

APPENDIX D-4
Beneficiary Eligible Mitigation Action Certification

BENEFICIARY ELIGIBLE MITIGATION ACTION CERTIFICATION

Beneficiary _____

Lead Agency Authorized to Act on Behalf of the Beneficiary _____
(Any authorized person with delegation of such authority to direct the Trustee delivered to the Trustee pursuant to a Delegation of Authority and Certificate of Incumbency)

Action Title:	
Beneficiary's Project ID:	
Funding Request No.	(sequential)
Request Type: (select one or more)	<input type="checkbox"/> Reimbursement <input type="checkbox"/> Advance <input type="checkbox"/> Other (specify): _____
Payment to be made to: (select one or more)	<input type="checkbox"/> Beneficiary <input type="checkbox"/> Other (specify): _____
Funding Request & Direction (Attachment A)	<input type="checkbox"/> Attached to this Certification <input type="checkbox"/> To be Provided Separately

SUMMARY

Eligible Mitigation Action <input type="checkbox"/> Appendix D-2 item (specify): _____ Action Type <input type="checkbox"/> Item 10 - DERA Option (5.2.12) (specify and attach DERA Proposal): _____
Explanation of how funding request fits into Beneficiary's Mitigation Plan (5.2.1):
Detailed Description of Mitigation Action Item Including Community and Air Quality Benefits (5.2.2):
Estimate of Anticipated NOx Reductions (5.2.3):
Identification of Governmental Entity Responsible for Reviewing and Auditing Expenditures of Eligible Mitigation Action Funds to Ensure Compliance with Applicable Law (5.2.7.1):
Describe how the Beneficiary will make documentation publicly available (5.2.7.2).
Describe any cost share requirement to be placed on each NOx source proposed to be mitigated (5.2.8).
Describe how the Beneficiary complied with subparagraph 4.2.8, related to notice to U.S. Government Agencies (5.2.9).

If applicable, describe how the mitigation action will mitigate the impacts of NOx emissions on communities that have historically borne a disproportionate share of the adverse impacts of such emissions (5.2.10).

ATTACHMENTS
(CHECK BOX IF ATTACHED)

- ☐ Attachment A Funding Request and Direction.
- ☐ Attachment B Eligible Mitigation Action Management Plan Including Detailed Budget and Implementation and Expenditures Timeline (5.2.4).
- ☐ Attachment C Detailed Plan for Reporting on Eligible Mitigation Action Implementation (5.2.11).
- ☐ Attachment D Detailed cost estimates from selected or potential vendors for each proposed expenditure exceeding \$25,000 (5.2.6). [Attach only if project involves vendor expenditures exceeding \$25,000.]
- ☐ Attachment E DERA Option (5.2.12). [Attach only if using DERA option.]
- ☐ Attachment F Attachment specifying amount of requested funding to be debited against each beneficiary's allocation (5.2.13). [Attach only if this is a joint application involving multiple beneficiaries.]

CERTIFICATIONS

By submitting this application, the Lead Agency makes the following certifications:

1. This application is submitted on behalf of Beneficiary _____, and the person executing this certification has authority to make this certification on behalf of the Lead Agency and Beneficiary, pursuant to the Certification for Beneficiary Status filed with the Court.
2. Beneficiary requests and directs that the Trustee make the payments described in this application and Attachment A to this Form.
3. This application contains all information and certifications required by Paragraph 5.2 of the Trust Agreement, and the Trustee may rely on this application, Attachment A, and related certifications in making disbursements of trust funds for the aforementioned Project ID.
4. Any vendors were or will be selected in accordance with a jurisdiction's public contracting law as applicable. (5.2.5)
5. Beneficiary will maintain and make publicly available all documentation submitted in

support of this funding request and all records supporting all expenditures of eligible mitigation action funds subject to applicable laws governing the publication of confidential business information and personally identifiable information. (5.2.7.2)

DATED: 10/11/23

Brian C. Lockensuss, Commissioner
[NAME]
[TITLE]

Indiana Department of Environmental Management

[LEAD AGENCY]

for

State of Indiana

[BENEFICIARY]

Appendix D-4 Summary Details

Eligible Mitigation Action Type:

Category 10: DERA Option

Explanation of how funding request fits into Beneficiary's Mitigation Plan (5.2.1):

Indiana will generally fund all eligible mitigation action (EMA) types included in Appendix D-2 of the national consent decree. The Mission Statement and Overall Goals are described below:

In promoting the reduction of emissions of NO_x, the Indiana Volkswagen Environmental Mitigation Trust Fund Program will prioritize sustainable projects that are transformative, positively impacting the environment, enhancing the health and well-being of residents, and promoting Indiana's growing economy.

The Program will focus on technological change and advancement with resiliency and favoring use of domestic fuel, where possible.

The goals of the Indiana Volkswagen Mitigation Trust Program include:

- Improving air quality across Indiana through cost-effective NO_x emission reduction strategies
- Maximizing diesel emission reductions across Indiana, while considering various categories of sensitive populations as areas of specific focus
- Providing appropriate considerations to projects that have diesel emission reductions that go beyond just NO_x, including PM_{2.5}, hydrocarbons (HC), carbon monoxide (CO), and carbon dioxide (CO₂)
- Encouraging leveraging of project partner funds with VW Trust funds to further the reach of the Indiana program

Detailed Description of Mitigation Action Item Including Community and Air Quality Benefits (5.2.2):

This project is for the purchase, installation, operation and maintenance of one (1) 2021 model-year, or newer, U.S. EPA emission compliant (Tier 4) all-electric-powered material handler that will REPLACE one (1) of the Grantee's Pre-Tier 4 existing diesel-powered material handlers that will be used for the same purpose. The replacement vehicles will be located and primarily operated in Rochester, Indiana.

All-electric-powered material handlers dramatically improve air quality and the quality-of-life conditions for operators, technicians, and citizens in the areas of operation due to notably lower tailpipe emissions in addition to less noisy engine operations.

The lifetime estimated emission reductions of pollutants according to U.S. EPA's Diesel Emission Quantifier (DEQ) include 5.840 tons of nitrogen oxides (NO_x) and 0.859 tons of fine particulate matter (PM_{2.5}).

Estimate of Anticipated NO_x Reductions (5.2.3):

Over the lifetime of this material handler, U.S. EPA's DEQ model estimates this project will result in a NOx reduction of 5.840 tons.

Identification of Governmental Entity Responsible for Reviewing and Auditing Expenditures of Eligible Mitigation Action Funds to Ensure Compliance with Applicable Law (5.2.7.1):

Indiana Department of Environmental Management

Describe how the Beneficiary will make documentation publicly available (5.2.7.2):

In October of 2017, IDEM published a website with specific information on the national mitigation trust as well as the Indiana program. The website included an opportunity to sign up for automated updates to make sure interested parties were always kept apprised of any changes made to the program website. This web portal will be the location for all information related to the Indiana Volkswagen Mitigation Trust Program.

Describe any cost share requirement to be placed on each NOx source proposed to be mitigated (5.2.8):

Indiana will use Volkswagen Mitigation Trust funds to reimburse non-government-owned fleet and equipment owners at the levels specified in Appendix D-2 of the national mitigation trust. IDEM will also use Volkswagen Mitigation Trust funds to reimburse government-owned fleets and equipment at the same level as non-government owned fleet and equipment owners, as opposed to the full cost reimbursement permitted by Appendix D-2.

Specifically, for this project, the Indiana Volkswagen Mitigation Trust Program will cover up to 45% of the total project cost while the Grantee and/or other programs covers the remaining 55%.

Describe how the Beneficiary complied with subparagraph 4.2.8, related to notice to U.S. Government Agencies (5.2.9):

The Indiana Department of Environmental Management notified representatives as identified in Appendix D-2 of the national consent decree via email in March of 2018.

If applicable, describe how the mitigation action will mitigate the impacts of NOx emissions on communities that have historically borne a disproportionate share of the adverse impacts of such emissions (5.2.10):

Not applicable to this specific project.

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Attachment B Details

Project Schedule and Milestones:

Indiana announces Round 3 – VW Onroad and Nonroad funding opportunity via online Request for Proposals (RFP)	March 23, 2021
Deadline for Round 3 – VW Onroad and Nonroad program applications	June 1, 2021
Indiana notifies applicants of award decisions	September 16, 2021
Funding Agreement between Indiana and Grantee is fully executed	March 9, 2022
Grantee project implementation	March 9, 2022 to June 30, 2023
Indiana reviews programmatic, financial, and other materials for compliance with Appendix D-2 of the national consent decree	Ongoing
Indiana submits Appendix D-4 to Trustee to initiate payment to Grantee in accordance with Payee Contact and Wire Information form along with other supporting documentation	October 17, 2023
Indiana coordinates with Trustee on any questions or issues that arise related to the submitted Appendix D-4	October 17, 2023 to D-4 approval
Trustee responds to Indiana Appendix D-4	Within 60 days of submittal
Trustee disburses payment to Grantee	Within 15 days of Appendix D-4 approval

Project Budget:

Project Description	Indiana VW Mitigation Trust Grant Not to Exceed Total	Grantee Cost Share Not Less than Total	Project Total
The purchase, installation, operation and maintenance of one (1) 2021 model-year, or newer, U.S. EPA emission compliant (Tier 4) all-electric-powered material handler that will REPLACE one (1) of the Grantee's Pre-Tier 4 existing diesel-	\$304,540.00	\$372,215.00	\$676,755.00

powered material handlers that will be used for the same purpose. The replacement vehicles will be located and primarily operated in Rochester, Indiana.			
Percentage	45%	55%	100%

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State of Indiana Total Trust Allocation:

1) State of Indiana's Total Trust Allocation	\$40,935,880.59
2) Obligated Awards from Previous D-4 Submittals	\$17,181,617.12
3) State of Indiana's Net Remaining Allocation Prior to this D-4 Submittal	\$23,754,263.47
4) Current D-4 Funding Request Total	\$304,540.00
5) State of Indiana's Remaining Allocation After this D-4 Submittal	\$23,449,723.47

Projected Allocation Totals per Project Type:

	Total per Category	Annually Based on Expected Project Reimbursements
Total Trust	\$40,935,880.59	NA
To EV (15%) over 3 years (2021 to 2023)	\$6,140,382.09	\$2,046,794.03
To Admin (3%) over 4 years (2020 to 2023)	\$1,228,076.42	\$307,019.11
To EMAs (82%) over 3 years (2020 to 2022)	\$33,567,422.08	\$11,189,140.69

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Projected Trust Allocations:

	2020	2021	2022	2023
1) Anticipated Annual Project Funding Request to be paid through the Trust	\$11,189,140.69	\$13,235,934.72	\$13,235,934.72	\$2,046,794.03
2) Anticipated Annual Cost Share (Administrative Costs)	\$307,019.11	\$307,019.11	\$307,019.11	\$307,019.11
3) Anticipated Total Project Funding by Year (Line 1 + Line 2)	\$11,496,159.8	\$13,542,953.8	\$13,542,953.8	\$2,353,813.14
4) Cumulative Trustee Payments Made to Date Against Cumulative Approved Beneficiary Allocation	\$3,895,454.40	\$4,710,898.20	\$5,165,086.48	\$3,169,274.04
5) Current Beneficiary Project Funding to be paid through the Trust (Line 1)	\$101,199.00	\$130,705.00	\$9,000.00	\$304,540.00
6) Total Funding Allocated to Beneficiary, inclusive of Current Action by Year (Line 4 + Line 5)	\$3,996,653.40	\$4,841,603.20	\$5,174,086.48	\$3,473,814.04
7) Beneficiary Share of Estimated Funds Remaining in Trust at Beginning of Year	\$40,935,880.59	\$36,939,227.19	\$32,097,623.99	\$26,923,537.51
8) Net Beneficiary Funds Remaining in Trust, net of cumulative Beneficiary Funding Actions (Line 7 – Line 6)	\$36,939,227.19	\$32,097,623.99	\$26,923,537.51	\$23,449,723.47

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Attachment C Details

Detailed Plan for Reporting on Eligible Mitigation Action Implementation (5.2.11):

The Indiana Department of Environmental Management (IDEM) is committed to meet the reporting requirements as detailed in Subparagraph 5.3 of the Environmental Mitigation Trust Agreement for State Beneficiaries. Specifically, this subparagraph states:

“For each Eligible Mitigation Action, no later than six months after receiving its first disbursement of Trust Assets, and thereafter no later than January 30 (for the preceding six-month period of July 1 to December 31) and July 30 (for the preceding six-month period of January 1 to June 30) of each year, each Beneficiary shall submit to the Trustee a semiannual report describing the progress implementing each Eligible Mitigation Action during the six-month period leading up to the reporting date (including a summary of all costs expended on the Eligible Mitigation Action through the reporting date). Such reports shall include a complete description of the status (including actual or projected termination date), development, implementation, and any modification of each approved Eligible Mitigation Action. Beneficiaries may group multiple Eligible Mitigation Actions and multiple sub-beneficiaries into a single report. These reports shall be signed by an official with the authority to submit the report for the Beneficiary and must contain an attestation that the information is true and correct and that the submission is made under penalty of perjury. To the extent a Beneficiary avails itself of the DERA Option described in Appendix D-2, that Beneficiary may submit its DERA Quarterly Programmatic Reports in satisfaction of its obligations under this Paragraph as to those Eligible Mitigation Actions funded through the DERA Option. The Trustee shall post each semiannual report on the State Trust’s public-facing website upon receipt.”

IDEM will meet these obligations in coordination with our project partners. Project partners are obligated to provide IDEM the necessary information for reports to the Trustee through the Funding Agreements between IDEM and each project partner. This language states:

“4. Implementation and Reporting Requirements

A. The Grantee shall implement and complete the Project in accordance with **Attachment A** and the plans and specifications contained in its Funding Application. Modification of the Project

shall require prior written approval from IDEM. If IDEM determines that the Grantee is not making adequate progress in implementation of the approved Project in accordance with **Attachment A**, IDEM may rescind the award.

B. The Grantee shall submit to IDEM written progress reports until the completion of the Project. These reports shall be submitted in accordance with the reporting schedule contained in **Attachment C** and shall contain such detail of progress or performance on the Project as is required under the terms of the Volkswagen Diesel Emissions Environmental Mitigation Trust. If additional documentation is required for IDEM to meet reporting obligations under the Volkswagen Diesel Emissions Environmental Mitigation Trust, IDEM may request such documentation as necessary at any time during the term of this Agreement.”

Attachment D Details

Detailed cost estimates from selected or potential vendors for each proposed expenditure exceeding \$25,000 (5.2.6):

Detailed in the following pages:

Rochester Iron & Metal, Inc.

1552 E. Lucas Street
Rochester, IN 46975
574-223-4300



Invoice

Date	Invoice #
6/22/2023	59283

Bill To
ATTN: Shawn M Seals Indiana Depart of Environmental Managemnt Office of Air Quality - Mail Code 61-50 100 North Senate Avenue Indianapolis, IN 46204-2251

Ship To

P.O. Number	Terms	Ship Date	Ship Via	FOB
		6/22/2023		

Pounds	Description	Price per G.T.	Amount
	Agreement Number DOR3-010		
	Purchase, installation, operation, and maintenance of one (1) 2021 model year or newer US. EPA emission compliant (Tier 4) all-electric-powered material handler (E-Crane) that will replace one (1) of our Pre-Tier 4 existing diesel-powered material handlers, that will be used for that same purpose.		304,540.00
	NOTE: Location of use is our facility in Rochester Indiana NOTE: We will provide a cash match of 1.22 grantee dollars for every 1.00 VW program awarded dollars		

Total	\$304,540.00
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AR300 S01 CREDIT REVIEW

6/22/23 Term 618
8:49 Re1 10.07

Company. 1 BRANDEIS MACHINERY & SUPPLY

Customer B157565 ROCHESTER IRON & METAL INC

Added..... 12/10/01

1552 E LUCAS ST

Avg Balance..... 10,583.49

Terms OA

High Balance..... 690,727.08

Payments This Month. 4,794.86-

Charges This Month.. .00

Unbilled Charges.... 2,917.08

Last Pymnt 6/09/23 \$4,794.86

ROCHESTER , IN 46951
574/223-4300

----- Check Payment Detail -----

Customer B157565 ROCHESTER IRON & METAL INC

check	Trans	Posted	Br Invoice	Amount	check Total
CHKACH18	4/20/23	4/21/23			676,755.00
	4/20/23	4/21/23	08 FM00IV	676,755.00	

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Rochester Iron & Metal, Inc.
2021 DieselWise Indiana – DERA with Volkswagen DERA Option
Submitted December 17, 2021

Scoring Criteria Summary

- I. Cost effectiveness of project (\$ per ton of NO_x reduced)**
 - \$63,208 total project cost of NO_x ton Reduced.
- II. Transformational potential**
 - *The new electric material handler will eliminate direct air emissions that are generated by current equipment immediately impacting the quality of life of employees and nearby residents. Electric operation eliminates fuel and oil consumption, greatly decreases maintenance in increases operational time.*
- III. Project's total NO_x emission reduction potential (based on type of project and/or the use of vehicle):**
 - *Project will reduce 100% NO_x reduction or over 10.707 tons of NO_x for Air Quality improvements.*
- IV. NAAQS sensitive areas as a percentage of current standards.**
 - *The primary area of operation, Fulton County is not currently a NAAQS area.*
- V. Air quality benefits to areas with sensitive populations or that bear a disproportionate share of the air pollution burden.**
 - *This project has significant reductions in NO_x, PM_{2.5}, HC, and CO. Rochester, IN U.S. Census data shows a higher than national percentage of disabled residents under the age of 65, representing a disproportionate level of sensitive populations impacted by pollution caused by the existing diesel equipment being replaced.*
- VI. Leveraging of Resources (financial or resource match)**
 - *This project seeks to leverage over \$372,215 in private funds.*
- VII. Entities registered with the Indiana Secretary of State that operate vehicles and equipment in conjunction with Indiana facilities (include Indiana Economic Impact documentation).**
 - *All equipment is domiciled and used in Indiana. State documents are attached.*
- VIII. Active participant in the State of Indiana, Department of Administration or Department of Transportation Minority/Women/Veterans Business Enterprise Participation Plan (include MBE/WBE/VBE documentation).**
 - *Rochester Iron & Metal, Inc., is not a certified MBE/WBE/VBE.*



**2021 DieselWise Indiana
DERA with Volkswagen DERA Option
Rochester Iron & Metal
Zero Emission Metal Recycling
Narrative Work Plan**

PROJECT TITLE: Zero Emission Metal Recycling

SOLICITATION: 2021 DieselWise Indiana – DERA with Volkswagen DERA Option

CATEGORY: Diesel Vehicle and Equipment Replacement - All Electric Replacement

GRANTEE INFORMATION: Dan Zeiger, Controller
Rochester Iron & Metal, Inc.
danz@rochesteriron.com
1552 East Lucas Street
Rochester, IN 46975
(574) 223-4300

Table 1: General Fleet Information	
Number of Equipment to Replace	1
Current Operating Hours	2015 Liebherr 954 Highrise – 14,673 Hours
Estimated Monthly Operating Hours	245 Hours
Estimated Monthly Idle Time	10 hours
Estimated Monthly Fuel Consumption (Diesel Gallons)	1,562 Gallons
Estimated Monthly Use (Hours)	245 hours
Equipment To Be Replaced (Engine Details)	2015 Liebherr 954 Highrise (Tier-3, 235 HP)
Proposed new Equipment	2022 Sennebogen 835M “E” (Full Electric, 225kW)
Estimated Years to Remain in Active Fleet	22

Total Project Cost

Funding Requested: **\$ 304,539.75 (45%)**

Applicant Match: **\$ 372,215.25 (55%)**

Total Project Cost: **\$ 676,755.00**



Project Period

Table 2: Project Period and Task Description		
Task	Task Description and Deliverable	Date
Task A	Grant Agreement Execution.	3/11/22
Task B (1)	The Grantee shall provide written quarterly progress reports.	On Going
Task B (2)	Pursue EPA and CARB certified vendors for ordering of diesel replacement equipment and place order for replacement equipment.	4/15/22
Task B (3)	Assist with outreach for on-site industry and local community (speak at IN Volkswagen/IDEM meetings). Assist with identifying additional stakeholders for this or future environmental projects in the surrounding area. HRP Construction, Inc. Will work with IDEM and Indiana Clean Diesel Coalition to promote clean diesel activities across Indiana.	Ongoing
Task B (4)	Accept delivery of new clean diesel equipment and destroy the engines of current diesel equipment while documenting. Provide payment for new equipment.	6/01/22
Task C (1)	Provide documentation of scrappage equipment, proof of purchase, and complete final report. Submit final report.	8/01/22
Task C (2)	Assist IDEM with the preparation of documentation for IDEM to submit to VW Mitigation Beneficiary, including a final report summarizing the results of the project.	On going
Task D	Project Completion.	9/30/23

Project Description

Rochester Iron & Metal Inc. is a scrap metal processing company serving North Central Indiana for over 50 years growing from a one-acre lot to three facilities with the largest being a 30-acre facility in Rochester, Indiana. Key aspects of Rochester Iron & Metals operation that set them apart is the use of a covered drive through drop off building and the industry leading Wendt Model 60 Auto Shredder which can process up to 60 tons of Automotive and Light Scrap iron per hour. Running 6 days per week the Auto Shredder processes over 156,000 tons per year. Additional services offered by Rochester Iron & Metal include: Aluminum Recycling, Brass and Copper Recycling, Scrap Iron & Metal, Stainless Steel & Other metals, Roll off & Mobile Sheers, and Electric Motor & Sealed Unit processing.

Located with rail access, the Rochester location is classified as a “Goods Movement Facility” and is a priority area for funding by the United States Environmental Protection Agency (EPA).



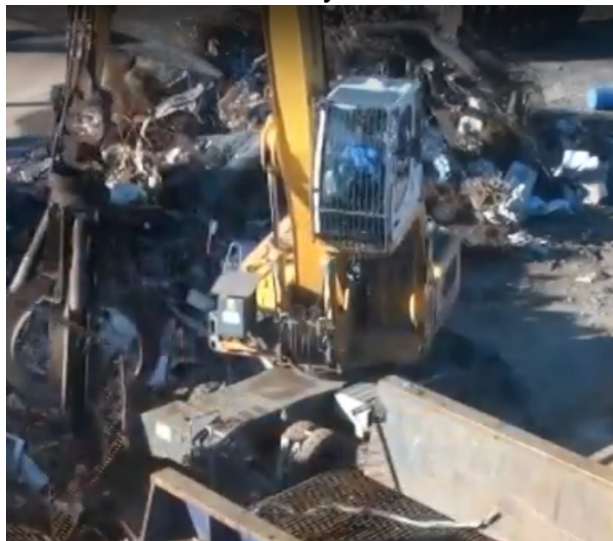
According to the U.S. Geological Survey “Recycling of scrap plays an important role in the conservation of energy because the remelting of scrap requires much less energy than the production of iron or steel products from iron ore.”¹ Further, “One ton of steel that is recycled conserves 1.1 tons of iron ore, 0.6 ton of coking coal, and 0.05 ton of limestone.”¹



Metal recycling is a significant contributor to the economy of Indiana. According to the Institute of Scrap Recycling Industries, Inc. in 2021 recycling contributed \$5.16B in total economic impact and employed over 22,121.² This is an increase from \$4.07B and 18,888 employed in 2019.³

Indiana has set an aggressive goal of a 50% recycling rate, established by IC 13-20-25-1 in 2014, yet in 2019 had only achieved a recycling rate of 19%.⁴ In the commissioned report “Indiana Recycling Infrastructure & Economic Study” the many benefits and lost economic opportunity related specifically to ferrous and non-ferrous scrap metal recycling. In order to ensure that Indiana has the capacity to reach its processing and reuse goals it is imperative that companies like Rochester Iron and Metal grow and implement new technologies that improve efficiency while increasing capacity.

Rochester Iron and Metal seeks funding to replace an existing diesel-powered material handler with a new fully electric unit.



¹ U.S. Geological Survey, Mineral Commodity Summaries, January 2021 “Iron and Steel Scrap”

² Institute of Scrap Recycling Industries, Inc. “Economic Impact in Your Area?” <https://www.isri.org/economic-impact>

³ Institute of Scrap Recycling Industries, Inc. “2019 Economic Impact Study, U.S. – based Scrap Recycling Industry”

⁴ Indiana Department of Environmental Management, “Indiana Recycling Infrastructure & Economic Study” <https://www.in.gov/idem/recycle/resources/recycling-infrastructure-and-economics-study/>



Transitioning to the full electric Sennebogen 835 M “E” Electric Material Handler will provide many benefits compared to the existing equipment. Operationally it offers longer service life for hydraulic components, considerably lower operating costs due to price of electricity compared to diesel fuel, longer maintenance intervals, and reduced maintenance costs due to no need for fuel, oil, filters and oil changes. Further, without the need for refueling the new material handler can be used for longer periods without the need for fueling while also eliminating the need for fuel storage on site.

Environmentally the shift to electric eliminates all local emissions that would have been generated through the combustion of diesel fuel. This has benefits for the equipment operators, those in the area related to recycling facility operations, and those in the community surrounding the facility. Successful application of this equipment will help lead the way for additional equipment deployments and justify the benefits of the transition to electric powered machinery.

Air Quality Improvements

Rochester Iron & Metal, Inc. will deploy the new equipment at its facility in Rochester, Indiana located in Fulton County. Fulton County is not a nonattainment area under the NAAQS.

The communities and county do, however, have higher populations of those deemed sensitive to harmful air pollutants than national averages, including seniors, young people, the disabled, those living in poverty and those without health insurance, making it critical to keep harmful emissions to a minimum. According to the U.S. Census Bureau 23.6% of the population of Fulton County is under the age of 18, compared to 22.2% at the national level. Further, Fulton County and Rochester both have higher percentages of individuals under the age of 65 who are disabled at 15.9% and 20.2% respectively compared to 12.7% nationally.

In the table 3 below, the project emissions were calculated utilizing the United States Environmental Protection Agency’s (EPA) Diesel Emission Quantifier (DEQ). Through the implementation of this project, approximately 10.707 tons of nitrogen oxides will not be emitted. As a result of this reduction the negative health effects of exposure to nitrogen oxides for people with asthma, children and older adults will not be exposed to these harmful emissions. In consideration to the other emissions quantified, carbon monoxide and particulate matter are reduced by 100%. This electric equipment project will continue to eliminate emissions through the life of the equipment. The expected life of the new equipment is 30 years.



**Table 3. Clean Diesel Mining Equipment
Estimated Annual Emissions Reductions**

Data was used utilizing the most current U.S. EPA Diesel Emission Quantifier

<u>Annual Results</u> <i>(short tons)</i>	NO_x	PM_{2.5}	HC	CO	CO₂	Fuel
Baseline for Upgraded Vehicles	0.487	0.072	0.069	0.353	211.2	18,777
Amount Reduced After Upgrades	0.487	0.072	0.069	0.353	211.2	18,777
Percent Reduced After Upgrades	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
<u>Lifetime Results</u> <i>(short tons)</i>	NO_x	PM_{2.5}	HC	CO	CO₂	Fuel
Baseline for Upgraded Vehicles	10.707	1.575	1.516	7.764	4,647.3	413,094
Amount Reduced After Upgrades	10.707	1.575	1.516	7.764	4,647.3	413,094
Percent Reduced After Upgrades	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
<u>Lifetime Cost Effectiveness</u> <i>(\$/short ton reduced)</i>	NO_x	PM_{2.5}	HC	CO	CO₂	
Total Cost Effectiveness (Includes all project costs)	\$63,208	\$429,777	\$446,353	\$87,164	\$146	

This project represents a significant decrease in diesel emission reductions in just one year. Over the lifetime of the equipment, the citizens of not only Fulton, but surrounding counties will benefit from cleaner air, but the entire state of Indiana will benefit as well.

The Indiana Clean Diesel Coalition is an ambitious partnership between leaders from federal, state, and local government, the private sector, and environmental groups committed to reducing diesel emissions across Indiana which is led by IDEM and South Shore Clean Cities, Inc. The Indiana Clean Diesel Coalition is part of the U.S. EPA National Clean Diesel Campaign (www.epa.gov/cleandiesel).

Project Success

The success of this project will be based on upon the decreased emissions, environmental and health benefits, and economical improvements through operation of a fully electric material handler. The ability to demonstrate this technology at a priority location in Indiana will help to convince other operators of its benefits and can be displayed to the public during open house events.



Grantees and Partner Roles

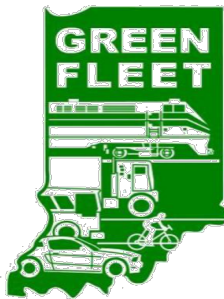
SSCC is an Indiana 501(c)(3) nonprofit organization whose aim is to educate and assist both public and private fleet owners and individuals. The purpose of SSCC is to help meet the requirements of the national Energy Policy Act of 1992, which is aimed at promoting national energy security; and to help meet the requirements of the federal Clean Air Act as amended in 1990, which strives to promote clean air. SSCC is a SmartWay Affiliate Partner and will commit to promoting the use of alternative fuels as well as idle and fuel use reduction and air quality improvement efforts.

In addition to the purchase and deployment activities, Rochester Iron & Metal is also a member of the Indiana Green Fleet program managed by SSCC. The Indiana Green Fleet program's purpose is to significantly improve the environmental performance of fleets across Indiana. SSCC conducts fleet audits to compare alternative fuels and idle reduction technologies while creating policies that support petroleum and vehicle emission reductions.

The Midwest Clean Diesel Coalition is an ambitious partnership between leaders from federal, state, and local government, the private sector, and environmental groups committed to reducing diesel emissions across Indiana which is led by IDEM and South Shore Clean Cities, Inc. The Indiana Clean Diesel Coalition is part of the U.S. EPA National Clean Diesel Campaign (www.epa.gov/cleandiesel).

SSCC will also work with IDEM/VW Advisory Committee and Rochester Iron & Metal to implement the following aspects of this project through:

- Promoting diesel emission reduction projects and use policies and education and awareness programs with its employees.
- Celebrating and announcing the success of these projects with a press conference with IDEM. Also educating like-minded fleets at the upcoming Drive Clean Indiana annual meeting in August of 2022.
- Rochester Iron & Metal is a member of the Indiana Green Fleet Program which promotes partnerships and training with:
 - IDEM DieselWise
 - IDEM Partners for Clean Air
 - IDEM Environmental Stewardship Program
 - IDEM Partners for Pollution Prevention
 - U.S. EPA Midwest Clean Diesel Initiative and SmartWay Affiliate



Key Personnel Contact Information

Contact	Organization/Title	Phone	Email
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Evaluation Criteria

The location of this project addresses diesel emission reduction to vital industry at an EPA priority location that promotes the Indiana economy. The facility is a key supplier of processed scrap metal products which are relied upon by the Indiana steel manufacturing industry. The purchase and operation of a fully electric material handler decreases emissions, increases up time, and provides an active demonstration example of new technology in the county. The implementation also pairs to create a model of successful recycling facility operations needed to meet Indiana recycling goals.

Itemized Budget

Description	Project Cost	2021 DieselWise Funds (45% Cost Share)	Applicant Share (55% Cost Share)
2022 Sennebogen 835M"E" Electric Material Handler	\$676,755.00	\$304,539.75	\$372,215.25
Totals	<u>\$676,755.00</u>	<u>\$304,539.75</u>	<u>\$372,215.25</u>