

NC CLEAN ENERGY TECHNOLOGY CENTER Clean Fuel Advanced Technology (CFAT) **2019 REQUEST FOR PROPOSALS (RFP)** **ROUND 2**

The North Carolina Clean Energy Technology Center (NCCETC) at North Carolina State University announces the following request for proposal (RFP) through the 2019 Clean Fuel Advanced Technology (CFAT) project. The CFAT project is supported with federal Congestion Mitigation Air Quality (CMAQ) funds provided by the NC Department of Transportation (NC DOT). The primary purpose of the CFAT project is to reduce transportation related emissions in 24 eligible North Carolina counties.

***Available funds: \$2,350,000**
Maximum per project award: \$400,000
Minimum per project award: \$5,000
Application deadline: March 29, 2019
Project period: June 14, 2019 – January 31, 2022

Section One: Eligibility

1.0 Available Funds

The North Carolina Clean Energy Technology Center (NCCETC) reserves the right to allocate all or none of available funds subject to NC Department of Transportation, NC State University and CFAT grant review committee review and approval. The 2019 funds will be awarded continuously, through three rounds of reviews and allocations, until all funds are allocated. If sufficient interest, applications, and demands are presented in the first or second round to allocate all funds, we will not offer a third round.

1.1 Project Location

The North Carolina Clean Energy Technology Center is seeking proposals from both public and private entities for transportation related projects that reduce emissions in North Carolina's non-attainment and maintenance counties for National Ambient Air Quality Standards.

Projects located in the following counties are eligible for CFAT funding: **Cabarrus, Catawba, *Chatham, Davidson, Davie, Durham, Edgecombe, Forsyth, Franklin, Gaston, Granville, Guilford, *Haywood, *Iredell, Johnston, Lincoln, Mecklenburg, Nash, Orange, Person, Rowan, *Swain, Union, Wake, (*Represents partial counties)**. The non-attainment portion of Swain and Haywood Counties is the Great Smoky Mountains National Park boundary. The non-attainment portion of both Chatham and Iredell are defined by townships from the Census. In Chatham the eligible

townships are Baldwin, Williams, New Hope and Center. In Iredell County the non-attainment portions are Davidson and Coddle Creek.

Projects that are located adjacent to eligible areas that result in reduced emissions in the eligible area may apply for funds in proportion to the percent of emission reduction that takes place in the eligible area.

Specific electric vehicle supply equipment (EVSE) projects are eligible in all 100 NC counties. See paragraph 1.5.6 EVSE Projects.

1.3 Buy America Certification Requirement

Because of an Executive order issued in April of 2016, CFAT has been unable to secure the Alternative Fuel Vehicle Buy America waivers that it typically receives from the Federal Highways Administration (FHWA) for CFAT. Therefore, to be eligible, all projects will need to certify that all purchased components using CFAT funding meet the FHWA Buy America requirements. For FHWA, the requirements are specific to all steel and iron used on a project and states that "all manufacturing processes, including application of a coating, for these materials must occur in the United States" with little exception. (See link below on FHWA Buy America requirement.)

FHWA Buy America link: <https://www.gpo.gov/fdsys/pkg/CFR-2013-title23-vol1/xml/CFR-2013-title23-vol1-sec635-410.xml>

April 2016 Executive Order: <https://www.whitehouse.gov/the-press-office/2017/04/18/presidential-executive-order-buy-american-and-hire-american>

1.4 Procurement Standards and Documentation Requirements

In accordance with the 2 CFR 200 and the exemptions obtained by the US Department of Transportation, codified at 2 CFR 1201, the Subrecipient shall follow a competitive procurement process similar to the state regulations for procuring goods and services. When procuring property and services under a Federal award, a state must follow the same policies and procedures it uses for procurements from its non-Federal funds. The state will comply with § 200.322 Procurement of recovered *materials* and ensure that every purchase order or other contract includes any clauses required by section § 200.326 Contract provisions. All other non-Federal entities, including subrecipients of a state, will follow §§ 200.318 General procurement standards through 200.326 Contract provisions. To be eligible for funding, an applicant organization must submit their procurement policies or a description of their procurement process demonstrating a transparent, open, and competitive procurement process with all applications.

Link to 2 CFR 200 and sub-paragraphs (318 through 326 included):
<https://www.gpo.gov/fdsys/granule/CFR-2014-title2-vol1/CFR-2014-title2-vol1-sec200-320>

1.5 Eligible Technologies

The CFAT project is designed to be as flexible and accommodating as possible to reach public and private sector applicants that have an interest in and commitment to mobile emission reduction technologies. The basic criteria for eligibility are that the project:

- is transportation related- including on-road projects, rail and off-road construction equipment used in transportation projects,
- reduces criteria pollutant emissions- including nitrogen oxides (NOx), carbon monoxide (CO), volatile organic compounds (VOCs) or hydrocarbons(HC) and particulate matter (PM), AND
- is located within OR benefits a non-attainment or maintenance area.

A minimum 20% cost share of total project cost is required for all applicants. The specific transportation related technologies eligible for CFAT project reimbursement include:

1.5.1 Alternative Fuel & Advanced Technology Vehicle (AFV) Leases

Leases, not lease purchases, are exempt from Buy America requirements for steel and iron content. Therefore, leases of alternative fuel and advanced technology vehicles are eligible, which include new OEM dedicated and bi-fuel propane and natural gas vehicles, electric vehicles (EVs), and hybrid electric vehicles with or without plug-in capability (HEVs and PHEVs). E85 compatible “flex fuel” and diesel vehicles are **not** eligible.

Eligible costs include the incremental cost between an alternative fuel or advanced technology vehicle and its conventionally powered counterpart (for example, price differential between a natural gas P1000 delivery truck and a gasoline P1000 delivery truck). For vehicles where no conventionally powered counterpart exists, incremental cost will be calculated based on the cost differential of similarly sized and equipped vehicle in the brand’s lineup or that would be purchased instead with similar features, equipment and duty requirements. For example, a Nissan LEAF could be compared to a Nissan Versa to determine the incremental costs, or a Ford C-MAX Hybrid could be compared to a Ford Focus 5-door to determine incremental costs.

Per Federal Highway Administration Buy America requirements, **only vehicles whose final assembly occurs in the United States are eligible.**

1.5.2 Alternative Fuel & Advanced Technology Vehicle (AFV) Conversions

AFV conversions are defined as equipment and labor costs required to convert existing vehicles or upfit new vehicles to operate on an alternative fuel or use advanced technology. Examples of eligible AFV conversions and upfits include:

- Compressed Natural Gas (CNG) – dedicated and bi-fuel

- Liquefied Petroleum Gas (LPG) / propane / Autogas – dedicated and bi-fuel
- Electric hybridization - with or without plug-in capability
- Hydraulic hybridization

Bi-fuel vehicle conversions and upfits -- those that allow operation on CNG or LPG in addition to gasoline or diesel -- are eligible only for the percentage of estimated miles operated on the alternative fuel. For example, if a bi-fuel, CNG vehicle is estimated to operate 60% of its miles on CNG. The proposed project would be eligible for reimbursement of 48% of the plus cost (60% of the eligible 80%). Operators of bi-fuel vehicles will be required to report on gasoline/diesel versus alternative fuel use.

Only EPA or California Air Resources Board (CARB) certified alternative fuel vehicle conversions and upfits are eligible. Note: EPA certification is not required/not applicable to advanced technology conversions and upfits that operate on conventional fuels, such as XL Hybrids hybrid conversions and hydraulic hybrid upfits, since existing emissions control equipment will not be modified during the conversion or upfit.

For more information on AFV conversions, including a list of EPA certifications, visit:

<http://www.afdc.energy.gov/vehicles/conversions.html>

<http://www.epa.gov/oms/consumer/fuels/altfuels/altfuels.htm>

<http://www.arb.ca.gov/msprog/aftermkt/altfuel/altfuel.htm>

1.5.4 Mobile Idle Reduction Technologies

Mobile idle reduction technologies (MIRTs) include: advanced batteries to reduce idling by powering on-board equipment while an on-road vehicle is stopped; direct-fired heaters; auxiliary power units (APUs); and automatic engine idle reduction systems. On-road vehicles that may idle when stopped for extended periods, such as delivery trucks, school buses, police and other emergency vehicles are targeted project applications. MIRTs must be used in an eligible area, and reimbursement for MIRTs will be based on the percentage of time or based on mileage, the vehicle spends in the eligible area. For example, if a truck is based in or adjacent to an eligible area and 50% of the annual mileage is conducted in the eligible area, the project is eligible to be reimbursed for up to 40% of the project cost (50% of the eligible 80%). A log of MIRT use to document fuel savings will be required.

Fleets applying for funding through this category are strongly encouraged to implement and enforce an idle reduction policy and will be looked at more favorably for adopted idle reduction policies during the proposal evaluation process.

For a list of idle reduction technologies visit: <https://www.epa.gov/verified-diesel-tech/smartway-verified-list-idling-reduction-technologies-irts-trucks-and-school> (Only onboard/mobile technologies are CFAT eligible.)

1.5.5 Diesel Retrofits

Diesel retrofit technologies that have been verified or certified by the U.S. EPA, the California Air Resources Board (CARB) or other such boards/agencies are eligible for funding. Diesel retrofits include: engine re-powering and after-burn technologies to reduce emissions of existing diesel engines, but do not include fuel additives. Examples of eligible retrofit technologies include, but are not limited to: diesel oxidation catalysts (DOCs), catalytic exhaust mufflers, catalytic converters, closed crankcase ventilation/filtration systems, active- or passive-regeneration diesel particulate filters (DPFs), and selective catalyst reduction technology (SCRT); see the below links to the EPA and CARB websites for complete listings. Level 2 and Level 3 retrofit technology applications (i.e., those that reduce PM emissions by 50% or more) are encouraged. **Applicants are expected to have pre-identified appropriate vehicles for the technologies they have selected.** Both on-road and off-road retrofit projects are eligible for funding. On-road applications include buses, trucks, service and utility vehicles. Off-road applications are limited to transportation related construction equipment and locomotives.

Learn more about diesel retrofit technologies and verified technologies at:

www.epa.gov/verified-diesel-tech/verified-technologies-list-clean-diesel

www.arb.ca.gov/diesel/verdev/verdev.htm

www.arb.ca.gov/diesel/verdev/vt/cvt.htm

1.5.6 EVSE Projects

Certain EVSE projects are eligible for CFAT funding. **For the current round, only projects that do not have ground disruption of cutting of concrete are eligible.** Those projects would include replacement of stranded / non-functioning chargers, installation of new chargers where the preparation work has been previously completed with proper local permitting and environmental compliance, and installation of new chargers at facilities where no ground disturbance or cutting of concrete is required. For replacement of stranded / non-functioning assets, original funding for the project cannot have been through a CMAQ funding source. **All EVSE funded under CFAT is required to be publicly accessible. All EVSE projects will need to meet CFAT Buy America compliance, competitive procurement requirements and remain maintained and in service per guidelines.**

Section Two: Project Purpose, Priorities and Requirements

2.1 Purpose and Priorities

The primary purpose of CFAT funding is to reduce transportation related pollution emissions in North Carolina counties that are in non-attainment or maintenance status for National Ambient Air Quality Standards. Regulated emissions include carbon monoxide

(CO), oxides of nitrogen (NOx), volatile organic compounds (VOCs) and particulate matter (PM). Reducing greenhouse gas emissions and other pollutants besides the above listed criteria emissions is not the purpose of this federal funding, though the use of alternative fuels and advanced transportation technologies can reduce those emissions as well.

In addition to reducing transportation related emissions and demonstrating the potential for more widespread use of alternative fuels and efficiency technologies, priorities of the CFAT program include:

- developing deeper relations to fleets and organizations committed to decreasing transportation related emissions in North Carolina funding a diversity of project technologies
- having projects in a wide range of eligible counties
- serving a variety of applicant types
- insuring that projects are completed in a timely manner

2.2 Project Requirements

There are several requirements that must be met by applicants:

1) COST SHARE- Applicants must provide a minimum of 20% cost share on proposed projects. Cost share funds must be non-federal dollars and directly related to the project.

For example, if the cost of a new Ford Super Duty F-250 is \$32,000, and the cost of the LPG bi-fuel upfit is an additional \$11,000, an applicant must demonstrate a minimum contribution of \$2,200 and request up to \$8,800 in grant funds. In other words, the 20% cost share contribution is based on the total project cost of the upfit.

The same is applicable for determining the cost of retrofitting an existing vehicle. The total project cost is the cost of the conversion (not including the residual value of the vehicle) and up to 80% of the total project of the conversion is eligible for funding including installation and parts.

Applicants must clearly state their cost-share contribution and will be granted a specific, not-to-exceed amount of funding based on their proposal and cost share contribution. Any expenses exceeding the proposed project costs will be the applicant's responsibility. Cost share contributions will be reviewed on a case-by-case manner. A cost share letter of commitment must accompany the application. This letter should be on your organization's letterhead, must be signed, and must include the following language: "[Organization] commits to providing cost share of least 20%. Currently, with the projected costs, that is \$ _____."

2) REBATE PROGRAM- Successful applicants will be required to expend funds first and will then be reimbursed upon receipt of previously agreed upon proof of expenditures and documented cost share contributions.

3) LOCATION- All projects must be located in or directly benefit (reduce emissions in) CFAT eligible counties. Refer to Section 1.1 for eligible locations.

4) EMISSIONS REDUCTION- Projects must result in emission reductions in eligible areas and applicants must be willing to track vehicle and/or fuel use so that the NCCETC can calculate actual emission reductions after project implementation. For the application evaluation process, the NCCETC will conduct emissions benefits calculations based on information provided by the applicant. Applicants may provide emissions benefit estimates that they have calculated (along with an explanation of methodology or tool used), but are also required to provide information needed for NCCETC evaluation. This information includes, but may not be limited to: estimated number of miles to be driven; vehicle year/make/model to be replaced and/or converted to operate on natural gas or propane (or repowered in case of diesel retrofits); vehicle(s) and emissions certification and/or other relevant emission testing data; number of gallons of fuel, gasoline gallon equivalents, or kWh estimated to be dispensed into vehicles driving in eligible areas (for refueling / recharging infrastructure applications).

5) PROJECT APPLICANTS- Applicants may not use project funds to meet federal alternative fuel, advanced transportation, or petroleum displacement requirements, such as U.S. Energy Policy Act requirements and federal executive orders. Federal, state, and local government entities, businesses, and non-profits are all eligible to apply. **The CFAT project is not able to fund individuals.**

6) REPORTING- Brief quarterly and final reports that capture key applicable project implementation milestones and data on fuel usage, idling reduction, emission reductions, etc., will be required of successful applicants. The final report should include a minimum of 15-24 months of actual data and an estimate of the following months' data to yield a total of 36 months. Reporting templates will be provided by the NC Clean Energy Technology Center. **The NCCETC requests that after the contract period expires CFAT grant recipients continue to voluntarily report fuel and mileage usage data to accrue 36 months of actual usage.**

7) SIGNAGE- CFAT project vehicle and infrastructure decals and/or project signage provided by or approved by the NC Clean Energy Technology Center will be required to be utilized by all successful applicants.

8) **NC SMART FLEET - Awardees are required to participate in the [NC Smart Fleet Initiative](https://nccleantech.ncsu.edu/clean-transportation/for-fleets/), <https://nccleantech.ncsu.edu/clean-transportation/for-fleets/>. Refer to Question 7 in RFP FAQ document for more information https://nccleantech.ncsu.edu/wp-content/uploads/CFAT_RFP-FAQs.pdf**

Section Three: Evaluation Criteria

3.1 A CFAT evaluation committee will review all proposals.

3.2 The following criteria will be used to select project applicants. Applicants should consider all aspects of the criteria below. Note that the evaluation criteria are not ordered in any specific rank. The project evaluators understand that applicants will not be

calculating emission reductions. Thus, applicants will not be able to address the cost versus emission reduction except by providing greater cost share.

- 1) **Cost versus regulated emission reductions:** CFAT program organizers seek the greatest reduction of regulated emissions for the least cost. Regulated emissions include carbon monoxide (CO), oxides of nitrogen (NOx), volatile organic compounds (VOCs) and particulate matter (PM).
- 2) **Cost-share contribution:** CFAT program organizers seek partnerships with grant recipients that demonstrate strong project commitment through cost share contributions that exceed the set minimum requirements. Cost share is defined as the funds and resources that an applicant directly contributes to a project. **A minimum cost share requirement of 20% of total project costs applies to all applicants;** cost share in excess of 20% is favored. It is important to reiterate that in the cases of AFVs and AFV conversions and upfits, total project costs **do not** include baseline vehicle costs. In the case of vehicle leases, total project costs include lease costs and fees for up to **twenty-four months**. However, costs beyond twenty-four months are not included in total project costs and cannot be counted toward cost share.

Any applicant that provides for a higher percentage cost share contribution will be given more weight in the review process. Cash contributions include out-of-pocket expenses needed to cover the incremental cost of an AFV or AFV conversion, and diesel retrofits, and idle reduction technologies. The value of the existing vehicle that will utilize diesel retrofits and/or mobile idle reduction technologies **will not** be considered as part of the required 20% cost share. Cost share contributions must be clearly explained in the applicant's proposal. Staff time to manage and administer the project are not eligible as cost share.

- 3) **Project readiness / feasibility / likelihood of success:** It is important for applicants to communicate the readiness of their project, and to demonstrate their experience and qualifications to implement the project proposal. To communicate readiness, show a clear plan and timeline for obtaining internal approvals to proceed quickly after awards are announced. Project complexity, applicant organization, executive or administrative support, project partner support, and ability to complete the project within proposed time frame will all be taken into consideration and evaluated. **Applicants should plan for project start of June 14, 2019 with completion by January 30, 2022. It is important that you show** a clear timeline documenting ability to implement within first six to nine months (or sooner) with the remaining time for collection of usage data.
- 4) **Public awareness/education:** Expanding awareness about the benefits of alternative fuels and advanced transportation technologies is an important component of increasing use across the state. Evaluators will weight proposals that reflect a strategy to raise awareness (through the media, signage, public speaking engagements and other methods) more favorably than proposals that do not incorporate any strategy or commitment to raising awareness. **Active participation in the NC Smart Fleet program is an important public awareness/education activity. Willingness to work with project partners to provide ongoing data and**

develop case studies is important.

- 5) **Impact:** Program administrators seek projects that will have the most lasting impact on emissions. Applicants that have policies and plans that assure related and continued emission reductions will be ranked higher than an applicant that does not have such organizational policies and/or an explanation of how current proposed project fits into potential on-going and future efforts.
- 6) **Diversity of projects:** Program administrators seek proposals for all eligible types of projects that are located throughout the 24 eligible counties. Evaluators also want to encourage new, “first time” users. The CFAT program recognizes that the majority of projects will be located in the eligible counties with the greatest population, but is interested in funding projects in all eligible counties and particularly encourages project applicants located in areas that have not previously received CFAT funding. Businesses, non-profits, local, state, and federal government operations located in CFAT eligible areas are encouraged to apply.

Section Four: Application Process

4.1 A cover letter must accompany all applications. The letter should include a statement about your organization’s **cost share** contribution, commitment to using the proposed emission reduction technology for a **minimum period** based on Minimum Replacement Standards (below) per [41 CFR 102.34.270](#) (up to two years for all leases), and the **acceptance of responsibility** for meeting all relevant state and federal purchasing requirements including Buy America requirements per sections 1.3 and 1.4 above.

TABLE OF MINIMUM REPLACEMENT STANDARDS

Motor vehicle type	Years ¹	Or miles ¹
Sedans/Station Wagons	3	60,000
Ambulances	7	60,000
Buses:		
Intercity	n/a	280,000
City	n/a	150,000
School	n/a	80,000
Trucks:		
Less than 12,500 pounds GVWR	6	50,000
12,500–23,999 pounds GVWR	7	60,000
24,000 pounds GVWR and over	9	80,000
4- or 6-wheel drive motor vehicles	6	40,000

¹ Minimum standards are stated in both years and miles; use whichever occurs first.

4.2 Use of this application form is required:

https://drive.google.com/file/d/1AKN5DZEoe6dlh_eM6Tri7dlnOw1cBjSD/view?usp=sharing

4.3. It is strongly recommended that the budget be supported by firm price quotes for proposed equipment purchases, and that applicants speak in detail with vendors regarding suitability of quoted equipment for the proposed project and the ability to place product in service within stated timeline. For vehicle conversions, upfits, and retrofits, a price quote is required with system costs invoiced separately from any vehicle costs. For AFV leases, documentation of the cost of comparable conventional vehicles must accompany the application to determine the incremental cost of the eligible vehicle(s). Plan to secure approval from your organization’s governing body in advance of grant award announcements so as not to delay project implementation. Be aware of the potential for long lead times for vehicles and equipment and plan appropriately to meet the project timeline.

4.4 List all quotes in your Budget and also submit equipment quotes. Also attach your cover letter describing commitment to cost-share, commitment to minimum use period, and acceptance of all purchasing requirements (e.g., Buy America).

4.6 Applications must be received by the NC Clean Energy Technology Center by 4:00 PM March 29, 2019. Upon initial review applicants may be asked to submit more detailed information. **Awards will be announced by mid-to-late April 2019.** Recipients will be awarded a specific not-to-exceed dollar amount based on estimated costs. Awards are for a fixed amount. Vehicle and equipment prices may change over time thereby changing incremental cost estimates. Funding recipients may have to adjust their purchases accordingly, as the awarded amount **will not** change. Applicants should consider the above stated dates when developing a procedural plan. The NC Clean Energy Technology Center reserves the right to extend the application deadline and accept rolling applications based on availability of funds. All applications require final approval from Federal funding authority.

Once you have submitted your application form, a return email acknowledging receipt will be provided. The NCCETC is not responsible for project applications without an email acknowledgement of receipt. Questions regarding this RFP should be directed to (919) 515-2788 or emailed to resapienza@ncsu.edu.

Staff at the NC Clean Energy Technology Center’s Clean Transportation Program, Triangle Clean Cities Coalition, and Centralina Clean Fuels Coalition can help you with your proposal. They can assist with assessing project feasibility, getting vendor quotes, and ensuring that the application is completed properly before being submitted, and that all supporting documentation is included.

Technical assistance contacts:

Triangle Clean Cities Coalition Andrea Eilers 919-558-2705 aeilers@tjcog.org	Centralina Clean Fuels Coalition Jason Wager 704-372-2416 jwager@centralina.org	NC Clean Energy Technology Center Rick Sapienza (919) 515-2788 resapienza@ncsu.edu
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Section Five: Application Instructions

Overview

Include the requested information on your organization, as well as the financial information from the Budget.

One to five Project type/specifics: Include information only for the project type applicable and skip project types that do not apply to your application. For multiple project sub-types, include requested specifics for each project sub-type and delete the project types that are not applicable to your project. Copy and paste the type/specifics if your organization is requesting support for different types within the same category. For example if your organization wants to lease both electric vehicles and natural gas vehicles provide the information requested in 1. *Alternative Fuel and Advanced Technology Vehicle Leases* section for each type.

Emission Reductions: These fields are optional. If desired, include annual emissions reduction figures for projects and include reference to how emissions were calculated. **NCCETC will perform emission reduction calculations for all proposals and may require additional information from applicants.**

“Buy America” Compliance: Check the applicable box indicating whether the project is in compliance with Buy America or whether that requirement does not apply. Provide supporting letters of compliance from target suppliers and vendors. For more information on Buy America, see: http://www.fhwa.dot.gov/construction/contracts/buyam_qa.cfm.

For all projects that are required to have final assembly (vehicles) or installation (systems) occur in the US, also check the appropriate box certifying such.

NC Smart Fleet Participation:

Select the box to committing to participation in the NC Smart Fleet recognition program.

Expected Project Service Life:

Service life is expected to meet federal minimum replacement standards per [41 CFR 102.34.270](#) . All service life proposals are subject to Federal funding authority review and approval.

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The remainder of the application comprises the Project Description and the Statement of Work (which includes the Timeline, and Budget).

**Follow all instructions carefully. All information must be contained within the application; the only permissible attachments are: letter of cost share commitment, project related quotes and optional emission calculations. The Project Description and Statement of Work should not exceed 5 pages.**

## **Project Description**

Insert a brief project description: the “**who, what, where, when and why**” of the project. Address evaluation criteria as related in Section Three of the RFP. Be sure to include discussion of near term expansion of emission reduction plans to be pursued along with or after the proposed project and how your organization will insure implementation during project period (evaluation criteria 3 and 5).

## **Statement of Work**

Provide the requested details and deliverables on the noted tasks as they relate to your proposed project. **\*If awarded funding, the Statement of Work will become part of the contract with NCSU, so include sufficient details to communicate the key information outlined.\*** In Project Description and Statement of Work delete italicized instructional text and replace with your project details.

**Project Summary:** Provide a *two- or three-sentence* summary of the project, focused on the “who” is doing “what.”

### **Task #1: Acquisition and Installation of Equipment.**

In narrative form insert details of equipment to be purchased.

- **Alternative fuel vehicle (AFV) and hybrid electric vehicle leases:** Include make/model and number of each AFV type to be leased. Provide explanation of incremental cost determination. If requesting replacement vehicle provide make and model AFV will replace. Indicate if the grant will be expanding the fleet or implementing a new application. Provide an estimate of, and justification for, annual miles/gallons of fuel use for vehicle(s). For bi-fuel vehicles include the percentage of mileage the vehicle(s) will be utilizing the alternative fuel. Provide anticipated miles per gallon for all vehicle(s) requested. Include procedures for acquiring vehicles. Insert statement of assurance that final assembly of vehicle(s) is in U.S.
- **AFVs and AFV conversions:** Provide an estimate of, and justification for, annual miles/gallons of fuel use for vehicle(s) and the percentage of time/mileage the vehicle(s) will be utilizing the alternative fuel as well as average anticipated per vehicle miles per gallon. For existing vehicles, provide current number of miles on vehicle(s) to be converted. Include make, model, and gross vehicle weight (GVW) for all vehicles. Include procedures for acquiring/implementing conversions or upfits into existing or new vehicles. Insert statement that installation will occur in the US.
- **Diesel Retrofit and Repower projects:** Include estimated annual miles per vehicle and expected number of years before vehicle retirement, including type of equipment to be installed and vehicle make, model and year. Insert statement that installation will occur in the US

- Idle Reduction projects: Provide an estimate of, and justification for, annual per vehicle hourly usage of technologies and estimated per vehicle number of gallons of fuel used per hour of idling, along with technology type and vehicle make, model and year and number of units to be purchased. Insert statement that installation will occur in the US
- EVSE projects: Provide estimate or projections of annual kWh to be dispensed through these EVSE charging stations. Include procurement procedures and documentation. Provide detailed project tasks and activities regarding site preparation and installation. Include plan for maintenance and upkeep for required service life. **Note that current guidelines do not allow for ground disturbing activities or concrete cutting as part of the site preparation or equipment installation. All project materials and equipment must comply with FHWA Buy America requirements.**

#### **Task #2: Usage tracking of project technology/fuel.**

Insert statement regarding agreement to utilize quarterly tracking form provided by NCCETC and/or mutually agreed upon format to track quarterly technology usage with vehicle miles driven and/or gallons of fuel utilized or saved.

#### **Task #3: Public Awareness and Education.**

Insert brief description of public awareness/education and outreach plans. Include statement agreeing to use vehicle decals and/or project signage provided by NCCETC or mutually agreed upon alternative. All applications must include agreement to participate in *NC Smart Fleet* recognition program developed by NCCETC to recognize, track, and account for progress in reducing emissions through conservation, efficiency and alternative fuels use.

#### **Task #4: Reporting.**

Insert description of your reporting efforts that include the following reporting requirements: Reports documenting achieved deliverables must accompany all itemized paid invoice reimbursement requests. Cost-share will be documented along with reimbursement requests. A final cost share letter providing a cost share description and stating total cost share contribution will be submitted on letterhead with final invoice. A quarterly schedule established by the NCCETC will be used to submit progress reports, technology use tracking forms, invoices and cost share documentation. A brief final report summarizing the accomplishments of Tasks 1-3 must be compiled and submitted no later than fifteen (15) days following the completion of the project.

### **Example Timeline**

Adjust timeline specifics to your project plans. Examples of tasks for each quarter are provided below. *Note: It is preferred that all expenses are invoiced as soon as possible but no later than 6-12 months depending on project complexity and completed by January 30, 2022.* For usage reporting, 15-24 months is preferred, with estimates thereafter for a total of 36 months. Voluntary reporting of actual usage for up to 36 months is requested.

**Plan for project start of June 14, 2019 and completion by January 31, 2022.**

**Quarters 1 & 2: July 1, 2019 – December 31, 2019**

*Examples:*

*Verify vendor qualifications and that all purchases meet relevant standards/codes*

*Develop and submit project equipment to bid process (as required)*

**Order equipment or supplies Quarters 3 & 4: January 01, 2020 – March 30, 2020**

*Examples:*

*Receive vehicles; test and confirm that equipment is operating correctly*

*Put vehicle/ equipment in service—vehicle deployment date to be reported in quarterly report of quarter deployed.*

*Develop and distribute press release*

*Usage monitoring and recording (15-24 months actual preferred and estimate for remaining months to give 36 months of reporting)*

**Quarters 5 - 12: April 01, 2020 – January 31, 2022**

*Examples:*

*Organize and conduct ribbon cutting*

*Usage monitoring and recording (15-24 months actual preferred and estimate for remaining months to give 36 months of reporting)*

*Public Awareness and Education Activities*

*\*Indicates elongated or shortened quarters due to overall project period.*

*Applicants may use their own timeline template but must provide as much detail and accuracy as possible within quarters to insure feasibility within the project period.*

## **Budget**

Note: Minimum project awards are \$5,000 and maximum are \$400,000.

**Instructions:** Download the Excel Budget template here:

[https://drive.google.com/file/d/1-Bx\\_1CntKGpkFxFRqd6CGbZ9G1vjFnIEI/view?usp=sharing](https://drive.google.com/file/d/1-Bx_1CntKGpkFxFRqd6CGbZ9G1vjFnIEI/view?usp=sharing)

Begin entering values for your budget, including Quantity, Per Item Cost, CFAT Funds being requested, and Cash Match funds being contributed. **The values for “Total” on the right, and “% of project total” on the bottom will auto-populate based on values entered.** Be sure to list all price quotes. Additional lines can be added by right-clicking and selecting “Insert.” All cells will round to the nearest dollar. Total cost share must be a minimum of 20% of total project costs and each budget line item should include a minimum of 20% cost share. In kind contributions may be described in narrative – do not include in total cost and budget template provided in application. *In kind contributions, such as staff and project management hours should not be included in total project costs. Provide actual name of equipment to be purchased.*

When finished, save the file with your name in the filename, and email with your completed application package to [resapienza@ncsu.edu](mailto:resapienza@ncsu.edu).

Be sure to collect firm price quotes and email those as one or several PDF files.