



Our vision is your freedom.
In our creation, your tomorrow will be safer, greener and easier.

HL Mando Anand India Private Limited



Team Members,
Mr. Komahan (Manager)
Ms. Amaar Jyothy (Sr.Executive)
Ms. Bijinaya (Sr.Executive)



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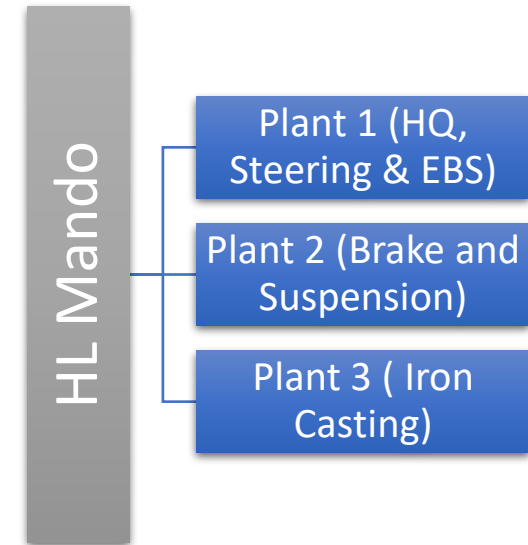
ProAktiv

EHS






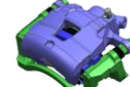

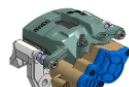

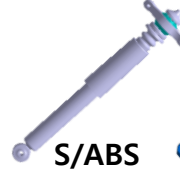
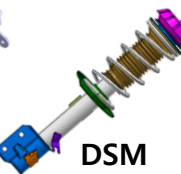
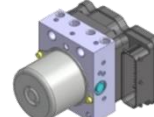
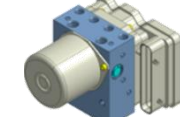
HL Mando Anand India Overview

□ General Profile

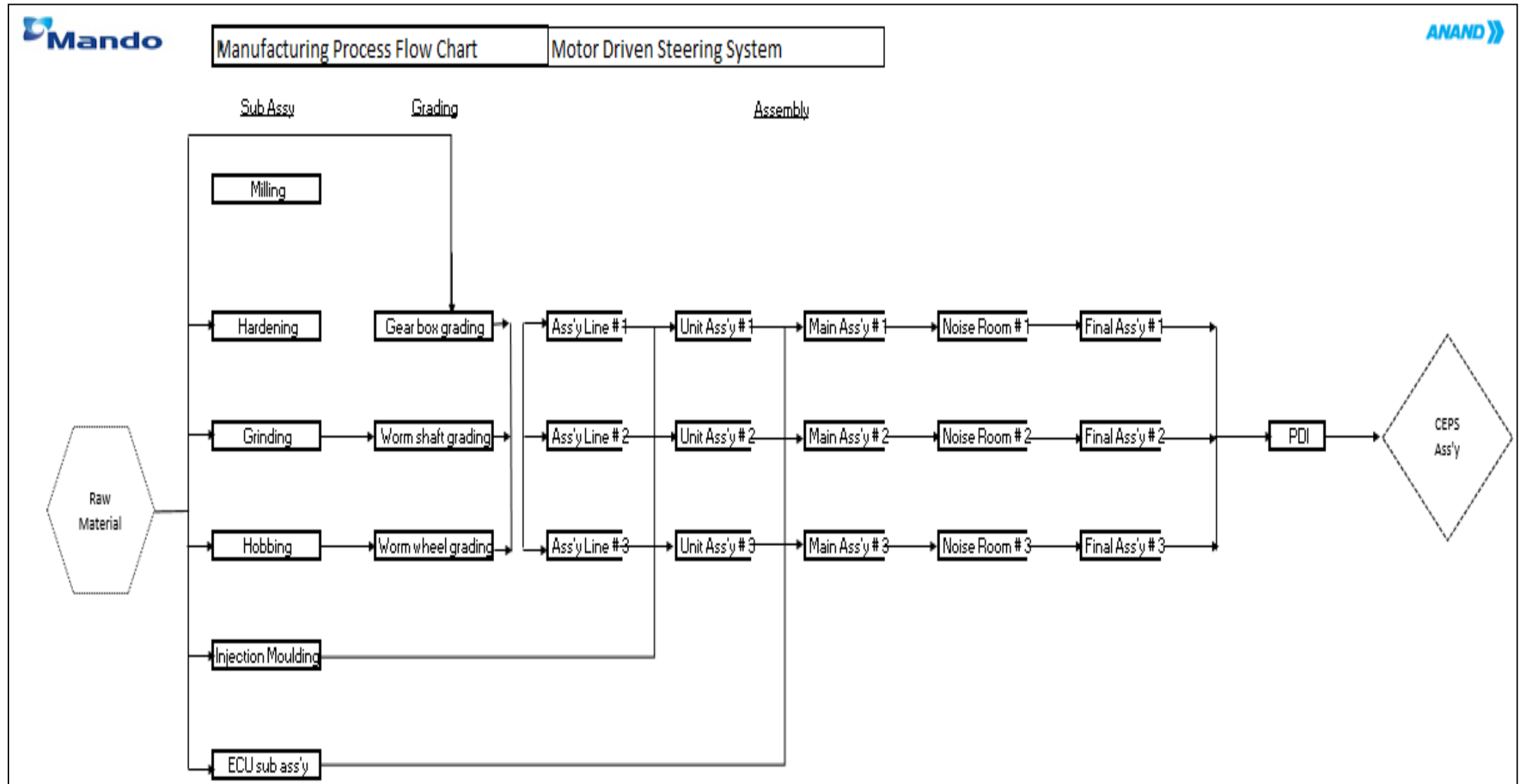
- ✓ **Incorporation:** September 1997 ~
- ✓ **Capital :** U\$ 32 Million (HL Mando Corporation 71%/ Anand Group 29%)
- ✓ **Number of Employee :** 2961 (as of Dec'23)
- ✓ **Sales Revenue :** U\$ 625 Million ('23)



□ Manufacturing Plant:

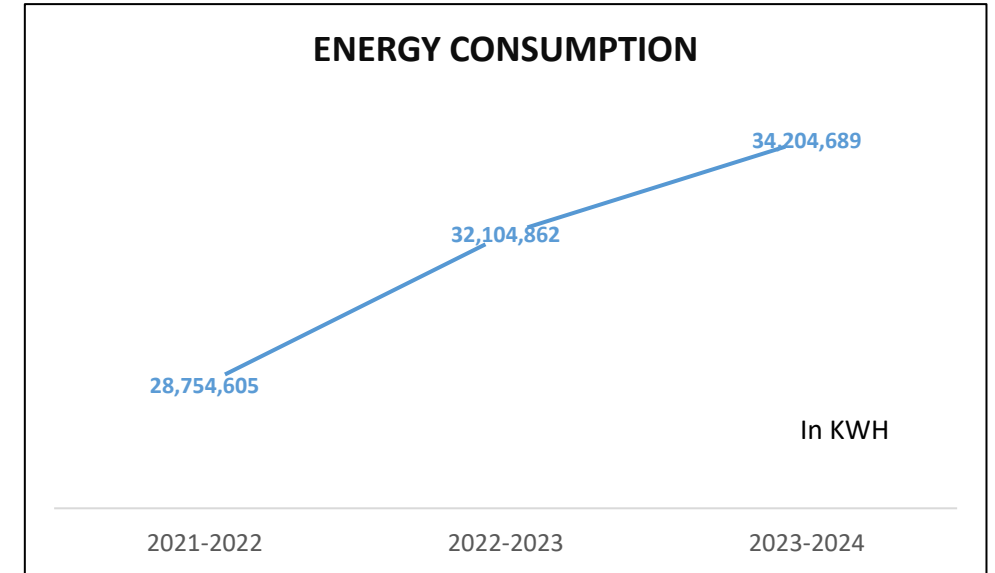
Steering	Brakes	Suspension
 CEPS System  Manual Steering Gear  DP-EPS System  IMS	 M/BSTR  Caliper  Drum Brake  EPB  Strut  S/ABS  DSM	 ABS  ESC

Process Flowchart:



Overall Energy Consumption:

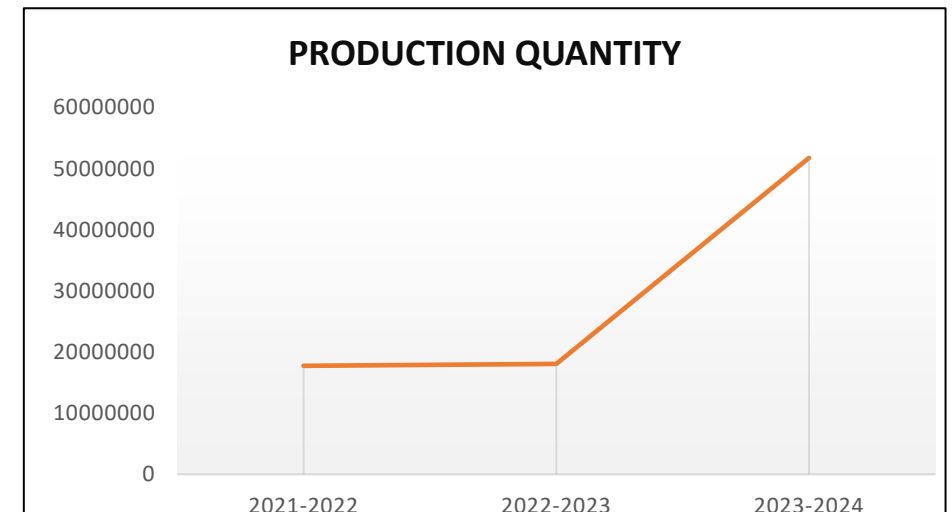
Year	Energy Consumption (MWH)
2021-2022	28,754
2022-2023	32,105
2023-2024	34,205



- Based on production volume increase (2022-2023), energy consumption increases.
- In 2023-2024 Energy consumption as well production data increases.

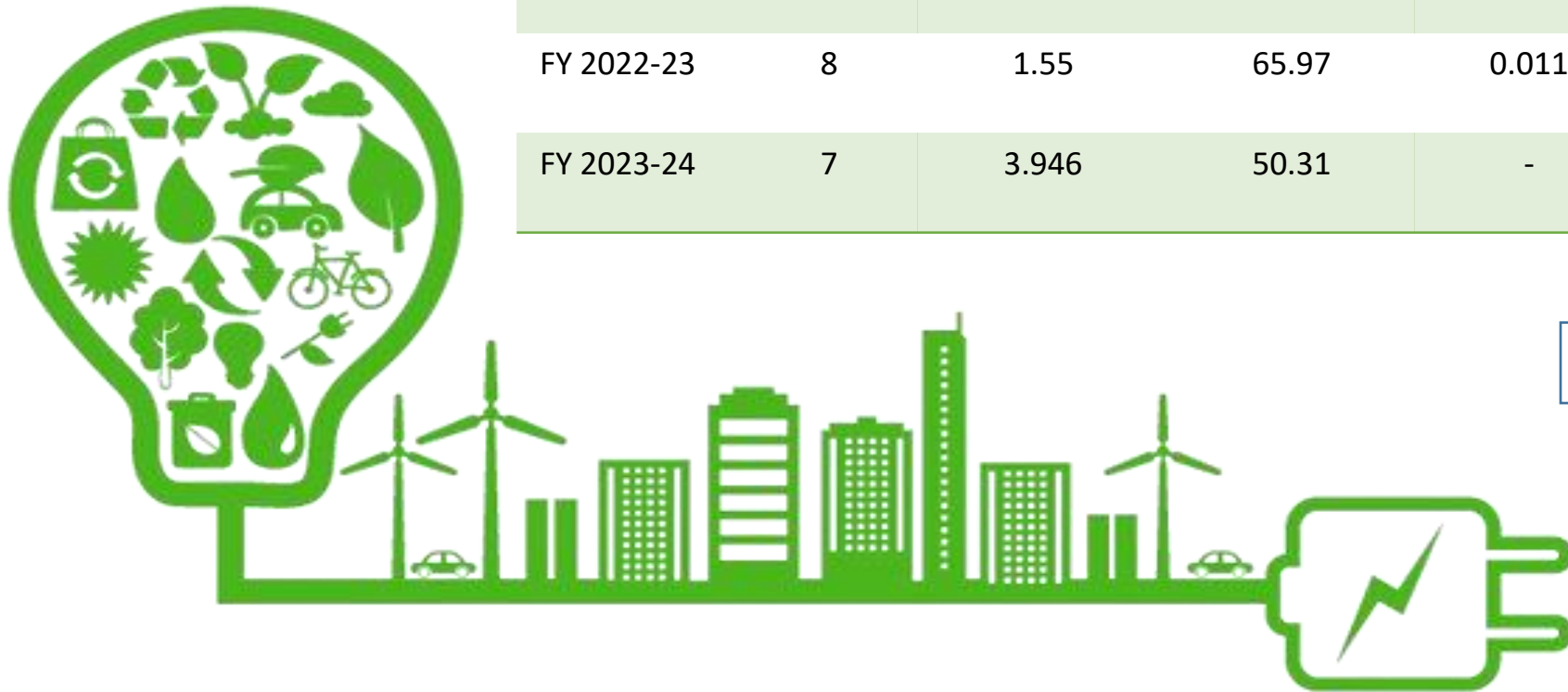
Production data (EA):

2021-2022	2022-2023	2023-2024
1,77,44,702	1,80,77,829	5,17,51,504



Energy saving projects in last three years:

Year	No of Energy saving project	Investment (INR Million)	Electrical Savings (million KWH)	Thermal savings (Million Kcal)	Total Savings (INR Million)	Payback period (in months)
FY 2021-22	5	4.915	34.57	-	1.289	12
FY 2022-23	8	1.55	65.97	0.011	2.2724	14
FY 2023-24	7	3.946	50.31	-	3.191	13



Total Energy saving project: 20 no's



Year: 2021 - 2022

Name of Energy saving project	Investments (INR Million)	Annual Electrical savings (Million kWh)	Annual Thermal savings (Million Kcal)	Total Annual Savings (INR Million)	Payback period (in months)
Sodium lamp to LED lamp	1.18	75600	-	0.64	22.12
AC Auto cutoff during lunch time	0	53196	-	0.45	0
Introducing BLDC fan at shop floor	0.13	9360	-	0.079	19.75
Installation of motion sensor light	0.005	14400	-	0.12	0.5
Diesel boiler to LPG boiler	3.6	0	0.011	6.0	7.2



Year: 2022 - 2023

Name of Energy saving projects	Investments (INR Million)	Annual Electrical savings (Million kWh)	Annual Thermal savings (Million Kcal)	Total Annual Savings (INR Million)	Payback period (in months)
Mist collector running hour reduction	0	2054.4	-	0.0174	0
Shop floor machine excess lux reduction	0.05	7488	-	0.063	9.52
HCUAI2 Conveyor idle power auto cutoff	0	13104	-	0.111	0
Centralized Vacuum pump connected with VFD	0	10913.76	-	0.092	0
EVBM PDI Spot AC change to normal fan	0	28455	-	0.241	0
LPG kitchen to E-Kitchen conversion	1.5	0	0.011	0.99	18.18



Year: 2023 - 2024

Name of Energy saving projects	Investments (INR Million)	Annual Electrical savings (Million kWh)	Annual Thermal savings (Million Kcal)	Total Annual Savings (INR Million)	Payback period (in months)
High power consumption LED to lower	0.078	18876	-	0.16	5.85
Isolated Gate Bipolar Transistor Type UPS	0.068	10512	-	0.089	9.17
Kitchen Exhaust Auto cutoff at idle condition	0.01	19440	-	0.165	0.73
Self cleaning of AC outdoor unit coil	0	119839	-	1.011	0
Conversion of non inverter AC to inverter AC	0.69	65208	-	0.55	15.05
Conversion of split AC into duct AC	0.10	8986	-	0.076	15.79

Project plan: (2024-2025)

Machine conveyor Idle time auto cut off - **Power saving : 13,104 Kwh/year**

Elimination of Plating Oscillation motor - **Power saving : 32,400 Kwh/year**


Nature cooling transformer replaced with Fore cooling transformer - **Power saving : 1,34,169 Kwh**

Cooling fan pedestal fan to normal fan – **Power Saving 28,454.4 Kwh/year**

HP motor connected to PLC for auto cutoff - **Power saving : 69,254 Kwh/year**



Sustainability Action Plan:

 Renewable Energy road map					
Source	Type of Renewable	Plan in Kwh			
		2024	2025	2026	2027
PPA	Solar	35904000	54264000	60921315	69570637.5
	Wind		13020000	10546200	11848200
Third Party	Solar	2640000	1795500	3990000	3990000
	Wind	17360000	2790000	6200000	6200000
Total Renewable Energy		5,59,04,000	7,18,69,500	8,16,57,515	9,16,08,838
Total power consumption projection	Plant-1	1,44,00,000	1,58,40,000	1,74,24,000	1,91,66,400
	Plant-2	1,80,00,000	1,98,00,000	2,17,80,000	2,39,58,000
	Plant-3	4,44,00,000	4,88,40,000	5,37,24,000	5,90,96,400
	Total	7,68,00,000	8,44,80,000	9,29,28,000	10,22,20,800
Percentage of renewable energy	Plant-1	73%	85%	88%	90%
	Plant-2	73%	85%	88%	90%
	Plant-3	73%	85%	88%	90%
Grid power	All Plant	27%	15%	12%	10%
Carbon Neutrality	All Plant	100%	100%	100%	100%
Zero waste to landfill	All Plant	100%	100%	100%	100%

Innovative projects:

1.ETP sludge volume reduction

- To reduce the volume of Sludge.
- Lesser no. of Trips by the truck carrying the Sludge.



a)Sludge with water content in it



b)Tray dryer in which sludge is loaded



c)Dried Sludge



CO₂ footprint reduced – 393 Kg's / month

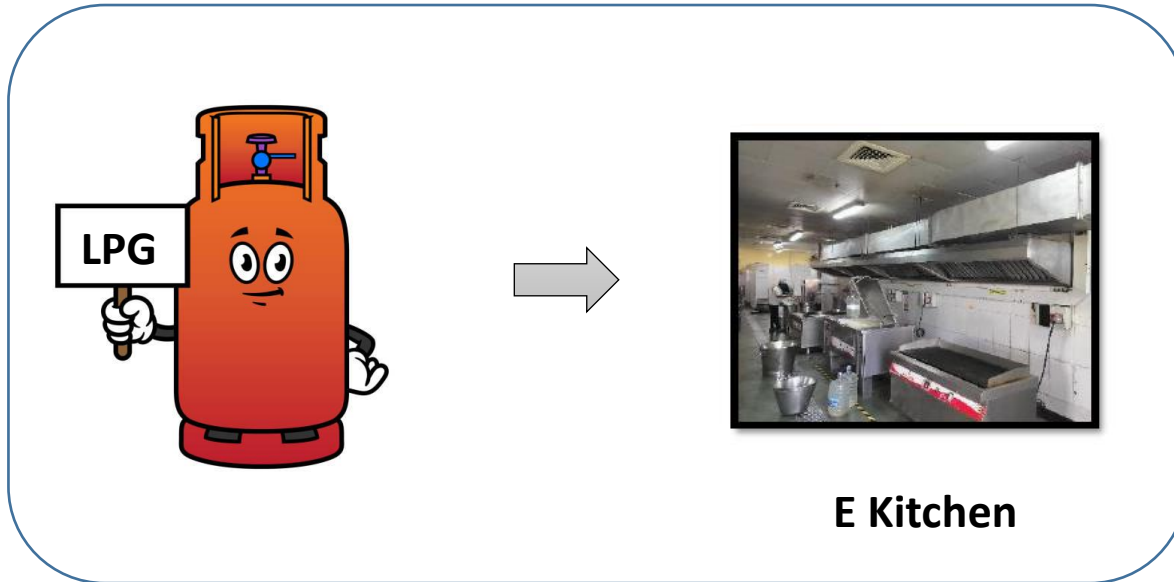
1.ETP sludge volume reduction



Innovative projects:

2.LPG Kitchen to E Kitchen

- LPG kitchen have been converted to electrical kitchen.
- Power consumption for Renewable energy
- Power consumed per month (KWH): ~13292.4



Result/Benefits:

- Cost Savings : 1987,014.6 /year
- Elimination of risk in LPG handling
- Carbon footprint reduction:25,536 tons/ year.



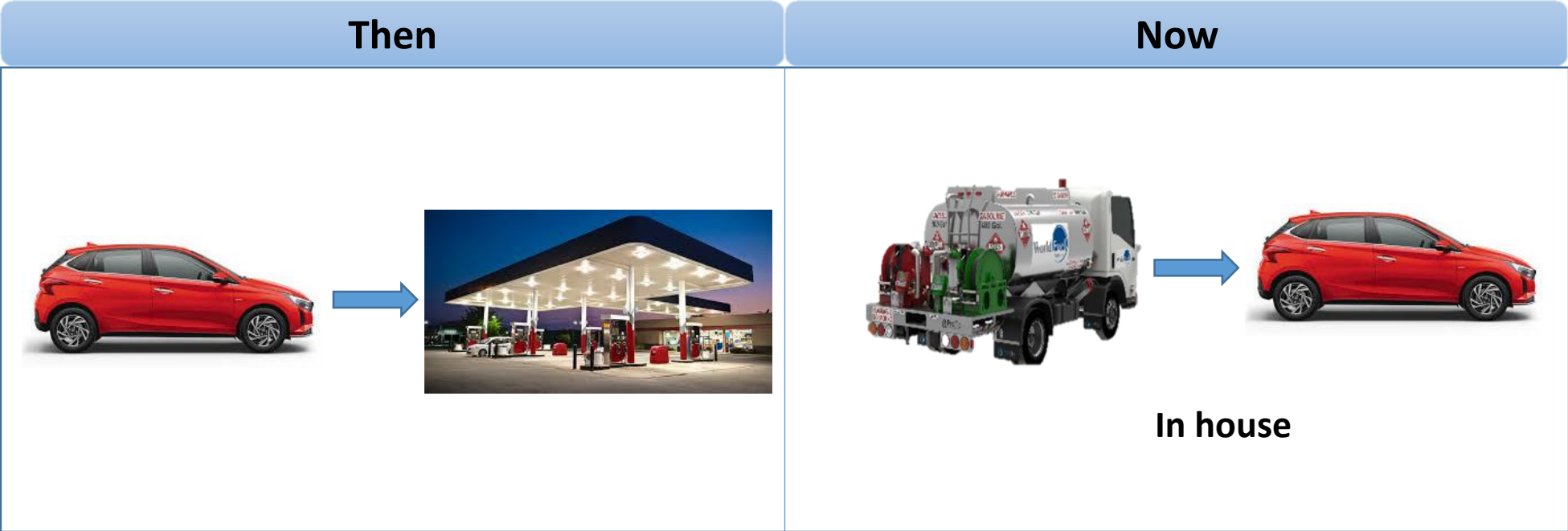
CO2 footprint reduced – 2,394 Kgs / month

Investment	Cost saving	ROI
40 lakhs	19 lakhs/year	2 years

Innovative projects:

3.Mobile fuel station for company owned vehicle

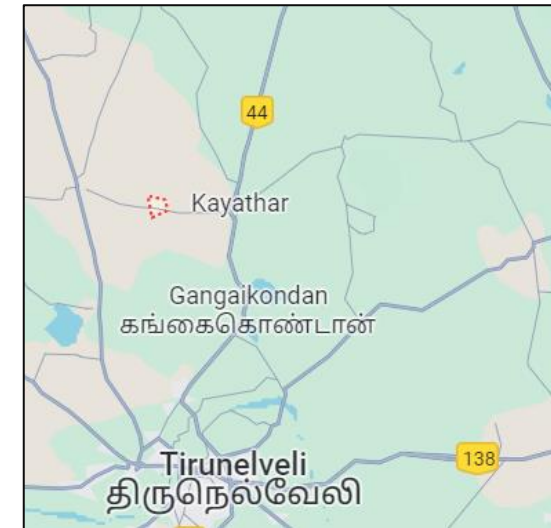
- Fuel for the vehicle is being filled inside the factory.
- This reduces the transportation distance and GHG emission of the vehicle to go and fill the fuel at out station.



CO2 footprint reduced – 873 Kgs / month

Utilisation of Renewable Energy sources (Off site):

Year	Source (Solar, wind, etc.,)	Capacity addition (MW) after FY 2021	Total Generation (million kWh)	Share % w.r.t to overall energy consumption
FY 2021-22	Solar and Wind	-	20.5	72.18
FY 2022-23	Solar and Wind	2.0	22.5	71.41
FY 2023-24	Solar and Wind	-	7.2	10.53

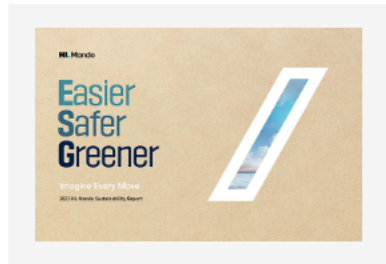


Our Solar Power plant at Tirunelveli

GHG Inventorisation:

Report

Share reports with various stakeholders on HL Mando's management activities and performance.

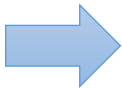


2023 Sustainability Report

Pursue more responsible management as our influence expands on economy, society, and environment.

Download

<p>2023 Sustainability Report</p> <p>Download </p>	<p>2022 Sustainability Report</p> <p>Download </p>	<p>2021 Sustainability Report</p> <p>Download </p>
<p>2020 Sustainability Report</p> <p>Download </p>	<p>2019 Sustainability Report</p> <p>Download </p>	<p>2018 Sustainability Report</p> <p>Download </p>



INTRODUCTION / ESG STRATEGY / SUSTAINABILITY AREAS / APPENDIX

Planet / Innovation / Supply Chain / People / Governance & Ethics / Community

Climate Change Metrics and Targets

Climate Change Adaptation Metrics

GHG Emissions*

Category	Unit	2021	2022	2023	
Total emissions (Scope 1, 2)	HL Mando	236,826	237,898	272,846	
	HL Klemove		25,073	23,190	
	HL Klemove	15,086	15,206	15,160	
Scope 1	Emissions		2,610	2,499	
	Intensity	tCO ₂ eq/KRW billion	2.45	2.37	2.10
Scope 2	Emissions	HL Mando	221,740	222,692	257,686
	HL Klemove			22,463	20,691
Scope 3	Intensity	tCO ₂ eq/KRW billion	36.07	32.62	33.17
	Emissions	HL Mando	7,151,876	7,583,237	7,370,447
	HL Klemove		397,238	388,860	

*Corrected the entire GHG emissions data for HL Mando for 2021 and 2022, and for HL Klemove for 2022, based on global operations.
*Include data from HL Mando's APT operations in the USA
*The intensity data were calculated based on net sales

Breakdown of Scope 3 Emissions*

(Unit: tCO₂eq)

Category	2023 Emissions	Category	2023 Emissions		
Category 1	Purchased goods and services	1,928,901	Category 8	Upstream leased assets	473
Category 2	Capital goods	10,496	Category 9	Downstream transportation and distribution	173,740
Category 3	Fuel and energy related activities excluded from Scopes 1 & 2	57,029	Category 10	Processing of sold products	69,160
Category 4	Upstream transportation and distribution	53,578	Category 11	Use of sold products	4,934,070
Category 5	Waste generated in operations	4,967	Category 12	End-of-life treatment of sold products	79,981
Category 6	Business travel	3,980	Category 13	Downstream leased assets	6,610
Category 7	Employee commuting	45,270	Category 15	Investments	2,193

*Based on HL Mando

Climate Change Adaptation Target

HL Mando has planned to achieve carbon neutrality by 2045 for global Scope 1, 2, and 3 emissions in accordance with the carbon neutrality strategy tasks in operations, supply chain, and product sectors under its vision of "Carbon Neutrality by 2045 toward a Higher Life," established in 2022.

Each Pillar's Key Activities and Targets

Category	2023	2024	2025	2026	2027-29	2030-39	2040-45
Operation	Establish Scope 1, 2, and 3 inventory for global operations (verification completed), GHG reduction and renewable energy transition roadmap	Join the SBTi	Verify our SBTi target	Manage our progress towards SBTi goals and report outcomes			Achieve Net Zero
Supply Chain	Establish a supply chain management system, offer training/support	Assign suppliers reduction targets	Manage suppliers' progress towards carbon reduction, source low-carbon raw materials				Achieve Net Zero
Product	Pilot LCAs	Expand/internalize LCAs	Advance LCAs (transition to low-carbon/reco-friendly products)				Achieve Net Zero

GHG Emission Targets

(HL Mando domestic operations) (Unit: tCO₂eq)

Domestic operations have been managing their GHG allocations and emissions since being designated as subject to the Emissions Trading Scheme in 2015. We have set and managed self-imposed targets that are more than 10% higher than the government-designated allocations and monitor monthly emissions at each worksite to manage target completion rates. In 2023, we reduced emissions by 21% more than the target through GHG reduction activities at each worksite.

2023 GHG Emissions against Targets

(HL Mando domestic operations)

Emissions	70,598	Completion rate	2021 Emissions: 70,738
Target	89,007	121%	2022 Emissions: 71,647

Year	Scope 1 (Kg CO ₂ /Equivalent Product)	Scope 2 (Kg CO ₂ /Equivalent Product)	Scope 3 (Kg CO ₂ /Equivalent Product)
2021-2022	0.102	0.314	7.2
2022-2023	0.094	0.620	6.39
2023-2024	0.443	15.99	4.66

Short term & Long term plan:

HL MAIL ESG - Long term plan:

Our key ambitions for 2040

We and our value chain partner's are striving for,

-  **100%** - Carbon Neutrality along with our entire value chain
-  **100%** - Emission free mobility and industry
-  **100%** - Circular Economy
-  **100%** - Responsible value chain

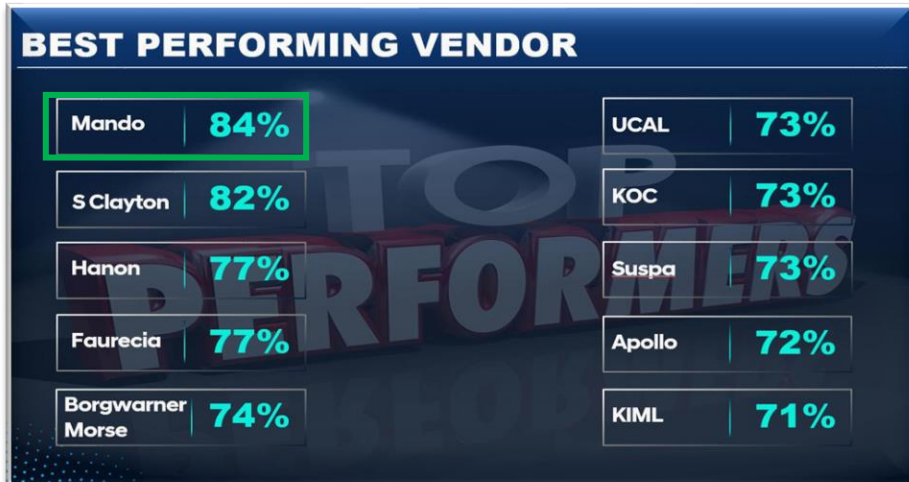
+ 6 Essentials

- Affordable and clean energy
- Good working condition
- Safe mobility
- Sustainable management practices
- Decent work & Economic growth
- Responsible consumption and production

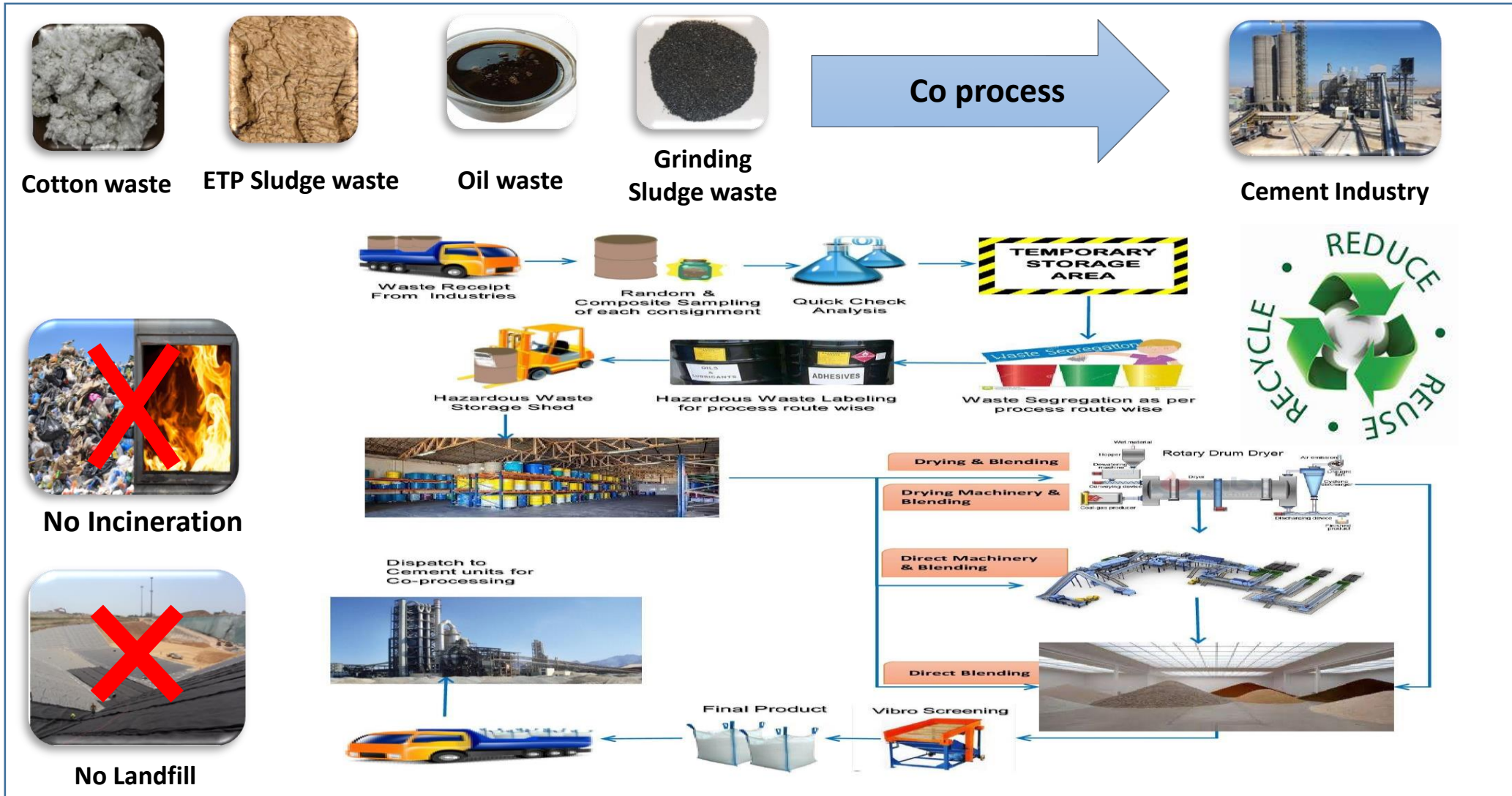
Plan – 2024:

Project Plan for 2024		Expected Outcome
Carbon Neutrality	Renewable energy – 80%	~5,850,000 units of renewable energy
Carbon Neutrality	Recycling of pet bottles	~48 kg/Year of PET bottle recycle
Carbon Neutrality	100% recycling of hazardous waste	Alternate fuel to cement industry
Carbon Neutrality	Diesel forklift conversion	~21,072 kg of CO2 emitted per Year
Water Neutrality	Automatic utensil washer (Completed)	~78 KI/Month water consumption reduction
Water Neutrality	Rain water utilization for production	~ 2400 KI/year water consumption
Water Neutrality	DM water plant (Water Recovery from STP)	~600 kl/year water consumption
Social	Road side greenery development	5000+ tree plantation
Social	Awareness creation for nearby village/college/school	Awareness to society

HMI ESG Score:



HL Mando MD and HOT (EHS) receiving DERI Assessment Award from HMI ED



Co processing is a process or activity in which hazardous wastes are used either as fuel or raw material or both in cement industry.


Green Supply Chain Management:

ESG Training

ESG Training :
ESG Questioner Reference Manual

1. What is ESG & Why It is Important ?


• ESG - Environment Social and Governance
 - ESG has an Significant positive impact on fundamental business issue relevant to the long-term success of any Company across Industries.



Environment

Ability to reduce company's influence on environment and to risk associated with


- Bio-diversity / Land-use
- Carbon emission
- Risk on climate change
- Use of energy
- Source of materials
- Water waste, end-product waste, recycle, etc.



Social

Attitude of a company regarding its relationship with other companies and social community on equality, diversity, and human rights

- Responsible supplier management
- Safety & hygiene of employees
- Human capital management
- Responsible marketing and R&D, etc.



Governance

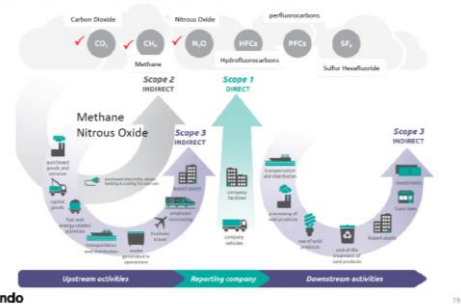
An approach for a company to assure accurate and transparent accounting, and to prevent stakeholder conflict and corruption & fraud

- Operating of board of director
- Ownership structure
- Shareholder rights
- Transparency

HL Mando

5. Greenhouse gas emissions

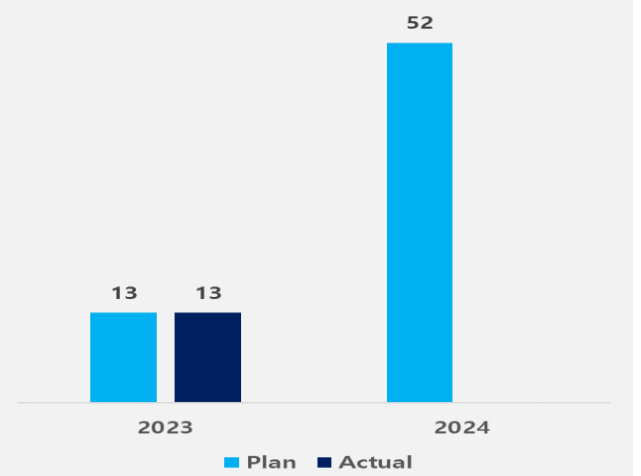
Overview of GHG Protocol scopes and emissions across the value chain



HL Mando

ESG Trainings : covered all suppliers
 form Y2023~Till date

ESG Audits




2023: Plan 13, Actual 13
 2024: Plan 52, Actual 52

Environment	Social	Governance	Overall Achievement Rate
0%	0%	0%	0% G


ESG Audit	Questions	Weightage	Score & Grade		
Environment	31	38%	A ≥ 90	B ≥ 80	
Social	37	47%	C ≥ 70	D ≥ 60	
Governance	12	15%	E ≥ 50	F ≥ 40	G < 30

2024 Partners day ESG Emphasizing

[Partners day 2024]



ESG Session arranged for enforcing ESG



ESG stands for "Environmental, Social and Governance." ESG can be described as a set of procedures, metrics, etc.) that organizations implement to limit negative impact or enhance positive impact on the environment, society, and governance bodies.

Green Supply Chain Management:

ESG Audit Online Portal

The image shows two screenshots of the online portal. The top screenshot is the MSAS login page, featuring a car illustration and a login form with fields for 'user' and 'pass', a 'LOGIN' button, and a 'Change Password' link. The bottom screenshot is the 'HL Mando Supplier Assessment System' dashboard. It includes a navigation menu on the left with options like 'Board', 'SPM (Self assessment)', 'SPM (Mando)', 'SPM Analysis', 'ESG (Self assessment)', 'ESG (Mando)', and 'Analysis'. A central table lists assessment tasks with columns for 'Title', 'Status', 'Action', and 'Result by years'. A red box highlights the 'ESG (Self assessment)' and 'ESG (Mando)' rows.



ESG Audit Report manner

The image displays the 'ESG Assessment Report' for ADITYA AUTO PRODUCTS AND ENGG INDIA, dated 2024-06-25. The report includes a 'Supplier Overview' table, an 'ESG assessment grade' section, and detailed performance metrics across various ESG categories.

Supplier Overview			
Supplier Name	ADITYA AUTO PRODUCTS AND ENGG INDIA	Total employees	245
Address	#B07/B10, Government Industrial Colony, Gandhi Nagar, Vellore-632006.	listed company	Yes
Main customer/portion	BIPPL, Mando, Lear	Business category	
Total Revenue	479200000	Audit date	2024-06-25

ESG assessment grade

Total score: **64** /100

Grade: **D**

ESG trends over the past 3 years:

Year	Score
2022	~40
2023	~45
2024	64

ESG evaluation results

Category	Score	Grade
Environment/Greenhouse gas	73 /100	C
Human rights, labour/Supply chain management	54 /100	E
Ethical management/Governance	37 /100	G
Compliance/Product and Social Responsibility	93 /100	A

Environment/Greenhouse gas (Grade 24.1/33, C):

Category	Score	Progress
Environmental management (1.8/2)	90%	Green
green-house gases (3.8/10)	38%	Red
new renewable energy (2/2)	100%	Green
waste (4/4)	100%	Green
Water and wastewater (9/9)	100%	Green
atmosphere (3/3)	100%	Green
Hazardous chemicals (0.5/3)	17%	Red

Human rights, labour/Supply chain management (Grade 22.5/42, E):

Category	Score	Progress
Human rights and labor (9.7/11)	88%	Green
safety and health (10.8/18)	60%	Yellow
supply chain management (0/3)	0%	Red
conflict minerals and responsible minerals (2/10)	20%	Red

Ethical management/Governance (Grade 2.6/7, G):

Category	Score	Progress
Ethical management (0.6/5)	12%	Red
Governance (2/2)	100%	Green

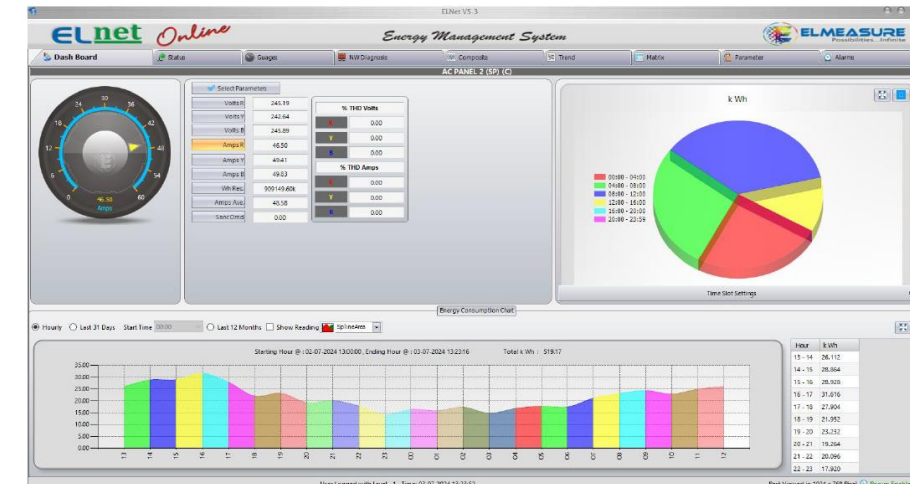
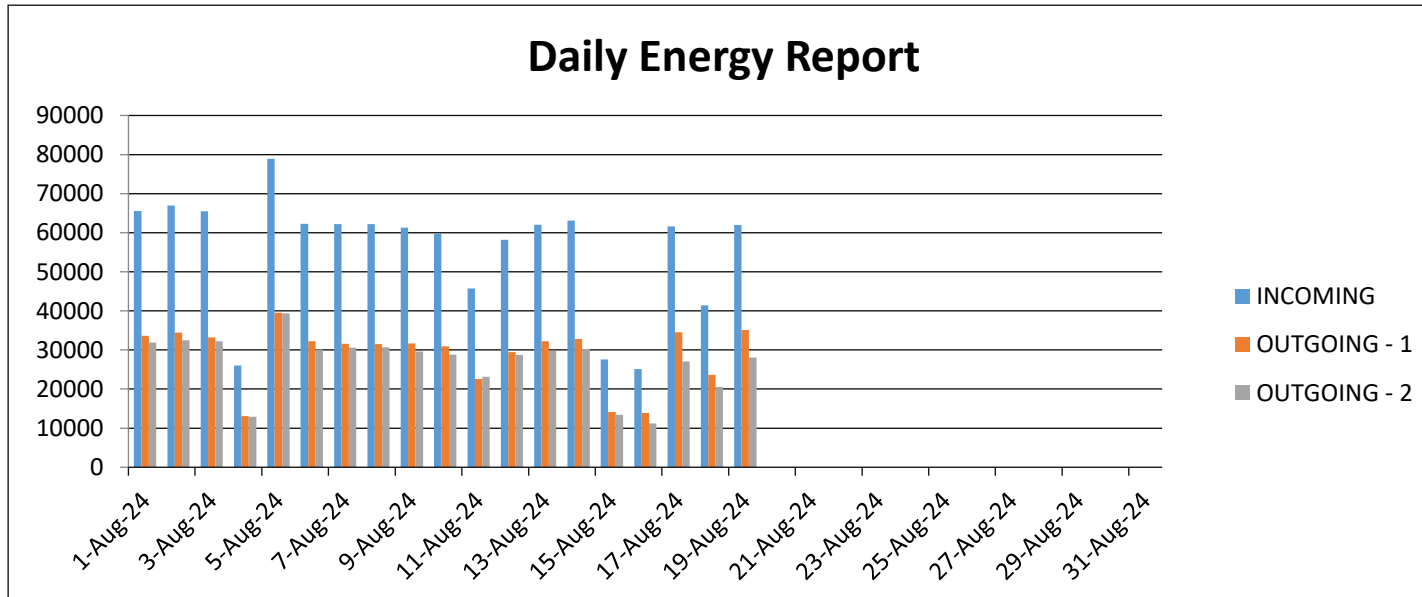
Compliance/Product and Social Responsibility (Grade 14/15, A):

Category	Score	Progress
Compliance (12/12)	100%	Green
Product and social responsibility (2/3)	67%	Yellow

EMS and other requirements

Energy Monitoring system:

- Energy Monitoring system helps us to monitor and control our energy consumption.



EMS and other requirements

ISO 50001 Certification:

Target for Audit:

- First stage – By Nov, 2024
- Second stage – By Dec, 2024

ROAD MAP FOR ACHIEVING ISO 50001:2018 CERTIFICATION																							
Customer - M/S. Mando Automotive India Private Limited			Rev. No: 04	Date: 12.08.2024																			
#	ACTIVITY	RESP	Apr-24			May-24			Jun-24			Jul-24			Aug-24			Sep-24					
			2nd week	3rd week	4th week	1st week	2nd week	3rd week	4th week	1st week	2nd week	3rd week	4th week	1st week	2nd week	3rd week	4th week	1st week	2nd week	3rd week	4th week		
1	Kickoff Meeting	SCS	█																				
2	Briefing for ISO 50001:2018	SCS	█	█																			
3	Define and Establishing EMS Policy & Objectives (Organizational Objectives and Department Objectives) and Communicating the same across the organization	SCS/Client	█	█	█																		
ESTABLISHMENT																							
4	Formation of Core Team for EMS Core Team	Client			█																		
5	Gap analysis of w.r.t EMS	SCS			█																		
6	Preparation of Manual and Procedures	SCS / Client			█	█	█	█	█														
7	Preparation of related Forms (All department, Legal and other requirements)	SCS			█	█	█	█	█														
8	Fixing Roles, Responsibility, Authority & Accountability for EMS	Client																					
9	No of departments/Process/ Activity identified for EMS	SCS			█																		
10	Formation of Documents & Records w.r.t EMS	SCS																					
11	Establishment of EMS Procedures	SCS			█	█	█	█	█														
12	Identifying Certifying body	SCS / Client			█																		
13	Identify EUPH & SEU and Re-Entry based Lines	SCS / Client																					
IMPLEMENTATION																							
14	Implementation of EMS Policy (Displayed and communicate to all employees and staff)	Client																					
15	Implementation of Documents & records w.r.t EMS	Client																					
16	Measure of Performance w.r.t to EMS (last three Months data collection)	Client																					

Life Cycle Assessment :

Mando ANAND		Environmental Occupational Health & Safety Management System						QMS-FC/EM/001/04
		Product Life Cycle Study - Brakes & Suspension						Rev No & Date: 03
		Reviewed on: 20.08.2024						
No.	Stage	Process	Element	Whether Eco friendly material (Y or N)	Whether Recycled material (Y or N)	Whether eco-friendly material available to explore Recycled material (Y or N, If Yes, give details)	Applying of these principles as applicable	Reaching opportunities Available (Y or N, If Yes, explain)
1	Product, Design and Development	Product Design done by Mando Corporation Korea. For HYUNDAI Additional of life cycle perspective requirements are completed as per applicable rules and regulations during design and development phase itself. Priority for Life cycle perspective development process handled by MANDO.						
		Following used products and materials to be considered while establishing the controls for the life cycle perspective.						
	EM	Aluminum castings	Yes	No	NA	-	Yes	Send for Recycling
		Cast iron casting	Yes	No	NA	-	Yes	Send for Recycling
		Zinc die	Yes	No	NA	-	Yes	Send for Recycling
		Consumables						
	Housing, Miscellaneous	Cast iron	No	Yes	NA	-	Yes	Recycled to ETP
		Steel wheel	Yes	No	NA	-	Yes	Recycled to ETP
		Rubber parts (Steel, V ring, steel pins, Bushes, etc)	No	No	NA	-	Yes	Return to supplier
		Aluminum (Steel parts, Piston, etc)	Yes	No	NA	-	Yes	Return to supplier
	Suspension	Plastic (POM)	No	No	NA	-	Yes	Return to supplier
		Rubber parts (Upper Bush, lower bush, Insulator, etc)	No	No	NA	-	Yes	Return to supplier
		Stainless steel	Yes	No	NA	-	Yes	Return to supplier
		Plastic (Steel and steel face)	No	No	NA	-	Yes	Return to supplier
	Preparation of Products & Services	Ballballs of steel	No	Yes	NA	-	Yes	Send for recycling to HPH approved authorized vendor
		Latex oil	No	Yes	NA	-	Yes	Send for recycling to HPH approved authorized vendor
		Grease (LUBRICANT OILS)	No	Yes	No	-	Yes	Conserved on-site
		SPC/EP Chemicals based on-site (Chromate salt/ zinc, Nickel, Lead chromate salt)	No	Yes	No	-	Yes	Conserved on-site
	Waste stream	Air quality monitoring						Monitor and follow air quality maintained as per applicable rules
		Spillage of oil/liquids/chemicals						Controlled by HPH authorized vendor
		off roaded carbon waste	No	Yes	No	-	No	Send for authorized vendor for incineration
		Chemical containers	No	Yes	No	-	No	Send for authorized vendor
	Packaging for export (other items)	wooden	No	Yes	No	-	Yes	Send for recycling
		ETP Sludge / Salt	No	Yes	No	-	Yes	Send for HPH for disposal
		Process reject (Jungle product - Metal)	Yes	No	No	-	Yes	Return to supplier
		Process reject (Jungle product - Rubber)	No	No	NA	-	Yes	Return to supplier
	Packaging for export (other items)	Process reject (Jungle product - Plastic)	No	No	NA	-	Yes	Return to supplier
		Carbon box	Yes	No	NA	-	Yes	Send to supplier
		Parquet Cases	Yes	No	-	-	-	-
		Steel packaging film	No	No	No	-	Yes	Plan for alternatives in packaging material
	Packaging for OHS	Send the product to Recycled to shops						
2	Production, Delivery and Use	Monitor handling over products to customer through recable carbon box and further compliance ensured by customer including usage through appropriate guidance						
3	End of Life and Disposal	Product end of life and final disposal handled by customer as per their defined guidelines and applicable rules and regulations (200,000 ton of scrap)						
Prepared By:		Mr. Anand	Approved By:		Mr. Suresh Kumar			

Net Zero commitment

NET ZERO PLEDGES OF INDIAN GOVERNMENT

2070 – Achieve Net zero

500 GW – Non fossil energy capacity by 2030
1 Billion Tonnes – Carbon reduction by 2030

NET ZERO Target – HL MAIL

By 2045

HL Mando ANAND		Water neutrality road map			
Source - Out source	Plant	2024	2025	2026	2027
Water Consumption	Plant-1	29,145	24,773	23,534	21,769
	Plant-2	42,860	42,860	41,574	40,326
	Plant-3	72,005	69,844	67,749	65,717
Water neutrality	Plant-1	6000	10000	10000	10000
	Plant-2	0	1800	2000	2000
	Plant-3	1560	3000	3000	3000
	Overall	40%	45%	50%	55%

HL Mando ANAND		Renewable Energy road map			
Source	Type of Renewable	Plan in Kwh			
		2024	2025	2026	2027
PPA	Solar	35904000	54264000	60921315	69570637.5
	Wind		13020000	10546200	11848200
Third Party	Solar	2640000	1795500	3990000	3990000
	Wind	17360000	2790000	6200000	6200000
Total Renewable Energy		5,59,04,000	7,18,69,500	8,16,57,515	9,16,08,838
Total power consumption projection	Plant-1	1,44,00,000	1,58,40,000	1,74,24,000	1,91,66,400
	Plant-2	1,80,00,000	1,98,00,000	2,17,80,000	2,39,58,000
	Plant-3	4,44,00,000	4,88,40,000	5,37,24,000	5,90,96,400
	Total	7,68,00,000	8,44,80,000	9,29,28,000	10,22,20,800
Percentage of renewable energy	Plant-1	73%	85%	88%	90%
	Plant-2	73%	85%	88%	90%
	Plant-3	73%	85%	88%	90%
Grid power	All Plant	27%	15%	12%	10%
Carbon Neutrality	All Plant	100%	100%	100%	100%
Zero waste to landfill	All Plant	100%	100%	100%	100%

Net Zero commitment – ESG Road Map (2024 ~ 2027)

Year	ESG	ESG Road Map (2024 ~ 2027)		Expection Outcome	Carbon footprint reduction (Ton) / Year	Water Neutrality (KL) / Year	Plant
2024	Environment	1	AC centralized remote control for controlling temp & Meeting room motion sensor	Power saving : 13..4625 Kwh/year	106.4	NA	Plant 1
		2	70% Green power procurement (Solar & Wind)	27.2 MW of solar power	2148.8	NA	Plant 1, 2 & 3
		3	Machine conveyor Idle time auto cut off	Power saving : 13,104 Kwh/year	10.4	NA	Plant 1
		4	All M/C Air auto shutoff system installation	Power saving : 10,920 Kwh/year	8.6	NA	Plant 2
		5	ESG training for suppliers	To reduce carbon emission	NA	NA	NA
		6	Pipe line modification - to reduce pressure drop	Power saving : 42.375 Kwh/year	0.0	NA	Plant 1
		7	Elimination of Plating Oscillation motor	Power saving : 32,400 Kwh/year	25.6	NA	Plant 2
		8	Mist collector running hour reduction	Power saving : 2054.4 Kwh/year	1.6	NA	Plant 1
		9	Shop floor machine excess lux reduction	Power saving : 7488 Kwh/year	5.9	NA	Plant 1
		10	HP motor connected to PLC for auto cutoff	Power saving : 69,254 Kwh/year	54.7	NA	Plant 1
		11	Centralized vacuum pump connected with VFD	Power saving : 19,913.76 Kwh/year	15.7	NA	Plant 1
		12	500 sapling plantation	12,500kg CO ₂ reduction after 10 years	12.5	NA	Plant 1,2 & 3
		13	Road side/OSR Land greenery development	1800 Trees plantation	36.0	NA	Plant 1 & 2
		14	Rain water utilization for production	Rain water consumption : 2400 Kl/year	NA	2400	Plant 1 & 3
		15	DM water plant (Water Recovery from STP)	DM water consumption : 600 Kl/year	NA	600	Plant 1
	Social	16	Optimist health app for employee's	Improvement in physical and mental health of employee's	NA	NA	NA
		17	Classroom construction for school at patramvakkam	To improve the infrastructure of school	NA	NA	NA
		18	Plastic waste awareness to school kids	To increase awareness among school children	NA	NA	NA
		19	Healthcamp at hostel for OE'S	To ensure that the employee's are at good health	NA	NA	NA
2025	Environment	20	EVBM PDI Spot AC change to normal fan	Power saving : 20,067.84 Kwh/year	15.9	NA	Plant 1
		21	Cooling fan pedestal fan to normal fan	Power saving : 28,454.4 Kwh/year	22.5	NA	Plant 1
		22	Procurement of solar power	10.5MW of solar power	829.5	NA	Plant 1, 2 & 3
		23	100% recycling of hazardous waste	100% Circular economy	NA	NA	Plant 1 & 2
		24	Timer for lighting at out skirt area	Power saving : 2,880 Kwh/year	2.3	NA	Plant 1 & 2
		25	700 sapling plantation	17,500kg CO ₂ reduction after 10 years	17.5	NA	Plant 1,2 & 3
		26	Spot cooler to be extend and remove the wall mounted fan in CHM-4 line	Power saving : 5,060 Kwh/year	4.0	NA	Plant 2
		27	High Watts light to low watts light	Power reduction from 121 Kwh to 60.5 Kwh/year	0.0	NA	Plant 1
		28	Isolated Gate Bipolar Transistor type UPS for No Load power loss	No load loss energy per year - 10,512 Kwh	8.3	NA	Plant 1
		29	Exhaust Blower auto cutoff	Energy reduce from 51840 to 32,400 Kwh/year	15.4	NA	Plant 1
30	Air Conditioner Outdoor unit self Cleaning	Power saving : 1,19,839 Kwh/year	94.7	NA	Plant 1		
2026	Environment	31	Ductable AC Installation	Power saving : 8986 Kwh/year	7.1	NA	Plant 2
		32	Nature cooling transformer replaced with Fore cooling transformer	Power saving : 1,34,169 Kwh	106.0	NA	Plant 2
		33	Renewable energy – 90%	5,850,000 Units of RE	4621.5	NA	Plant 1, 2 & 3
		34	Best practices implementation at supplier end	1,50,000 kg CO ₂ emission reduction	150.0	NA	NA
		35	Recycling of pet bottles	48 Kg/year of Pet bottle recycled	0.3	NA	Plant 1, 2 & 3
		36	Inverter Type AC Installation	Power saving : 65,208 Kwh/year	51.5	NA	Plant 2
		37	CNG truck conversion	12,240 Kg of CO ₂ emission reduction per year	12.2	NA	Plant 1 & 2
2027	Environment	38	Automatic utensil washer - All three plant	Water consumption reduction : 78 Kl/year	NA	78	Plant 1, 2 & 3
		39	Conversion of truck going to customer end - from diesel to CNG	61,200 Kg of CO ₂ emission reduction per year	61.2	NA	Plant 1 & 2
		40	Best practices implementation at supplier end	3,00,000 kg of CO ₂ emission reduction	300.0	NA	NA
		41	Conversion of diesel boiler to E-boiler - 2 no's	84219.9 Kg of CO ₂ emission reduction	84.2	NA	Plant-2
		42	DG set fuel convert to PNG from diesel - 3 no's	101114.2 Kg of CO ₂ emission reduction	101.1	NA	Plant-2

Achievements:



DERI ASSESSMENT (1st Place)
From: HMI



C. K. Ramachadar Oration Award
2023-2024



Health at workplace (2nd place)
From: CII



Industry Excellence Award
From: "The Institution of Engineers (India)" :
Tamilnadu state centre National Environment Climate
Change Forum
Date: 13 July, 2024.



EHS Excellence (Bronze)
From: CII



Our vision is your freedom.
In our creation, your tomorrow will be safer, greener and easier.

Thank You

