

Through this program, government, private, and non-profit organizations may qualify for funding assistance for the installation of a DC Fast Charge electric vehicle supply equipment, known as EVSE along designated alternative fuel corridors.

DEQ 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-emission light-duty vehicles.

Estimate of Anticipated NOx Reductions (5.2.3): DEQ has estimated anticipated NOx reductions of the EVSE program based on projected kilowatt hours dispensed from the types of EVSE eligible under this program. DEQ 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 were assumed for the purposes of estimating program NOx reductions. As the DC Fast Charge program is a funding assistance program, DEQ has not predetermined the projects that will receive funding assistance; 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 project NOx emissions avoided solely from use of EVSEs funded under this funding assistance based on the estimated deployment assumptions below.¹

Annual average kWh per station dispensed from DC fast charging stations in the ChargePoint Network in Missouri, Tennessee, Kansas, and Texas

- a. **5,332 kWh per DCFC station, per year, on average**
 - i. Years Considered: 2015-2017
 - ii. 34 DCFC Stations on CP Network in Missouri, Kansas, and Texas (None in Tennessee)
 1. Most-Used Station (**Max**): 33,782 kWh annually (A Public DC station in Austin, Texas at famous “Electric Drive” Hub)
 2. Median: 3,700 kWh annually
 3. Least-Used Station (**Min**): 34 kWh annually (A DC station at a Kansas City BMW Dealership)
 - iii. Primarily Retail
- b. For forecasting purposes
 - i. **2018 Year to Date:** 2,573 kWh dispensed per station, on average | On track for **4700+ kWh per DCFC station, on average, in 2019, in Missouri, Kansas, and Texas**

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

Based on the assumptions above, DEQ has calculated the following estimated NOx reductions per

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

EVSE based on the eligible EVSE types for this program and historic median, average, maximum, and ChargePoint projected average use for 2018 for 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
Corridor-Eligible DC Fast Charging, Government	0.008	0.012	0.075	0.010
Corridor-Eligible DC Fast Charging, Non-Government	0.008	0.012	0.075	0.010

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 actual NOx reduction benefit of displacement of traditional fossil-fuel vehicles by electric vehicles spurred by deployment of EVSE under this funding assistance. 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

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

DEQ will post this EMAC minus Attachment A as well as project application instructions for the program described in this EMAC to <https://www.adeq.state.ar.us/air/planning/vw.aspx>. DEQ will upload information required in the semi-annual reports to the Trustee; including estimated emissions reductions, program implementation milestones, and project recipients and awards; to the same webpage.

²M.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%2026sep2017.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 any cost share requirement to be placed on each NOx source proposed to be mitigated (5.2.8).

The DC Fast Charge program will provide up to 75% reimbursement for expenditures on EVSE, labor, installation, and maintenance plan up to a maximum cap of \$350,000 per site. A minimum of cost-share of 25% will be required from project sponsors. The funding assistance percentages comply with the allowable funding percentages included in Appendix D-2.

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, DEQ 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 that included a letter from Stuart Spencer, Associate Director of the Office of Air Quality at DEQ, 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 DEQ is posting information related to DEQ'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 funding assistance will target designated alternative fuel corridors located within Arkansas. DEQ 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)

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 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)

DATED: _____

3/28/20



Mitchell Simpson
Director, Arkansas Energy Office

Arkansas Division of Environmental Quality
[LEAD AGENCY]

for

State of Arkansas

[BENEFICIARY]

ATTACHMENT B

DC FAST CHARGING 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
Lead Agency Issues Request for Proposals	60 Day period for submittal of proposals
Lead Agency selects proposals to fund.	Within 60 days of close of application period.
Lead Agency and Project Sponsor sign memorandum of agreement (MOA) specifying the terms that must be satisfied for project reimbursement.	Within 30 days of selection of proposals to be funded
Project Sponsor certifies project completion and provides detailed invoices for all claimed project costs, documentation for emission reduction estimate, required by the MOA.	Within 90 days of signature of the MOA (DEQ may approve an extension to allow additional time for project completion upon request.)
Lead Agency completes review of project sponsor documentation and certifies payment direction to Disbursing Agent.	Within 30 days of complete documentation receipt for each project
Lead Agency submits requests for payment using the spreadsheet provided by the Disbursing Agent	Spreadsheet will be submitted to Disbursing Agent upon determination that the project sponsor has satisfied all terms of the MOA.
If funds allocated to the DC Fast Charge remain after the first program year, Lead Agency may issue a subsequent request for proposals to fund additional projects.	

PROGRAM BUDGET

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

Period of Performance: January 1, 2021 – December 31, 2021			
Budget Category	Total Approved Budget	Share of Total Budget to be funded by the Trust	Estimated Total of Cost-Share
Subrecipient Support	\$1,312,500	\$1,050,000	\$262,500
Administrative	\$66,000	\$66,000	
Project Totals	\$1,378,500	\$1,116,000	\$262,500

DC Fast Charge Program

Project Trust Allocations	2019	2020	2021	2022
1. Anticipated Annual Project Funding Request to be paid through the Trust		\$372,000.00	\$372,000.00	\$372,000.00
2. Anticipated Annual Cost Share		\$87,500.00	\$87,500.00	\$87,500.00
3. Anticipated Total Project Funding by Year (line 1 plus line 2)		\$459,500.00	\$459,500.00	\$459,500.00
4. Cumulative Trustee Payments Requested to Date Against Cumulative Beneficiary Allocation (DERA Go RED! and Level 2 EVSE)	\$528,669.94	\$270,289.00	\$270,289.00	\$270,289.00
5. Current Beneficiary Project Funding to be Paid through Trust (line 1)		\$372,000.00	\$372,000.00	\$372,000.00
6. Total Funding Allocated to Beneficiary, inclusive of Current Action by Year (line 4 plus line 5)	\$528,669.94	\$642,289.00	\$642,289.00	\$642,289.00
7. Beneficiary Share of Estimated Funds Remaining in Trust	\$14,647,709.09	\$14,119,039.15	\$13,476,750.15	\$12,834,461.15
8. Net Beneficiary Funds Remaining in Trust, net of cumulative Beneficiary Funding Actions (Line 7 minus line 6)	\$14,119,039.15	\$13,476,750.15	\$12,834,461.15	\$12,192,172.15

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

The Arkansas Division of Environmental Quality (DEQ) will provide detailed reporting on the DC Fast Charging Electric Vehicle Supply Equipment (EVSE) Program in two ways: 1) timely updates to DEQ's Volkswagen Mitigation Trust webpage and 2) semiannual reporting to Wilmington Trust.

1. DEQ Volkswagen Mitigation Trust webpage

DEQ 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 funding under the DC Fast Charging EVSE program will be accessible via this webpage. DEQ will post the Eligible Mitigation Action Certification (EMAC) and Attachments B, C, and D to the webpage. DEQ 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.

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

ATTACHMENT C

- Mitigation Funds Expended for the Current Reporting Period
- 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.
- 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.
- Identify any cost-shares for projects completed during this Reporting Period.
- 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:

- Funding Award Recipient
- EVSE Manufacturer
- EVSE Level Output (minimum of 50kw)
- EVSE Model
- EVSE Equipment Price
- EVSE Installation Price
- EVSE 5-Year Maintenance Plan Price
- EVSE Installation Location
- Amount awarded

ATTACHMENT D

DETAILED COST ESTIMATES FROM POTENTIAL VENDORS FOR EACH PROPOSED EXPENDITURE

According to a 2015 DOE report¹, costs for a DC Fast Charging EVSE range from \$10,000–\$40,000. This report stated that the average installation cost was \$21,000, with costs ranging from \$4,000–\$51,000.

ChargePoint, Inc. also provided cost information to ADEQ for two 50kW class chargers and two 150kW class chargers networked chargers. Their cost guidance priced equipment cost between \$60,000 and \$100,000 for the 50KW Class Chargers and between \$90,000 and \$220,000 for 150 kW Chargers. Installation costs in their guidance were broken into different categories including electrical panels and switchgear; engineering, design and permitting; utility upgrades; project management, and construction costs. Five-year maintenance plans for ChargePoint for 50 kW chargers range from \$15,000–\$16,000 per charger.

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