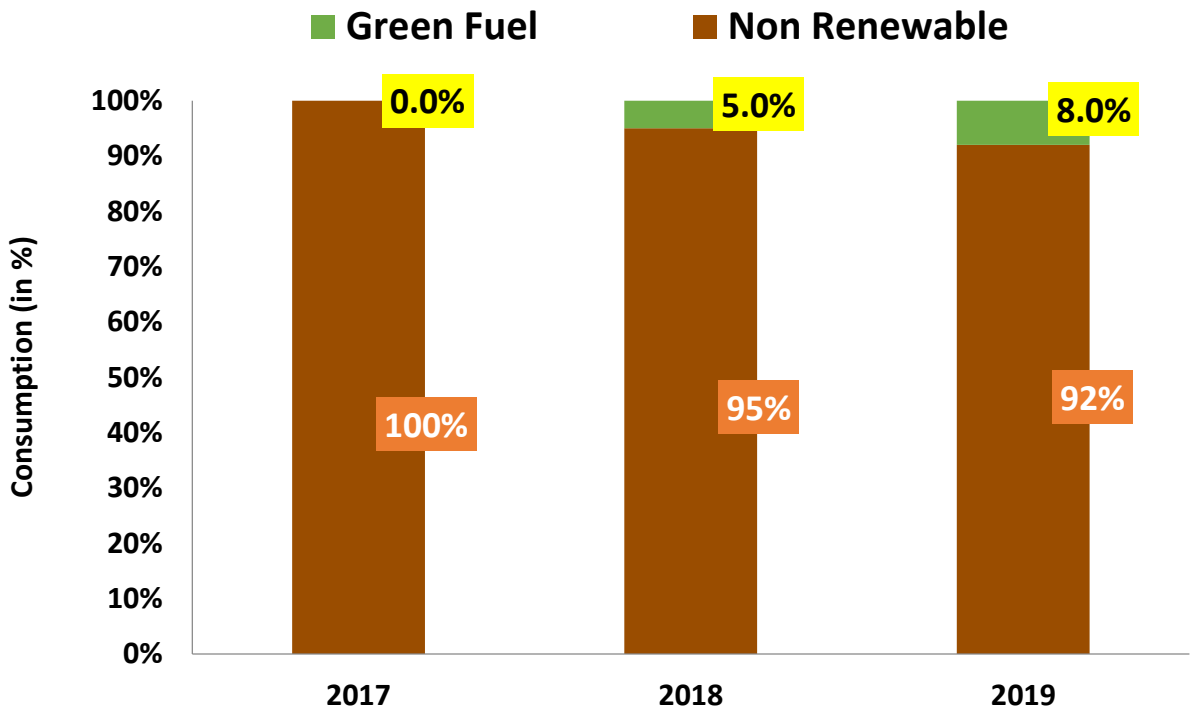
Saw dust mix with Coal (5%)

Green Energy Substitution

Electrical



Thermal



IIOT Deliverables which strengthen Energy

Implementation of IIOT

Bi-Directional Traceability

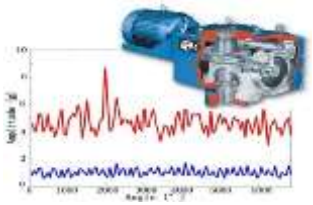
End-to-End Genealogy

Enhanced FIFO

Centralized Item Mgmt.

Realtime Data Exchange

Mistake Proofing



Condition Based Monitoring

Activity based Energy Monitoring

Improved Time to Market

JK TYRE & INDUSTRIES LTD.

CII National Energy Leader

JK-Tyre Chennai Tyre Plant awarded as "National Energy Leader for consistent 3 years as Excellent Energy Efficient Unit" from CII - National Energy Management Award

JK TYRE & INDUSTRIES LTD.

CEM Award Excellence in Energy Management(2019)

JK-Tyre Chennai Tyre Plant has been awarded as a "Excellence in Energy Management" by Clean Energy Ministerial - Vancouver, Canada in May 2019. We have also achieved the distinction of becoming the "First Company in India" to be awarded under Excellence in Energy Management at Global Level.

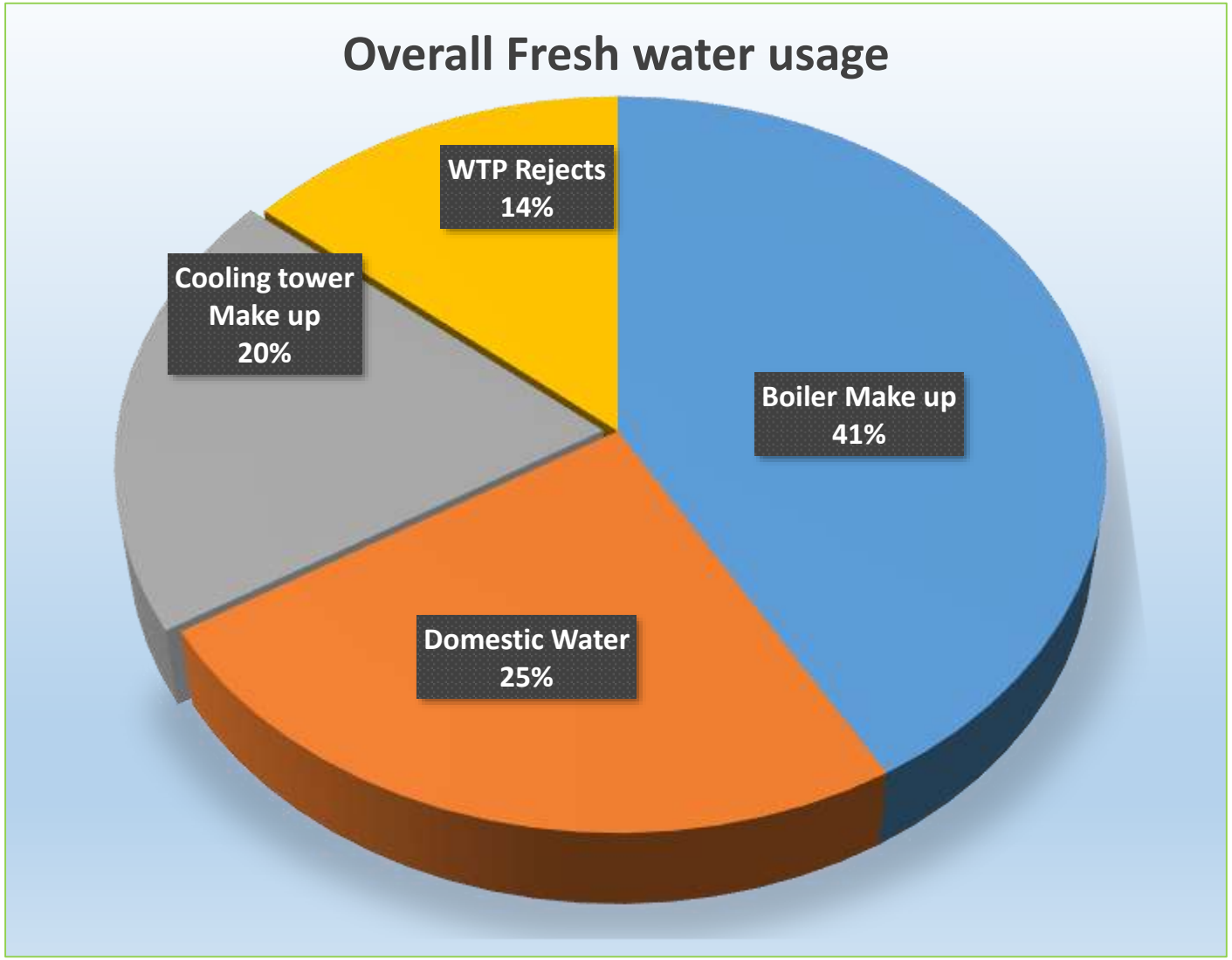
The Clean Energy Ministerial (CEM) is a high-level global forum to promote policies and programs that advance the deployment clean energy technology

Water Conservation

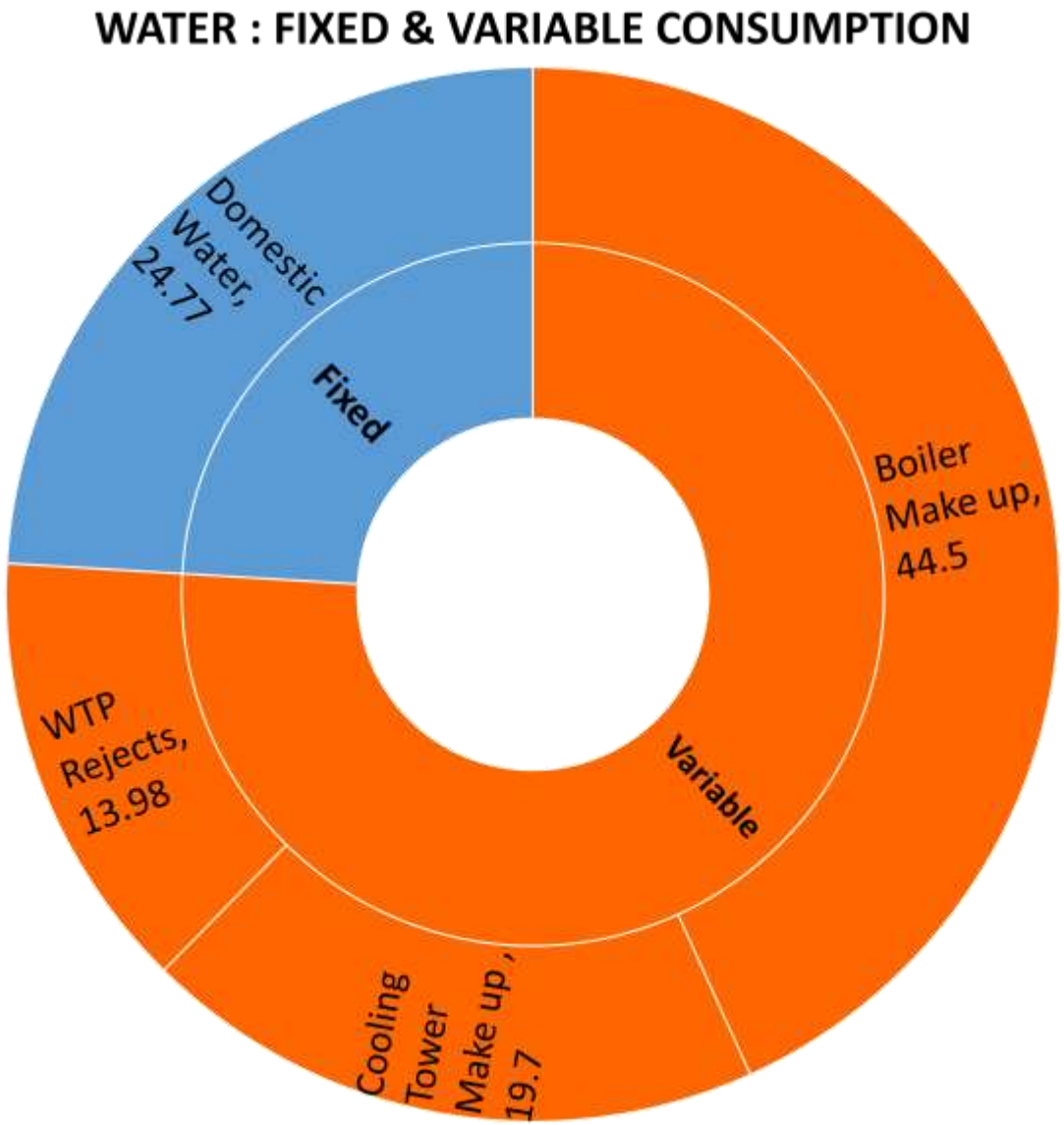
Water Source & Fresh Water Usage

Source of Raw Water – SIPCOT (Lake water)

pH – 7 to 7.5
TDS – 380 to 450 ppm
Total Hardness – 120 ppm
Chloride – 100 ppm
Silica - 15 ppm
Turbidity – 8 NTU



Fresh Water Usage – Fixed & Variable Consumption



Fixed Consumption	
Service Water	24.77 %
Drinking Water	
Variable Consumption	
Boiler Make up	41.55%
Cooling Tower Makeup	19.70%
WTP Rejects	13.98%

Water Policy

UREW.01-PY.01

RENEWABLE ENERGY, RESOURCE AND WATER POLICY

We at JK Tyres are committed to :

A) Conserve and ascertaining Clean Energy through
- Enhancing Energy Efficiency
- Increase part of Renewable Energy

B) Conserve Natural Resources & Water through
- Enhancing Utility Efficiency
- Increase Recycling & Minimize Waste

C) We will achieve these objectives by adopting
- Use of Technology innovation
- Periodic Reviews
- Skill Up gradation
- Employee Involvement and
- Community Involvement

We will continuously Benchmark to Reduce Resource Consumption and become Water Positive. Also We will increase share of Renewable energy in Our Total Energy Requirements and will continuously effort for Conservation of Energy.

Authorised and Approved by
Arun K. Bajoria
Director & President (International Operations)

01.01.2018

JK TYRE & INDUSTRIES LTD.

UMSS.01-PY.01

Mission Statement on Sustainable Growth

Being cognizant of the need of sustainable growth and dwindling stock of natural capital, we commit ourselves to the attainment of the following Ten - Natural Capital Commandments.

1. Reduce specific consumption of energy and water by 2-5% every year over next ten years.
2. Reduce specific generation of waste and reduce the quantum of waste going to land fills by 2-5% every year over next ten years.
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5. Increase use of recyclables and enhance recyclables of resources embedded in the product by 2 [illegible] every year over next ten years.
6. Increase the share of harvested rainwater in the overall annual use of water by 2-5% every year over next ten years.
7. Incorporate life cycle assessment criteria for evaluating new and alternative technologies & products.
8. Strive to adopt green purchase policy and incorporate latest clean technologies.
9. Take lead in promoting and ma[illegible]gram, by forging partnerships
10. Reduce depletion [illegible]e to company's activit[illegible]next ten years.

We also commit [illegible]pur pursuit to certific[illegible]SO 45001, SA 8000, [illegible]bels Sustainability repor[illegible]

Reduce Specific Water Consumption by 2-5% every year

01.01.2019

Approved by
Arun K. Bajoria
Director & President (International Operations)

JK TYRE & INDUSTRIES LTD.

UOHS.01-PY.01

HEALTH, SAFETY & ENVIRONMENTAL POLICY

We at JK Tyre & Industries Ltd. are committed to design, manufacture and distribute our products in a manner that protects the environment; prevents work related injury and ill health in all the activities being carried out under our control and identifying the specific risk and opportunities as per the context to the organization.

We will continually improve on Occupational Health, Safety and Environmental performance for sustainable growth.

We are explicitly committed to following :

- Complying with legal and other HSE requirements applicable to products, processes and services.
- Taking measures in HSE management system by being proactive and innovative.
- Conserving natural resources and energy by optimizing efficiency, minimizing waste and supporting environment friendly processes.
- Enhancing effectiveness of Safety, Health & Environmental Management system through Risk assessment and identification of opportunities to reduce the OHS and Environmental Risk.
- Providing our employees, sub contractors and transporters appropriate work environment, facilities, adequate resources, support, information and training to work safely and involving them in HSE matters concerning them.
- Integrating Safety, Health and Environmental policy into our business planning, decision making and performance review at appropriate levels. The policy will be reviewed periodically on need base to suit its applicability for the business requirements.
- We commit to consult all stakeholders and ensure participation of workers representatives and ensure adequate supervision to enhance the OHS & Environment performance.

We commit to communicate this policy to all employees, persons working for and on our behalf and to make it available to all interested parties on request.

01.08.2018

Authorized and Approved by
A.K Bajoria
Director & President (International Operations)
OCCUPIER

JK TYRE & INDUSTRIES LTD.

JK TYRE & INDUSTRIES LTD.

Water Manager & Accountability

Plant Head
K.A.Unni Nayar

Head- Engg
S.K. Satpathy

Head-Utility
M. Pandiarajan

K. Arvind
Water Manager

Domestic Water

Process Water

ETP, STP & WTP Operations

Beyond the Fence

Drinking & Service Water System

CFT – Domestic :
HR – Manikandan
Canteen & Cooking – Fusion Food – Site In charge
Utility – Prabhu
Civil - Maintenance In charge
GSH – Facility Manager
Water coolers – In charge

Boiler Make up Cooling Tower & Extruder System

CFT – Process :
Utility – Manager
GSH – Facility Manager
Civil – Maintenance In charge
Curing – Process In charge
Extruder – Process In charge
Mixer – Process In charge
Mechanical – Maintenance In charge

Recycling and reuse

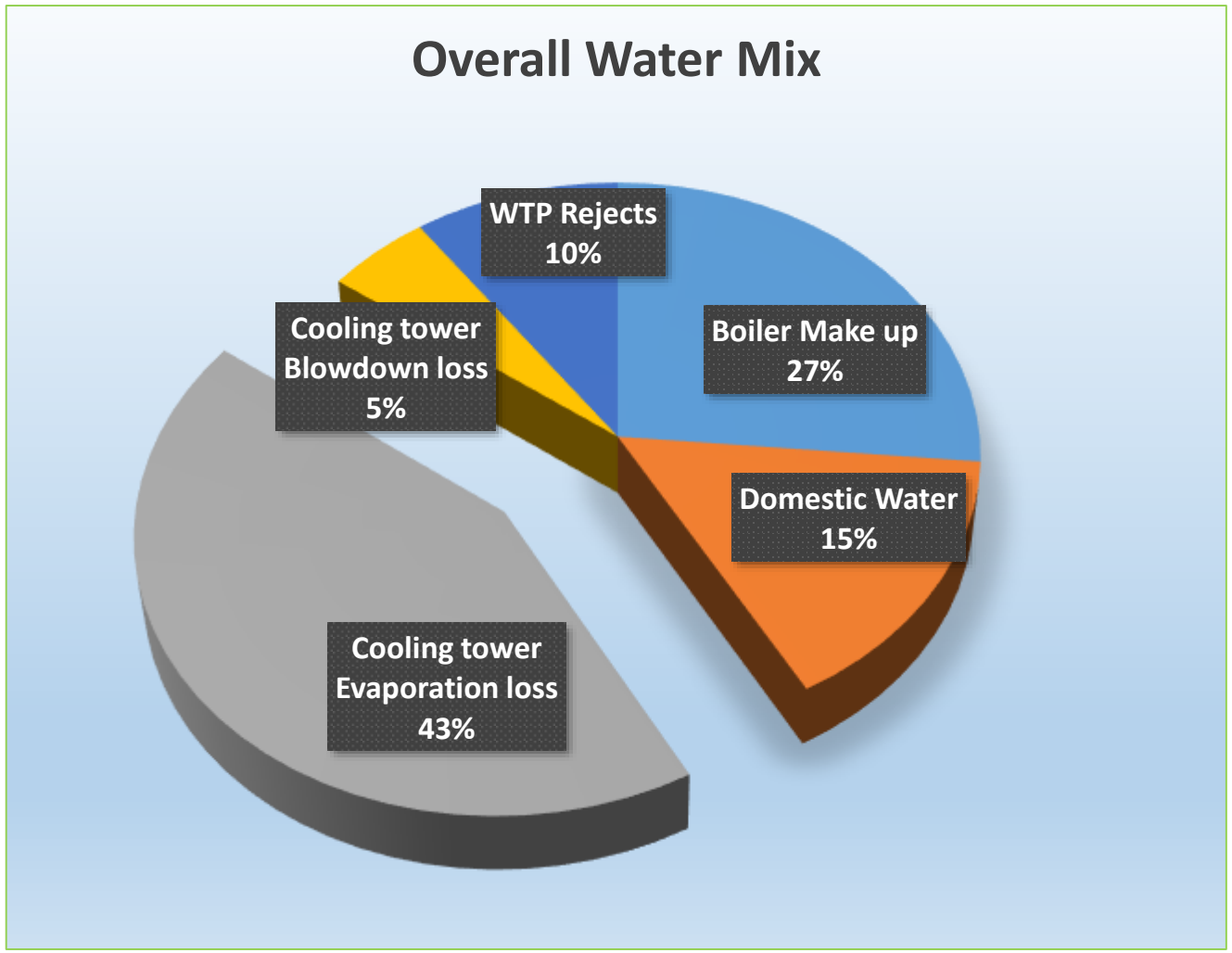
CFT – Treatment Plant :
Utility – Manager
GSH – Facility Manager
Civil – Maintenance In charge
Eco care – Site In charge

Augmentation & Recharging

CFT – Beyond the Fence
Admin – Manager
Project – Manager
Civil – Manager
NGO – Hand In Hand

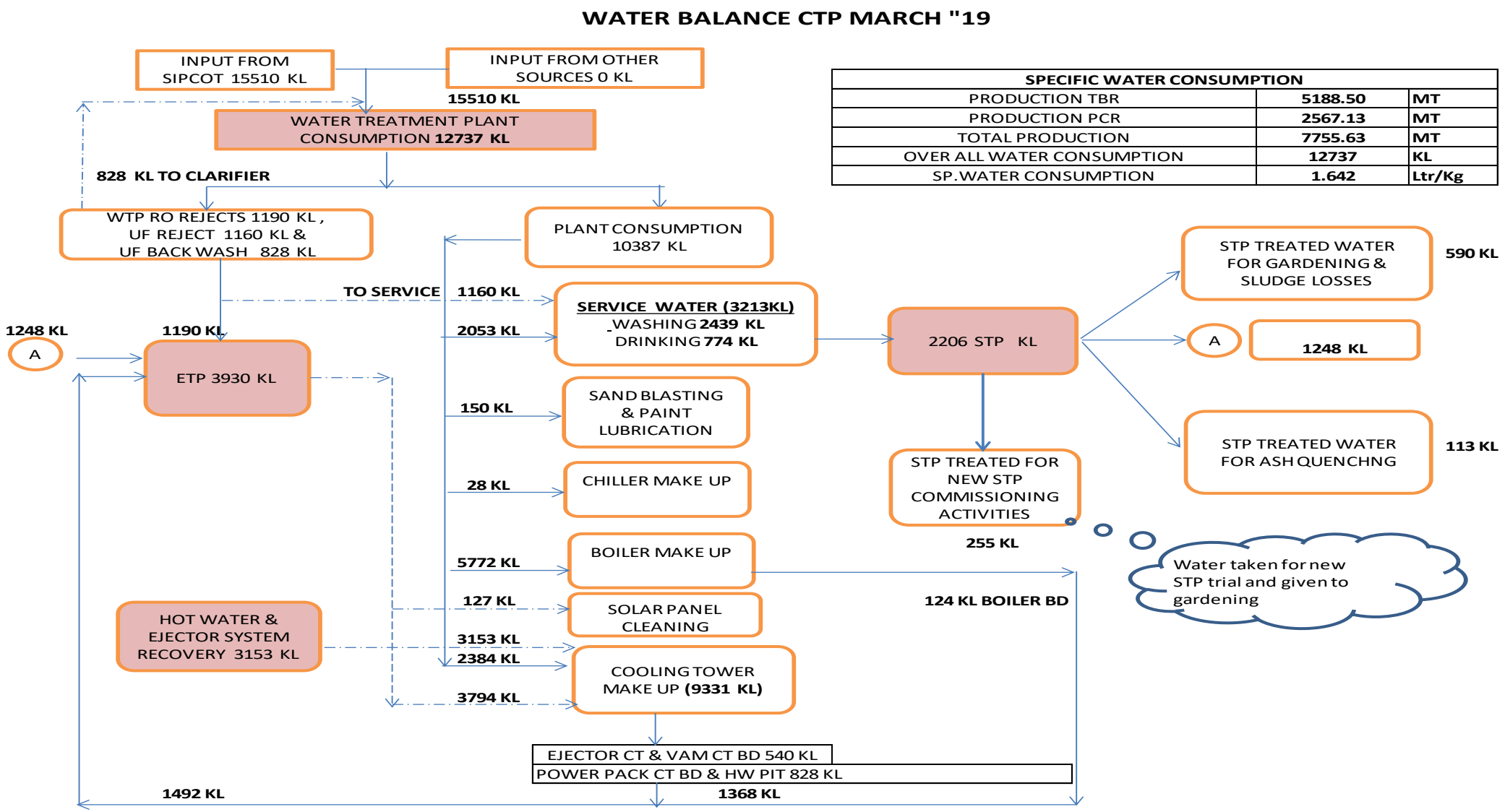
JK TYRE & INDUSTRIES LTD.

Water Balance Diagram



Process Water – 84%	
Cooling tower Evaporation loss	43 %
Cooling tower Blow down loss	5%
Boiler make up	27 %
WTP Rejects	10 %
Domestic Water – 16%	
Service Water	12.6%
Drinking Water	3.4%

Water Balance Diagram



SPECIFIC WATER CONSUMPTION		
PRODUCTION TBR	5188.50	MT
PRODUCTION PCR	2567.13	MT
TOTAL PRODUCTION	7755.63	MT
OVER ALL WATER CONSUMPTION	12737	KL
SP.WATER CONSUMPTION	1.642	Ltr/Kg

Water Metering at Critical Locations

UF PRODUCT FLOW METER IN WTP

CONDENSTAE FLOW METER IN ETP

REJECT FLOW METER IN ETP

RO PRODUCT FLOW METER

Metering at WTP & ETP Operations

DOUBLE STAGE RO FLOW METER IN ETP

Project :STP Treated water recycling for process

STP PRETREATMENT

80 % of STP TREATED WATER RECYCLED THROUGH RO

STP TREATED WATER USED FOR COOLING TOWER MAKE UP

20 % recycled & utilized for drip irrigation & Land scapping

JK TYRE & INDUSTRIES LTD.

Project: Nitrogen System for Tyre Curing

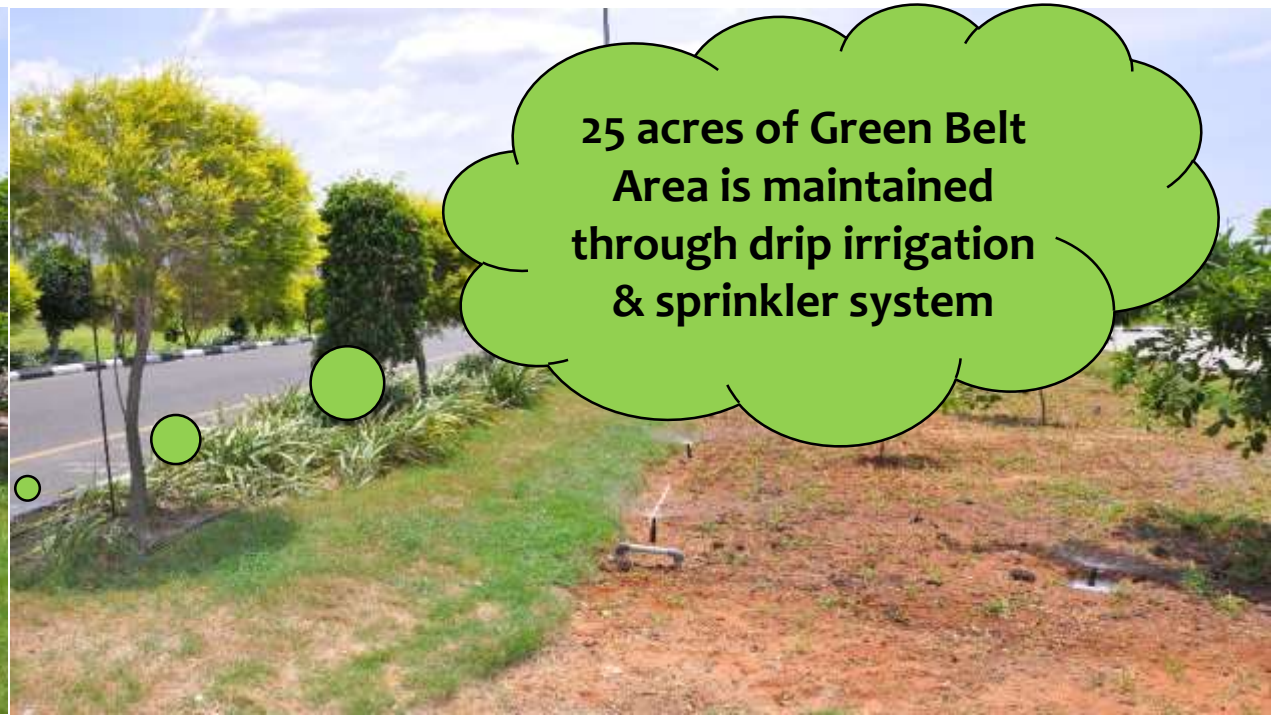
HOT WATER SYSTEM FOR CURING

Fresh water make up of 65 KLD saved. 24 % decrease in Boiler make up

NITROGEN SYSTEM FOR CURING

Internal Cure media has been changed from Hot Water to Nitrogen. Thereby eliminating the Hot Water Usage. Daily steam utilization for hot water system is eliminated & Water used for boiler make up is reduced.

Water Efficient Landscaping & Irrigation Practices



25 acres of Green Belt Area is maintained through drip irrigation & sprinkler system

Highly efficient irrigation systems incorporating the following features:

- Segregation of plant species based on watering needs
- Drip & Sprinkler irrigation
- Pressure regulating valve

14000 plants & 3 Lac sqft of green belt area..

JK TYRE & INDUSTRIES LTD.

Implementation of Rainwater harvesting Structure

- JK Tyre has provision to harvest 100% of the roof & non roof run off water. The total run off volume of the site is around 10000 m3.
- The run off water is harvested through RWH Pond and Percolation pits strategically located at various places across the site.

JK TYRE & INDUSTRIES LTD.

Implementation of Rainwater harvesting Structure

Onsite RWH Pond

Percolation Pit in Drains – 30 Pits

Harvesting Capacity of Percolation & storage systems on site:

1. Storage capacity of onsite Pond = 4055 m3
2. Percolation Capacity of Natural Unlined pond = 4204 m3
3. Percolation Pits in Drains = 2580 m3

Total Harvesting Capacity of Percolation & storage system =10,839 m3

JK TYRE & INDUSTRIES LTD.

Substitution of Process Fresh Water with Harvested rain water

Harvested Water

Harvested Water under goes Pre Treatment

Pre Treated Water used as Cooling Tower make up

Harvested Water used for Cooling Tower Make up – Average 30KL/day in monsoon

Harvested Water used as make up Water in Process Cooling Tower after Pre Treatment

Augmentation of Ground Water beyond the fence

JK TYRE & INDUSTRIES LTD.

Augmentation of Ground Water beyond the fence

CII – National Award Excellence in Water Management (2019)

JK-Tyre Chennai Tyre Plant awarded as

“Excellence in Water Management” from CII – 13th National Award for Excellence in Water Management 2019

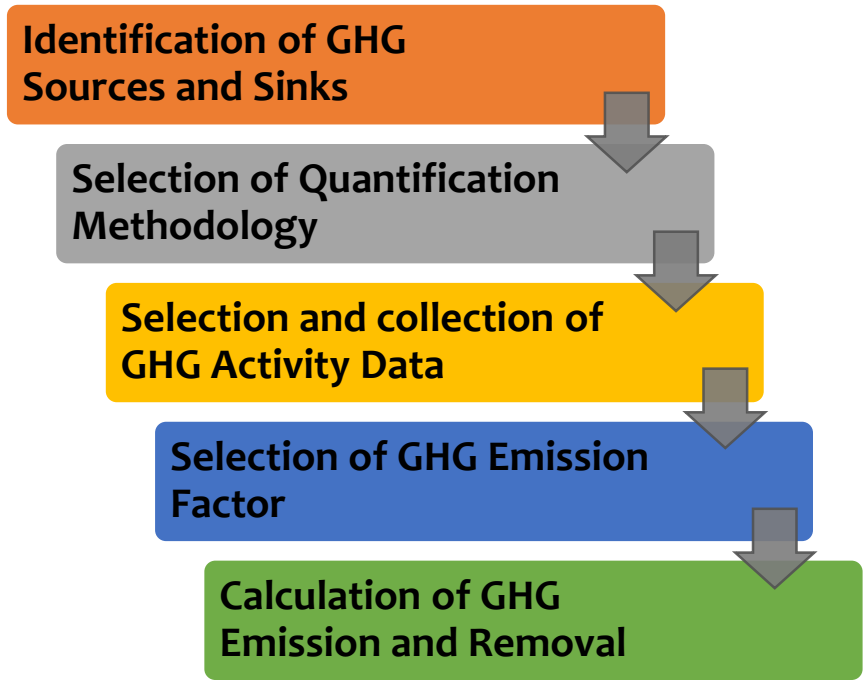
JK TYRE & INDUSTRIES LTD.

Green House Gases

GHG Emission Inventorisation

Carbon foot print of any entity is the measure of the Green House Gas (GHG) emitted due to the activities of that entity.

- **All Plant (decentralized level) GHG Inventorisation**
- **Rolling up the inventory to Corporate Level**



Setting GHG Operational Boundaries Emission Sources:

Emission Sources	Scope of Emission
Diesel for internal material transport	**Direct Emission (scope 1)**
Diesel for generators	
Boiler coal	
HSD (High speed diesel)	
Company vehicle-Diesel	
Company vehicle-Petrol	
LPG consumption (GH)	
Release of refrigerant	
Use of Acetylene	
Weight of CO_2 released from fire extinguishers	
Overall purchase of Electricity Energy	**Indirect Emission (scope 2)**
Material Logistics (Raw Material & FG Transportation)	**Other Indirect Emission (Scope 3)**
Business Travel	
Employee Commute	
Waste Disposal	

GHG Emission Inventorisation

Annual GHG Inventorisation sheet (2019-20)

EXAMPLE

NAME OF THE PLANT			JK TYRE & INDUSTRIES LTD - CHENNAI											2018 -19	
S.R		Description	Unit	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	Total
General Information																
A	Production		MT	7070.41	7917.26	7936.23	7821.39	7680.94	8455.17	8225.69	7780.377	8360.72	5896.59	6456.59	7762.3	91363.67
B	Tree Plantation		Nos													0
	B.1	Current Year		0	0	0	0	0	28	41	107	72	0	47	0	295
	B.2	Cumulative														295
C	Projects Implemented with Saving in eCO_2t		Nos													
	C.1	Current Year														0
	C.2	Cummulative														0
SCOPE 1																
1	Fuel for Boiler		MT													
	1.1	Coal Consumption	MT	2539	2799	2526	2410	2308	2489	2384	2540	2730	1925	1862	2366	28879
		Coal net calorific value	kcal/kg	3938	4032	4155	4042	4082	4093	4059	3936	3945	4129	4210	4183	4067
	1.2	Charcoal Consumption	MT	0	0	0	0	0	3030	1000	0	0	500	200	0	4730
		Charcoal net calorific value	kcal/kg													0
	1.3	Biomass-Briquette (Separate Accounting)	MT	0	32.74	205.04	271.29	265.87	171.1	135.65	122.13	148.91	73	41.16	87.21	472.04
2	Diesel (Stationary)		Ltr													
	2.1	Genset (Including GH+Hydrant)		0	2277	1223	3070	4063	3132	388	489	219	3464	1104	627	20056
	2.2	Dip Unit														0
	2.3	Boiler-Startup		313	0	0	262	0	473	0	1072	0	362	0	0	2482
3	Diesel (Movable)		Ltr													
	3.1	Company Operated vehicle		715	725	695	745	830	720	700	690	730	911	700	695	8856
	3.2	Diesel for Forklift		4448	4426	4090	4010	2612	2353	2624	2164	2911	2691	1941	3697	37967
	3.3	Tractor/Truck Transportation														0
	3.4	Tractor-Boiler (Ash handling)														0
	3.5	Coal Handling-JCB		569	619	971	1243	897	368	715	744	769	367	551	735	8548
	3.6	Company Operated Ambulances														0
	3.7	Security Related Activities														0
	3.8	Horticulture Related Activities														0
4	Petrol (Movable)		Ltr													
	4.1	Company Operated Vehicles (Ambulance & Bike)		15.56	31.85	21.73	10.01	26.25	22.07	45.38	24.96	37.24	39.72	30.00	20.00	324.77
	4.2	Security Related Activities														0
	4.3	Horticulture related activities														0

GHG Policy

UGHG.01-PY.01

GREEN HOUSE GAS (GHG) POLICY

We at JK Tyre are committed to design, manufacture and distribute our products and services in a manner that will be green and believe in quantification of greenhouse gas emissions by value addition processes as a first step in reducing these emissions in a systematic manner by following means:

- Ensure conformance with ISO 14064-1:2012 international standard
- Ensuring that this information would facilitate the preparation of GHG reports which will remain Relevant, Complete, Consistent, Transparent and Accurate.
- Ensuring availability of resources to enhance GHG performance and build a suitable corporate culture.
- Aligning employee competencies to needs of this system and,
- Creating a continual improvement mindset in respect of GHG performance within the organization.

Authorised and Approved by
Arun K. Bajoria
Director & President (International Operations)

01.01.2013

JK TYRE & INDUSTRIES LTD.

UMSS.01-PY.01

Mission Statement on Sustainable Growth

Being cognizant of the need of sustainable growth and dwindling stock of natural capital, we commit ourselves to the attainment of the following Ten - Natural Capital Commandments.

1. Reduce specific consumption of energy and water by 2-5% every year over next ten years.
2. Reduce specific generation of waste and reduce the quantum of waste going to land fills by 2-5% every year over next ten years.
3. Increase use of renewable, including renewable energy by 2-5% every year in place of non-renewable over next ten years.
4. Reduce specific green house gas emissions and other process emissions by 2-5% every year over next ten years and explore opportunities through Clean Development Mechanism (CDM) & other Carbon Exchange Programs.
5. Increase use of recyclables and enhance recyclables of resources embedded in the product by 2-5% every year over next ten years.
6. Increase the share of harvested rainwater in the overall annual use of water by 2-5% every year over next ten years.
7. Incorporate life cycle assessment criteria for evaluating new and alternative technologies & products.
8. Strive to adopt green purchase policy and incorporate latest clean technologies.
9. Take lead in promoting and managing product stewardship program, by forging partnerships with businesses and communities.
10. Reduce depletion of natural capital, which is directly attributable to company's activities, products and services by 2-5% every year over next ten years.

We also commit to demonstrate attainment of these commandments in our pursuit to certifications such as IATF 16949, ISO 9001, ISO 14001, ISO 45001, SA 8000, ISO 50001, ISO 27001, Green Buildings, Eco Labels Sustainability reporting and the like.

Authorised and Approved by
Arun K. Bajoria
Director & President (International Operations)

01.01.2019

JK TYRE & INDUSTRIES LTD.

Reduce Specific greenhouse gas emission by 2-5% every year

JK TYRE & INDUSTRIES LTD.

Carbon Neutral Approach

Spreadsheet calculation demonstrating emission Offset values

S.N.		Description	Unit	CTP	Total	fuel Density (kg/m^3)	fuel Consumption (kg)	NCV (TJ/Gg)	emission factor (t CO_2/TJ)	Emission (t CO_2)
General Information										
A	Production		MT	91363.07022	91363					
B	Tree Plantation		Nos							
1	1.1	Coal Consumption	MT	28883	28883.5		28883480.0	17.01	96.1	47216
		Coal net calorific value	kcal/kg	4068	4067.9	← This is Average calorific value				
	1.2	Charcoal Consumption	MT	4.03	4.0		4030.0	29.5	112.0	13.3
2	Diesel (Stationary)		Ltr							
	2.1	Genset (Including GH+Hydrant)		20056	20056.0	820	16445.9	43.0	74.1	52.4
	2.3	Boiler-Startup		2482	2482.0	820	2035.2	43.0	74.1	6.5
3	Diesel (Movable)		Ltr							
	3.1	Company Operated vehicle		8856	8856	820	7261.9	43.0	74.1	23.1
	3.2	Diesel for Forklift		37967	37967	820	31132.9	43.0	74.1	99.2
	3.5	Coal Handling-JCB		8548	8548	820	7009.4	43.0	74.1	22.3
4	Petrol (Movable)		Ltr							
	4.1	Company Operated Vehicles		324.77	325	720	233.8	44.3	69.3	
5	Fire Extinguishers - CO2		kg	521.5	522		521.5			
6	Air Conditioners – Refrigerants		kg							
	6.1	Type 1 (R22)		310.7	311		310.7	1810		
7	LPG Consumption		kg							
	7.2	Canteen,Pantry & Guest house		410	410		409.5	47.3	63.1	
11	Welding - Acetylene		m^3	114.5	115		4043		0.1100	
SCOPE 2										
							Emission factor (kg CO_2/kWh) Same for all Grid (NEWNE & S)			Emission (CO_2)
Purchased Elecritcy from Grid			kWh	41808701	41808701		0.82			34283.1
Renewable Energy			kWh	38990018	38990018		0.82			31971.8

GHG Emission-	CO2 e Tons
Scope 1 Emission	47998
Scope 2 Emission	34283
Scope 3 Emission	9124
Renewable Energy	31972
Total	123377
Renewable Energy (Carbon Offset)	31972
Biomass as Alternate Fuel (Green Fuel)	1410
Carbon Offset due to Tree Plantation	248
Total	33631
	27.3

27.3 % offset/sequestration with respect to overall emission

JK TYRE & INDUSTRIES LTD.

GHG verification & Public Disclosure

1st Indian tyre company to have verified Carbon Footprint as per IS-14064

bsi.

By Royal Charter

CARBON FOOTPRINT VERIFICATION
VERIFICATION OPINION STATEMENT

This is to verify that: **JK Tyre & Industries Ltd.**
Link House
3 Bahadur Shah Zafar Marg
New Delhi 110 002, India

Holds Statement No: **CFV 637319**

Verification opinion statement

As a result of verification procedures, it is the opinion of BSI with reasonable assurance that:

- The Greenhouse Gas Direct and Energy Indirect Emissions for the period from 01/04/2017 to 31/03/2018 is 524,008 tonnes of CO2 equivalent.
- The inventory year for the period from 01/04/2013 to 31/03/2014 is considered as the base year.
- *Note: For a newly acquired unit of Cavendish India Limited (CIL) which has now also been included in the boundary, the current year (01/04/2017 to 31/03/2018) is considered as the base year.
- Emissions due to biomass combustion is separately quantified.
- Main operational activities carried out in the defined organizational boundary include 'Design and Manufacture of Conventional (Bias), Radial Truck, Bus & Car Tyres, Tubes and Flaps, Off the Road Tyres & Pre-Cured Tread Rubber'.
- No material misstatements in the selected year Greenhouse Gas Emissions calculation for JK Tyre & Industries Limited were revealed.
- Data quality was considered acceptable in meeting the principles as set out in ISO 14064-1:2012.

For and on behalf of BSI:
Originally registered: **03/08/2018**

Venkataram Arabolu, Managing Director India
Latest Issue: **03/08/2018**

...making excellence a habit.

GHG Emissions (in tonnes of CO_2 equivalent)

	2013-14	2014-15	2015-16	2016-17	2017-18
Scope 1	2,94,540	2,86,198	2,17,246	2,06,105	2,05,460
Scope 2	1,78,504	1,79,685	2,09,021	1,60,958	1,33,699
Total emission	4,73,044	4,65,883	4,26,267	3,67,063	3,39,159
Production	2,57,762	2,79,217	2,78,573	2,71,803	2,89,542
Emission intensity (CO_2 equivalent per tonne of tyre manufactured)	1.835	1.693	1.530	1.350	1.172

Public Disclosure through Sustainability Report & GHG Annual Report

JKTYRE & INDUSTRIES LTD.

Waste Management

Waste Management Policy

UOHS.01-PY.01

HEALTH, SAFETY & ENVIRONMENTAL POLICY

We at JK Tyre & Industries Ltd. are committed to design, manufacture and distribute our products in a manner that protects the environment; prevents work related injury and ill health in all the activities being carried out under our control and identifying the specific risk and opportunities as per the context to the organization.

We will continually improve on Occupational Health, Safety and Environmental performance for sustainable growth. We are explicitly committed to following:

- Complying with legal and other HSE requirements applicable to products, processes and services.
- Set up appropriate objectives including well – being and OHS of all employees and stake holders.
- Taking measures in HSE management system by being proactive and innovative.
- Conserving natural resources and energy by optimizing efficiency, minimizing waste and supporting environment friendly processes.
- Enhancing effectiveness of Safety, Health & Environmental Management system through Risk assessment and identification of opportunities to reduce the OHS and Environmental Risk.
- Providing our employees, contractors sub contractors and transporters appropriate work environment, facilities, adequate resources, support, information and need based training to work safely and involving them in HSE matters concerning them.
- Integrating Safety, Health and Environmental policy into our business planning, decision making and performance review at appropriate levels. The policy will be reviewed periodically on need base to suit its applicability for the business requirements.
- We commit to consult all stakeholders and ensure participation of workers representatives and ensure adequate supervision to enhance the OHS & Environment performance.

We commit to communicate this policy to all employees, persons working for and on our behalf and to make it available to all interested parties on request.

01.01.2019

Authorized and Approved by
Arun K. Bajoria
Director & President (International Operations)
OCCUPIER

JK TYRE & INDUSTRIES LTD.

UREW.01-PY.01

RENEWABLE ENERGY, RESOURCE AND WATER POLICY

We at JK Tyres are committed to :

A) Conserve and ascertaining Clean Energy through
- Enhancing Energy Efficiency
- Increase part of Renewable Energy

B) Conserve Natural Resources & Water through
- Enhancing Utility Efficiency
- Increase Recycling & Minimize Waste

C) We will achieve these objectives by adopting
- Use of Technology innovation
- Periodic Reviews
- Skill Up gradation
- Employee Involvement and
- Community Involvement

We will continuously Benchmark to Reduce Resource Consumption and become Water Positive. Also We will increase share of Renewable energy in Our Total Energy Requirements and will continuously effort for Conservation of Energy.

01.01.2018

Authorised and Approved by
Arun K. Bajoria
Director & President (International Operations)

JK TYRE & INDUSTRIES LTD.

JK TYRE & INDUSTRIES LTD.

Waste Collection ,Segregation ,internal transport & Handling, storage and disposal mechanism

Hazardous Wastes	Generation	Treatment after ELC	Recycle/Reuse	Disposal
Used Oil	Mixer	1. Sent to hazardous waste storage area 2. Quantity Entered in log 3. Kept in identified location.	Recycled	Sent to authorized recycler for reuse.
ETP Sludge	ETP Operation		Co Processed	Sent to TNPCB authorized vendor
Non-Hazardous Wastes	**Generation**	**Treatment**	**Recycle/Reuse**	**Disposal**
Metal scrap	Maintenance Activity	1.Sent to scrap yard area. 2.Kept in identified location.	Reused to make MS parts.	Sent to authorized recycler for reuse.
Rubber	Process Activities		Reused for Rubber Parts	
Cardboard & Paper	Office Work		Reused for making cardboard & paper bags.	
e-Wastes	IT & EEI	1. Sent to IT dept. 2. Item noted in log & kept in a separate container.	Recycled	Sent to TNPCB authorized vendor for recycling.
Battery		Kept in identified location	Recycled	Buy Back Policy. Sent back to Battery Manufacturer
Food Waste	Canteen	Quantity Entered in log Kept in identified location	Used as Manure	Used for Horiticulture
Polythene	Process	1. Sent to scrap yard area 2. Quantity Entered in log.3. Kept in identified location.	Reused for making Tarpaulin and Poly ropes	Sent to authorized recycler for reuse.

JK TYRE & INDUSTRIES LTD.

Waste Collection ,Segregation ,internal transport & Handling, storage and disposal mechanism

Waste Collection and Segregation

	Metal Scrap	Paper	Compound	E-waste	Polythene
Generation	RAW Material Stores	Tag from All process machine	1.Banbury 2.Extruder	All Process Equipments	1.Building 2.Super Assembly 3.Cutters
Collection					
Segeration				NA	

Internal Transport to Value Yard

Scrap Movement to vendor

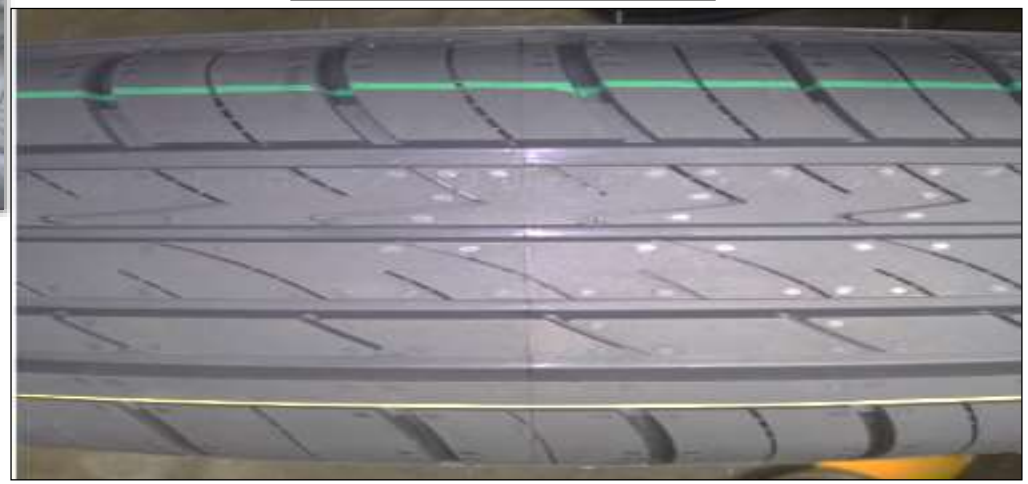
Non Hazardous Waste Management

Elimination of Rubber Spew generation in Tyre Curing:

Redesigning of our Mould venting system by Sprint Vent Technology and there by eliminating the Extra rubber/ Vents

Conventional vent - Tyre

Spring vent - Tyre



***Result**: 20-30 grams/Tyre rubber is saved*

***Horizontal Deployment:** Deployed horizontally to all other moulds (65 % Existing mould modified) and incorporated in our new mould design*

Non Hazardous Waste Management

Racks made from scrap steel

Ramps & supports made from scrap steel

Operations/Maintenance Activities:

For operations, there is a strong policy of conservation, reusing, recycling, and composting everything

JK TYRE & INDUSTRIES LTD.

Non Hazardous Waste Management

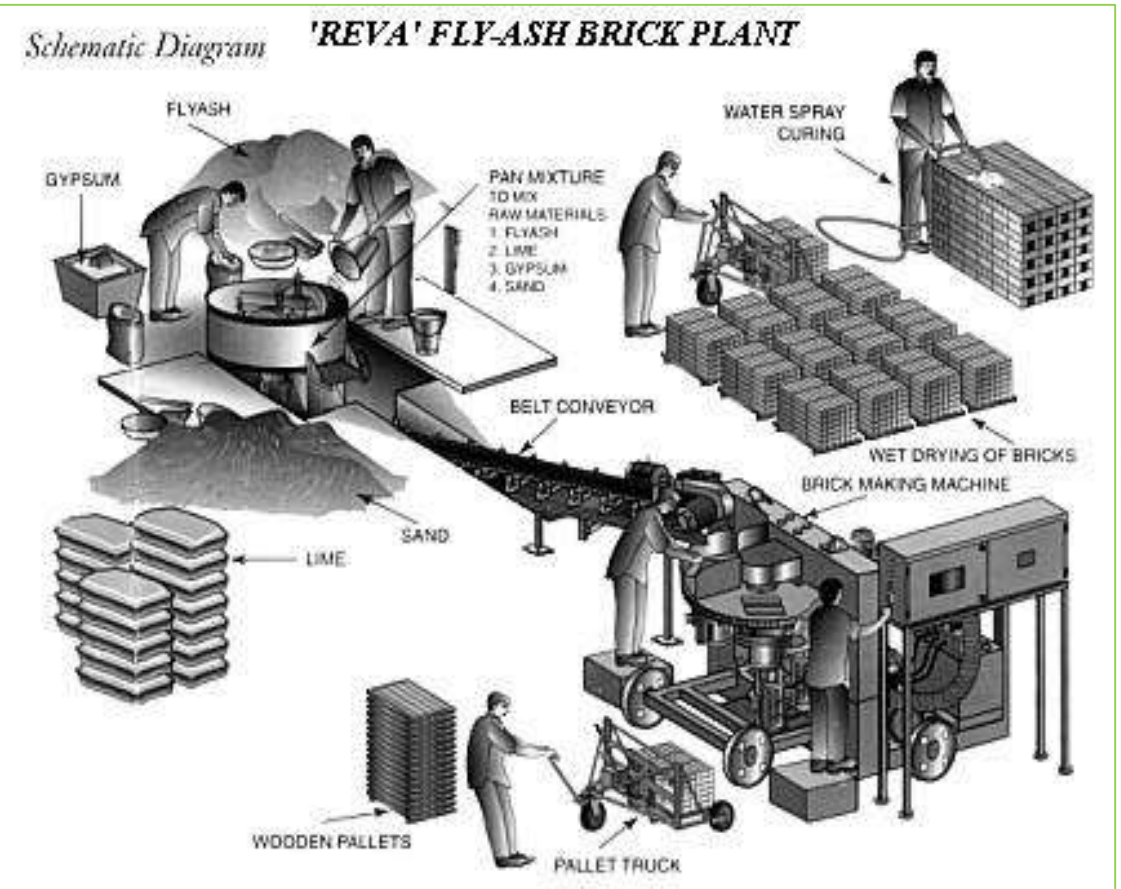
Food Digester

100 % Food Waste generated is converted into Manures

Non Hazardous Waste Management

Alternate use of Boiler Fly Ash as Raw Material in Brick Manufacturing Process (TNPCB Approved Agency)

- **Disposal:** 100% Fly Ash Generated is Disposed to Fly Ash Brick Vendor through Closed container Vehicle
- **Green Environment:** Fly Ash Bricks are Environment Friendly



100 % Fly Ash disposed to Recycler

Zero Waste to Landfill

Hazardous Waste

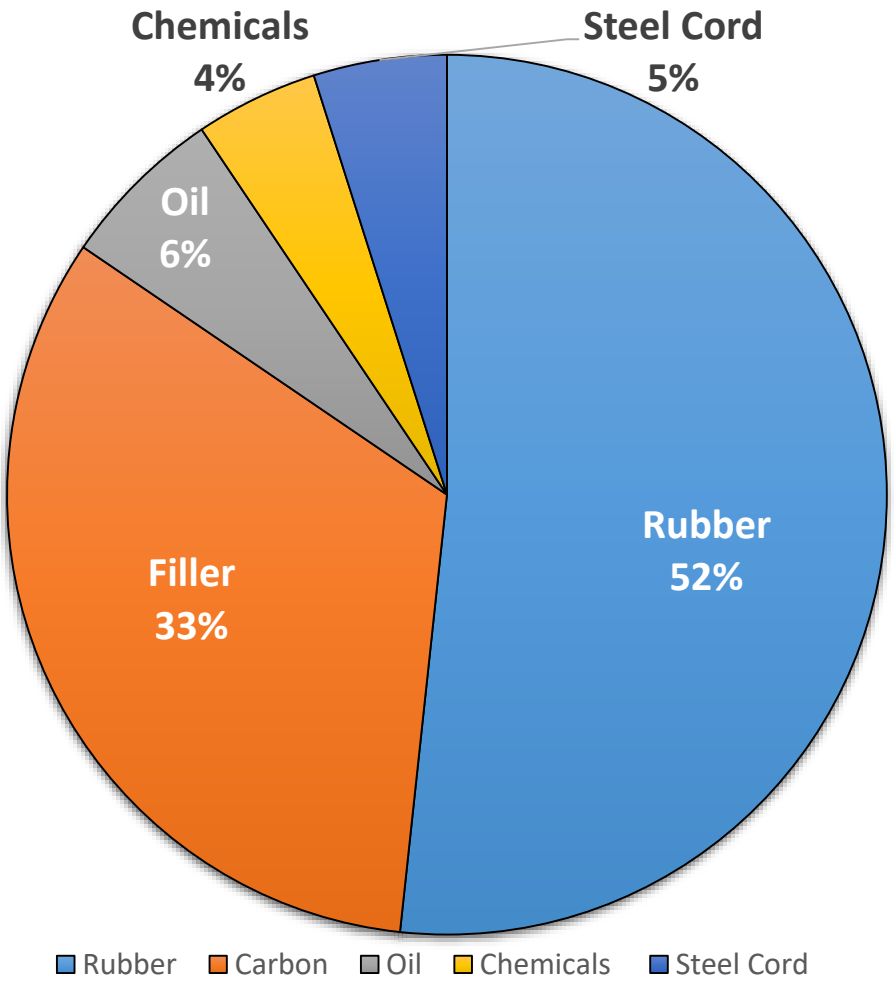
- **Used Oil** → **100% Recycled** → **Zero Landfill**
- **ETP Sludge** → **Co Processing - Plan**

Non Hazardous Waste → **Sent to Recycler** → **Zero Landfill**

Non-Hazardous Wastes	Recycle/Reuse
Metal scrap	Reused to make MS parts.
Rubber	Reused for Rubber Parts like Mats, Toys etc
Cardboard & Paper	Reused for making cardboard & paper bags.
e-Wastes	Sent to Authorized recycler
Battery	Buy Back Policy. Sent back to Battery Manufacturer
Food Waste	Used as Manure
Polythene	Reused for making Tarpaulin and Poly ropes

Material Conservation

% Raw Material distribution in a Tyre



S.No	Raw Material	%
1	Rubber	52%
2	Carbon (23%) + Silica (10%)	33 %
3	Process Oil	6%
4	Reinforcement Material	5%
5	Chemicals	4%

S.No	Raw Material	%	Contributes to Major Consumption in Tyre Manufacturing
1	Rubber	52%	
2	Carbon (23%) + Silica (10%)	33 %	

Percentage reduction in Specific Raw Material consumption

➢ **REDUCTION IN AROMATIC OIL CONSUMPTION:**

Aromatic oil, having high poly cyclic carbon content is replaced with Low PCA oil and NAPHTHENIC OIL reducing the hazardous impact to the environment

100% reduction of Aromatic Oil

➢ **REDUCTION IN CHEMICAL SPILLAGE IN MIXING AREA:**

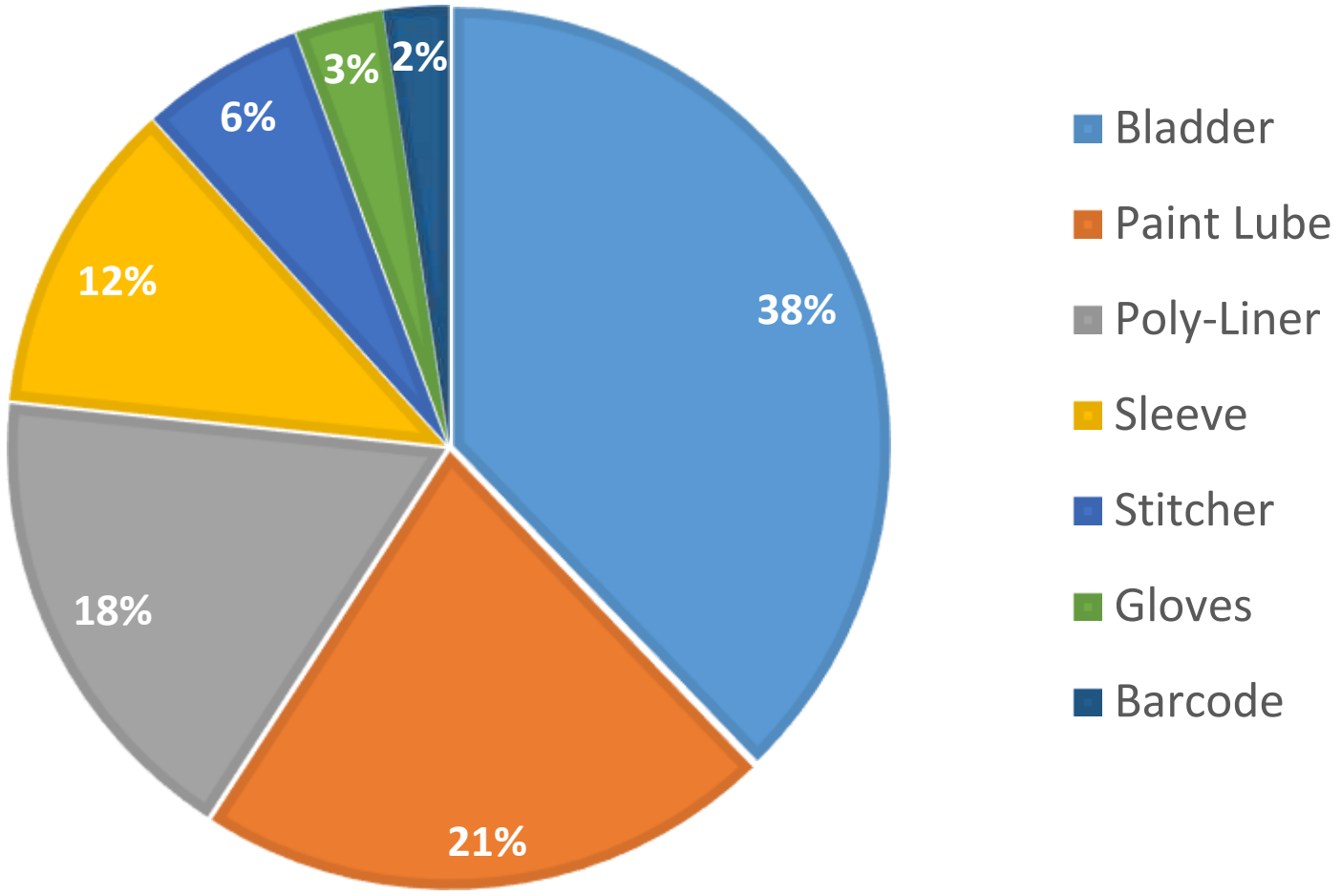
EVA and LDPE bags are used for weighing the chemicals and used as such while mixing for compounds.

ZERO % Spillage.

JK TYRE & INDUSTRIES LTD.

Specific Reduction in Consumables

CONSUMABLES CONSUMPTION IN %



Consumable	% Usage
Bladder	37.8
Paint Lube	21.4
Poly-Liner	17.5
Sleeve	11.6
Stitcher	6
Gloves	3.2
Barcode	2.5

Consumables	% Reduction
Bladder	35%
Paint-Lube	73.33%
Poly-Liner	25%

Specific Reduction in Consumables

Reduction in Consumables by improving bladder's life cycle

OLD Bladder Life Cycle of **240**

New Bladder life cycle of **325**

35 % reduction in Bladder Consumption

JK TYRE & INDUSTRIES LTD.

Specific Reduction in Consumables

Reduction in Mould Lube Consumption

MONO-LUBE
TO
MULTI-LUBE

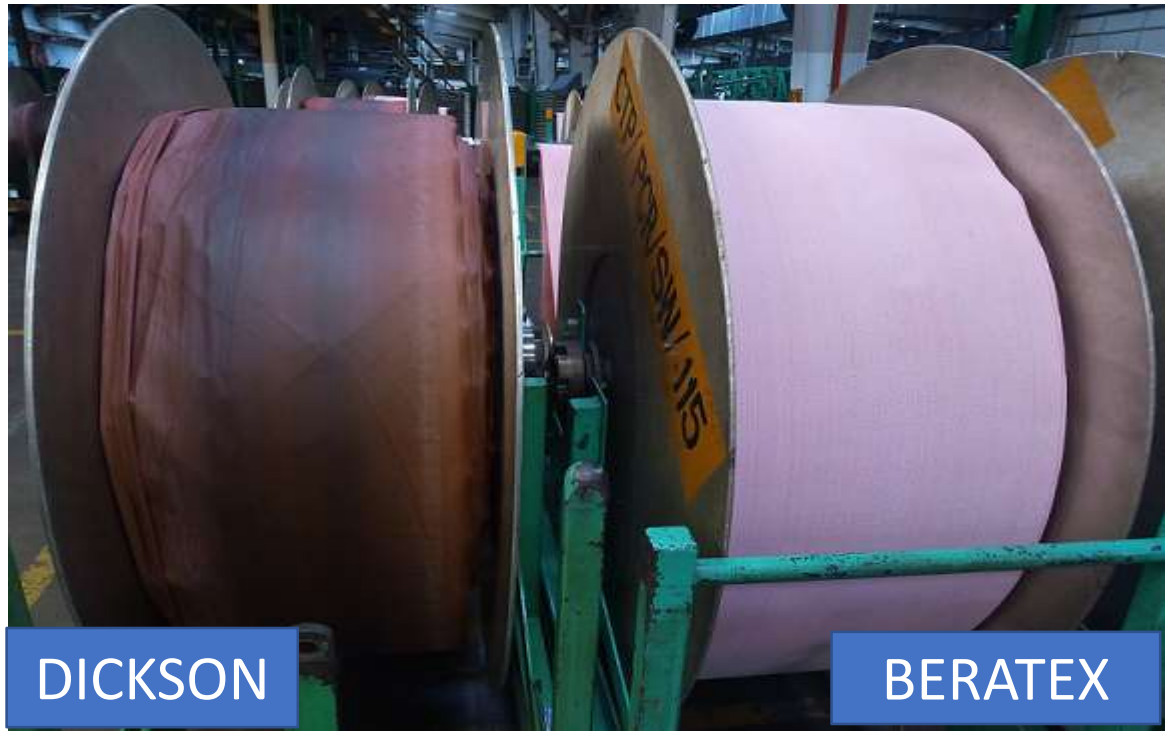
33 % REDUCTION

Fly loss reduction
Nozzle dia from 1mm to 0.5

26 % REDUCTION

Consumption Reduction from 30gm/tyre to 8 gm/tyre

Specific Reduction in Consumables



Change in Liner material from DICKSON to BERATEX increase its durability by 25 %

Increase life by 25%

Application	Durability	Green tackiness retension	Product release	Wrinkle resistance	Staining	Moisture absorption	Colour options	Printing YYMM
PCR/TBR SideWall, Sh.pad Liners	Good	Good	Yes	Yes	No	Zero%	7 colours	Yes
	Good	Good	Yes	Yes	No	Absorbs	Nil	No

JK TYRE & INDUSTRIES LTD.

Reduction in Packaging Materials

100 % of Domestic Supply without **Poly Wrapping -** **No Packing**

85 % of Domestic Supply **without Straps** (Tubeless Tyres)

Export Packing with Packing Materials Contributes **7 %** of our overall Warehouse Production

Green Supply Chain

Identification of Critical Suppliers/Vendors

Vendors to CTP
192 Nos

Import
119 Nos

Pan India
73 Nos

Misc. Items- Non Critical -13 Nos

RM Production – Critical – 60 Nos

- All are Large Scale Industry
- Supplying to all over PAN India
- Many Vendors are Monopoly like SKI Carbon, Reliance, Bekaert, TATA Steel, Nocil, Acmechem etc.

Large - 48 Nos

Medium – 2 Nos

Small – 10 No

Scope for Improvement

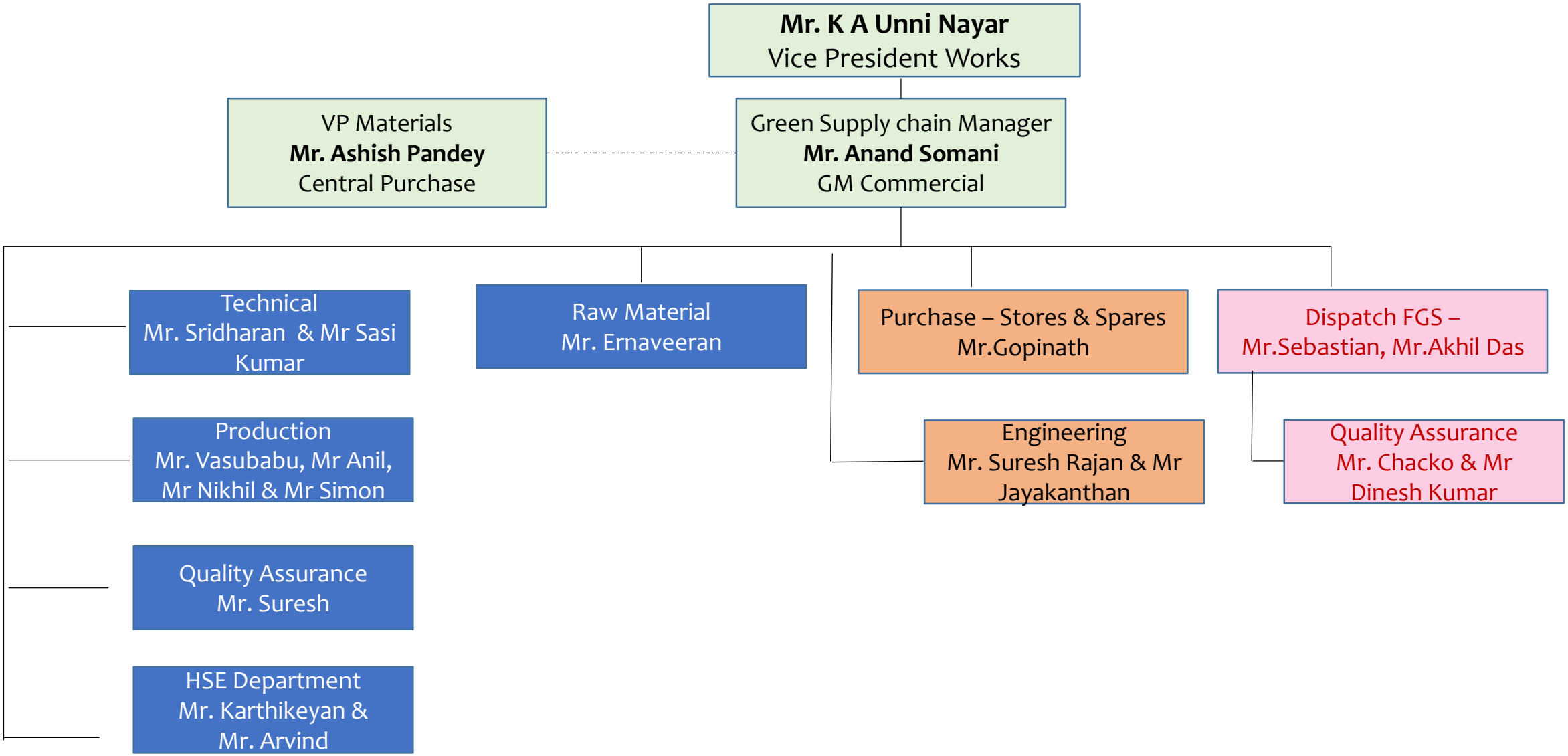
- All are Large Scale Industry
- Supplying to all over the World
- Many Vendors are Monopoly

Criteria considered for Supplier Selection:

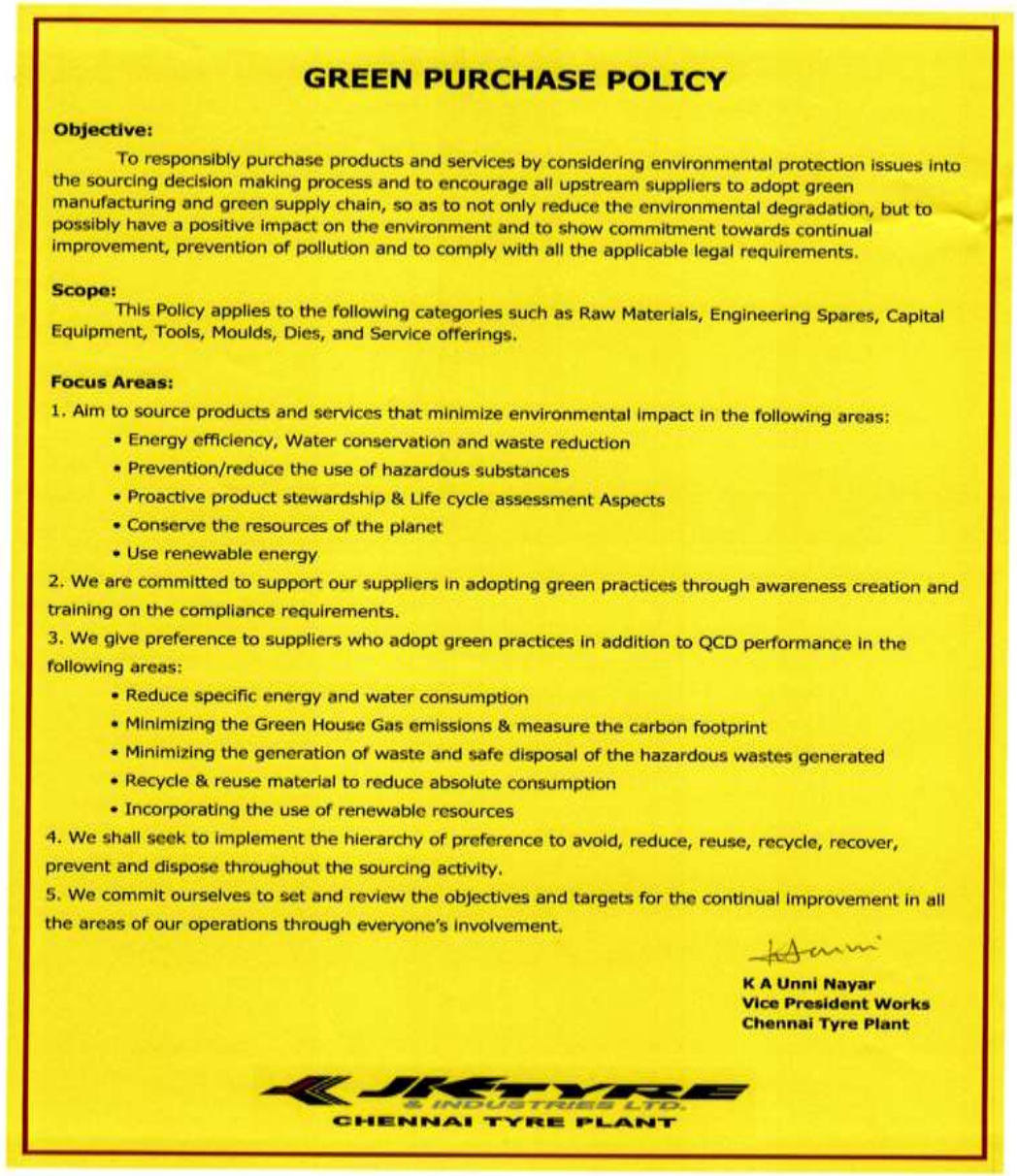
1. Environmental Impact and also Critical
2. SME – Where there is lot of scope for improvement

JK TYRE & INDUSTRIES LTD.

Green Supply chain Cell



Implementation of Green Procurement Guideline



GREEN PURCHASE POLICY

Objective:

To responsibly purchase products and services by considering environmental protection issues into the sourcing decision making process and to encourage all upstream suppliers to adopt green manufacturing and green supply chain, so as to not only reduce the environmental degradation, but to possibly have a positive impact on the environment and to show commitment towards continual improvement, prevention of pollution and to comply with all the applicable legal requirements.

Scope:

This Policy applies to the following categories such as Raw Materials, Engineering Spares, Capital Equipment, Tools, Moulds, Dies, and Service offerings.

Focus Areas:

1. Aim to source products and services that minimize environmental impact in the following areas:
   - Energy efficiency, Water conservation and waste reduction
   - Prevention/reduce the use of hazardous substances
   - Proactive product stewardship & Life cycle assessment Aspects
   - Conserve the resources of the planet
   - Use renewable energy
2. We are committed to support our suppliers in adopting green practices through awareness creation and training on the compliance requirements.
3. We give preference to suppliers who adopt green practices in addition to QCD performance in the following areas:
   - Reduce specific energy and water consumption
   - Minimizing the Green House Gas emissions & measure the carbon footprint
   - Minimizing the generation of waste and safe disposal of the hazardous wastes generated
   - Recycle & reuse material to reduce absolute consumption
   - Incorporating the use of renewable resources
4. We shall seek to implement the hierarchy of preference to avoid, reduce, reuse, recycle, recover, prevent and dispose throughout the sourcing activity.
5. We commit ourselves to set and review the objectives and targets for the continual improvement in all the areas of our operations through everyone's involvement.

K A Unni Nayar
Vice President Works
Chennai Tyre Plant

JK TYRE & INDUSTRIES LTD.
CHENNAI TYRE PLANT

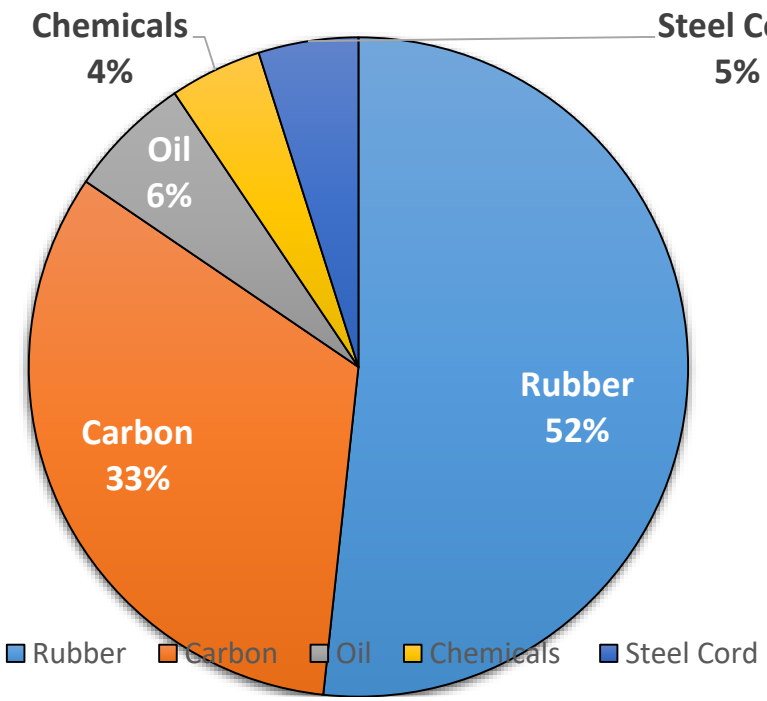
- All the Procurement activities are through SAP
- For all Raw Materials, Green initiatives like packing standards Logistics Requirements etc., form part of Specifications issued to suppliers and specification forms an integral part of the Purchase contract.
- Requirement of energy efficiency gets reflected in all Purchase documents.
- Taking measures in Energy management system by being reactive , innovative and cost effective including procurement of energy efficient products & services.
- As a Responsible company, we are started procuring from suppliers near to our manufacturing plants in South. Eg. :- Carbon Black, Zinc Oxide, Bead wire, Reclaim rubber, Stearic Acid Which was earlier supplied from North.

No Hazardous / Toxic Materials :

We are not using any toxics and hazardous materials in our plant

JK TYRE & INDUSTRIES LTD.

Implementation of Green Procurement Guideline



S.No	Raw Material	Green Procurement Guideline
1	Rubber	100% - Recyclable Packaging Material – Good pack, Open Truck
2	Carbon) + Silica	100% - Jumbo bags – To improve Logistics Efficiency
3	Process Oil	100% - Low PCA Oil (Env Friendly)& Receiving in Tankers in place of barrels (Logistics Efficiency)
4	Steel Cord	100% - Reusable Packaging Material

S.No	Material	Green Procurement Guideline
1	Energy Products	100% Procurement of BEE Star rated products (Motors, AC's , LED etc)

S.No	Material	Green Procurement Guideline
1	House Keeping Chemicals & Paints	100 % Procurement Eco Friendly chemicals and Low VOC Paints

Implementation of Green Procurement Guideline

Rubber -Reusable Packaging Material – Good pack

Bead Wire - Reusable Packaging Material – Spools

Silica -Jumbo Bags in place of Paper bags

Prices indicated above are exclusive of the metal spools,plastic separators and plastic pallets.

DESCRIPTION	QTY(PCS)	Unit wt (Kgs)	TOTAL WEIGHT (Kgs)	UNIT PRICE (US$)/PC	AMOUNT (US$)	DIMENSION (MM)
PLASTIC PALLETS	70	12.750	892.50	25	1750.00	1118 X 828 X 165
STEEL SPOOLS	2520	3.100	7812.50	3.20	8064.00	255 X 255 X 329
PLASTIC SEPARATORS	280	0.875	245.00	1.25	350.00	1035 X 778 X 1.2

The steel tyre cord being suppiled by Xingda with the packing materials,as listed out above,on a returnable basis and these shall remain Jiang su Xingda's property

ISSUED BY:
JIANGSU XINGDA STEEL TYRE CORD CO., LTD.

Purchase of Green Certified Products of Material

Eco Friendly Silica in place of Carbon Black (Petro based)

100 % replacement of Aromatic Oil with LOW PCA Oil

REACH

Registration

Evaluation

Authorization/Restriction

…….of Chemical Substances

ENVIRONMENTALLY FRIENDLY
REACH COMPLIANCE

JK TYRE & INDUSTRIES LTD.

Purchase of Green Certified Products of Material

Admin. Office :
Patriot House,
3, Bahadur Shah Zafar Marg
New Delhi -110002
Ph: Off : 91-11-33001112, 33001122
Fax: 91-11-23322059

JK TYRE & INDUSTRIES LTD.

Purchase Order

Chennai Tyre Plant

Plant Address:
SRIPERUMBUDUR - TAMBARAM ROAD (SH 110)
KOLATHUR VILLAGE, SRIPERUMBUDUR TALUK
KANCHEEPURAM DISTRICT,
P.O. SRIPERUMBUDUR - 602105
TAMILNADU(INDIA)
PHONE: 044-33001122,30978111
FAX: 044-30978555
GSTIN:33AAACJ6716F1ZV
PAN No: AAACJ6716F

M/s. MAX ENGINEERING TECHNOLOGIES P LTD
#9, Sarojkhanna Complex, Dr. Radhakrishnan Nagar,E.V.R. Road,
Arumbakkam,
Chennai - Tamil Nadu
PIN : 600106 -India
Vendor Code : 305285
Vendor GSTIN : 33AAHCM3522F1ZV
PAN No. : AAHCM3522F

Plant : Chennai Tyre Plant
Purchase Order. No : 2800023276
P.O. Date : 22.03.2017
Effective From : 21.03.2017
Your Reference : 252

SNo	Item Code / Item Description	UOM	Quantity	Rate (₹)	Total Value (₹)	Discount
1	51209900321 AC 2 TR SPLIT W/STABLIZER	Numbers	1	42,500.00	42,500.00	NIL
	AIR CONDITIONER 2 TR SPLIT TYPE, MAKE CARRIER, 5 STAR WITH REMOTE & 5 KV-EVEREST MAKE STABILIZER WITH 4M COPPER PIPE KIT MODEL:SUPERIA CYCLOJET, FREE INSTALLATION					
2	51209900301 AC 1.5 TR SPLIT W/STABLIZER	Numbers	1	33,000.00	33,000.00	NIL
	AIR CONDITIONER 1.5 TR SPLIT TYPE, MAKE CARRIER, 5 STAR,WITH REMOTE & EVEREST MAKE STABILIZER WITH 4M COPPER PIPE KIT MODEL:SUPERIA CYCLOJET,FREE INSTALLATION					
3	25105500551 PIPE,METL,COPPER,5/8" ID,FOR	Meter	15	320.00	4,800.00	NIL

Admin. Office :
Patriot House,
3, Bahadur Shah Zafar Marg
New Delhi -110002
Ph: Off : 91-11-33001112, 33001122
Fax: 91-11-23322059

JK TYRE & INDUSTRIES LTD.

Purchase Order

Chennai Tyre Plant

Plant Address:
SRIPERUMBUDUR - TAMBARAM ROAD (SH 110)
KOLATHUR VILLAGE, SRIPERUMBUDUR TALUK
KANCHEEPURAM DISTRICT,
P.O. SRIPERUMBUDUR - 602105
TAMILNADU(INDIA)
PHONE: 044-33001122,30978111
FAX: 044-30978555
GSTIN:33AAACJ6716F1ZV
PAN No: AAACJ6716F

M/s. SANGAM DISTRIBUTORS
3,CHOOLAI HIGH ROAD,
CHENNAI - Tamil Nadu
PIN : 600112 -India
Vendor Code : 306382
Vendor GSTIN : 33AAHPA6200H1ZF
PAN No. : AAHPA6200H

Plant : Chennai Tyre Plant
Purchase Order. No : 2800023
P.O. Date : 24.06.
Effective From : 19.06.
Your Reference : Mail27.6.16

SNo	Item Code / Item Description	UOM	Quantity	Rate (₹)	To
1	30352501161 LAMP,TUBE,LED,20W,230V,TMC1X 155,PHILIPS	Numbers	50	520.00	
	FITTING WITH 20W LED TUBE,TYPE: LED,VOLTAGE RATING:230V AC,50HZ,COLOUR:WHITE,WITH PATTI FITTING ,MAKE: PHILIPS				

Remarks:1.MATERIAL SHOULD ACCOMPANY ORIGINAL INVOICE (ONLY DC IS NOT A
2.ECO-FRIENDLY,BIODEGRADABLE & RECYCLEABLE PLASTIC COVERS TO BE USED

INSTRUCTIONS TO VENDOR:
-Please supply the Material, Services as per specification in this Order Subject to Terms & Condition enclosed. as annexure.
-Please mention Purchase Order No., Item Code and vendor Code on Challan & Invoice Positively.

For J

(A

REGD. OFFICE: Jaykavgram, PO-Tyre Factory, Kankroli-313 342(Rajasthan) CIN : L67120RJ1951PLC045966

Air conditioner with high star rating to reduce the consumption of electric power.

JK TYRE & INDUSTRIES LTD.

Purchase of Green Certified Products of Material

Admin. Office :
Patriot House,
3, Bahadur Shah Zafar Marg
New Delhi -110002
Ph. Off : 91-11-33001112, 33001122
Fax: 91-11-23322069

JK TYRE & INDUSTRIES LTD.

Purchase Order

Chennai Tyre Plant

Plant Address:
SRIPERUMBUDUR - TAMBARAM ROAD (SH 110)
KOLATHUR VILLAGE, SRIPERUMBUDUR TALUK
KANCHEEPURAM DISTRICT,
P.O. SRIPERUMBUDUR - 602106
TAMILNADU(INDIA)
PHONE: 044-33001122,30978111
FAX: 044-30978555
GSTIN:33AAACJ6716F1ZV
PAN No: AAACJ0716F

M/s. CLASSIC ENGINEERING COMPANY
Plot No:5, 3rd Floor
Anupam Plaza-II,Gazipur,
DELHI - Delhi
PIN : 110006 -India
Vendor Code : 307541
Vendor GSTIN : 07AEWPM3886J1ZK
PAN No. : AEWPM3886J

Plant : Chennai Tyre Plant
Purchase Order. No : 3500019526
P.O. Date : 07.08.2018
Effective From : 30.07.2018
Your Reference : PRICELIST'18

SNo	Item Code / Item Description	UOM	Quantity	Rate (₹)	Total Value (₹)	Discount
1	*63109904281* *MTR,AC,55KW,ND250MX,1480RPM, 105A MAKE:CG*	*Numbers*	1	501,900.00	501,900.00	69.50%
	MTR,AC,55KW,FRAME:M2BAX250SMA4,MVOLTAGE:380 +-10%,NO OF POLE:4,FREQUENCY:50+-,IP55,MOUNTING:V1,METHOD OF COOLING:IC411,LOAD:100%,CONNECTION:DELTA,NET WEIGHT:453, BEARING DE/NDE: 6314-C3 / 6314-C3.....FLANGE MOUNTING MOTOR. V1 FLANGE , IE3 MAKE ABB					

NET VALUE - Rupees One Lac Fifty Three Thousand Seventy Nine and Paise fifty only.

Total value : ₹ 501,900.00
Net value after Discount: ₹ 153,079.50

High Energy Efficiency Motor

Admin. Office :
Patriot House,
3, Bahadur Shah Zafar Marg
New Delhi -110002
Ph. Off : 91-11-33001112, 33001122
Fax: 91-11-23322069

JK TYRE & INDUSTRIES LTD.

Purchase Order

Chennai Tyre Plant

Plant Address:
SRIPERUMBUDUR - TAMBARAM ROAD (SH 110)
KOLATHUR VILLAGE, SRIPERUMBUDUR TALUK
KANCHEEPURAM DISTRICT,
P.O. SRIPERUMBUDUR - 602106
TAMILNADU(INDIA)
PHONE: 044-33001122,30978111
FAX: 044-30978555
GSTIN:33AAACJ6716F1ZV
PAN No: AAACJ0716F

M/s. A.H.TAHER & CO.
94, BROADWAY, CHENNAI
CHENNAI - Tamil Nadu
PIN : 600108 -India
Vendor Code : 307254
Vendor GSTIN : 33AAAFA1320R1ZR
PAN No. : AAAFA1320R

Plant : Chennai Tyre Plant
Purchase Order. No : 3500021738
P.O. Date : 20.01.2019
Effective From : 20.01.2019
Your Reference : 2426

SNo	Item Code / Item Description	UOM	Quantity	Rate ( )	Total Value ( )	Discount
1	*15120500181* *CARB,ROTRY,BURR,CTR,16MM DIA,6MM SPINDLE*	*Set*	6	1,655.00	9,930.00	35.00%
	TUNGSTEN CARBIDE ROTARY BURR C6 CUTTER, 16MM DIAMETER FOR 6MM SPINDLE SHAFT, MAKE: TOTEM					

NET VALUE - Rupees Six Thousand Four Hundred Fifty Four and Paise fifty only

Total value : 9,930.00
Net value after Discount: 6,454.50

GST : 9% CGST & 9 % SGST
Price Basis : FOR - OUR SITE KOLATHUR
Payment Term: 30 DAYS CREDIT FROM THE DATE OF RECEIPT
Mode Of Payment: BY CHEQUE
Delivery : WITHIN 4 WEEKS

Quantity Variance :
Freight / Cartage : NIL
P & F : NIL
Insurance by: NIL
Mode of Transport : VENDOR'S OWN
Contact Person : sudhagar.m@jkmail.com

Remarks:ECO-FRIENDLY, BIODEGRADABLE & RECYCLEABLE PACKING MATERIALS TO BE USED

INSTRUCTIONS TO VENDOR:
Please supply the Material, Services as per specification in the Order Subject to Terms & Condition enclosed as annexure.
Please mention Purchase Order No., Item Code and vendor Code on Challan & Invoice Positively

REGD. OFFICE: Jaykaygram, PO:Tyre Factory, Kankroli-313 342(Rajasthan) CIN : L37120RJ1951PLC045985

For JK Tyre & Industries Ltd.
(Authorised Signatory)

Remarks:ECO-FRIENDLY, BIODEGRADABLE & RECYCLEABLE PACKING MATERIALS TO BE USED

INSTRUCTIONS TO VENDOR: **For JK Tyre & Industries Ltd.**

Eco friendly, Biodegradable & Recyclable Plastic covers used for packing.

JK TYRE & INDUSTRIES LTD.

Purchase of Green Certified Products of Material

Used as floor cleaner

Used as Room Freshener

Used for Rest Room Sanitary Cleaning

S.NO	House Keeping Chemicals	Area
1	TASKI R1	Rest Room Floors
2	TASKI R2	All Floors
3	TASKI R3	Glass Cleaning
4	TASKI R4	Wood Polishing
5	TASKI R5	Toilet Room Freshener
6	TASKI R6	Urinal Stain Remover
7	TASKI R7	Hard Floor Cleaner
8	TASKI R9	Toilet Cleaning
9	SPIRAL HD	Metal Floor and Stained Floor

100 % Procurement Eco Friendly House keeping chemicals and Low VOC Paints

Used for Glass Cleaning

JK TYRE & INDUSTRIES LTD.

Supply Chain Efficiency Improvement

S.No	Raw Material	in MT	Cumm	%	Before		% Reduction
1	Nat...		2233.71	29.60%	Wooden		100%
2			3489.43	46.24%	Wooden		100%
			804.30	50.41%	Reusable P...ging Ma...	...kaging Material	100 %
4			5091.43	67.47%			
5	Recla...d	18.1	5109.52	67.71%	Loose packing in Trucks and stored directly in Metal Gandola		100%
6	Carbon Black	1654.0	6763.47		1 Ton Jumbo Bags or Paper	...g only	100%
7	Fabric Roll + Dipped Fabric	122.6	688...6			...for reuse	30%
8	Silica	155.5	7041.56			...Bag	93%
9	Chemicals	504.7	7546.21	100.00%	Working with Supplier for usage of Biodegradable or Reusable Packaging Material		

93.31% of Raw Material Packaging through Sustainable packing

67.71% of Raw Material Packaging through Reusable Bins, Loose packing

80.3 % Overall reduction in Incoming Raw material Packaging

JK TYRE & INDUSTRIES LTD.

Supply Chain Efficiency Improvement

Natural Rubber & Synthetic Rubber:

S.No	Raw Material	Before	After	% Re
1	Natural Rubber	Wooden Pallets	Loose packing in Trucks and stored directly in Metal Gandola	10
2	Synthetic Rubber	Wooden Pallets	Reusable Bins like Good pack or GPS	100%

4819 Nos of empty bins send back to respective vendors on 2018 -19

Eliminated Wooden Pallets

NR stored in Metal Gandola

SR stored in Good packs – Reusable bins

JK TYRE & INDUSTRIES LTD.

Supply Chain Efficiency Improvement

Steel Tyre Cord and Bead Wire:

S.No	Raw Material	Before	After	% Reduction
1	Bead Wire	Reusable Packaging Material	Reusable Packaging Material	**100 %**
2	Steel Tyre Cord			

Bead Wire

Steel Tyre Cord

➢ **3R (Reduce, Reuse and Recycle):-**

We are receiving bead wire in steel pallets in place of wooden packing. **We have eliminated 82.4 MT of wood per year (20 kgs of wood X 4120 MT of bead wire)**. We are returning the cartons & spools of steel tyre cord to the vendor. **We have eliminated 264 MT of wood per year (20 kgs of wood X 13195 MT of STC)**

RE USE DUCE CYCLE

JK TYRE & INDUSTRIES LTD.

Supply Chain Efficiency Improvement - Logistics

- Huge Savings in KMS run & Fuel was achieved due to standardization of container Height from 8'~8.5' to 9' due to which we were able to load 11~22 TBR tyres extra in each vehicle.
  - **In 17-18 we saved 341,000 KMS resulting to savings of 85KL fuel and 222.9 MT of CO2**
  - **In 18-19 we saved 387,000 KMS resulting to saving of 97KL fuel and 252.6 MT of CO2**

Destination	Distance in KM	17-18			18-19 (upto Dec 18)		
		No. of Trucks Saved	No. of KMs Saved	No. of Lts Fuel Saved	No. of Trucks Saved	No. of KMs Saved	No. of Lts Fuel Saved
Ahmedabad FDR	1,950	6.28	12,246	3,062	10.58	20,622	5,156
Alwar	2,141	7.23	15,479	3,870	7.69	16,471	4,118
Bangalore FDR	375	6.18	2,316	579	10.16	3,809	952
Bhiwandi FDR	1,450	9.27	13,445	3,361	6.27	9,098	2,275
Chennai	45	13.55	610	152	31.30	1,409	352
Coimbatore	500	3.10	1,548	387	23.46	11,729	2,932
Cuttack FDR	1,350	0.71	959	240	1.13	1,523	381
Guwahati	2,780	0.31	862	215	0.11	292	73
Hosur	309	13.57	4,192	1,048	31.80	9,826	2,457
Hyderabaad FDR	750	3.69	2,764	691	4.47	3,353	838
Hubli	800	1.22	976	244	0.31	246	62
Indore	1,650	15.44	25,476	6,369	19.16	31,622	7,905
Jaipur	2,150	7.96	17,110	4,278	2.12	4,565	1,141
Jamshedpur FDR	1,700	53.39	90,762	22,691	72.29	122,891	30,723
Kanpur FDR	2,010	10.88	21,869	5,467	3.77	7,586	1,897
Kolkatta FDR	1,750	4.24	7,413	1,853	3.79	6,627	1,657
Kundli	2,209	8.68	19,170	4,793	9.14	20,185	5,046
Lucknow	2,050	20.72	42,479	10,620	16.17	33,155	8,289
Ludhiana FDR	2,700	2.27	6,133	1,533	6.64	17,935	4,484
Meerut	2,375	1.92	4,560	1,140	2.44	5,785	1,446
Nagpur	1,152	4.70	5,414	1,354	3.72	4,289	1,072
Nasik	1,550	0.23	357	89	-	-	-
Pantnagar	2,010	10.06	20,226	5,057	17.84	35,865	8,966
Patna FDR	2,200	1.45	3,190	798	2.86	6,285	1,571
Pune	1,300	1.99	2,587	647	0.79	1,033	258
Raipur	1,450	1.61	2,335	584	1.00	1,450	363
Salem	375	17.36	6,510	1,628	5.22	1,957	489
Tirunelveli	624	0.46	287	72	0.47	292	73
Trichy	375	2.50	939	235	6.19	2,321	580
Vijayawada	452	6.79	3,071	768	9.37	4,237	1,059
PUDUCHERY	167	4.44	741	185	-	-	-
BANGAON (B'desh	1,737	0.99	1,720	430	-	-	-
RUDRAPUR	2,251	1.30	2,926	732	-	-	-
Gwalior	1,865	0.08	149	37	0.08	143	36
Madurai	436	0.15	65	16	0.13	56	14
Mumbai	1,294	0.23	298	74	-	-	-
Kanchipuram	35	-	-	-	0.69	24	6
Total Savings ===>		**244.95**	**341,184**	**85,296**	**311**	**386,683**	**96,671**

JK TYRE & INDUSTRIES LTD.

Supply Chain Efficiency Improvement - Logistics

- **We had initiated in PCR, Coins type stuffing to Lacing type stuffing for increasing load capacity and reduce trucks & fuel.**
  - **In 17-18 we saved 385,000 KMS resulting to savings of 96KL fuel and 251.5 MT of CO2**
  - **In 18-19 we saved 315,000 KMS resulting to saving of 79KL fuel and 205.7 MT of CO2**

Destination	KM	17-18			18-19 (upto dec)		
		Total no. of trucks saved	Total KM saved	Total fuel saved	Total No. of trucks saved	Total KM saved	Total Fuel saved (L)
Ahmedabad FDR	1,950	9	17,724	4,431.09	7	14,294	3,573
Bangalore FDR	375	16	5,984	1,496.01	9	3,251	813
Bhiwandi FDR	1,450	14	20,371	5,092.70	14	20,996	5,249
Chennai	45	5	212	52.96	14	643	161
Coimbatore	500	0	120	30.00	9	4,335	1,084
Cuttack FDR	1,350	3	3,752	938.09	2	2,876	719
Gurgaon	2,320	8	19,073	4,768.14	23	53,986	13,497
Guwahati	2,780	10	28,922	7,230.45	6	17,875	4,469
Hosur	309	4	1,110	277.61	8	2,348	587
Hyderabaad FDR	750	6	4,665	1,166.25	1	810	203
Hubli	800	1	784	196.00	2	1,520	380
Indore	1,650	7	11,385	2,846.25	5	8,811	2,203
Jaipur	2,150	18	38,709	9,677.21	9	18,404	4,601
Jamshedpur FDR	1,700	3	5,497	1,374.17	1	1,802	451
Kanpur FDR	2,010	10	20,794	5,198.51	6	11,397	2,849
Kolkatta FDR	1,750	11	19,429	4,857.27	6	9,730	2,433
Kundli	2,209	17	37,795	9,448.67	7	14,756	3,689
Lucknow	2,050	-	-	-	-	-	-
Ludhiana FDR	2,700	20	53,887	13,471.81	8	22,194	5,549
Meerut	2,375	9	21,748	5,437.00	5	12,683	3,171
Nagpur	1,152	8	9,608	2,402.12	4	5,046	1,261
Nasik	1,550	0	620	155.00	7	10,122	2,530
Pantnagar	2,010	12	23,690	5,922.41	26	52,582	13,145
Patna FDR	2,200	6	12,815	3,203.69	4	9,152	2,288
Pune	1,300	7	8,816	2,203.88	8	10,348	2,587
Raipur	1,450	6	8,877	2,219.14	3	3,785	946
Salem	375	17	6,389	1,597.36	-	-	-
Vijayawada	452	3	1,344	336.06	2	1,121	280
Cochin	675	1	919	229.70	-	-	-
Total Savings ===>		233	3,85,038	96,260	197	3,14,865	78,716

JK TYRE & INDUSTRIES LTD.

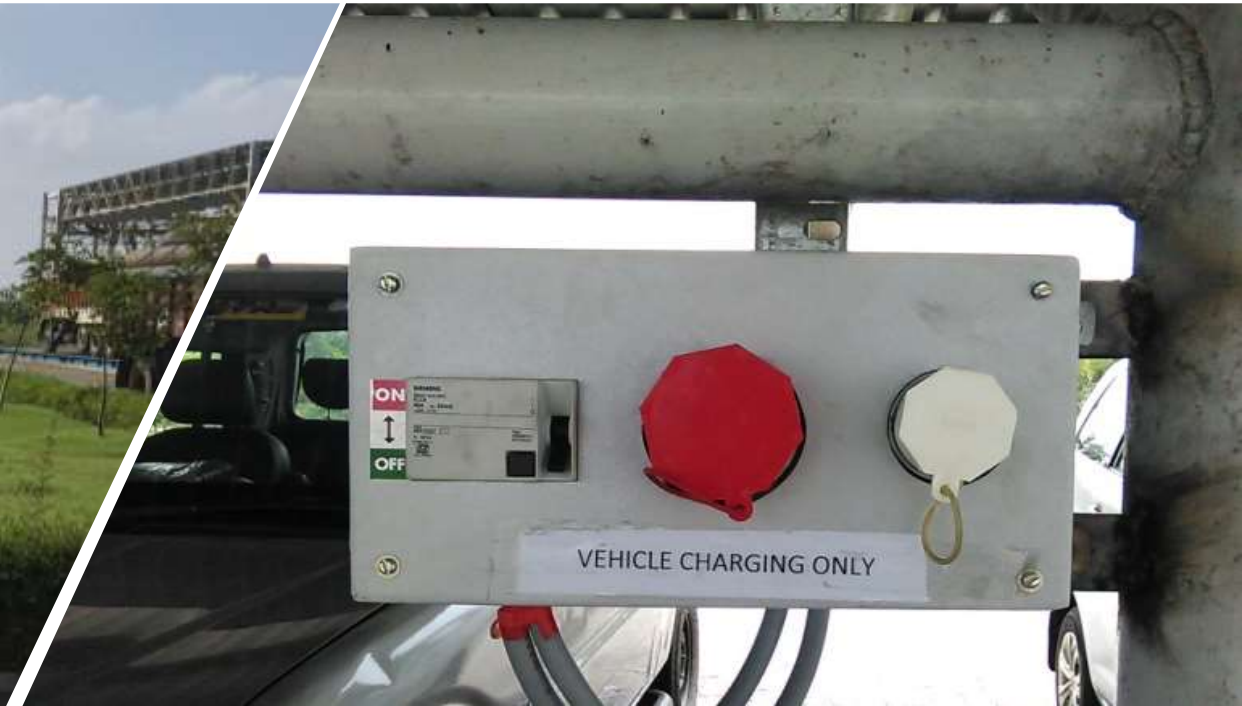
Green Infrastructure & Ecology

Green Building

INDIA'S FIRST AND ONLY PLATINUM RATED TYRE FACTORY

JK TYRE & INDUSTRIES LTD.


DANGER


ON
OFF
VEHICLE CHARGING ONLY


P
Disabled
parking
only

Sports & Games to promote physical, Mental and Emotional Well being

SPIKE - VOLLEYBALL

JK - MARATHON

JK – PREMIER LEAGUE

JK FOG –INDOOR GAMES

JK – PREMIER LEAGUE

JK FOG –INDOOR GAMES


Thank You!