MOVE BEYOND

CII NATIONAL AWARDS FOR EXCELLENCE IN ENERGY MANAGEMENT, 2022

TK Elevator (India) Pvt Ltd, Chakan , Pune

Energy Manager - Rajendra Pawar
Mentor - Milind Harshe (Plant Head)

CONTENT OF PRESENTATION

TK ELEVATOR INDIA PRIVATE LTD CHAKAN, PUNE

ORGNIZATION PROFILE

- Established in 2002, TK Elevator India installs, maintains and modernizes elevators and escalators worldwide.
- Our elevators have Received the highest energy-efficiency rating. (Class A under ISO 25745 -2)
- Our Vellino Escalators have received the highest energy-efficiency rating in 2019. (Class A+++ according to ISO 25745-3)

Our Products

Elevators

Next-generation mobility today.

Escalators

Always one step ahead.

Moving Walks

Reach your destinations quickly and comfortably.

Airport Solutions

Unmatched comfort and safety.

Stair Lifts

Independence, safety and comfort.

Service

Value-adding, manufacturer-independent services.

Modernization

Extend the life of your elevator and escalator.

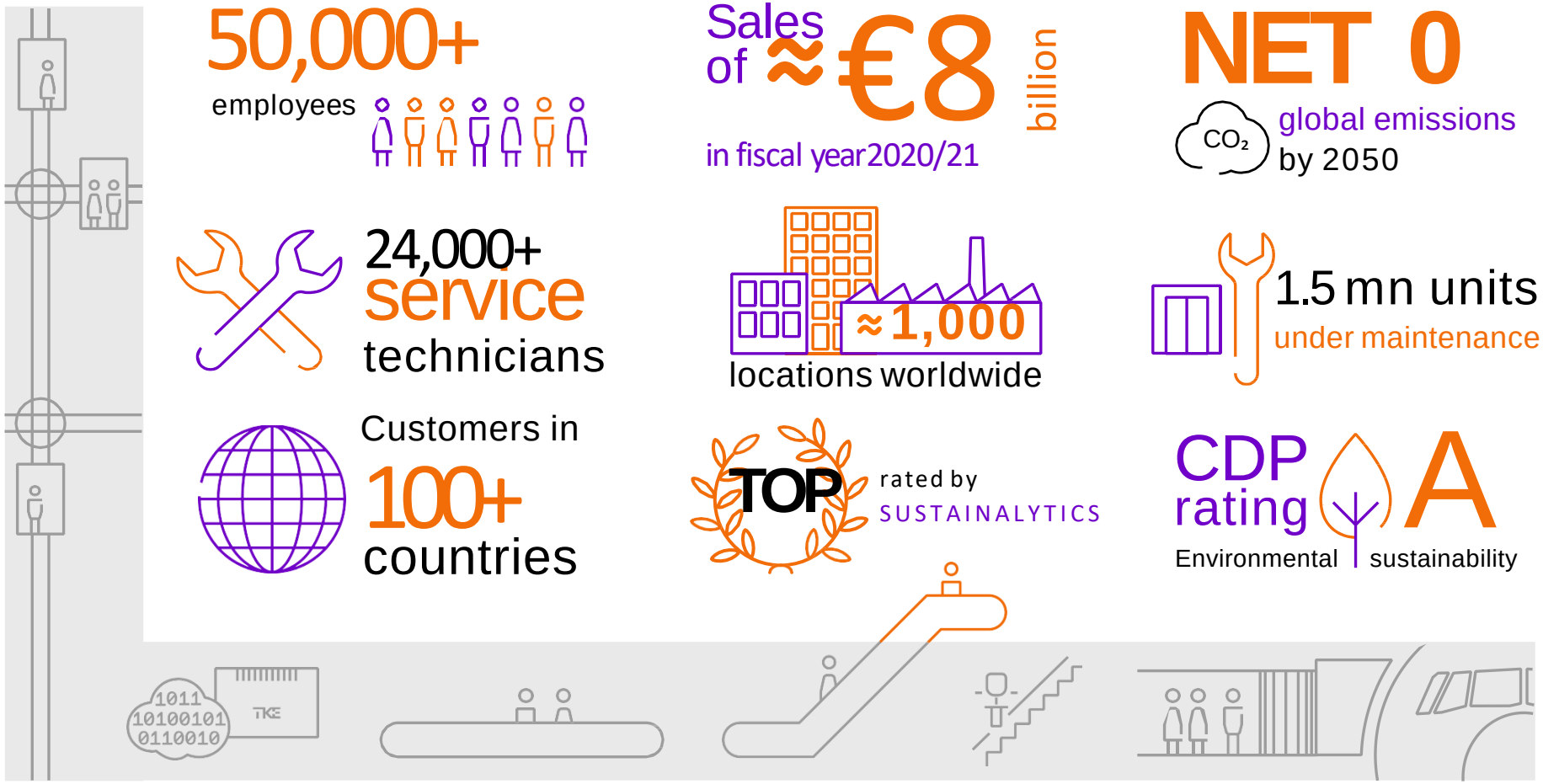
MULTI

The world's first rope-free elevator.

Digital solutions

Connect all your equipment to enhance

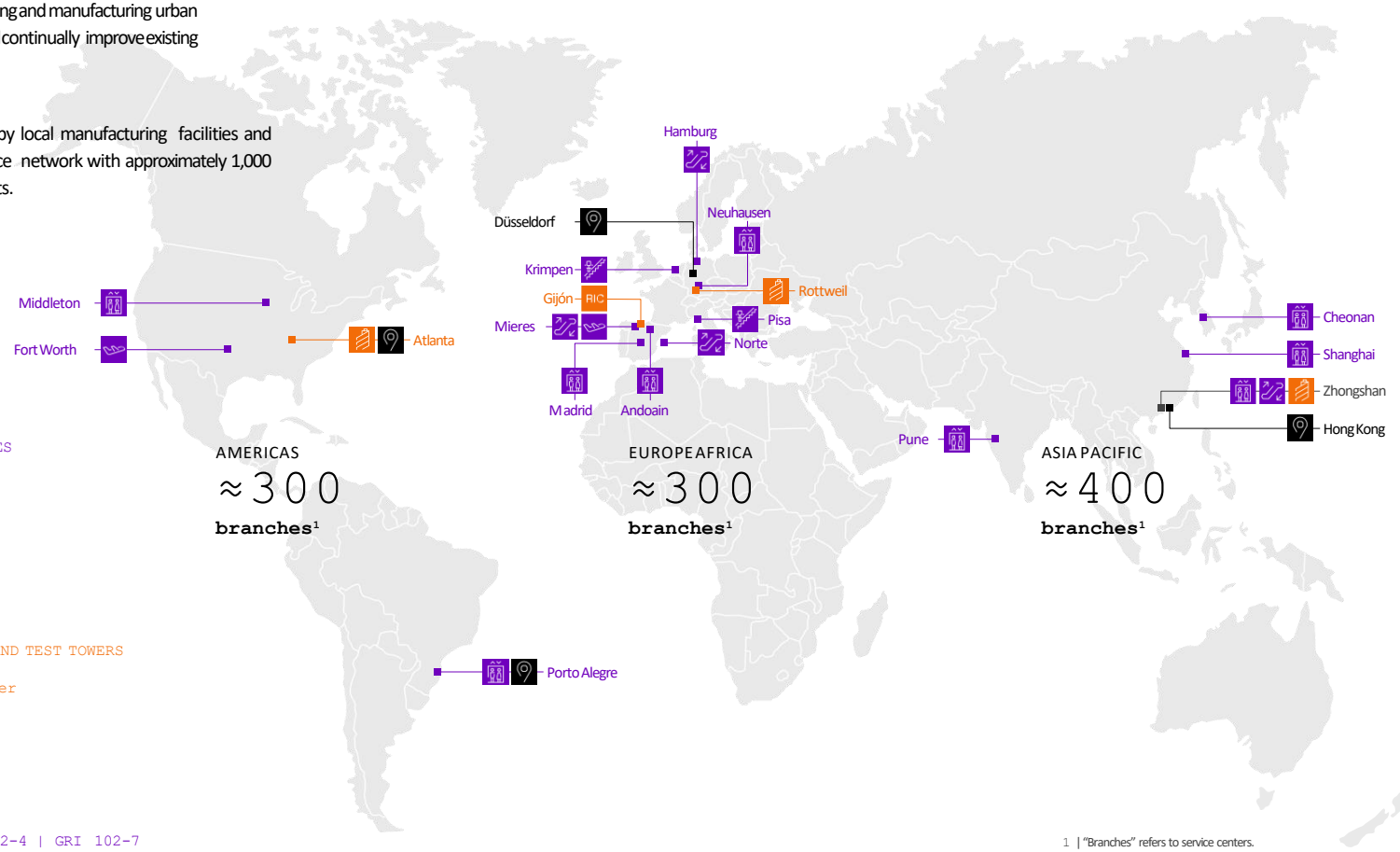
TK Elevator at a Glance



Global Footprint

TKE customers worldwide and our manufacturing footprint reflects this, extending from the Americas across Europe to Asia. At all of our facilities, we leverage our expertise and experience in engineering and manufacturing urban mobility solutions to develop new innovations and continually improve existing products.

All major sales markets are covered by local manufacturing facilities and complemented by a truly global service network with approximately 1,000 branches spread across five continents.



MANUFACTURING AND R&D FACILITIES

- Elevators
- Escalators
- Airport Solutions
- Home Solutions

RESEARCH & INNOVATION CENTERS AND TEST TOWERS

- RIC Research & Innovation Center
- Principal "Test Tower"

- REGIONAL HEADQUARTERS

GRI 102-2 | GRI 102-3 | GRI 102-4 | GRI 102-7

1 | "Branches" refers to service centers.

ENERGY EFFICIENCY PRODUCTS

CLIMATE

PIONEERING PRODUCTS THAT REDUCE CARBON FOOTPRINT

Our products' environmental performance

We develop Life Cycle Assessments (LCAs) to understand and improve the environmental performance of our products.

We publish Environmental Product Declarations (EPDs) to communicate the results of LCAs to the public and ensure transparency regarding the environmental impact of our products.

TK Elevator published the first EPD for the endura elevator line in the US in 2017. Today, we have EPDs registered for a wide range of our elevators in the United States, Latin America, Europe, China and Australia.

Energy efficient products

Our elevators have received the highest energy-efficiency rating (Class A under ISO 25745-2). We also received TK Elevator's first certificate for the highest energy-efficiency rating (Class A^{+++} according to ISO 25745-3 in 2019) for the Velino escalator.

MAX

Our innovative cloud-based maintenance platform helps us optimize the logistics of our maintenance activities and reduce mileage of our service technicians, which results in a significant reduction in CO_2 emissions. MAX also helps extend the service life of our elevators by approximately 30%.

TWIN

Our breakthrough TWIN® elevator system has two cars arranged on top of each other that operate independently in one hoistway. TWIN® provides the same transport capacity as traditional elevators but requires less space, less construction and overall, reduced embodied carbon.

MULTI

MULTI is the world's first rope-free elevator, moving multiple cars in a single shaft, vertically and horizontally. MULTI is expected to use 50% less floor space compared to typical elevators, significantly reducing the embodied carbon for the core area of a building.

AGILE

AGILE transforms elevator systems into a seamless mobility ecosystem that is more intelligent and efficient. AGILE gauges traffic demand and groups passengers based on similarity of destination. This leads to less crowding, fewer stops and more efficient use of available elevator capacity, optimizing energy consumption in low demand conditions.

ENERGY FLOW DIAGRAM

1

Grid Power 33Kva

36.8 %

2

DG set 1500Kva

0.2%

3

Solar Power 821 Kwp

73%

4

PNG Gas

MAHANAGAR GAS

HT Room

Inverter Room

Hot water generator

Transformer

Manufacturing Plant

Powder coating unit

HIGHLIGHTS

Environment (E)

zero emissions and smart efficiency

CDP 'A' score for climate change in 1st year of reporting

Commitment to business ambition for net-zero and Science-Based Targets (SBTs)

Source 100% renewable electricity across global operations by 2030

Social (S)

zero accidents and strength through diversity

Global Framework Agreement (GFA) signed – key to safeguarding human and employee rights globally

New D&I target: increase the female share in senior leadership positions from 20% to 30% by 2025

Supports youth around the globe to get access to education, professional and life skills training

Governance (G)

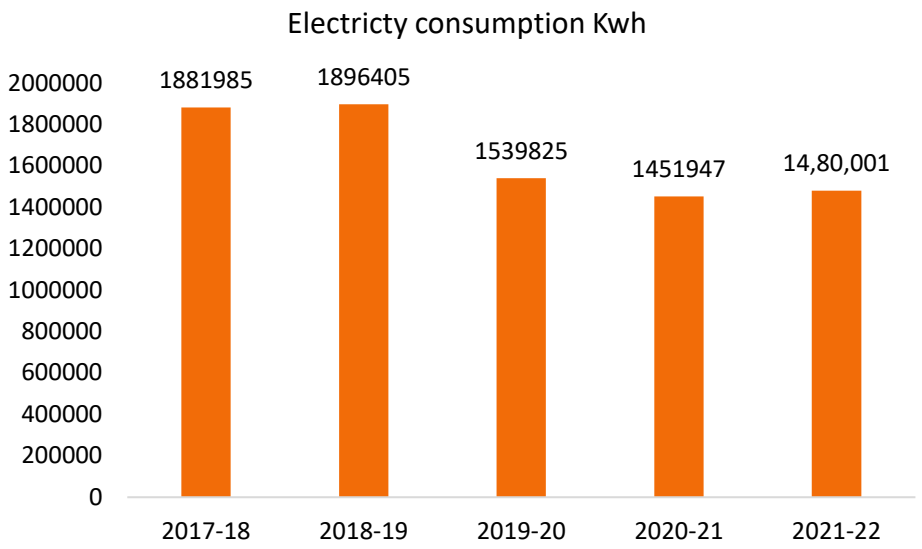
zero tolerance and shared values

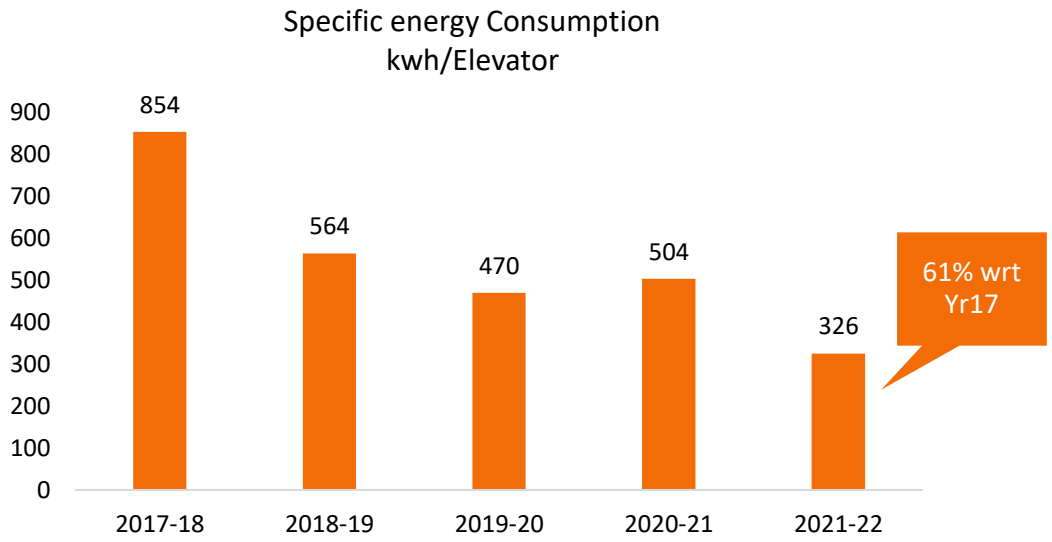
Signatory of UN Global Compact as a stand-alone company

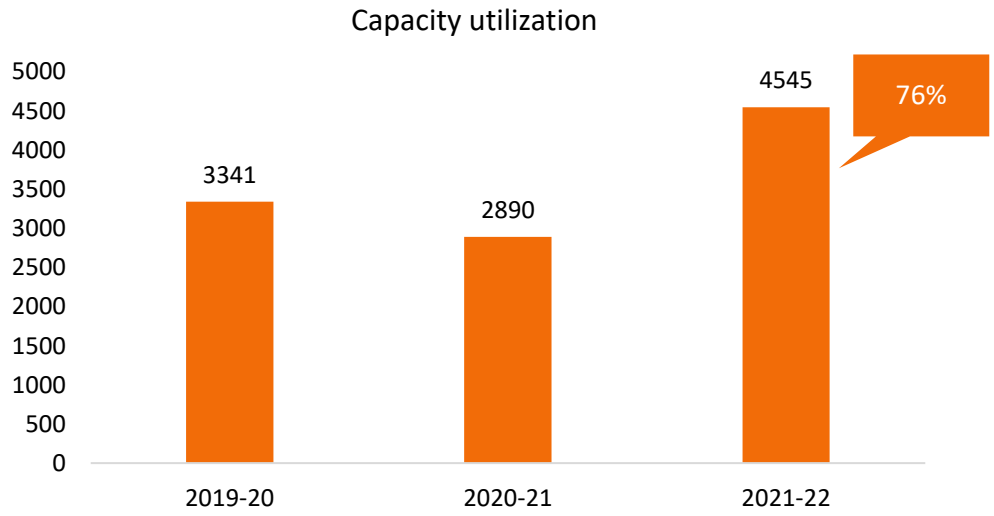
Stand-alone TKE-specific Compliance Management System

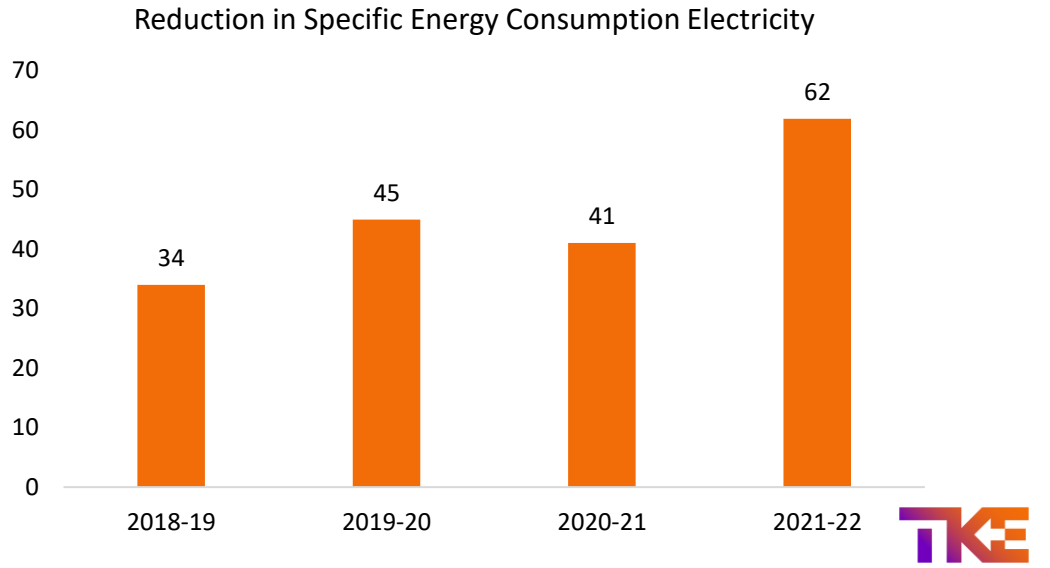
Transparent communication on ESG performance

SPECIFIC ENERGY CONSUMPTION -ELECTRICAL

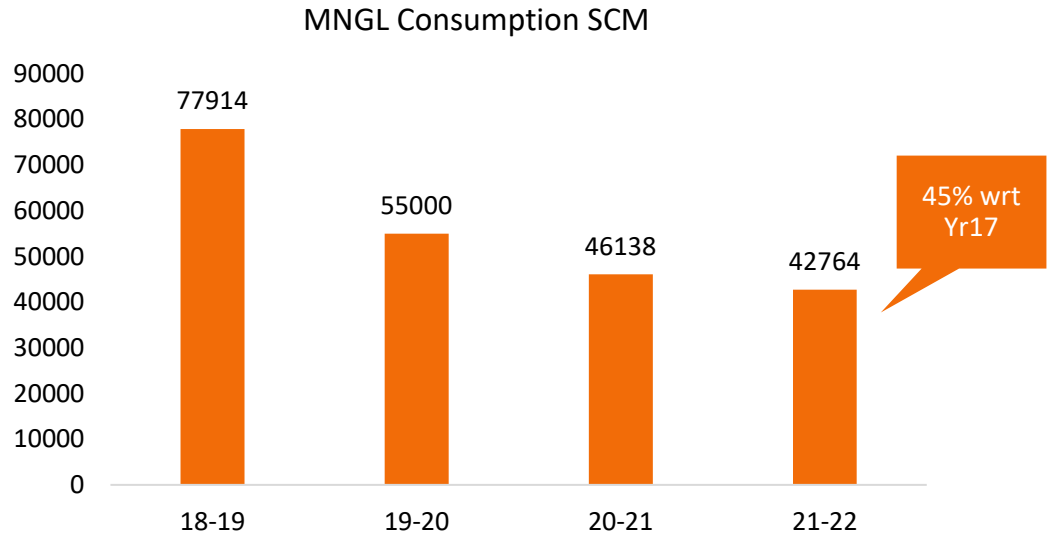


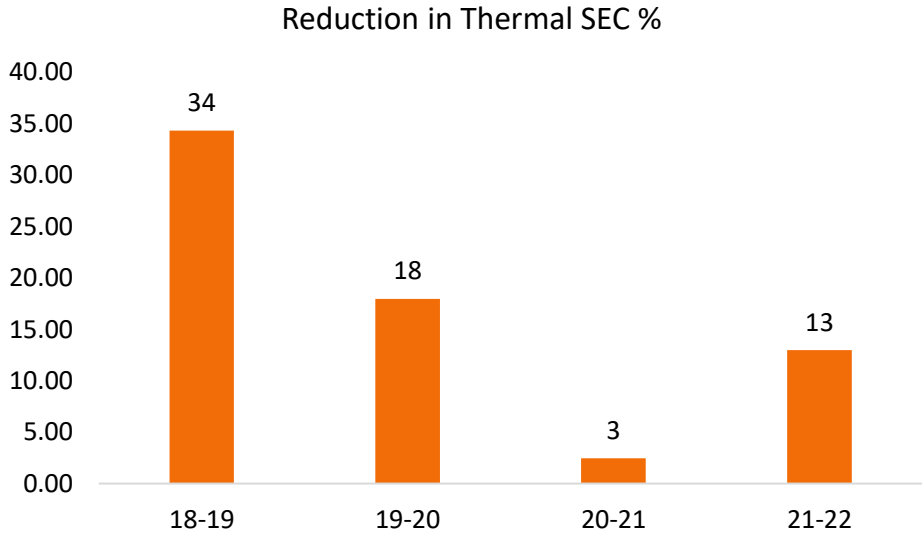


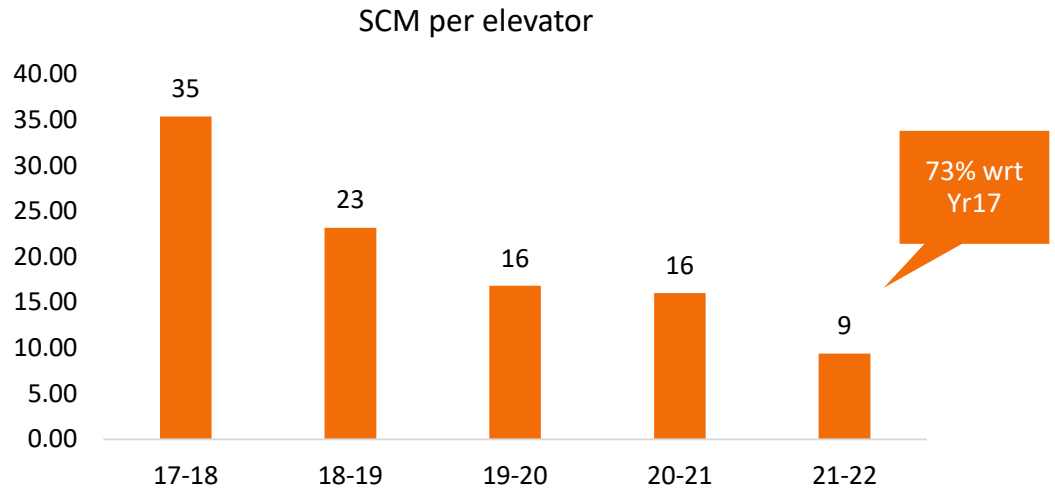




SPECIFIC ENERGY CONSUMPTION –THERMAL







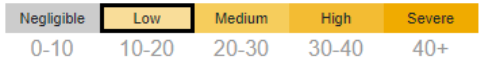
INFORMATION ON COMPETITORS, NATIONAL & GLOBAL BENCHMARK :SUSTAINALYTICS RATING

SUSTAINALYTICS

KONE

ESG Risk Rating

19.2 Low Risk

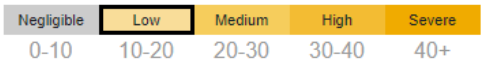


Last Update: **Oct 22, 2021**

Schindler

ESG Risk Rating

19.8 Low Risk



Last Update: **Oct 5, 2021**

OTIS

ESG Risk Rating

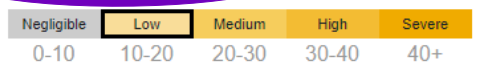
24.5 Medium Risk

Last Update: **Oct 14, 2021**

TKE

ESG Risk Rating

13.8 Low Risk



Last Update: **Nov 8, 2021**

TKE’s lower ESG Risk Rating shows better performance on ESG Risk management

STRATEGY FOLLOWED TO IMPLEMENT ENERGY CONSERVATION/ EFFICIENCY PROGRAMS

ABSOLUTE ENERGY SAVING

Year	Sr no	Project	Saving in kWH	Investment done in Rs lacs	Saving in Rs lacs
2019-20	**1**	Installation of Small Capacity 82.5 KVA DG set for running night instead of Underloaded 1500 KVA dg	3300	0.80	0.231
	2	Timer for Tube axial fans 12 nos to start and off avoided 1 hrs idle use	13853	0	1
	3	Air Conditioning Switch ON done 15 minutes before Shift Start & Switched OFF 15 min before shift end. Individual lighting provided for workstation lightening. RO Water Cooler turned Off after Office Hrs. All Exhaust Blowers turned On 1 Hr prior & switched Off 15 Min. after Office Hrs.	351000	1	25
	4	Timer for HVLS fan to avoid running in lunch time & switch off after Shift end	11544	0.20	1
		Total	**379697**	**2.165**	**26.58**
2020-21	1	Installation of 850 kWp roof top solar system.	695000	0.10	38.23
	2	Switching off HVAC & Use of fan for Controller Assembly area	36851	0.10	3.50
	3	Switching off HVAC & Use of fan for Shop Floor Offices	10553	0.15	1.00
	4	Optimization of powder Coating Plant Electricity saving	20160.3174	**0.1**	3.2
		Total	**762564**	**0**	**46**
2021-22	**1**	Switching off idle running transformer	45014	0.05	3.15
	2	Electrical equipment's instead of Pneumatic like Drill,Jig Saw, Grinder & Studder	1650	0.10	0.12
	3	Occupancy Sensor for Washing rooms	360	0.29	0.03
	4	Optimization of powder Coating Plant MNGL saving SCM	0	0.10	0.00
	5	Modification in HT Panels to save Diesel cost for running DG sets due to breakdown in HT panels -	40000	0.25	3.2
	6	Scheduling & regrouping of HVAC in lunch ,Shift start & Shift End time for Head Office Building	50000	0.15	4.75
		Total	**137024**	**1**	**11**

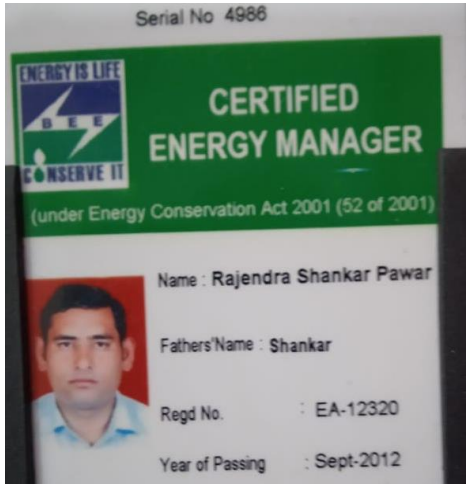
ENCON MEASURES IMPLEMENTED

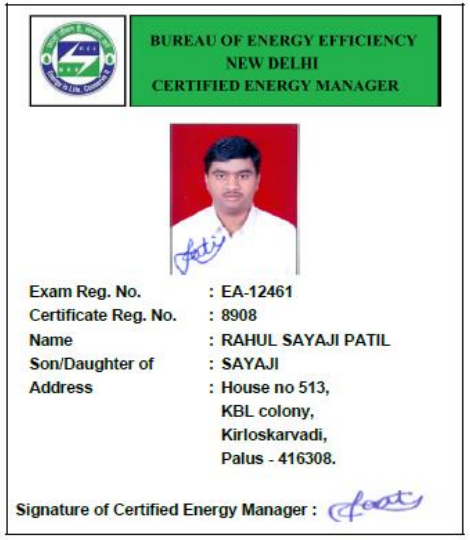
Sr No	Description of project	Savings			Target Date	Investment Requirement in lacs Rs	Co2 emission Reduction in Tones per year
		Electricity kWh	Diesel in Lit	MNGL in SCM			
	Completed Projetcs						
1	Installation of roof top Solar PV system 821 kW	905500			Completed		770
2	Battery operated Electrical Vehicle instead of Diesel Vehicles		12000		Completed		56
3	Selecting Energy efficient Machines	10000			Completed		9
4	Selecting Energy efficient Transformer & Switching off idle running transformer	45012			Completed		38
5	Selecting Energy efficient Compressor with VFD Model	2500			Completed		2
6	Optimization of powder Coating plant to reduce MNGL consumption			20655	Completed		174
7	Switching off HVAC & Use of fan for Controller Assembly area	36850.7			Completed	0.1	31
8	Switching off HVAC & Use of fan for Shop Floor Offices	10553			Completed	0.1	9
9	Modification in HT Panels to save Diesel cost for running DG sets due to breakdown in HT panels -	0	4000		Completed	0.25	19
10	Scheduling & regrouping of HVAC in lunch ,Shift start & Shift End time for Head Office Building	50000			Completed	0.1	43
11	Timer for HVLS fan to avoid running in lunch time & switch off after Shift end	11544			Completed	0.15	10
	Total	**1071960**	**16000**	**20655**		1	**1160**

❖ **Avoided CO2 emission per Year in tons -1160**

LIST OUT THE RECOMMENDATIONS OF AUDIT & NUMBER OF MEASURES IMPLEMENTED.

Sr No	Description of project	Expected Saving per year kWh	Target Date	Investment Requirement in lacs Rs	Co2 emission Reduction in Tonnes	Status
1	Utilize waste heat from Poweder coating oven to hot water used in greasing & degreasing	45120	30.06.2022	5	38	CER under Approval process
2	Installation of VFD and DO Meter for air Blowers of STP plant	43200	30.12.2021	1.09	11	PO given to vendor ,waiting for material
3	Power factor Improvement	17350	30.02.2022	1	15	Harmonics study planned in Dec 21
4	Charging of Battery vehicles in A zone	0	30.06.2023		Cost saving Rs 1 lac	Project complete by Dec 21
5	Replacement of T5 fittings with LED or Induction lamp	5000	30.06.2022	2	4	CER under Approval process
6	Switching off or reducing capacity of LED lamps near windows	1000	30.03.2022		1	CER under Approval process
7	Solar streetlights	84000	30.12.2022	15	71	CER under Approval process
8	Electrical equipments instead of Pneumatic like Drill,Jig Saw,Grinder & Studder	Under Study	30.06.2022	0.5	Under Study	Under study
9	UV Sunproof Film on windows of all Offices	Under Study	30.06.2022		Under Study	
10	Air curtain for canteen AC	Under Study	30.06.2022		Under Study	
11	Occupancy sensor for staircase	Under Study	30.11.2021		Under Study	
12	Motivating employees for E vehicles,providing free charging in company premises	Under Study	30.06.2022		Under Study	
13	Automated organic waste decomposer	Under Study	30.06.2022	2	Under Study	CER under Approval process

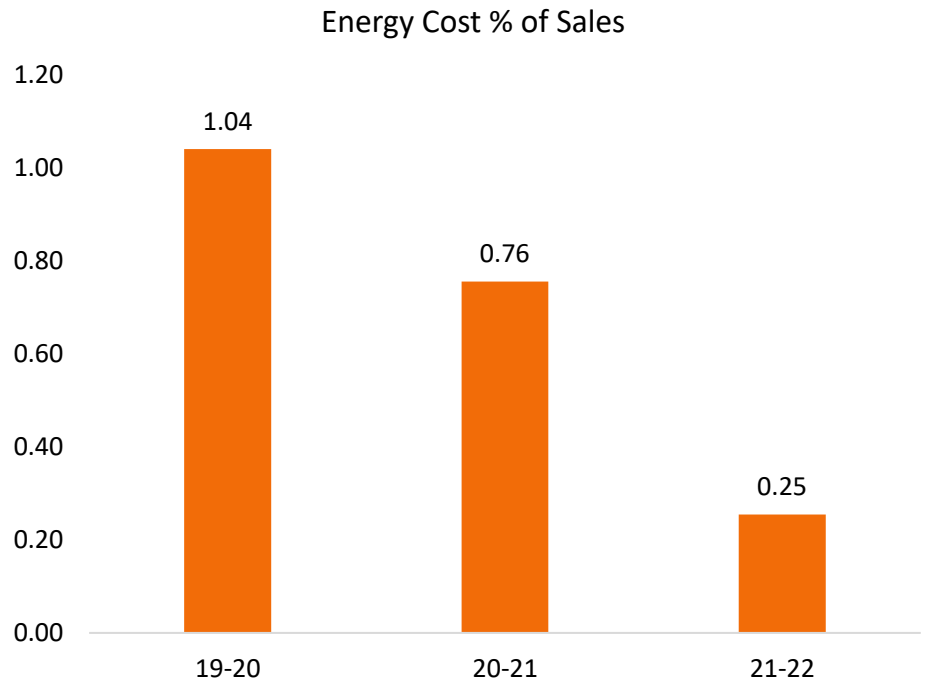


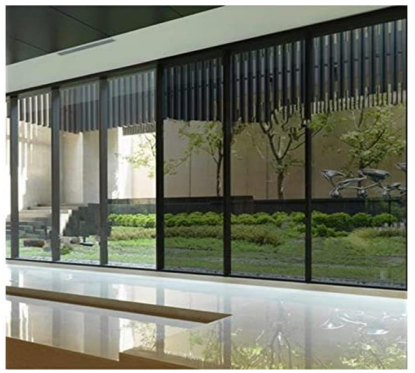


- As we have BEE Certified Energy Manager & Auditors in Plant who continuously monitors the energy consumption. Various OFI are identified
- As we are in progress of Implementation of ISO 50001, we will conduct external Energy Audit for every two years or on completion of major Process changes.

FUTURE PLAN FOR ENERGY CONSERVATION

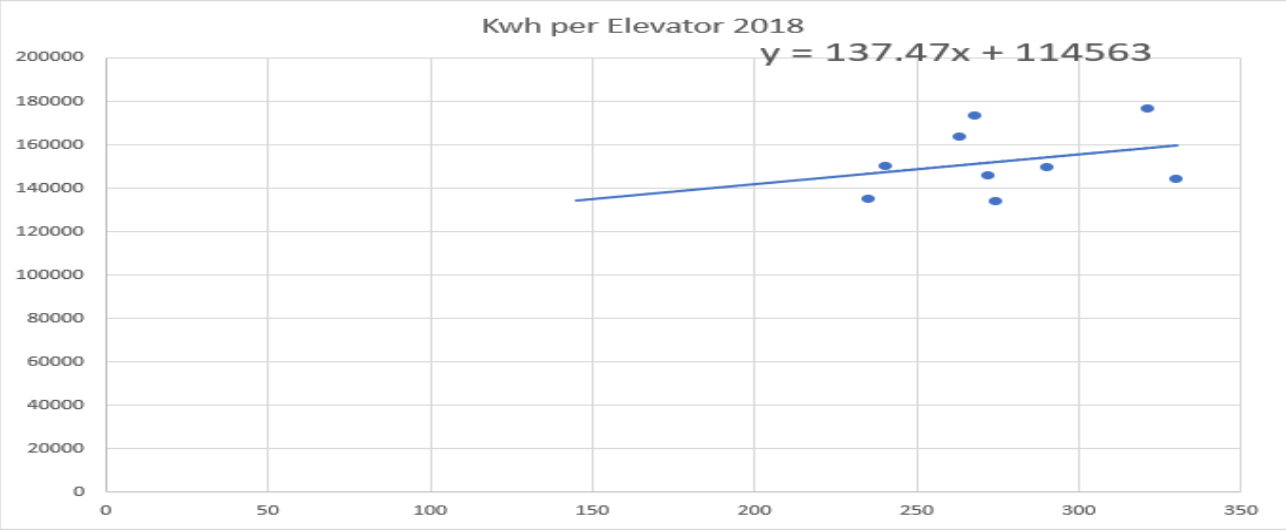
Sr No	Description of project	Expected Saving per year kWh	Target Date	Investment Requirement in lacs Rs	Co2 emission Reduction in Tonnes
1	Installation of 500 kW additional Solar Roof top PV system Capex	500000		350	425
2	Compressed Air Optimization- Replacing Underloaded 600 CFM compressor with Available 150 CFM VFD screw compressor	3600	30.11.2022	1	3
3	Utilize waste heat from Powder coating oven to hot water used in greasing & degreasing	45120	30.06.2023	5	38
4	E vehicle for Employee Transport instead of Diesel operated.	690480	30.12.2022	210	169
5	Installation of VFD and DO Meter for air Blowers of STP plant	51840	30.12.2022		13
6	Power factor Improvement	17982	30.12.2022	1	15
7	Charging of Battery vehicles in A zone	0	30.12.2022		Cost saving Rs 1.5 lac
8	Replacement of T5 fittings with LED or Induction lamp	5000	30.06.2023	2	4
9	Switching off or reducing capacity of LED lamps near windows	1000	30.03.2023		1
10	Solar streetlights	84000	30.12.2023	15	71
11	Electrical equipments instead of Pneumatic like Drill,Jig Saw,Grinder & Studder		30.06.2023	0.5	Under Study
12	UV Sunproof Film on windows of all Offices	Under Study	30.06.2023		Under Study
13	Air curtain for canteen AC	Under Study	30.06.2023		Under Study
14	Occupancy sensor for staircase	Under Study	30.11.2022		Under Study
15	Motivating employees for E vehicles,providing free charging in company premises	Under Study	30.06.2023		Under Study
16	Automated organic waste decomposer	Under Study	30.06.2023	2	Under Study

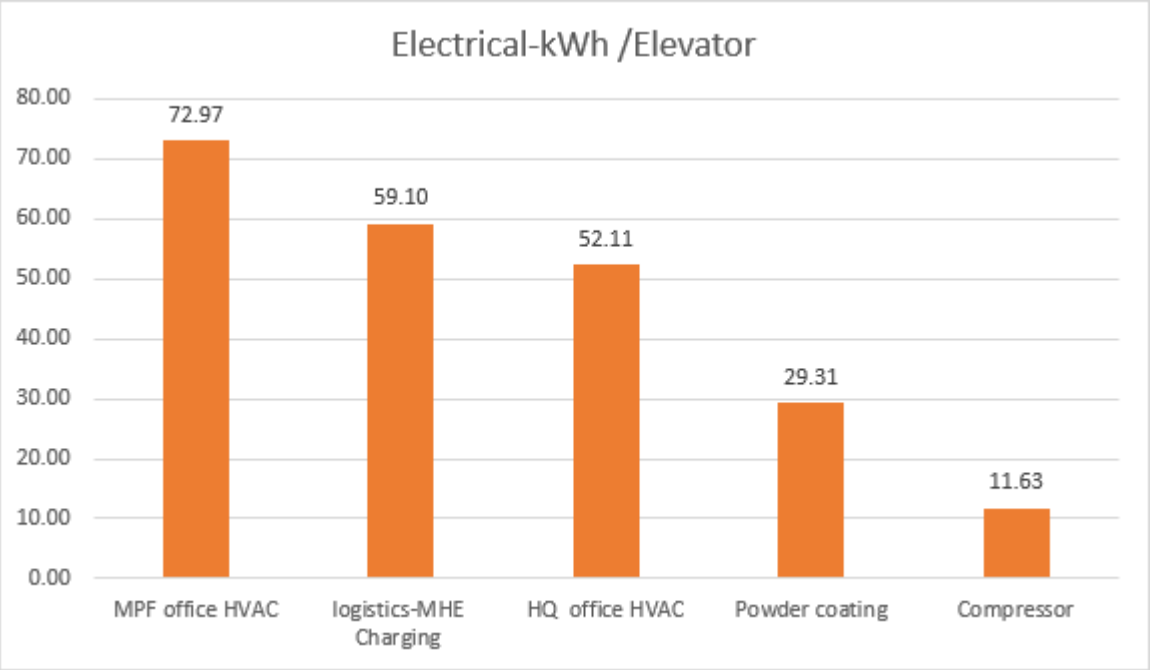


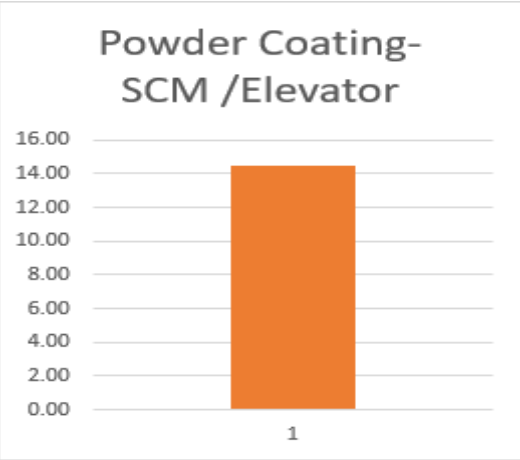


- **With identified Projects we will save CO2 emission per Year in tons -735**

REGRESSION ANALYSIS & ENPI







INNOVATIVE PROJECTS– INSTALLATION OF 821KW SOLAR POWER PLANT

Solar Project Details

To reduce the Co2 emission and electricity cost by using natural resources i.e., solar energy.

- **Actions**

Supply & Installation of Solar Power at MPF Roof top & Car parking area as per the Power Purchase Agreement (PPA) for 20 years

•Solar Project Summery :

•Solar Plant Capacity : 821 Kw

•Roof top Capacity :-755 Kw

•Carport Capacity :- 66Kw

•Assured Electricity Generation : **1067 Mw/annum**

Net metering :- Excess electricity generated during the holidays, lunch time etc. the same would be export to Govt. & Compensation will get from Govt.

Solar Project

Roof top solar panels

Carport

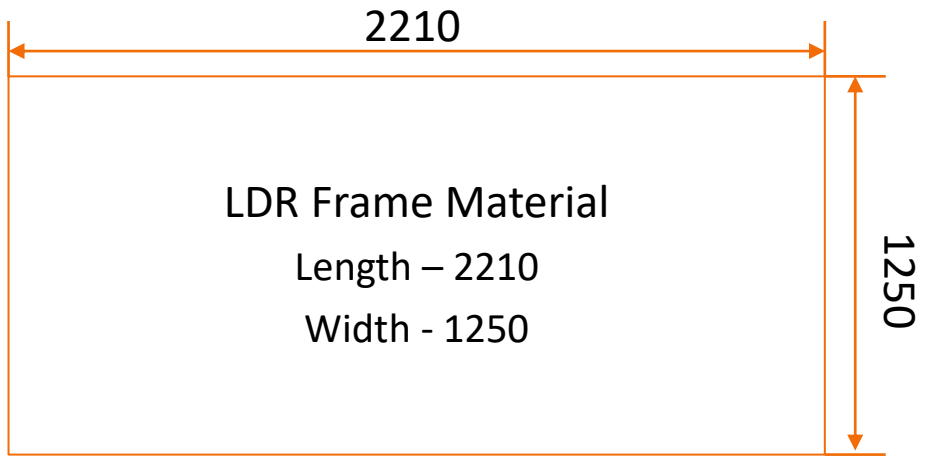
Benefits

5.64 Min	771 ton	73%	Zero investment
Annually Cost Saving	Avoided emissions (t CO2e)	Green Energy usages	

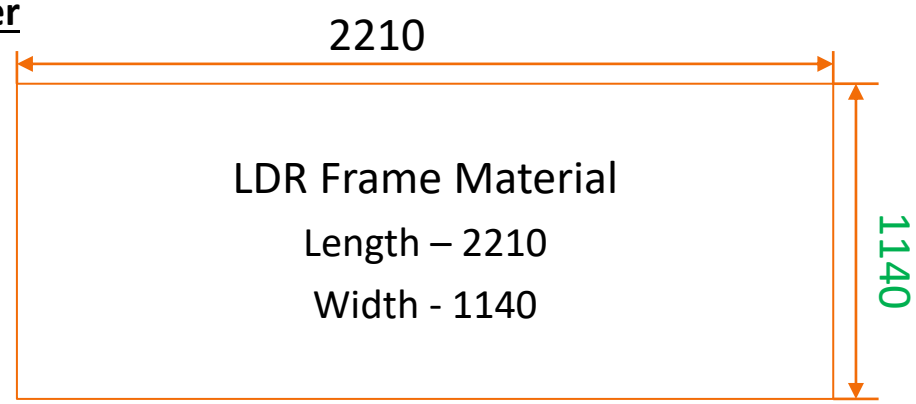
INNOVATIVE PROJECTS – LANDING DOOR DESIGN MODIFICATION

Project Description:- Lading door SS sheet coming from supplier having width 1250 mm . Wastage of material during shearing operation . So, procuring finish SS sheet as per our design 1140 mm.

Before



After



Result

Year	SS scrap weight From LDR Frame Material(tone)	Value (INR)	Electricity Kwh	M/c Energy Cost savings
2018 to 2019	15.7	27,47,500	67125	5,37,000
2019 to 2020	2.6	4,55,000	5231	41,850
2020 to 2021	2.6	4,55,000	5231	41,850
Improvement	83.4%	83.4%	92%	95%

Reduced SS Scrap weight From LDR Frame Material by 13.1 Tons.

83% Improvement

INNOVATIVE PROJECTS – POWDER COATING OPTIMIZATION

Project Description:- Optimization of powder coating plant to reduce PNG & electricity consumption

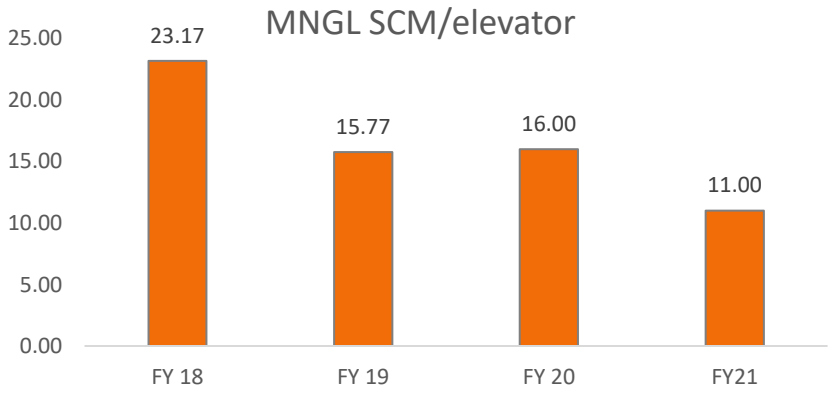
Before

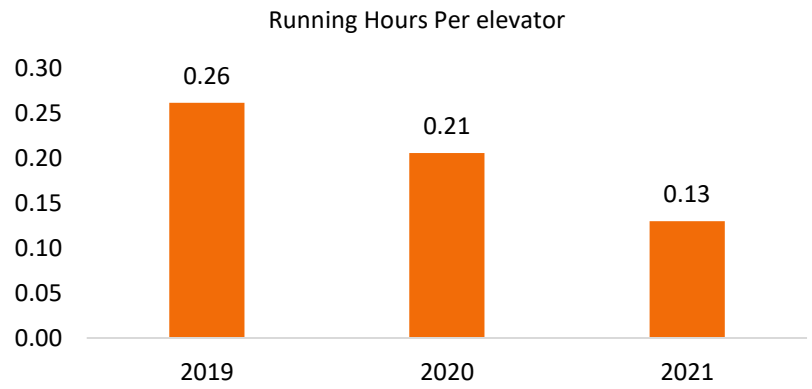
- Powder coating underutilized.
- Powder coating started at 9 am after shift start
- Manpower Idle for 1 hrs. waiting for temp.

After

- Powder coating 100% loading .waiting till full load .
- Powder coating started at 8.15 am after shift start & switched off before 1 hrs.
- No Idle manpower

Result





INNOVATIVE PROJECTS – CONTROLLER ASSLY AC OPTIMIZATION

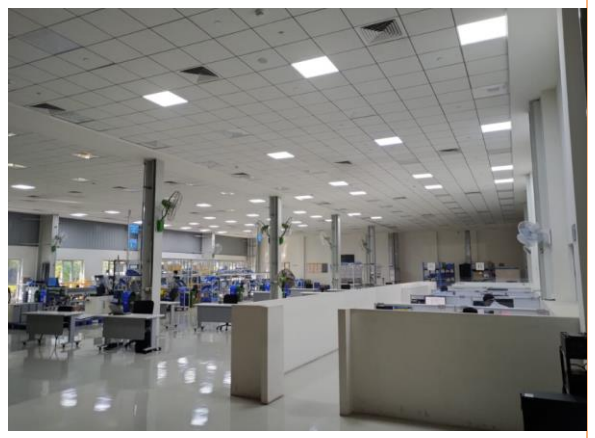
Project Description:- Switching off HVAC & Use of fan for Controller Assembly area.

Before

- Controller assly AC continually on as per shift .
- Total area of 1527 Sq Mtr.

After

- No requirement of AC for controller assly .
- Switched off AC and installed the fans as there is no need of product requirement



Result

- Electricity saved 47404 kwh /year
- Co2 reduction 34 ton/year
- Cost saving 3.55 lac/year

NEW TECHNOLOGY - BATTERY OPERATED FORKLIFTS, REACH TRUCK, STACKER, SCISSOR LIFT

TPM

SR.NO.	GROUP	TYPE	BRAND	MODEL	ASSET NO.	COMMISSIONING DATE
1	Forklift	5T - Battery Operated	HYUNDAI	50B-9F	MHE-2	18/02/2017
2	Forklift	3T - Battery Operated	HYUNDAI	30B-9FE	MHE-1	18/02/2017
3	Forklift	3T - Battery Operated	HYUNDAI	30B-9FE	MHE-3	17/02/2017
4	Forklift	3T - Battery Operated	HYUNDAI	30B-9FE	MHE-4	18/02/2017
5	Forklift	3T - Battery Operated	Nilkamal	CPD30J-D1	MHE-10	
6	Forklift	3T - Battery Operated	Nilkamal	CPD30J-D1	MHE-11	
7	Reach truck	1.6T - Battery Operated	HYUNDAI	16BRJ-9E	MHE-5	18/02/2017
8	Reach truck	1.6T - Battery Operated	HYUNDAI	16BRJ-9E	MHE-6	18/02/2017
9	Reach truck	1.6T - Battery Operated	Nilkamal	CQD16H-IC2	MHE-9	
10	Stacker	1.5T - Battery Operated	Nilkamal	NK-ES1563AC	MHE-7	12-08-2016
11	Stacker	1.5T - Battery Operated	Nilkamal	NK-ES1563AC	MHE-8	12-08-2016
12	Reach truck	1.6T - Battery Operated	Jungheinrich	ETV116n	MHE-12	27/12/2018
13	Stacker	1.5T - Battery Operated	Hyundai	15ESR	MHE-13	15/03/2019
14	Forklift	5T - Battery Operated	HYUNDAI	50B-9F	MHE-14	20/12/2019

Running Cost Calculation of 3 yrs for Electric & Diesel counterbalance Truck

No.	Item	Quantity	Unit	Expenses				
				MRP	Electric Truck	MRP	Diesel Truck	
1	Mast OH	1	Ea	17000	12750	17000	12750	0.75
2	Stear Axle OH	1	KIT	25000	18750	25000	18750	0.75
3	Gear Oil	15	Ltr	3000	2250	3000	2250	0.75
4	Hydraulic Oil	120	Ltr	24000	18000	24000	18000	0.75
5	Brake OH	4	Ea	20000	15000	20000	15000	0.75
6	Electricity Charges	18750	UNIT	180000	180000	0	0	0.75
7	Diesel Charges	12000	ltr	0	0	732000	732000	0.75
8	Engine OH	1	Ea	0	0	60000	45000	0.75
9	Tyres	4	Ea	32000	24000	45000	33750	0.75
10	Engine Oil	120	Ltr	0	0	24000	18000	0.75
11	Filters	3	Kit	9000	6750	45000	33750	0.75
12	Motor Servicing	2	Ea	10000	7500	0	0	0.75
13	Clutch Maintenance	1	Ea	0	0	25000	18750	0.75
	TOTAL				285000		948000	0.75
	Running Cost per day				950		3160	0.75

* Above costs are on estimation basis

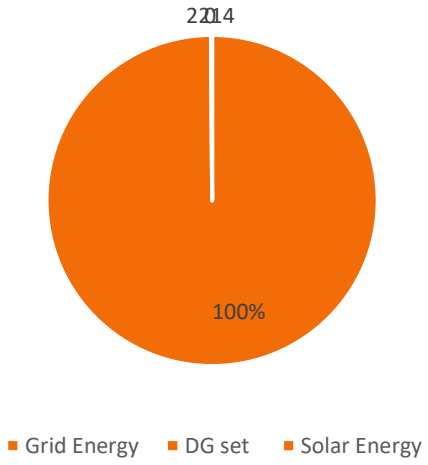
Parameter	Electrical Forklift	Diesel Forklift
Electicity required for Charging in Units	18750	0
Diesel required in Lit	0	12000
CO2 emission in Kg	15937.5	32760
Avoided CO2 Emission in Kg	16822.5	
No of Vehciles considered	10	
Total Avoided CO2 Emission in Kg	168225	
Total Avoided CO2 Emission per Year in tons	56.075	

❖ **In Comparison Diesel Vehicles-Avoided CO2 Emission per Year –56 tons**

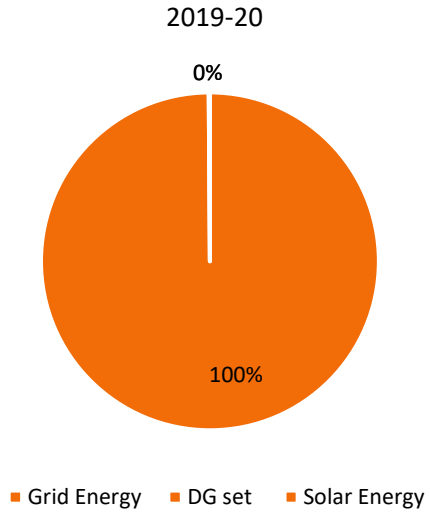
Planned for Charging of All MHE vehicles in A zone estimated Savings of Rs 1.5 lac per annum.

UTILIZATION RENEWABLE ENERGY

2018-19



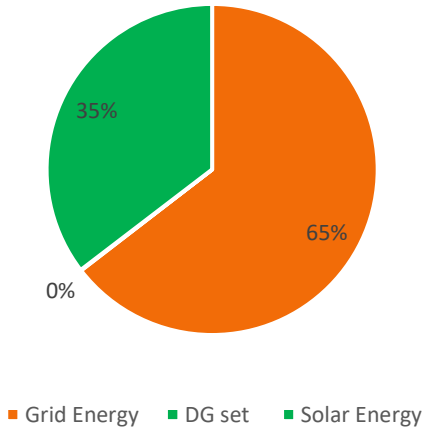
2019-20



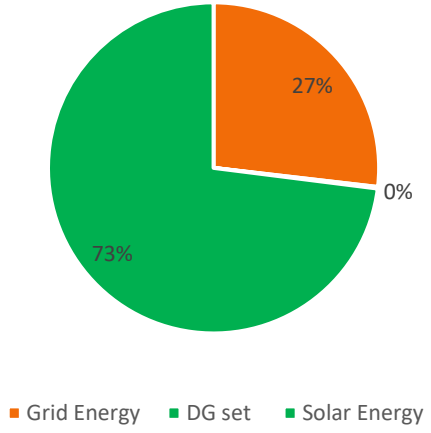
Solar Project

Roof top solar panels

2020-21



2021-22



Carport

MPF INDIA - WASTE MANAGEMENT

Waste Handling System

- All Dept Send waste to the scrap yard.
- SOP for all Waste Management.

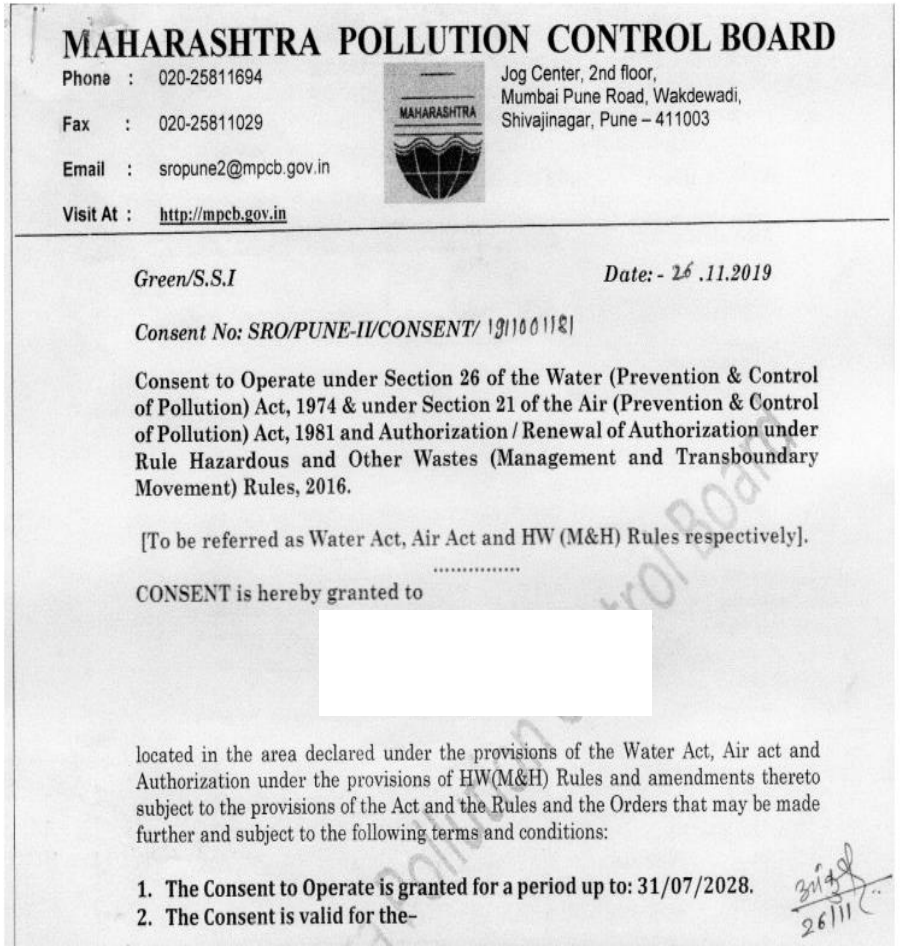
Waste Selling Process

- Segregation waste in scrap yard.
- TKEI will be do auction of all waste.
- Govt authorized vendor will be part of auction.

Disposal Process

- Hazardous waste directly send to the Govt. recycling units .
- Vendor send the all waste to recycling .
- Vendor is selling the Wood to sub vendor for reusing.

Vendor Permission letter



MAHARASHTRA POLLUTION CONTROL BOARD

Phone : 020-25811694
Fax : 020-25811029
Email : sropune2@mpcb.gov.in
Visit At : http://mpcb.gov.in

Jog Center, 2nd floor,
Mumbai Pune Road, Wakdewadi,
Shivajinagar, Pune – 411003

Green/S.S.I *Date:- 26 .11.2019*

Consent No: SRO/PUNE-II/CONSENT/

Consent to Operate under Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization / Renewal of Authorization under Rule Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.

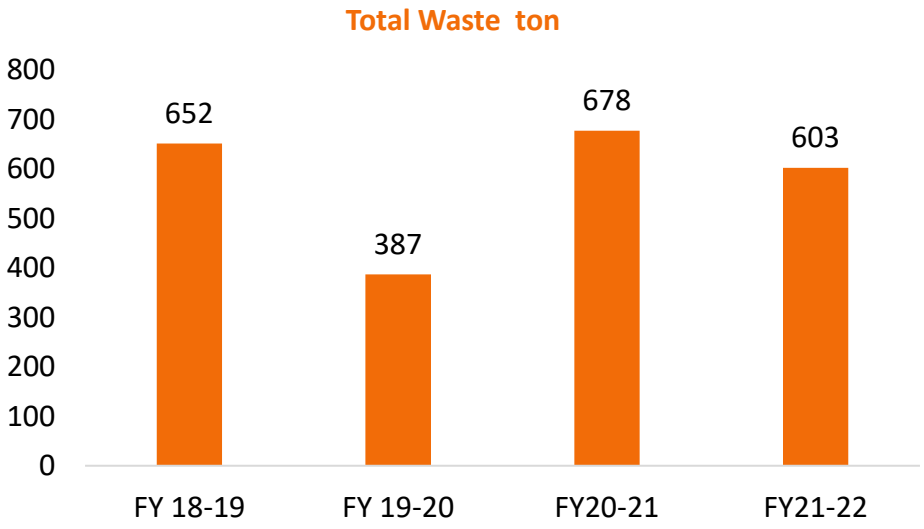
[To be referred as Water Act, Air Act and HW (M&H) Rules respectively].

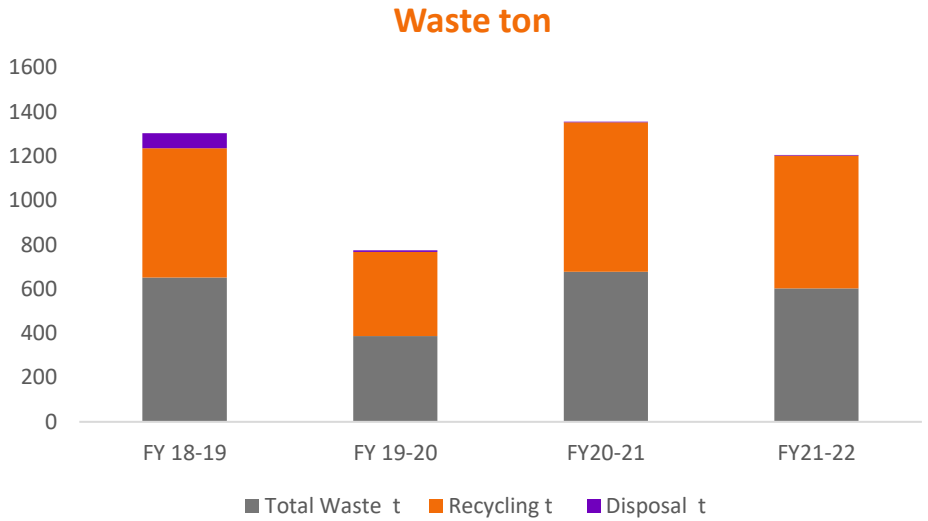
CONSENT is hereby granted to

located in the area declared under the provisions of the Water Act, Air act and Authorization under the provisions of HW(M&H) Rules and amendments thereto subject to the provisions of the Act and the Rules and the Orders that may be made further and subject to the following terms and conditions:

1. **The Consent to Operate is granted for a period up to: 31/07/2028.**
2. **The Consent is valid for the–**

MPF INDIA - WASTE MANAGEMENT





Year	Total Waste ton	Recycling ton	Disposal ton
FY 18-19	652	584	68
FY 19-20	387	381	6
FY20-21	678	674	4
FY21-22	603	600	3

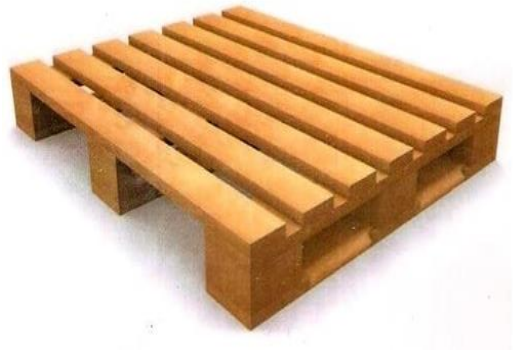
ZERO WASTE TO LANDFILL

REUSE OF SCRAP MATERIAL

Reuse of wooden Material :

Year	Pallet Qty per Year	Cost per Pallet	Pallet Cost Per Year	KG Wood	Scrap Cost	Carpenter Cost	Saving Cost
2019-20	1800	490	882000	18000	27900	144000	882,000
2020-21	3600	490	1764000	36000	55800	288000	1,764,000
2021-22	3300	490	1617000	33000	51150	264000	1,617,000
			42,63,000	87,000	1,34,850	6,96,000	34,32,150

Reuse of wooden material for pallet making :



Reuse of wooden material for sitting arrangement

Rejected SS material used for building wall corners & tables.

GHG INVENTORISATION - TKE COMMITS TO REDUCE GHG EMISSIONS RELATED TO OWN ACTIVITIES

Sope

Target

Scope 1	Scope 2
	
Direct emissions of own assets (incl. factories and vehicle fleet)	Indirect emissions from energy consumption
Classically accounted as own emissions	

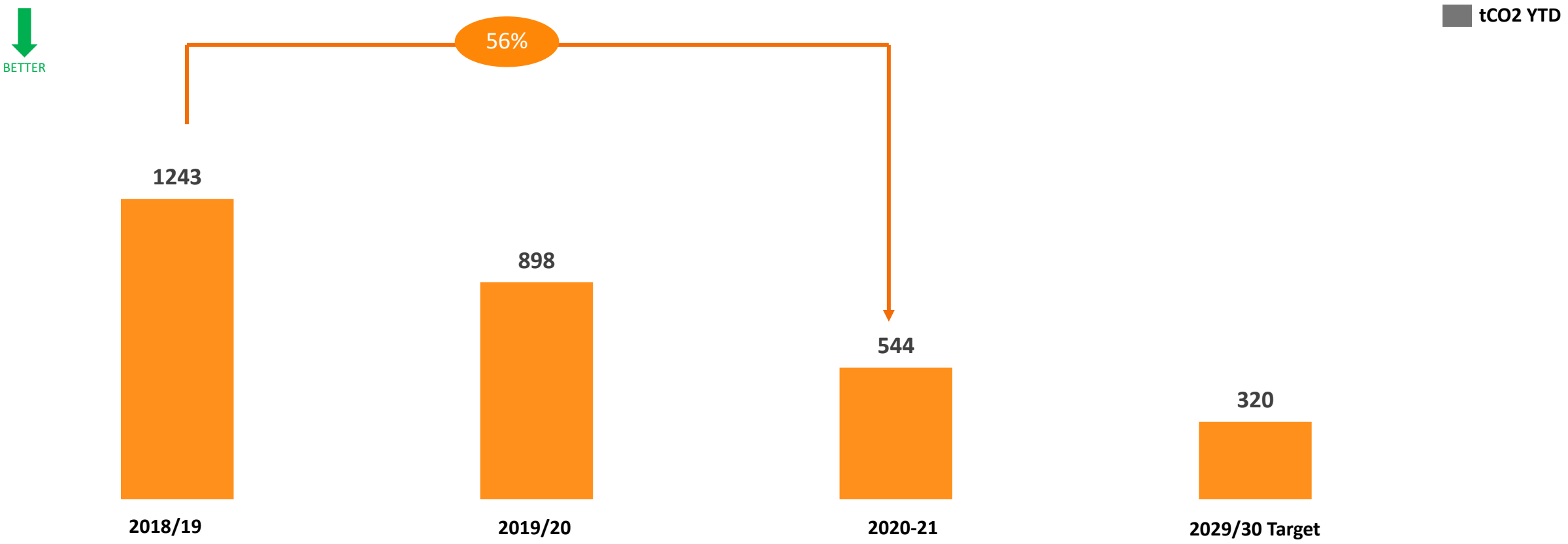
- **TK Elevator commits to** reduce 25% absolute scope 1 and 2 GHG emissions by 2030 **from a 2019-20 base year**
- **TK Elevator commits to** reduce 50% absolute scope 1 and 2 GHG emissions by 2040 **from a 2019 -20 base year**

T K Elevator India have reduced **56%** absolute GHG emissions by 2021 **from a 2019-20 base year**

CO2 EMISSIONS (TON) PUNE

YTD 2021

BETTER



GHG REDUCTION. SCOPE 1&2 - MFG

Sponsor	Functional Lead
V. Della Valle	P. Keilich

company	company Lead
MPF India	Milind Harshe

Target	TKE Target	Baseline	Deadline	FY 20/21
	▪ 53% reduction of absolute Scope 1&2 emissions	FY 18/19	Sept 2030	19% vs 18/19

Approach	
	▪ Reduce energy consumption through energy efficiency measures ▪ Increase the use of renewable electricity

Baseline	ACT	FC	Target		
18/19	20/21	21/22	22/23	23/24	24/25
1243t CO2e	544 t CO2e 56 %	500t CO2e 59 %	480t CO2e 61%	470 t CO2e 63 %	460t CO2e 65%

Initiatives FY 22/23	
	Replacement of shop floor T5 lights with LED. Installation of UV film Installation to reduce heat load

		CAPEX (k EUR)			EBITDA impact (k EUR)			Scope 1&2 reduction (tCO2e; % vs 18/19)		
Description of the initiative	Payback	22/23	23/24	24/25	22/23	23/24	24/25	22/23	23/24	24/25
▪ Solar Street light	5 years		30			30		-	60 t CO2e 5%	
▪ T5 tube light to replaced with LED	5 Years	8	8	2	8	8	2	10 t CO2e 1%	10t CO2e 1%	5 t CO2e 1%
▪ UV sunproof film for all office area window to avoid AC load	4Year	3	3		3	3		5 t CO2e 0.5%	5t CO2e 0.5%	
TOTAL		**11**	**41**	**2**	**11**	**41**	**2**	15 t CO2e 1.5%	75 t CO2e 6%	5 t CO2e 0.5%

GREEN SUPPLY CHAIN MANAGEMENT

Supplier code of conduct

- We consider social, ethical and environmental criteria in all purchasing decision.
- TK Elevator released an updated supplier code of conduct in 2021.
- All suppliers to adhere to the principles laid out in the Supplier code of conduct.

Sustainability auditing system

- Our aim is to reduce supply chain risks and to foster the ongoing relationship with our suppliers by finding solution rather than terminating these relationship.
- We conducted 20 audits in 2020.21 and plan to double this effort in 2021/22

CDP SUPPLIER ENGAGEMENT LEADER 2021

Recipient of the CDP "Supplier Engagement Leader 2021" award for taking action to measure and reduce environmental risks in our supply chains.

GREEN SUPPLY CHAIN MANAGEMENT

- Green Purchase Policy
- Localization of Product
- Milk Run
  Collection of part from various vendor in one vehicle
- 100 % load utilization (No Over Loading)
- Reducing TOT from 2.5 Hrs to 2 Hrs

TEAMWORK ,EMPLOYEE'S INVOLVEMENT IN ENERGY CONSERVATION

Sr No	Activity
1	Attending various ENCON training by MEDA,PCRA & BEE
2	Attending various Exhibitions IMTEX
3	ENCON week, Environment day celebration
4	Competitions on energy saving– Slogan, Essay, Poster etc. Appreciation awards for participants
5	Separate KAIZEN schemes for energy conservation
6	Watts up group for Information Sharing, Video films.
7	Tree Plantation form internal team
8	Visual Display for increasing awareness of ENCON activities.
9	Motivating employees for appearing BEE energy manager & Auditor Exam.
10	Addressing through PA system & Daily Sunrise meetings

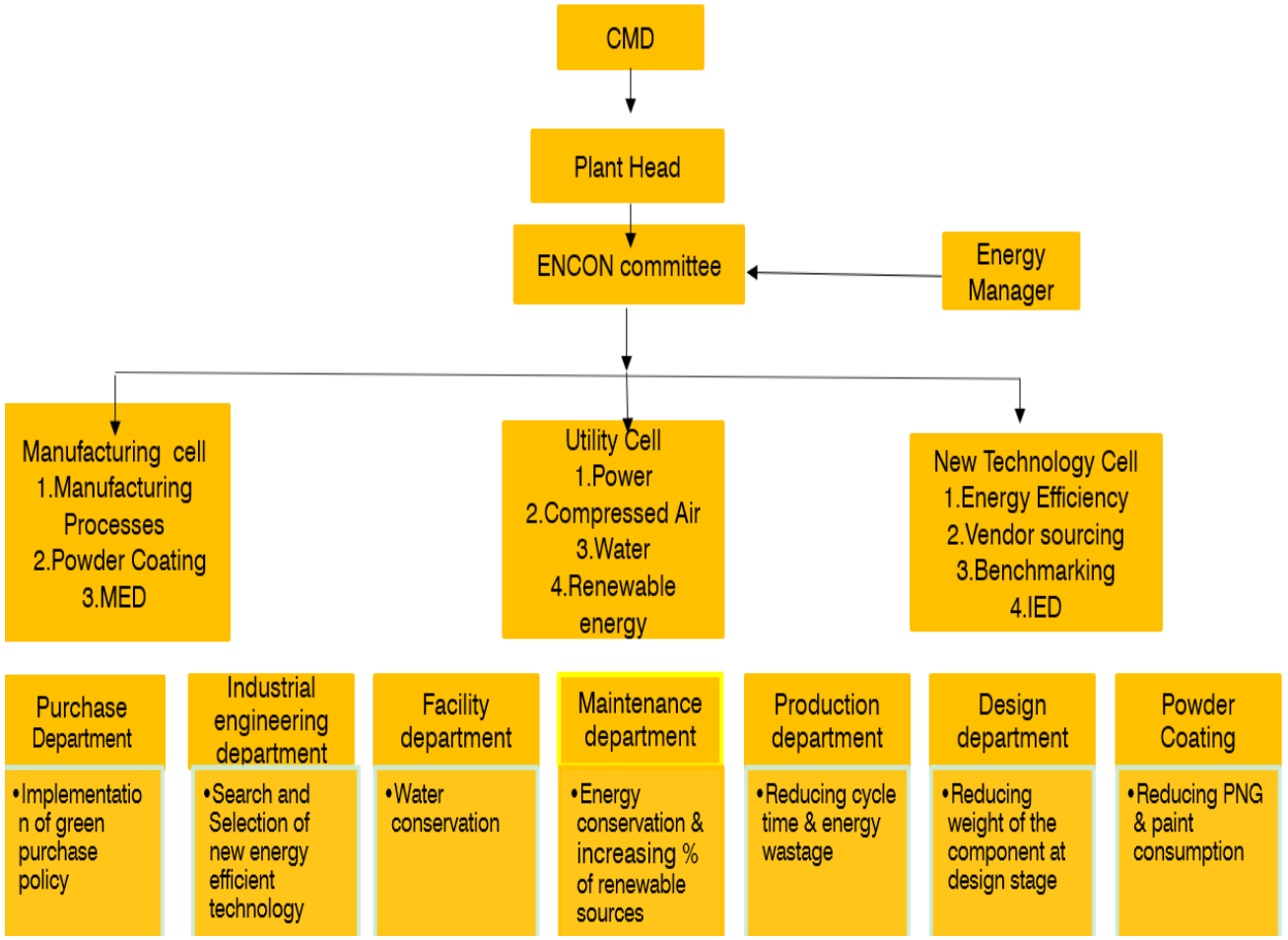
ENERGY WEEK CELEBRATION AND COMPETITION

(Clockwise) Administration of Energy Oath to employees at HQ Office, Manufacturing Office and MPF Shop Floor Area

(Top to Bottom) Spot Quiz on Energy Conservation conducted at MPF's Canteen; Energy Conservation Poster & Slogan Awards Distribution

ENCON TEAM

ENERGY CONSERVATION CELL



Energy and Environment Roles and Responsibilities Matrix

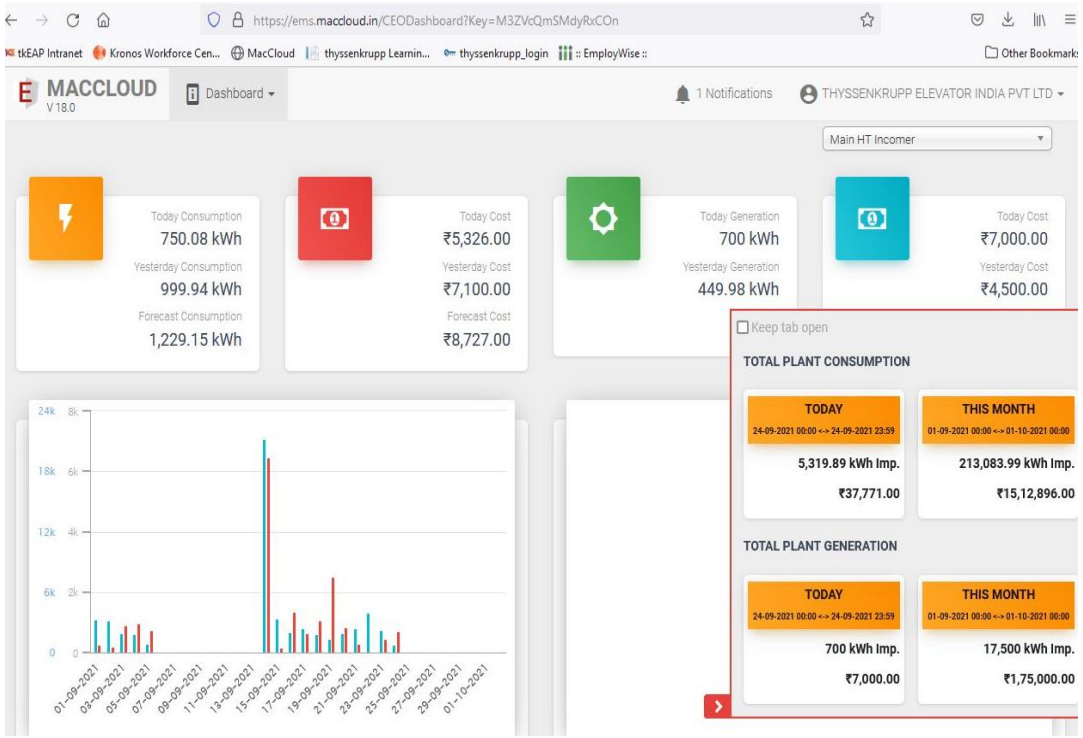
Sr no	Function	Responsibility				
		Chairman Mfg. Head	Energy Manager	Energy & Environment Manager	Team Members	Finance
1	Measure consumption of Energy & environment			●		
2	Identify energy & Environmental cost centres			●		▲
3	Track performance			●		
4	Set targets for Energy & Environmental usage	▲	▲	●		
5	Develop & Participate conservation programme.			●	●	
6	Inspect Equipment's			●		
7	Select projects for improvement	▲	▲	●		
8	Allocate budget and resources	▲	▲	●		●
9	Prepare documentation			●		
10	Provide training			●		
11	Review new projects for energy efficiency	▲	▲	●		
12	Carry out energy management audits	▲	▲	●	●	

▲ - Approval authority

● - Responsible for work

MONITORING DAILY, MONTHLY POWER, PNG & WATER CONSUMPTION OF SECTIONS.

Online Cloud Monitoring System



Monitoring Sustainability Parameters Daily

ISO 50001 :2018 IMPLEMENTATION

- **We are in process of ISO 50001:2018 implementation.**
- **All Employee awareness training completed**
- **Stage 1st Audit planned in last week of Aug 2022.**

RE: ISO 50001-Internal Auditor Training-TK Elevator

Pawar, Rajendra
To Roge, Vishal
Cc Tandon, Preeti; Patil, Rahul; Harshe, Milind

Internal

Dear Vishal,

We are ready for the 1stage audit for ISO 50001 .

Kindly confirm the availability of auditors.

Regards,
Rajendra Pawar
Manager– Maintenance & Facility
T: +91 02135 624500, D:02135 6245484 +91 9860049491, rajendra.pawar@tkelevator.com
TK Elevator India Private Ltd. (formerly known as thyssenkrupp Elevator India Pvt. Ltd)
Plot No A-23, MIDC Chakan Phase II, Village Khalumbre, District Pune, Maharashtra, 410501 | India | www.tkelevator.com

MOVE BEYOND

TK Elevator India Private Limited
Energy Policy

Issue Date – 18

June 22

We at TK Elevator India Private Limited are committed to offer energy-efficiency in design, manufacturing, and supply of Elevator, Escalators & its components. We are committed to achieve Environmental & climate protection and energy efficiency by achieving lowest specific energy consumption and taking proactive initiatives to combat climate change. **TK Elevator aims to reduce direct and indirect emissions by 25% by 2030 from 2019 base year.**

We hereby declare and commit that our organization and all our employees will:

- **Comply** with all applicable legal and other requirements, corporate policies, and standards always regarding energy use, consumption, and efficiency.
- **Continual** improvement of all environment and Energy performance through **resource** optimization, deployment of latest technologies and cost-effective usage of energy.
- **Maintain** healthy, ecofriendly facilities and processes by ensuring that all resultant environmental impacts and the use of energy and natural resources minimum.
- **Reduce** adverse environmental impact of our operations and products by
  - Optimal energy usage and Conserve natural resources.
  - Reducing waste and emission.
- **Devote** to minimize carbon footprint from our operations by ecofriendly, energy efficient manufacturing processes, facilities, through **procurement** of lowest life cycle cost products and **star labelled** energy efficient equipment's.
- **Educate**, train, motivate and consult with employees to take active participation & accountability for improve energy performance.
- **Communicating** policy & necessary information and arrive at common understanding of our environmental and energy issues with interested parties.

Gyan Mishra — Occupier

Milind Harshe — V.P.-Manufacturing

TK ELEVATOR INDIA PRIVATE LIMITED (formerly known as thyssenkrupp Elevator (India) Private Limited) , HQ & MPF | Plot No. A-23 | MIDC Chakan | Phase-2 | Khalumbre, Khed | Pune, Maharashtra-410501 | India | P +91 21-35625100 | info@tkelevator.com | www.tkelevator.com

NEW TECHNOLOGY /INNOVATION EMPLOYED FOR ENERGY SAVINGS

Production & Utility

Solar Panels

Energy Efficient CNC M/C

Energy efficient DG sets

Energy Efficient transformer

Energy Efficient Compressor

Motion sensor

Battery Operated Forklifts

Day lights Roof sheets

AC unit controller system

Environment

Drip Irrigation system

Water Meters for monitoring

Rainwater harvesting

STP/ETP Plants

100% Roof area covered in Rainwater harvesting

Wooden Material Recycled

WATER CONSERVATION STATUS

Drip irrigation System

Sprinkler System

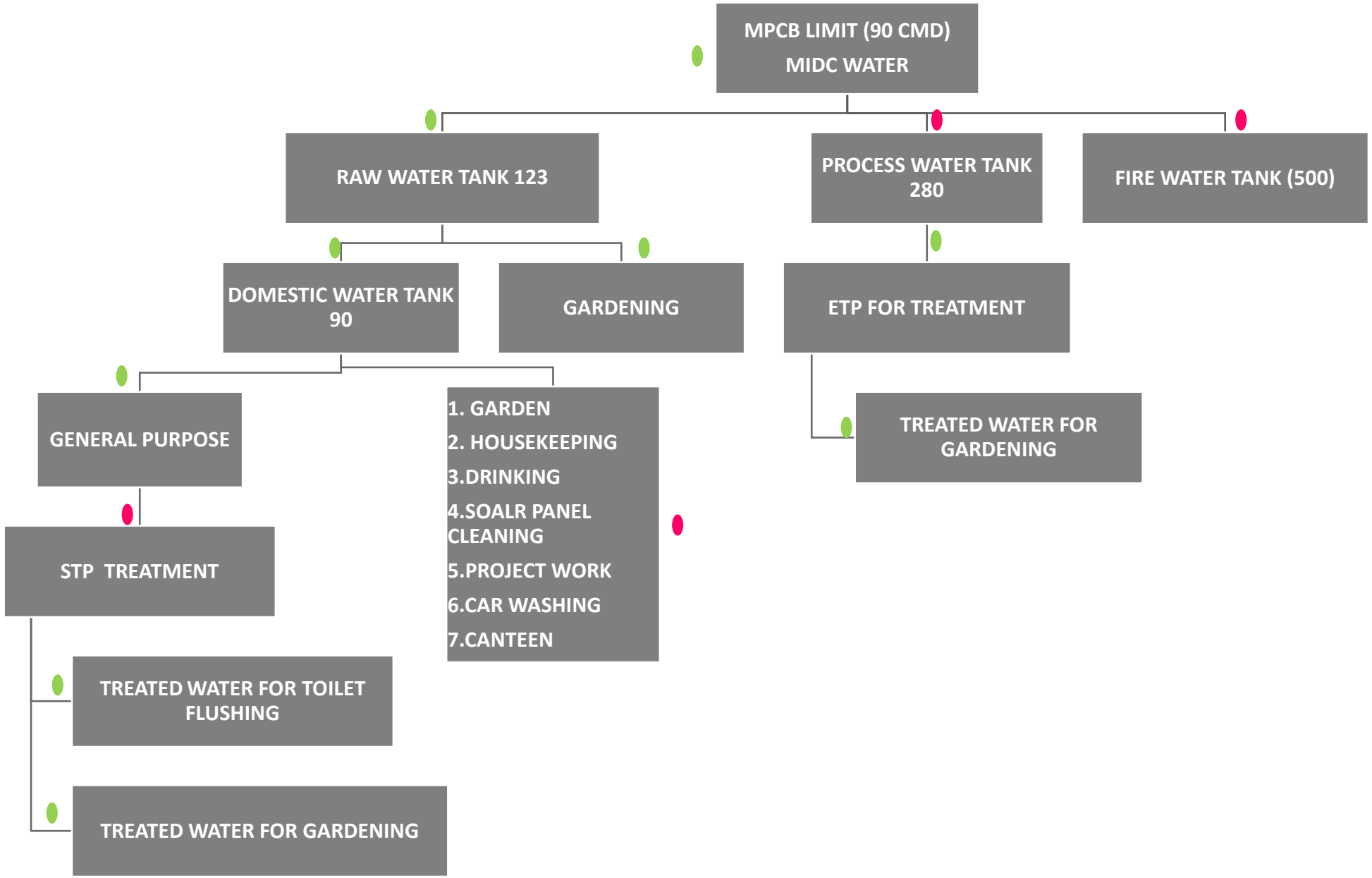
Rainwater harvesting tanks

Foot operated switch

Water Meters

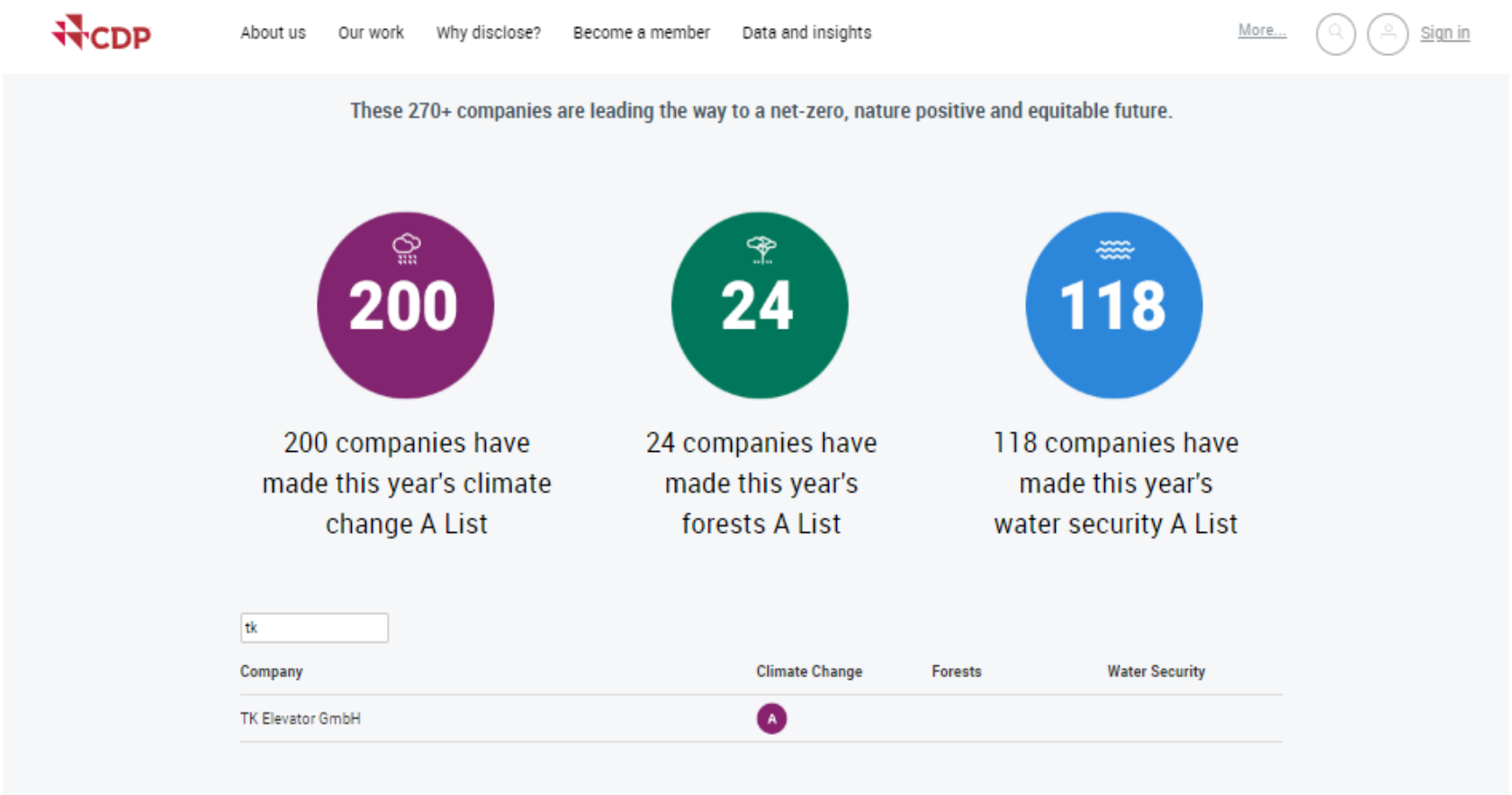
Water saving taps

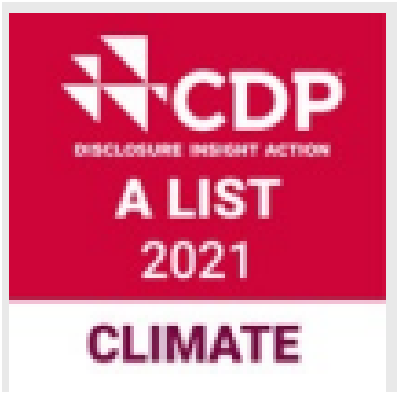
WATER BALANCE – ZERO DISCHARGE



SPECIAL ACHIEVEMENTS - CDP “A” LISTED COMPANY

- A great news from CDP, **TK Elevator** are now certificated as “A” in the list based on our disclosure in 2021
- Only 200 companies got “A”.



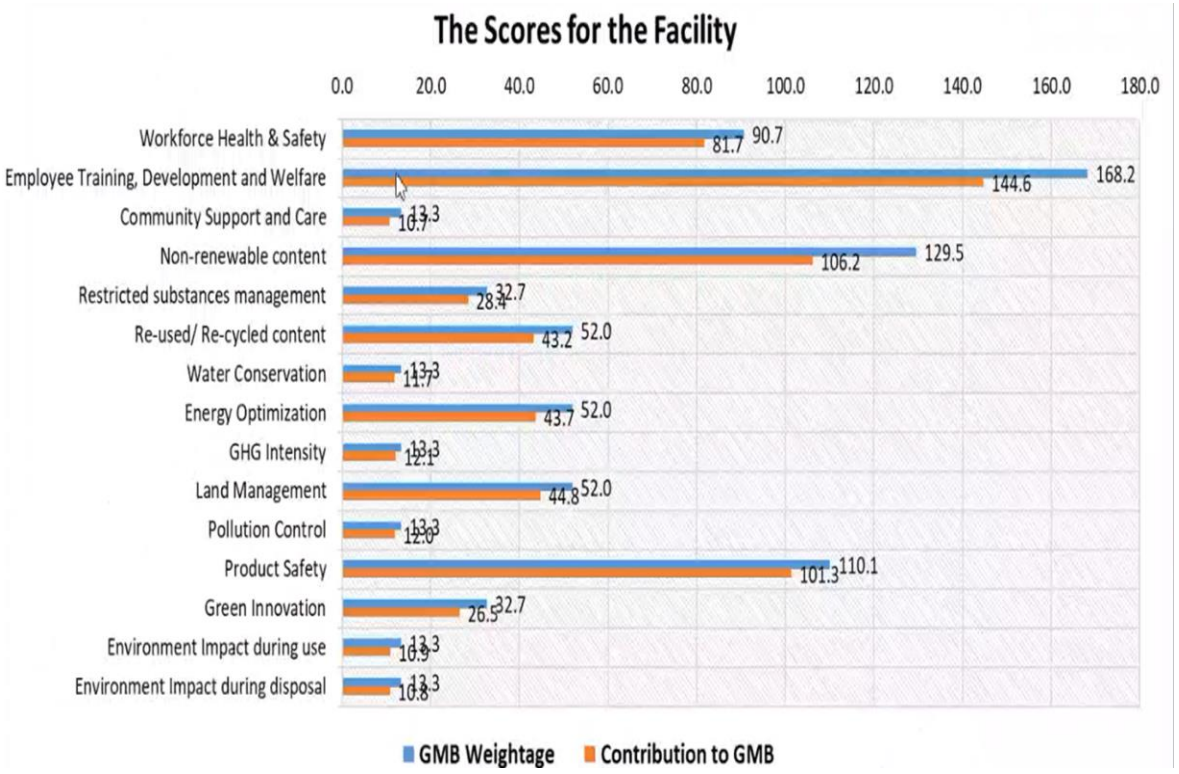


SPECIAL ACHIEVEMENTS- GOLD MEDAL AT INDIA GREEN MANUFACTURING CHALLENGE 20-21

Organized by IRIM

- TKE India has won this award for adoption of green manufacturing practices through training, evaluation and recognition at it's Multi-Purpose facility at Chakan, Pune
- TKE scored higher ratings on various key parameters such as Employee Training ,Development & Welfare; Non –renewable content ; Product Safety; Workforce Health and Safety ; Re-used and recycle content ; and Energy optimization

Evaluation criteria



TK ELEVATORS AWARDS

TK Elevator wins "Maharashtra State Best Employer Brands 2021 Award"

TK Elevator has been bestowed with the prestigious "Maharashtra State Best Employer Brands 2021 Award". This award is hosted by the reputed Employer Branding Institute; World HRD Congress & Stars of the Industry Group.

The award has been conferred on TK Elevator in recognition of its remarkable efforts to develop a best-in-class workplace and promote an empowering and motivating work environment.

Mr. Manish Mehan, CEO & MD and Mr. Abhay Srivastava, HR Director, TK Elevator India received this award at the 16th Employer Branding Awards ceremony held at Taj Lands End, Mumbai on 27th August 2021.

As one of the leading German Brand, we work relentlessly to offer our diverse employee base the best of career options, learning and development opportunities, superior rewards and recognition, and life enriching initiatives.

With TK Elevator's, Employee Survey "Your Voice 2021", round the corner, our employees are given a great opportunity to make an impact and make our organization a even better place to work.

Mr. Manish Mehan and Mr. Abhay Srivastava with the award

MEDA - 1st Position 2021

QCFI – Gold Energy Award

TK Elevator has received "**National Safety Award - 2020**" from National Safety Council in Manufacturing Sector


And the Journey
continues...

MOVE
BEYOND