



Green Co Gold Journey

Green Co Summit – 2017 – 23rd Jun - Pune

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Atharva Group of Companies



ATHARVA

**ATHARVA POLYMERS
PVT. LTD.**



ATHARVA

**ATHARVA POLYPLAST
PVT. LTD.**



ATHARVA

**ATHARVA
CORRUGATIONS PVT
LTD**

Atharva Polymers



- Location: Ranjangaon
- Plant area : 80000 Sq. Ft
- Constructed area : 70000 Sq. Ft
- Employees : 200 Nos.
- Product Range : Molding for Appliances / Automobiles

Atharva Polyplast



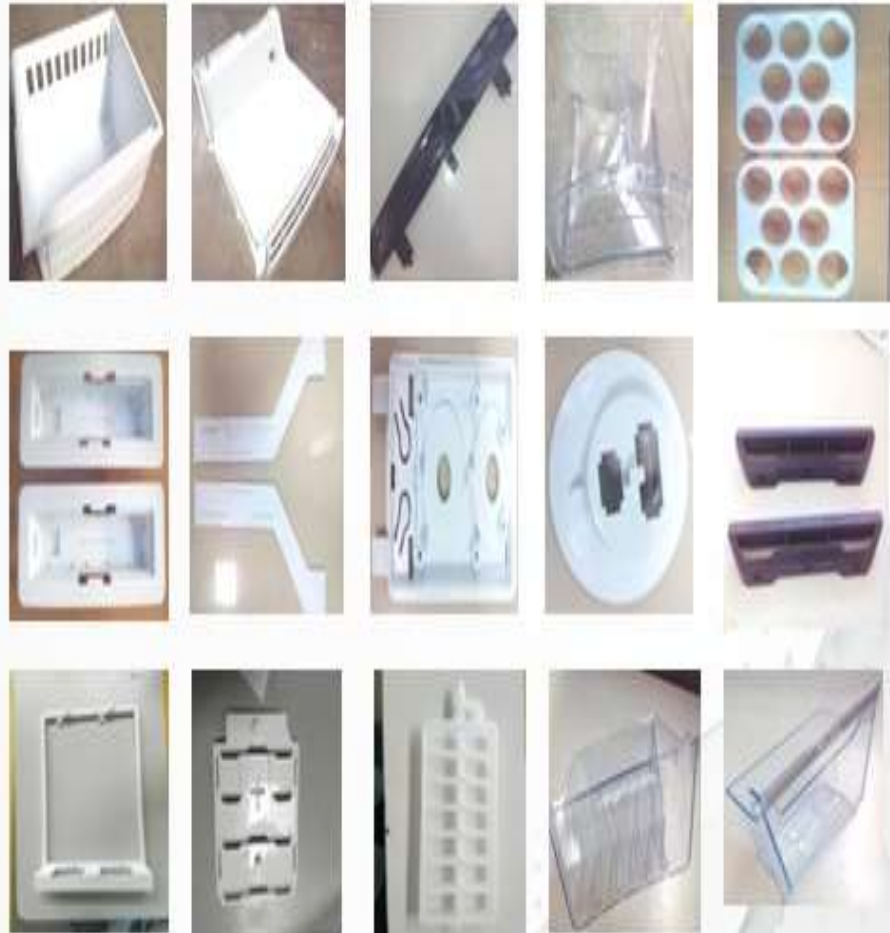
- Location: Khandala (Satara)
- Plant area : 240000 Sq. Ft
- Constructed area : 40000 Sq. Ft
- Employees : 80 Nos.
- Product Range : Molding for Appliances

Atharva Corrugation



- Location: Ranjangaon
- Plant area : 80000 Sq. Ft
- Constructed area : 60000 Sq. Ft
- Employees : 110 Nos.
- Product Range : Corrugation Products

Product Range (Appliances)

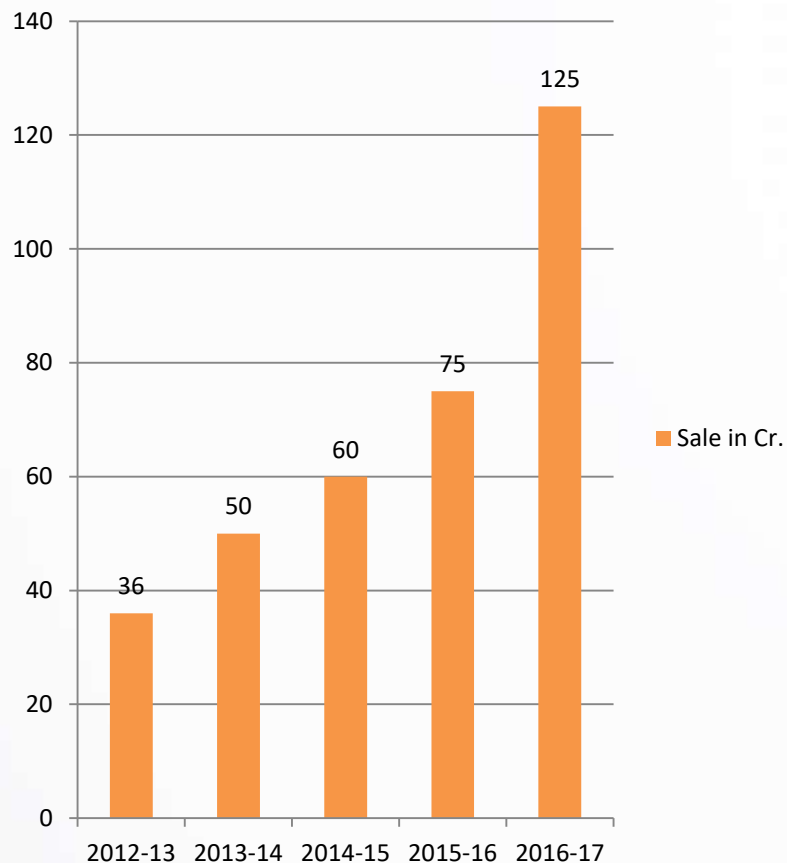


Product Range (Others)



Our Growth

Sale in INR (Cr.)



Valued Customers



Certifications



ISO
9001:2008



TS
16949:2009



ISO (EMS)
14001:2004



OHSAS
18001:2007

Rewards & Recognition



**Successful completion of GAD
Supplier Cluster program**



**Best support lean supply by
GAD**



**Best support - Delivery by
GAD**



**Best performer – GAD
Supplier Cluster**



How It Started

| ROADMAP FOR GODREJ SUPPLIER CLUSTER | | | | | | | | | | | | | | | | | DELIVERABLES | | |
|---|--|-----|------------|--|---|---|---------|--|--------------------------|---|----|----|----|--|----|----|---|--|--|
| SMED Cellular manufacturing Multi-tasking | | | | | | | | | PRODUCTIVITY IMPROVEMENT | | | | | | | | Reduction in c/o time Reduction in throughput time Improvement in labour productivity | | |
| CTQ mapping Concept of 100% inspection Quality Alert boards 7 QC tools + QC story CP/ CPk studies Poka Yoke Calibration SOP creation | | | | | | | QUALITY | | | | | | | Reduction in rework (inprocess) Zero defects at customer end Measure cost of Poor Quality | | | | | |
| Mapping and monitoring efficiency of - Energy Water Waste Toxicity | | | | GREEN | | | | Reduction in Energy consumption Reduction in Water consumption Reduction in all type of Waste RoHS compliant products and processes | | | | | | | | | | | |
| Step 0 to 2 | | | MY MACHINE | | | | | Breakdown reduction trend | | | | | | | | | | | |
| 1S / 2S Red Tag campaign Fixed point photography Jogging track Safety | | 5 S | | 1S score worksheet Zero red tag items Before / after photos Boundary walls clear Department Safety Score (DSS), Frequency / Severity rate, No. of accident free days | | | | | | | | | | | | | | | |
| Time in Months : | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | | |

Lean Culture



Green Culture



Employee Involvement



Communication Platforms – Tool Box Meetings



Employee Birthday Celebration



Best suggestion



Best kaizen



Best attendance



Best quality inspector



Best performer of the month




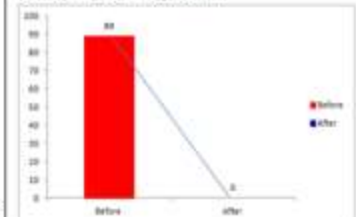

Reward & Recognition



□ EMS & OHSAS Certification

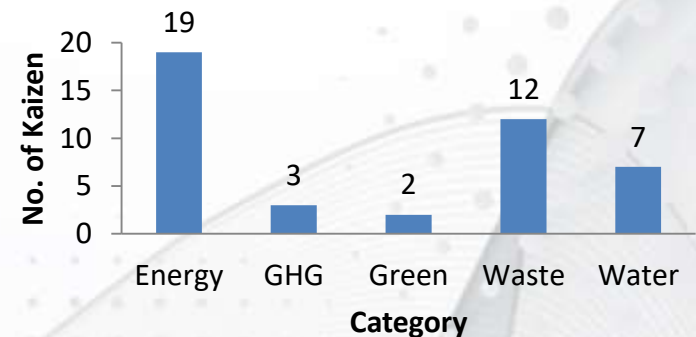
□ ISO 9001 & TS 16949 Recertification audit completed successfully

Celebration of Achievements

| | | | | | |
|--|--|---|--|--|--|
|  | | KAIZEN IDEA SHEET | | Supplier Name: Atharva Polymers Pvt.Ltd | |
| | | | | Result Area: P Q C D S M E | |
| Kaizen Theme:- To Reduce Machine Break down time due to Nozzle Heater fail. | | | Kaizen Idea:- Heater Wire Routed Above the Nozzle | | |
| Problem / Present Status :- Nozzle Heater wire break from Heater body. | | Action Taken :- Heater Wire routed over the nozzle by providing Mettal supporting plate. | | Team Members Name:- 1) Rama Singh (Prod) 2) Vikram (Maint) 3) Munde (Maint) 4) Abbas (Prod) | |
|  | |  | | | |
| Why Why Analysis:- <u>Nozzle Heater Fail</u> Why 1:- Heater Wire Break Why 2:- Drooling /Purging Plastic material stuck over Heater wire. Why3:- Heater wire routed below the nozzle Root Cause:- Heater Wire Routed below the Nozzle | | Result:- Nozzle Heater consumption reduced from 89 nos to 0 nos/Month.  | | Benefits:- 1) Machine Availability time increased by 30mints/Occ. 2) Safety Hazard Prevented. 3) Heater Cost 8900/- per month Saved. 4) Rejection Rate Reduced. 5) 45hrs manpower spared for other improvement works. 6) Morale Improved. | |
| Start Date:- 04.09.2016 | | End Date:- 11.09.2016 | | Status :- Completed  | |

Best Kaizen in Energy category in Q4 2016-17.

Kaizen Trend- Green



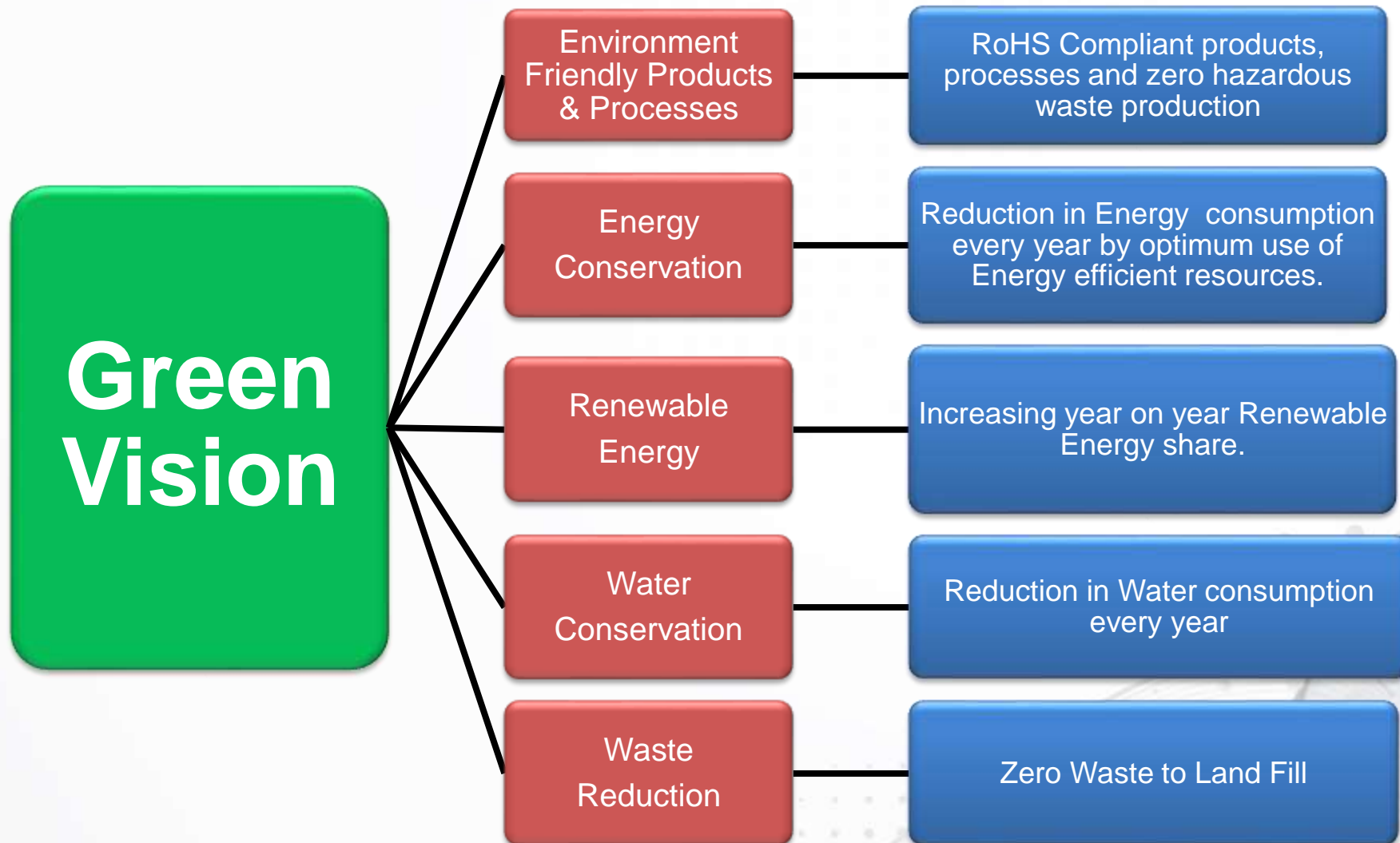
- Green kaizen in 2016-2017: 43nos.

Godrej Supplier Cluster Benefits

- ☐ **Gave different perspective to look at “Green”**
- ☐ **Gave us “MY TEAM”.**
- ☐ **Created a Work Culture with a sense of Ownership.**
- ☐ **Intolerance for safety and 5S.**
- ☐ **Developed a level 2 team.**
- ☐ **Minimum 85% Scoring in all customer audits**
- ☐ **Appreciation from Honda Team and Visteon Global Team.**

Preparing for Green Co

- ☐ Monitoring of specific Energy & Water consumption & waste generation during GAD supplier cluster program.
- ☐ Setting Green Vision
- ☐ Preparation of Energy & Water Management cells.
- ☐ Establishment of Target setting procedure.
- ☐ Potential mapping.
- ☐ Benchmarking of Green Parameters against own units & competition.
- ☐ Implementation of green initiatives.
- ☐ Monitoring the results.
- ☐ Planning of projects for further improvement.





Energy Efficiency

Target Setting Procedure

Purpose: To set/revise energy saving targets/water saving targets/year at the beginning of every financial year.

Scope: Applicable to all departments

Responsibility: Managing Director & Management Representative

Method :

- Identification of potential energy saving projects by analysing gaps between rated energy efficiency & actual energy efficiency of equipments like compressor, motors & machine heaters.
- Identification of projects for energy saving/water saving by process wise / equipment wise / industry wise benchmarking.
- Initiating energy saving projects/water saving projects by collecting & analysing specific energy consumption/ specific water consumption data from competitors.
- Monitor energy consumption/water consumption trend for last 3 years

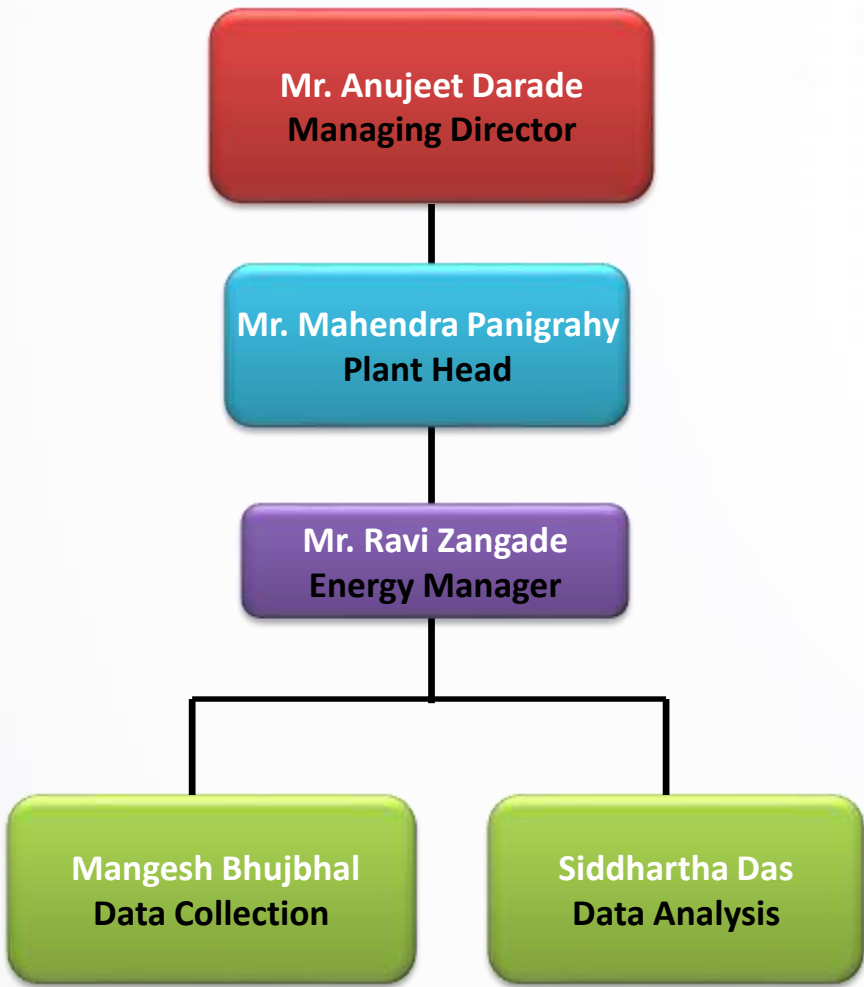
Review Frequency :

- Review by dept. head & plant head on monthly basis & by top management on quarterly basis.

Mapping of Energy saving Potential by -

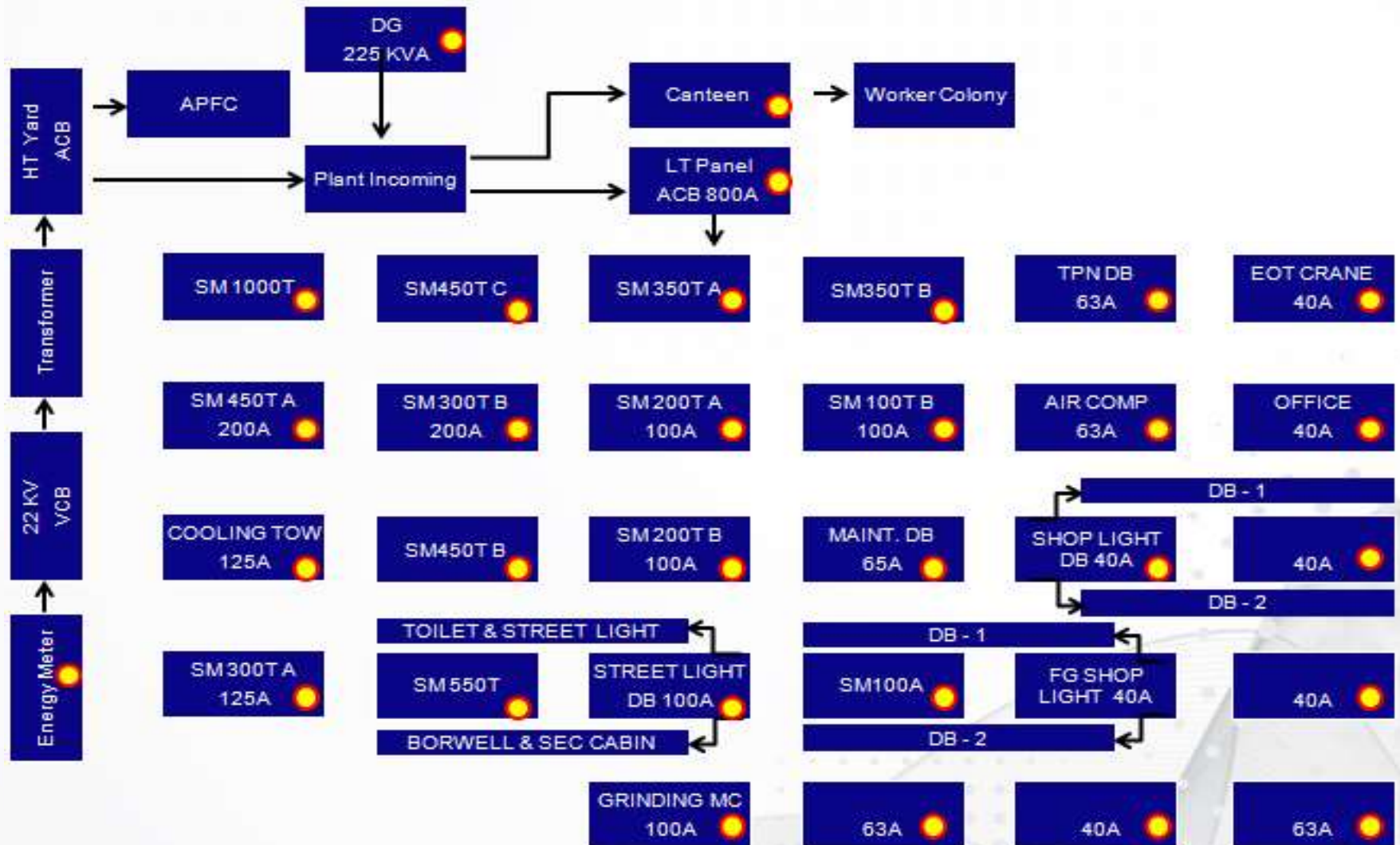
- Identifying & Analysing gaps between rated & actual consumption
- Process wise / Equipment wise/Industry wise benchmarking
- Monitoring last 3 years consumption pattern

Formation of Energy Management Cell




| Designation | Roles & Responsibilities |
|-------------------|---|
| Managing Director | <ul style="list-style-type: none"> • Drive the green culture in the organisation. • Set targets for reduction in various parameters inline with the green vision & green policy. • Fiscal validation of Green projects and necessary financial allocation. |
| Plant Head | <ul style="list-style-type: none"> • Review status of green projects through Monthly review meetings. • Drive employee involvement initiatives. |
| Energy Manager | <ul style="list-style-type: none"> • Identification & implementation of energy conservation projects. • Drive employee involvement initiatives. • Generate energy conservation ideas. • Measure, Monitor & analyse section wise energy consumption in the factory |

Monitoring Energy Consumption



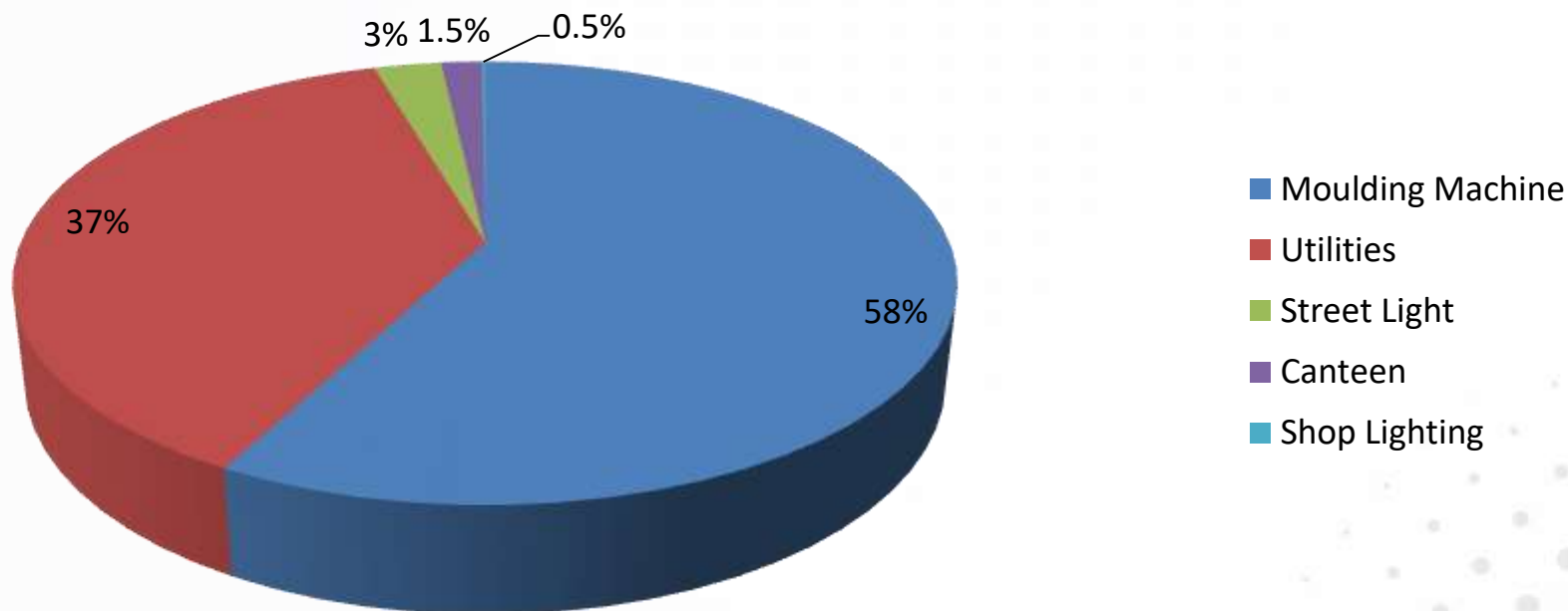
100% Energy Monitoring

Energy Score Cards

|  | | ENERGY SCORE CARD - SM 1000 (Month- May 17) | | |
|---|------------------------------------|--|--------|--------|
| Parameters | | Resp. | Target | Actual |
| 1 | Energy Consumed (Kwh) :- | Ravi | — | 4403 |
| 2 | RM Processed (MT) :- | Prashant | — | 19.91 |
| 3 | Kwh/ MT :- | 75 | 400 | 221 |
| 4 | Rejection Kgs/MT :- | 71 | 50 | 704 |
| 5 | No.of Mold change (Hrs) :- | 71 | — | 4 |
| 6 | Machine Break down (Hrs):- | Ravi | 0 | 1 |
| 7 | Mold Break down (Hrs):- | Bipreen | 0 | 0 |
| 8 | Overall Equipment Efficiency (%):- | Prashant | 86 | 70 |

- Energy score card for all equipments with assigned ownership.
- Creates Awareness at Shop Floor for Target Vs. Actual.

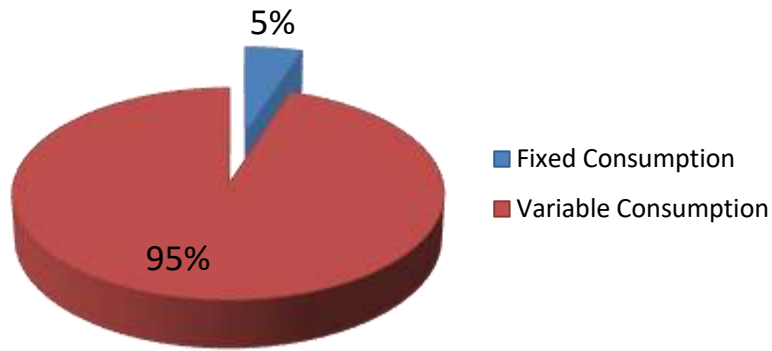
Section wise Specific Energy Consumption



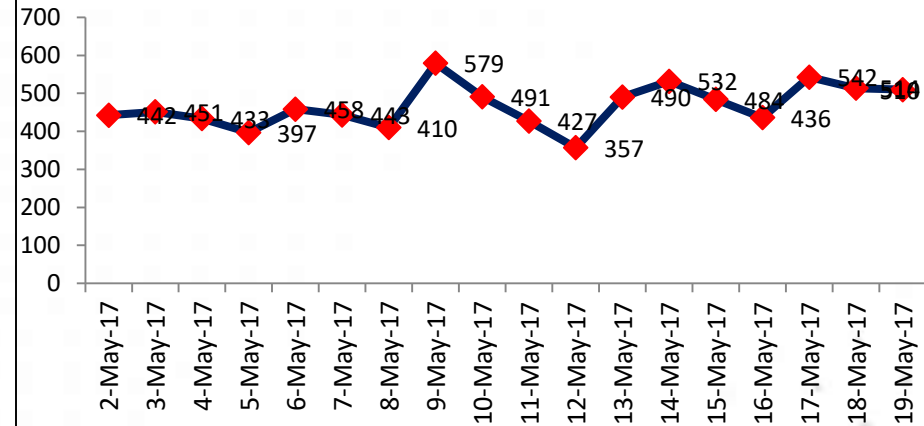
| Month | Apr-16 | May-16 | Jun-16 | Jul-16 | Aug-16 | Sep-16 | Oct-16 | Nov-16 | Dec-16 | Jan-17 | Feb-17 | Mar-17 | Total |
|------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total electrical consumption (Kwh) | 71935 | 74472 | 65078 | 46050 | 58216 | 79295 | 79954 | 62547 | 76255 | 93412 | 86450 | 101655 | 895319 |
| RM Processed (In MT) | 86 | 92 | 78 | 49 | 71 | 120 | 113 | 68 | 95 | 131 | 124 | 132 | 1157 |
| Energy Kwh / Mt RM processed | 841 | 814 | 840 | 940 | 816 | 663 | 708 | 917 | 804 | 716 | 695 | 773 | 774 |

Specific Energy Consumption Analysis

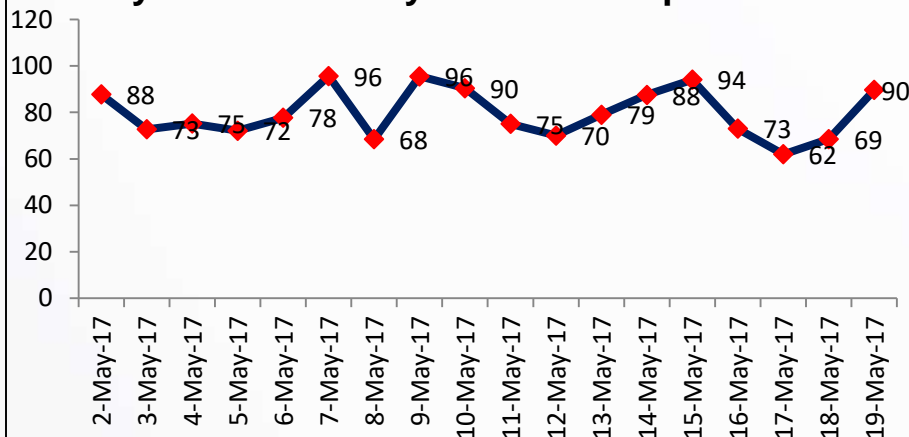
Fixed Vs Variable Energy Consumption



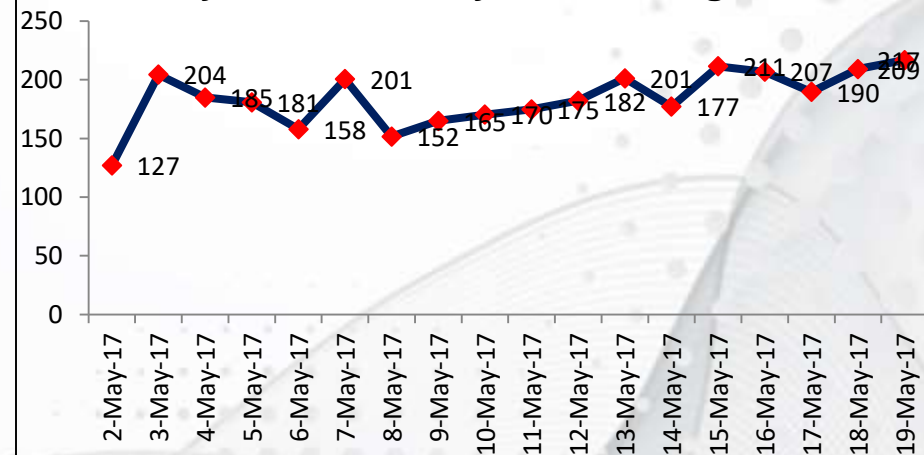
Daily Variance Analysis – Moulding Machines



Daily Variance Analysis – Air Compressor



Daily Variance Analysis – Cooling Tower



Corrective Actions on Deviations

| Sr. No. | Deviation Observed | Root Cause | Action Plan |
|---------|---|---|---|
| 1 | Idle running of moulding machines | Frequent mould changeovers | SMED for all machines will be worked out to reduce mould changeover time. |
| | | Machine stoppage in case of mould defects | All mould will be reconditioned. |
| | | Manpower not available due to bio breaks. | Substitute manpower to be arranged |
| 2 | Air Compressor high energy consumption | High energy consumption when gate valve mould running | Production planning to be improved |
| | | Machine cleaning by compressed air | Blower to be provided for machine cleaning |
| 3 | Cooling tower high energy consumption | Big size mould less cooling efficiency | Cooling line looping to be changed |
| | | Pumps with over capacity | Optimization Study of pumps done. |

List of Energy Saving Initiatives

| Sr. No. | Project | Year of Implementation | Energy savings | Investment | ROI (Month) |
|---------|--|------------------------|----------------|------------|-------------|
| 1 | Transparent sheets for roofing at regular intervals for effective utilization of day light | 2016 | 16414 Kwh/year | 3.60 Lacs | 2.9 |
| 2 | Installed roof ventilators on roofing. | 2016 | 12000 Kwh/year | 2.21 Lacs | 0.2 |
| 3 | Installed screw type compressor with VFD | 2016 | 8900 Kwh/year | 2.5 Lacs | 3.7 |
| 4 | Installed EOT crane with VFD | 2016 | 6800 Kwh/year | 4.2 Lacs | 8.2 |
| 5 | Installed induction lights in entire plant. | 2016 | 2500 Kwh/year | 3.0 Lacs | 16 |
| 6 | Installed LED lights in office | 2016 | 280 Kwh/year | 0.4 Lacs | 19 |

List of Energy Saving Initiatives

| Sr. No. | Project | Year of Implementation | Energy savings | Investment | ROI (Month) |
|---------|---|------------------------|--|------------|-------------|
| 7 | Installed injection machine with servo drive system. | 2016 | 32500 Kwh/year | 48 Lacs | 19.7 |
| 8 | Temperature controller unit provided to cooling tower. | 2017 | 8100 Kwh/year | 0.035 | 0.1 |
| 9 | Blinker Lamp & Buzzer Installed at Shop floor, After MSEB Power resumed buzzer is alarming to everyone. | 2017 | 2100 Kwh/year | 0.12 | 0.8 |
| 10 | Machine wise power factors are monitored. | 2017 | Consistent unit consumption & accident prevention. | | |

SAVINGS OF ALMOST 80000 Kwh/ Year

Energy Saving Initiatives



Initiative –Transparent roofing
Benefit –100% reduction in energy consumption for day time



Initiative –Roof Ventilators
Benefit –Reduction in energy consumption



Initiative –Installed screw compressor with VFD
Benefit –Energy reduction by 10%.



Initiative –Installed EOT crane with VFD
Benefit –Energy reduction by 8%.



Initiative –Induction lights on Entire Shop (Molding,FG,Dispatch & Store)
Benefit –Energy reduction by 70%.



Initiative –LED lights on office & conference.
Benefit –Energy reduction by 60%.

Energy Saving Initiatives



Initiative –All machines with servo drive system.

Benefit –60% reduction in energy consumption



Initiative –Temperature controller unit provided to cooling tower

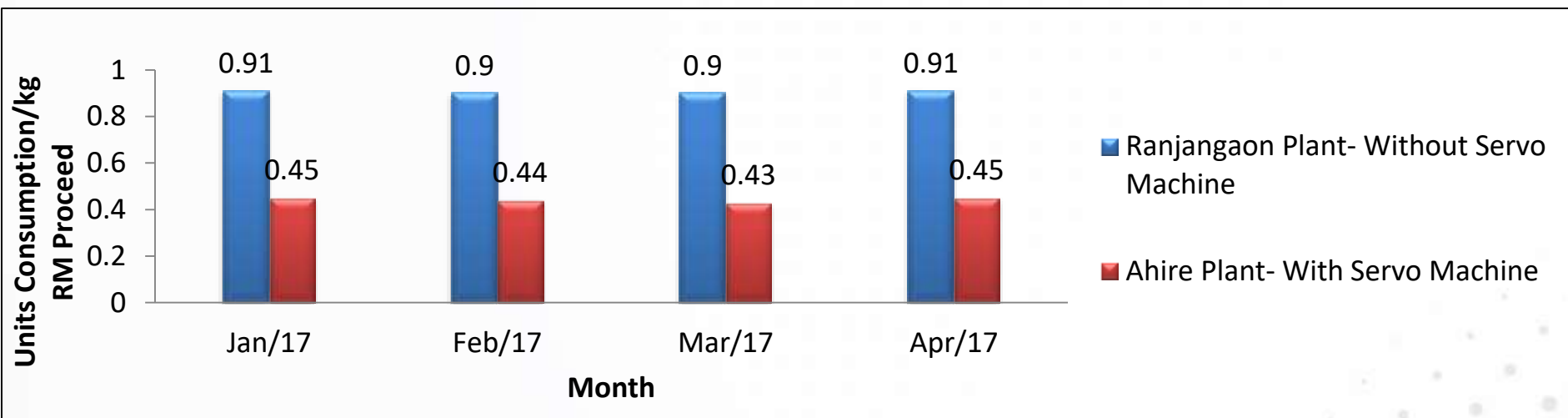
Benefit –If cooling water temp. above 26°C then cooling fan will start automatically. (Fan off on temp. 24°C)



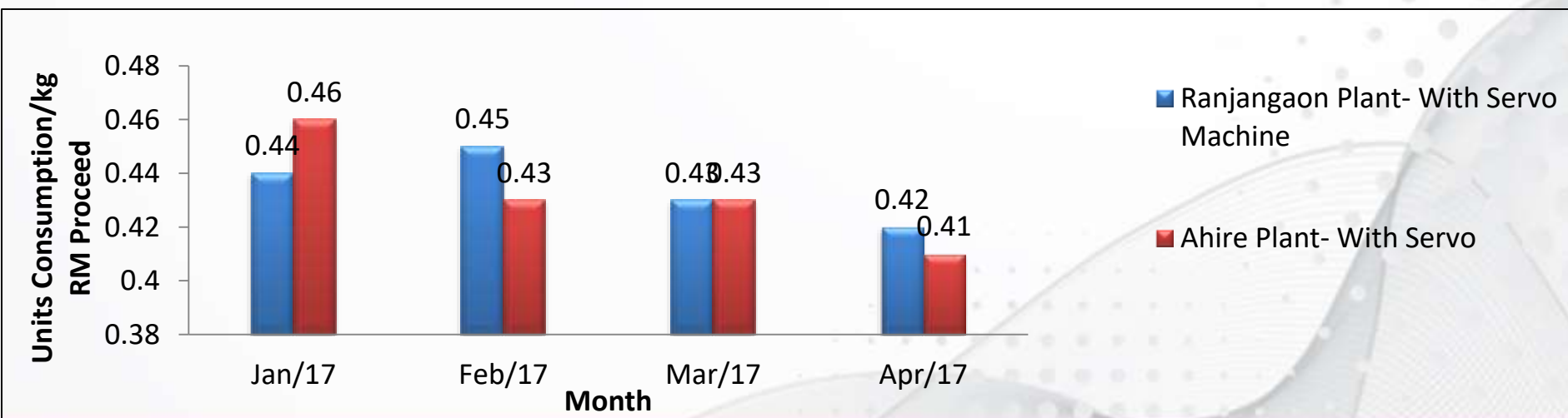
Initiative –Machine wise power factors are monitored.

Benefit –Consistent unit consumption & accident prevention

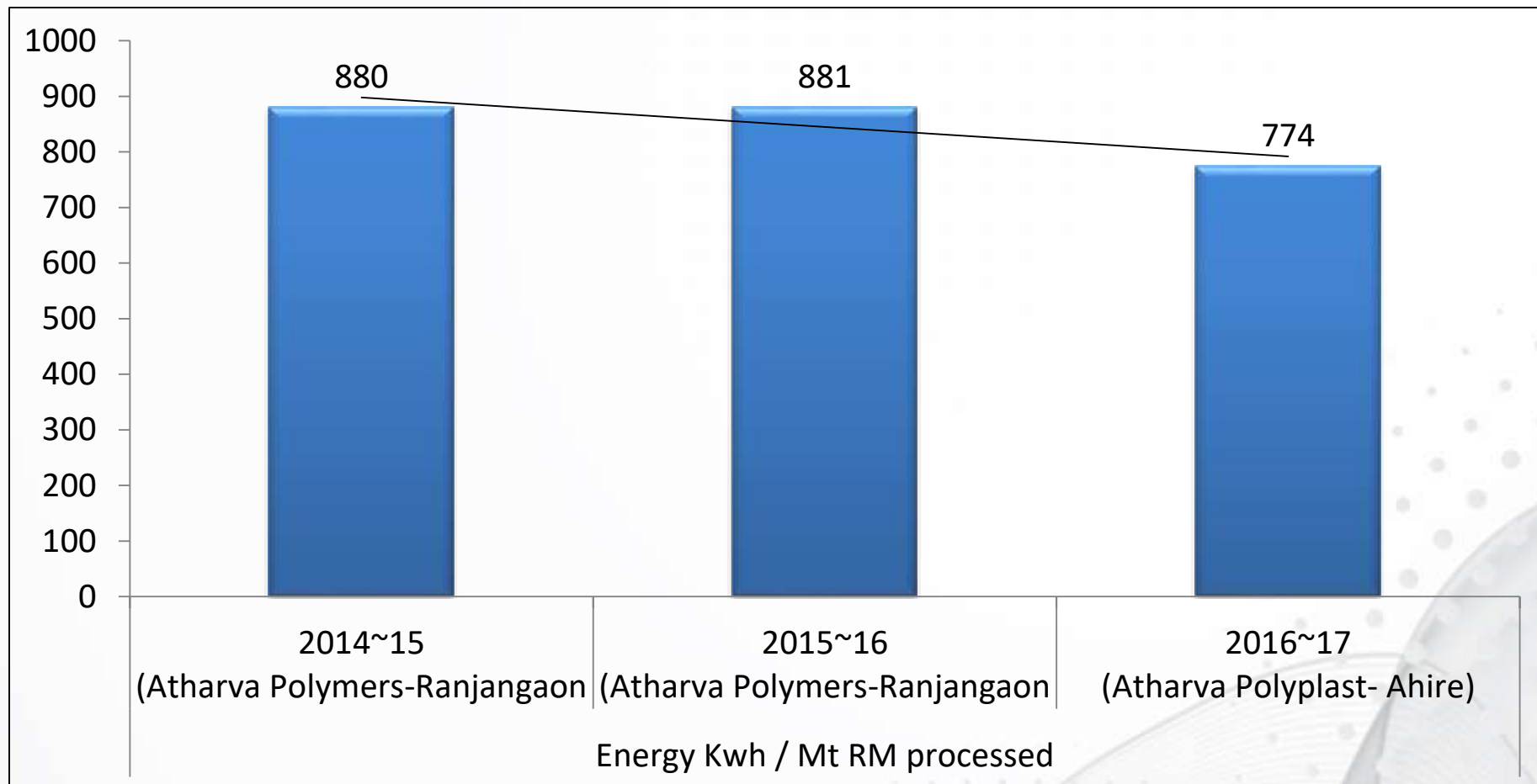
Comparison - Molding Machines with Servo Vs Without Servo: Machine- 180T



Comparison - Molding Machines with Servo - 550 T



Reduction in Specific Energy Consumption

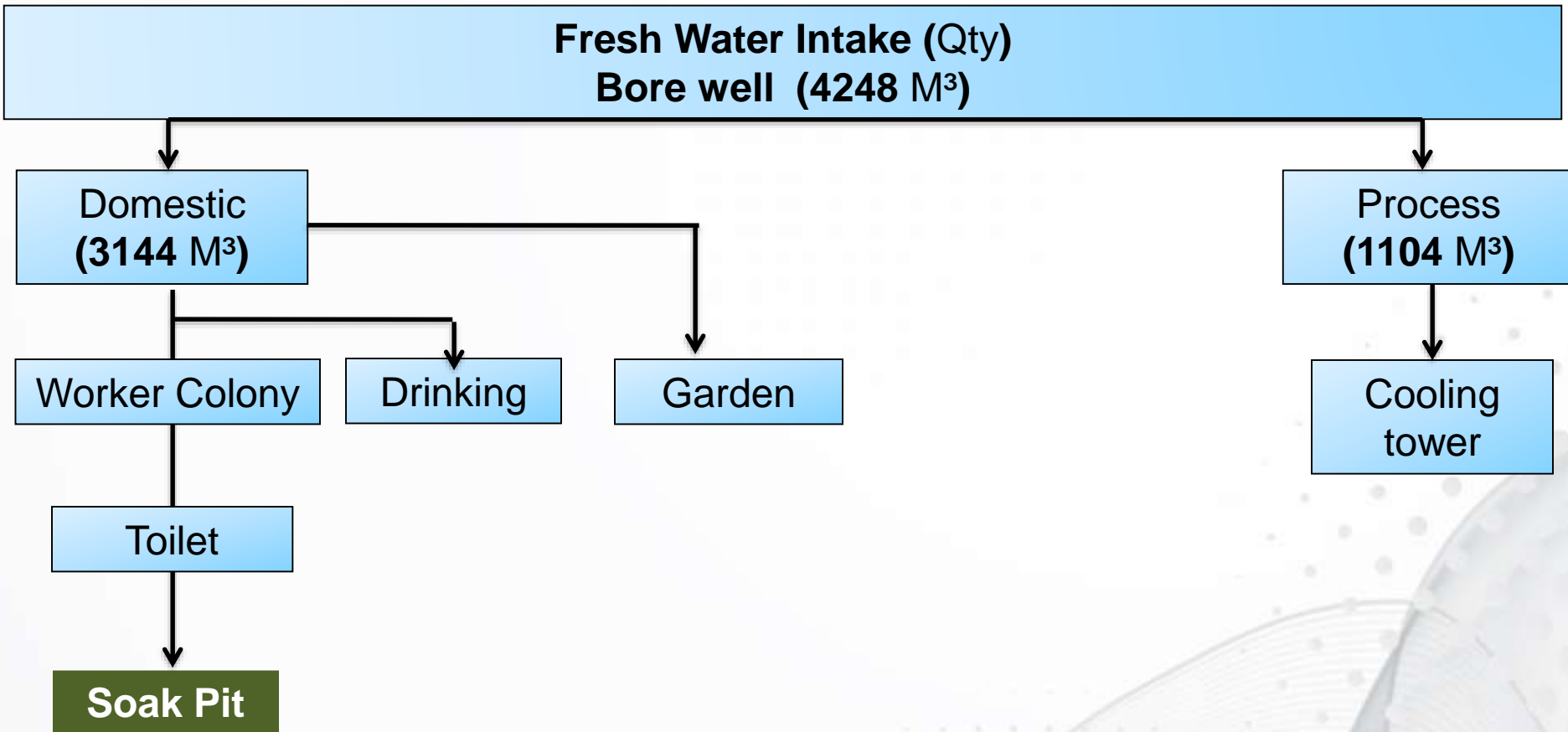


13 % reduction in SEC from 2014-15 to 2016-17



Water Conservation

Water Balance Diagram



100% overall water consumption monitored through water meters

Water Saving Initiatives



Sprinklers for gardening



Drip irrigation for gardening



Push type taps provided for urines



Eco- Urinal blocks



Over Flow Hole made between two Tank on Cooling tower



**Identified and arrest water leakages.
Frequency of audits- once in week**

Rain Water Harvesting



| Type of Water | Water Saving System | Collection Area | Actual Rain Water Harvested | Harvesting Potential |
|---------------|------------------------------|--------------------|-----------------------------|----------------------|
| Rain Water | Rain water collection method | Storage Tank 20 kl | 4557 sq.mtr. | 4557 sq.mtr. |

Collection of water from Roof & Non-Roof Areas



Roof Top of FG Store



Roof Top of RM Store



Roof Top of Moulding Shop



Drain Line



Recharge Well

Rain water harvesting used to recharge bore well which is single source of Water



Rain Water Harvesting Potential Vs Actual

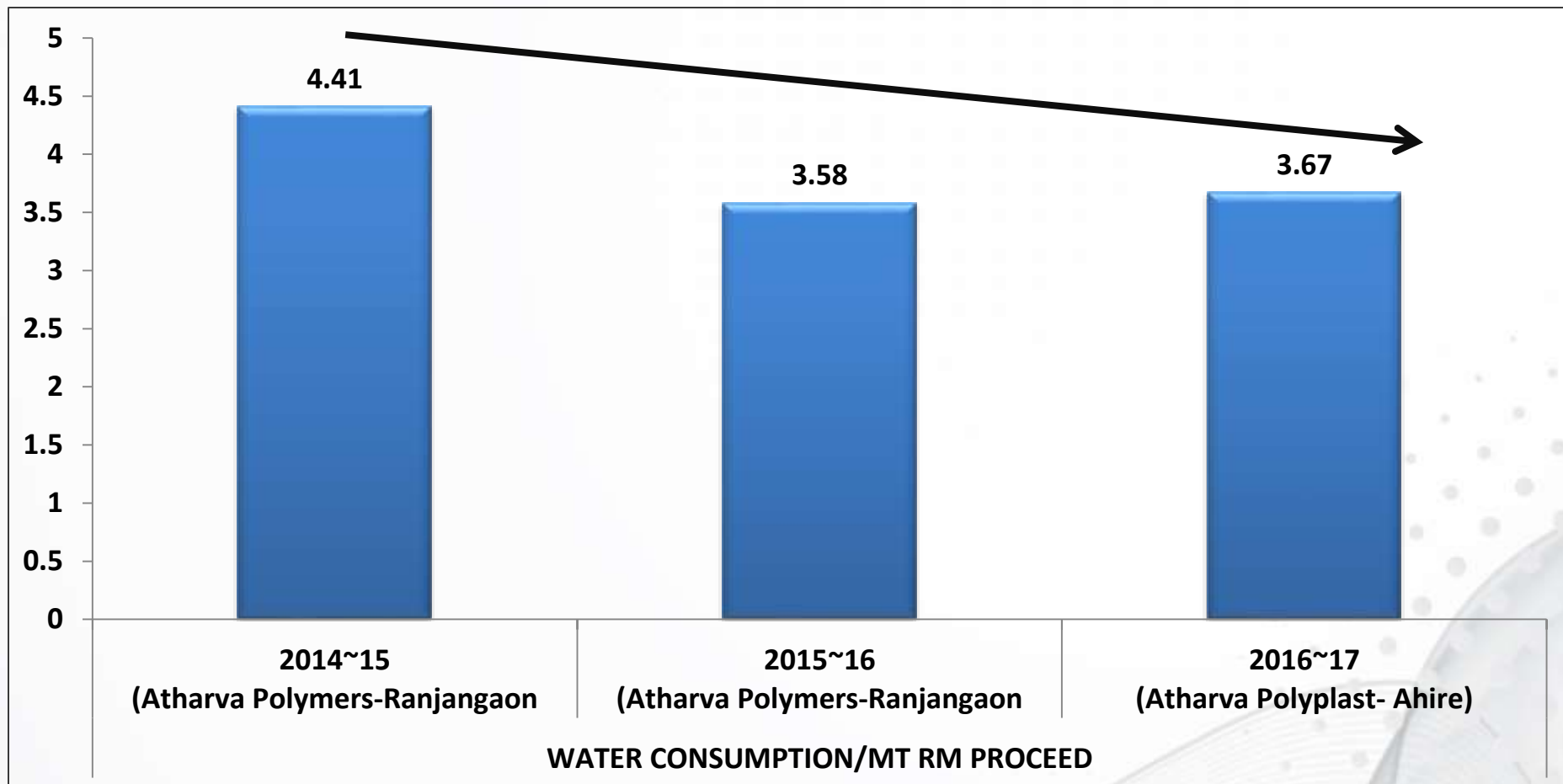
Increasing the ground water table through effective and appropriate rainwater harvesting structure.

| S No | Type of Catchment | Area (m2) Ap | Runoff Coefficient C | Annual Rainfall (mts) R | Harvesting Potential (cubic mts/yr) $H_p = A_p * C * R$ | Actual area for which rain water harvesting system is designed (sq. mts) Aa | Actual Rain Water Harvested (cubic mtr/yr) $H_a = A_a * C * R$ |
|------|--------------------|-----------------|-------------------------|-------------------------|--|---|---|
| 1 | Roof Top | 5890 | 0.8 | 1.426 | 6719 | 5890 | 6719 |
| 2 | Paved Area (Road) | 446 | 0.5 | 1.426 | 318 | 446 | 318 |
| 3 | Green area | 637 | 0.075 | 1.426 | 68 | 637 | 68 |
| | T O T A L | 6973 | 0.46 | 1.426 | 4557 | 6973 | 4557 |

100% Potential captured

Rain water harvesting used to recharge bore well which is single source of Water

Reduction in Specific Water Consumption



17% reduction in Water Consumption from 2014-15 to 2016-17



Renewable Energy

Renewable Energy

Year

Target

Proposed Plan

2017-18

- 35% Renewable Energy

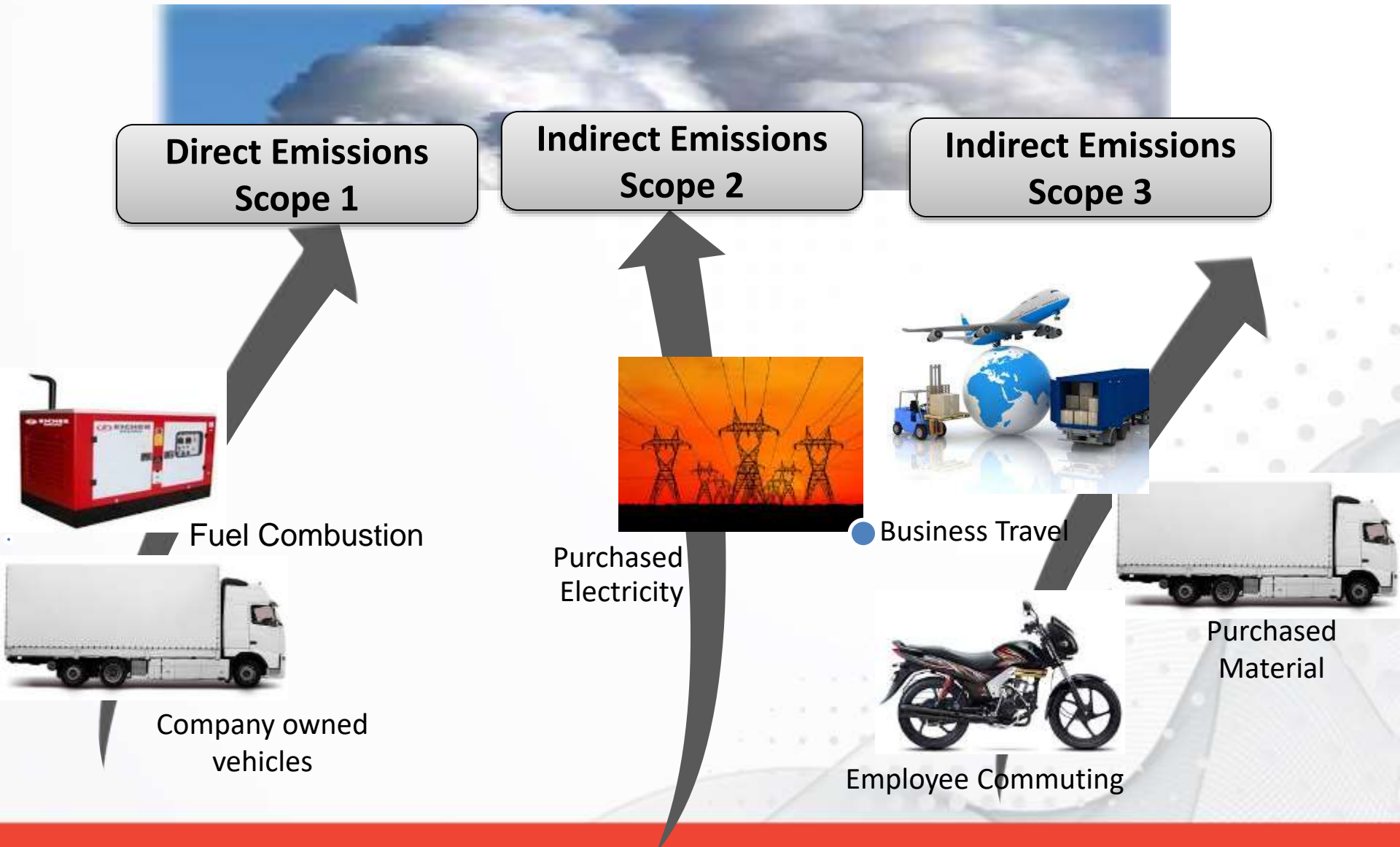
Implementation of solar panel on factory roof top



Green House Gases



Inventorization of GHG



Inventorization of Scope 1 & Scope 2

| Scope | 2014-15 (Ranjangaon Plant) | 2015-16 (Ranjangaon Plant) | 2016-17 (Ahire Plant) |
|-------------------------------|-------------------------------|-------------------------------|--------------------------|
| Scope 1 | 62.13 | 49.49 | 9.69 |
| Scope 2 | 1551.07 | 1756.28 | 729.65 |
| TOTAL | 1613.2 | 1805.77 | 739.34 |
| RM Proceed in MT | 2149 | 2432 | 1157 |
| Emission/MT RM Proceed | 75.06 | 74.25 | 63.90 |

| Scope | 2014-15 (Ranjangaon Plant) | 2015-16 (Ranjangaon Plant) | 2016-17 (Ahire Plant) |
|-------------------------------|-------------------------------|-------------------------------|--------------------------|
| Scope 3 | 156368.29 | 144222.78 | 28445.50 |
| RM Proceed in MT | 2149 | 2432 | 1157 |
| Emission/MT RM Proceed | 7276.32 | 5930.21 | 2458.55 |



GHG Emission Intensity reduction Initiatives - Scope 1 & 2

| Sr. No | Project | GHG reduction in Tons of CO2 Equivalent | Investment (In Rs. Lac) | ROI (Month) |
|-----------|--|--|----------------------------|----------------|
| 1 | Transparent sheets for roofing at regular intervals for effective utilization of day light | 13.46 | 0.2 | 2.9 |
| 2 | Installed roof ventilators on roofing. | 9.84 | 2.21 | 0.2 |
| 3 | Installed injection machine with servo drive system. | 26.65 | 48 | 19.7 |
| 4 | Temperature controller unit provided to cooling tower. | 6.64 | 0.035 | 0.1 |

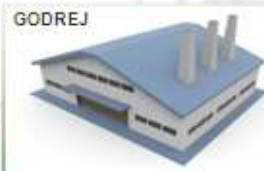
GHG Emission Intensity reduction Initiatives - Scope 3

> Save annual transportation of 107328 KM. 5.49 tons of GHG emission reduced annually.

ATHARVA POLYMER S-
RANJANGAON



ATHARVA POLYPLAST- AHIRE



> Save annual transportation of 16536 KM.
> 0.84 tons of GHG emission reduced annually.



> Save annual transportation of 23328 KM. 1.19 tons of GHG emission reduced annually.

ATHARVA POLYPLAST- AHIRE



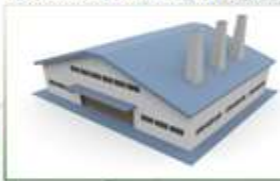
PRESTINE-MUMBAI



ATHARVA POLYPLAST- AHIRE



GURUKRUPA- KHED SHIVAPUR



> Save annual transportation of 4860 KM.
> 0.24 tons of GHG emission reduced annually.

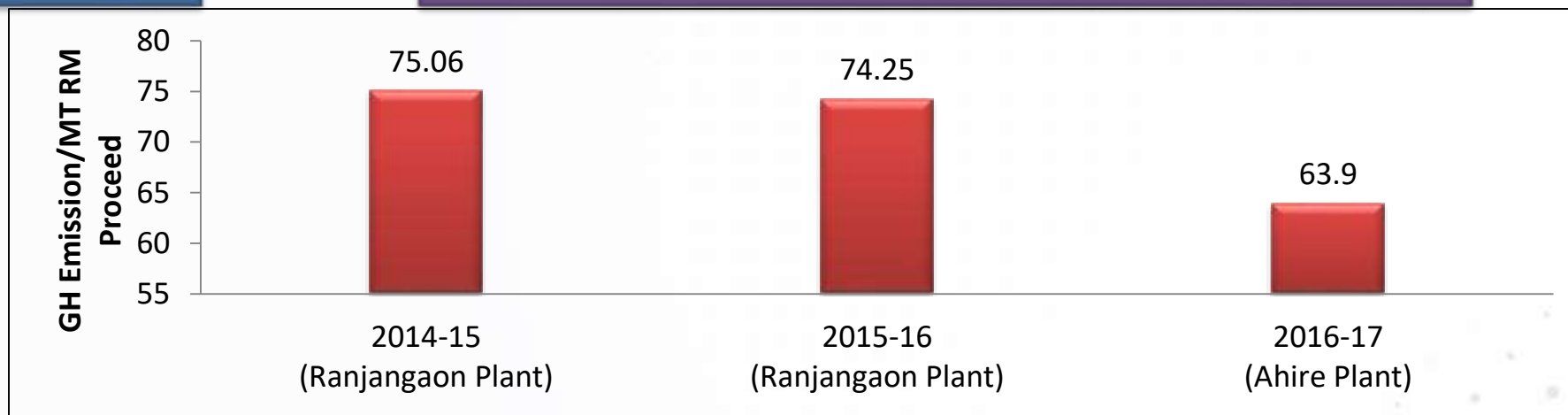




GHG Emission Intensity Reduction

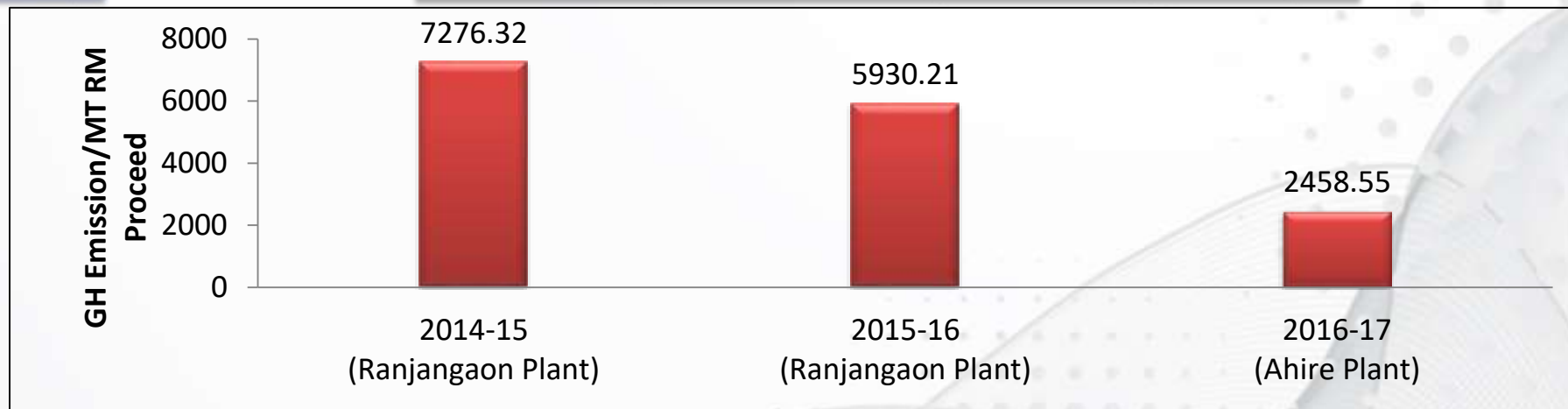
Scope 1 & 2

15 % reduction in GHG Emission Intensity (Scope 1 & 2)



Scope 3

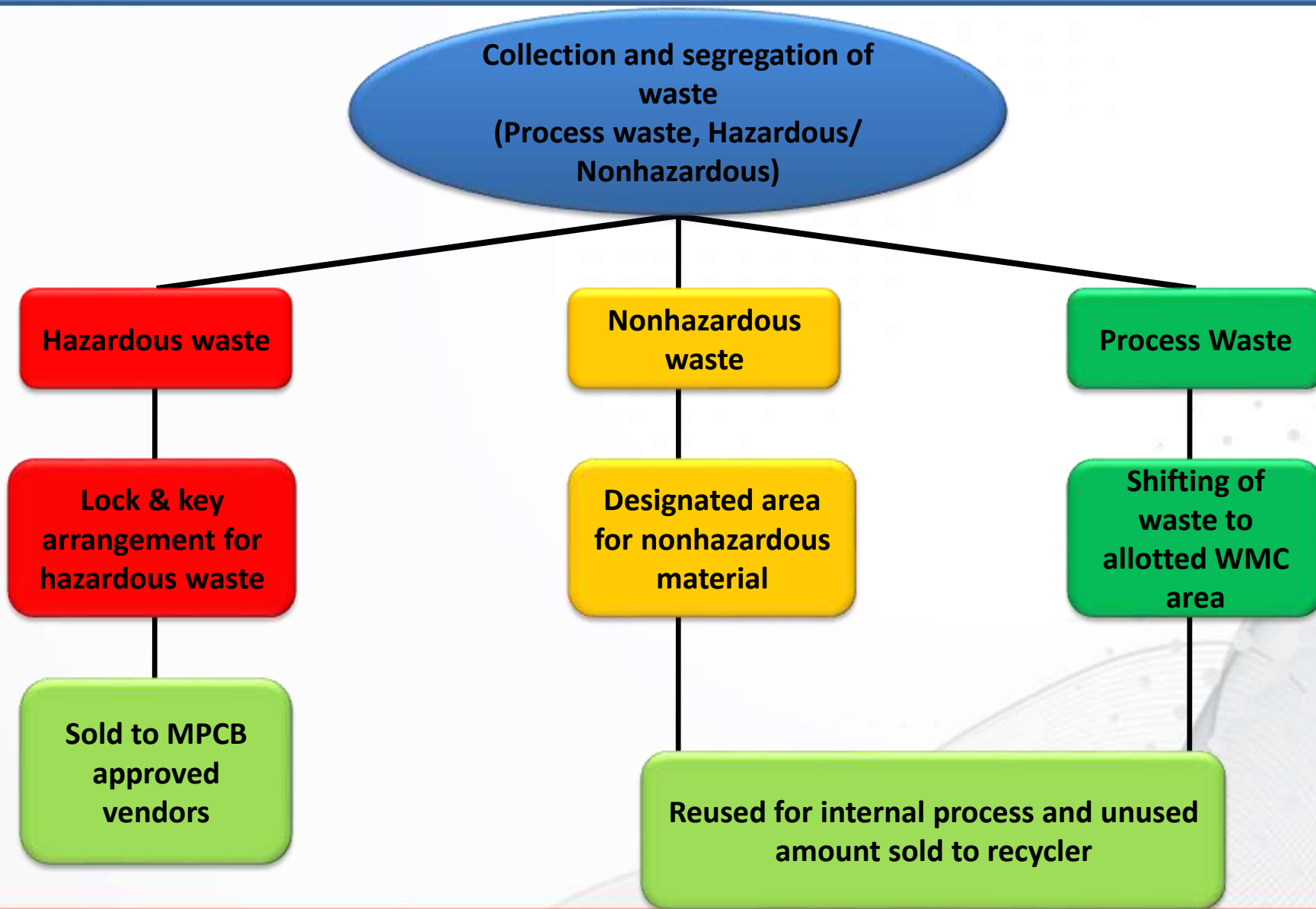
66 % reduction in GHG Emission Intensity (Scope 3)





Waste Management

Waste Management - Mechanism



ATHARVA POLYMERS- RANJANGAON



ATHARVA POLYPLAST- AHIRE, KHANDALA



| WASTE MANAGEMENT | | | |
|------------------|-------------------|-----|---------|
| S.No. | Waste Description | Qty | Remarks |
| 01 | Waste generated | 100 | |
| 02 | Waste generated | 100 | |
| 03 | Waste generated | 100 | |
| 04 | Waste generated | 100 | |
| 05 | Waste generated | 100 | |
| 06 | Waste generated | 100 | |
| 07 | Waste generated | 100 | |
| 08 | Waste generated | 100 | |
| 09 | Waste generated | 100 | |
| 10 | Waste generated | 100 | |
| 11 | Waste generated | 100 | |
| 12 | Waste generated | 100 | |
| 13 | Waste generated | 100 | |
| 14 | Waste generated | 100 | |
| 15 | Waste generated | 100 | |
| 16 | Waste generated | 100 | |
| 17 | Waste generated | 100 | |
| 18 | Waste generated | 100 | |
| 19 | Waste generated | 100 | |
| 20 | Waste generated | 100 | |

- Segregation of waste
- Record of waste generated
- Fixed waste disposal frequency
- Controlled waste management

Hazardous Waste Management

| Sr. No. | Type of waste | Waste Generation (MT / Year) | | | Disposal Mechanism |
|---------|-------------------------|------------------------------|---------|---------|---------------------------------------|
| | | 2014-15 | 2015-16 | 2016-17 | |
| 1 | Oil soaked cotton | 0.3700 | 0.2900 | 0.1800 | Disposal through MPCB approved source |
| 2 | Empty oil drum | 0.0500 | 0.0400 | 0.0280 | Returned to supplier for recycling. |
| 3 | Empty spray bottle | 0.4900 | 0.3800 | 0.2621 | Returned to supplier for recycling. |
| 4 | Screen printing INK | 0.0003 | 0.0002 | 0.0002 | Returned to supplier for recycling. |
| 5 | Screen printing reducer | 0.0021 | 0.0015 | 0.0012 | Returned to supplier for recycling. |
| TOTAL | | 0.9124 | 0.7117 | 0.4715 | |

Waste Reduction Initiatives

| Sr. No. | Project | Year | Reduction | Benefit |
|---------|--|---------|-----------|--|
| 1 | Introduced plastic crates for material dispatches to customer | 2016-17 | 70% | Minimize usage of PP boxes. |
| 2 | Introduced trolley's for material dispatches to customer. | 2016-17 | 60% | Minimize usage of PP boxes. |
| 3 | Usage of recyclable PVC covers for trolleys instead of stretch film wrapping | 2016-17 | 100% | Usage of stretch film wrapping on trolleys eliminated. |
| 4 | Reused of plastic bags and foam bags to painted and non aesthetic parts which supplied to polymers plant ranjangaon. | 2016-17 | 20% | Minimize usage of packing bags |

Waste Reduction Initiatives

BEFORE

AFTER



CRISPER EDGE PRO:

Parts were packed in PP box with Polybag/part for protection.
Polybag consumption: 360kg/ year

Introduced special dunnage trolley for part so now no need for polybag.

Benefits: Polybag saved 360kg/year & handling related issues eliminated.

BEFORE

AFTER



FREEZER DOOR ASSEMBLY

Parts were packed in PP box with Polybag/part for protection.
Polybag consumption: 480kg/ year

Introduced special dunnage trolley for part so now no need for polybag.

Benefits: Polybag saved 480kg/year & handling related issues eliminated.

BEFORE

AFTER



CRISPER TRAY ASSEMBLY

Parts were packed in PP box with Polybag/part for protection.
Polybag consumption: 240kg/ year

Introduced special dunnage trolley for part so now no need for polybag.

Benefits: Polybag saved 240kg/year & handling related issues eliminated.



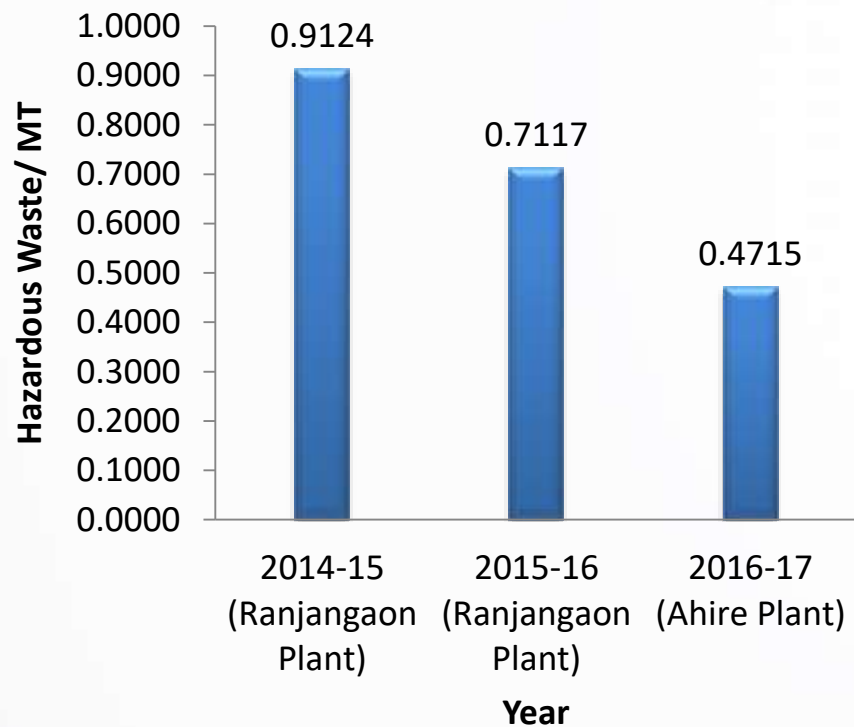
Usage of recyclable PVC covers for trolleys instead of stretch film wrapping



Plastic crates produced from recycle material

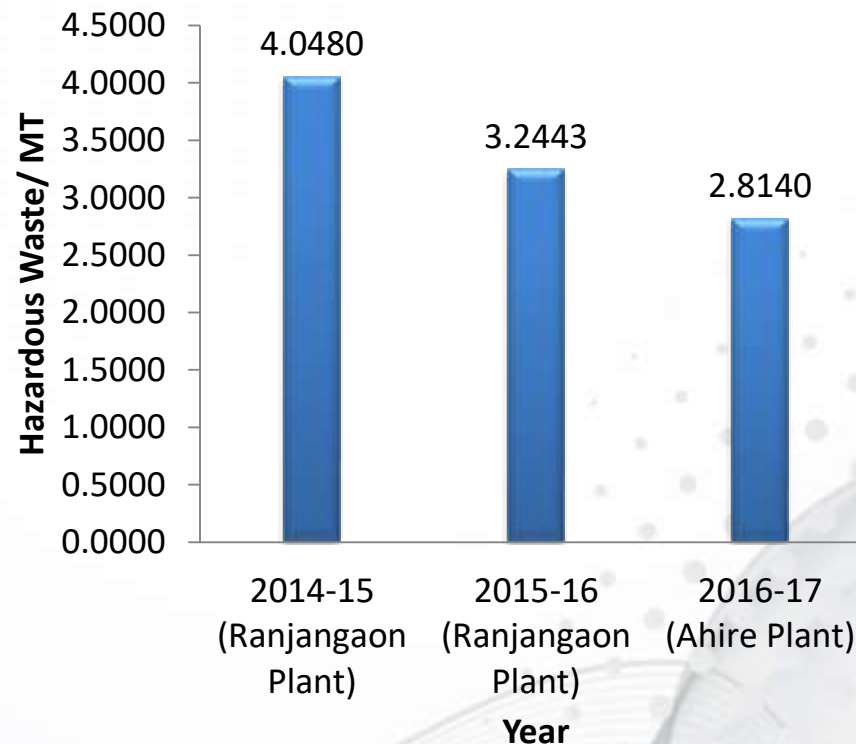
Waste Reduction

Hazardous Waste



51% reduction in Hazardous waste generation since 2014-15 to 2016-17

Non Hazardous Waste



32% reduction in Non Hazardous waste generation since 2014-15 to 2016-17



Material Conservation, Recycling & Recyclability

Raw Material Consumption Reduction Projects



Recyclable Bins: 100% reuse of grinding material. Process waste is reused in better way.

Before purging



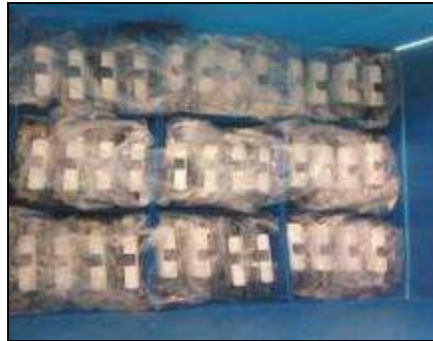
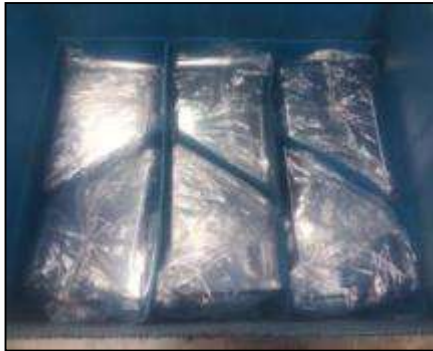
After purging with ASACLEAN



Reduction of Lumps generation:

We used special purpose purging agent during mould change/colour change to clean the barrel there by reducing the lumps generated.

Raw Material Consumption Reduction Projects

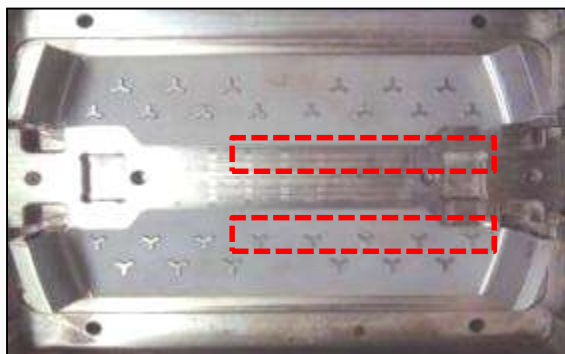
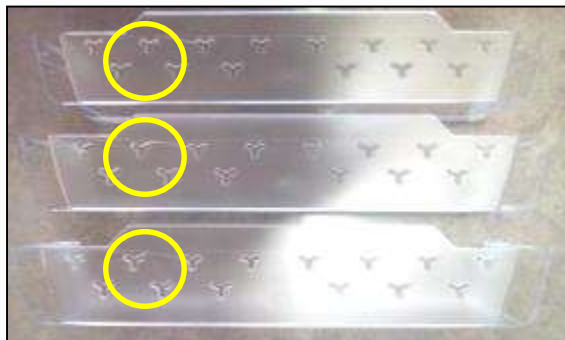


Trolleys:

Trolleys have resulted in better handling and reduction in transit damages and rejections.

Raw Material Consumption Reduction Projects

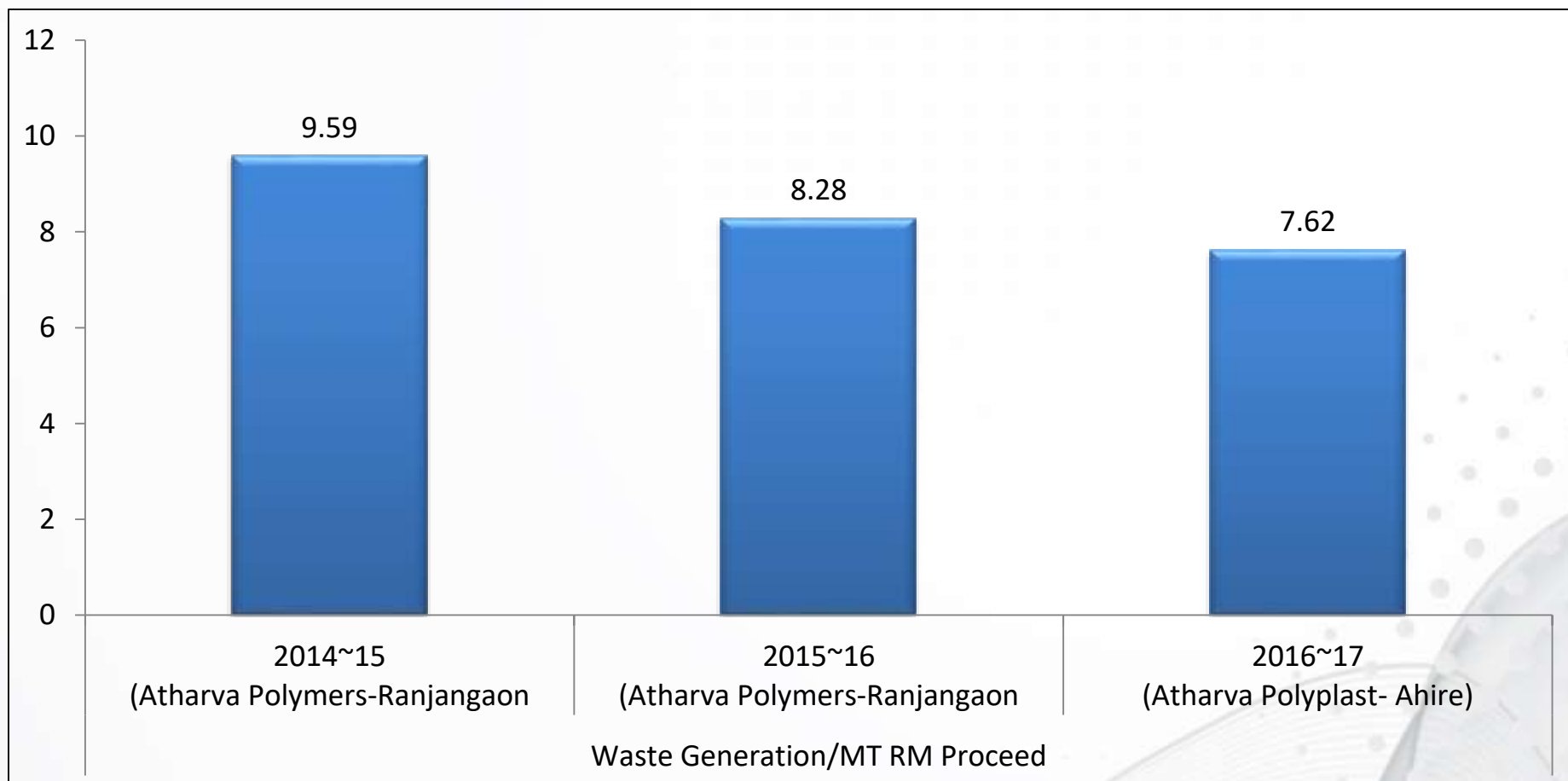
Mould Reconditioning



Mould Corrections:

Mold reconditioning was done to improve part quality. PPM reduced 35049 to ZERO.

Reduction in Waste Generation



21% reduction in Raw Material waste generation in last 3 years



Green Supply Chain

Policy for Purchasing New Equipments

| Sr. No. | Item | Points considered |
|---------|------------------|--|
| 1 | Raw Material | Raw material should be RoHS compliance |
| 2 | Moulding Machine | Machine with servo drive system |
| | | Full function monitoring System |
| | | Fully modular hardware design with option to add further automation. |
| | | PID Temp. control for high accuracy |
| | | Generate alarms, crate logs of alarm history for easier troubleshooting. |
| 3 | Cooling Tower | Optimized Capacity |
| | | Microprocessor based control |
| | | Energy efficient scroll compressor |
| | | Plate heat exchangers |
| | | Anti corrosive fins |
| | | Low noise |

Use of Green Products

Benefits



Machine: W/o Servo System



Machine: With Servo System

❑ Electricity: 70%



Machine: L&T



Machine: All Electric

❑ Production: 200%



❑ Quality: 100%



Use of Energy Efficient Products



Induction Lights



LED Lights



Screw Compressor



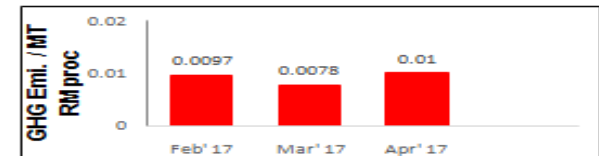
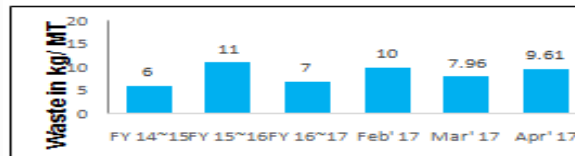
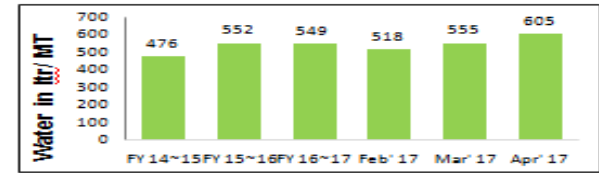
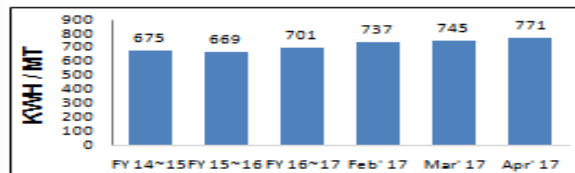
Servo Motor Machines

Creating Awareness in Supply Chain



Green Parameters
Monitoring by our
supplier

| Area | FY 14~15 | FY 15~16 | FY 16~17 | Apr. 17 |
|---------------------------------|----------|----------|----------|---------|
| Energy Kwh / Mt RM processed | 675 | 669 | 701 | 771 |
| Water In Ltr / Mt RM processed | 476 | 552 | 549 | 605 |
| Wastage In Kg / Mt RM processed | 6 | 11 | 7 | 9.61 |
| GHG Emission / Mt RM Processed | NA | NA | NA | 0.010 |





Others

Site Selection Planning

No. of Employees residing within 5 Km radius

| Village | Distance in KM | Mgmt. Staff | Company roll workmen | Contractual |
|--|----------------|-------------|----------------------|-------------|
| Company Worker Colony | 1 | 0 | 15 | 40 |
| Mavashi-Khandala | 5 | 25 | 9 | 2 |
| Ahire | 2 | 0 | 1 | 8 |
| Lonand | 12 | 0 | 4 | 0 |
| Pune | 70 | 1 | 0 | 0 |
| Sub Total | | 26 | 29 | 50 |
| Total Number of employees | | 105 | | |
| Employees residing within 5Km Radius | | 100 | | |
| % of employees residing in 5 KM radius | | | 95 % | |

95 % of our employees reside within 5 Km vicinity.

Mode of Transport

| Category of Employees | Walk | Company Vehicle | Public Transport Bus Stop within 500 mtr | Bicycle |
|-----------------------|------|-----------------|--|---------|
| Mgmt. Staff | 0 | 20 | 0 | 6 |
| Company roll workmen | 15 | 14 | 0 | 0 |
| Contractual workmen | 40 | 0 | 7 | 3 |
| TOTAL | 55 | 34 | 7 | 9 |
| Percentage | 52% | 32% | 7% | 9% |

98% Employees use green mode transport

Efforts to Create & Maintain Biodiversity



List of Key Initiatives for Maintain Green Environment

- ✓ Tree Plantation – plantation of 70 nos. of trees inside the factory
- ✓ Tree Plantation – Plantation of 300 outside factory.



PACKING MATERIAL

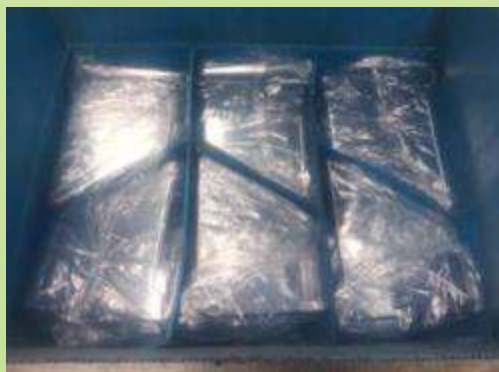
Date of Commencement : 22nd Jan. 2017

Date of Completion : 9th Feb. 2017

Trigger for the project :
To eliminate the rejection for cracking/damages in transit.

Outcome expected by project implementation :
Cost reduction by reducing rejection and elimination of packing polybags.

BEFORE:



After:



Parts were packed in PP box with Polybag/part for protection.

Introduced special dunage trolley for part so now no need for polybag.

Benefits:

- ❖ Polybag eliminated, Rejection because of handling/ transit eliminated, Cost saved, Customer satisfaction.

EOT CRANE

Date of Commencement : 5th Jun. 2016

Date of Completion : 9th Jun. 2016

Trigger for the project :
Reduce mould changeover time.

Outcome expected by project implementation :
Mould centering get easily with alarming & sensor system for indication.

BEFORE:



After:



Crane adjusted in all four directions

Crane fixed plate and moving plate aligned with Sensor , LED Light and Buzzer so now crane adjustment operation eliminated

Benefits:

- ❖ Mould changeover time eliminated 2 minutes/mould.
- ❖ Material leakages eliminated because of offset centering.



Achievement



Green Co SME Rating



| GREENCO SME RATING SYSTEM : ATHARVA POLYPLAST PVT LTD | | | | | | | | | | | | | | | |
|---|------------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|---------|---------|
| | SCORE BAND | | | | | | | | | | | | | | |
| | 00-10 | 11-20 | 21-30 | 31-40 | 41-50 | 51-60 | 61-70 | 71-80 | 81-90 | 91-100 | 101-110 | 111-120 | 121-130 | 131-140 | 141-150 |
| EE | | | | | | | | | | | | | X | | |
| WC | | | | | | | | | X | | | | | | |
| RE | | | | | | | | X | | | | | | | |
| GHG | | | | | | | X | | | | | | | | |
| WM | | | | | | | X | | | | | | | | |
| MCR | | | | | | | X | | | | | | | | |
| GSC | | | | X | | | | | | | | | | | |
| Others | | | | | | | | | X | | | | | | |

A Atharva Score

X Best achieved figure by other GreenCo rated SME

| | 225 - 250 | 250 - 275 | 275 - 300 | 300 - 325 | 325 - 350 | 350 - 375 | 375 - 400 | 400 - 425 | 425 - 450 | 450 - 475 | 475 - 500 | 500 - 525 | 525 - 550 | 550 - 600 | 600 - 650 | 650 - 700 |
|-------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Level | Certified | | | Bronze | | | Silver | | | Gold | | | Platinum | | | |

| GreenCo Rating Level | | | | | |
|----------------------|----------------|-----------|-----------|-----------|------|
| Levels | Points Awarded | | | | |
| | >225-300 | 300 - 375 | 375 - 450 | 450 - 525 | >525 |
| Certified | | | | | |
| Bronze | | | | | |
| Silver | | | | | |
| Gold | | | | X | |
| Platinum | | | | | |

Awarded "GOLD RATING" with a score of around 460 points



THE JOURNEY CONTINUES...