

SUSTAINABLE EV BATTERY RECOVERY & CIRCULAR ECONOMY GRANT INITIATIVE

"Building a Sustainable Future Through
Innovation, Recovery, and Resource Circularity"

Presented by: **Durand Porter**

Prepared for: **Grant Review Committee**



Table of Contents

1. Executive Summary.....	3
2. Project Details	4
3. Problem Statement / Need.....	4
4. Goals & Objectives	5
5. Proposed Program / Solution.....	5
6. Beneficiaries & Community Impact.....	6
9. Budget & Funding Use.....	8
10. Monitoring & Evaluation.....	9
11. Sustainability Plan	10
12. Conclusion / Funding Appeal.....	10

1. Executive Summary

The Sustainable EV Battery Recovery & Circular Economy Grant Initiative seeks funding to establish an environmentally responsible and scalable battery recovery ecosystem capable of supporting the growing demands of the electric vehicle industry. As electric vehicle adoption continues to increase globally, the need for sustainable battery recycling, critical mineral recovery, and clean energy infrastructure modernization has become increasingly urgent.

This initiative is designed to reduce battery waste, improve recovery and reuse of valuable materials, strengthen environmental sustainability efforts, and support long-term circular economy development. Through the implementation of advanced diagnostics technologies, sustainable recycling systems, intelligent monitoring platforms, and workforce development programs, the project aims to create measurable environmental, economic, and community impact.

Grant funding will support the development of battery collection systems, recovery infrastructure, operational technologies, sustainability reporting platforms, and workforce readiness initiatives that improve environmental accountability while strengthening clean energy resilience. The proposed program aligns with renewable energy modernization priorities, environmental stewardship objectives, and long-term sustainability goals commonly supported by clean energy and infrastructure funding organizations.



2. Project Details

Introduction

Electric vehicles are playing a critical role in the global transition toward cleaner and more sustainable transportation systems. However, the rapid growth of EV adoption has created new environmental and operational challenges related to battery disposal, recycling capacity, and long-term resource sustainability. Without modern recovery systems, increasing volumes of end-of-life batteries may contribute to environmental waste, resource shortages, and growing pressure on clean energy infrastructure.

The Sustainable EV Battery Recovery & Circular Economy Grant Initiative was developed to address these challenges through the creation of a scalable and environmentally responsible recovery ecosystem focused on battery collection, diagnostics, recycling, refurbishment, and material recovery.

3. Problem Statement / Need

Existing EV battery recycling systems often lack the infrastructure, scalability, and operational coordination necessary to safely and efficiently manage growing battery volumes. Many communities and sustainability organizations face limited access to advanced recycling technologies, recovery facilities, and sustainability reporting systems capable of supporting long-term environmental goals.

In addition, the increasing demand for lithium, cobalt, nickel, graphite, and other critical minerals continues to place pressure on global supply chains. Without sustainable recovery and reuse systems, clean energy industries may face rising costs, material shortages, and increased environmental impact from raw material extraction.

This initiative addresses these challenges by supporting the development of intelligent recovery systems designed to reduce waste, improve material recovery, and strengthen long-term clean energy resilience.

4. Goals & Objectives

The initiative will pursue the following goals and objectives:

- Increase EV battery recovery and recycling capacity
- Reduce landfill dependency and environmental waste
- Improve critical mineral recovery efficiency
- Support sustainable battery refurbishment and reuse programs
- Strengthen clean energy infrastructure resilience
- Improve environmental reporting and sustainability accountability
- Expand workforce development and technical training opportunities
- Promote long-term circular economy growth

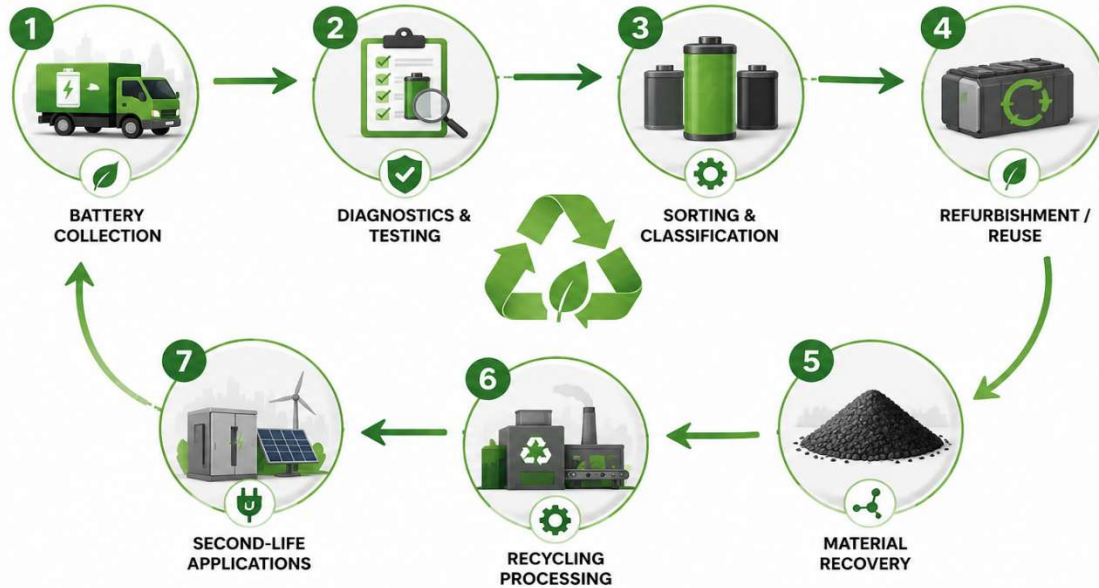
5. Proposed Program / Solution

The proposed initiative introduces a comprehensive EV battery recovery and circular economy framework designed to improve sustainability performance through environmentally responsible infrastructure modernization and intelligent operational technologies.

Key project activities include:

- Battery collection and transportation coordination
- Battery diagnostics and classification systems
- Sustainable recycling and material recovery operations
- Battery refurbishment and second-life utilization programs
- Sustainability reporting and monitoring technologies
- Workforce development and technical training initiatives
- Environmental compliance and operational governance support

EV BATTERY RECOVERY LIFECYCLE FRAMEWORK



The initiative will leverage advanced monitoring systems, operational analytics, and recovery technologies to improve recovery efficiency while reducing environmental impact and strengthening resource conservation efforts.

6. Beneficiaries & Community Impact

The initiative is expected to benefit local communities, sustainability organizations, EV manufacturers, recycling partners, clean energy providers, workforce development programs, and environmental stakeholders.

Community benefits include:

- Reduced battery waste and landfill dependency
- Improved environmental protection and resource conservation
- Expanded workforce development and technical training opportunities
- Increased sustainability awareness and community engagement
- Support for cleaner transportation and energy systems
- Strengthened clean energy infrastructure and operational resilience

The project also supports broader environmental and economic development goals by encouraging sustainable manufacturing practices, improving recovery efficiency, and supporting long-term circular economy initiatives.

BENEFICIARIES & COMMUNITY IMPACT



7. Implementation Plan

The initiative will follow a phased implementation strategy designed to support controlled deployment, operational continuity, and long-term sustainability.

Phase 1 – Planning & Assessment

Conduct stakeholder coordination, infrastructure assessments, operational reviews, and technology planning activities.

Phase 2 – Infrastructure Development

Deploy collection systems, diagnostics technologies, monitoring platforms, and recovery infrastructure.

Phase 3 – Technology Integration

Implement sustainability reporting systems, operational analytics platforms, and workflow coordination technologies.

Phase 4 – Pilot Operations & Validation

Conduct operational testing, environmental assessments, recovery validation activities, and compliance evaluations.

Phase 5 – Optimization & Expansion

Improve operational efficiency, expand recovery capacity, strengthen partnerships, and support long-term sustainability growth.

8. Budget & Funding Use

Grant funding will support:

- Battery diagnostics and testing technologies
- Recycling and material recovery infrastructure
- Monitoring and sustainability reporting systems
- Workforce development and technical training programs
- Environmental compliance and operational governance activities
- Operational technology integration and implementation support
- Research, development, and continuous improvement initiatives

No.	Description	Amount (USD)
1	Battery Diagnostics & Testing Technologies	\$180,000
2	Recycling & Material Recovery Infrastructure	\$120,000
3	Monitoring & Sustainability Reporting Systems	\$85,000
4	Workforce Development & Technical Training Programs	\$65,000
5	Environmental Compliance & Operational Governance Activities	\$50,000
6	Operational Technology Integration & Implementation Support	\$40,000
7	Research, Development & Continuous Improvement Initiatives	\$25,000
TOTAL PROJECT BUDGET		\$565,000

Funding allocations will prioritize sustainability performance, environmental impact reduction, workforce readiness, and long-term infrastructure resilience.

9. Monitoring & Evaluation

The initiative will utilize measurable performance indicators to evaluate environmental impact, operational effectiveness, and long-term sustainability outcomes.

Performance measurement activities will include:

- Recovery efficiency analysis
- Sustainability metrics tracking
- Environmental impact assessments
- Material recovery reporting
- Workforce training evaluations
- Operational performance reviews
- Compliance and safety monitoring

Continuous reporting and evaluation processes will support accountability, transparency, and ongoing operational improvement throughout the project lifecycle.

10. Sustainability Plan

Long-term sustainability will be supported through scalable infrastructure development, workforce readiness initiatives, strategic industry partnerships, continuous operational improvement, and ongoing technology modernization.

The initiative will also establish sustainability reporting systems and operational governance frameworks designed to support long-term environmental accountability and program continuity beyond the initial grant funding period.

11. Conclusion / Funding Appeal

The Sustainable EV Battery Recovery & Circular Economy Grant Initiative represents a strategic opportunity to strengthen environmental sustainability, improve critical mineral recovery capabilities, modernize clean energy infrastructure, and support long-term circular economy development.

Through grant funding, the initiative will establish environmentally responsible recovery systems, intelligent recycling technologies, workforce development programs, and operational modernization strategies designed to reduce waste, improve resource conservation, and strengthen clean energy resilience.

This initiative provides a scalable and community-focused framework capable of supporting environmental stewardship, clean energy innovation, workforce opportunity, and long-term sustainability growth.



 **Durand Porter**

 | Salt Lake City, UT, US, 84107

 | durandmporter@gmail.com

 | +1 8056378355

