

BENEFICIARY ELIGIBLE MITIGATION ACTION CERTIFICATION

Beneficiary State of Arkansas

Lead Agency Authorized to Act on Behalf of the Beneficiary Arkansas Department of Environmental Quality (ADEQ)

(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:	Light Duty Zero Emission Vehicle Supply Equipment
Beneficiary's Project ID:	Level 2 EVSE Program
Funding Request No.	<i>(sequential)</i>
Request Type: (select one or more)	<input type="checkbox"/> Reimbursement <input type="checkbox"/> Advance <input checked="" type="checkbox"/> Other (specify): Program management plan, program reporting plan are included with this submission. Multiple Attachment A Funding Requests & Directions will be attached to this Eligible Mitigation Action Certification (EMAC) as projects are completed. An Attachment A Funding Request & Directions for administrative costs of implementing the first year of this program. Additional Funding Requests & Directions for administrative costs for program years 2-4 will be submitted in advance of the start of each program year.
Payment to be made to: (select one or more)	Administrative costs funding request submitted with this EMAC <input checked="" type="checkbox"/> Beneficiary <input checked="" type="checkbox"/> Other (specify): Funding Requests will be submitted for program award recipients as projects under this program are implemented.
Funding Request & Direction (Attachment A)	<input checked="" type="checkbox"/> Attached to this Certification and <input checked="" type="checkbox"/> To be Provided Separately

SUMMARY

Eligible Mitigation Action ✓ Appendix D-2 item (specify): <u>Item 9 – Light Duty Zero Emission Vehicle Supply Equipment</u>
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): This EMAC implements the Level 2 Light-Duty Electric Vehicle Supply Equipment (EVSE) Rebate Program described in section IV.B. of Arkansas's Beneficiary Mitigation Plan submitted to the Trustee on June 25, 2018.
Detailed Description of Mitigation Action Item Including Community and Air Quality Benefits (5.2.2): ADEQ is working to expand the State's growing electric vehicle charging infrastructure through the

Level 2 Electric Vehicle Station Equipment (EVSE) Rebate Program.

Through this program, government, private, and non-profit organizations may qualify for a rebate for the installation of an level 2 electric vehicle supply equipment, known as EVSE.

ADEQ anticipates that increased adoption of electric vehicles by Arkansans as a result of the increase in infrastructure availability will result in air quality benefits for Arkansas communities. Ozone, nitrogen dioxide, and particulate matter air quality benefits will be realized based on decreased mobile emissions resulting from displacement of fossil-fueled light duty vehicles with zero-emissions light-duty vehicles.

Estimate of Anticipated NOx Reductions (5.2.3):

ADEQ has estimated anticipated NOx reductions of the EVSE program based on projected kilowatt hours dispensed from the types of EVSE eligible under this program. ADEQ has not estimated the potential additional NOx reductions that may result based on increased market penetration of electric vehicles that the EVSE program may catalyze.

Estimated deployment of various project types under the EVSE Program assumed for the purposes of estimating program NOx reductions. As the EVSE program is a rebate program, ADEQ has not predetermined the projects that will receive rebates; therefore, actual projects implemented and NOx reductions may differ from the estimates below.

The following usage data was obtained from ChargePoint and was used to calculate projected NOx emissions avoided solely from use of EVSEs funded under this rebate based on the estimated deployment assumptions above.¹

Annual average kWh per station dispensed from Level 2 charging stations in the ChargePoint Network in **Arkansas**

- a. **878 kWh per L2 station, per year, on average**
 - i. Years Considered: 2014-2017
 - ii. 30 L2 Stations on CP Network in Arkansas (Excluding single family residential)
 1. Most-Used Station (**Max**): 2,938 kWh annually (High-End Multifamily Complex)
 2. Median: 565 kWh annually
 3. Least-Used Station (**Min**): 3 kWh annually (Small Municipality)
 - iii. Primarily Workplace & Retail
- b. For forecasting purposes
 - i. **2018 Year To Date**: 611 kWh dispensed per station, on average | On track for **1100+ kWh per L2 station, on average, in 2018, in Arkansas**

The following assumptions were used for translating kWh dispensed into metric tons of NOx saved:

- Grams of NOx per mile driven w/unleaded gasoline = 0.693
- Miles per kWh (EV Average) = 3.2
- kWh Dispensed x Miles per kWh = Equivalent Miles
- Equivalent Miles x Grams of NOx per Mile Driven = Grams of NOx Saved
- Grams of NOx Saved ÷ 1,000,000 = Metric Tons of NOx Saved

¹7/23/2018-Email Correspondence between ChargePoint and ADEQ. RE: Projecting Emissions Benefits of Level 2 and DC FC

Based on the assumptions above, ADEQ has calculated the following estimated NOx reductions per EVSE based on the eligible EVSE types for this program and historic median, average, maximum, and 2018 projected average use for Level 2 and DC Fast Charging.

Project Type	Anticipated NOx Reductions (Tons Per Year)			
	Historic Median Use Case	Historic Mean Use Case	Historic Maximum Use Case	Projected 2018 Mean Use Case
Level 2, Government owned, Publically Available, single port	0.001	0.002	0.007	0.002
Level 2, Government owned, Publically Available, dual port	0.001	0.002	0.007	0.002
Level 2, Nongovernment owned, publically available, single port	0.001	0.002	0.007	0.002
Level 2, Nongovernment owned, publically available, dual port	0.001	0.002	0.007	0.002
Level 2 workplace, not publically available, single	0.001	0.002	0.007	0.002
Level 2 workplace, not publically available, dual	0.001	0.002	0.007	0.002
Level 2 multi-unit dwelling, not publically available, single port	0.001	0.002	0.007	0.002
Level 2 multi-unit dwelling, not publically available, dual port	0.001	0.002	0.007	0.002

If electric vehicle penetration grows enough to support the level of charging indicated in the various historic and 2018 projected use cases as a result of EVSE awarded rebates under this program, the NOx values above may reflect 20% or less of the actual NOx reduction benefit of displacement of traditional fossil-fueled vehicles by electric vehicles spurred by deployment of EVSE under this rebate. M.J. Bradley has performed plug-in electric vehicle cost benefit analyses for Illinois and Michigan, both of which assumed that 80% of electric vehicles would be charged exclusively at home and 20% would be charged at both home and work.² Therefore, the anticipated NOx reductions resulting from this program are anticipated to be much higher than the values above.

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):
Arkansas Department of Finance and Administration

² M.J. Bradley & Associates, "Electric Vehicle Cost-Benefit Analysis: Plug-in Electric Vehicle Cost-Benefit Analysis: Illinois," September 2017, <http://mjbradley.com/sites/default/files/IL%20PEV%20CB%20Analysis%20FINAL%2026sep17.pdf>. (accessed August 2018)

M.J. Bradley & Associates, "Electric Vehicle Cost-Benefit Analysis: Plug-in Electric Vehicle Cost-Benefit Analysis: Michigan," August 2017, <http://www.ourenergypolicy.org/wp-content/uploads/2017/08/mi-pev-cb-analysis.pdf>. (accessed August 2018)

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

ADEQ will post this certification minus Attachment A, as well as project application instructions for the program described in this certification to <https://www.adeg.state.ar.us/air/planning/vw.aspx>. ADEQ will upload information including estimated emissions reductions, program implementation milestones, and project recipients and awards to the same webpage.

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

The Level 2 EVSE program will rebate a certain percentage of expenditures on EVSE, labor, and installation up to a maximum cap in dollars. The rebate percentages comply with the allowable funding percentages included in Appendix D-2.

The table below provides the rebate amounts for publically available Level 2 EVSE.

Project Type	Rebate	Maximum Rebate in Dollars (One Charging Port)	Maximum Rebate in Dollars (Two or More Charging Ports)
Government-owned property available to the public for charging	90%	\$6,850	\$9,300
Non-Government-owned property available to the public for charging	70%	\$5,325	\$7,225

Rebate will be based on the applicable percentage listed in the table or the applicable maximum rebate amount in dollars, whichever one is less.

The table below provides the rebate amounts for workplace or multi-unit dwelling Level 2 EVSE.

Project Type	Rebate	Maximum Rebate in Dollars (One Charging Port)	Maximum Rebate in Dollars (Two or More Charging Ports)
Workplace (without public access)	50%	\$1,875	\$3,375
Multi-Unit Dwelling (without public access)	50%	\$1,875	\$3,375

Rebate will be based on the applicable percentage listed in the table or the applicable maximum rebate amount in dollars, whichever one is less.

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

On February 28, 2018, ADEQ provided notice to the US. Fish and Wildlife Service, National Park Service, and the Forest Service of Arkansas's designation as a Beneficiary under the Trust. These notices were sent to the email addresses listed in the Trust Agreement, included a letter from Stuart Spencer, Associate Director of the Office of Air Quality at ADEQ, the Environmental Mitigation Trust Agreement for State Beneficiaries, the Notice of Beneficiary Designation, and the Amended D-3 Certification with Attachment. These federal land managers were also provided with a link to

<https://www.adeg.state.ar.us/air/planning/vw.aspx>, where ADEQ is posting information related to ADEQ's implementation of Arkansas's beneficiary mitigation plan. These notifications have been posted to the webpage.

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).

This rebate program will not specifically target any area of the state; however, ADEQ anticipates that increased adoption of electric vehicles by Arkansans as a result of the increase in infrastructure availability will result in air quality benefits for Arkansas communities, including those communities that have borne a disproportionate share of the adverse impacts of NOx emissions from Volkswagen vehicles subject to the settlement and areas with historically high ozone and fine particulate matter concentrations.

ATTACHMENTS
(CHECK BOX IF ATTACHED)

- | | | |
|-------------------------------------|---------------------|---|
| <input checked="" type="checkbox"/> | Attachment A | Funding Request and Direction. |
| <input checked="" type="checkbox"/> | Attachment B | Eligible Mitigation Action Management Plan Including Detailed Budget and Implementation and Expenditures Timeline (5.2.4). |
| <input checked="" type="checkbox"/> | Attachment C | Detailed Plan for Reporting on Eligible Mitigation Action Implementation (5.2.11). |
| <input checked="" type="checkbox"/> | 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.] |
| <input type="checkbox"/> | Attachment E | DERA Option (5.2.12). [Attach only if using DERA option.] |
| <input type="checkbox"/> | 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 State of Arkansas, 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)**

ATTACHMENT B

LEVEL 2 EVSE PROJECT MANAGEMENT PLAN

PROGRAM SCHEDULE AND MILESTONES

Milestone		Date
	Lead Agency Provides Notice of Availability of Program Funds	Within 30 days of Trustee Approval of EMAC for Program
Program Year 1	Lead Agency Begins Accepting Rebate Applications	Within 30 days of Trustee Approval of EMAC for Program
	Project Sponsor certifies project completion and provides detailed invoices for all claimed project costs, documentation for emission reduction estimate, required certification documents to Lead Agency to support direction to Trustee for Payment	Required at the time of application
	Lead Agency completes review of project sponsor documentation and certifies payment direction to Trustee. An Attachment A is completed for each project.	Within 30 days of complete documentation receipt for each project
	Trustee Directs Payment as indicated in Attachment A documents submitted for each project	Within 15 days of receipt of each Attachment A
	Program Year 1 End of Application Period	December 31, 2019 or when all funds allocated to program year have been committed
	Program Years 2020, 2021, and 2022	Lead Agency Begins Accepting Rebate Applications
Project Sponsor certifies project completion and provides detailed invoices for all claimed project costs, documentation for emission reduction estimate, required certification documents to Lead Agency to support direction to Trustee for Payment		Required at the time of application
Lead Agency completes review of project sponsor documentation and certifies payment direction to Trustee. An Attachment A is completed for each project.		Within 30 days of complete documentation receipt for each project
Trustee Directs Payment as indicated in Attachment A documents submitted for each project		Within 15 days of receipt of each Attachment A
Program Year End of Application Period		December 31 st of the program year or when all funds for the program year have been committed

PROGRAM BUDGET

The program budget for each year makes certain assumptions about the types of projects for which we receive rebate applications. Since rebate amounts are based on a percentage of the cost of equipment and installation and these percentages differ among different types of level 2 EVSE projects, actual cost-share amounts and total expenditures may differ from the budgets below.

Period of Performance: <u>January 1, 2019–December 31, 2019</u>			
Budget Category	Total Approved Budget	Share of Total Budget to be funded by the Trust	Estimated Total Cost-Share
Subrecipient Support	\$305,010	\$215,563	\$89,447
Administrative	\$38,040	\$38,040	\$0
Project Totals	\$343,050	\$253,603	\$89,447

Period of Performance: <u>January 1, 2020–December 31, 2020</u>			
Budget Category	Total Approved Budget	Share of Total Budget to be funded by the Trust	Estimated Total Cost-Share
Subrecipient Support	\$305,010	\$215,563	\$89,447
Administrative	\$38,040	\$38,040	\$0
Project Totals	\$343,050	\$253,603	\$89,447

Period of Performance: <u>January 1, 2021–December 31, 2021</u>			
Budget Category	Total Approved Budget	Share of Total Budget to be funded by the Trust	Estimated Total Cost-Share
Subrecipient Support	\$305,010	\$215,563	\$89,447
Administrative	\$38,040	\$38,040	\$0
Project Totals	\$343,050	\$253,603	\$89,447

Period of Performance: <u>January 1, 2022–December 31, 2022</u>			
Budget Category	Total Approved Budget	Share of Total Budget to be funded by the Trust	Estimated Total Cost-Share
Subrecipient Support	\$305,010	\$215,563	\$89,447
Administrative	\$38,040	\$38,040	\$0
Project Totals	\$343,050	\$253,603	\$89,447

PROJECTED TRUST ALLOCATIONS:

Project Trust Allocations	2019	2020	2021	2022
1. Anticipated Annual Project Funding Request to be paid through the Trust	\$253,602.94	\$253,602.94	\$253,602.94	\$253,602.94
2. Anticipated Annual Cost Share	\$89,447.42	\$89,447.42	\$89,447.42	\$89,447.42
3. Anticipated Total Project Funding by Year (line 1 plus line 2)	\$343,050.36	\$343,050.36	\$343,050.36	\$343,050.36
4. Cumulative Trustee Payments Made to Date Against Cumulative Beneficiary Allocation	\$0	\$253,602.94	\$507,205.88	\$760,808.82
5. Current Beneficiary Project Funding to be Paid through the Trust (Line 1)	\$253,602.94	\$253,602.94	\$253,602.94	\$253,602.94
6. Total Funding Allocated to Beneficiary, inclusive of Current Action by Year (line 4 plus 5)	\$ 253,602.94	\$507,205.88	\$760,808.82	\$1,014,411.76
7. Beneficiary Share of Estimated Funds Remaining in Trust	\$14,647,709.09	\$14,394,106.15	\$14,140,503.21	\$13,886,900.27
8. Net Beneficiary Funds Remaining in Trust, net of cumulative Beneficiary Funding Actions (line 7 minus line 6)	\$14,394,106.15	\$14,140,503.21	\$13,886,900.27	\$13,633,297.33

**DETAILED PLAN FOR REPORTING ON ELIGIBLE MITIGATION ACTION
IMPLEMENTATION**

The Arkansas Department of Environmental Quality (ADEQ) will provide detailed reporting on the Level 2 Electric Vehicle Station Equipment (EVSE) Rebate Program in two ways: 1) timely updates to ADEQ's Volkswagen Mitigation Trust webpage and 2) semiannual reporting to Wilmington Trust.

1. ADEQ Volkswagen Mitigation Trust webpage

ADEQ maintains a Volkswagen Mitigation Trust webpage that has been designed to disseminate information regarding Arkansas's beneficiary mitigation plan and implementation of that plan. The webpage is located <https://www.adeq.state.ar.us/air/planning/vw.aspx>. Guidance on how to apply for a rebate under the Level 2 EVSE program will be accessible via this webpage. ADEQ will post the Eligible Mitigation Action Certification (EMAC) and Attachments B, C, and D to the webpage. ADEQ will also upload information to this webpage including estimated emission reductions, program implementation milestones, and project recipients and awards.

2. Semiannual reporting to Wilmington Trust

The State Beneficiary Trust Agreement establishes the following requirements for reporting for each Eligible Mitigation Action to the Trustee:

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.

ADEQ has developed a report template for documenting implementation of the EVSE program. This template includes information for each budget category, including:

- Mitigation Funds Expended for the Current Reporting Period

ATTACHMENT C

- Mandatory Cost-Share Expended for the Current Reporting Period
- Voluntary Additional Cost-Share Expended for the Current Reporting Period
- Cumulative Mitigation Funds Expended
- Cumulative Mandatory Cost-Share Expended
- Cumulative Voluntary Additional Cost-Share Expended

The template also includes information regarding the budget for each budget category, actual cumulative expenditures, and remaining funds in each budget category.

In addition, the template asks the following questions that will be answered for each reporting period:

- What actual accomplishments occurred during the reporting period?
- Were funds awarded for any projects under the Eligible Mitigation Action Plan during the current reporting period? If so, list the recipients and how much funding they received.
- Provide a comparison of actual accomplishments with the anticipated outputs/outcomes and timelines/milestones specified in the Eligible Mitigation Action Management Plan.
- If anticipated outputs/outcomes and/or timelines/milestones are not met, why not? Did you encounter any problems during the reporting period which may interfere with meeting the project objectives?
- How do you propose to remedy any problems? Identify how and the date you will get back on course to meet the anticipated outputs/outcomes and/or timelines/milestones specified in the Eligible Mitigation Action Management Plan.
- If any cost-shares are reported for this Reporting Period in Table 1 above, identify the source of the funds.
- Did any public relations events regarding this program take place during the reporting period?
- What is the URL for the state website where members of the public can find information about implementation of this Eligible Mitigation Action?

The template will also include a section for inputting project-specific details including the following:

- Rebate Recipient
- Type of Project: Publically Available Workplace or Multi-unit Dwelling Level 2
- EVSE Manufacturer
- EVSE Level Output (Level 2 – minimum of 7kw)
- EVSE Model
- EVSE Equipment Price
- EVSE Installation Price
- EVSE Installation Location
- Amount rebated

ATTACHMENT D

DETAILED COST ESTIMATES FROM POTENTIAL VENDORS FOR EACH PROPOSED EXPENDITURE

According to a 2015 DOE report¹, costs for a single port level 2 EVSE range from \$400–\$6500, with the high end of the range including more features such as networking. This report stated that the average installation cost per port was \$3108.

ChargePoint, Inc. also provided cost information to ADEQ for their CT4000 series (commercial) and CPF25 series (fleet) networked chargers. Their cost guidance priced equipment cost between \$4500 and \$7,210 for the CT4000 series, with \$6400 being the average for a single or dual port, and the cost to install ranging from \$2000–\$8000 per station. For the CPF25 series, ChargePoint’s cost guidance priced equipment cost between \$1500 and \$4500 with \$3000 being the average, and the cost to install ranging from \$2000 to \$3000 per station.

¹ U.S. Department of Energy (2015). “Costs Associated with Non-Residential Electric Vehicle Supply Equipment.” https://afdc.energy.gov/files/u/publication/evse_cost_report_2015.pdf