Panasonic

Confederation of Indian Industry

Welcome All Delegates in Virtual Ceremony of 08th Edition of "CII National Awards for Environmental Best Practises, 2021"

PANASONIC LIFE SOLUTIONS INDIA PVT. LTD.

ANCHOR | Panasonic | Panasonic

2+ MILLION VIEWS

Year:1999 → Year:1918 → Year:2007 → Current

Wires & Cables Division
Daman Unit – 4

Presented by :-
Nitish Korde (Sr. Exe EHS)
Laxman Sorte (AM EHS)

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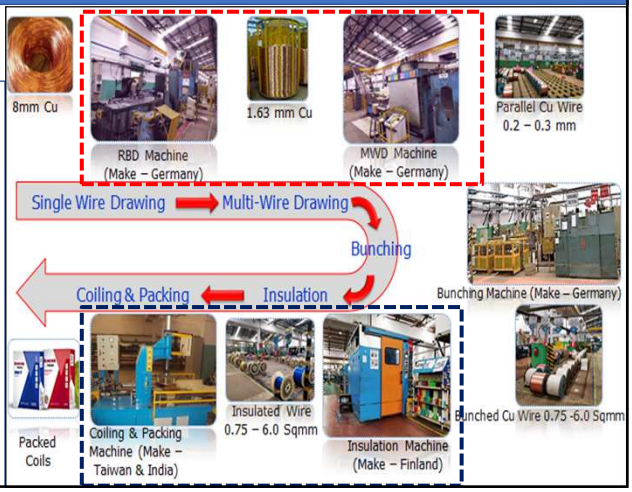
ENVIRONMENT IMPROVEMENT PROJECT

Project Title — Material (Copper) Conservation Through Application of Hierarchy of Control Mechanism

Details of Project

- We are involved in the manufacturing of PVC insulated cables by extrusion process, which involves coating of PVC compound over copper wires. Copper wires are manufactured from 8 mm cc rods of copper by drawing process through appropriate die size starling from 8 mm copper rod and finishing to specified fine wire finished size. The company meets its copper requirement of 8 mm cc copper rods from open market sources.
- Our project base is manufacturing of wires and cables like building wire and telephone cable. There are two major raw materials like copper and PVC. Out of this copper contributes 92% of the total material cost in the product.
- Hence, reducing the copper consumption is very much important for our business, as well as our environment, as copper is a natural resource.



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ENVIRONMENT IMPROVEMENT PROJECT

पानी बचाओ वृक्ष लगाओ पर्यावरण बचाओ

Trigger of the Project	**Parent Company - Global Environment Vision,** Environmental Performance Driven Through Top Management, Culture of Environment Improvement Through Sustainable Activities, Effective Waste Management System, 3R (Reduce, Reuse & Recycle) Meet at Management Level, Actual Implication of 3R Technique, Reward Policy – "PARYAVARAN SAHYOGI PURASHKAR", Long term vision for Environment for Sustainability (Vision 2050), Commitment towards Environment **[Project conceived at Operating Level]**
Uniqueness of the Project	Innovative New Concept, Hierarchy of Control Mechanism (Elimination, Substitution, Engineering Control), Cross Functional Team, Daily Data Monitoring, Non-Standardize Length (NSL) Reduction, Horizontal Deployment

Project Time Period Details

Schedule of Project	Start This Project	End this Project
Plan	April – 2019	March – 2021
Actual Implement	April – 2019	February – 2021

Project Road Map

We have identified our Major Focus Area generating excess Copper scrap
1. Buncher Section
2. Conductor Section >> Bare Cu Scrap Reduction
3. Insulated Non-Standard Length Generation

Managing Director | Joint Managing Director

March 2019 3R Triggered By Top Management

Reduction Part Started

Top Management 3R Trigger

Grey Area of Copper Scrap Generation

Hierarchy of Control Feasibility

FY 2019 – 2020 Reduction

FY 2020 – 2021 Reduction

Major Milestones
1st Phase – 33% Reduction
2nd Phase – 19% Reduction

Copper Scrap Reduction Achieved

Support To Mother Earth

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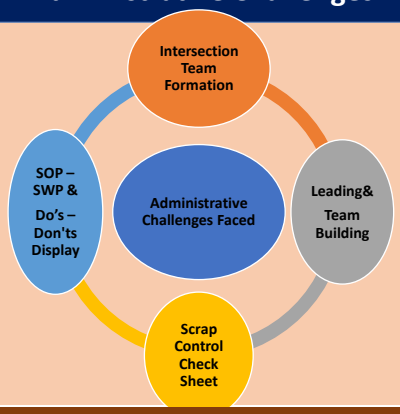
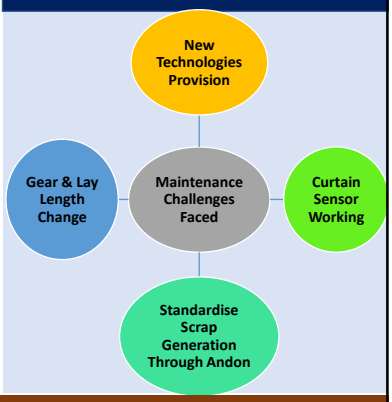
Technical Challenges

Administrative Challenges



Maintenance Challenges



Major Challenge :-

Biggest Challenge was Data Collection of Non Standardize Length (NSL) Like Machine Wise, Reason Wise With The Involvement Of Machine Operators So That They Can Be A Part Of This Activity

Countering :-

We have resolved it through taking time to streamline the correct data booking in check sheet by operators and thus mismatch of Non Standardize Length (NSL) is minimised.

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Copper Scrap Reduction & Inventory Control

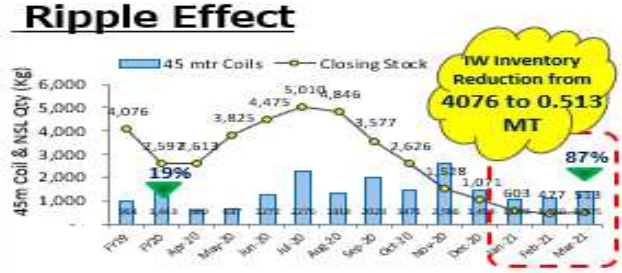
Before

Avg Cu Scrap / Month	FY18 (MT)	FY19 (MT)	
Bare Cu	8.0	6.0	25% ▼
Cu in Wire	19.5	12.5	36% ▼
	27.5	18.5	33% ▼

After

Avg Cu Scrap / Month	FY18 (MT)	FY19 (MT)	FY20 (MT)	
Bare Cu	8.0	6.0	4.4	27% ▼
Cu in Wire	19.5	12.5	10.5	26% ▼
	27.5	18.5	14.9	19% ▼

Ripple Effect



Tangible Savings & Payback Period

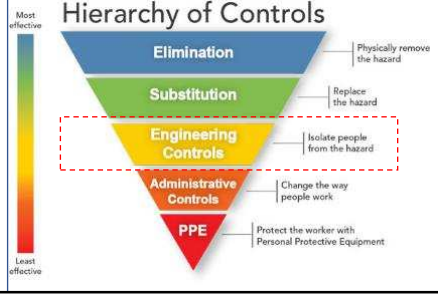
PLSIND Units	Investment (Lakhs)	Payback Years (Nos.)	Cost Buster (Lakhs)
Unit - 4	0.56	0.02	127.70

Less Investment, High Cost Saving & Immediate Implementation of Project

Successful Implementation of Control Mechanism

Sustainable Development

Hierarchy of Controls



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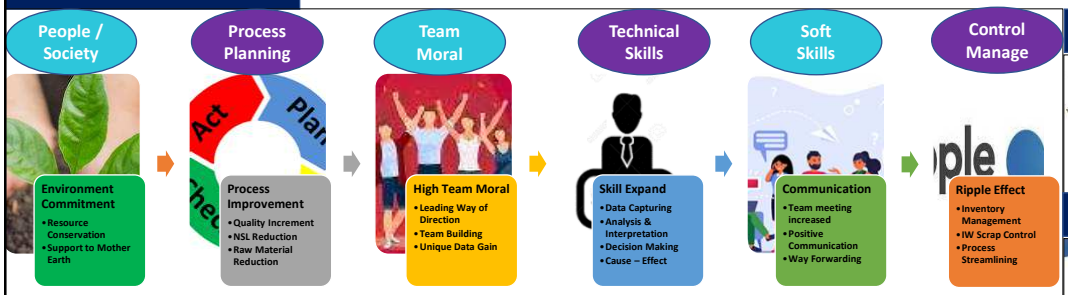
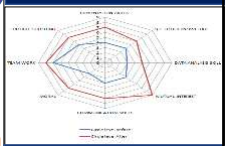
Intangible Benefits



SKILL LEVEL



CERTIFICATION

- 117 MT Equivalent CO_2 Reduction
- Copper Waste Reduction
- Financial Growth

BRAND IMAGE EXPAND & REWARDS & RECOGNIZATION

Golden Peacock Award

Apex India Award

Global Panasonic Good Idea Award

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ENVIRONMENT IMPROVEMENT PROJECT

Replication Potential of Project

100 % Replication Potential of Project

Replication Steps Initiated

- 3R Feasibility
- Hierarchy of Control
- Scrap Reduction
- Material Conservation
- Environment Effect
- Intersection Team
- IW Scrap Control
- 3R Themes
- NSL Streamlining
- Daily Data Capture

Process Assimilation

		Plan						
Grasping existing scenario & setting target	Plan							
Action plan	Plan							
Implementation of action plan	Plan							
Evaluate effects	Plan							
Standardization & fixing control	Plan							

Possible Implementation of Evidence

Future After Spreading Benefits

GOAL

25 % Copper Scrap Reduction @ Kutch Unit

Achievements & Knowledge Sharing Platforms

National Level 3R Meet

Global Level 3R Meet

3R Contest Winner - Gold

Theme : REDUCE COPPER SCRAP GENERATION

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ENVIRONMENT IMPROVEMENT PROJECT

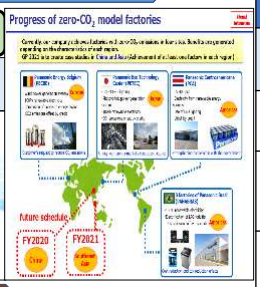
Benchmarking

PANASONIC GLOBAL BENCHMARK

Reduce greenhouse gas emission to substantially zero by 2050

Top Management From Japan, had lagged behind in Environmental issues, changed the direction towards Sustainable

- Zero CO2 Emissions Factories
- Increase Renewable Energy Resources
- Reduce Water Consumption
- Water Positive Units
- Increase Rainwater Utilization
- Zero Landfilling Waste
- Procurement of Sustainable Materials
- Chemicals Management System



PLSIND UNITS BENCHMARK

Wires & Cables Division Environment Standards

- Copper Scrap Reduction 10 %
- PVC Scrap Reduction 08 %
- Water Consumption Reduction 05 %
- Inventory Control Management Increase 05 %
- Environment Care Funds Increase 10 %
- Conversion of Disposable Hazardous Wastes To Recycling Wastes About 02 %
- Increase Revenue Sources of Wastes 03 %

Wires & Cables Division Energy Standards

- 10% Decrease in Energy Utilization Through Renewable Resources
- 05 % Decrease in Energy Consumption in Machines
- Procurement of Energy Efficient Machines

Color Code

	Area For Improvement
	Area Already Improved

Sustainable Achievements			More Sustainable Competitors	Less Sustainable Competitors
Comparative Analysis	Panasonic Global	Panasonic National	Competitor - 1	Competitor - 1
Environmental Care Funding	2836.57 MINR	18 MINR	20 MINR	<10 MINR
Factory Waste Recycling Rates	Current 98.9 % 100% Vision	30 %	35 %	<4%
Renewable Energy Resources	32000 MW	2.0 MW	5.60 MW	<1.0 MW
Comparative Analysis	Panasonic Global	Panasonic National	Competitor - 2	Competitor - 2
Green House Gases Emissions	10,000 Tons	10 %	8 %	< 5 %
Waste Water Discharge & Recycling	18.02 million M3	60 %	35 %	< 20 %
Waste Landfill Disposal	3.4 Thousand Tons	<5 %	5 %	< 5 %

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Priority Plans

Sr. No.	Environment Activities	Target Month	Resource Requirements
1	Reduction of Ground Water Extraction Load By 5.0 %	March-2022	Infrastructure and Technology
2	Reduction in Overall Expense of Hazardous Waste Load By 2.0 %	March-2022	Infrastructure and Technology
3	Increase in Overall Income of Hazardous Waste Load By 1.5 %	March-2022	Infrastructure and Technology
4	Increase in Effectiveness of Waste Management System	March-2022	Infrastructure and Technology
5	Reduction of Plastic Waste Load in Environment By 05 % Take Back of Plastic Waste From Market	March-2022	Expert Feasibility Study & Actual Implementation
6	Increase in Effectiveness of Chemical Management System	Oct-2021	Infrastructure and Technology
7	Energy Reduction In Machineries Through Effective Control Mechanism	Dec-2021	Infrastructure and Technology
8	Energy Control System Provision CII – Certified IFC System	June - 2021	-

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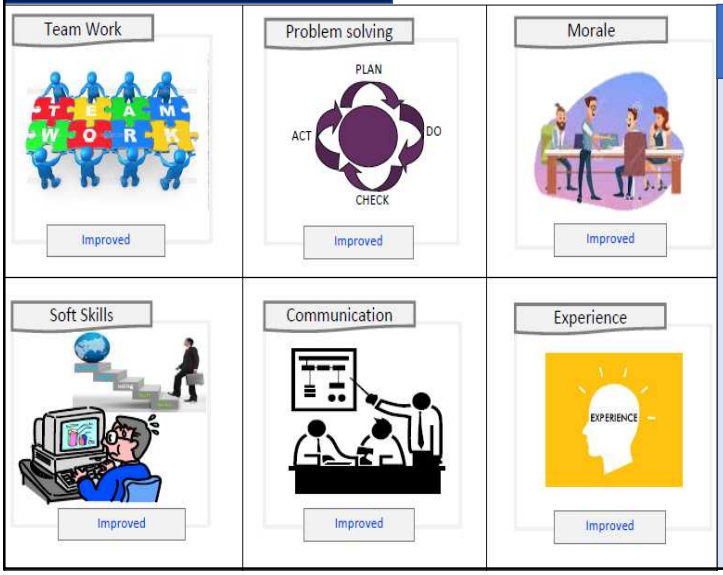
Learnings



Learning & Development of Environmental Good Practises

- Learn the importance of Material Conservation
- Management Level Appreciations
- Clear understanding of waste management system of the plant and conversion into resources
- Strengthening of waste segregation system
- Better utilization of waste collection system and resources
- Non-value added activities elimination
- Process flow of wastes at micro level
- Identification of Scrap at various sections which has less quantity but accountable for increment
- Better utilization of the waste through various projects such as Reduce, Reuse and Recycling
- Enhance Cost consciousness among team
- Strengthen Green Purchasing guidelines
- Enhanced Competency of team resulted more sustainability initiatives water positivity, CO_2 Reduction etc.
- Sharing of Good Practises at Global Level

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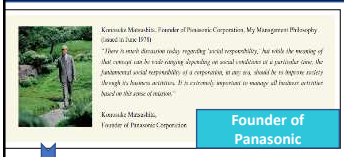
Environmental Performance

Management Performance Indicator



Konosuke Matsushita, Founder of Panasonic Corporation, My Management Philosophy (issued in June 1978)

"Here is much discussion today regarding 'social responsibility,' but while the meaning of that concept can be wide-ranging depending on social conditions at a particular time, the fundamental social responsibility of a corporation, in any era, should be to improve society through its business activities. It is extremely important to manage all business activities based on this sense of mission."

Konosuke Matsushita,
Founder of Panasonic Corporation

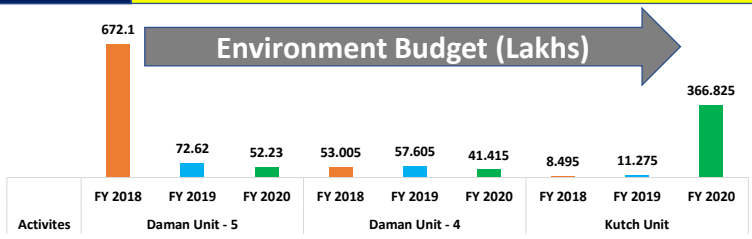
Founder of Panasonic

Managing Director

Joint Managing Director

Leading & Motivating Factories & Units Environmental Continual Improvement

MANAGEMENT DRIVEN CULTURE



Major Environment Projects INR (Lakhs)

1) Rain Water Harvesting Structures 42.00 Lakhs
2) Waste Management System 10.00 Lakhs
3) Renewable Energy Plant Installation 6 Cr
4) Training & Development 1.50 Lakhs

ENVIRONMENT & ENERGY PERFORMANCE ACTIVITIES

- ❑ Legal Compliance Activities
- ❑ Waste Management & Disposal Activities
- ❑ Certification Audit Activities

Environmental Motivational Activities - World Environment Day, World Water Day, World Earth Day

- ❑ Tree Plantations & Public Place Cleaning Drives
- ❑ Renewable Energy Resource Utilization
- ❑ Water - Waste Water Treatment, Chemical Dosing & Discharge
- ❑ Rainwater Harvesting & Utilization
- ❑ Environment Trainings
- ❑ Replacement of Conventional light to LED light

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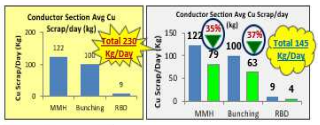
Environmental Performance

PLSIND Global Environmental Impact

Overview of Environmental Impact from Business Operation

INPUT		Suppliers	OUTPUT
Energy: 18.5 thousand TJ			
Electricity: 3.45 billion kWh	Town gas: 0.09 billion m³		
LPG: 10 thousand tons	Heavy oil: 9 thousand kl	Kerosene: 2 thousand kl	
Renewable energy: 32 thousand MWh[*1]			
Resources			
Recycled resin: 13.4 thousand tons			
Recycled iron: 103 thousand tons			
Water: 23.11 million m³			
Chemical substances: 245,186 tons[*2*12]			
		Production	CO₂: 2.23 million tons[*3]
			GHGs other than CO₂ from energy use (CO₂-equivalent): 0.1 million tons
			Total wastes including revenue-generating waste: 344 thousand tons; Landfill: 3.4 thousand tons
			Water discharged: 18.02 million m³
			Release and transfer of chemical substances: 3,942 tons[*4*12]
Energy: 5.88 million GJ[*5]		Logistics	CO₂: global 0.87 million tons, domestic 0.12 million tons
Biodiesel fuel: 12 kl[*6]			
Electricity: 162.1 billion kWh		Product use	CO₂: 83.13 million tons
Collected products: 178 thousand tons[*6*7]			Recycled products: 129 thousand tons[*6*7]
CRT TVs: 7 thousand tons	Plasma/LCD TVs: 10 thousand tons	Recycling	Metals: 97 thousand tons; Glass: 2 thousand tons; Other: 30 thousand tons
Air conditioners: 36 thousand tons	Refrigerators/freezers: 70 thousand tons		
Washing machines/ clothes dryers: 54 thousand tons	PCs: 12 tons		Generated waste: 48 thousand tons[*6]

Project Implementation Indicators



127.70 Lakhs Savings
(93.50 Lakhs + 34.20 Lakhs)

117 MT Equivalent CO2 Reduction

Operational Performance Indicator

The Reduction in Copper Scrap has benefitted in Reducing the Process Scrap (20% ∇) as well as Overall Scrap (18% ∇)

Decreasing Trend of Environmental Load

PLSIND National Environmental Impact

2000

Environment Condition Indicator

Sr. No.	Description	UOM	FY 18-19	FY 19-20	FY 20-21
1	Water : Consumption Reduction by Doing Water Saving Activities	KL	3191.000	2561.000	2729.000
2	Plastic Waste : Reduction Through 3R Activities	MT	165.013	135.587	96.408
3	Metal Waste : Reduction Through 3R Activities	MT	328.676	257.006	291.258
4	Hazardous Waste : Reduction Through 3R Activities	MT	4.71	4.27	4.93
5	Paper Waste : Reduction Through 3R Activities	MT	31.323	35.520	25.680

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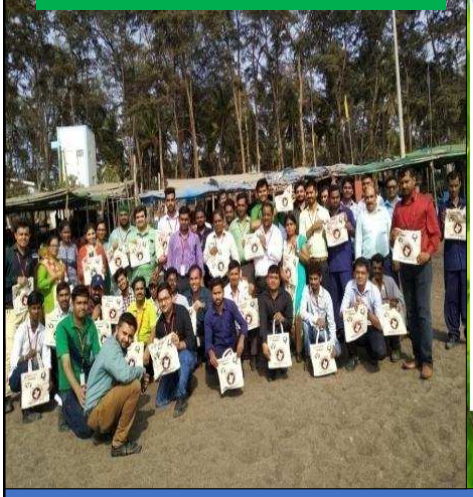
WORLD ENVIRONMENT DAY 2019



WORLD ENVIRONMENT DAY 2021

E WASTE COLLECTION

We are committed towards making a positive and proactive contribution to the community. As a responsible corporate we will contribute to and abide by environmental and legal norms.

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