

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.	<i>(sequential)</i>
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.]

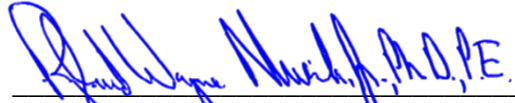
CERTIFICATIONS

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: 11-17-20



Ryland W. Musick, Jr., Ph.D., PE
Deputy State Highway Engineer
WVDOT Division of Highways

[LEAD AGENCY]

for

State of West Virginia

[BENEFICIARY]

Assumptions

The minimum, mean, and maximum kilowatt hours (kWh/year) dispensed estimates for each location (Capital Complex and Tamarack each having 1 Level-2 charger and 1 DCFC) provided by Perry McCutcheon
The average electric vehicle miles per kWh was based on the state of Arkansas value in their beneficiary eligible mitigation action certification

The kWh dispensed times miles per kWh = equivalent miles

The equivalent miles times grams of NOx per mile driven = grams of NOx saved

The grams of NOx produced per mile from unleaded gasoline comes from EPA's MOBILE 6.2

Grams of NOx saved divided by 1,000,000 = metric tons of NOx saved

EV Average (miles per kWh)	NOx reduced per mile (grams)	Minimum (kWh/year)	Mean (kWh/year)	Maximum (kWh/year)
3.2	0.693	70,000	150,000	220,000
Anticipated NOx reductions (Tons per year)		0.16	0.33	0.49

Calculation:

kWh/year x miles/kWh x grams NOx divided by 1,000,000


RE: VW EVSE NOx estimates

Egnor, Michael <Michael.Egnor@wv.gov>

Wed 11/4/2020 2:33 PM

To: McCutcheon, Perry J <Perry.J.McCutcheon@wv.gov>; Chakrabarty, Renu M <Renu.M.Chakrabarty@wv.gov>

Cc: Penn, Elwood C <Elwood.C.Penn@wv.gov>; Kemper, Matt A <Matt.A.Kemper@wv.gov>

 1 attachments (16 KB)

VW EVSE NOx Estimates.xlsx;

Perry,

See attached spreadsheet. I provided values for the minimum, mean, and maximum values you provided along with the assumptions needed for the calculations.

Let me know if you have any questions.

Thanks!

Mike

From: McCutcheon, Perry J <Perry.J.McCutcheon@wv.gov>

Sent: Wednesday, November 4, 2020 2:09 PM

To: Chakrabarty, Renu M <Renu.M.Chakrabarty@wv.gov>; Egnor, Michael <Michael.Egnor@wv.gov>

Cc: Penn, Elwood C <Elwood.C.Penn@wv.gov>; Kemper, Matt A <Matt.A.Kemper@wv.gov>

Subject: Re: VW EVSE NOx estimates

Works for me. I can put the range right in the D4.

From: Chakrabarty, Renu M <Renu.M.Chakrabarty@wv.gov>

Sent: Wednesday, November 4, 2020 1:53 PM

To: McCutcheon, Perry J <Perry.J.McCutcheon@wv.gov>; Egnor, Michael <Michael.Egnor@wv.gov>

Cc: Penn, Elwood C <Elwood.C.Penn@wv.gov>; Kemper, Matt A <Matt.A.Kemper@wv.gov>

Subject: RE: VW EVSE NOx estimates

What if we provide estimates for the low end and high end of the range, and then DOT will have both values to use?

From: McCutcheon, Perry J <Perry.J.McCutcheon@wv.gov>

Sent: Wednesday, November 4, 2020 1:46 PM

To: Egnor, Michael <Michael.Egnor@wv.gov>; Chakrabarty, Renu M <Renu.M.Chakrabarty@wv.gov>

Cc: Penn, Elwood C <Elwood.C.Penn@wv.gov>; Kemper, Matt A <Matt.A.Kemper@wv.gov>

Subject: Re: VW EVSE NOx estimates

Is a range acceptable for this purpose? say, 70000 to 220000 kWh/year?

Or, average it and say 150000 kWh/year?

avg	20 kWh/car		
		if 10 cars per day	if 30 cars per day
		200 kWh/day	600 kWh/day
		73000 kWh/yr	219000 kWh/yr
		146000 kWh/yr	average

From: Egnor, Michael <Michael.Egnor@wv.gov>
Sent: Monday, November 2, 2020 2:30 PM
To: McCutcheon, Perry J <Perry.J.McCutcheon@wv.gov>; Chakrabarty, Renu M <Renu.M.Chakrabarty@wv.gov>
Cc: Penn, Elwood C <Elwood.C.Penn@wv.gov>; Kemper, Matt A <Matt.A.Kemper@wv.gov>
Subject: RE: VW EVSE NOx estimates

Hey Perry,

The only information I need is the estimated amount of usage of the chargers (kilowatt hours delivered to vehicles per year) for the Tamarack and Capital areas. If you want to discuss getting that information just let me know.

Thanks!
Mike

From: McCutcheon, Perry J <Perry.J.McCutcheon@wv.gov>
Sent: Monday, November 2, 2020 8:53 AM
To: Chakrabarty, Renu M <Renu.M.Chakrabarty@wv.gov>
Cc: Penn, Elwood C <Elwood.C.Penn@wv.gov>; Kemper, Matt A <Matt.A.Kemper@wv.gov>; Egnor, Michael <Michael.Egnor@wv.gov>
Subject: Re: VW EVSE NOx estimates

Preliminary estimates are \$300K for each location (1 Level-2 charger, 1 DCFC at each location).

Plan is to get the D4 in asap to secure trust funds into our subaccount. this one will be reimbursement of state expenditures. Construction to be programmed for Q1 SFY 2021 (Q3 of CY 2021)

Secretary White has set the EVSE portion at 5%, about \$607K. These first 2 sites may/may not consume all of that depending mostly on the availability/cost of 3-phase power service for the DCFCs.

From: Chakrabarty, Renu M <Renu.M.Chakrabarty@wv.gov>

Sent: Monday, November 2, 2020 8:33 AM

To: McCutcheon, Perry J <Perry.J.McCutcheon@wv.gov>

Cc: Penn, Elwood C <Elwood.C.Penn@wv.gov>; Kemper, Matt A <Matt.A.Kemper@wv.gov>; Egnor, Michael <Michael.Egnor@wv.gov>

Subject: RE: VW EVSE NOx estimates

Hi Perry,

Great news on the 1st two locations being set for EVSE fast charge stations under the VW settlement!

I don't know that I got very far in these NOx estimates for the Mitigation Plan. I checked the Mitigation Plan and there was an approximate spending proportion of 5-10% for Light Duty Zero Emissions Vehicle Supply Equipment (p. 10). Ref: https://transportation.wv.gov/highways/programplanning/comment/VW-Settlement-Mitigation-Plan/Documents/FINAL_VWmitigationPlan_WV.pdf

I am cc-ing Matt Kemper and Mike Egnor of DAQ on this note, and we can put our heads together to figure out what is needed for these estimates, and then get back with you.

What is your timeframe for this project and getting the funding turned in? How much will these sites cost?

Thanks,
Renu

From: McCutcheon, Perry J <Perry.J.McCutcheon@wv.gov>

Sent: Monday, November 2, 2020 8:21 AM

To: Chakrabarty, Renu M <Renu.M.Chakrabarty@wv.gov>

Cc: Penn, Elwood C <Elwood.C.Penn@wv.gov>

Subject: VW EVSE NOx estimates

Renu,

Secretary Byrd White has selected the first 2 locations for EVSE DC Fast charging sites funded by the VW Settlement: (1) Tamarack, and (2) Capitol Complex Charleston

I am going to need NOx estimates (unless I'm missing something). What information will you need from me to provide those?

Perry McCutcheon, PE, Unit Leader
WVDOH/Planning Division/Visualization Unit
[Volkswagen Settlement](#) Project Manager

ATTACHMENT B

**ELIGIBLE MITIGATION ACTION MANAGEMENT PLAN
INCLUDING DETAILED BUDGET AND IMPLEMENTATION AND EXPENDITURES TIMELINE**

ACTION TITLE: EVSE Sites 1 & 2 (Tamarack, I-64/I-77, Beckley, WV, & Capitol Complex, Charleston, WV)

BENEFICIARY PROJECT ID: VW006

FUNDING REQUEST NUMBER: 6

This action is proposed as the installation of EVSE Level 2 and DCFC charging equipment with maintenance contracts at two (2) distinct locations: (1) Tamarack, I-64/I-77, Beckley, WV, and (2) Capitol Complex, 1900 Kanawha Blvd E, Charleston, WV. Preliminary estimates are given at \$300,000 for each site, for a total cost for this Eligible Mitigation Action of \$600,000.

Beneficiary intends to seek reimbursement of specific eligible expenditures for land surveys, design services, contract installation, and, potentially, contract administration. Beneficiary will do this by filing multiple Attachment A's with supporting documentation of actual expenditures and request payment by check or wire transfer.

TIMELINE

Beneficiary intends to begin land surveys immediately, design work Q1-Q2 of CY2021, with construction being programmed for Q3-Q4 of CY2021. Reimbursement will be sought quarterly until complete.

ATTACHMENT C

DETAILED PLAN FOR REPORTING ON ELIGIBLE MITIGATION ACTION IMPLEMENTATION

ACTION TITLE: EVSE Sites 1 & 2 (Tamarack, I-64/I-77, Beckley, WV, & Capitol Complex, Charleston, WV)

BENEFICIARY PROJECT ID: VW006

FUNDING REQUEST NUMBER: 6

Beneficiary intends to provide actual implementation reporting to satisfy Subparagraph 5.3 of the Trust Agreement, which states:

5.3 Beneficiary Reporting Obligations: *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.*

ITEM	UNIT COST	ASSUMPTIONS
ONE (1) DCFC EQUIPMENT AND OPERATIONS (1ST 5YRS)	\$ 50,000	USE EXISTING PARKING SPACE
ONE (1) LEVEL-2 CHARGER AND OPERATIONS (1ST 5YRS)	\$ 20,000	USE EXISTING PARKING SPACE
EXTEND THREE-PHASE POWER ALLOWANCE	\$ 100,000	ACTUAL AVAILABILITY UNKNOWN
SITework, SECURITY AND OTHER	\$ 60,000	
DESIGN WORK (ADD ABOUT 20%)	\$ 50,000	IN-HOUSE
TOTAL PRELIMINARY ESTIMATE	\$ 280,000	
ROUNDED	\$ 300,000	

Estimate by Perry McCutcheon, WVDOH Planning Div

Referenced what appears to be a reliable and comparable estimate shared from the State of Nevada



Lathrop Wells Electric Vehicle Car Charging Station Costs - Details		
<u>Item</u>	<u>Cost</u>	<u>Total</u>
<u>QC45 Total Cost Breakdown</u>		
EFACEC Charger QC 45 (CHAdeMO + CCS) (Fast Charger)	\$	28,203.00
Cellular Modem - May or Not may be required	\$	522.00
Credit Card Reader	\$	450.00
Full Vinyl Customization	\$	1,000.00
ChargePoint Enabled	\$	1,554.00
Warranty Extension for three (3) more years - 5.00% adder = Five (5) years total	\$	1,410.00
Cable Retraction Device	\$	1,635.00
Annual DCFC software license cost for 2 ports for 5 years	\$	4,750.00
Annual cellular communications costs for 2 ports for 5 years	\$	1,250.00
Commissioning for 2 ports for 1 time	\$	300.00
Cost for One (1) Fast Charge Station w/out Tax or Shipping	\$	41,074.00
	Estimated Shipping Costs ≈ 1.67%	\$ 685.00
	Sales Tax - 7.60%	\$ 3,122.00
Cost for One (1) Fast Charge Station with Tax and Shipping	\$	45,000.00
<u>Public Charger (Level 2) Total Cost Breakdown</u>		
L2 Model – EV-PCS Dual Port Charging Station, Pedestal Mount (2 charging ports)	\$	5,114.00
Cellular Modem - May or Not may be required	\$	522.00
Credit Card Reader	\$	587.00
Full Vinyl Customization	\$	300.00
ChargePoint Enabled	\$	1,554.00
Warranty Extension for three (3) more years - 5.00% adder = Five (5) years total	\$	256.00
Cable Retraction Device	\$	1,113.00
Annual L2 software license cost for 2 ports for 5 years	\$	3,400.00
Annual cellular communications costs for 2 ports for 5 years	\$	1,250.00
Commissioning for 2 ports for 1 time	\$	300.00
Cost for Second (2nd) - Level 2 Charge Station w/out Tax or Shipping	\$	14,396.00
	Estimated Shipping Costs ≈ 0.87%	\$ 125.00
	Sales Tax - 7.60%	\$ 1,094.00
Cost for Second (2nd) - Level 2 Charge Station with Tax and Shipping	\$	16,000.00



Valley Electric Association, Inc.

A Touchstone Energy® Cooperative 

EXAMPLE

<u>3-Phase Power Extension</u>	
Material	\$ 16,178.00
Labor	\$ 16,038.00
Material OH	\$ 17,659.00
Labor OH	\$ 22,806.60
Transportation OH	\$ 15,204.40
OH & Indirect Costs	\$ 7,387.81
Subtotal of 3-Phase Power Extension	
	\$ 96,000.00
<u>Site Work & Other Costs</u>	
Concrete Work & Fencing - Estimated \$	\$ 20,000.00
Shade for site - Estimated \$	\$ 20,000.00
Foundations for Shade - Estimated \$	\$ 10,000.00
Lighting	\$ 1,500.00
Wi-Fi and security cameras	\$ 2,000.00
Switchgear	\$ 5,200.00
Meter Costs	\$ 5,000.00
Ballards for equipment protection	\$ 5,000.00
Single Φ Xfmr - 10 kVA - 240 V to 480 V drypack	\$ 5,000.00
VEA's Basic Service Charge for 5 years	\$ 1,800.00
Low Voltage System Labor & Equipment	\$ 13,500.00
Secondary Meter Pedestal	\$ 2,500.00
NDOT Signage - Estimated \$	\$ 2,500.00
Site Lease from NDOT - Estimated \$	\$ -
Subtotal of Site Construction - Labor & Equipment	
	\$ 94,000.00 62500
Contingency - 19.40%	
	\$ 49,000.00
VEA Requested Reimbursement	
	\$ 300,000.00