Request for Proposals

Phase 2

Zero Emission Vehicle Infrastructure Program

DC Fast Charging Stations

Priority Corridors

GMS Program ID: NCDEQDAQ0007

Contents

I. Request for Proposals (RFP) Timeline

- Release of RFP — February 14, 2022
- Application open in DAQ Grants Management System — February 14, 2022
- Webinar for new DAQ Grants Management System users — February 21, 2022
- First Program RFP information session — March 1, 2022
    - Information sessions will be online, and **registration is required**. Dates and times will be posted on our website, https://deq.nc.gov/VWsettlement.
- Proposal applications due date — May 16, 2022
- Proposal application evaluations — May – June 2022
- Phase 2 project selections — July 2022
- Grant awards announced — July – August 2022

Timeline changes: NCDEQ reserves the right to adjust the dates listed above. Any changes or additional information regarding the Request for Proposal (RFP) schedule, including responses to questions, will be posted on NC VW Settlement DC Fast – Priority Corridors RFP website at: https://deq.nc.gov/VWsettlement-DCPriority-RFP.

II. Overview

Summary

The North Carolina Division of Air Quality (NCDAQ) in the North Carolina Department of Environmental Quality (NCDEQ) is soliciting proposals for participation in Phase 2 of the NC Volkswagen Settlement Mitigation Program. NCDEQ is allocating the full 15% ($9,700,000) allowed in the VW State Trust Agreement for zero emission vehicle (ZEV) charging infrastructure projects as outlined in the NC Mitigation Plan. NCDEQ will allocate 70% ($6,390,351) of the Phase 2 allocation to DC fast charging infrastructure projects and 30% ($3,059,648) to Level 2 charging infrastructure projects. This RFP has $4,997,424 available for funding of new DC Fast charging sites along identified priority corridors. A second DC Fast RFP to be released later this year will have $1,642,927 available for existing DC Fast charging sites to replace obsolete chargers or to increase capacity at eligible sites. This program's primary goal is to increase use of ZEV's in place of gas-powered cars to mitigate nitrogen oxides, particulate matter and greenhouse gas emissions in the state. To achieve that goal, the program will emphasize adding new ZEV charging infrastructure in underserved areas, extend the existing light-duty ZEV infrastructure across the state, encourage intrastate and interstate ZEV vehicle usage at North Carolina's diverse geographic, historic and tourist attractions and highlight the environmental benefits of ZEVs.

This RFP for the DC Fast Charging Infrastructure Priority Corridors Program will assist interested parties in applying for funds to install ZEV DC fast charging infrastructure, as described by the North Carolina VW Phase 2 Mitigation Plan (deq.nc.gov/VWsettlement). This document includes information on who

may apply for Phase 2 funding, the funding match levels, project eligibility, funding priorities for the phase, match requirements, activities eligible for funding, and other information that will help applicants plan their project and submit a competitive proposal application. A sample awarded DC Fast Priority Corridor proposal application will be available on the NC VW Settlement webpage, https://deq.nc.gov/VWsettlement-DCPriority-RFP. All proposal applications must be submitted on the DAQ Grant Management System (GMS) website, at https://www.ebs.nc.gov/irj/portal, **no later than 11:59 p.m. Eastern Daylight Time on May 16, 2022.**

Objectives

North Carolina will distribute funds during Phase 2 to facilitate interstate travel with zero emission vehicles. To achieve this goal, Phase 2 funds will support projects to enhance and extend the current ZEV infrastructure network on high-traffic routes between population hubs. North Carolina's DC fast charging network currently consists of 101 locations, not including dealerships, totaling 160 active plugs across the state. These stations are predominately located around the state's population hubs. The network has areas along interstates where DC fast charging infrastructure is needed to support quick charging between the population hubs. Adding new infrastructure in these areas will help to reduce range anxiety for ZEV drivers.

Table 1 and map below represents segments along interstates and pending interstates where new DC fast charging infrastructure will have the highest priority for Phase 2 of the program including major coastal evacuation routes. Each has one or more segments where charging infrastructure is needed to enhance the current state ZEV charging network.

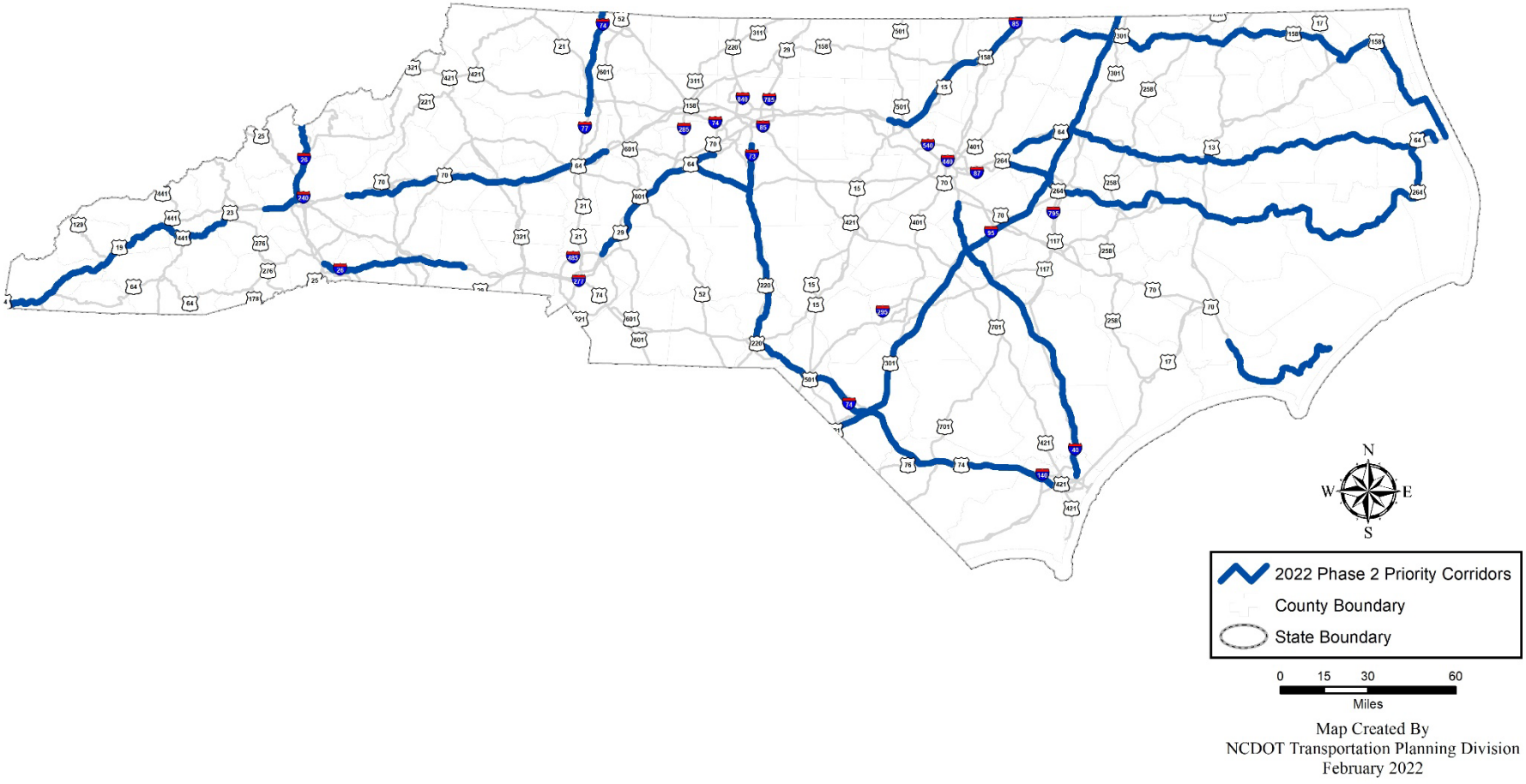
Ideally DC fast charging stations are to be installed at approximately 50-mile increments. Proposal applications for locations in metropolitan areas in the state currently served with DC fast charging infrastructure will receive lower priority for Phase 2 to emphasize the program goal of adding new ZEV charging infrastructure in underserved areas and extending the existing light-duty DC fast charging infrastructure across the state.

Table 1: Priority Phase 2 DC Fast Charging Infrastructure Areas

Corridor	Segments without DC fast charging infrastructure (between destinations)
Interstate 40	Asheville* to Tennessee border*
	Black Mountain to Morganton*
	Morganton* to Statesville*
	Garner* to Wilmington*
I87 Hwy 64	Tarboro* to Nags Head
	Holly Grove to Asheboro
Hwy 264	Wilson* to Swan Quarter
Hwy 70	Havelock to Beaufort
Interstate / Hwy 74	Asheboro* to Wilmington*
	Flat Rock* to Shelby*
	Waynesville to Murphy
Interstate 77	Statesville* to Virginia border
Interstate 85	Durham to Virginia border
	Lexington to Greensboro*
Interstate 95	Lumberton to Smithfield*
	Smithfield to Wilson*
	Wilson* to Virginia border
Hwy 158	Jackson to Kill Devil Hills

*DC fast charging infrastructure currently in place at segment end-point.

Phase 2 Priority Corridors



Eligible Applicants

Organizations that own or operate a host site in an eligible location may submit proposal applications for the DC Fast ZEV Charging Program. Eligible applicants include:

a. Incorporated nonprofit – an organization as described in section 501(c)(3) of the Federal Internal Revenue Code of 1954, as amended. The organization must be incorporated under NC law or registered with the NC Department of the Secretary of State.
b. Public school districts.
c. County and municipal governments and authorities.
d. NC State government agencies – government owned EV charging projects (state agencies, departments, institutions, universities, and community colleges) are subject to using contractors on the approved on mandatory Statewide Term Contract 691A – Electric Vehicle Charging Station Equipment, Accessories Installation & Infrastructure.[1] Additionally, non-mandatory entities, including schools and local government, that are allowed by general statute may use this contract.
e. Tribal government agencies.
f. Metropolitan or rural planning organizations, as defined by the U.S. Department of Transportation at 49 U.S.C. § 5303(b), located in North Carolina.
g. Businesses – corporations, partnerships, sole proprietorships, limited liability companies, business trusts or other legal business entities incorporated in or registered with the NC Department of the Secretary of State.
h. Air quality or transportation organizations – Local or regional air quality or transportation organization that
    1. owns or operates a fleet located or operating predominately in North Carolina, or
    2. have partnered with or is acting as a project manager for another eligible entity listed in this section.
i. Federal Government Agencies – Federal agencies that have custody, control, or management of land within or contiguous to the territorial boundaries of North Carolina.

Ineligible Applicants

Organizations that are ineligible for DC Fast ZEV Charging Infrastructure Program include:

a. Applicants that are currently debarred by the State of North Carolina[2] and/or federal government[3].
b. Business not incorporated in or registered with the NC Department of the Secretary of State to do business in North Carolina.
c. Individuals applying as individuals, not on behalf of an eligible applicant.
d. NCDEQ may also deem an applicant ineligible because of, but not limited to environmental compliance issues, labor standards issues, tax status or other such issues.
e. Vehicle dealerships.

Eligible Locations

Locations eligible for DC Fast ZEV Charging Infrastructure Program include:

[1] https://files.nc.gov/ncdoa/pandc/Documents/StateTermContracts/STC691A/691A.pdf

[2] North Carolina Department of Administration, https://ncadmin.nc.gov/government-agencies/procurement/contracts/debarred-vendors

[3] United States Department of Labor, https://www.dol.gov/ofccp/regs/compliance/preaward/debarlst.htm

a. Publicly accessible government owned property
b. Publicly accessible non-government owned property, excluding vehicle dealerships

III. Funding

This RFP is for Phase 2 (2022 – 2024) and combines funding from initially planned Phases 2 and 3 with a total amount of $4,997,424 available for new DC Fast site installations along priority corridors. This final phase of funding represents the remaining step in achieving North Carolina's multi-year goals for the VW Settlement program.

Eligible Mitigation Action Funding Eligibility Requirements

Maximum funding percentages for selected projects is dependent on whether the ZEV infrastructure will be owned by a government or non-government entity, however maximum allowable project funding is not guaranteed. **NCDEQ reserves the right to partially fund a proposal by funding only a portion of a proposed project.** Applicants will be notified of the actual amount awarded for their project. Applicants awarded funding have the option to accept or decline the award.

Funding Type

NCDEQ anticipates awarding a total of approximately $4.9 million towards DC fast charging infrastructure along priority corridors in Phase 2. **This is a reimbursement program and award recipients must provide their own funding to cover expenses as they are incurred.** Grant applicants must include a demonstration that the applicant can cover the full cost of the project prior to approval. Selected projects will be reimbursed up to the amount authorized after the awardee submits acceptable documentation to show that eligible expenses have already been paid.

Cost Share Requirements

Applicants may request Phase 2 funds to cover the following expenses:

- The funding detailed in the charts below are per port maximum reimbursement amounts and the required cost shares percentages.
- NCDEQ has included the maximum ports per charging level but reserves the option to partially fund a project application based on available funds.

DC Fast Priority Corridors Funding Levels*

Charging Capacity	Priority Corridor (Per Port)				Non-Priority Corridor (Per Port)				Maximum Number of Ports Funded per Application
	Government Owned Property		Non-Government Owned Property		Government Owned Property		Non-Government Owned Property		
50kW to 60kW	100%	$67,500	80%	$54,000	100%	$52,500	80%	$42,000	4
60kW to 75kW	100%	$76,000	80%	$60,800	100%	$60,000	80%	$48,000	4
76kW to 120kW	100%	$114,000	80%	$91,200	100%	$90,000	80%	$72,000	2
121kW and over	100%	$142,500	80%	$114,000	100%	$120,000	80%	$96,000	2

*Represents maximum funding levels by applicant type per port.

IV. How to Apply

NCDEQ will only accept applications submitted through the NCDAQ Grant Management System (GMS) website, at https://www.ebs.nc.gov/irj/portal. Prior to using the GMS, applicants must obtain an NCID and then complete and submit the online Enterprise Business Services External Access Request Application. Applicants must also complete and email the State of North Carolina Substitute W-9 Form svc.NCVWApplication@ncdenr.gov to get registered in the system. Applicants not currently registered in the GMS should request access well before the **May 16, 2022** application acceptance date. The GMS contains tutorials on how to use the system, including submitting applications and submitting claims. The DC Fast Charging Infrastructure Priority Corridors Program application will not be viewable in the GMS until **February 14, 2022. The Program ID in the DAQ Grants Management System for the DC Fast Priority Corridors Program is NCDEQDAQ0007.**

All applications will require the following information, at minimum, to be submitted via GMS:

1. Organization name, address, contact information
2. Project location
    a. Address
    b. County
    c. GPS coordinates (decimal format)
3. Project Type
    a. Government
    b. Non-Government
    c. Non-Profit
4. Number of ports and spaces
5. Itemized project quotes
6. Charging unit information
    a. Manufacturer
    b. Model
    c. Charging capacity in kW
    d. Warranty period
7. Identification of any additional rebates, grants, or other financial incentives applied for or received for project.

Applications, any required attachments and supporting documentation must be submitted electronically using our online NCDAQ Grant Management System (GMS) website, at: https://www.ebs.nc.gov/irj/portal to be considered for funding. Incomplete applications will be returned. This application and any supplemental information provided will serve as the primary means by which all applications are evaluated and approved for funding.

If you have any questions about this RFP, please contact NCDEQ at daq.NC_VWGrants@ncdenr.gov with subject title: "DC Fast Program RFP" prior to submitting your application.

This is a competitive application process. **To be considered for funding in Phase 2, completed proposal applications must be submitted in the GMS no later than 11:59 p.m. Eastern Daylight Time on May 16, 2022.** If you have any questions about this proposal application, please contact NCDEQ at daq.NC_VWGrants@ncdenr.gov with subject title line: "DC Fast Program RFP" prior to submitting your proposal application and well in advance of the deadline to submit.

Projects initiated prior to submitting a proposal application are not eligible for funding. Project initiation activities that may disqualify a proposal application include ordering equipment or hiring a contractor or vendor to complete the project. Submittal of a proposal application is not a guarantee that a proposed project will be funded.

Host Site Agreements

Negotiation of host site agreements are the responsibility of the awardee. Copies of host site agreements must accompany the signed acceptance grant award letter and be returned to NCDEQ. Host site owners (if not the awardee) must provide NCDEQ written assurance that each station will remain at the site and operational for a minimum of five years.

Project Awards

Applicants selected for funding shall have two years to complete their project from the date of a signed executed contract with NCDEQ. If an application shows that the project cannot be completed in two years, it will not be selected for funding. **State contract terms and conditions are final and not subject to negotiation.**

Public Data

All rebate applications and associated documentation are public record per North Carolina General Statutes §132-1, except for "confidential" or "trade secret" data as defined and classified in North Carolina General Statutes §66-152(3) and North Carolina Administrative Code 01 NCAC 05B .0103. Such material must be indicated as such by the applicant at the time of the initial rebate application or claim reimbursement submittal.

V. Eligible Project Criteria

Increasing investments in light-duty ZEV infrastructure will result in emission reductions associated with increased ZEV adoption and usage. However, to avoid double-counting emission benefits associated with vehicles, this plan will not quantify direct NO_X reduction benefits.

Eligible Project Types

- Light-duty electric vehicle supply equipment: Commercial grade DC fast charging equipment 50kW or higher (or analogous successor technologies) located in a public place.

Eligible Expenditures

- 50kW or higher DC fast charging station infrastructure
- Utility equipment upgrades such as transformers and utility extensions up to $15,000 per charging station
- Conduit, cable/wiring, electrical service box disconnect addition
- Concrete or asphalt replacement
- Signage
- Bollards
- Paint striping and stenciling of the station parking spaces

- Permit costs including engineering and site design costs
- Labor for researching and securing the host site, directly related to the acquisition, site design and engineering, installation, commissioning or activation, and maintenance
- Shipping of equipment
- Maintenance and warranty costs for the DC fast charging equipment

Ineligible Expenditures

- Adding new chargers to existing DC Fast Charging sites
- Purchasing or renting real estate
- Used, refurbished, or remanufactured equipment
- Capital costs such as construction of buildings, parking facilities, etc.
- Any expenses incurred before the grant contract is fully executed including applicant's expense for preparing the eligibility and cost proposals
- Bad debts, late payments, finance charges or contingency funds, interest, and investment
- Attorney fees
- Administrative costs
- Internet or cellular connection service costs
- Lobbying, lobbyists, and political contributions
- Mark-up on purchases and/or subcontracts
- Taxes, except sales tax on eligible equipment and expenses
- Activities addressing permit fees
- Activities addressing enforcement actions that involve a financial penalty
- Level 1 and 2 charging station infrastructures
- Hydrogen fuel cell vehicle supply infrastructure and equipment
- Paper studies or research projects (e.g., a study which assesses the cost and feasibility of electric vehicle charging station installations along certain regions/corridors)
- Surveys to determine interest in the installation of electric vehicle charging stations along a corridor
- Proposals for any type of vehicle demonstration or demonstrations of existing technologies for public outreach/education
- General maintenance (i.e., maintenance other than of the supply equipment) not covered under warranty or service agreement.
- Charging infrastructure installations at a workplace not accessible to the general public.
- Charging infrastructure installations at a multi-unit dwelling.

VI. DC Fast Charging Station Installation Requirements/Workplan

The proposal application must address the following charging station installation requirements. Charging station host site locations **do not need** to be fully secured prior to application submission. Providing additional project information beyond these requirements is encouraged. The site map will include demonstration of compliance with the station requirements below. **This grant cannot be used to fund the purchase of or for renting or leasing of real estate.**

1. Host site selection
   a. Proposed host site location information.
      (1) Host site name(s) and address(es). Host sites must be located within the state of North Carolina to be eligible.
      (2) Letters of commitment from the charging station host sites must be included.

b. Describe work/collaborations with interested utilities, local business, cities, counties or other entities.
c. Utility notification: Coordination with the local utility to determine site locations that factor in proximity to electrical service and any necessary distribution system upgrades required.
d. Locations: Charging station host sites must be at increments of 50 to 100 miles along highways with a maximum distance of five miles off the exit. The site must be accessible to the general public for users 24-hours per day/seven days per week, have dusk to dawn lighting and be within a short walking distance, not to exceed a quarter mile, to retail or service establishments such as restaurants, coffee shops, convenience stores or tourism destinations.

2. Host site details:
   a. Geographic Information System (GIS) coordinates of proposed station location.
   b. Site details such as lighting and parking.
3. Sustainable business model: A detailed explanation of the business model towards ensuring sustainability of the charging station(s) must be provided.
4. Equipment requirements: Describe procurement, installation, activation/commissioning and testing of DC fast charging stations that meet equipment requirements below. Describe whether station will be single or dual port station installation (allowing one car to charge at a time or two cars simultaneously) and kW output.
5. Ongoing services:
   a. Customer service: A toll-free phone number for customer support service must be clearly posted on or near the installed DC fast charging stations. When a station user calls the phone number, they must obtain immediate access to assistance. Proposal applications must address customer support service that is accessible and responsive 24-hours, seven days a week within the plan.
   b. Networking: The installed fast charging stations must connect to a network by wired ethernet, Wi-Fi or cellular connection (cellular connections must be 4G or newer if used). Proposal applications must address networking and how the service will be maintained within the workplan.
   c. Data capture: Each charging station should provide the following information for each charging transaction, at each charging location:
      (a) Charging data such as date and time of usage (start and stop time) and accurate utilization rates;
      (b) Total kWh and total kW draw;
      (c) Total dollar amount charged to the user;
      (d) Station status and health in real time;
      (e) Malfunction or operating error; and
      (f) Full site level usage report presented quarterly to NCDEQ.
6. DC fast charging installation requirements: List as tasks the planned procurement, installation, activation or commissioning and testing of DC fast charging stations that meet equipment requirements.
   a. Parking spaces: A minimum of two parking spaces and ample real estate upon which to create parking spaces for a least one additional fast charging station in the future is required.
   b. Bollards: Placement of bollards to protect the station equipment (if stand-alone charging station). Any stand-alone charging station bollards should be 3 to 4-foot high with concrete footings placed to protect the fast chargers from accidental impact.
   c. Permits:

(1) Local electrical permits must be secured, and regulations followed for the DC fast charging station installations at the host site.
(2) Conduit and an electrical service box of adequate size and disconnect capacity that will allow additional electrical cable to be run to the site for potential future installation of two additional DC fast charging stations or a higher-powered DC fast charging equipment must be included as part of the installation.
(3) Any other permits required by federal, state or local governments must be secured.
(4) Environmental impact studies as required by federal, state or local ordinances or regulations must be completed.

d. American with Disabilities Act (ADA) compliance: Charging stations must make every effort to be ADA compliant and follow all applicable laws, ordinances, regulations and standards. (www.afdc.energy.gov/uploads/publication/WPCC_complyingwithADArequirements_1114.pdf).

e. Future proofing: Conduit and an electrical service box of adequate size and disconnect capacity that will allow additional electrical cable to be run to the site for future expansion of either two additional 50 kW charging stations or a higher power station up to 400kW must be included in the installation.

f. Signage: Complies with all applicable local, state, and/or federal laws, ordinances, regulations and standards.
(1) The grantee's contractor should be responsible for coordinating with the appropriate local agencies and the North Carolina Department of Transportation (NCDOT) for directional signage on and along roads and highways near the charging station. The signage must be consistent with the Manual on Uniform Traffic Control Devices for Streets and Highways, published by the United States Department of Transportation, and any supplement to that Manual adopted by the North Carolina Department of Transportation. Workplan budgets must include the cost of four roadway signs (2 on the corridor and 2 at the end of the exit ramp in each direction) purchased from NCDOT at a cost of $150 each.
(2) On-site signage: Identifies to the approaching driver from every ingress, that the host site has charging station(s); and the location(s) of the charging station(s). Workplan budgets must include the cost of on-site signage.
(a) "Electric vehicle charging only" signs are required on each side of each charging station along with "electric vehicle charging only" stenciled graphics on each stripped parking pad.
(b) On-site signs must include the following language, "This project was made possible in partnership with the State of North Carolina". On-site signs must be metallic, have the following minimum dimensions (12 inches x 18 inches), with the required text a minimum of 1.28 inches in height, and mounted on a post at the charger parking space(s).

g. Maintenance: The fast charging station unit is required to have a minimum five-year warranty. Proof of the charging station equipment warranty must be submitted to NCDEQ. Annual maintenance of the charging stations as per the original manufacturer recommendations is required. All fast charging stations must continually be in full-working order to the extent possible. Should repair be necessary, service must be contacted within 24-hours and the station up and fully operational within 48 to 72 hours to ensure a 95% annual uptime guarantee. Proof of the charging station equipment warranty and a maintenance plan

must be submitted to NCDEQ prior to project completion as a condition of rebate reimbursement approval.

h. Payment options: The DC fast charging stations have the option either to require payment or not require payment from users. Payment options are at the discretion of the grantee who will operate and maintain the stations. Should payment be required to access and use the charging stations, it must be Payment Card Industry compliant to allow use of a credit or debit card. Stations may also offer additional payment methods including subscription methods, smart cards, or smart phone applications. Real-time pricing and fee information shall be displayed on the unit, payment screen or associated phone application.

Equipment Requirements

Each site must offer one Charge de Move (CHAdeMO) connector in addition to the Society of Automotive Engineers Combined Charging System (SAE CCS) charging protocol connectors. The charging system must have the ability to reduce power output to be compatible for use by all EVs.

All charging station equipment must come with a minimum of a five-year warranty and meet the following minimum requirements for safety testing by a Nationally Recognized Testing Laboratory (NRTL) recognized by the Occupational Safety and Health Administration (OSHA). The equipment must be listed and labeled as required by North Carolina General Statutes Chapter 66, Article 4 – Electrical Materials, Devices, Appliances and Equipment, the National Electrical Code (NEC) Section 625.5 and be Federal Communication Commission (FCC) compliant.

DC fast charging stations shall be certified to one of the following options:

1. Underwriters Laboratories (UL) 2594 (Standard for Electric Vehicle Supply Equipment). DC fast charging systems shall be certified (listed and labeled) to UL 2202 (Standard for Electric Vehicle (EV) Charging System Equipment).
2. International Electrotechnical Commission (IEC) 61851-23, IEC 62196 and IEC 61000 EMC standards. These charging stations must be certified (listed and labeled) with Edison Testing Laboratories (ETL).
3. An equivalent nationally recognized testing laboratory certification. Supporting evidence must be provided.

Equipment Physical Appearance and Design

1. Electric Vehicle Supply Equipment (EVSE) Enclosure: The EVSE enclosure must be constructed for use outdoors in accordance with UL 50E (Enclosures for Electrical Equipment, Environmental Considerations) Type 3R exterior enclosure or equivalent.
2. Environmental: The EVSE must be capable or operating without any decrease in performance over an ambient temperature range of 0 to 122 degrees Fahrenheit with a relative humidity of up to 100%.
3. Cord management system: The EVSE must incorporate a cord management system or method to eliminate potential for cable entanglement, user injury or connector damage from lying on the ground.

VII. Renewable Energy Certificates

A renewable energy certificate (REC) is a tradable market instrument that represents the generation of one megawatt-hour (MWh) of electricity from a renewable energy resource. Purchasing RECs gives companies, institutions, and individuals a simple way to offset their environmental footprint and support clean energy. When you purchase RECs, you are purchasing the renewable attributes of energy generated by a renewable energy resource such as wind, solar, moving water (hydropower), organic plant and waste material (biomass) and the earth's heat (geothermal). These sources of power are "renewable" because they are constantly replenished—there is no shortage of sunlight or wind, for example.

Applicants can receive additional bonus points on their application by purchasing RECs to offset their energy purchases but must provide a detailed description of their plans and how the RECs will be provided. Applicants must also provide a signed copy of an agreement to purchase RECs and document the percent of RECs purchased that will offset the total energy purchased for each host site.

How to buy RECs

Customers may purchase RECs either directly from the electric power supplier (if offered) or online from a third party. Any REC percentages must extend over the minimum warranty period required by the RFP which is five years.

VIII. Proposal Application Review Process

A combination of evaluation factors will be considered during the proposal review process, NCDEQ will consider the overall cost effectiveness and the potential for early implementation and completion of each application. Proposal applications will be selected for funding based on a set of criteria reflecting funding priorities for the program. These factors will guide NCDEQ in giving priority to projects that perform the highest overall. Although cost-sharing/matching is not required as a condition of eligibility under this competition, NCDEQ will evaluate proposal applications based on a leveraging criterion.

Leveraging is generally when an applicant proposes to provide its own additional funds/resources or those from third party sources to support or complement the project they are awarded. Any leveraged funds/resources, and their source, must be identified in the proposal application. Leveraged funds and resources may take various forms.

Voluntary cost share is a form of leveraging. Voluntary cost sharing is when an applicant voluntarily proposes to legally commit to provide contributions to support the project when a cost share is not required. Applicants who propose to use a voluntary cost share must include the contributions for the voluntary cost share in the project budget. If an applicant proposes a voluntary cost share, the following apply:

- A voluntary cost share may not be used on ineligible costs.
- The recipient may not use other sources of federal funds to meet a voluntary cost share unless the statute authorizing the other federal funding allows.
- The recipient is legally obligated to meet any proposed voluntary cost share that is included in the approved project budget. If the proposed voluntary cost share does not materialize during grant performance, the NCDEQ may reconsider the legitimacy of the award and take appropriate action as authorized.

IX. Project Scoring Criteria

A 100-point scale will be used to evaluate eligible proposal applications. Projects may receive an additional 10 bonus points for using renewable energy and/or for locating the charging infrastructure in a Historically Under-Resourced County per the definitions in Appendix D of this RFP. Scores will be used to develop final recommendations. Urban/suburban projects and rural projects will be grouped separately. Proposal applications will be evaluated and ranked according to the following criteria:

Cost Effectiveness (VW$ funded per kW charging rate * number of charging ports): cost effectiveness is based on applicant provided information and if applicable, matching funds. Under this criterion, projects are ranked, and points are calculated and assigned incrementally based on rank from a maximum of 20 for the most cost effective to least cost effective (i.e. $/kW charging rate * number of charging ports).	20
Distance to other DC fast charging sites: How many miles to existing DC fast charging sites (not including dealerships or Tesla Supercharger locations) along interstate to project area? DC fast charging site data used from U.S. Department of Energy, Alternative Fuels Data Center[4] • Over 100 miles: 20 points • 99 to 51 miles: 15 points • 50 to 26 miles: 10 points • Less than 25 miles: 5 points	20
Distance off interchange: Ranked highest to lowest; based on proposed site location from interchange. • Less than 2 miles: 15 points • 2 to 3 miles: 10 points • Over 3 miles but less than 5 miles: 5 points • Over 5 miles: 0 points	15
Environmental Justice • See Appendix B for county scores and a detailed description of how county scores are determined.	15
Traffic Density of location: Annual Average Daily Traffic (AADT) of the proposed project area. (See AADT map in Appendix C) • 90,001 – 195,000: 15 points • 42,001 – 90,000: 10 points • 1,600 – 42,000: 5 points	15
Accessibility and proximity to amenities: Distance to amenities such as restrooms, food, local restaurants, and retail shopping • Onsite: 15 points • Less than ¼ mile from amenities: 10 points • ¼ mile from amenities: 5 points	15
Total Points	**100**
Bonus Points Renewable Energy Certificates: Percentage of electricity to power the DC fast charging station for five-years. • 100%: 10 points • 51% – 99%: 7.5 points • 26% – 50%: 5 points • 1% – 25%: 2.5 points	10
Project is located in a Historically Under-Resourced County[5]	10
Maximum Points Achievable	**120**

[4] U.S. Department of Energy, Alternative Fuels Data Center, https://afdc.energy.gov/fuels/electricity_locations.html
[5] Historically under-resourced counties are counties that have an underserved population greater than 15% and are designated as a Tier 1 by the NC Department of Commerce as shown in Appendix D.

X. Reimbursement Process

Grant payments will be disbursed as **reimbursements after the work is completed, verified and approved**. Verification will occur via site visits by NCDEQ staff to photograph the completed installation. Evidence of a minimum five-year warranty for the station equipment and a service contract to provide annual maintenance for five years will be required prior to payment disbursements. Requests for reimbursement can occur after each individual station is installed or after all stations are installed for multi-station projects. Before reimbursement, awardees must submit the information listed below after project completion. After NCDEQ approval of the final documentation, NCDEQ will process the application for payment. Required documentation:

- Provide a signed payment request, on letterhead, for the amount to be reimbursed (a template will be available on the website, https://deq.nc.gov/vw-settlement/forms;
- Copies of detailed invoices of all eligible project costs;
- Proofs of payment of all eligible project costs associated with the project;
- Photos of each EVSE unit (one photo of the installed EVSE and one photo of the EVSE serial number);
- Certification that the station infrastructure is fully operational;
- Proof of charging station equipment warranty and a maintenance plan;
- If Renewable Energy Certificates are used, a signed copy of the purchase agreement for the duration of the warranty of the equipment.
- Payee contact information.

All EVSE station installation work must be completed by end of contract date. All documentation required for reimbursement should be completed and submitted to the NCDEQ as soon as possible, but no later than the date specified in the contract with NCDEQ.

XI. Reporting Requirements

Quarterly Reporting Requirement

All project award recipients will be required to submit quarterly reports on the status of their project to NCDEQ until the final project report is submitted. Quarterly reports must be submitted to NCDEQ within 14 days after the end of each reporting month (March 31, June 30, September 30, and December 31). Failure to submit required reports will result in NCDEQ suspending the acceptance of any new applications from the applicant. A template for the quarterly report will be provided on the website, https://deq.nc.gov/vw-settlement/forms.

Final Report Requirements

Grantees are required to submit a final project report to NCDEQ. A template for the final project report will be made available on the website, https://deq.nc.gov/vw-settlement/forms.

Annual Charging Station Utilization Reporting Requirements

All award recipients are required to submit EVSE usage data to NCDEQ for the previous 12 months on January 30th of each consecutive year for a five-year period after installation of the charging station(s). Annual reports will be submitted to NCDEQ by January 30th each year for five years. Failure to submit annual reports is considered a violation of the terms and conditions of the signed contract. Additionally, acceptance of new applications from the recipient will be suspended. Once the awardee corrects the

failure to submit annual report the suspension will be lifted. The vendor for an awardee can alternatively provide NCDEQ access to their reporting portal to obtain utilization data for the site.

The EV Utilization Annual Report template is available on the NC VW Settlement webpage, https://deq.nc.gov/vw-settlement/forms. The report submittal shall be in either CSV or XLS format. EVSE vendor portal access for DEQ to download charger data is also an acceptable format. These reports must be uploaded as an attachment in the DAQ Grants Management System for your application. NCDEQ will notify recipients of changes to the annual report template submittal process 90 days prior to the required submittal

The reporting information submitted to NCDEQ must identify the previous twelve months of EVSE utilization data. The following information will be requested from each host site. Report annual usage, and operations data from VW funded sites to include but not limited to the following:

- Summary Report per EVSE:
    - Location: Site name, EVSE ID number, address, city, zip, county,
    - Operational uptime,
    - Number of charge events,
    - Number of unique vehicles,
    - Average charge time per event (mins),
    - Average kW per charge event,
    - Total kW consumed,
    - Gallons of gasoline and/or diesel fuel displaced,
    - Estimated cumulative miles driven from charge and
    - Estimated cumulative gallons of gasoline and/or diesel fuel displaced.
- Details per charging event:
    - Location: Site name, EVSE ID number, address, city, zip, county,
    - Charge event date time,
    - Time charging,
    - Length of time connected,
    - kW provided,
    - Vehicle make, and model year (on events where available).

XII. Program Contact Information

Inquiries related to the project requirements, application, application requirements, and other aspects of this RFP should be directed to: Daq.NC_VWGrants@ncdenr.gov.

Appendix A: Urban/Suburban and Rural County Designations in North Carolina

The Rural Center has defined the counties in North Carolina based on population densities as either urban, suburban, or rural. The Rural Center uses the following definitions in classifying counties:
Rural: There are 80 counties with population densities of 250 people per square mile or less, according to 2014 U.S. Census population estimates. These counties are home to a little more than 4 million people (41% of the state population).

Regional city or suburban counties: There are 14 counties with population densities between 250 and 750 people per square mile. These counties account for 2.4 million people (25% of the state population).

Urban: There are six counties with population densities between 750 and 1,933 people per square mile. These counties account for 3.3 million people (34% of the state population).

Using the Rural Center classification for counties, urban counties account for the largest population of subject VW vehicles with 41% of the total. Rural counties account for 32% of the vehicles and regional city or suburban counties account for 27% of the VW vehicle population.

Table A-1 is a list of all 100 North Carolina counties with their designation based on the above definitions.

Table A-1: County Classifications in North Carolina

County Name	County Classification
Alamance	Suburban
Alexander	Rural
Alleghany	Rural
Anson	Rural
Ashe	Rural
Avery	Rural
Beaufort	Rural
Bertie	Rural
Bladen	Rural
Brunswick	Rural
Buncombe	Suburban
Burke	Rural
Cabarrus	Suburban
Caldwell	Rural
Camden	Rural
Carteret	Rural
Caswell	Rural
Catawba	Suburban
Chatham	Rural
Cherokee	Rural
Chowan	Rural
Clay	Rural
Cleveland	Rural
Columbus	Rural
Craven	Rural
Cumberland	Suburban
Currituck	Rural
Dare	Rural
Davidson	Suburban
Davie	Rural
Duplin	Rural
Durham	Urban
Edgecombe	Rural
Forsyth	Urban
Franklin	Rural
Gaston	Suburban
Gates	Rural
Graham	Rural

County Name	County Classification
Granville	Rural
Greene	Rural
Guilford	Urban
Halifax	Rural
Harnett	Rural
Haywood	Rural
Henderson	Suburban
Hertford	Rural
Hoke	Rural
Hyde	Rural
Iredell	Suburban
Jackson	Rural
Johnston	Rural
Jones	Rural
Lee	Rural
Lenoir	Rural
Lincoln	Suburban
McDowell	Rural
Macon	Rural
Madison	Rural
Martin	Rural
Mecklenburg	Urban
Mitchell	Rural
Montgomery	Rural
Moore	Rural
Nash	Rural
New Hanover	Urban
Northampton	Rural
Onslow	Rural
Orange	Suburban
Pamlico	Rural
Pasquotank	Rural
Pender	Rural
Perquimans	Rural
Person	Rural
Pitt	Suburban
Polk	Rural
Randolph	Rural

County Name	County Classification
Richmond	Rural
Robeson	Rural
Rockingham	Rural
Rowan	Suburban
Rutherford	Rural
Sampson	Rural
Scotland	Rural
Stanly	Rural
Stokes	Rural
Surry	Rural
Swain	Rural
Transylvania	Rural
Tyrrell	Rural
Union	Suburban
Vance	Rural
Wake	Urban
Warren	Rural
Washington	Rural
Watauga	Rural
Wayne	Rural
Wilkes	Rural
Wilson	Rural
Yadkin	Rural
Yancey	Rural

Appendix B: Environmental Justice Scoring

The Environmental Protection Agency defines environmental justice (EJ) as "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies." (US EPA). Historically, people of color and people of low-income, along with other vulnerable populations, have been disproportionately exposed to harmful pollutants.

Defining Potentially Underserved Populations and Environmental Justice Scores

To determine environmental justice (EJ) scores for the purpose of ranking and rating vehicles and projects, the following analysis was done at the block group level using the 2019 American Community Survey (ACS) five-year estimates. The ACS is a demographic survey conducted each year by the U.S Census Bureau to collect detailed demographic information. For this analysis, aggregated five-year data from the 2017 and 2019 surveys was used to increase reliability.

We imported, analyzed and aggregated the ACS data to determine a "percentage of underserved population" measure for each county. The percentage of underserved populations calculated for EJ project and vehicle scores was also used to determine inclusion in the Historically Under-Resourced County Outreach Program.

Percentages for the block group level, county level, and state level were calculated for the following two variables, "Race and Ethnicity" and "Poverty." After adding all county and state data to the block group data, we calculated the four variables utilized to identify potentially underserved block groups which included:

- Race and Ethnicity Compared to the State: ((Block group percent estimate for Non-white or Hispanic/Latino – State percent estimate for non-white or Hispanic/Latino)/ State percent estimate for non-white or Hispanic/Latino) * 100
- Race and Ethnicity Compared to the County: ((Block group percent estimate for Non-white or Hispanic/Latino – County percent estimate for non-white or Hispanic/Latino)/ County percent estimate for non-white or Hispanic/Latino) * 100
- Poverty Compared to the State: ((Block group percent estimate for poverty– State percent estimate for poverty)/ State percent estimate for poverty) * 100
- Poverty Compared to the County: ((Block group percent estimate for poverty – County percent estimate for poverty)/ County percent estimate for poverty) * 100

The current criteria that are used to determine potentially underserved populations is related to both poverty level within a block group and to race and ethnicity within a block group and is compared on both the county and the state level. To classify a block group as potentially underserved, it must meet both of the following criteria:

- The block group must have an estimated population in poverty that is at least a five percent increase from the state or county percent AND the block group must have an estimated population in poverty of at least 20%.
- The block group must have an estimated non-white or Hispanic population that is at least a ten percent increase from the state or county percent OR the block group must have an estimated population of non-white or Hispanic residents that is greater than 50% of the total population of that block group.

After determining the percent underserved measure for each county, these percentages were ranked from highest to lowest and using natural breaks, 15 bins were created, and points were assigned accordingly. Statistically, utilizing natural breaks divides continuous values into clusters resulting in values that are grouped together in classes that are more like each other than to the values in any other class. See Table B-1 for a listing of these scores.

Table B-1: Final EJ Scores by County

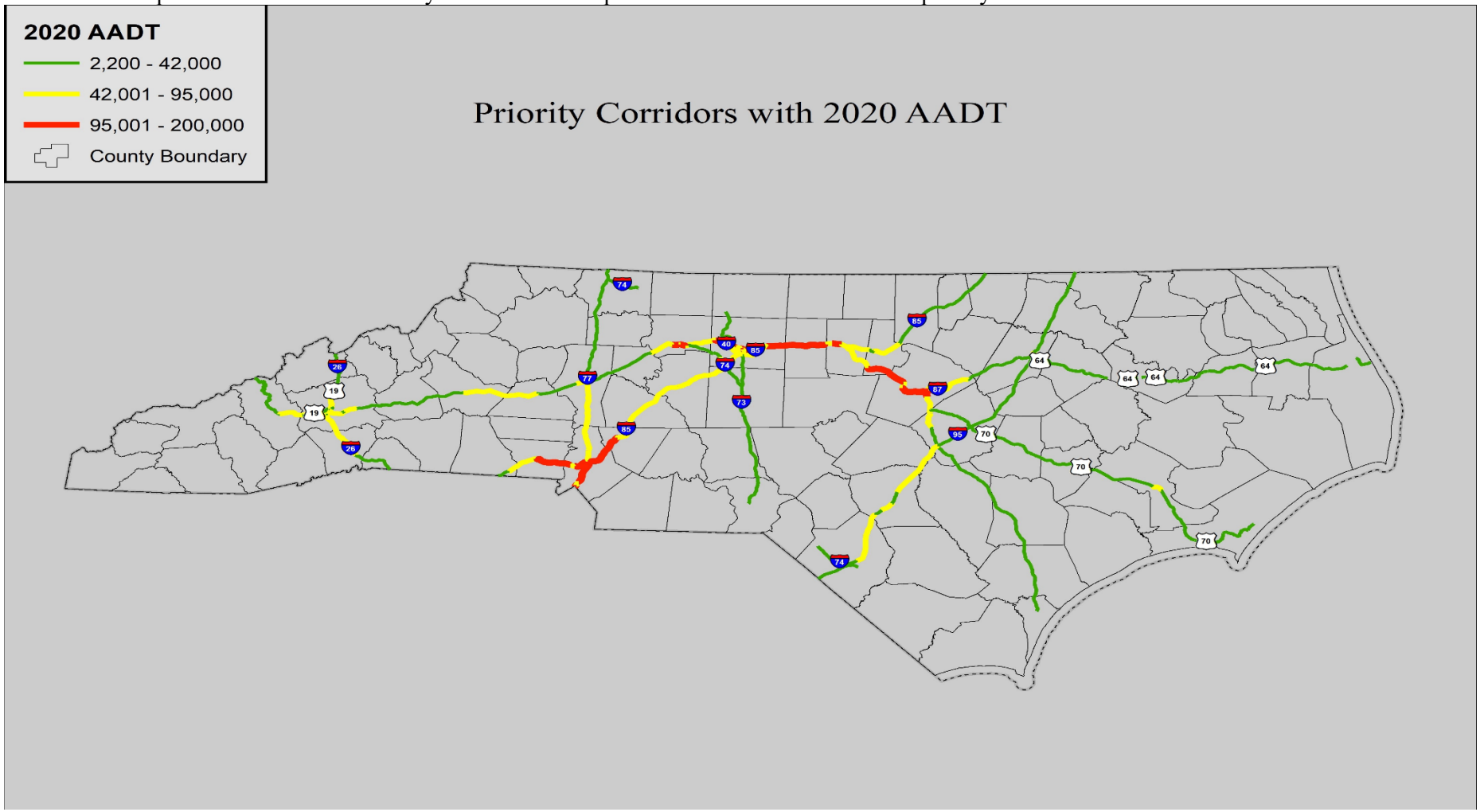
County	EJ Score
Alamance	6
Alexander	5
Alleghany	8
Anson	8
Ashe	3
Avery	4
Beaufort	8
Bertie	13
Bladen	11
Brunswick	3
Buncombe	4
Burke	7
Cabarrus	4
Caldwell	5
Camden	1
Carteret	3
Caswell	6
Catawba	5
Chatham	3
Cherokee	3
Chowan	6
Clay	5
Cleveland	9
Columbus	9
Craven	6
Cumberland	9
Currituck	1
Dare	3
Davidson	5
Davie	6
Duplin	11
Durham	8
Edgecombe	11
Forsyth	8
Franklin	6
Gaston	5
Gates	3
Graham	6
Granville	6
Greene	14
Guilford	8
Halifax	12
Harnett	2
Haywood	4
Henderson	3
Hertford	14

County	EJ Score
Hoke	13
Hertford	14
Iredell	4
Jackson	8
Johnston	5
Jones	9
Lee	8
Lenoir	10
Lincoln	4
Macon	4
Madison	10
Martin	8
McDowell	4
Mecklenburg	6
Mitchell	4
Montgomery	7
Moore	3
Nash	7
New Hanover	6
Northampton	11
Onslow	3
Orange	4
Pamlico	2
Pasquotank	7
Pender	5
Perquimans	5
Person	5
Pitt	9
Polk	1
Randolph	5
Richmond	10
Robeson	15
Rockingham	6
Rowan	6
Rutherford	6
Sampson	11
Scotland	13
Stanly	2
Stokes	1
Surry	4
Swain	3
Transylvania	4
Tyrrell	6
Union	3
Vance	9
Wake	3

County	EJ Score
Warren	14
Washington	11
Watauga	5
Wayne	9
Wilkes	4
Wilson	10
Yadkin	5
Yancey	7

Appendix C: 2020 Annual Average Daily Traffic Map

Annual average daily traffic (AADT) is the total volume of vehicle traffic on a highway or road for a calendar year divided by 365 days. AADT is a useful and simple measurement of how busy a road is. The map below shows the AADT for the priority areas for Phase 2.



Appendix D: Historically Under-Resourced Counties

Historically Under-Resourced Counties Outreach Program

Projects will be evaluated for potential benefits to under-served communities during the evaluation process. In order to ensure more communities are able to apply for funding, DEQ is developing an outreach program to help counties that historically do not have the resources to effectively identify eligible vehicles for grant programs and submit quality applications. Applications from these counties may also receive scoring bonuses.

Historically Under-Resourced Counties are those identified as *economically distressed* with the highest percentages of *underserved populations*.

Underserved populations are those that meet certain racial and poverty criteria, as determined by the DEQ Environmental Justice Program. Using economic criteria, a county's *economic distress* is defined and ranked by the NC Department of Commerce (commonly referred to as "County Tiers").

Combining these two data sets, 37 Historically Under-Resourced Counties were selected as follows:

- List all counties with an underserved population greater than 15%.
- Remove from the list, any Tier 2 or Tier 3 counties (next and least distressed counties).

These counties may be eligible for the maximum funding amounts allowed by the Volkswagen Mitigation Consent Decree based on applicant and equipment/vehicle fuel types. Counties eligible for program are listed in Table 3. The final list of counties was updated using new data from the 2020 Census. Priority will be given to applications in counties where an application was not submitted, or VW funding not awarded, in Phase 1.

Table 1: Eligible Historically Under-Resourced Counties

County Name				
Alexander		Hyde		Washington
Anson		Lenoir		Wayne
Bertie		Martin		Wilson
Bladen		Nash		
Burke		Northampton		
Caldwell		Pasquotank		
Caswell		Randolph		
Cleveland		Richmond		
Columbus		Robeson		
Cumberland		Rockingham		
Duplin		Rowan		
Edgecombe		Rutherford		
Graham		Sampson		
Greene		Scotland		
Halifax		Tyrrell		
Hertford		Vance		
Hoke		Warren		

Appendix E: Acronyms and Abbreviations

ADA	Americans with Disabilities Act
GIS	Geographic Information System
EVSE	Electric Vehicle Supply Equipment
FCC	Federal Communications Commission
EMC	Electric Motor Cars
ETL	Electrical Testing Laboratories
EV	Electric Vehicle
IEC	International Electrotechnical Commission
kW	Kilowatt
NCDAQ	North Carolina Division of Air Quality
NCDEQ	North Carolina Department of Environmental Quality
NEC	National Electrical Code
NRTL	Nationally Recognized Testing Laboratory
NO_x	Oxides of Nitrogen
OSHA	Occupational Safety and Health Administration
REC	Renewable Energy Credit
RFP	Request for Proposals
SAE	Society of Automotive Engineer
UL	Underwriters Laboratories
USEPA	United States Environmental Protection Agency
VW	Volkswagen
ZEV	Zero-Emissions Vehicle

Appendix F: Definitions

AC Charging: the majority of ZEV charging is done with AC voltage at Level 1 (120 volts or normal household current) or Level 2 (240 volts or an electric dryer power equivalent). AC charging is typically more cost effective for the equipment and installation and takes advantage of longer dwell times to provide lower power to a ZEV over a longer period of time. AC charging is an excellent solution for residential, workplace, multi-unit dwelling and other longer-term parking situations like hotels and municipal or airport parking garages.

DC Fast Charging: direct current charging for electric vehicles allows for higher charging speeds, as DC current can be supplied directly to the electric vehicle's battery at power levels normally higher than AC charging. The higher the DC power supplied, the faster the electric vehicle can be charged, provided the vehicle is designed to handle such power.

CHAdeMO: a DC fast charging standard first developed in Japan for the Japanese market and capable in the United States of charging the Nissan Leaf, Kia Soul and Mitsubishi iMiEV.

CCS (Combined Charging System): a DC fast charging protocol that is SAE certified and featured on vehicles produced by GM, BMW, Volkswagen Group, Ford and a number of other automakers headquartered in Europe and the United States. The "combined" term designates the CCS capability to incorporate the Level 2 (J1772 standard) plug and DC fast charging connector into the same larger plug.

Dwell Time: the amount of time a ZEV is parked in a location. The longer the "dwell" time, the longer it is parked.

Government: a state, local or federal government agency owning fleets purchased with government funds (including a school district, municipality, city, county, special district, transit district, joint powers authority, or port authority), and a tribal government or native village. The term 'State' means the several States, the District of Columbia, and the Commonwealth of Puerto Rico.

Government may include any of the following entities:

1. Public school districts,
2. County and municipal governments and authorities,
3. Other NC state agencies,
4. Tribal government agencies,
5. Local, regional or multi-state air quality or transportation organizations,
6. Metropolitan or rural planning organizations, as defined by the U.S. Department of Transportation at 49 U.S.C. §5303(b), located in North Carolina,
7. Businesses – corporations, partnerships, sole proprietorships, limited liability companies, business trusts or other legal business entities incorporated in or registered with the NC Department of the Secretary of State.
8. Air quality or transportation organizations – Local or regional air quality or transportation organization that
    a. owns or operates a fleet located or operating predominately in North Carolina, or

b. have partnered with or is acting as a project manager for another eligible entity listed in this section.

9. Federal Government Agencies – Federal agencies that have custody, control, or management of land within or contiguous to the territorial boundaries of North Carolina.

Higher Power DC Fast Charging: new technology developments will feature 150 kW to 450 kW or more of charging power, capable of adding electricity to a new generation of longer-range ZEVs at a rate of between 9 and 19 miles per minute. The new chargers designed under CCS protocol will be available in 2018, utilizing primarily "kiosk" designs, meaning the power electronics and other important components are housed outside the charger itself in an easier-to- service box in a separate location. Not only will these new chargers deliver higher charging power, the 350 amps of current they use will necessitate the use of liquid- cooled charging cables to present an easier-to-handle, thinner cable with which customers will be able to charge their vehicles.

Level 2 Charging: a form of AC charging that provides 240V like what an electric dryer or oven uses. It goes through a box and a cord that improves safety by waiting to send power to the plug until it's plugged into an EV. Level 2 allows for a wide range of charging speeds, up to 19.2 kW or about 70 miles of range per hour of charging.

OCPP: a global consortium of public and private electric vehicle (EV) infrastructure leaders that have come together to promote open standards. OCPP is the protocol they have developed to provide powerful, open, and interoperable communication between the different ZEV charging infrastructure companies, hardware and network.

Plug-and-charge: plug-and-charge is part of the latest revision of the CCS combo standard, featuring the IEC/ISO 15118 standard which prescribes the means by which a charger and network can identify and authenticate a specific vehicle to allow for a charging session automatically, by simply "plugging in", without the need for supplemental membership cards or fobs.

Proprietary/Non-Proprietary Charging Connector and Protocol: a non-proprietary connector is not privately-owned or controlled and is thus easily available as a standard and does not require extensive development to be ready for application. Both CHAdeMO and CCS combo are non-proprietary DC fast charging protocols. A proprietary charging connector is a connector and charging network that is exclusively accessible to one brand of vehicle or type of user.

Renewable Energy Certificate[6]: a tradable instrument that is equal to one megawatt hour of electricity or equivalent energy supplied by a renewable energy facility, new renewable energy facility, or reduced by implementation of an energy efficiency measure that is used to track and verify compliance with the requirements of this section as determined by the Commission. A "renewable energy certificate" does not include the related emission reductions, including, but not limited to, reductions of sulfur dioxide, oxides of nitrogen, mercury, or carbon dioxide.

Zero Emission Vehicle (ZEV):

Under Appendix C, the following three vehicle types are considered Zero Emission

[6] NC General Statute 62-133.8(a)(6), https://www.ncleg.gov/EnactedLegislation/Statutes/PDF/BySection/Chapter_62/GS_62-133.8.pdf

Vehicles:

1. An on-road passenger car or light duty vehicle, light duty truck, medium duty vehicle, or heavy duty vehicle that produces zero exhaust emissions of all of the following pollutants: non-methane organic gases, carbon monoxide, particulate matter, carbon dioxide, methane, formaldehyde, oxides of nitrogen, or nitrous oxide, including, but not limited to, battery electric vehicles ("BEV") and fuel cell vehicles ("FCEV");
2. An on-road plug-in hybrid electric vehicle ("PHEV") that is similar to a hybrid but is equipped with a larger, more advanced battery that allows the vehicle to be plugged in and recharged in addition to refueling with gasoline. This larger battery allows the car to be driven on a combination of electric and gasoline fuels; or
3. An on-road heavy-duty vehicle with an electric powered takeoff.

ZEVs do not include: zero emission off-road equipment and vehicles; zero emission light rail; additions to transit bus fleets utilizing existing catenary electric power; or any vehicle not capable of being licensed for use on public roads.