PRESENTATION ON 24th NATIONAL AWARD FOR EXCELLENCE IN ENERGY MANAGEMENT **Panasonic** PANASONIC LIFE SOLUTIONS INDIA PVT LTD. Unit-05, Daman



Mr. Ashish Singh Pan India Head- Facility Management & EHS, Factory Manager- Daman Unit-05 CII Certified Energy Efficiency professional



Mr. Viral Vadgama Asst. General Manager-Facility Management CII Certified Energy Efficiency professional



Mr. Bijalkumar Patel Manager-Facility Management (Certified Energy Auditor and Manager) CII Certified Energy Efficiency professional

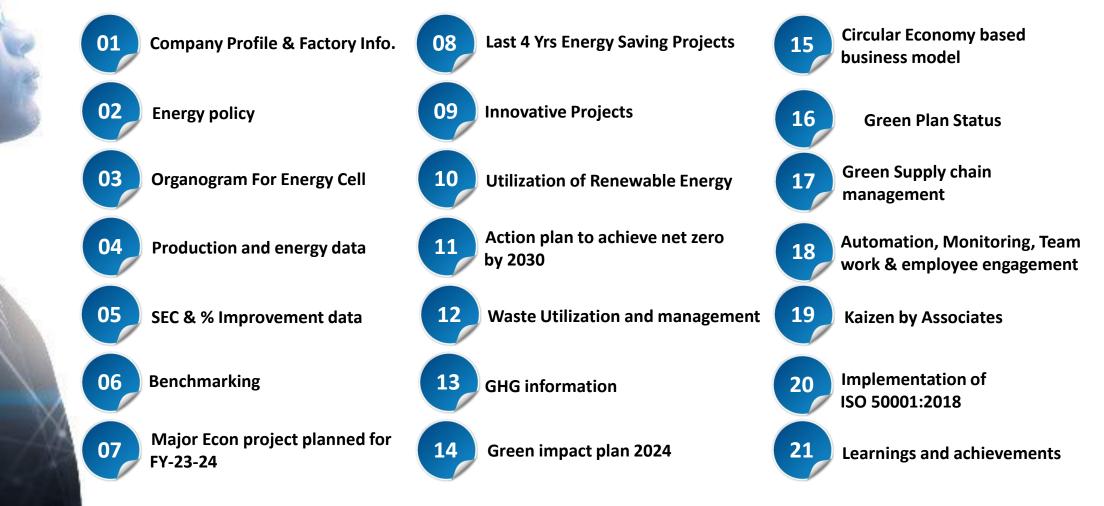
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BREAKTHROUGH TO EXCELLENCE

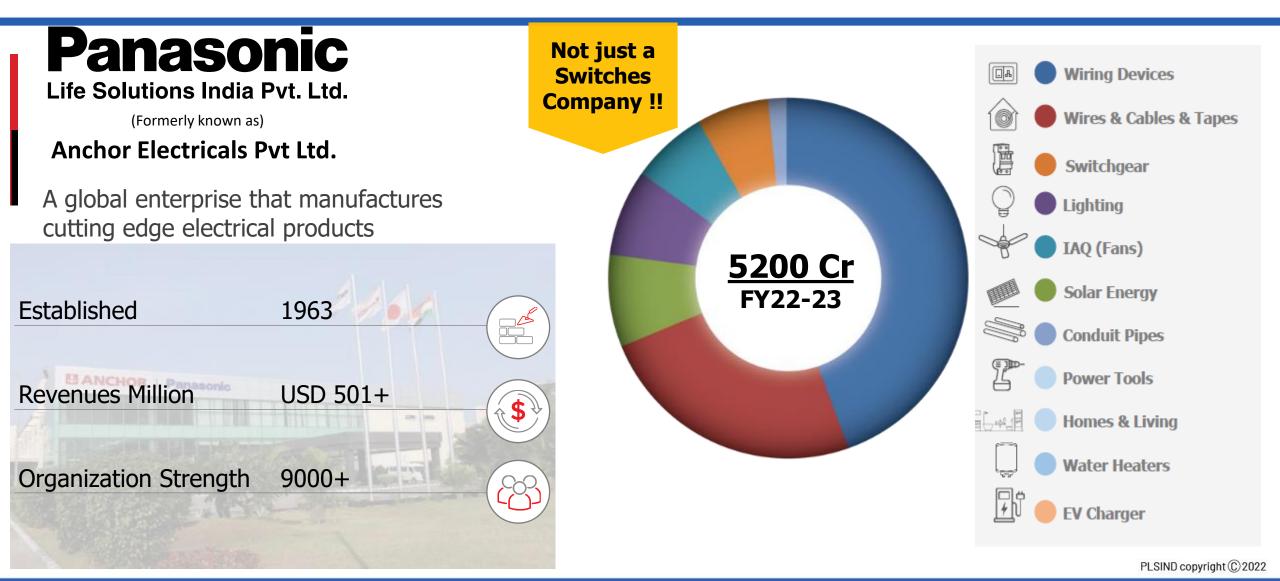


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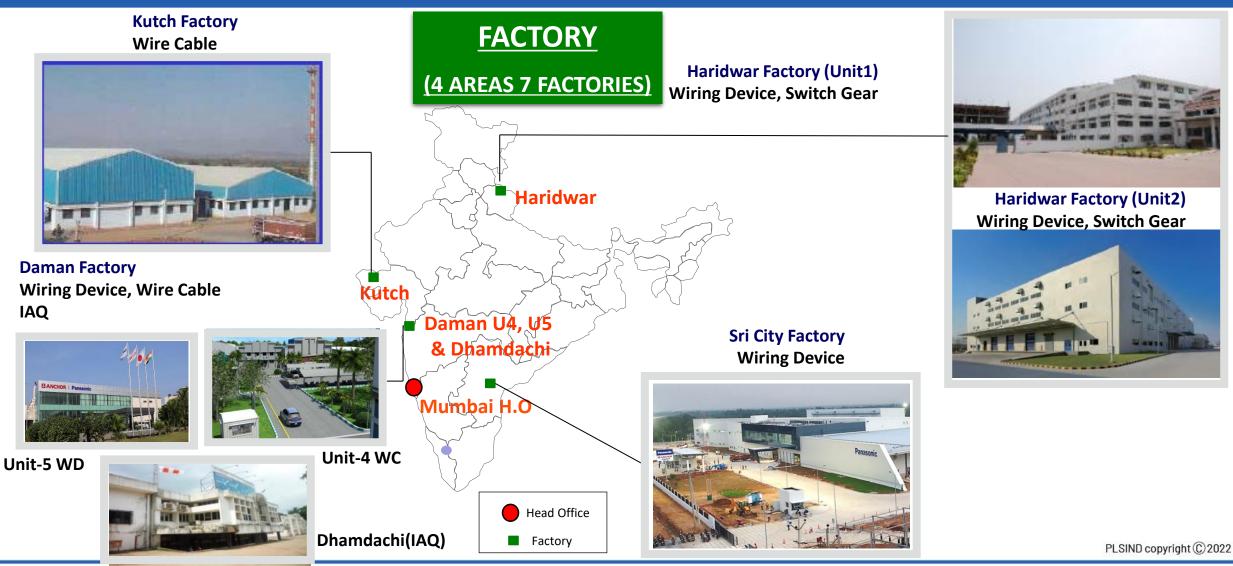


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PEWIN FACTORIES OVERVIEW



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ENERGY POLICY

Continual improvement is process to reduce energy performance.

> Continuous monitoring and controlling energy consumption.

Management commit for adopting energy efficient technology, product and design.

> Energy conservation awareness to all employees.

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ऊर्जा नीति

हभारे त्याप्रध द्वांग और सुप्त सुराई के एक अभित्र अंग के मच ते, इन वैत्तवांत्रिक ताहुक गोल्ड्रान्ट इंडिया प्राइटि विमिटेड अर्जी नेत्वम में उत्पृष्टण जन करने के लिए प्रक्रिय हैं।

इस प्रतिबद्धना को पूरा करने के लिए, इस अपनी सभी महिदियियों में सर्वोत्तम करती संस्थान क्यांको को स्वीकृत करने के लिए सुबना और संसाधन प्रदान करेंगे.

genen fibelen enter gat un ofert

- · and di apar di Princ Penell als Prince
- ताजां की खाता को कम कमने के लिए निर्माण अंद्रिप्त में निरोत्त मुखान
- जन्म जप्रदेश, त्यमंत्र और दक्षत के लिए लगू सभी प्रमंत्रिक वैधानिक और जन्म जन्मप्रकाराओं का अनुमालन तानां प्रदर्शन से संबंधित निरंतर तुपात के लिए क्ट्रेब्वी और संबंधी को निर्धारित करना और उनकी समीक्ष करना।
- जजां कुंवल जन्मम और लेवजों की खरीप प्राय करने देखता के लिए सर्वोत्तम व्यवहार्य प्रीडोमिडी डिजप्रम, व्यपाद और मेनाओं को अपनाना।
- तथी कर्मचर्मियों के बीच ताजी संरक्षण पर प्रशिक्षण के नाय्यम में जानस्वतना की बढ़ाया देना।

ସର୍କ କାର આગ વ્યવસાદિક દર્શન અને મૂળ મૂલ્લેના અધિકા અંગ તટીકે, અને વેન્સરોનિક ભાઇક સોલ્યુકારમ દલ્દિયા પ્રા. તિ. ઉર્જા સંદાહમાં વૈધકતા પામ કરવા માટે પ્રતિબાદ ઉચિ

આ પરિલ્હાલને પરિવૃત્તં કરવા માટે, અમે અમારી લઈ પ્રવૃત્તિઓમાં કેષ્ઠ ઊર્જા સંરક્ષણ પ્રસાલીઓને સંકલિત કરવા માઉલી અને સંસ્થાઓ પ્રદાન કરીવું.

અમારું વિશેષ દરકળ આવા પર રહેશે:

- સાલલ દેખરેખ અને ઊર્જા વપરાશ નો નિયંત્રણ કરવું.
- ઉત્પાદન પ્રક્રિયમાં ઊર્જ નો વપરાય ઘટાકમાં મટે, સતત સુધારો કરવે.
- કીજો ના ઉપયોગ, વપરાશ, અને કાર્યક્ષમના પર લાગુ દેતા તમામ સંબંધિત વૈદ્યાલિક અને અન્ય આવલાકતામોનું પદલ કરવું.
- ઉત્તે પ્રભળથી સંબંધિત સતત સુધારાઓ માટે ઉદ્દેશોં અને દાશ્લોને નાણી કરી તેમની સમીક્ષ કરવી.
- ઉત્તે કાર્યક્રમ ઉત્પાદન અને સેવાઓની ખરીદી કાર ઉત્તે કાર્યક્રમના માટે કેન્દ્ર પાક્ય તકનીકી દિલાદોન, ઉત્પાદન અને સેવાએ અપનવવી.
- તમામ કર્મચારીઓમાં ઊજાં બચાવ અંગેની તાલીમ કારા જાગુલિંગે પ્રોત્સાદન આવ્યું.

ENERGY POLICY

As an integral part of our business philosophy and core values, we at Panasonic Life Solutions India Pvt. Ltd., are committed to achieve excellence in energy conservation.

To fulfil this commitment, we shall provide information & resources to integrate best energy conservation practices in all our activities.

We will have special focus on

- Continuous monitoring and controlling energy consumption.
 Continual improvement in manufacturing process, to reduce energy consumption.
 Comply with all reduced to an energy use, consumption
- Set and review objectives and largets for continual improvements related to energy performance. Notor best feesible technology design, product and services for energy efficiency by purchase af energy efficient product & services.
- ng awareness through training on energy conservation among all employees

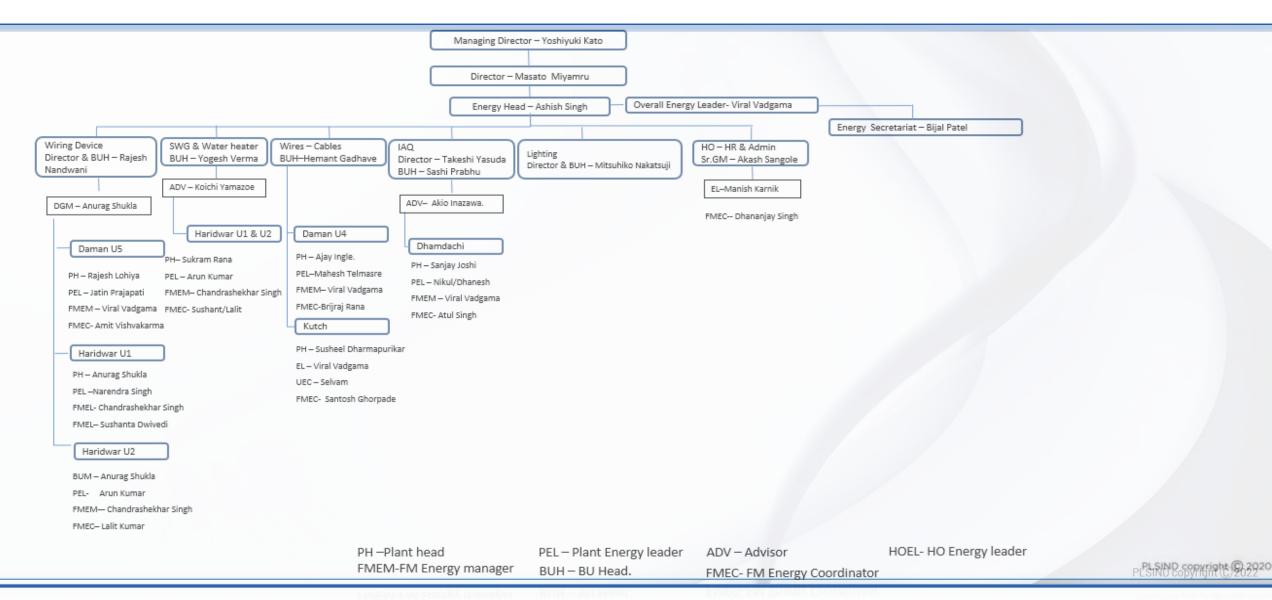
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ORGANOGRAM FOR THE ENERGY CELL





BREAKTHROUGH TO EXCELLENCE

OVERALL PRODUCTION, ENERGY AND SEC DATA - (FY 18-19 to 22-23)

Year FY'18-19 FY'19-20 FY'20-21 FY'21-22	Total KWH consumption 6940000 7146000 6868020 7863120	8819 6876 6416 8252	SEC in KWH/M 787 1039 1070 953		1500.00 1000.00 500.00 0.00	Ut 1069.99 FY-20	690.52	47.04 %↓ 365.66 FY-22	30.00 20.00 10.00 0.00	Ass 14.52 FY-20	embly 22.38 FY-21	32.97 %↓ 15.00 FY-22
8400000 8000000 7600000 7200000 6940000 6400000 787 6000000 0	7996940 s KWH, Produ 6876 6876 642 7146000 6876 642 0 1039 1039 1039 1039 0 0 0 0 0 0 0 0 0 0 0 0 0	7863120 8252 16 37.18 0 0 0 0 0 0	13358 1.1 7996940 1.1 10 1.1 10 7.1 598.66 2.1 598.66 0 0 0	5000 2500 0000 500 500	500.00 0.00	323.66 FY-20	tion 395.07 FY-21	Part 40.38 %↓ 235.52 FY-22 Ection wise s lue to new p product	roduct l	107.75 FY-20	, mouldi	

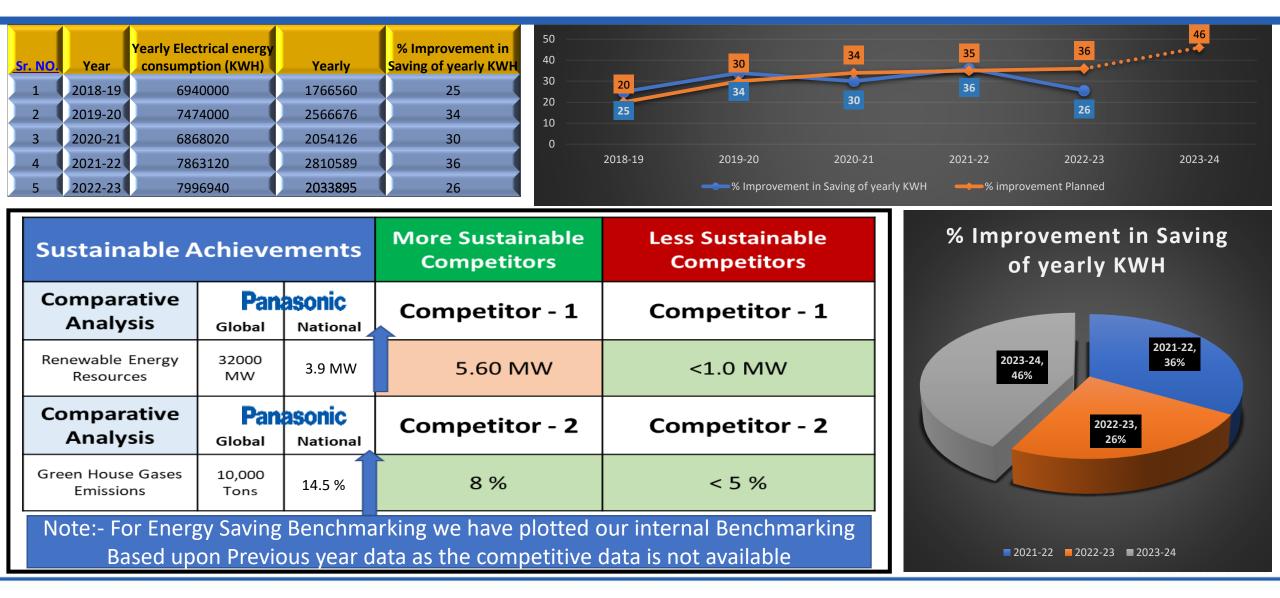
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BENCHMARKING



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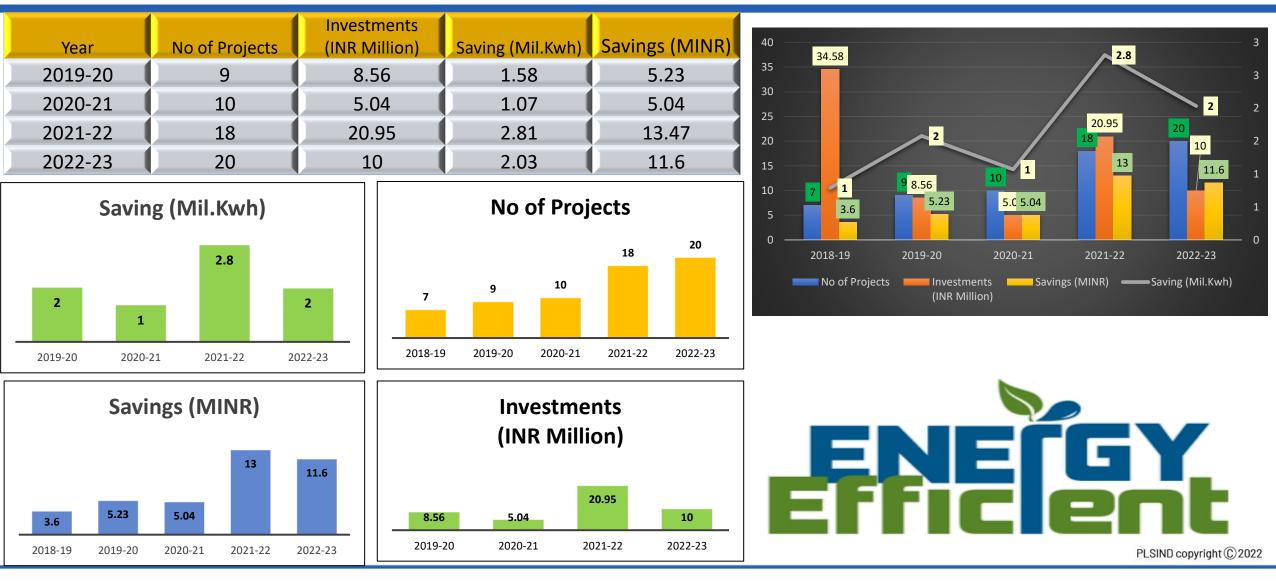
MAJOR E-CON PROJECTS FOR FY 2023-24

		Annual Electrical				
0.11		Saving	Energy Cost Saving	Investment	Payback	
Sr. No.	Title of Project	(kWh)	(MINR)	(Rs in Million)	(Years)	Comment
1	Reduction in Energy consumption by replacing old hydraulic machine with new all electric injection molding machine (4 Nos of Machines) approx 30 % Less Energy consumption compared to previous Machine)	113944	0.64606248	12	18.57	Technology upgradation.
2	Reduction in Energy consumption by using One Centralize Conveying System (CCS) for 06 Injection Molding Machine instead of 6 nos dehumidifier	100000	0.567	4	7.05	Technology upgradation
3	Replacement of incandescent light of machine with Energy Saving LED lights	2500	0.014175	0.024	1.69	Technology upgradation
4	Reduction of energy consumption by line no5 soldering table shited to line no1 and stop air blow no.5	3600	0.020412	0	0.00	In-House
5	3 Nos pad printer will be replaced with one lessor printer machine	5000	0.02835	0	0.00	In-House
6	Injection moulding machine Cavity increase from 2 to 4 in A6N23213301-13A Switch Socket-2G	13200	0.074844	0.03	0.40	Innovative Design
7	Injection moulding machine Cavity increase from 1 to 2 in A6N23234301 – Telephone Jack	6600	0.037422	0.015	0.40	Innovative Design
8	Zina plate 6 bend seal machine remove with one flow wrap machine	14400	0.081648	2.145	26.27	Technology upgradation
9	5 nos old clamping machine (10 Cylinder) to be replaced with one auto clamping machine (2 cylinder)	20000	0.1134	2.2	19.40	Technology upgradation
10	Energy saving by arresting air leakages of the plant	75000	0.42525	0	0.00	In-House
11	Energy saving by installing energy efficient motor at cooling tower fan	28000	0.15876	0.12	0.76	Technology upgradation.
12	Energy saving by installing PVC curtain in injection molding area	51924.2	0.294410214	0.5	1.70	Efficiency improvement
13	Replacment of old RO plant with new RO plant	6000	0.03402	0.3	8.82	Technology upgradation
14	New energy efficient AC installation in offices	200000	1.134	4	3.53	Technology upgradation
15	Installation of Solar street light in plant	6701.4	0.037996938	0.517	13.61	Technology upgradation.
16	Energy saving by renewable energy source	1000000	5.67	0	0.00	Green Energy Generation
	Total	16,46,869.60	9.338	25.851	6.39	т соляр соруга

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ENERGY SAVING PROJECTS IMPLEMENTED IN LAST 4 YEARS



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MAJOR E-CON PROJECTS FOR FY 2022-23

		Annual Electrical Saving	Investment	Payback	Cost saving
Sr. No.	Title of Project	(kWh)	(Rs in Million)	(Months)	(MINR)
1		788.4	0.0609	163	0.0045
2	Energy Conservation by installation of Energy efficient motor at STP blower. i.e approx. 5% by installing of I4 motor	7262	0.045	13	0.04
3	Reduction in energy consumption by reducing compressed air uses inside plant by closing all leakages .i.e 6.3 % Reduction	15840	0	Immediate	0.09
4	Reduction in energy consumption by installation of VFD at cooling tower Pump	22775	0.235	22	0.13
5	Energy saving at our existing RO plant by replacing with energy efficient RO plant i.e. 31 %	43769	0.3	219	0.25
6	replacement of existing Old fixed speed AC with energy efficient VRV AC ie approx. 5.0 % Saving	123279	2	34	0.70
7	Reduction of th energy consumsumption in the screw fitting table by use of 24 Volt Motor for the Screwing in place of 220 Volt motor i.e 85 % saving	14688	0.0396	6	0.08
8	Energy & Cost Saving by Modification of Multi Forming Machine Electric Lubrication System	1440	0	Immediate	0.01
9	Reduction in Energy consumption by installation of Heater jacket in Injection molding machines.	43200	0.098	5	0.24
10	Installation of PIR Sensor in Main Stores Unloading Area for energy saving. 50 %	720	0	Immediate	0.00
11	Reduction in Energy consumption by using common dehumidifier for 06 machine in place of 03 machine at Injection moulding area.	202972.04	0	Immediate	1.15
12	Replacement of Air Guns with Energy Efficient Guns (10 Nos of Guns) 12 % Energy Saving	16500	0	3	0.09
13	Generation of Renewable Energy	1000291	0	Nil	5.67165
14	Energy Saving by changing Manual Operation into Semi Auto Operation	84	0.5	12597	0.00048
15	Reduction of the Electricity bill by Export of the solar power generated	33301	0	Immediate	0.19
	Total	15,26,909.44	3.2785		8.66

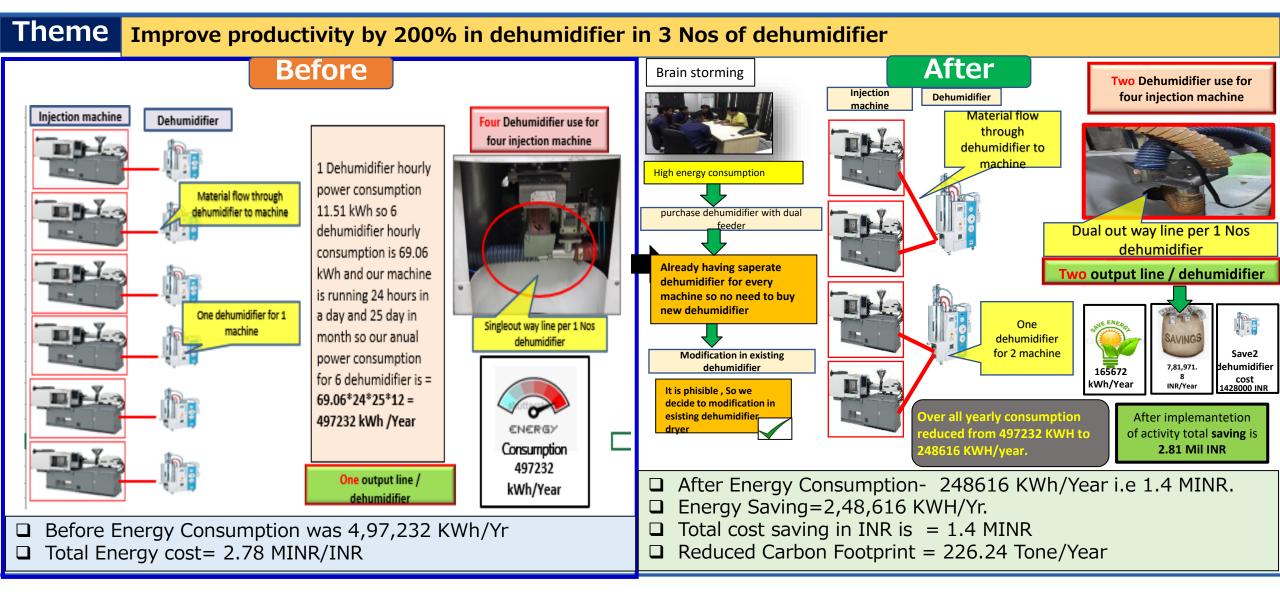
Overall Data with Major and Minor

Projects

- Automation-6 nos,
- Technology Upgradation-7 nos,
- Kaizen- 7 nos

Total Energy Saving (KWH)	Total Investment (MINR)	Total Cost Saving(MINR)
20,33,895	10	11.6

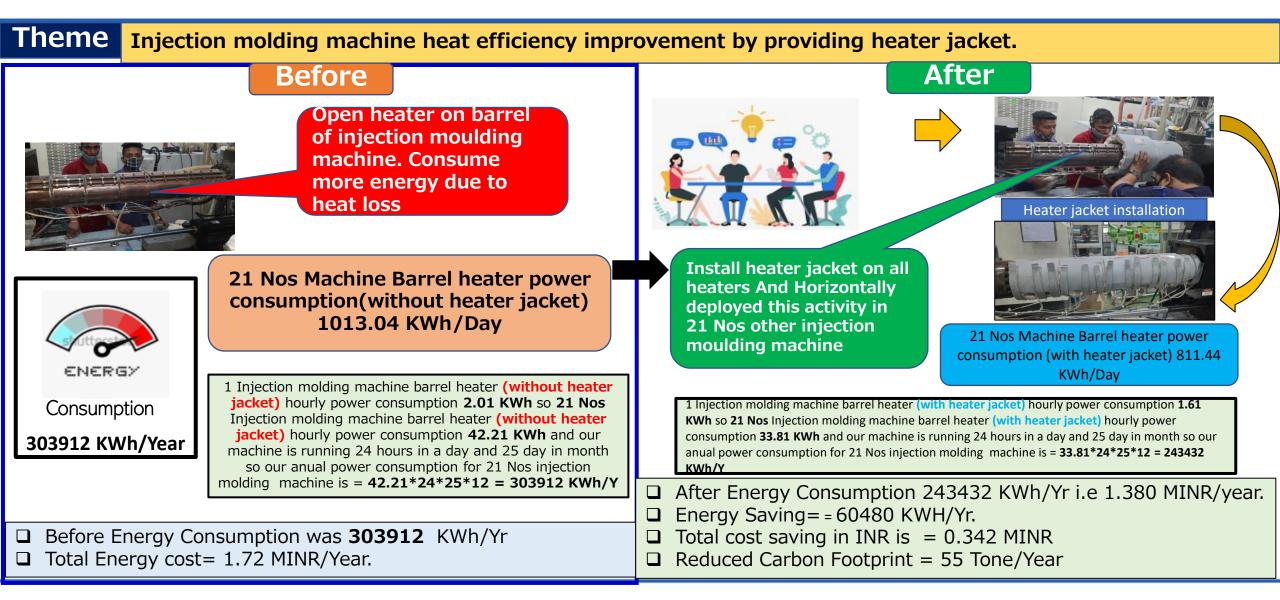
INNOVATIVE PROJECT IMPLEMNETATION



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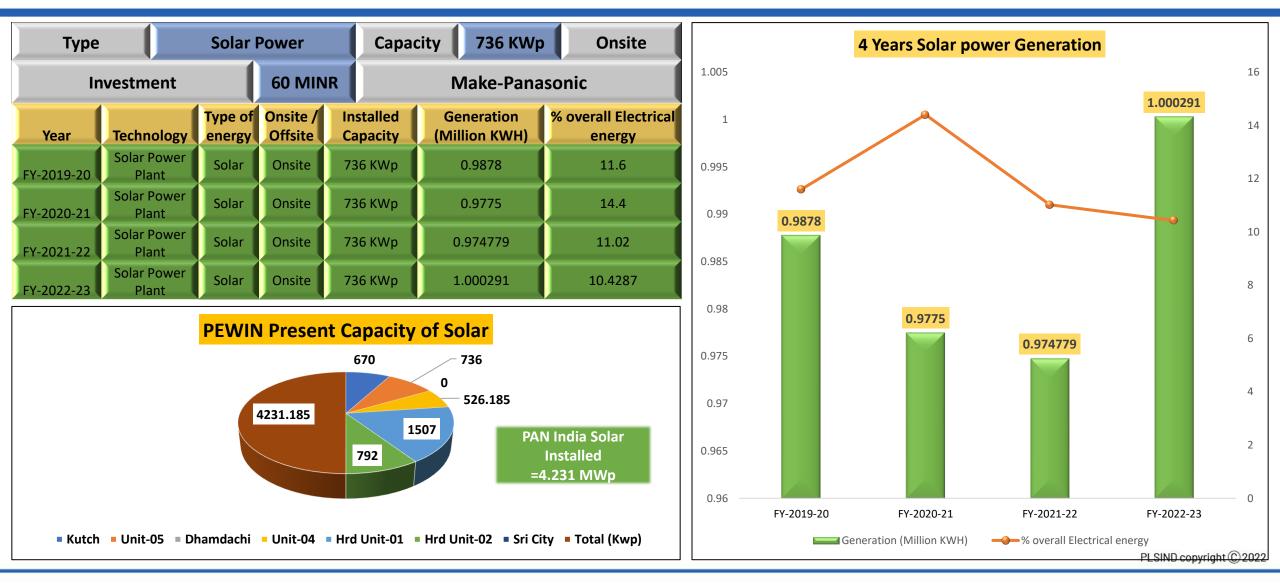
INNOVATIVE PROJECT IMPLEMENTATION



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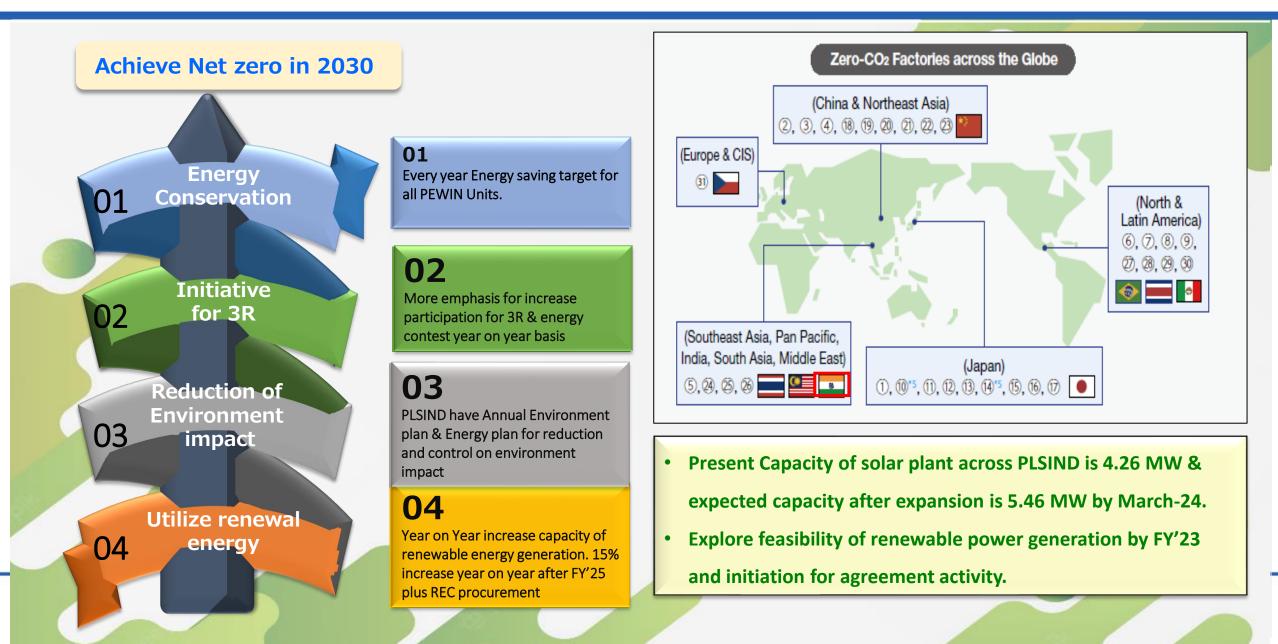
UTILIZATION OF RENEWABLE ENERGY RESOURCE



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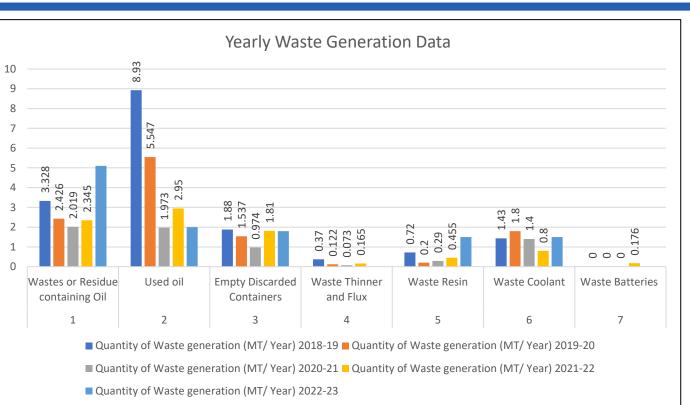
BREAKTHROUGH TO EXCELLENCE

STRATEGIC ACTION PLAN FOR ACHIEVEING NET ZERO BY 2030



WASTE UTILIZATION AND MANAGEMENT

	UOM		Quantity of Waste generation (MT/ Year)						
Sr. No.	Year Type of Waste	2018-19	2019-20	2020-21	2021-22	2022-23			
1	Wastes or Residue containing Oil	3.328	2.426	2.019	2.345	5.1			
2	Used oil	8.93	5.547	1.973	2.95	2			
3	Empty Discarded Containers	1.88	1.537	0.974	1.81	1.8			
4	Waste Thinner and Flux	0.37	0.122	0.073	0.165	0			
5	Waste Resin	0.72	0.2	0.29	0.455	1.5			
6	Waste Coolant	1.43	1.8	1.4	0.8	1.5			
7	Waste Batteries	0	0	0	0.176	0			
Tota	al Water consumption	31538 KL	28393 KL	24271 KL	28149 KL	18318 KL			
STP trea	ated waste water used for gardening	22774 KL	20385 KL	14272 KL	18664 KL	21578 KL			

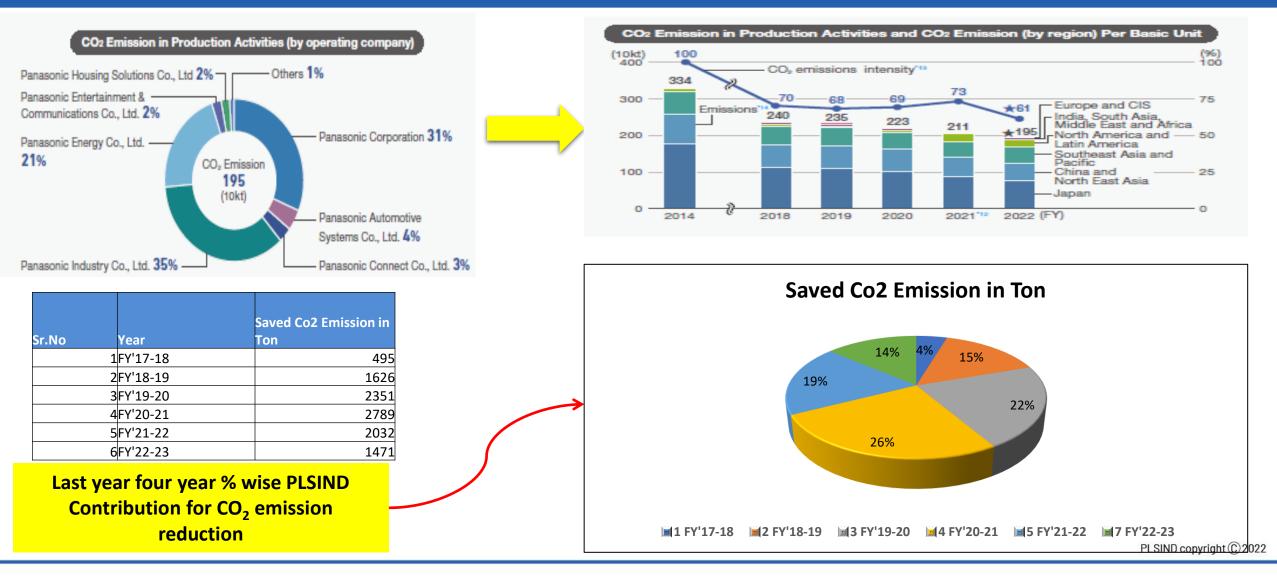


The waste generation has increased by 5 % as the production has increased by 28.61 %.

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GHG INVENTARISATION – Monthly Energy results are being submitted on Panasonic Global portal



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BREAKTHROUGH TO EXCELLENCE

PANASONIC GROUP RELEASES GREEN IMPACT PLAN 2024

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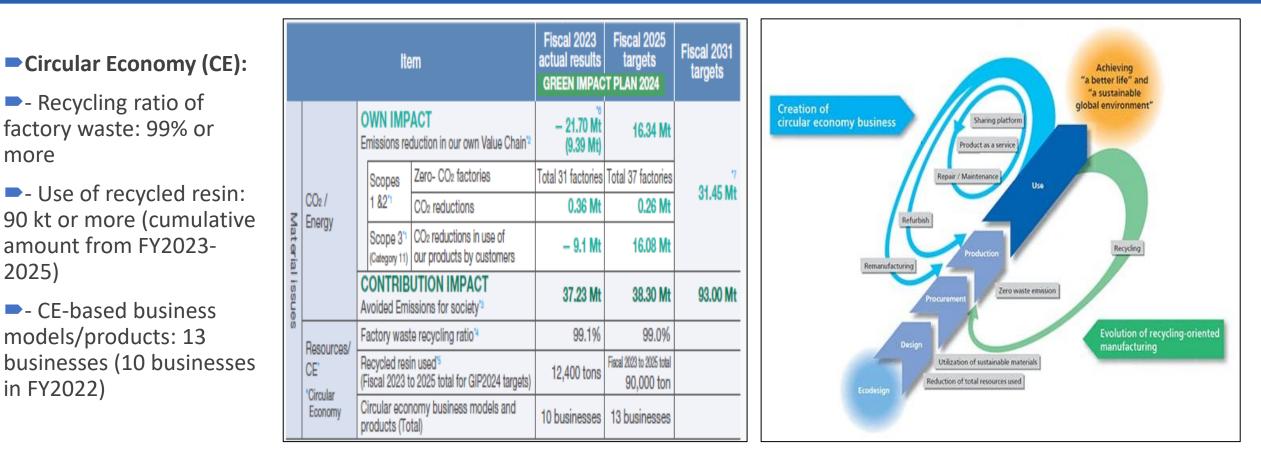
Outline of GREEN IMPACT PLAN 2024 and targets for FY2025	 OWN IMPACT (Scope 1, 2, 3^{*3}): Impact on emissions reduction from the Group's VC 	- CO ₂ reduction: Target of 16.34 Mt	- Net-zero CO ₂ emissions factories: 37 factories (7 factories already emissions-free at end of FY2021)
CONTRIBUTION IMPACT: Impact on emissions reduction to society through existing businesses	 CO₂ reduction contribution to customers and society: Target of 38.3 Mt (23.47 Mt in FY2022) 	• Circular Economy (CE):	- Recycling ratio of factory waste: 99% or more
	- Use of recycled resin: 90 kt or more (cumulative amount from FY2023-2025)	- CE-based business models/products: 13 businesses (5 businesses in FY2021)	

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CIRCULAR ECONOMY (CE) BASED BUSINESS MODEL



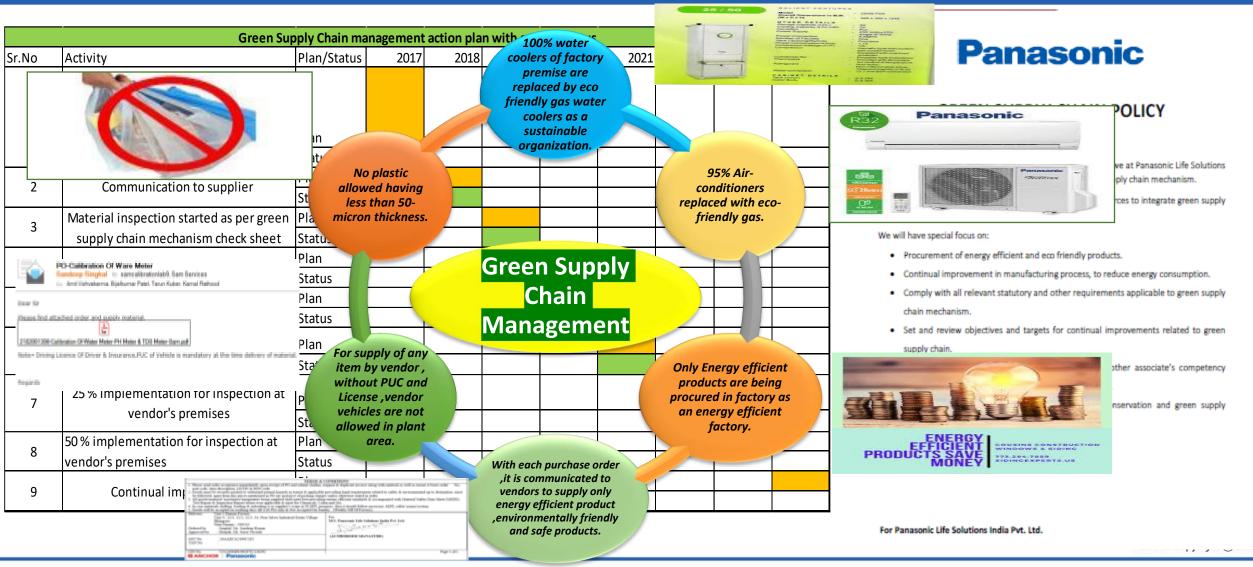
We will promote effective utilization of resources and maximization of customer value by creating circular economy business and evolving recycling-oriented manufacturing.

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BREAKTHROUGH TO EXCELLENCE



GREEN SUPPLY CHAIN MANAGEMENT SYSTEM



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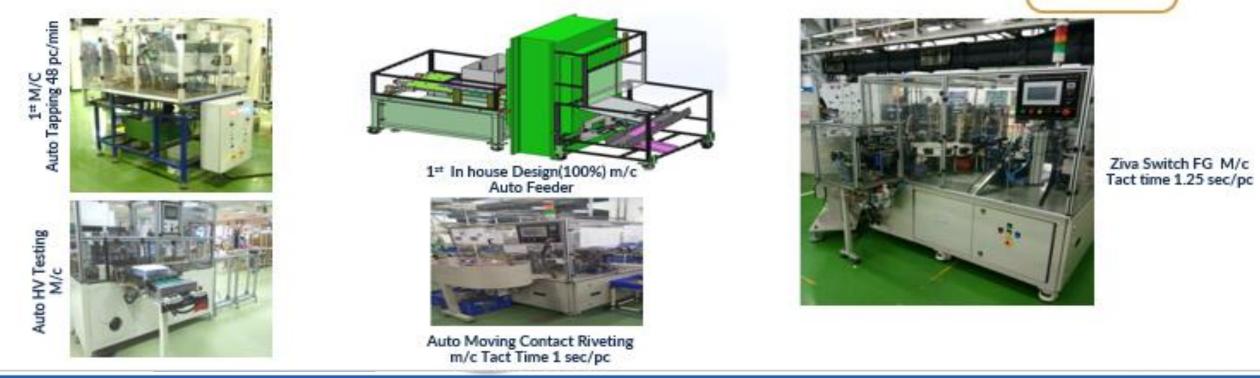
BREAKTHROUGH TO EXCELLENCE

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Automation Development Plan - Daman

Description	YTD (FY-15 - FY-20)	FY-21	FY-22	FY-23 Plan
No. of M/C Development	47	5	6	4
Manpower Saving	306	64	45	29
Investment (Mn. ₹)	98	28	30	13
Space Saving (m ²)	206	60	40	26



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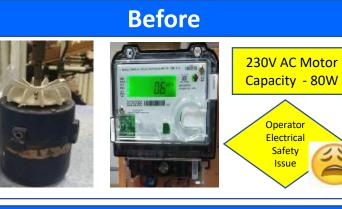
BREAKTHROUGH TO EXCELLENCE

INNOVATIVE KAIZEN IMPLEMENTATION

Theme :- Energy Saving in Screw Tightening Process by motor

Item

Safety improvement in Screw Tightening Process by motor in BS Riveting.



Motor Power Consumption Data

Parameters	Current	After	Benefit			
Motor Type	230V AC - 80W	24V DC- 12W				
If 90 motor consumed (KWH)	7.2	1.08	6.12			
Total consumed/Day (KWH)	57.6	8.64	48.96			
Total consumed Unit/Day X (Unit Cost Approx 6 Rs)	345.6	51.84	293.76			
Total consumed/Month (Rs.)	8985.6	1338.48	7647.12			
Total consumed/Year (Rs.)	107827.2	16061.76	91765.4			
Approx. Motor Rewinding & Repairing 60 No./Year cost (Rs.) 27213 0 27213						
Investment 24 V Motor with adaptor total Approx. Cost 80 Nos. x 1650Rs. = 132000 Rs.						
Total Saving Cost Saving - 91765.44 + 27213 = 118978.44 Rs.						

Control of the second s

After

How to (Solution Description)

- The motor is 230V AC 80W. So its Power consumption is more. Total 80 Motor consumed /Month (8985 Rs)
- 2) The Operator have Electrical Shock chance& Heating Problem. So it has Safety Issue.
- 3) Also, Size of Motor is big hence Operator Seating Issue
- 4) Approx. Motor Rewinding & Repairing 60 No./Year cost (27200 Rs.)

Result

- The motor is 24V DC

 12W. So its Low
 Power consumption.
 Total 80
 consumed/Month
 (1338Rs.)
- The Operator Don't Have Electrical Shock chance & Motor is cool so its safe not Safety Issue
- 3) The Motor is Small Size so Operator Seating Comfortable.
- 4) New motor so 0 Save Repairing cost

Start ThemeStart ContributionEffectiveJul-22Sep.221] safety level improved 2] CB Amount 0.012 Mn. INR

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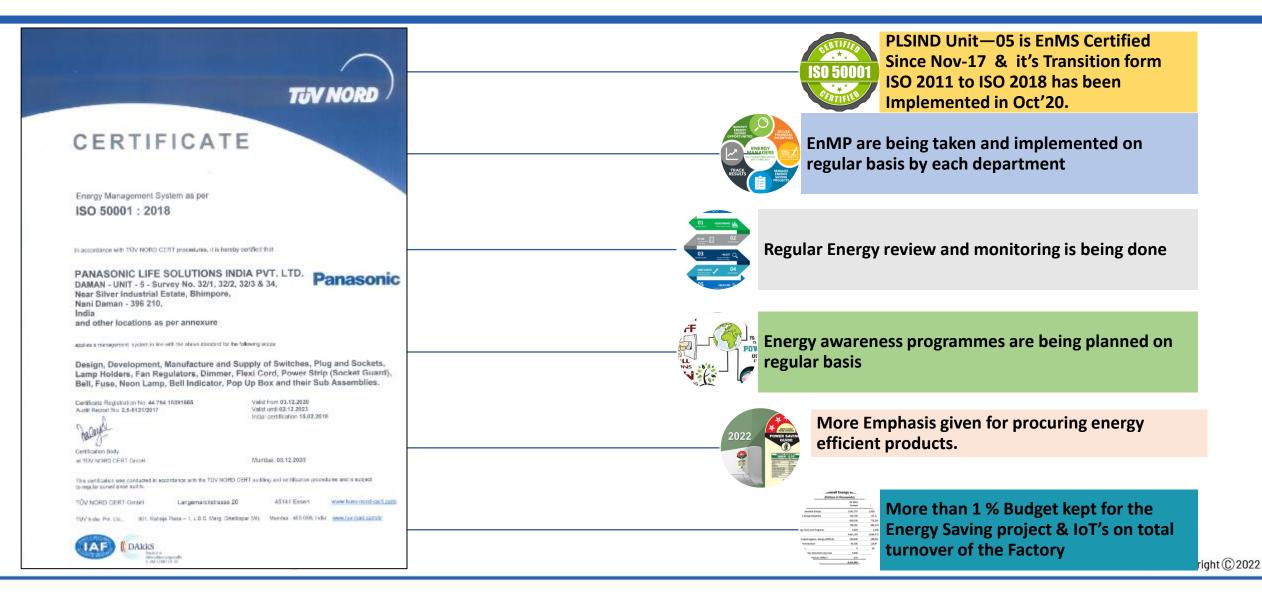
OTHER INNOVATIVE KAIZEN PROJECT BY ASSOCIATES

Reduction of the Electricity bill by Export of the solar power generated	33,301 KWH/Year Saving
Injection molding machine grinder interlocking with Main machine	4776.0 KWH/year Saving
Energy Saving in Screw fitting table by use of 24 Volt Motor in place of 220 Volt mot	or 14688 KWH/Year Saving.
Street light consumption reduction by replace solar street light appr	4336 KWH/year Saving
Reduce Air Leakage of plant various small kaizens	15,840 KWH/Year Saving
Installation of PIR Sensor in Main Stores Unloading Area	720 KWH/ Year Saving
Replacement of Air Guns with Energy Efficient Guns	16500 KWH/Year Saving
TOTAL ACTIVITY =	7 Nos
TOTAL SAVING (IN KWH) =	89,511 KWH / Year
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BREAKTHROUGH TO EXCELLENCE

IMPLEMENTATION OF ISO 50001:2018



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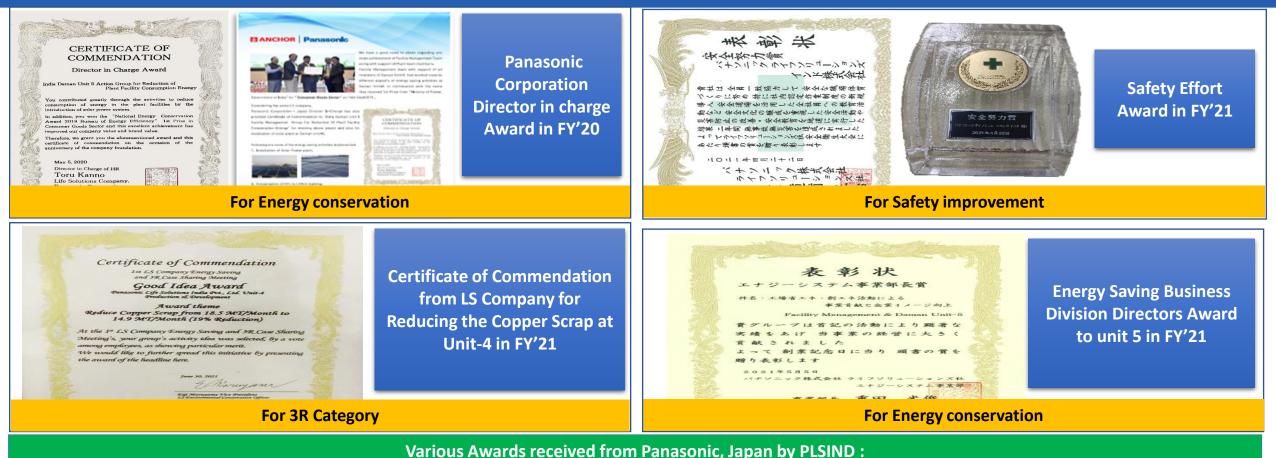
BREAKTHROUGH TO EXCELLENCE

LEARNING FROM CII ENERGY AWARDS OR ANY PROGRAM



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INTERNL GLOBAL PANASONIC GROUP AWARDS AND RECOGNITION



Certificate of Commendation : Directors In charge Award for Energy Conservation. - FY-20 Safety Improvement Award for safety initiatives by PLSIND – FY-21 Certificate of Commendation : Good Idea Award for Copper waste reduction. – FY-21

Directors Award : For Energy conservation Activity. - FY-21

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BREAKTHROUGH TO EXCELLENCE

Reducing CO2 emission in Factories

Actions for environment PEWIN

Recognition & awards to PEWIN – FY-20.



For Energy Management

Awarded by CII for Energy Efficient Unit for Daman Unit-5



For Waste Management Awarded by Apex India Foundation –For Best waste management practice to Daman U5



For Water Management

Awarded by Apex India Foundation –For Best Water management practice Haridwar U2.



For Environment Management Daman Unit-04 Declared as winner for Golden Peacock Environment management Award-2020

Recognition & awards to PEWIN – FY-21.

For Energy Management



Awarded by CII for Energy efficient unit for Daman Unit-5

Por Energy Conservation

Awarded by CII for Energy efficient unit for Haridwar Unit-1

For Environment Management

National Award for Environment Best Practice-2021 by CII

B For Energy Conservation

WCT Kutch Unit Declared as winner for Golden Peacock Energy Efficiency Award-2021

Recognition & awards to PEWIN – FY-22.



For Safety Management

Daman Unit-04 Declared as winner for Golden Peacock Safety management.

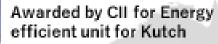


Por Energy Conservation

Awarded by CII for Energy efficient unit for Daman Unit-5



For Energy Conservation





6 For Energy Conservation

Awarded by Cll for Energy efficient unit for Haridwar U-1

PEWIN received Monozukuri Award from Panasonic Corporation for its Environmental activities.

Save Energy Today for Brighter Tomorrow



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BREAKTHROUGH TO EXCELLENCE

