

# THE SUPREME INDUSTRIES LTD JADCHERLA T.S

PLOT NO 24, 26 TO 40, 43 TO 45, 41(P), 42(P), 47(P) AND 48(P),  
GREEN INDUSTRIAL PARK, JADCHERLA MANDAL, VILLAGE POLEPALLY,  
DISTRICT- MAHABUBNAGAR, TELANGANA - 509301

WELCOME

## CII NATIONAL AWARD FOR EXCELLENCE IN ENERGY MANAGEMENT 2024



### Team Member

- 1) Mr. Jayant Sawant – General Manager
- 2) Mr. Roshan Somany – General Manager
- 3) Mr. Lakshamane Gowda KR (HOD- Plant Engg. & Maintenance)
- 4) Mr. Abhishek Mishra – Plant Engineering & Maintenance

# THE SUPREME INDUSTRIES LTD - OVERVIEW



**TRIPLE**  
CERTIFICATION

ISO 14001, 45001, 50001

PLANTS

**30**

OFFICES

**20**

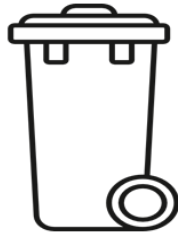


**1.70 KL/MT** 2023-24

**1.88 KL/MT** 2022-23

WATER INTENSITY

**65465 MT**



**83%**



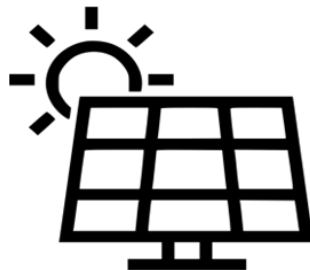
CIRCULARITY

**10.6** MILLION KWH



**43.13**

MILLION KWH



**34.04**

MWP



**380.75** MILLION KWH



**250333 TCO<sub>2</sub>**

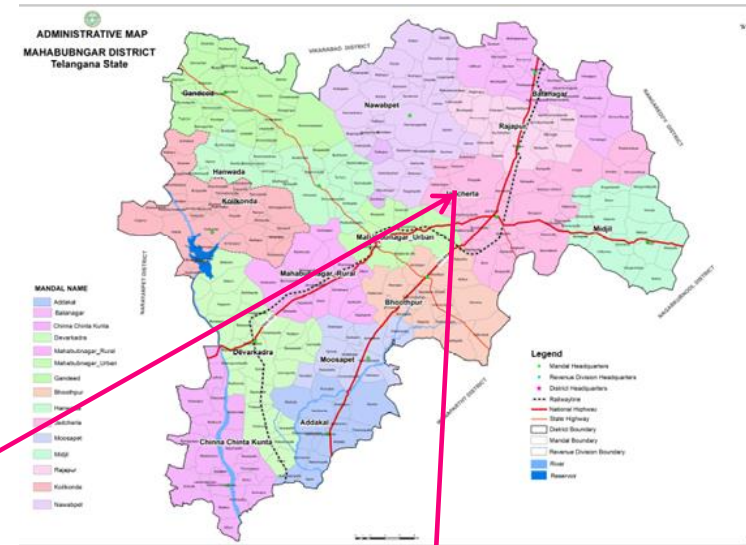
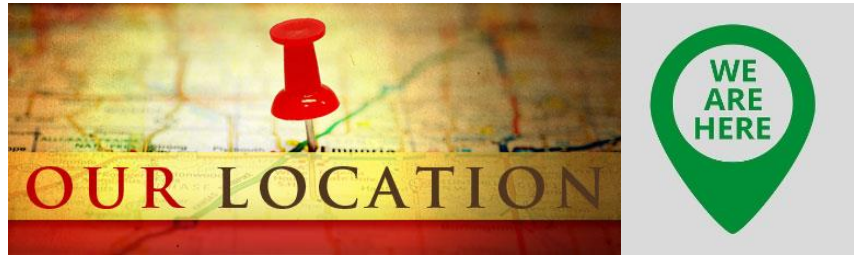
SCOPE 1&2 EMISSION

**129351 TCO<sub>2</sub>**

EMISSION SAVED FROM  
2019-20 ONWARDS



# THE SUPREME INDUSTRIES LTD - JADCHERLA, TELANGANA



# GROUP'S BUSINESS VERTICALS

## Plastic Piping Division



## Consumer Products



## Packaging Products

- Specialty Films
- Protective Packaging Products
- Cross Laminated Film Products

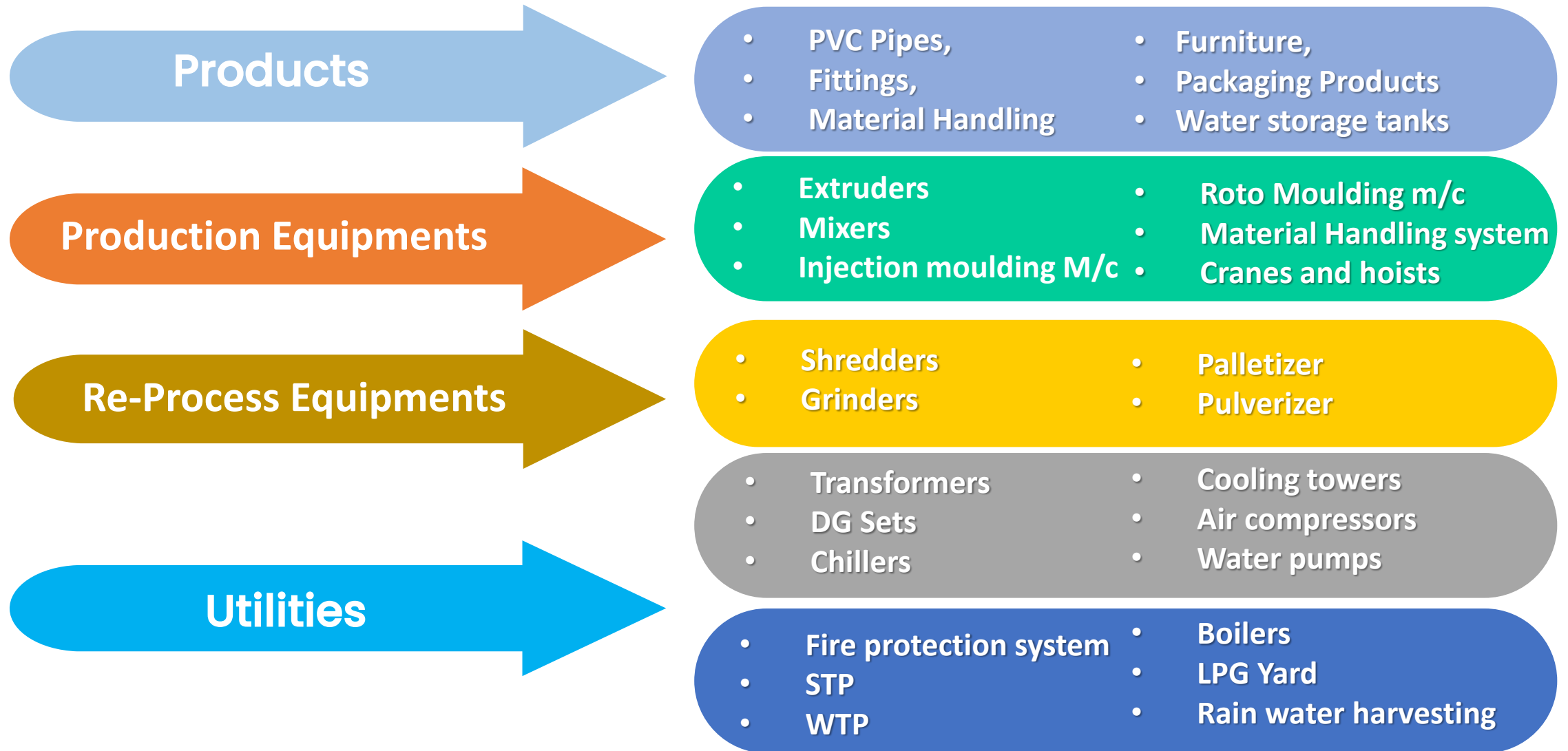


## Industrial Products

- Industrial Components
- Material Handling Division
- Composite LPG Cylinders

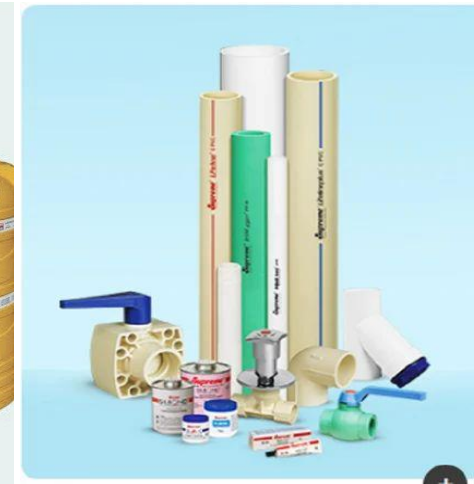
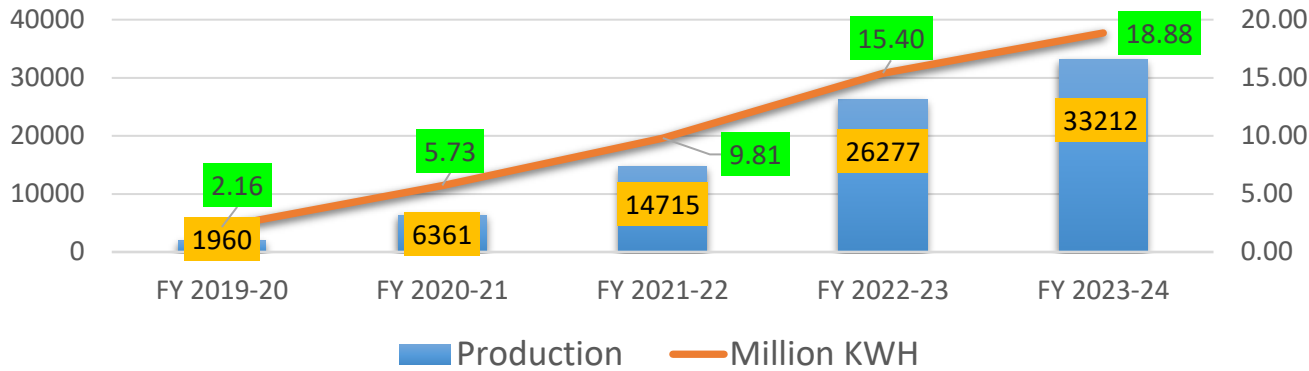


# PLANT OVERVIEW – TSIL JADCHERLA

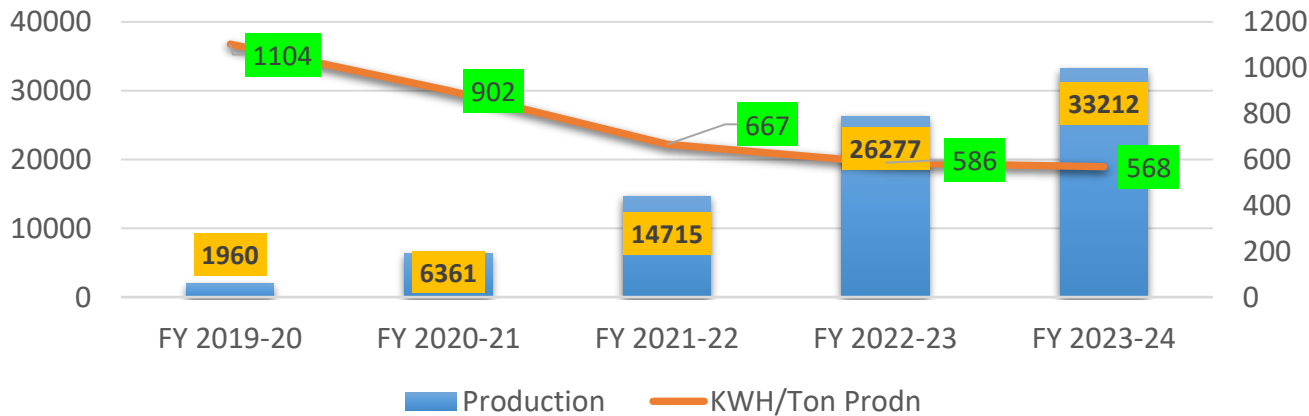


# JADCHERLA - SPECIFIC ENERGY CONSUMPTION

## Plant Production V/s Energy Consumption



## Plant Production V/s Specific Energy Consumption



### Manufacturing –

1. PVC PIPES,
2. FITTINGS,
3. FURNITURE,
4. MATERIAL HANDLING
5. WATER STORAGE TANKS

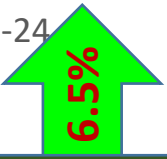
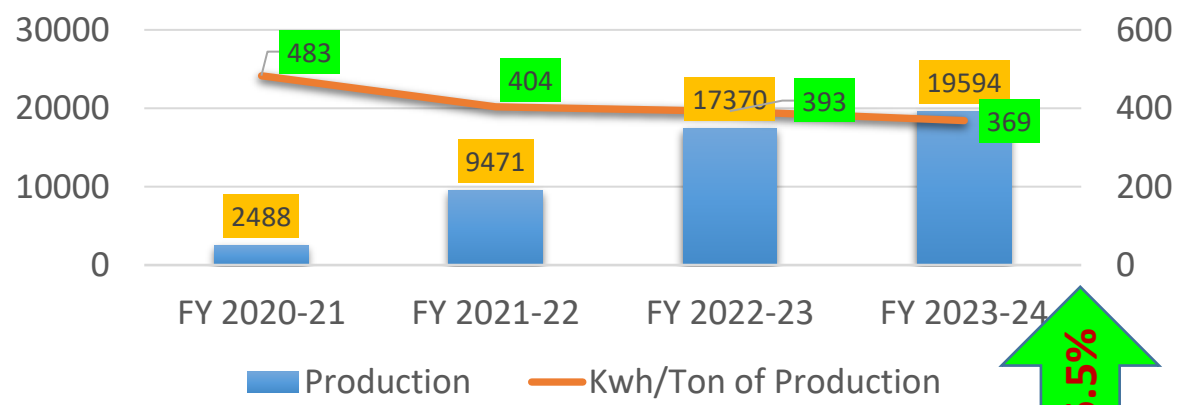
# JADCHERLA - SPECIFIC ENERGY CONSUMPTION (SECTION WISE)



Pipe plant		
Year	Production MT	Million KWH
FY 2020-21	2488	1.20
FY 2021-22	9471	3.83
FY 2022-23	17370	6.82
FY 2023-24	19712	7.23

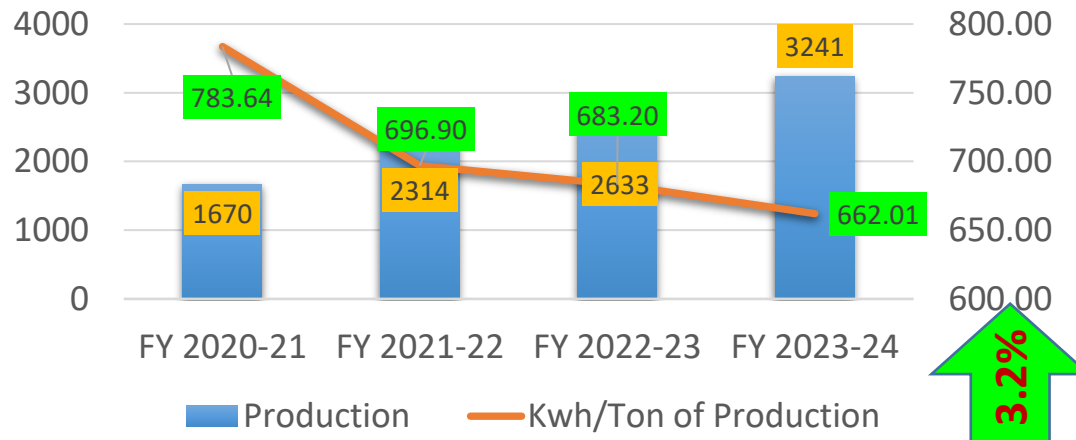
Furniture & MHD		
Year	Production MT	Million KWH
FY 2020-21	1670	1.31
FY 2021-22	2314	1.61
FY 2022-23	2633	1.80
FY 2023-24	3241	2.15

**Pipe Plant Production v/s Specific energy consumption**



**Improvement**

**Moulding plant Production v/s Specific energy consumption**



**Improvement**

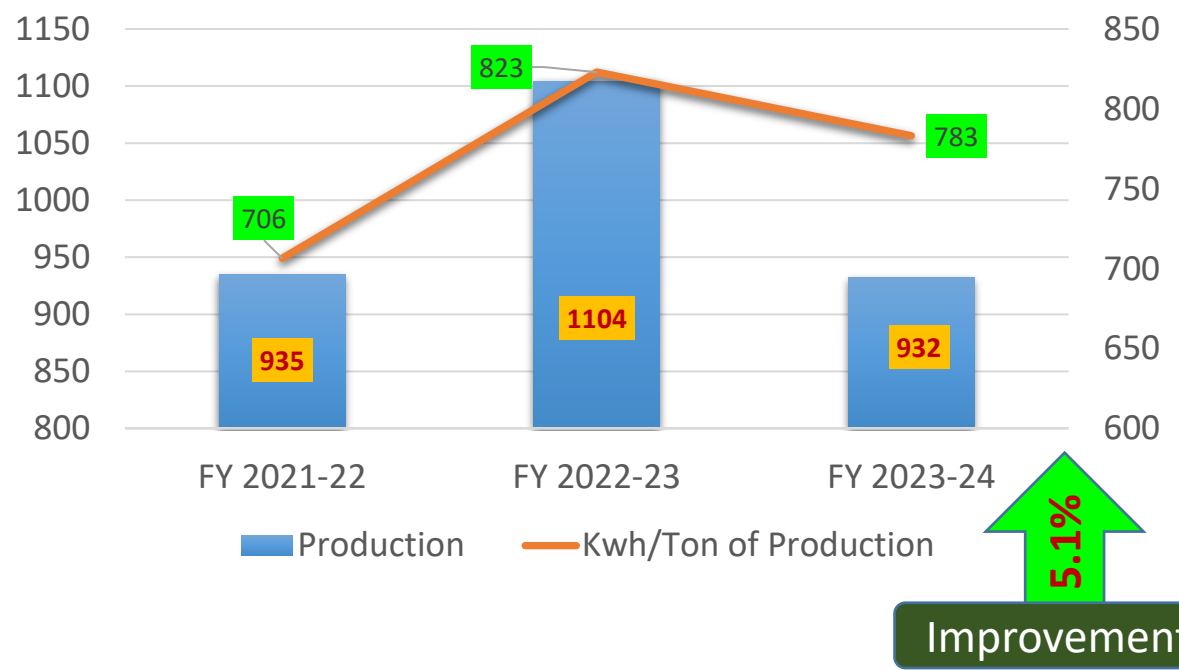
# JADCHERLA - SPECIFIC ENERGY CONSUMPTION (SECTION WISE)



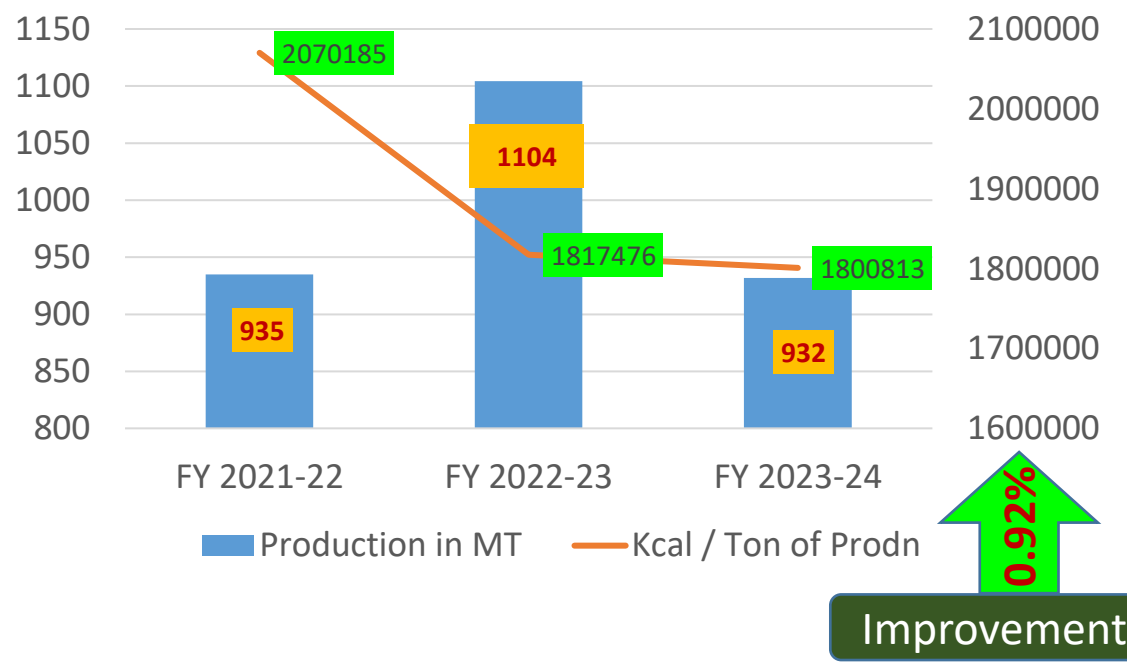
Roto Energy Consumption		
Year	Production	Million KWH
FY 2021-22	935	0.66
FY 2022-23	1104	0.91
FY 2023-24	932	0.73

Roto LPG Consumption		
Year	Production MT	LPG Con. In MT
FY 2021-22	935	187
FY 2022-23	1104	194
FY 2023-24	932	162

**Roto plant Production v/s Specific energy**



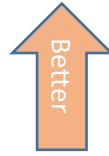
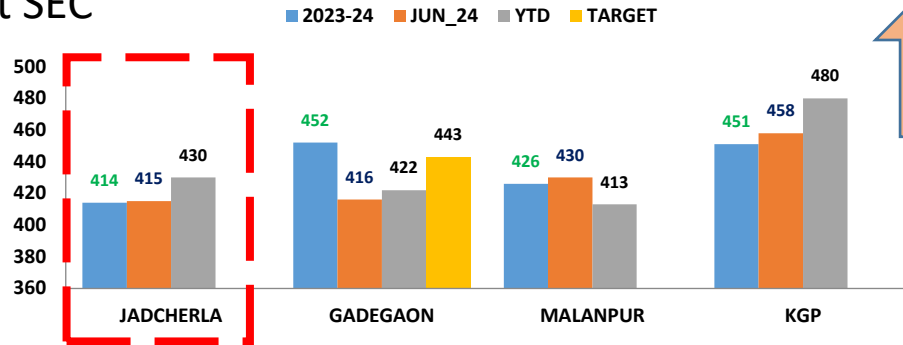
**Roto Specific Thermal Reduction**



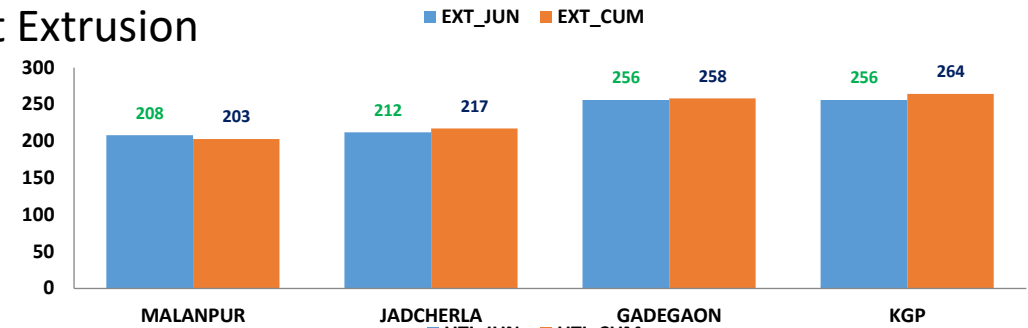


## FORMAT (SAMPLE)

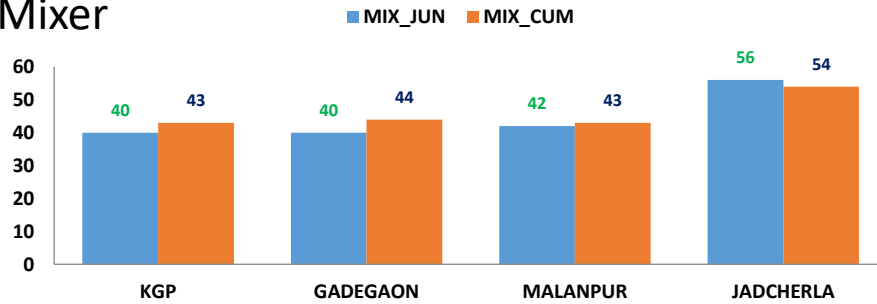
Target SEC



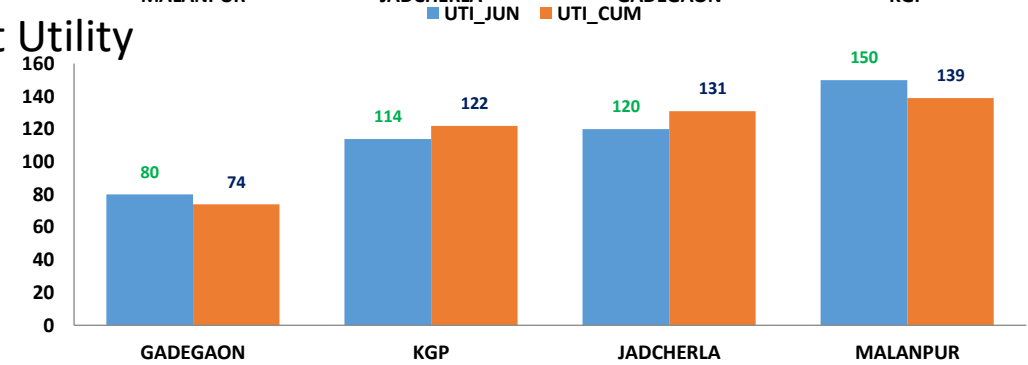
Target Extrusion



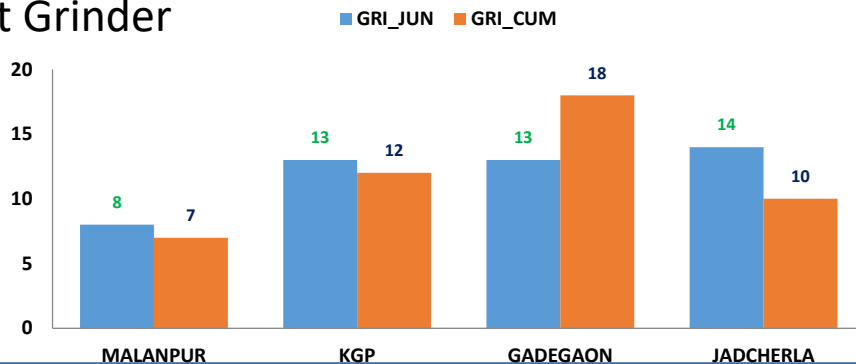
Target Mixer



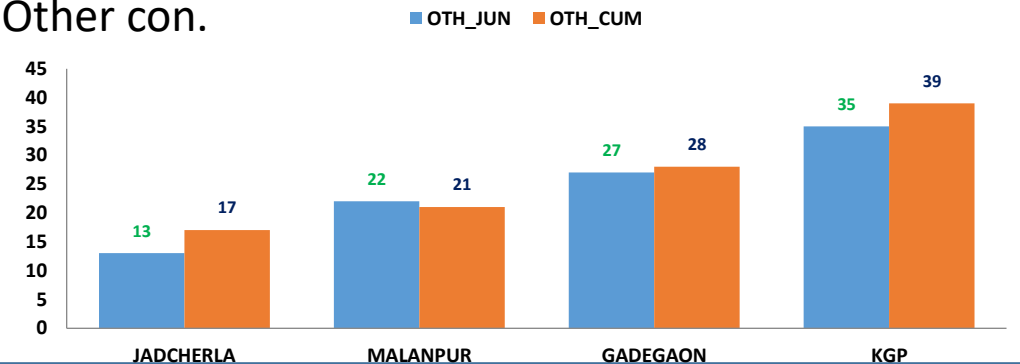
Target Utility



Target Grinder



Target Other con.

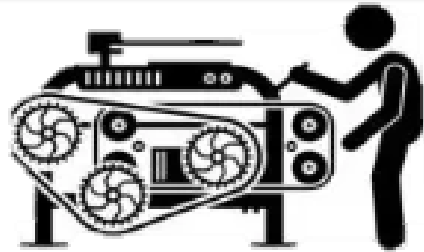


# ENERGY SAVINGS PLAN FOR FY 24-25

## Project Proposing for FY 2024-25

Sr. No	Project Proposing for FY 2024-25	Investment (Rs in Million)	UOM	Annual Electrical Saving (Million kWh)	Saving (Rs in Million)	Payback Period (months)
1	Centralized vacuum system for Extruders	3.2	KWH	0.07	0.574	60
2	Chiller plant manager - Chillers optimum utilization	1	KWH	0.052	0.43	28
3	Replacement of conventional fan with BLDC Ceiling fans	0.075	KWH	0.0037	0.03	2
4	Addition 1MW Roof top solar installation	27.94	KWH	1.5	5.63	59
5	IE2 Motors replace with IE4 Motors	0.516	KWH	0.0122	0.098	60
6	Addition Hydro-Pneumatic system for process water pumps (PE Fitting and HDPE)	1	KWH	0.072	0.57	60
7	Fuel Saving Catalyst - LPG saving project (Expected saving 5 - 12%)	0.3	Kcal	7.36	0.57	6
<b>Total</b>		<b>34</b>		<b>9.07</b>	<b>7.90</b>	

# Jadcherla Energy Efficient Equipment Roadmap



Old technology



**INDUSTRIAL 4.0**



Global impact

Motor	IE-1 & IE2 Motor With Low Efficiency	IE-3& IE4 Motor With HIGH Efficiency	Energy saving
AC & Chilling Unit	R-22 old type Air-conditioning	R-32 New type Air-conditioning with inverter control	Energy saving & GHG reduction
Lights	Halogen & CFL LIGHT	LED light with occupancy control	Energy saving
Machine	Convention heater unit in Extruder & injection m\c	Jacket induced insulations of the barrel heaters	Energy saving
Data monitoring	Recording in Excel sheets	SCADA & EMS SYSTEM implementation	Data auditing

# JADCHERLA - SUMMERY OF PROJECTS

## ENERGY SAVING PROJECTS IMPLEMENTED IN LAST THREE YEARS

Year	No. of Energy Saving project	Investments INR Million	Electrical Savings (Million kWh)	Thermal Saving (Million Kcal)	Total Saving INR Million	Pay Back Period In Months
FY 2021-22	6	10.897	0.58029	0	3.907	34
FY 2022-23	5	1.738	0.062149	86.16	1.009	21
FY 2023-24	9	17.55	2.1623713	44.198	4.662	45

# JADCHERLA - ENCON SAVING PROJECT (2021-22)

ENERGY SAVING PROJECT FY-2021-22					
Sr. No.	Project Description	Investments Inr Million	Electrical Saving Million Kwh	Total Saving Inr Million	Pay Back Period In Months
1	Compressor Utilization Through Feedback Control Vfd	0.65	0.0725	0.572	13.64
2	Energy Efficient Transformer Selection	0.7	0.024002	0.192	43.75
3	Reactive Power Management (Maintain Unity Power Factor To Reduce Energy Distribution Loss)	1.89	0.178893	1.43	15.86
4	Process Optimization With Servo Control System & Multiple Stage Pump Designing	5.8	0.119232	0.954	72.96
5	VFD Inverter Ac System	0.057	0.004815	0.039	17.54
6	Energy Efficient Lighting System With Timer & Occupancy Base Control	1.8	0.180838	0.72	30

# JADCHERLA - ENCON SAVING PROJECT (2022-23)



ENERGY SAVING PROJECT					
Sr. No.	Project Description	Investments Inr Million	Electrical Saving Million Kwh	Total Saving Inr Million	Pay Back Period In Months
1	VFD Inverter Ac System	0.082	0.006372	0.051	19.29
2	Energy Efficient Lighting System With Timer & Occupancy Base Control	0.551	0.050286	0.4	16.53
3	Temperature Feedback Control On Cooling Tower	0.005	0.005491	0.044	1.36
THERMAL ENERGY SAVING PROJECT					
Sr. No.	Project Description	Investments Inr Million	Thermal Saving (Million Kcal)	Total Saving Inr Million	Pay Back Period In Months
4	Spider modification to run plant from 2 moulds to 4 moulds	0.4	72.98	0.438	10.96
5	Dustbin wheel production along with 1000Ltr tank mould setup	0.07	10.18	0.076	11.05

# JADCHERLA - ENCON SAVING PROJECT (2023-24)

ENERGY SAVING PROJECT					
Sr. No.	Project Description	Investments Inr Million	Electrical Saving Million Kwh	Total Saving Inr Million	Pay Back Period In Months
1	VFD Based Chiller - Chillers optimum utilization	8	0.24	1.92	50.54
2	VFD Based Air compressor - Air compressor optimum utilization	2.04	0.103	0.825	29.67
3	VFD based process water pumping for PVC Mixer plant with optimum utilization	0.15	0.012	0.108	17.9
4	Replacement of conventional fan with BLDC Ceiling fans	0.0285	0.015	0.01204	28.41
5	Servo based injection moulding machines	6.88	0.89	0.71	115
6	Hydro pneumatics system for process pumps	0.45	0.043	0.3511	15
THERMAL ENERGY SAVING PROJECT					
Sr. No.	Project Description	Investments Inr Million	Thermal Saving (Million Kcal)	Total Saving Inr Million	Pay Back Period In Months
7	Vaporizer shifting near to the production plant	0.06	6.498	0.039	18.46
8	Operating pressure reduction from 100Mbar to 75 Mbar	0	28.42	0.171	0
9	Strengthening of Gas leak control method	0.08	9.28	0.056	17.14

# JADCHERLA - ENCON SAVING PROJECT (2023-24)

**VFD based Chiller**



**VFD based Air compressor**



**Gas Detecting Device**



**LPG Vaporizer re-located**



**Servo Based Injection moulding**



**Hydro-Pneumatic system**





# JADCHERLA - INNOVATIVE PROJECT

## Facility For Low Carbon Technology Deployment



Confederation of Indian Industry



**BUREAU OF ENERGY EFFICIENCY**

*Government of India, Ministry of Power*



**UNITED NATIONS  
INDUSTRIAL DEVELOPMENT ORGANIZATION**

*Progress by innovation*



**global  
environment  
facility**  
INVESTING IN OUR PLANET

**TSIL - Jadcherla plant got opportunity through CII and installed by BridgeThings deployment of FLCTC approved Innovative technology**

# INNOVATIVE PROJECT – IOT4.0 ENERGY MANAGEMENT SYSTEM

## Connectivity

- Wireless
- Easy to install
- Minimal Cable work
- Simply add on's
- Good for connecting remote equipments
- Single telemetry can connect up to 5 meters

## Reports

- Auto Report generation
- Auto Report circulation
- Report ar Excel format report – Easy for analysis
- Real time data
- Hourly, Daily, monthly or date duration reports

## Alerts

- Plant Energy, Water & LPG Consumption report alert through WhatsApp
- Fire protection system pressure monitoring & alert
- Compressed air pressure drop alert
- Process water pressure deviation alert

## Replication

- Horizontal deployment can be done
- Easy for new installation as well as Existing system without major disturbance



Excellent energy management

Data Accuracy & Analysis

Real time Alerts

**Impact**

Control Rejection/waste

Paperless reports

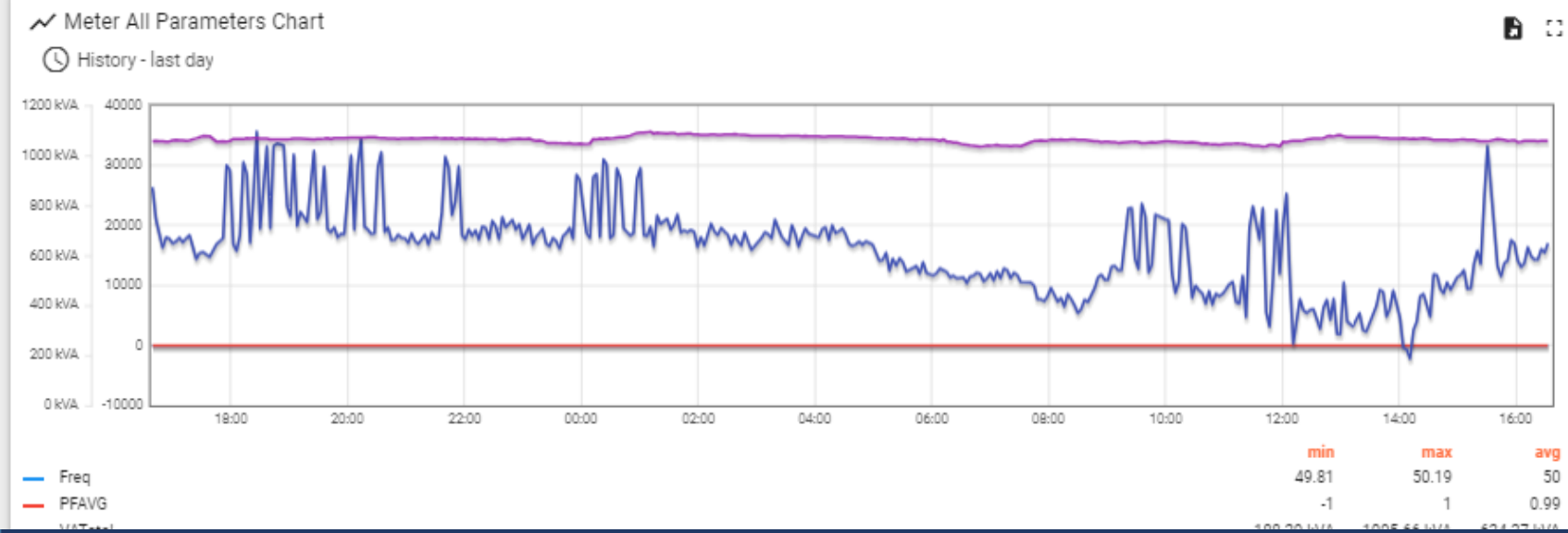
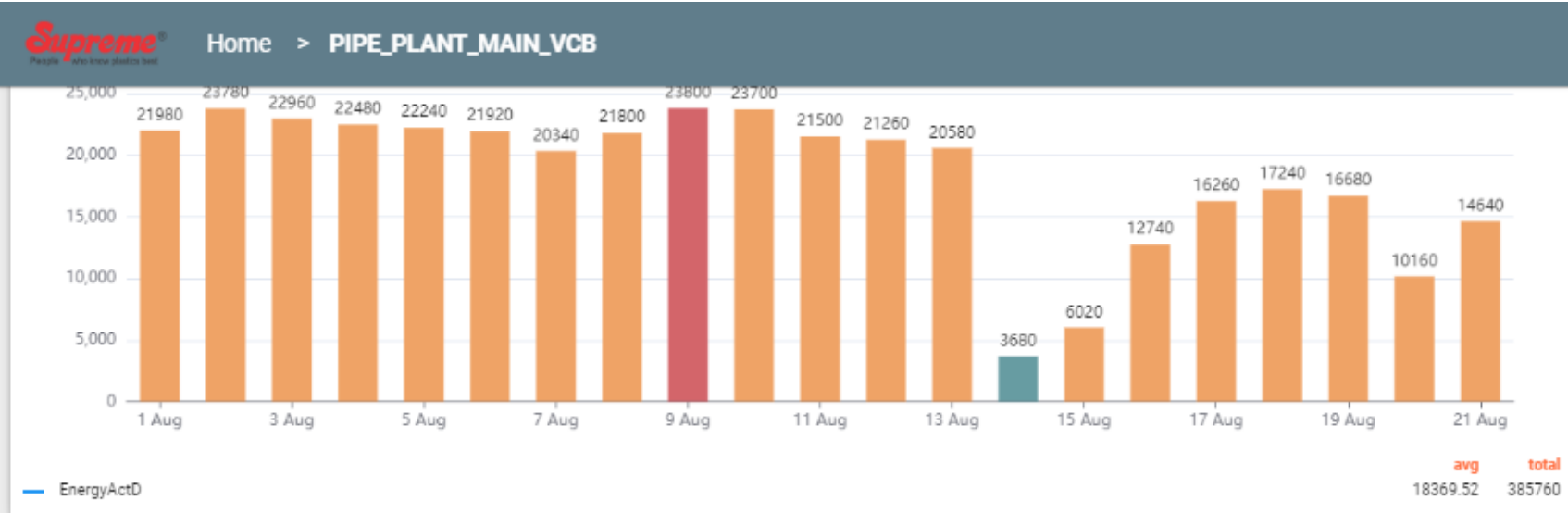
Eliminated Human error

<b>116</b> Active Energy Meters	<b>22</b> Inactive Energy Meters	<b>3</b> Active Water Meters	<b>0</b> Inactive Water Meters	<b>2</b> Active Gas Meters	<b>0</b> Inactive Gas Meters	<a href="#">Reports</a>
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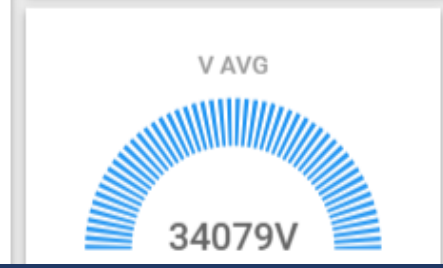
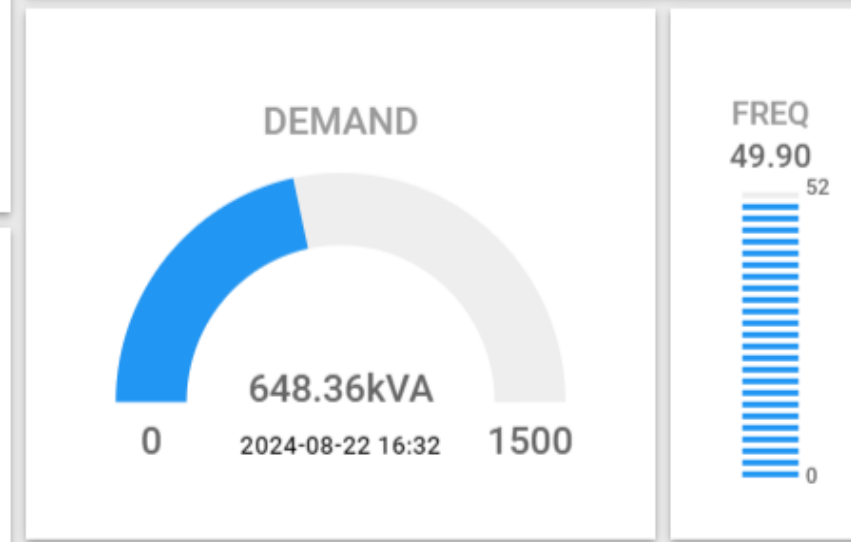
Main Incommers					
Name	Energy Usage (kWh)	Previous Month Usage (kWh)	Current Month Usage (kWh)	Voltage (V)	Demand (kW)
PPD_PLANT_MAIN_VCB	13620.0	301210.0	233900.0	33961.17	700.5
FURNITURE&ROTO_MAIN_VCB	8730.0	320230.0	214860.0	33983.82	370.99
PIPE_PLANT_MAIN_VCB	14640.0	815620.0	386940.0	34043.52	650.43
<b>Total</b>	<b>36990.0</b>	<b>1479000.0</b>	<b>835700.0</b>		

Air Pressure Meters	
Name	pressure
PVC_PUMP_HOUSE	0.00 Pa
PVC_EXTRUDER	3.80 Pa
ROTO_FEEDER_PILLAR	7.75 Pa

# JADCHERLA - INNOVATIVE PROJECT



LIVE METER READING  
28010240.00 kWh



# INSIGHTS : RE – JADCHERLA



1 MWp Onsite  
Solar Power  
Plant

# JADCHERLA - UTILIZATION OF RENEWABLE ENERGY ONSITE

Year	Source	Installed capacity (in MW)	Capacity addition (MW) after FY 2021	Total Generation (Million kWh)	Share% w.r.t to overall energy consumption
FY 2021-22	Solar	0.75 MW	0	980354	11.13
FY 2022-23	Solar	1 MW	0.25	1472263	10.59
FY 2023-24	Solar	1 MW	0	1505442	8.67

# GAINS ACHIEVED : RE - JADCHERLA



Approx. 13.26 lakhs  
onsite generation  
Green kWh consumed  
(approx. 9~10% of  
total requirement)



986 tCO2 avoided  
emission



# JADCHERLA - GHG INVENTORISATION

Particulars	UOM	2020-21	2021-22	2022-23	2023-24
Scope-1	Kg CO2e/MT	151.42	42.18	25.39	18.60
Scope-2	Kg CO2e/MT	876.18	397.28	352.97	373.38
Scope-3	Kg CO2e/MT	Not Calculated	Not Calculated	2,037.34	WIP

## Supreme Green Vision & Mission

- Vision**

  - **Energy Efficiency Improvement**
  - Accelerating the transition to **Net Zero by 2050**
  - **50% EV by 2030**
  - **Moving towards Circularity**
  - **Sustainable Sourcing**
  - **Zero Liquid Discharge**-Stop the drain
  - Improving water table by recharging ground water

**Mission**

  - Ensure green, safe work Environment along with compliances
  - Increase the usage of renewable energy to **30% by year 2024-25.**
  - More than **90% RE for Chennai and Hosur Plants**
  - **Energy Efficiency improvement 2% to 3% YoY**
  - **Water Positive**
  - **Developing Science Based Targets (SBTi) and validation**



# JADCHERLA - GREEN SUPPLY CHAIN MANAGEMENT



## Sustainable Procurement Policy

The Supreme Industries Limited is committed to manufacture its products responsibly and to take steps to ensure that the procurement procedure is in ethical, safe and environmentally conscious manner.

As one of the leading Company in manufacturing of plastic products, we acknowledge that long-term sustainable development is critical to our success and we value our relationship with suppliers who share the same approach and vision towards doing business.

In line with our commitment we have developed a Sustainable Procurement Policy (Policy), which is an extension of our values. Through this procurement policy, we intend to make our operations more sustainable by:

- Upholding the laws and regulations
- Endorsing highest standards of economic, social, ethical and environmental practices
- Identifying and moderating risks associated with our procurement process
- communicating the policy with stakeholders (internal and external) and raising awareness among our suppliers

In accordance with our commitment to the highest standards, we also expect our suppliers to aspire to the same standards in their business operations, including but not limited to:

### Environment

- Comply and adhere to all the applicable environmental laws in respective countries/jurisdiction
- Undertake initiatives to promote greater environmental responsibility such as:
  - Responsible waste management and disposal
  - Reduction of greenhouse gas and other emissions harmful to the environment
  - Conservation of non-renewable natural resources

### Business Ethics:

- Obey all relevant domestic and international laws regarding ethical business practices
- Demonstrate existence of procedures to prevent:
  - Money laundering
  - Fraud, bribery, corruption
  - Conflicts of interest
  - Confidentiality
  - Data security issues
- Accountability and Transparency
  - We expect suppliers to prepare and maintain accounts of business dealings fairly, accurately and in accordance with accounting and financial reporting standards which

### The Supreme Industries Limited

612, Raheja Chambers, Nariman Point, Mumbai 400 021.  
Tele: 022-2285 1656 Fax: 022-2285 1657  
Website: <http://www.supreme.co.in>  
Email: [investor@supreme.co.in](mailto:investor@supreme.co.in)  
CIN: L35920MH1942PLC003554



represent the generally accepted guidelines, principles, standards, laws and regulations of the country of operation.

### Labor and Human Rights:

- Comply with all applicable laws
- Prohibit slavery and the use of forced, bonded, or child labour across the supply chain
- Prohibit unlawful discrimination and harassment to provide a safe and inclusive work environment

### Quality Centred:

Ensuring quality and adherence to manufacturing and product standard is of prime importance to us.

### We expect our suppliers:-

- To establish quality objectives, policies, manual, procedures and have in place a certified Quality Management System by competent authority like ISO.
- Should comply with local regulations, registrations, have trainings, management reviews and internal audits to ensure that the Quality Management System is effective
- To give utmost importance to equipment design, installation, maintenance and ensure validation/verification of the same.
- To have in place established manufacturing and packaging operations with proper maintenance of records along with process controls and finish product release programme
- To have in place established practices for storage, handling and transportation of raw material and to maximise the risk prevention measures through good warehousing practices and proper handling of rejected item.

### Community Development:

- Provide employees with a living wage, at a minimum
- No discrimination in their hiring and employment practices on the basis of race, colour, gender, age, nationality, religion, sexual orientation, marital status, citizenship, disability, veteran status, medical condition etc.
- Partner with the local governments and communities to improve the education, cultural, economic, and social well-being of communities which they operate in

We understand that procurement performance improvement is a continuous process and recognize the contribution of our suppliers in our journey to become more sustainable.

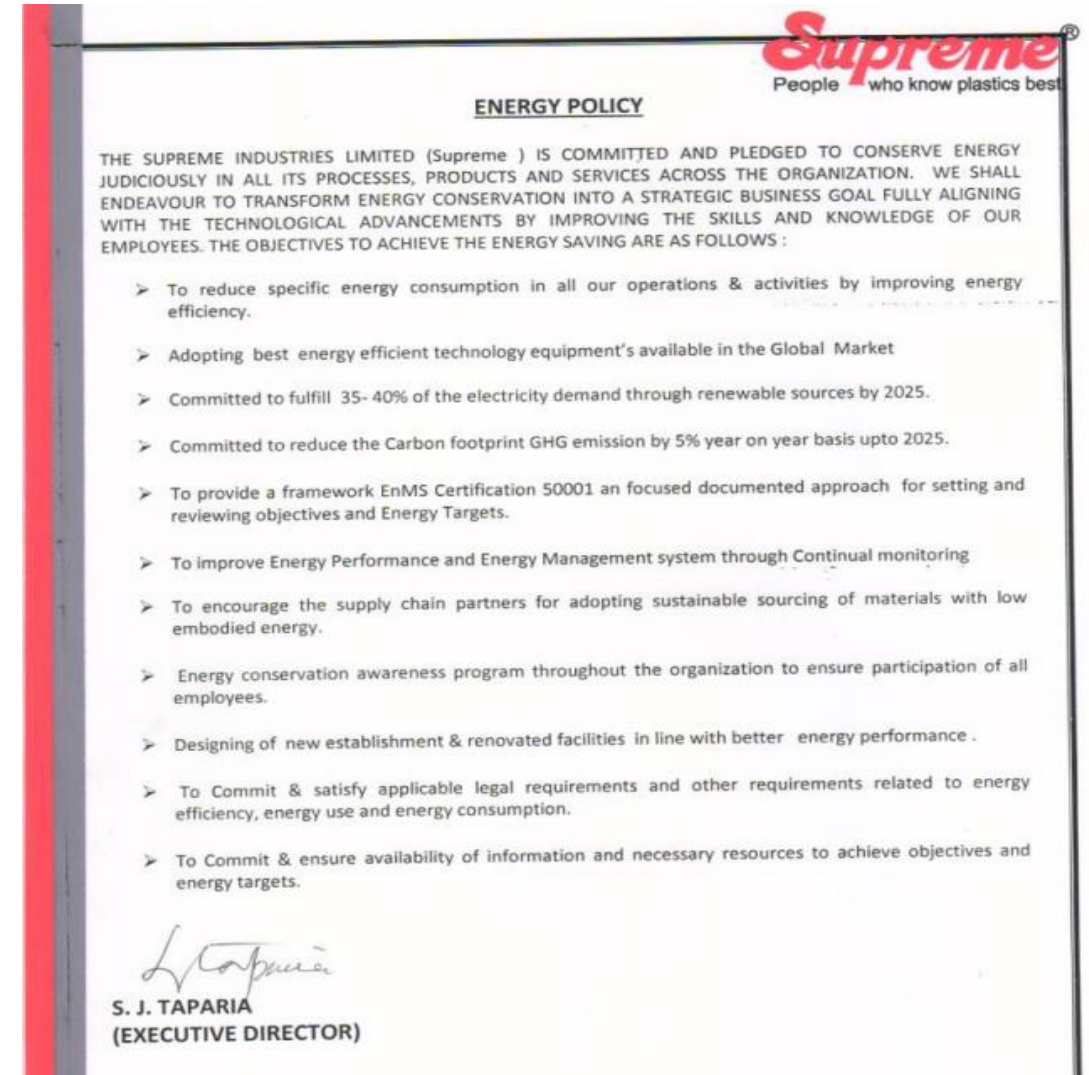
Dated: 29<sup>th</sup> April, 2022

M.P.Taparia  
Managing Director

### The Supreme Industries Limited

612, Raheja Chambers, Nariman Point, Mumbai 400 021.  
Tele: 022-2285 1656 Fax: 022-2285 1657  
Website: <http://www.supreme.co.in>  
Email: [investor@supreme.co.in](mailto:investor@supreme.co.in)  
CIN: L35920MH1942PLC003554

# THE SUPREME INDUSTRIES LTD – ISO50001:2018 & ENERGY POLICY



# ISO9001:2015, ISO14001:2015, ISO450001:2018

## 24<sup>TH</sup> CII NATIONAL AWARD -2023



### THE SUPREME INDUSTRIES LIMITED



Plot No. 24, 26 to 40, 43 to 45, 41(P), 42(P), 47(P), 48(P), GIP JADCHERLA, VILLAGE POLEPALLY, DIST. MAHABUBNAGAR – 509 301, TELANGANA, INDIA.

Bureau Veritas Certification Holding SAS – UK Branch certifies that the Management System of the above Organisation has been audited and found to be in accordance with the requirements of the Management System Standards detailed below.

#### Standards

**ISO 9001:2015, ISO 14001:2015 &  
ISO 45001:2018**

#### Scope of certification

**Manufacture and Dispatch of UPVC Pipes, CPVC Pipes, HDPE Pipes, Monolayer & Multilayer PEX Pipes, Compression & Electrofusion PE Fittings, Roto Moulded Water Tanks, Plastic Moulded Furniture, Material Handling Products and Protective Packaging Products.**

Original cycle start date: **21 June 2023**  
 Expiry date of previous cycle: **Not Applicable**  
 Certification Audit date: **25 February 2023**  
 Certification cycle start date: **21 June 2023**  
 Subject to the continued satisfactory operation of the Organisation's Management System, this certificate is valid until: **20 June 2026**  
 Certificate No. **IND.23.5119/IM/U**      Version: **1**      Issue date: **21 June 2023**

*Jagdeesh N. Manian*

Signed on behalf of BVCH SAS UK Branch  
**Jagdeesh N. MANIAN**  
 Director – CERTIFICATION, South Asia  
 Commodities, Industry & Facilities Division

Certification body address: 5th Floor, 66 Prescot Street, London, E1 8HG, United Kingdom.

Local office: Bureau Veritas (India) Private Limited (Certification Business)  
 72 Business Park, Marol Industrial Area, MIDC Cross Road "C",  
 Andheri (East), Mumbai – 400 095, India.

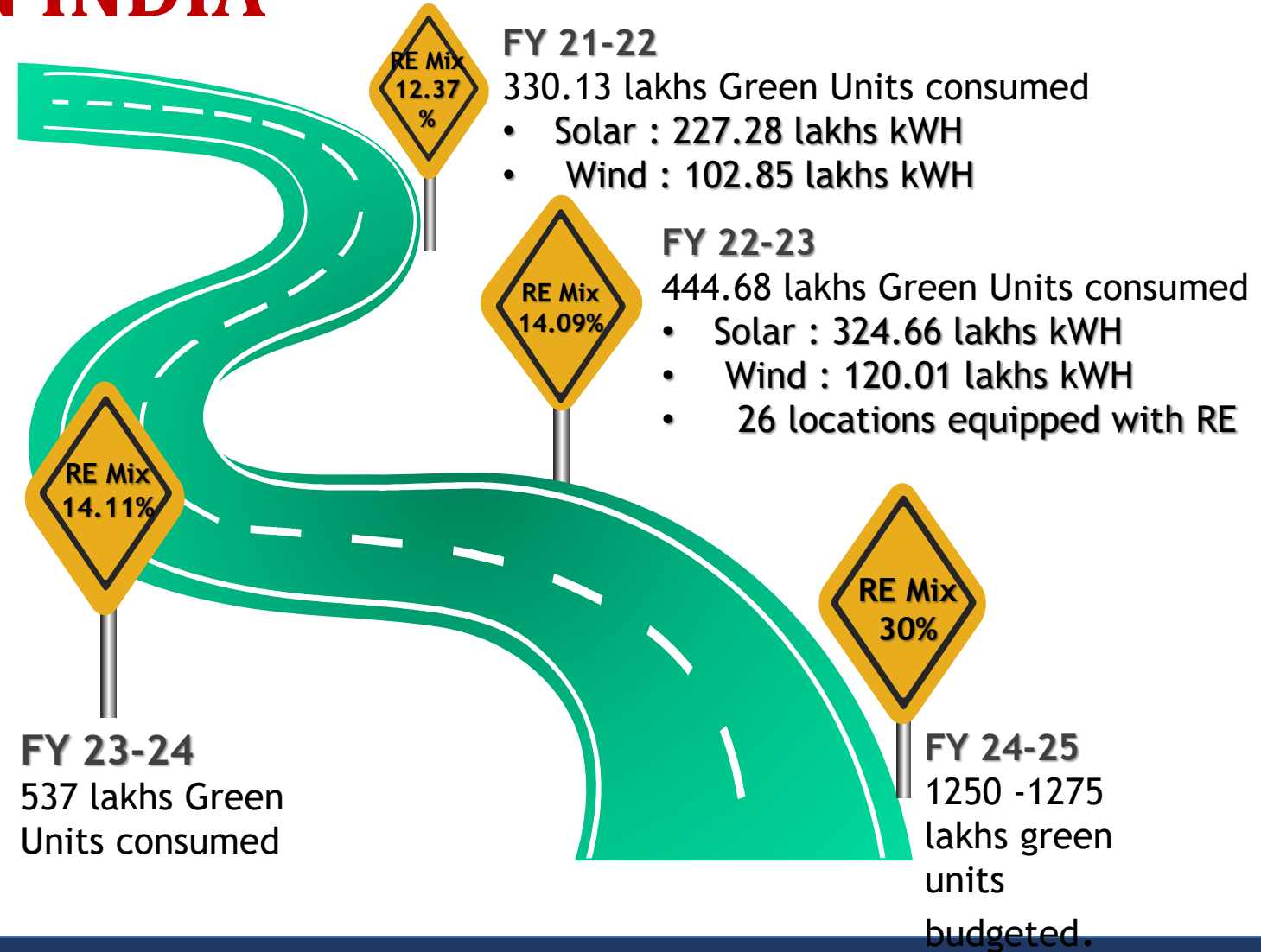
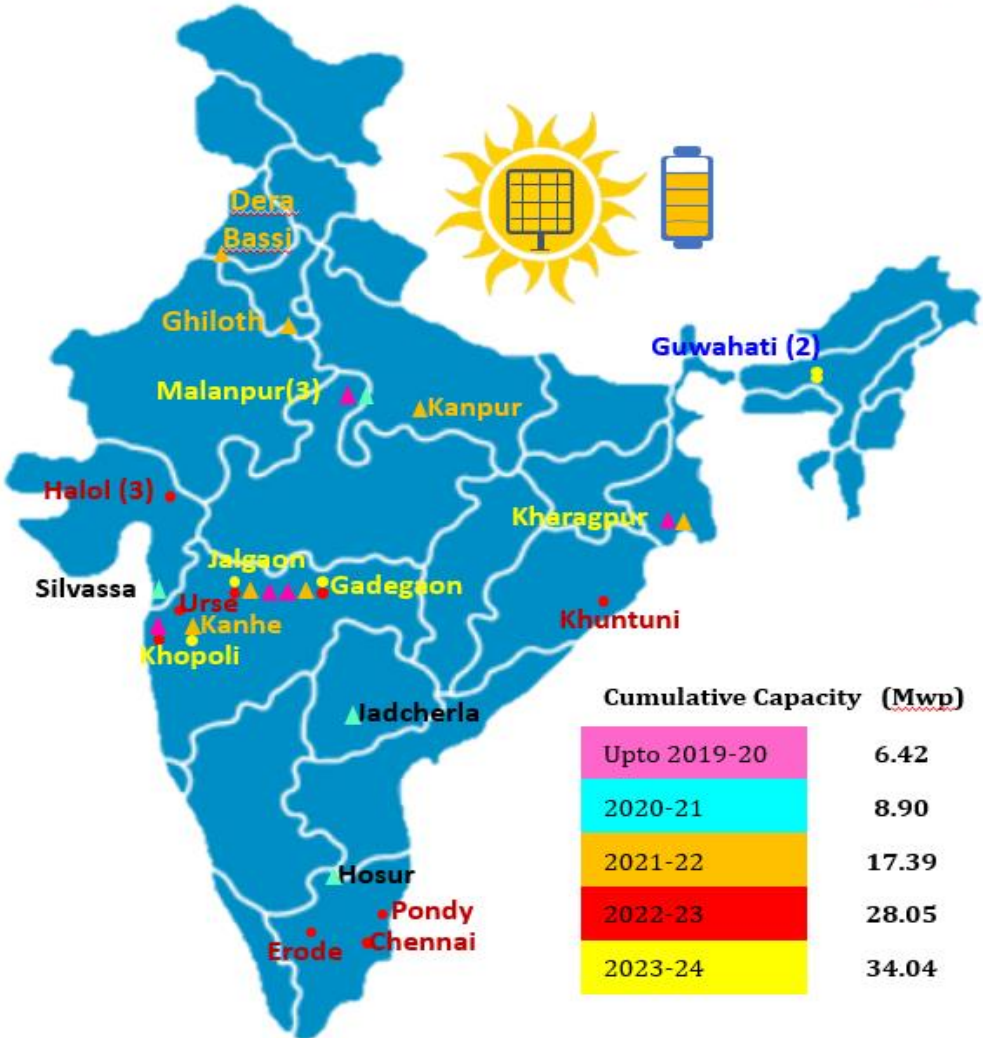
Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation.  
 To check this certificate validity please call + 91 22 6274 2000.

For certificate authenticity, click here  
<https://certcheck.ukas.com/>

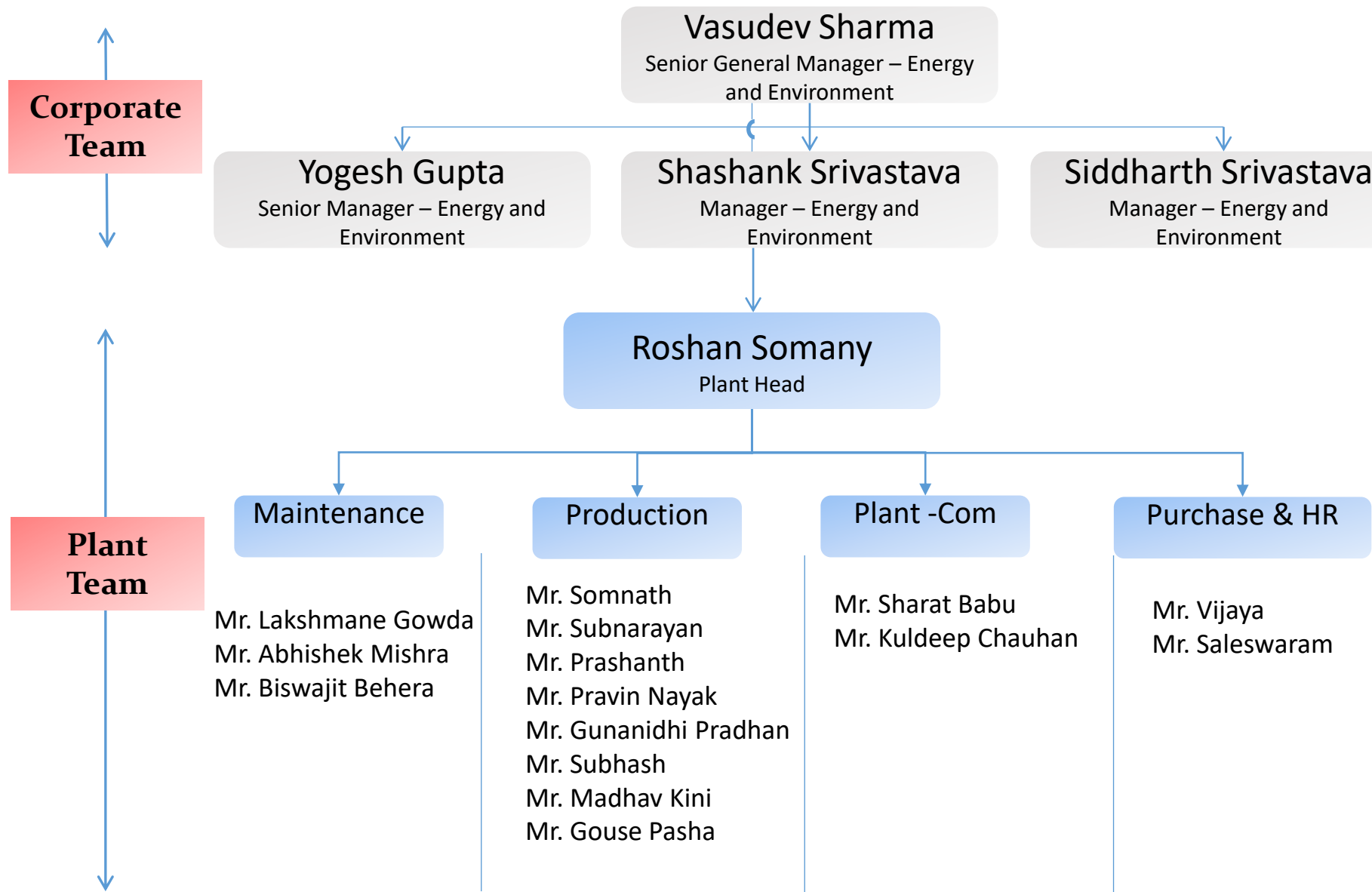
ISO 9001	IN043384
ISO 14001	IN043383
ISO 45001	IN043382



# TSIL ROOF-TOP SOLAR CAPACITY ACROSS PAN INDIA



# ENERGY AND ENVIRONMENT TEAM



- ISO 50001 handholding for implementation
- Sharing best practices to supplier
- Energy eff. Facility planning
- Upgradation to eff. Technologies
- Supplier training
- Process study and gap analyses
- Benchmarking
- Efficient O&M of utility/IT facilities
- Upgradation to eff. Technologies
- Process study Benchmarking
- Facilitate external training
- Participation in external events
- Rewards and recognition
- Green supply chain initiatives

- Daily monitoring & control
- Gap analyses
- Zero investment idea implementation
- Operational efficiency during fluctuating demand
- Idea generation
- Motivate employee involvement
- Training need identification

**Thank You!**