

**BioSpectra Inc.**

**Annual  
Corporate Sustainability  
Report 2023**

# Table of Contents

3.....	Sustainability Report Background	22.....	Total Weight of Waste
5.....	BioSpectra’s Materiality Assessment	23.....	Human Rights and Labor
6.....	Our EcoVadis Score	24.....	BioSpectra’s Working Conditions
7.....	Our Role in the Value Chain	25.....	Employee Health and Safety
8.....	Our Emissions by Scope Category	26.....	Employee Health and Safety continued
9.....	Greenhouse Gas Reduction Goals	27.....	BioSpectra’s Whistleblower Report Statistics
10.....	Tracking Air Emissions – GHG’s	28.....	Employee Incidents and Auditing
11.....	Energy Consumption – Production Output	29.....	BioSpectra’s DEI Initiatives
12.....	Energy Consumption – KPIs	30.....	BioSpectra’s DEI Statistics: Women in Leadership
13.....	Reduction of Climate Impact	31.....	BioSpectra’s DEI Statistics: Workplace Diversity
14.....	Carbon Offsets	32.....	Stakeholder Engagement
15.....	Upstream Scope 3 Emissions Tracking	33.....	Anti-Corruption Policy
16.....	Upstream Scope 3 Emissions Reduction Efforts	34.....	BioSpectra’s Anti-Corruption and Security Incidents Statistics
17.....	Air Pollution and Waste Water Treatment	35.....	Workplace Sustainability Initiatives
18.....	Water Management	36.....	Strategic Sustainability Initiatives
19.....	BioSpectra’s Waste Water Metrics	37.....	Strategic Sustainability Initiatives continued
20.....	Waste Reduction	38.....	Environmental, Social & Governance (ESG) Commitments
21.....	BioSpectra’s Waste Metrics	39.....	CyberVadis – Cybersecurity Assessment

# Sustainability Report Background

**The Sustainability Program of BioSpectra Inc. has endured rapid development over the past two years.**

The Annual Sustainability Report covers data between 1-January-2023 and 31-December-2023. The report focuses on the Environmental, Social and Governance (ESG) topics as presented in our Materiality Assessment. In alignment with our policy of transparency in reporting, this disclosure is public on our website.

With the growing need to emphasize environmental protection, we understand our role as a manufacturer is to minimize our carbon footprint. We have established processes and procedures that are executed by our Product Portfolio and Sustainability Department and the Department of Environmental, Health, and Safety to ensure the sustainability of our organization and this Program.

Currently, we track Scope 1, 2, and upstream Scope 3 emissions data with set reduction targets on scopes 1 and 2. A main goal of BioSpectra is to set targets for Scope 3 reduction.

We strive to improve our reporting tactics as we further our ongoing effort to strengthen and expand our Sustainability Program.

**For further information please see our complete CSR found on the Sustainability page on our website.**

[www.biospectra.us/sustainability/#](http://www.biospectra.us/sustainability/#)

# Sustainability Report Background

## Background Data for Environmental Reporting

All greenhouse gas calculations are made in collaboration with the M2030 and Emitwise platforms. These third-party verifications enable us to thoroughly understand our emissions scope and further set our materiality goals. We openly track and report on air emissions in compliance with our air permit exemption, determined by Pennsylvania's Department of Environmental Protection.

Direct Scope 1 emissions are primarily emitted through Mobile Sources. With the development of our sustainability program, we intend to track more aspects of our Scope 1 emissions.

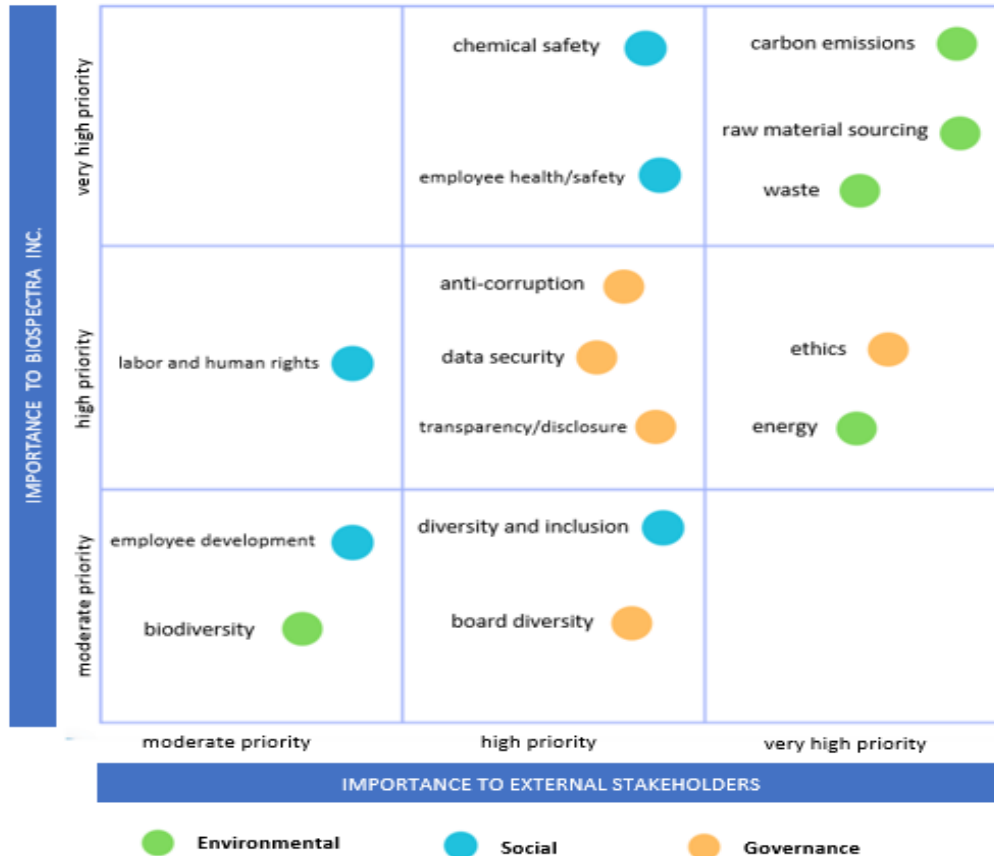
Our Scope 2 emissions are produced primarily from purchased electricity. BioSpectra, Inc. is in the process of shifting to clean energy sources through the purchase of Renewable Energy Credits (RECs) and Carbon Offsets.

We recognize that the bulk of our emissions come from upstream Scope 3 categories. Because of this, our goals are focused on setting reduction targets for Scope 3 emission. This includes efforts to include waste reduction and circularity regarding our product stream.

**All energy used in our facilities will be renewable by the 2029 reporting year.**

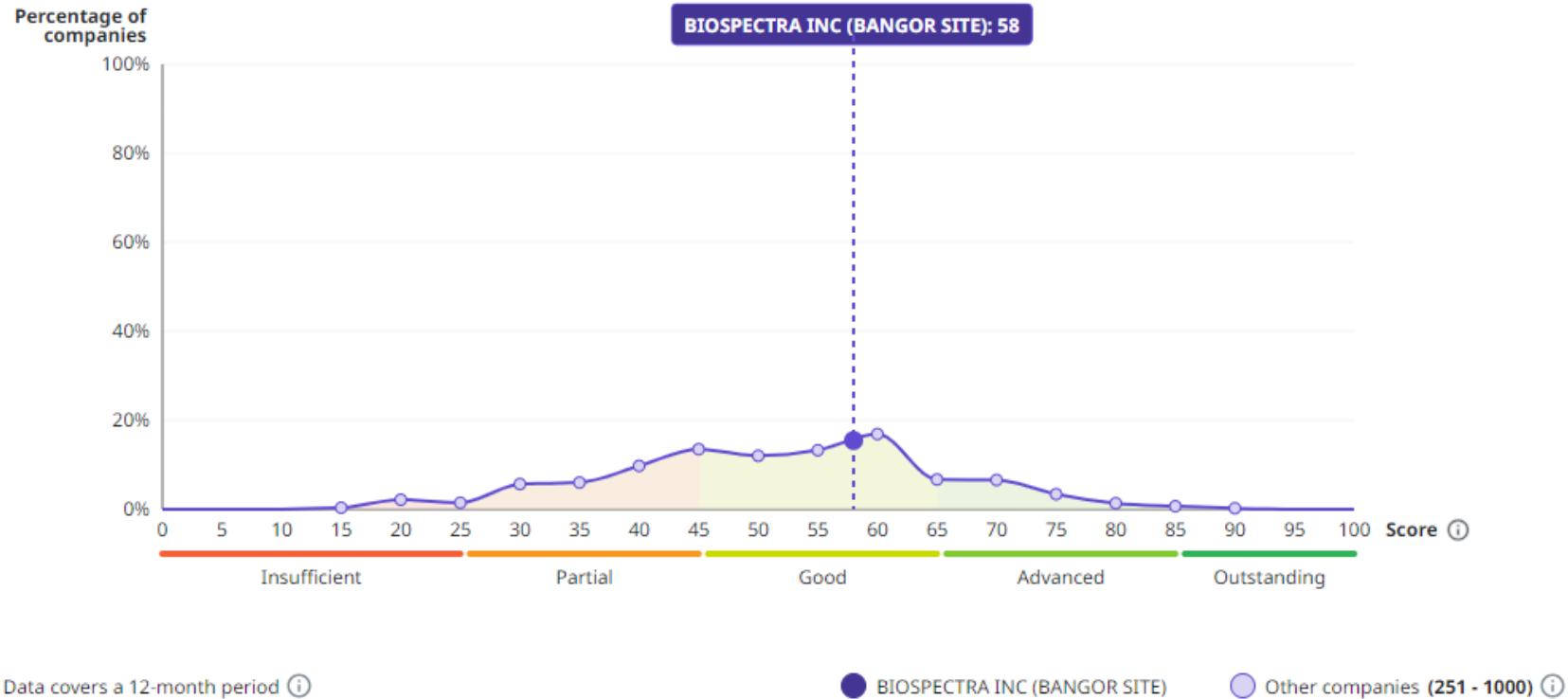


# BioSpectra's Materiality Assessment



- BioSpectra's materiality assessment was created to identify the environmental, social, and governance topics that are most relevant to our company.
- Understanding our sustainability priorities has aided the organization in tackling environmental concerns while drawing attention to the necessary implementations needed.
- Ongoing analysis of relevant financial and impact data aids in developing future regulations and internal policy for our operations is part of this effort.

# Our EcoVadis Score



Please note: A new assessment was completed in August of 2024 and rose to a score of 65 or higher with our inclusion of carbon reduction data and other key (heavily weighted) initiatives that was not part of our previous assessment.

<https://www.ecovadis-survey.com/app/#/my-performance/score-details?themeName=ENV>

# Our Role in the Value Chain

We understand the significance of our emissions as a manufacturer, which is why we track Scope 1, Scope 2, and Scope 3 emissions.

## Scope 1 Emissions

Stationary Combustion	0	CO <sub>2</sub> -e (metric tons)
Mobile Sources	171	CO <sub>2</sub> -e (metric tons)
Refrigeration / AC Equipment Use	0	CO <sub>2</sub> -e (metric tons)
Fire Suppression	0	CO <sub>2</sub> -e (metric tons)
Purchased Gases	0	CO <sub>2</sub> -e (metric tons)

## Location-Based Scope 2 Emissions

Purchased and Consumed Electricity	1,212	CO <sub>2</sub> -e (metric tons)
Purchased and Consumed Steam	0	CO <sub>2</sub> -e (metric tons)

## Market-Based Scope 2 Emissions

Purchased and Consumed Electricity	1,212	CO <sub>2</sub> -e (metric tons)
Purchased and Consumed Steam	0	CO <sub>2</sub> -e (metric tons)

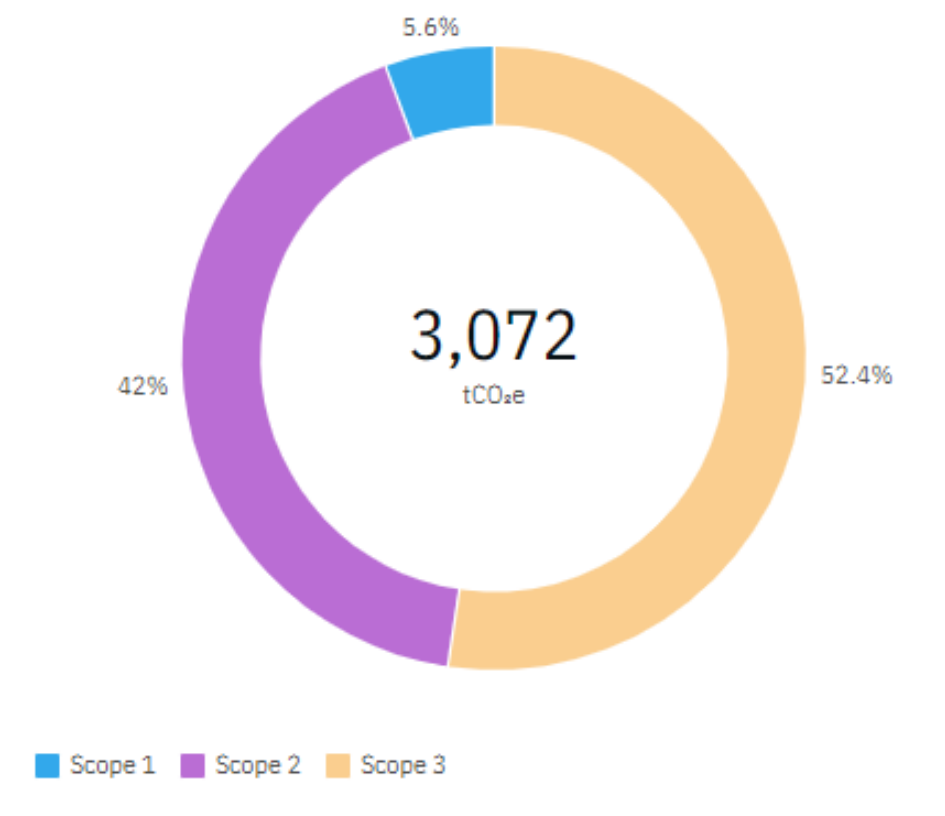
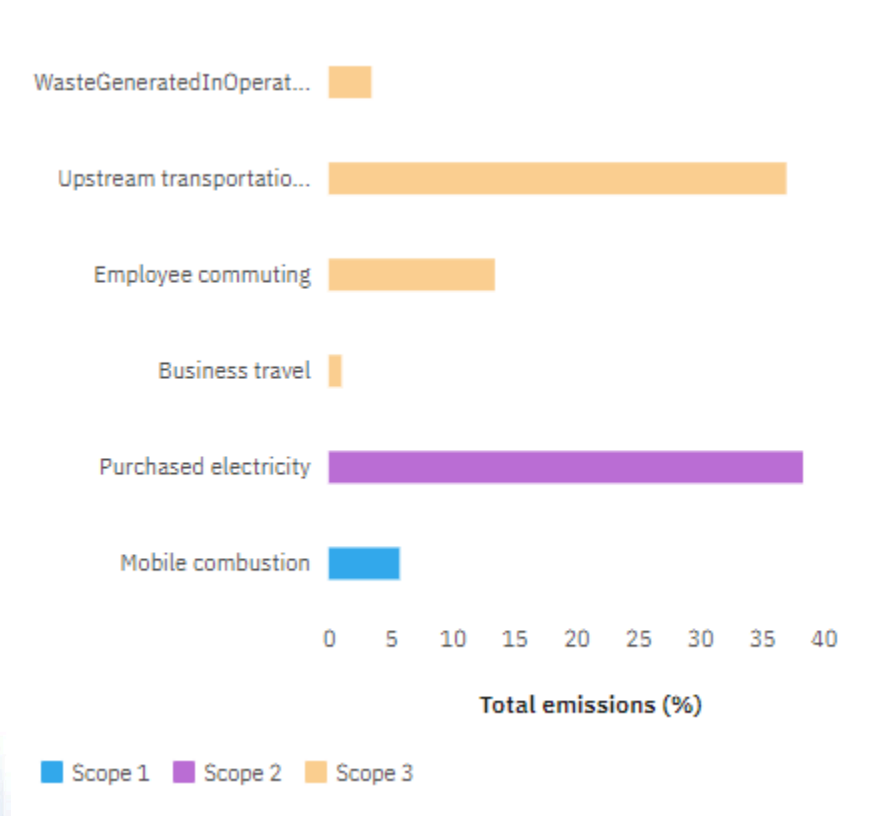
## Total organization Emissions

Total Scope 1 & Location-Based Scope 2	1,383	CO <sub>2</sub> -e (metric tons)
Total Scope 1 & Market-Based Scope 2	1,383	CO <sub>2</sub> -e (metric tons)

## Scope 3 Emissions

Employee Business Travel	35	CO <sub>2</sub> -e (metric tons)
Employee Commuting	394	CO <sub>2</sub> -e (metric tons)
Upstream Transportation and Distribution	1,077	CO <sub>2</sub> -e (metric tons)
Waste	126	CO <sub>2</sub> -e (metric tons)

# Our Emissions by Scope Category





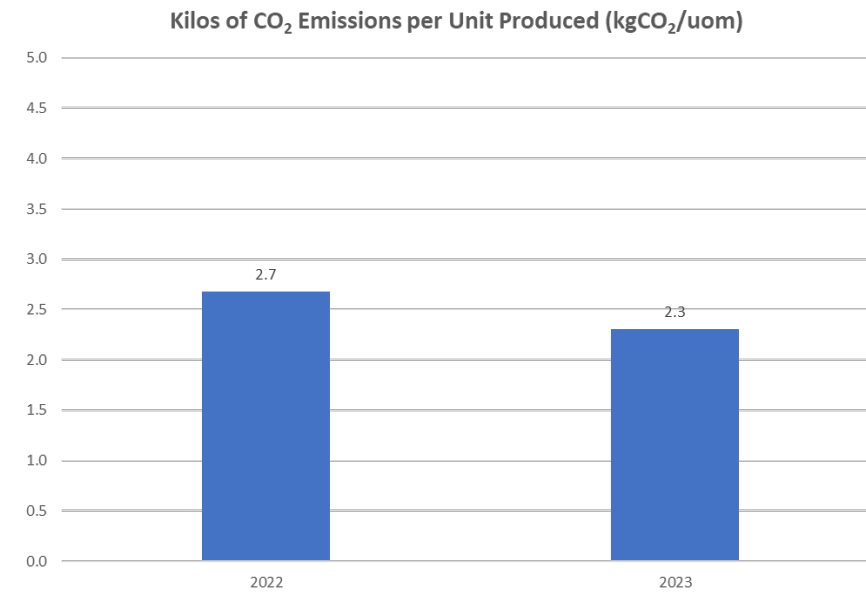
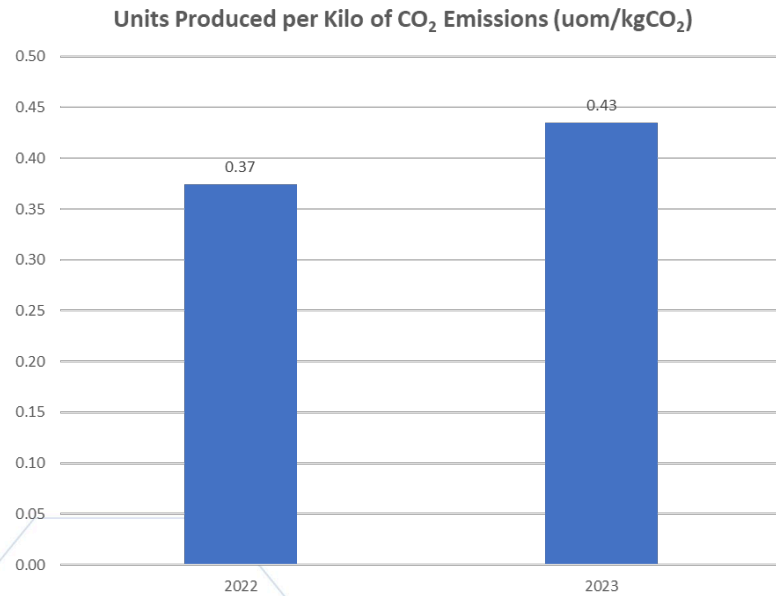
# Greenhouse Gas Reduction Goals

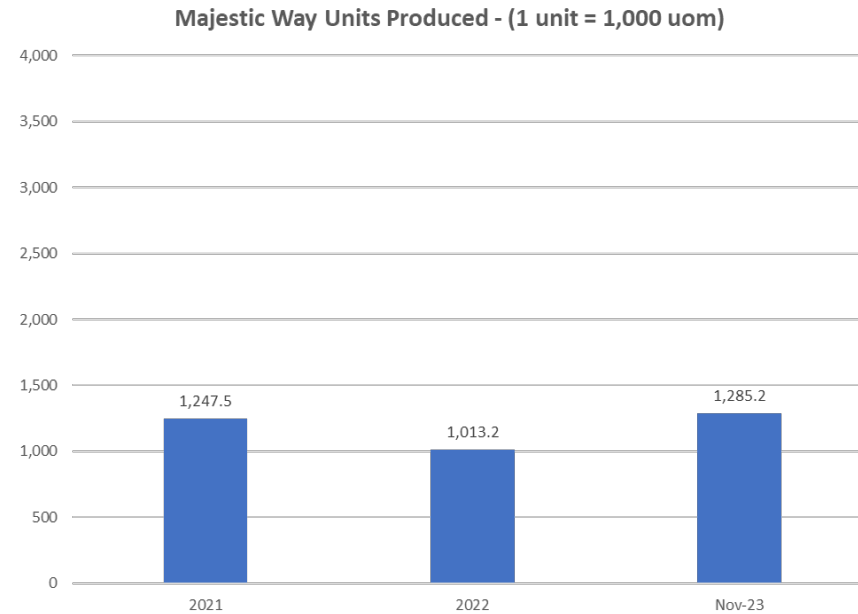
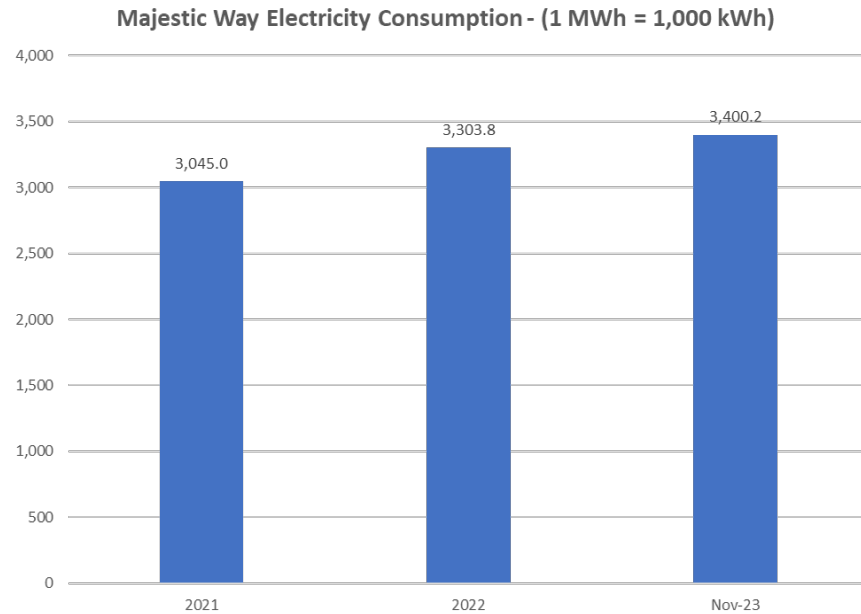
- We are committed to reducing our Scope 1 and Scope 2 carbon emissions by 42% by 2028 in accordance with the Paris Protocols and Agreement.
- We have further set an organizational goal of reducing emissions by 50% by 2030.
- Our GHG emissions are third party verified by Emitwise.
- Our reduction goals are SBTi certified, meaning our set targets are aligned with international, science-based standards for limiting climate change.

### Tracking Air Emissions – GHG's

2. CO<sub>2</sub> Separately – ratio to outputs

Data Used – 2022 & 2023 M2023 Calculated Baselines, SAGE- ZMFGITMTRK reports

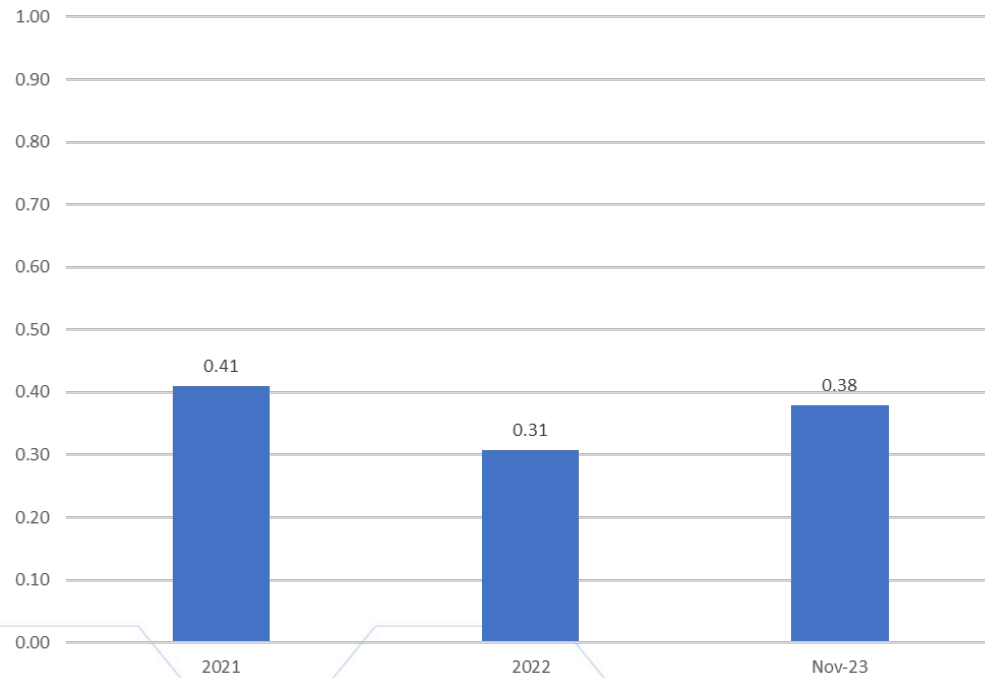




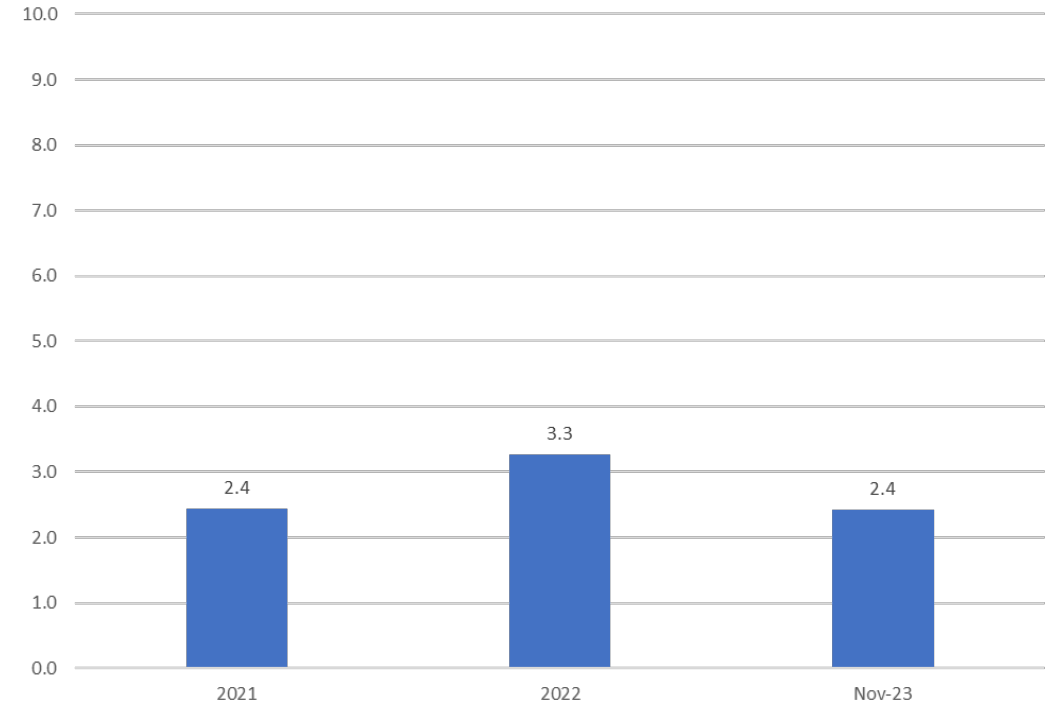
**November 2023 - Currently using 0% renewable energy.**

Renewable Energy has been purchased through our Vendor via Renewable Energy Credits (RECs) and Carbon Offsets. The platforms supporting for our future reduction in energy consumption are M2030 and SBTi.

Majestic Way Units Produced per KWh Consumed (uom/KWh)



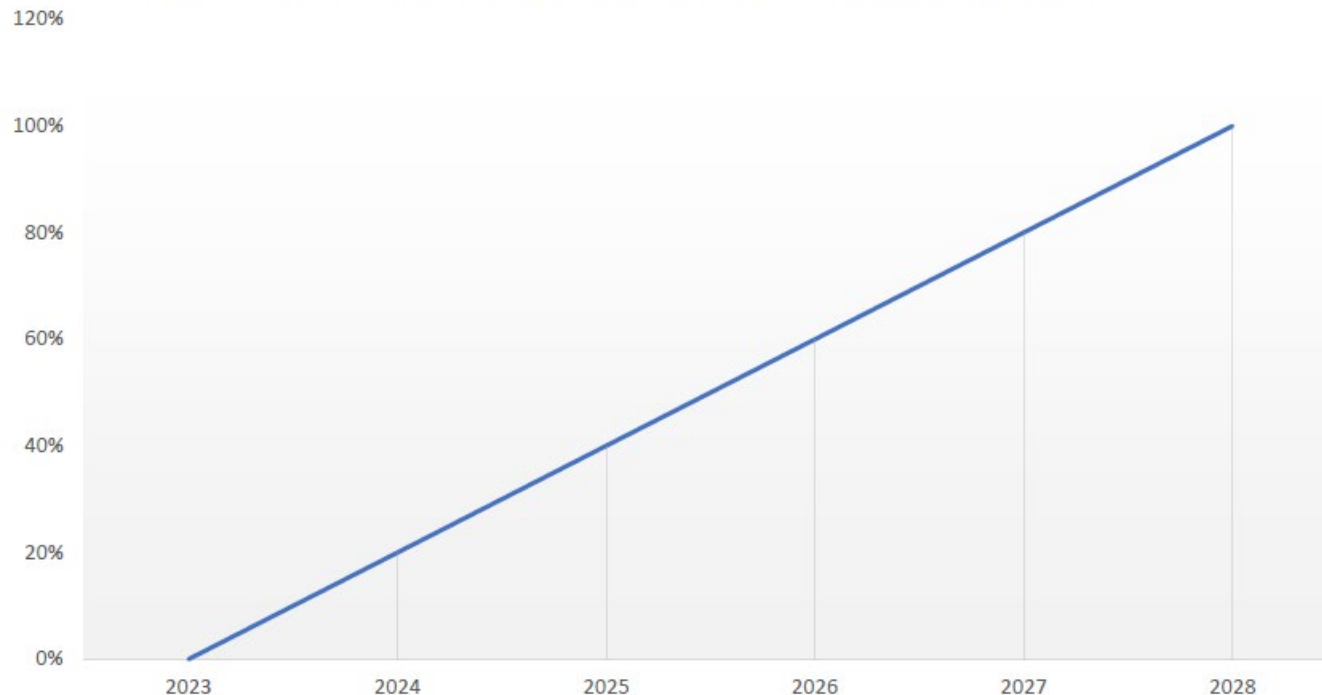
Majestic Way KWh Consumed per Units Produced (KWh/uom)





# Reduction of Climate Impact

Projected Percentage of Renewable Energy Used in Bangor Facility



## Energy and Electricity

Our facilities will gradually switch to renewable energy throughout the span of 5 years until energy is sourced entirely from clean and renewable sources.

Credits will be integrated by an additional 20% each year significantly reducing our Scope 2 emissions in order for us to achieve our established goals.

# Carbon Offsets

- As natural gases can not be generated from a renewable source, BioSpectra has invested in Carbon Offsets.
- Our natural gas consumption is neutralized by our verified emission reduction purchase.
- Our ongoing collaboration with IGS Energy will work to fund green infrastructure and renewable energy projects.

# Upstream Scope 3 Emissions Tracking

Our upstream transportation and distribution is divided into three areas:

- Land transport
- Sea transport
- Air transport

The waste generation of our Bangor facility is categorized by:

- Material
- Disposal method
  - Weight.
- Recycled materials include glass and HDPE.

Business travel is divided into three areas:

- Vehicle-miles
- Rail or bus passenger-miles
- Air passenger-miles.

The miles traveled for vehicles are tracked and converted into CO2 emissions, measured in kilograms.

We report on employee commuting by vehicle-miles which are converted to CO2 emissions in kilograms. Personal employee vehicles are the means of transportation for all employees due to the lack of public transportation resources in our geographical location.

# Upstream Scope 3 Emissions Reduction Efforts

## Product End-Of-Life

BioSpectra has plans to implement a Product Carbon Footprint analysis for all high demand produced materials.

**Supplier engagement plays a crucial role in understanding our upstream emissions.**

Our plan is to collect data from our direct suppliers through supplier-specific methods. We intend to collect comprehensive data from suppliers that contributes to our operations.



# Air Pollution and Waste Water Treatment

BioSpectra, Inc. has been approved for determination of requirement for plan approval/operating permit regarding air quality. As enforced by the Commonwealth of Pennsylvania Department of Environmental Protection, PADEP, a plan approval is not required for this source.

- Within the 2023 reporting year, only 17.287 tons of air pollutants were released from our Bangor facility.

BioSpectra, Inc. aims to leave no trace of waste in water utilized during our production processes. All water waste produced by the company will adhere to Environmental Protection Agency (EPA) standards and be managed as per state laws and regulations entail.

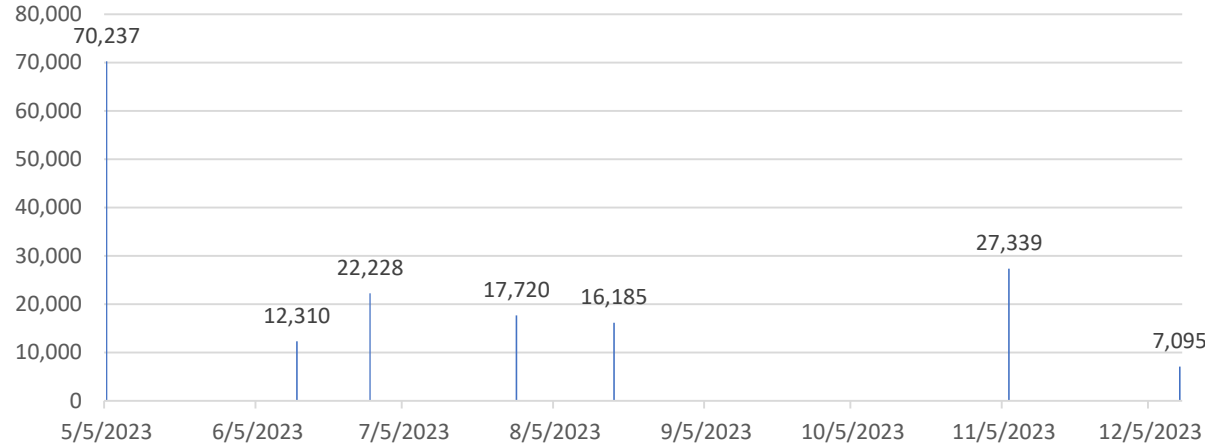
- All generated waste water will be neutralized in facilities prior to disposal. Water will be sampled by external laboratories to determine if ingredient levels are below reporting limit standards.

# Water Management

- BioSpectra's Department of Environmental Health and Safety has applied for an industrial stormwater permit regarding the effectiveness of stormwater monitoring and contamination control.
- BioSpectra has made the shift from incinerating all non-hazardous waste waters to sending them to a Sewerage Commission for proper disposal.
- The estimated amount of gray water per year to be sent to disposal services is 250,000 gallons.

# BioSpectra's Waste Water Metrics

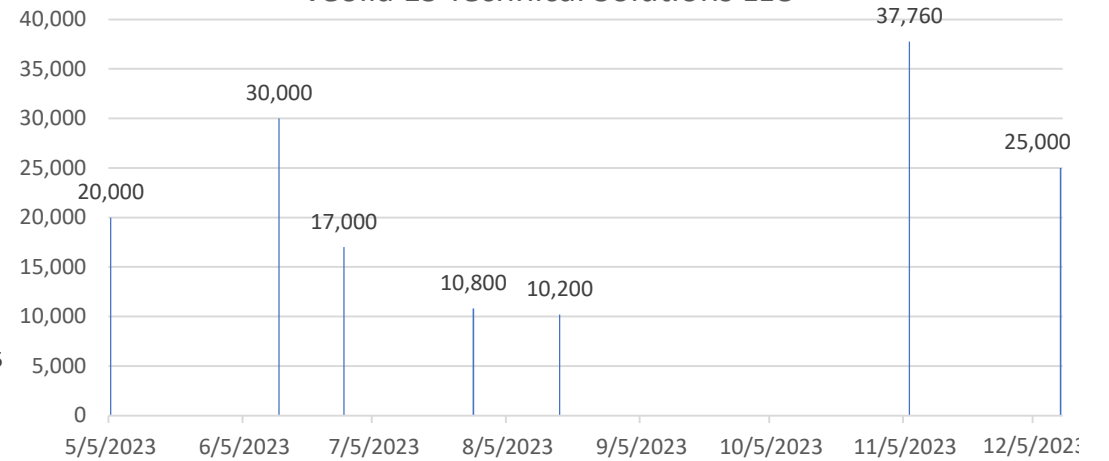
Actual Gallons of Waste Water By Pick Up Date From Environmental Waste Minimization Inc.



Total Weight of Environmental Waste Minimization Inc Waste Water:

**173,114 gallons**

Actual Gallons of Waste Water by Pick Up Date from Veolia ES Technical Solutions LLC



Total Weight of Veolia ES Technical Solutions LLC Waste Water:

**150,760 gallons**

# Waste Reduction

BioSpectra, Inc. is committed to environmental sustainability and responsible corporate citizenship. We recognize the environmental impact associated with the end-of-life phase of our Finished Good Products.

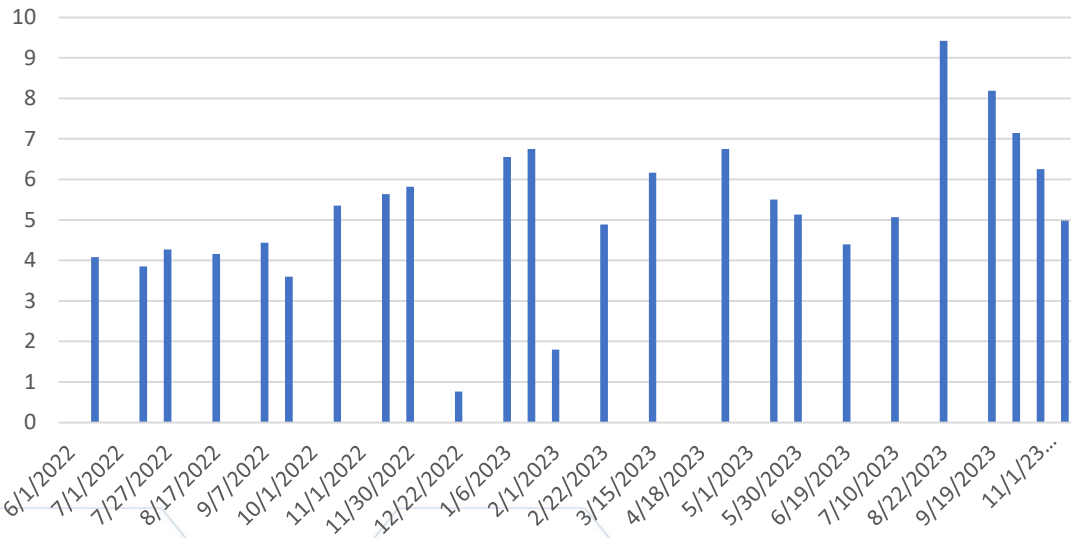
- In efforts to divert waste from the landfill, BioSpectra upholds our return policy for expired, finished good material.
- BioSpectra has invested in validation programs that allow us to use expired, GMP Finished Product as raw material. While this is expensive, it allows us to significantly reduce chemical waste and eliminate the waste from unsold Finished Goods that have exceeded their stated shelf life.

Our Supply Chain Division is responsible for monitoring and tracking this area of our sustainability program.



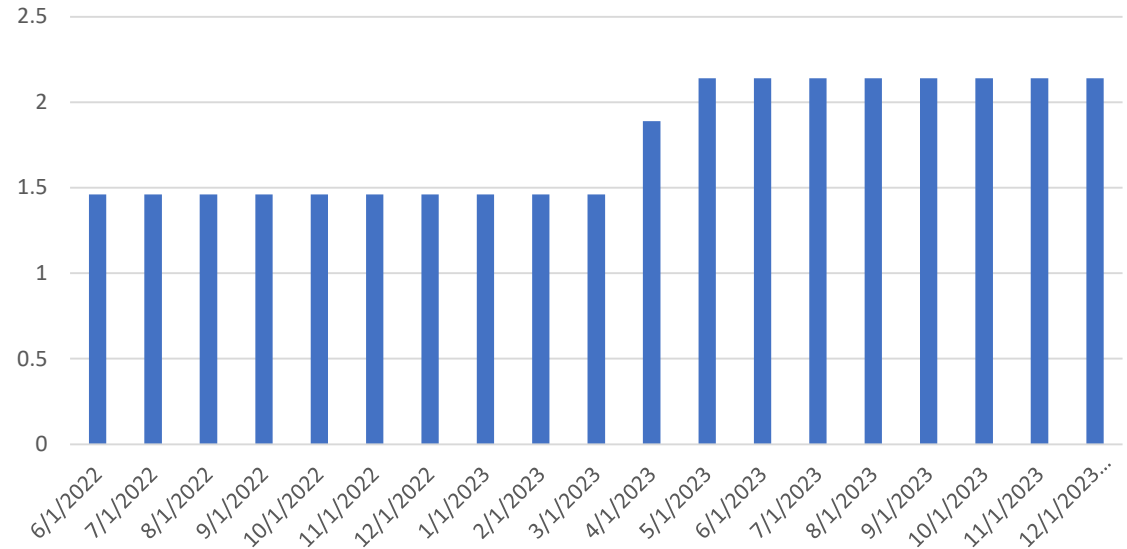
# BioSpectra's Waste Metrics: Non-Hazardous Waste

Bangor 42 Yd Disposed Quantity in Tons by Pick Up Date



Total Weight of 42 Yd Disposal: **89.00 short tons**

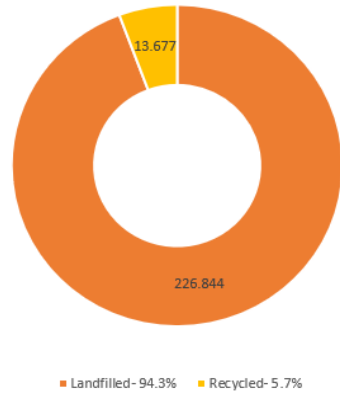
Bangor 20 Yd Disposed Quantity in Tons by Pick Up Date



Total Weight of 20 Yd Disposal: **23.39 short tons**

# Total Weight of Waste

2025 Goals:



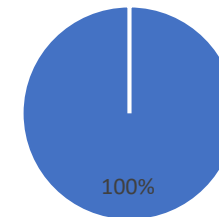
- Focus on recycling efforts to minimize waste sent to landfills.
- Set reduction targets for our wasted materials.
- Improve our waste circularity to divert as much product from landfills as possible.

Waste Material	Disposal Method	Weight	Unit	CO <sub>2</sub> e Emissions (kg)
	Landfilled	1,000	metric ton	
Mixed Electronics	Landfilled	653	pounds (lb)	7
Glass	Recycled	327	pounds (lb)	8
HDPE	Recycled	29,827	pounds (lb)	3,132
Mixed MSW municipal solid waste	Landfilled	35,627	pounds (lb)	9,263
Mixed Organics	Landfilled	121,668	pounds (lb)	29,200
Mixed MSW municipal solid waste	Landfilled	163	short ton	84,812

# Human Rights and Labor

- **BioSpectra Inc., is committed to providing a safe, healthy, and productive work environment for all employees.** We believe that good working conditions contribute to the well-being of our employees and are essential for achieving high levels of employee performance and job satisfaction.
- We are committed to implementing and maintaining policies that ensure every employee receives compensation and essential benefits that allows them to meet their needs, including housing, food, healthcare, and transportation.
- We recognize the importance of work-life balance and encourage our employees to manage their time effectively. We offer flexible work arrangements where feasible to accommodate personal needs.

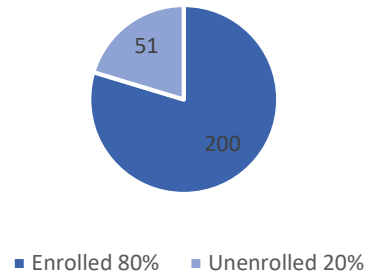
Percentage of Employees Paid a Living Wage in 2024



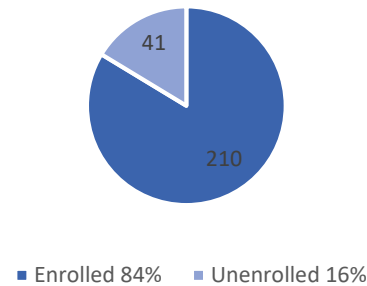
- Our commitment to a living wage extends far beyond compliance with legal requirements especially in the Commonwealth (State) of Pennsylvania. Our Minimum wage is 200-300% higher than the State Mandate depending on the starting position.

# BioSpectra's Working Conditions: Employee Benefits Metrics

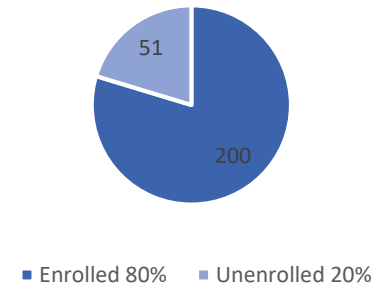
Employees Enrolled in Health Insurance



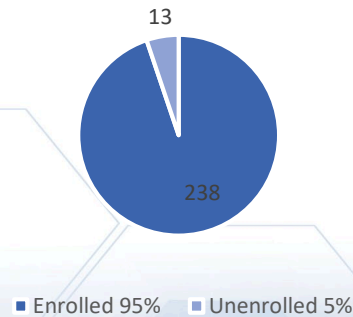
Employee Dental Insurance Enrollment



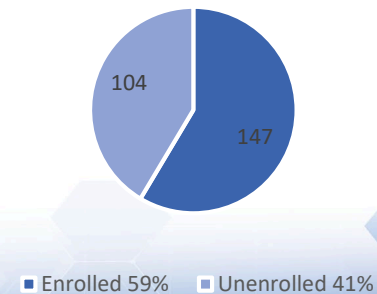
Employee Vision Insurance Enrollment



Employee Life Insurance Enrollment



Employee 401K Enrollment





# Employee Health and Safety

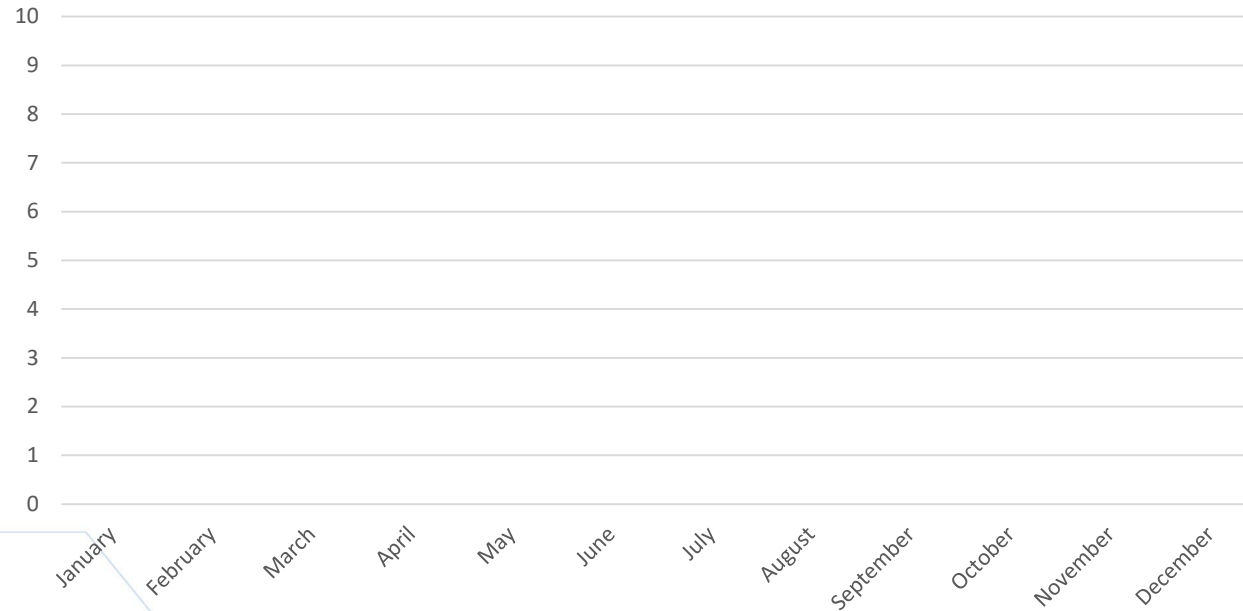
- We prioritize the safety of our employees above all else. We adhere to all relevant health and safety regulations and provide necessary training to ensure that our workplace is hazard-free.
- We encourage employees to report any incidents, near misses, hazards, or health and safety concerns promptly. We investigate all incidents to determine root causes and implement corrective actions to prevent recurrence.
- All employees are trained on appropriate health and safety conditions to ensure they are aware of hazards and risks associated with their work and understand their responsibilities for maintaining a safe work environment. ***Each employee is trained an average of 40 hours per year.***
- We establish and maintain procedures for responding to emergencies and ensure that employees are prepared to respond effectively. BioSpectra, Inc. provides annual immersive training on emergency situations such as fire prevention and proper procedures regarding facility malfunctions such as chemical spills.

# Employee Health and Safety Continued

- BioSpectra utilizes the anonymous hotline, ReportIT, to enforce our Whistleblower policy.
- All employees are trained on health and safety tactics specified to their particular roles in the organization.
- Our Total Recordable Incident Rate (TRIR) in 2024 was 4.7. We have cut our rate nearly in half since the 2022 reporting year.
- Our Environmental, Health, and Safety Department (EHS) oversees all operations and incidents to ensure the health, safety, and wellbeing of all our employees.

# BioSpectra's Whistleblower Report Statistics

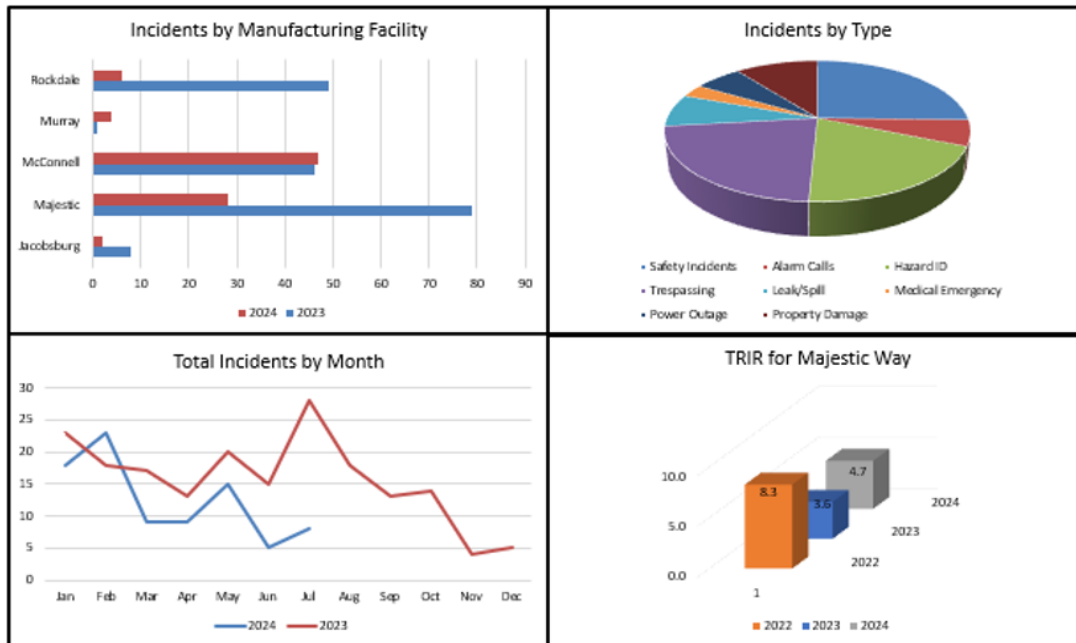
Number of Whistleblower Reports in 2023



Total number of Whistleblower reports for 2023: 0

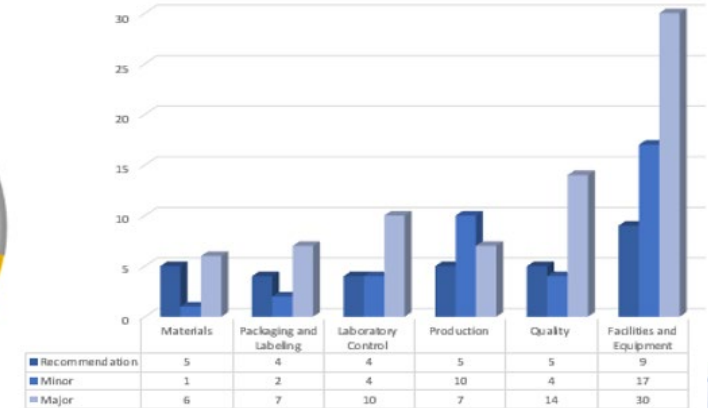
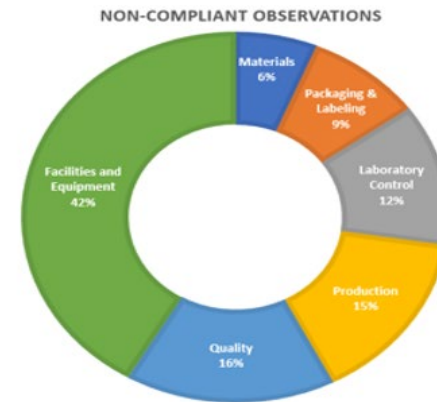
# Employee Incidents and Auditing

## Incident KPIs



## 2023 Internal Audits

Count	System	Qty of Non-Compliant Observations	Recommendations	Qty of Minor	Qty of Critical	Quantity of Major	CAPA Open?
1	Facilities and Equipment	47	9	17	0	30	Yes
2	Laboratory Control	14	4	4	0	10	Yes
3	Materials	7	5	1	0	6	Yes
4	Packaging and Labeling	9	4	2	0	7	Yes
5	Production	17	5	10	0	7	Yes
6	Quality	18	5	4	0	14	Yes





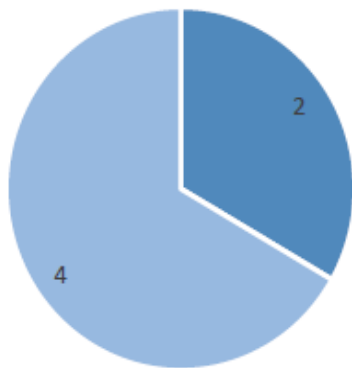
# BioSpectra's DEI Initiatives

We are committed to creating an equitable and inclusive work environment.

- Roughly half of BioSpectra's leadership team is female-identifying.
- Pay Equity is a key part of our DEI policy. Performance evaluations are based on performance metrics related to each person's position within the organization that is very well documented by our HR Dept.
- Annual reviews and surveys are conducted for each position and each employee.

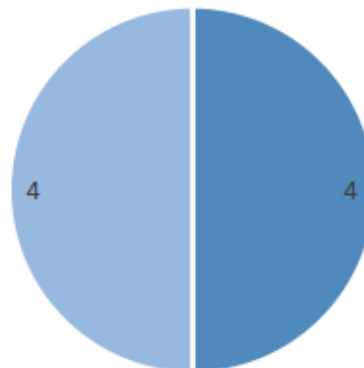
# BioSpectra's DEI Statistics: Women in Leadership

Vice Presidents by Gender



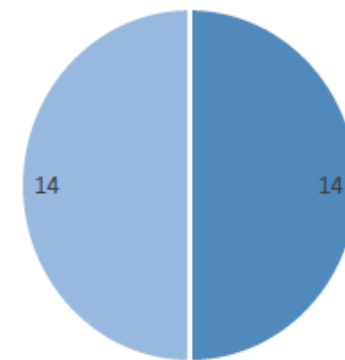
■ Women 33% ■ Men 66%

Directors by Gender



■ Women 50% ■ Men 50%

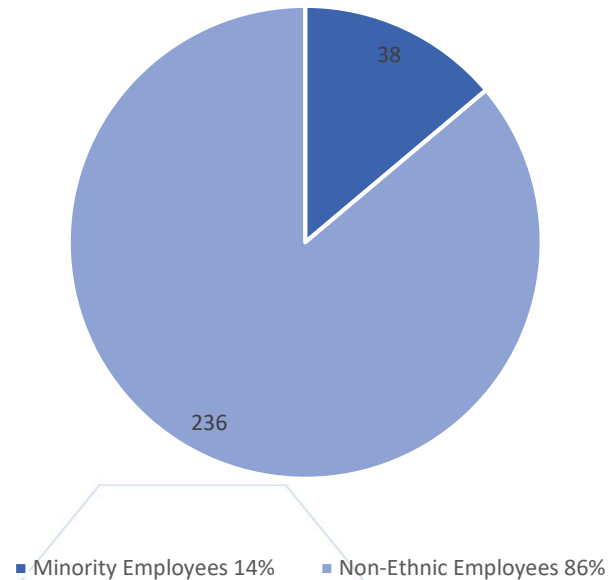
Managers by Gender



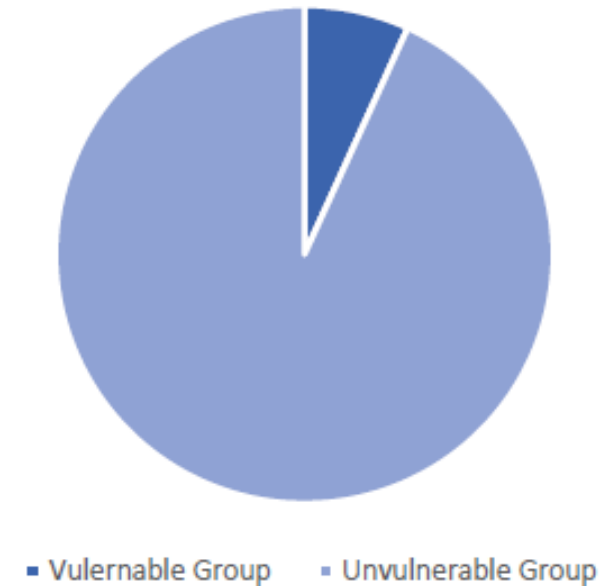
■ Women 50% ■ Men 50%

# BioSpectra's DEI Statistics: Workplace Diversity

Percentage of Employees from Minorities or Vulnerable Groups



Employees at Top Management Level



Please note that these ratios are a mirror reflection of the demographics of our geographic location and county in Pennsylvania

# Stakeholder Engagement

- As we demand from ourselves, we expect our business partners to act ethically, in accordance with widely accepted international standards of ethical and legal behavior in compliance with our Code of Ethics.
  - 100% of our Suppliers and Distributors received BioSpectra's Code of Ethics.
- Townhall meetings are conducted bi-monthly to help engage all employees and further our communication efforts within the organization.
- Digital signage is also utilized to promote all our programs and policies relative to our employees and customer base.
  - Supplier audits are conducted with our internal SOP and ICH protocols.
- Employee performance reviews are completed annually to ensure that all BioSpectra workers are properly prepared and trained for their positions. It is of utmost importance that each member of our team is playing their role to make a sustainable and inclusive workplace.
- Annual Employee Satisfaction surveys will be distributed to each employee to allow employees to anonymously share their opinions and experiences.



# Anti-Corruption Policy

BioSpectra is committed to conducting its business with honesty, integrity, and transparency. As part of this commitment, we adhere strictly to fair business practices and maintain a zero-tolerance policy towards bribery and fraud in any form.

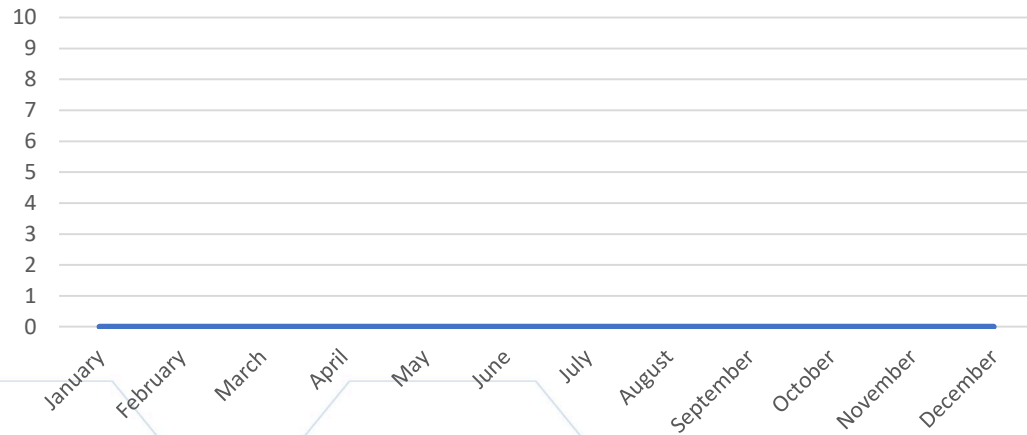
We conduct our business in compliance with all applicable laws and regulations, promoting healthy competition and fair dealings in the marketplace. Our employees are expected to uphold the highest standards of ethics and integrity in their interactions with customers, suppliers, partners, and colleagues.

Bribery, whether offering, giving, receiving, or soliciting, is strictly prohibited. We do not tolerate any form of bribery or corrupt practices, including facilitation payments. We are committed to preventing fraud in all aspects of our operations. This includes but is not limited to financial fraud, misrepresentation of information, falsification of records, and any deceptive practices.

The management team is responsible for establishing and maintaining effective controls to prevent bribery and fraud within the organization.

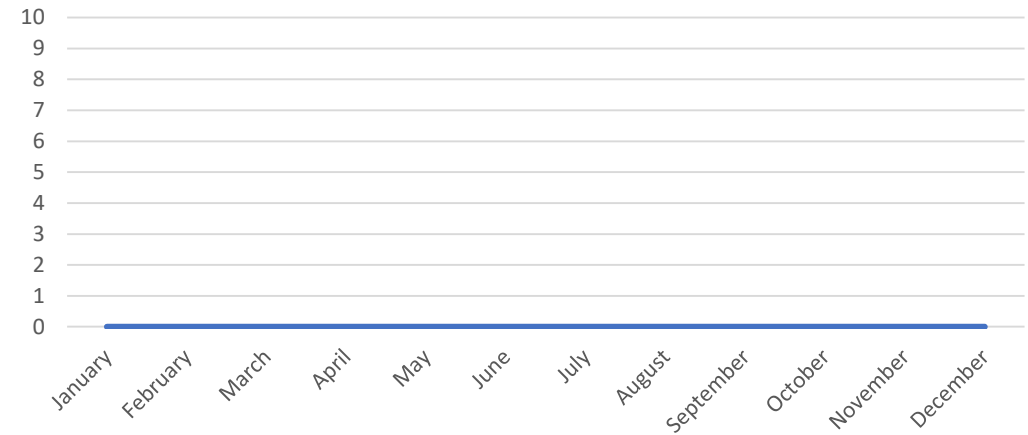
# BioSpectra's Anti-Corruption and Security Incidents Statistics

Number of Confirmed Corruption Incidents Per Month in 2023



Total number of confirmed Corruption Incidents in 2023: 0

Confirmed Number of Information Security Incidents in 2023



Total number of confirmed Information Security Incidents in 2023: 0

# Workplace Sustainability Initiatives

- **Diverting organic waste from landfills:**

- We currently landfill 121,668 pounds of mixed organics, creating 29,200 kg of CO<sub>2</sub>e emissions. We are working towards setting internal goals to monitor and reduce this in the coming years.

- **Increased focus on recycling materials:**

- Currently only 5.7% of our waste is being recycled. Goals will be set to dramatically increase this percentage over the coming years.

- **Utilization of Majestic's Biodiverse Ecosystem:**

- Our FDA registered GMP Production Facility is located on approximately 37 acres of forested land
  - Our goal is to improve forest management (IFM) activities that maintain or increase forest resilience. With proper tracking and analysis, this may be used in the future as a potential forest offset activity.

# Strategic Sustainability Initiatives

Operations	
100% Sustainable Renewed Buildings	
100% of Workspace will be Compliant to our Four Levels of Classification	Majestic Office Renovation ( <i>In-progress</i> )
100% Uniform and Standardized Workspaces, Break Areas and Offices	Majestic Office Renovation ( <i>In-progress</i> )
Property Beautification at Every Facility Completed	
Environment	
Dust Collection/Cyclone Upgrade Program	
Commercial Recycling Program Implemented	
Solid Waste Reduction Program Implemented	
Liquid Waste Reduction Program Implemented	
Sustainability	
Vertically Integrated HCl Gas/Liquid Supply	HCl Gas Generation System ( <i>In-progress</i> )
100% Energy-Efficient HVAC Systems	Majestic Office Renovation ( <i>In-progress</i> )
Unified and Expandable Utilities at Each Site	Majestic Utility Loop System – Phase 1 & 2 ( <i>In-progress</i> )
Inter-Site Supply Chain Management	Supply Chain Center – Phase 1 ( <i>Completed</i> )

Organizational	
Business Continuity Plan	Backup/Disaster Recovery ( <i>Completed</i> )
Succession Plan	Book of Books ( <i>In-progress</i> )
100% Validated and Implemented ERP/MRP	ZAP Dashboards SAGE Implementation ( <i>Completed</i> ) Dextran ERP Implementation ( <i>In-progress</i> ) Implementing BOMs/Work Centers/Routings in SAGE ( <i>Completed</i> )
Human Development Plan	
Quality	
100% Validated and Implemented QMS	Electronic Training Implementation ( <i>In-progress</i> ) MasterControl Field Based Solutions (FBS) Forms Implementation ( <i>In-progress</i> ) MasterControl Forms Buildout in Docs Module ( <i>In-progress</i> ) Electronic Batch Records (EBR) ( <i>In-progress</i> )
100% Validated and Implemented LIMS	LabWare Implementation ( <i>In-progress</i> )
Expansion of Data Integrity and Quality Programs	
Buildout of New Laboratory	
Manufacturing	
100% Validated and Implemented EBR'S	Electronic Batch Records (EBR) ( <i>In-progress</i> )
30 Days Critical Product Inventory	
100% Qualified Equipment and Validated Systems	
Spray Drying Technology Expansion	Zone M Spray Dryers ( <i>In-progress</i> ) L10 Spray Dryer ( <i>In-progress</i> )

This Strategic Plan will be based on our expectations and goals for our **thirtieth anniversary** and **define primary measurables for the 32-month period starting February 1, 2023 and ending September 30, 2025.**



# Strategic Sustainability Initiatives

Quality Excellence	<ul style="list-style-type: none"><li>• Maintaining an unblemished Record with the FDA</li></ul>
Manufacturing Excellence	<ul style="list-style-type: none"><li>• Commitment to safety first</li><li>• Safe Systems</li><li>• Reduction in Safety Incidents</li></ul>
Environmental Excellence	<ul style="list-style-type: none"><li>• Lowering Energy Consumption per kilo</li><li>• Carbon Reduction</li><li>• Reduction in emissions</li><li>• Increased in renewable energy use</li><li>• Water Purification Systems</li></ul>
Sustainability Excellence	<ul style="list-style-type: none"><li>• Sustainable Procurement (alternative Sourcing)</li><li>• Supply Chain Security (New GMP Warehouses)</li><li>• Financial Stability &amp; Cost Reductions OOS Product</li><li>• Supply Base Auditing – Quality practices; Environmental Practices; and Social/HR Practices</li></ul>
Corporate Commitment to Social Responsibility	<ul style="list-style-type: none"><li>• Community Outreach programs</li></ul>

# Environmental, Social & Governance (ESG) Commitments

## Environmental Commitments

- Biodiversity Policy Statement
- Chemicals and Waste Policy Statement
- Product Carbon Footprint Policy Statement
- Product End-of-Life Policy Statement

## Ethics Commitments

- Conflict of Interest Policy Statement
- Fair Business Practices Policy Statement

## Sustainable Procurement Commitments

- Sustainable Procurement Policy Statement

## Labor & Human Rights Commitments

- Employee Health and Safety Policy Statement
- Child Labor, Forced Labor and Human Trafficking Policy Statement
- Risk Exposure to Minors
- Diversity, Equity and Inclusion Policy Statement
- Whistleblower Policy Statement
- Anti-Discrimination Policy Statement
- Risk Assessment and Safe Job (RSJ) and Ergonomics at Work Policy Statement
- Working Conditions Policy Statement
- Living Wage Policy Statement
- Evaluation for Employee Job Performance Policy Statement

# CyberVadis –Cybersecurity Assessment

- CyberVadis is a platform that was developed by EcoVadis in 2018.
- This platform is a third-party verification platform used to assess a company’s cybersecurity risks across the supply chain.
- BioSpectra, Inc. completed our first CyberVadis assessment in June 2024 and were awarded a Bronze medal.

**cyber**vadis  
Certificate of Cybersecurity Assessment



certifies that

**BioSpectra, Inc**

received a cybersecurity  
assessment, scoring **Developed**  
in their overall score



Assessed in: 19 Jun 2024  
Valid until: 18 Jun 2025