



Environmental Data Management Power BI

Emily Charlip
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Powering Business Worldwide

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Emily Charlip

Environmental Health and Safety Analyst

Eaton CPO - Raleigh, NC

Raleigh sites produce single and three phase uninterruptible power Supplies (UPS)

CPO serves as the warehouse and repair depot

Joined Eaton in 2019 as a Manufacturing Engineer



Hometown:
Rockville, MD



Alma Mater



Who matters to me



What Makes Me Smile



Favorite Team

Who is Eaton?

We are an **intelligent power management** company made up of approximately **85,000 employees**, doing business in more than **175 countries** with annual sales of over **\$19 billion USD**.

Founded in 1911, we work to make a positive impact on the world by giving people the tools to use power more efficiently, helping companies do business more sustainably and encouraging every Eaton employee to think differently about our business, our communities and how we can help create a better future.



Powering Business Worldwide

Eaton's Vision

To improve the **quality of life** and the **environment** through the use of power management **technologies** and **services**.

- We develop our employees
- We delight our customers
- We deliver for our shareholders
- We support our communities

Go to www.menti.com and use the code 1678 9819

Mentimeter

How do you currently track environmental data?

Go to

www.menti.com

Enter the code

1678 9819

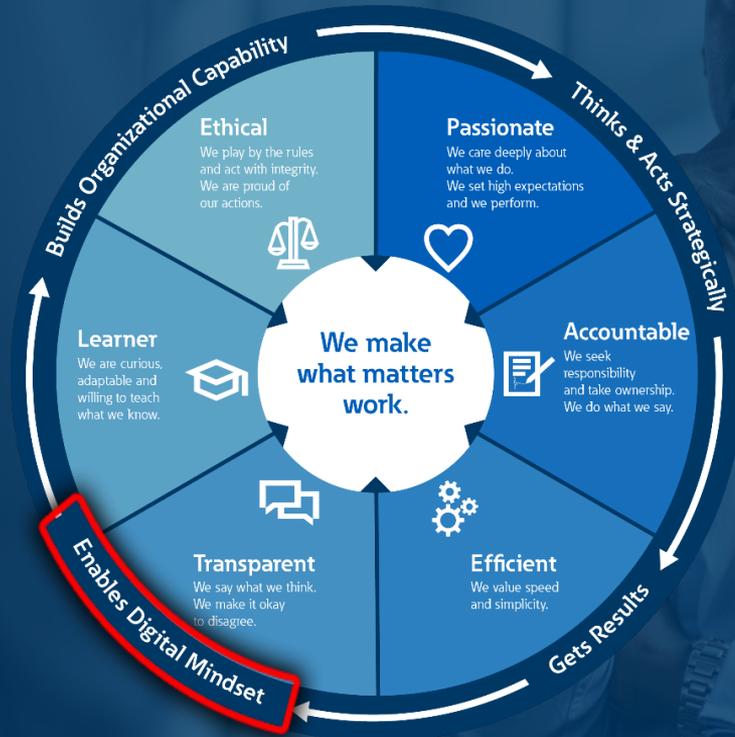


Or use QR code

[See Results](#)



To drive digital transformation, you must have digital technology and an agile culture



Enables Digital Mindset

- Continuously builds digital skills to simplify work processes
- Uses digital technology and processes for creative problem solving
- Leverages data to create new insights and make better decisions
- Utilizes digital tools and forums to drive hyper-collaboration
- Uses the digitalization of data to improve speed and effectiveness

What is Power BI?



Power BI is a business analytics solution that lets you visualize your data and share insights across your organization

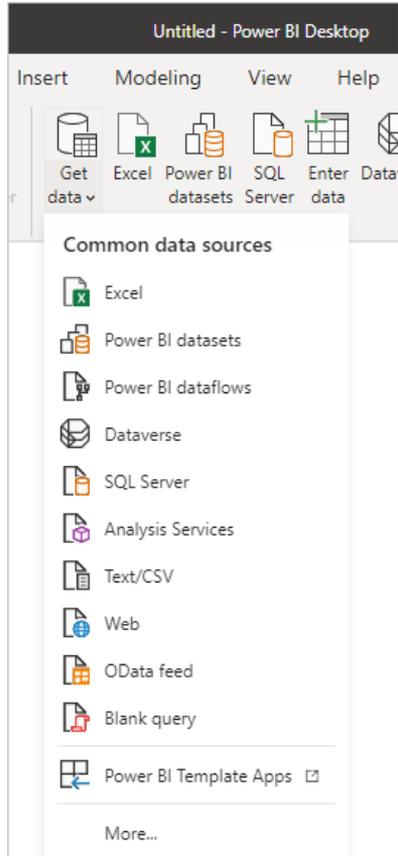


Power BI



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How is data collected?



Benefits of Using Power BI

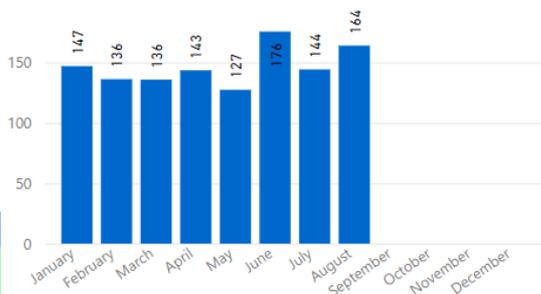
- Standardized metrics
- Visibility - easy to interpret trends
- Compare data to previous years or other sites with similar processes
- Keeps data all in one place

Environmental Dashboard

Water 2022 YTD [m3]

1,173

Goal : -2%
2021 YTD vs 2022 YTD
-23.5%

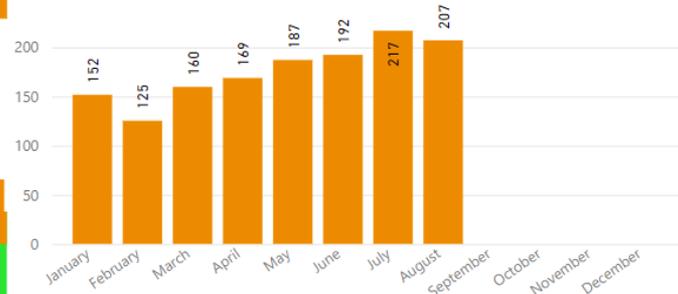


2021 YE	2021 YE Indexed to hrs	2021 YTD	2022 YTD	2021 YTD indexed to hrs	2022 YTD indexed to hrs
1,936	188.24	1,534	1,173	216.71	174.13

GHG 2022 YTD [t]

1,409

Goal : -18%
2018 YTD vs 2022 YTD
-43.9%

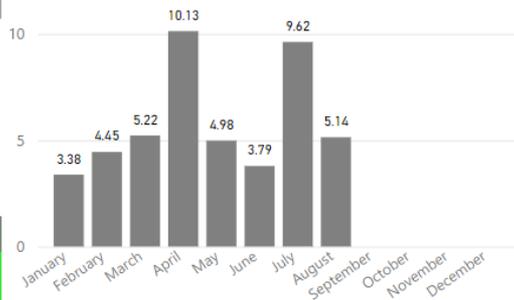


2018 YTD GHG	2018 YE GHG	2021 YE GHG	2021 YTD indexed to hrs	2022 YTD indexed to hrs	2022 YTD
2,510	3567.5	2201.2	207.20	209.12	1,409

Total Waste 2022 YTD [t]

46.71

2021 YTD vs 2022 YTD
-61.9%

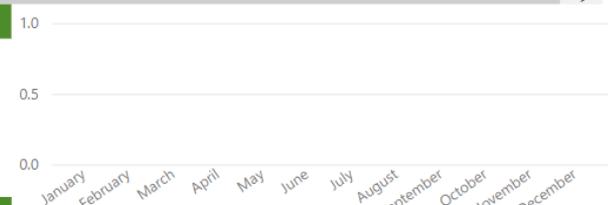


2021 YE	2021 YE Indexed to hrs	2021 YTD	2022 YTD	2021 YTD indexed to hrs	2022 YTD indexed to hrs
161	15.62	123	46.71	17.33	6.93

Landfill Waste 2022 YTD [t]

(Blank)

Goal : -2%
2021 YTD vs 2022 YTD
Last 12 months Landfill %
ZWTL Site



2021 YE	2021 YE Indexed to hrs	2021 YTD	2022 YTD	2021 YTD indexed to hrs	2022 YTD indexed to hrs
0.0	0.00	0.000	(Blank)	0.00	(Blank)

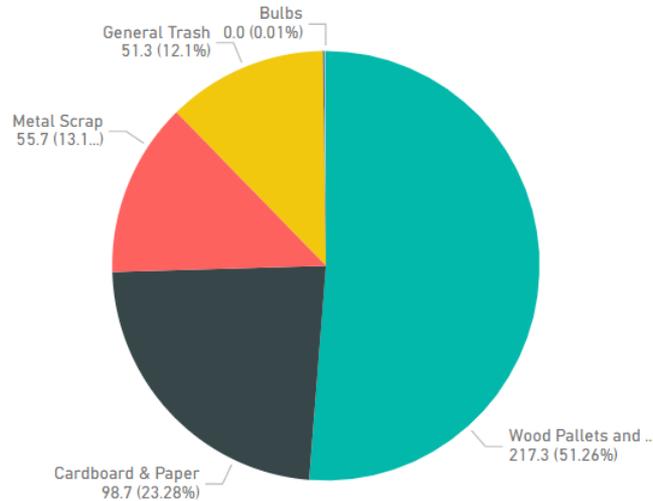
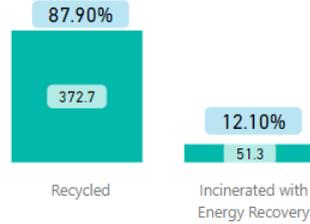
Environmental Dashboard - Waste

2018 2020 2022
2019 2021

Waste Type

Batteries
Bulbs
Cardboard & Paper
Electronic Equipment
General Trash
Metal Scrap
Plastic Manufacturing Scrap, ...
Wood Pallets and Wood Waste

Non-Landfill Waste



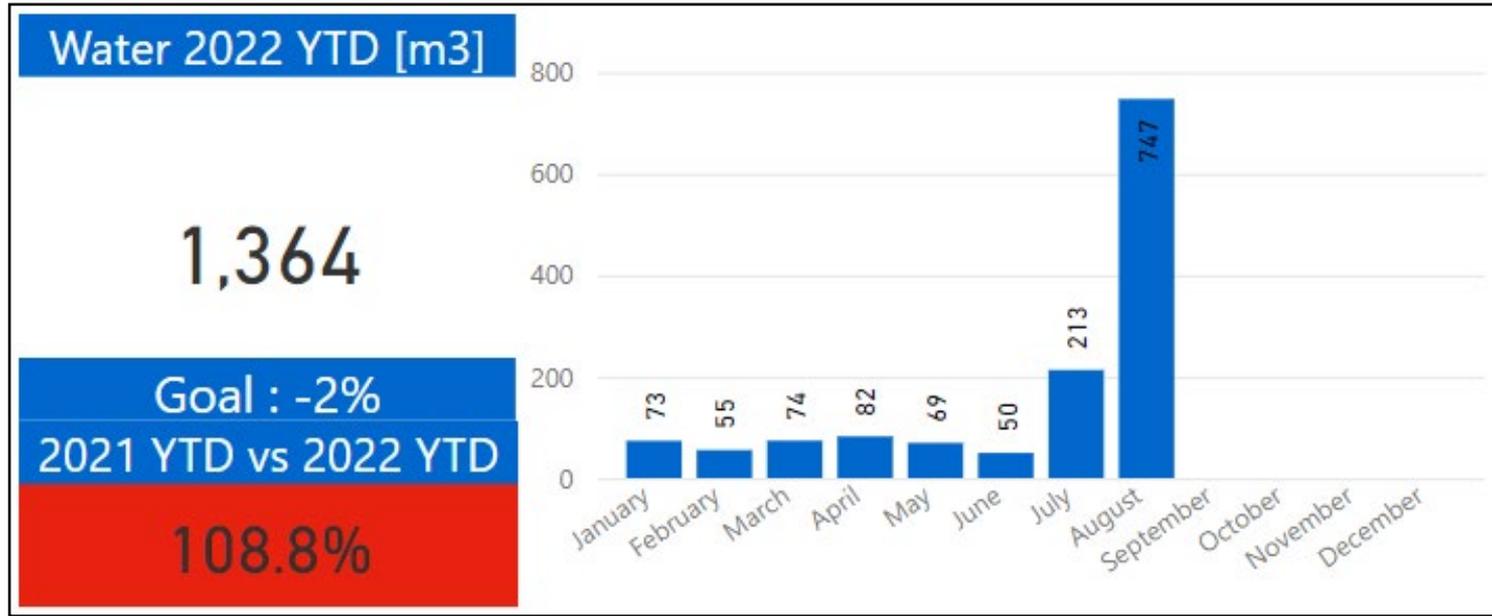
Waste Type	2021	Total
Wood Pallets and Wood Waste	217.3	217.3
Plastic Manufacturing Scrap, Packaging and shipping container	0.5	0.5
Metal Scrap	55.7	55.7
General Trash	51.3	51.3
Electronic Equipment	0.5	0.5
Cardboard & Paper	98.7	98.7
Bulbs	0.0	0.0
Batteries	0.0	0.0
Total	424.0	424.0

What story does the data tell?

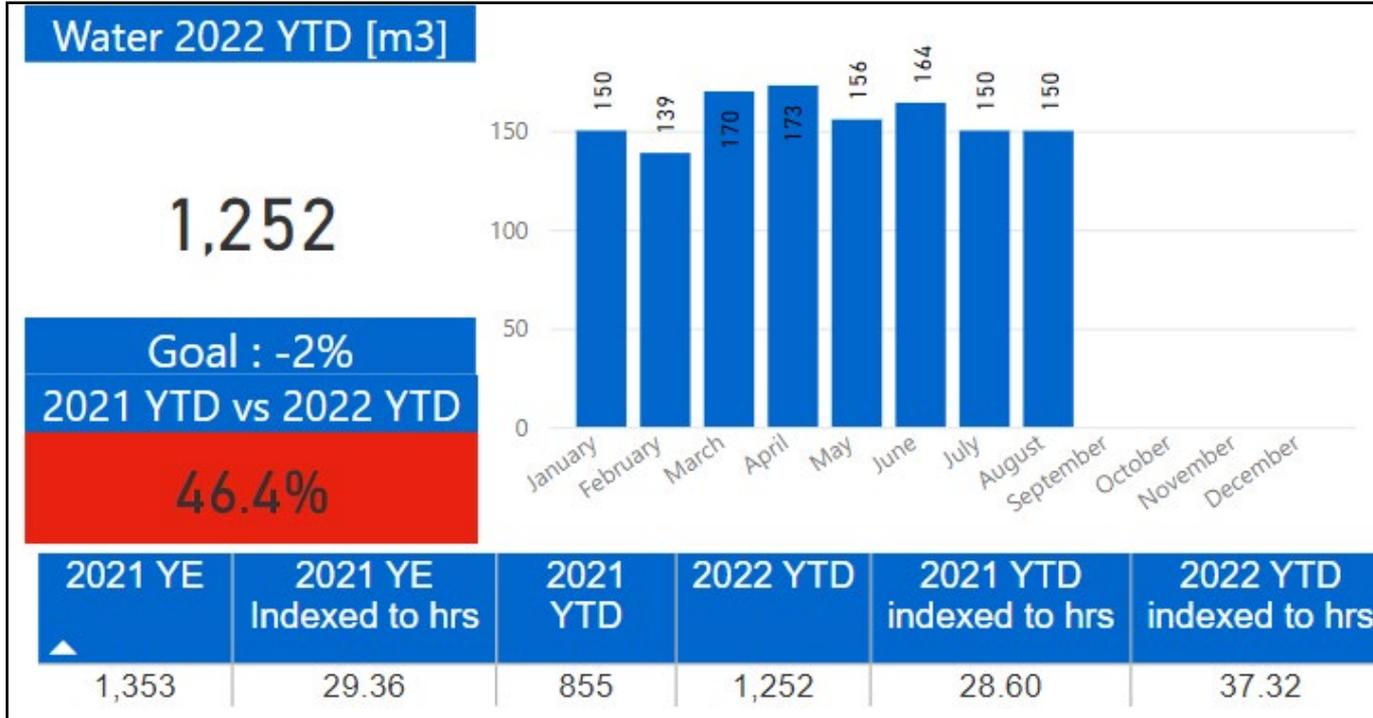
There is always going to be variation due to weather, human activity, process variation, etc.

Focus on the trends and outliers

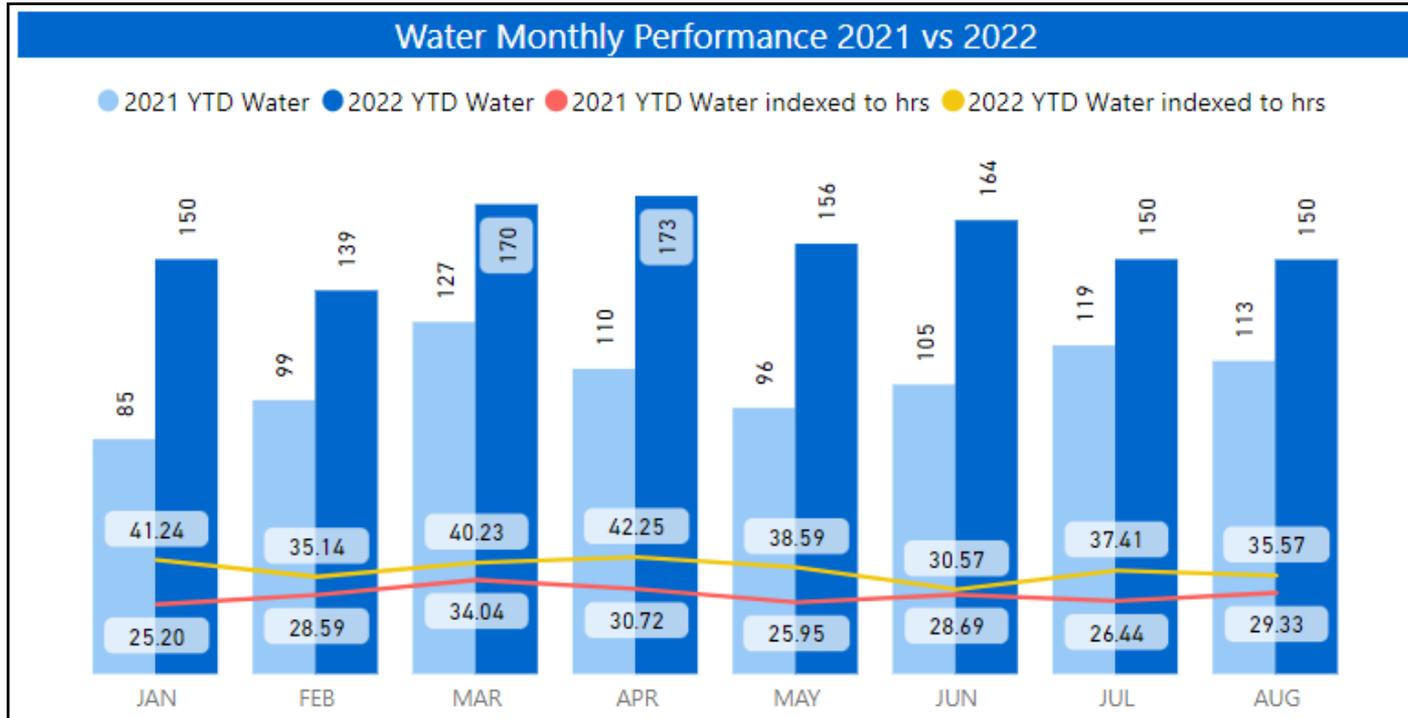
Water Usage



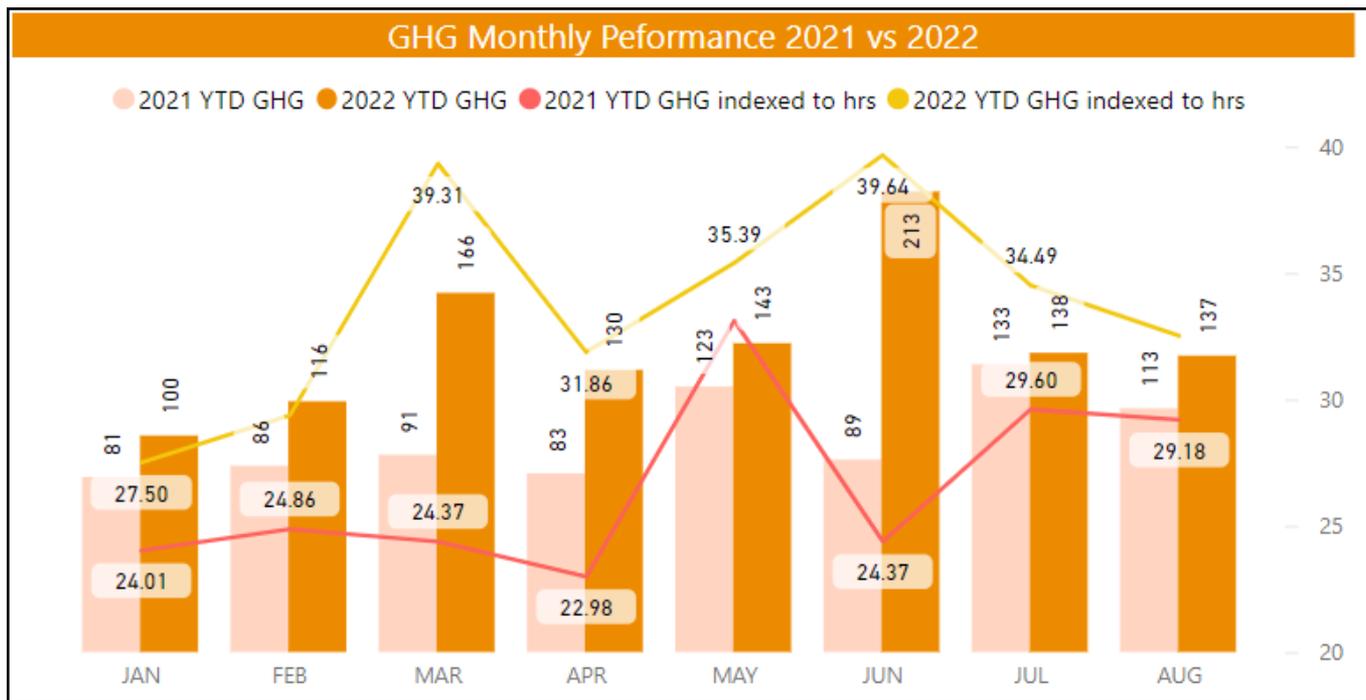
Water Usage



Water Usage



GHG Usage

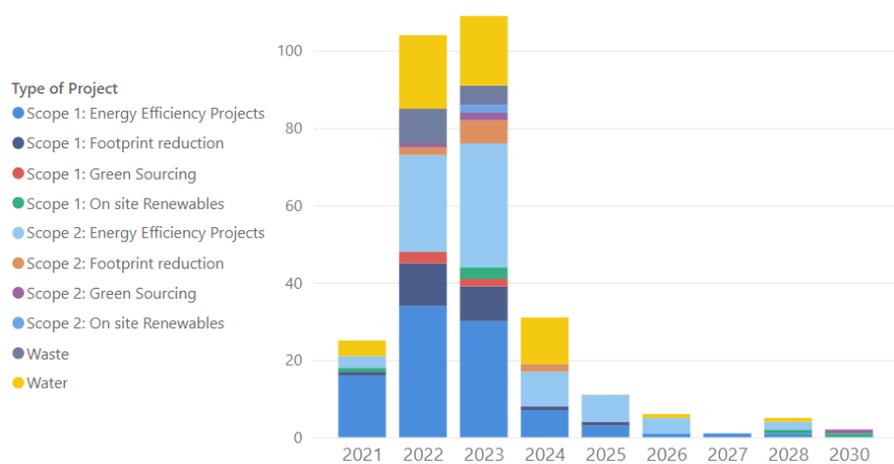


Environmental Project Database

Projects Status Overview			
Total	<u>Approved</u>	<u>Rejected</u>	<u>Completed</u>
315	24	2	53
<u>Pipeline</u>	<u>On Going</u>	<u>Missing Details</u>	
143	87	6	

Projects Savings (\$)				
<u>Approved</u>	<u>Rejected</u>	<u>Completed</u>	<u>On Going</u>	<u>Pipeline</u>
2.57M	0.00	-669.27K	1.69M	17.72M
<u>Potential Savings (Total)</u>		<u>ROI</u>	<u>Payback</u>	<u>Missing Details</u>
22.05M		19.03%	7.03	742.95K

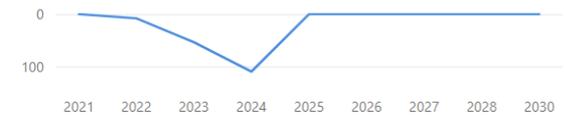
Projects by Year



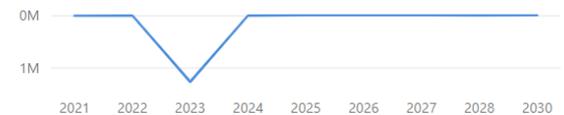
GHG Savings (Tons)



Waste Savings (Tons)



Water Savings (m3)



Questions?

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