

Sustainability; A Path to Prosperity and Well-being



Environmental Performance Report 2024

For The Year: 2024

Frequency: Annually

Ref. Std.: AKT/PR/064



OUR SUSTAINABILITY PHILOSOPHY

“

***Al-Karam’s sustainability
framework is primarily based on
PEOPLE, PLANET & PROSPERITY.
We are strictly acting on these
principles since our foundation.***

”



SERVICES - SYSTEM DEVELOPMENT - COMPLIANCE -
ENVIRONMENTAL PERFORMANCE REPORT

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KEY NOTE

Sustainable Development at Al-Karam Textile Mills (Pvt.) Ltd.

Al-Karam Textile Mills (Pvt.) Ltd. has integrated UN SDGs (Sustainable Development Goals) into its business practices since 2017. From free health services for employees to free education for underprivileged, efficiencies in our processes to investment in clean energy, all of our actions are supporting 17 SDGs. This report is mainly based on our completed projects in calendar year 2024 which are linked with the environment related SDGs.


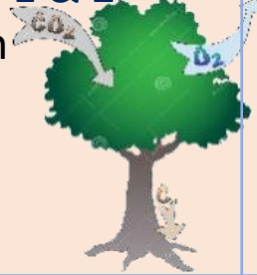






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HIGHLIGHTS 2024

 <p>6,597 MWh of electricity has been saved.</p>	<p>3,233 Tons of CO₂e has reduced from our Scope 1 & 2. The amount of saved carbon dioxide emissions is equivalent to the plantation of 154,900 trees.</p> 	 <p>5.28 Million Gallons of water has been saved. Saved water amount is equal to 176 Persons annual usage.</p>
<p>1,715,295 m3 of natural gas has been saved /reduced.</p> 		
<p>Saved energy amount is equal to the annual consumption of 1,832 Homes.</p> 	<p>Key Saving Projects:</p> <p>Saved 82,272 kWh by replacing 12 machines from 4.94 KW to 3.353 KW</p> <p>69,984 kWh saved by installing of inverter on fabric tearing plant.</p>	<p>Total Waste recycled by inhouse recycling 1,682,146 Kgs.</p> 
<p>Saved 24,000 m3 of Water by using non-contact cooling return pump from sanforizing machine</p>		



ENERGY

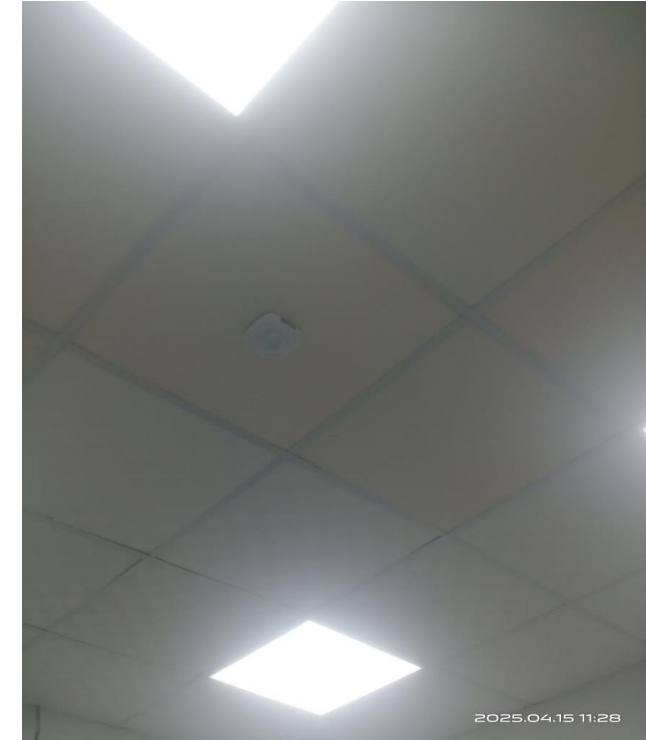
EFFICIENCY

Installation of Motion Sensor

Motion sensors are installed in engineering offices to enhance energy efficiency, security, and overall automation. Sensors automatically control lighting, HVAC systems, and security measures, ensuring that resources are used only when needed, reducing energy consumption and costs.

Completion Date: March 2024

Yearly savings	Payback
Unit (kWh of electricity)	Months / years
Electrical Saving = 2,760 kW/Year	Immediate



Use of LED Lighting

Convert 500 conventional Tube Light into LED Lights. We have replaced 500 conventional tube lights convert LED light 18Watts in our stitching tower 01.

Completion Date: June 2024

Yearly savings	Payback
Unit (kWh of electricity)	years
Electrical Saving = 55,080 kW/Year	6 Month



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Use of LED Lighting

Convert 400 conventional Tube Light into LED Lights. We have replaced 400 conventional tube lights convert LED light 18Watts in our stitching tower 02.



Completion Date: June 2024

Yearly savings	Payback
Unit (kWh of electricity)	years
Electrical Saving 44,064 kW / Year	6 Month

Use of LED Lighting

Convert 400 conventional Tube Light into LED Lights. We have replaced 400 conventional tube lights convert LED light 18Watts in Al-Karam's unit .02

Completion Date: June 2024

Yearly savings	Payback
Unit (kWh of electricity)	years
Electrical Saving 44,064 kW / Year	6 Month



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Use of Energy Saving fan

Replacing 12 existing pneumatic fans, each consuming 2.06 kW, with new energy-saving fans that use only 1.26 kW in the spinning section. These new fans utilize advanced motor technology to provide the same airflow and ventilation while using significantly less power.

Completion Date: May 2024

Yearly savings	Payback
Unit (kWh of electricity)	Months / years
Electrical Saving 48384 kWh / Year	6 month



Replacement of Ring Compact Fan Motors

We're set to replace Ring Compact fan motors in 12 machines. The current motors, rated at 4.94 kW, will be substituted with new, energy-efficient motors rated at 3.353 kW. This upgrade ensures that our machines continue to operate effectively, all while consuming less power and supporting our sustainability goals.

Completion Date: July 2024

Yearly savings	Payback
Unit (kWh of electricity)	Months / years
Electrical Saving 68,560 kwh / Year	10 month



Ring Spindle Breakage

We're implementing a monitoring system to detect ring spindle breakage and roving stops on four machines on an experimental basis. This system leverages advanced sensors and real-time monitoring to promptly identify and alert operators to any issues. This will reduce downtime, minimize material waste, and enhance the efficiency of the spinning process.

Completion Date: June 2024

Yearly savings	Payback
Unit (kWh of electricity)	Months / years
Electrical Saving 19,560 kw/Year	month



Ring EJM Showering pump

The Ring EJM showering pump automation system is designed to enhance efficiency and convenience by automating the operation of showering pumps. This system uses sensors and control units to monitor water flow and pressure, ensuring optimal performance and reducing manual intervention.

Completion Date: June 2024

Yearly savings	Payback
Unit (kWh of electricity)	Months / years
Electrical Saving 7,344 kw/Year	month



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Dyeing pump Motor

The initiative entails swapping out 6 existing dyeing pump motors rated at 110 kW for more energy-efficient alternatives rated at 85 kW. Operating for 15 hours daily, these new motors will lead to a notable decrease in energy usage and operating costs, while also boosting overall efficiency.

Completion Date: March 2024

Yearly savings	Payback
Unit (kWh of electricity)	Months / years
Electrical Saving 200,000 units /Year	5 month

Install Inverter on Fabric Testing

Installing an inverter on fabric testing equipment involves integrating a device that converts DC power to AC power, ensuring a stable and reliable power supply for the testing process.

Completion: June 2024

Yearly savings	Payback
Unit (kWh of electricity)	Months / years
Electrical Saving 69,984 kw/Year	months



WATER

CONSERVATION

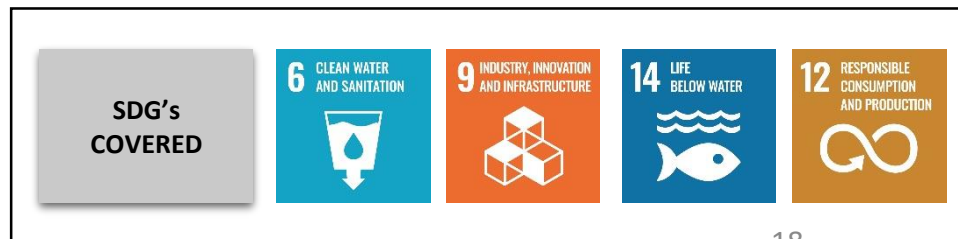


Installation of Pin type Water Taps

This initiative focuses on replacing 15 conventional water taps with pin-type taps. Pin-type taps are designed for better water flow control, leading to reduced water wastage and increased efficiency. This design helps to reduce water wastage by contributing to better water conservation.

Completion: April 2024

Yearly savings	Payback
Unit (m3 of water)	Months / years
180 m3 / Year	6 Months



Reuse Of Non Contact Cooling Water

Reuse of non-contacting water from Sanforizing machine which helps us save around 2000 m3 of water monthly.

Completion: August 2024

Yearly savings	Payback
Unit (m3 of water)	Months / years
24,000 m3 / Year	2 Years



SDG's COVERED



Pilot Wastewater RO

Pilot wastewater treatment reverse osmosis is installed to assess the feasibility of wastewater recycling on large scale. This initiative helped us save around Water 149,600 gallons of water monthly.

Completion: July 2024

Yearly savings	Investment	Payback
Unit (m3 of water)	PKR	Months / years
8,160 m3 / Year	5,000,000	7



SDG's COVERED



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7 AFFORDABLE AND CLEAN ENERGY



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



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13 CLIMATE ACTION



17 PARTNERSHIPS FOR THE GOALS

