

Alabama Community College System I-CARE Initiative Workplan

1. Overall Project Summary and Approach

a. Description of GHG Reduction Measures

The Alabama Community College System (ACCS) is proposing an EPA Climate Pollution Reduction Grant (CPRG) project that will implement greenhouse gas (GHG) reduction measures in three sectors: Transportation, Electric Power, and Buildings. Dubbed **I-CARE**, the project will help Alabama build more equitable, resilient communities through innovative and comprehensive “Investments in Clean And Renewable Energy”.

Transportation: ACCS’s I-CARE initiative will increase the number of electric vehicles (EVs) at all 24 public community and technical colleges from 1 to 201, raising the share of the colleges’ collective fleet that is all-electric from 0.1% to 28 %. ACCS colleges will purchase and implement a total of 200 new electric vehicles (EVs) on 54 different campuses across the State. In addition, the ACCS central office (the “System Office”), will purchase 17 new hybrid vehicles (HVs), raising the hybrid share of its fleet from 2% to 29 %. At the same time, 200 gasoline and diesel-powered vehicles that are some of the worst offenders for GHG emissions will be removed from service, 187 from the college’s fleet and 13 from the System Office fleet. Vehicles targeted for decommissioning include those gas/diesel-powered vehicles that are over 10 years old, have more than 100,000 miles, and/or are high in fuel consumption. In addition, ACCS and the colleges had collectively planned to purchase 17 new gas- or diesel-powered vehicles soon to meet growing transportation needs (4 at the System Office and 13 at the colleges); those purchases will be deferred and switched to EVs. ACCS colleges will also purchase and install 69 new Level 2 and 27 new Level 3 electric vehicle charging stations (an average of 4 per college) to support the operation of the new EVs, increase capacity for further electrification of the fleet, and (in some cases) expand the State’s public-access EV charger infrastructure. The System Office occupies a leased building in downtown Montgomery and could not secure permission to install EV chargers in either the building’s garage or the adjacent parking deck before this grant application was due, hence the request for hybrid vehicles for the System Office. However, ACCS will continue to work on this issue, and if resolved in time, switch the hybrid vehicle purchases to all-electric.

ACCS knows the success of a System-wide initiative like I-CARE depends on buy-in from the individual colleges that are responsible for its implementation. ACCS provided information on the CPRG program and a draft project design to college presidents and their key staff members through a scheduled webinar, then followed up with multiple small group and one-on-one collaborations. Through the process, the draft design of the project, particularly the transportation component, was revised to better meet individual colleges’ needs and capacity. Please see the college presidents’ signed letters of commitment that detail each college’s role and responsibilities in the various attachments titled *EntityName_LOC_ACCS* in the Other Attachments folder of the grant application.

Using information submitted by the colleges and the Fiscal Division of the System Office, ACCS compiled a master list of the EVs, hybrids, and charging stations to be purchased along with details on the gas- and diesel-powered vehicles to be decommissioned/replaced. In most cases, a one-for-

one substitution is being made; for example, one existing gasoline-powered 4-door sedan replaced by one new EV 4-door sedan. In a few cases, the substitution is 2-for-1 because of the unique use of the decommissioned vehicle; for example, a medium-duty diesel-powered utility truck serving both building maintenance and groundskeeping purposes replaced with two small electric-powered utility vehicles. More details on the electric and hybrid vehicles that will be purchased through the I-CARE initiative are included in the attached budget spreadsheet and budget narrative and a comprehensive list of the vehicles being decommissioned and their corresponding replacement EVs is available for review upon request.

Colleges will individually procure their own EVs and chargers using grant sub-awards issued by ACCS to cover costs to purchase EVs and to purchase, install, and maintain chargers. As no electric vehicles or chargers are included on any State pre-approved bid/procurement list, colleges will follow applicable State and Federal procurement laws to bid the purchases. ACCS will oversee and facilitate the process by developing standard bid requirements and releasing the bid at the State level. After sub-awards are distributed, the major tasks in procurement and implementation of EVs, HVs, and chargers include the following:

- (i) Research, development and release of public solicitations of sealed bids per the Code of Federal Regulations, Title 2, Subtitle A, Chapter 2, Part 200 and State of Alabama procurement requirements for vehicles, charging stations, and charging station installation efforts (~ 4 months).
- (ii) Review of bid responses, determination of eligible respondents, assessment of responses, and selection and notification of awards (1-2 months).
- (iii) Execution of contracts, purchase of eligible equipment, and installation of charging stations (2 - 12 months).

Centralizing the bidding process reduces time and effort across the System, ensures consistency in product and service quality, and will likely result in a larger pool of bidders, all contributing to timely procurements and effective implementations. An extended timeline for complete implementation will prevent the kinds of mistakes that commonly occur when a process is rushed, further ensuring the project's success. It also acknowledges the existence of various risks that could impact project execution.

Risks that lead to delays of the procurement and implementation of EVs and chargers include (i) insufficient responses to the invitations to bid, (ii) EV inventory depletion and other supply chain disruptions, (iii) unexpected delays in hiring project support personnel, and (iv) unforeseen infrastructure conditions that complicate or negate the installation of high-speed chargers on specific campuses. Although any of these issues could delay full implementation of the Transportation component of the project, the delay on its own would not reduce the magnitude of the 5-year nor 50-year GHG reductions; it would only postpone the achievement of those goals.

Transportation was selected by ACCS as a priority GHG reduction measure because according to the EPA, vehicle emissions are the greatest contributors to greenhouse gases in the U.S. and ACCS is committed to being a leader in the State for advancing a clean and renewable energy. Efforts to reduce GHGs must include the expansion of emission-reducing vehicles and electric charging station

infrastructure. Such improvements distributed across all the campuses of Alabama's 24 community and technical colleges (which span the State geographically) will result in the reduction of GHG emissions throughout Alabama. The I-Care Initiative will also result in the growth of emission-reducing service providers and suppliers, increases in community awareness, and alignment with broader national sustainability goals. Long-term objectives include achieving carbon neutrality in transportation, improving fleet management to prioritize sustainable modes of transportation, and fostering a culture of environmental stewardship.

The transportation component of the I-CARE initiative is a GHG reduction measure included in Alabama's Priority Climate Action Plan and meets the State's criteria for such priority measures by being (i) implementation-ready, (ii) completable in the near term, and (iii) a measure that advances the State's priorities for reducing GHGs, including significant and sustained emissions reductions and improved public health (see page 8 and 39 of the attachment "*AlabamaPCAP_ACCS*" in the Other Attachments folder of the grant application).

Implementing electric vehicles throughout Alabama's community college system and increasing the System Office's hybrid fleet will enable ACCS to meet the goals of the CPRG program in several ways. First, it will achieve significant cumulative GHG reductions by 2030 and beyond (4,248 metric tons CO₂e by 2030 and 23,871 by 2050). Second, it will result in positive community benefits, including a reduction in co-pollutant emissions (a known risk factor for asthma¹, which has significantly higher incidence and mortality rates in Alabama² and which disproportionately afflicts low-income, disadvantaged populations) and a reduction in the ACCS fleet's contribution to noise pollution. Finally, it serves as an innovative program with potential for statewide replication and "scale-up": By demonstrating the economic benefits and feasibility of using electric vehicles in a variety of applications on a smaller scale on each campus ("proof of concept" to skeptics), ACCS will pave the way for future complete fleet electrification.

Buildings: Through I-CARE, ACCS will complete energy-efficiency building renovation projects at all 6 of ACCS's historically Black colleges and the 3 other colleges that have predominantly Black populations³. These colleges serve some of Alabama's most vulnerable students and all have one or more campuses/instructional sites located in a community designated as disadvantaged using the EPA's Climate and Economic Justice Screening Tool (CEJST). A total of 9 colleges and 15 buildings will be affected. Renovations will involve implementation of the most up-to-date building energy codes and include the purchase and installation of certified energy-efficient heating and cooling equipment, windows, doors, lighting, and other building products to replace inefficient products. Each building renovation will include the implementation of a building energy management system, allowing the college to schedule, monitor, control, and optimize the energy usage of the building's

¹ See [Impact of Air Pollution on Asthma: A Scoping Review - ScienceDirect](#)

² See "Asthma in Alabama":

<https://www.adph.org/asthma/assets/ASH.Asthma.Prevalance.Fact.Sheet.FINAL.pdf> and see the CDC's "Most Recent State or Territory Asthma Data: [Most Recent Asthma State Data | CDC](#)

³³ HBCUs include Bishop, Drake, Gadsden, Lawson, Shelton and Trenholm community colleges.

Chattahoochee Valley CC is a PBI and Wallace CC-Selma is an MSI, while Reid State Technical College is a predominantly minority-serving institution that is not large enough to meet the federal enrollment requirement for official designation as PBI or MSI.

various systems and equipment, contributing to cost savings, environmental sustainability, and overall operational efficiency.

Every renovated building and every building on each of the 6 HBCU campuses, whether renovated or not, will also be individually metered, allowing for precise tracking of energy consumption by building. It will also enable comparison and benchmarking of the performance of renovated buildings against un-renovated buildings or against industry standards. Individual building metering will provide essential data for informed decision-making, resource conservation, and more cost-effective operations. Altogether, the 3-pronged strategy of energy-efficiency renovations, building energy management systems, and individual building metering will ensure that the buildings component of the I-CARE initiative meets its greenhouse gas reduction goals of 3,668 metric tons CO₂e by 2030 and 21,765 metric tons CO₂e by 2050.

As with the Transportation component of the I-CARE initiative, ACCS will issue sub-awards to individual colleges to perform the above-described energy efficiency building renovations. Colleges will comply with all State and Federal procurement regulations, including Davis-Bacon and Build America/Buy American, and will follow strictly prescribed Board of Trustees policies and procedures for capital improvements in completing all renovation projects. Major tasks and milestones include the following: (i) Design phase including pre-construction surveying and engineering, schematics, preliminary and final design (~9 months); (ii) Procurement phase including bidding and selecting a contractor and obtaining Board approval (~3 months), and (iii) Construction (~ 18 months) depending on the scope of the project.

The Buildings component of the I-CARE initiative shares similar risks of delays/interruptions as the Transportation component. These include (i) insufficient responses to the invitations to bid, (ii) depletion of building product inventories and other supply chain disruptions, (iii) unexpected delays in hiring project support personnel, and (iv) unforeseen infrastructure conditions that complicate the renovation process. In addition, building renovations could be affected by the more mundane but common issue of harsh weather. As with the EV/charger component of the project, any such delays could postpone the achievement of GHG reduction goals but are not expected to make them unattainable over time.

Renovating buildings to increase energy efficiency was selected as a priority measure by ACCS because it aligns with the System's broader movement toward smaller campus footprints, more renovation and less new construction, and implementing systems and technology that reduce energy consumption over the long term. The Building component of the I-CARE initiative is a GHG reduction measure included in Alabama's Priority Climate Action Plan and meets the State's criteria for such priority measures by being (i) implementation-ready, (ii) completable in the near term, and (iii) a measure that advances the State's priorities for reducing GHGs, which are significant and sustained emissions reductions, rural development, quality jobs, public health, and supporting economic development (see page 8 and 39 of the attachment "*AlabamaPCAP_ACCS*").

The energy efficiency renovations made to college buildings as part of the I-CARE initiative will be complemented by additional functional and aesthetic renovations financed by capital improvement funding allocated by the ACCS System Office from special Alabama Legislative appropriations. These leveraged resources total approximately \$52 million for the 9 affected colleges and represent ACCS's

commitment to improving the System's historically Black and predominantly Black colleges and, by extension, the low-income, disadvantaged communities they serve.

Electric Power: The I-CARE initiative will pioneer renewable energy production on an Alabama public 2-year college campus in rural Walker County with the purchase and installation of a solar microgrid at the new Alabama Energy Infrastructure Training Center (EITC) at Beville State Community College. The EITC is a joint effort of the State Legislature, ACCS, Beville State, and the Alabama Power Company with a mission to educate and train students for jobs in emerging technologies of the energy sector, including HVAC, solar, wind, and electric vehicles. The Center also serves as the hub for training for service providers delivering home energy improvements to low-income residents under Alabama's federally funded Weatherization Assistance Program.

The proposed microgrid will feature multiple distributed energy technologies including rooftop solar, ground mount solar, battery energy storage, a dispatchable Tier 4 Final generator, and Level 2 and Level 3 electric vehicle chargers. It will not only reduce the College's consumption of commercially generated power, but also enable the EITC to train students in the full operation, troubleshooting, and management of the various components of a small but multifaceted microgrid installation.

ACCS has developed a preliminary but comprehensive scope of work for the microgrid project that includes initial engineering, environmental, and permitting services (4 months), procurement (7 months), construction and installation (7 months), and start-up testing, commissioning, and close-out (6 months). Allowing 2 years for full project implementation acknowledges the complexity of the project and the significant collaboration that will be necessary between ACCS, the College, contractors, vendors, and the local electric utility provider. It is also designed to help mitigate risks of procurement and construction delays and prevent mistakes that commonly occur when a construction project is rushed to completion.

The scope of work also includes training, an extended service agreement, and development of customized O&M manuals, ensuring the College is not blindsided by unexpected implementation and maintenance costs once construction and installation are complete and dedicated grant funds are expended. After a period of successful operations and training of EITC personnel, responsibilities for O&M will gradually transition to the College. The EITC will develop curriculum for courses to teach the full operation, maintenance, and troubleshooting of a comprehensive microgrid installation, including solar and battery energy storage technologies, energy management systems, EV charging infrastructure, and more. At that point, many inspection and maintenance tasks will be performed by students under the direction of a qualified instructor, reducing on-going O&M costs and further ensuring the project's long-term success. This turnkey commercial microgrid project will allow the college to meet the native power loads for the EITC as well as provide supplemental energy to the distribution system if needed, while also serving as a living laboratory for professional training on independent and aggregated energy system components.

The microgrid project was selected by ACCS as a priority GHG reduction measure because of its commitment to advance clean and renewable energy and because it helps significantly to fulfill the mission of the EITC. The Center is in a region with several coal fired energy facilities and coal mining resources. One 1416 MW coal-fired power plant located 19 miles from the EITC was retired and demolished in 2019. The EITC is strategically located to promote the repurposing and training of the

workforce to support new energy technologies. Incorporating the proposed microgrid at the site will allow the College to train technicians on a comprehensive set of clean and renewable energy technologies.

The Electric Power component of the I-CARE initiative (the microgrid project) is also a GHG reduction measure included in Alabama's Priority Climate Action Plan and meets the State's criteria for such priority measures by being (i) implementation-ready, (ii) completable in the near term, and (iii) a measure that advances the State's priorities for reducing GHGs, rural development, quality jobs, public health, and economic development (see page 8 and 39 of the attachment "*AlabamaPCAP_ACCS*").

Implementing a microgrid at the Alabama EITC will enable ACCS to meet the goals of the CPRG program in several ways. First, it will achieve significant cumulative GHG reductions by 2030 and beyond (868 metric tons CO₂e by 2030 and 7,814 by 2050). Second, it will result in positive benefits for the numerous low-income, disadvantaged communities surrounding the EITC, including increased energy resilience for the local community college and the creation of new workforce training opportunities for the residents of those communities. Third, the investment in the microgrid will complement recent funding in the amount of \$15 million appropriated by the Alabama Legislature for construction and renovation of EITC facilities. And finally, the project will ensure replicability to remote or rural areas even beyond those in Walker County by providing a centralized training location that promotes consistency, accountability, and a long-term plan to implement new technology and workforce training moving forward.

b. Demonstration of Funding Need

Electric Power: ACCS has explored other funding sources to support the various components of the I-CARE initiative. For example, last year ACCS sought funding in the amount of approximately \$33 million for the implementation of microgrids on three community college campuses through the U.S. Department of Energy's "Energy Improvement in Rural or Remote Areas" grant program funded by the Bipartisan Infrastructure Law. ACCS worked with a regional utility provider to plan the project and as the first step in responding to the funding opportunity announcement, developed a concept paper, which was submitted to USDOE on April 14, 2023. Unfortunately, USDOE received 370 concept papers and only 78 applicants were encouraged to continue the application process by submitting a full proposal. ACCS was not one of those 78.

Transportation: ACCS has also explored the availability of funding for electric vehicles and charging stations on Grants.gov but has not found an opportunity for which the System or its colleges would be eligible and that aligns with the System's needs. For example, the US Department of Transportation's Low or No-Emissions grant program would fund electric vehicles, but it focuses on transit buses, not the types of vehicles for which ACCS is seeking funding. Other examples include (a) the Energy Efficiency and Conservation Block Grant (EECBG) Program, administered in Alabama by the State's Department of Economic and Community Affairs (ADECA), for which neither ACCS nor its colleges is eligible, and (b) the National Electric Vehicle Infrastructure (NEVI) Formula Program, also administered in Alabama by ADECA, which supports the expansion of charging infrastructure, but not the purchase of EVs. Bevill State Community College has applied for funding of chargers to

be used for workforce training purposes at the EITC under the latter grant program, but awards have not been announced and there is no published information on when that will occur. Also, 5 days before this application was due, the Alabama Department of Economic and Community Affairs (ADECA) released its request for proposals for the 2024 Alabama Electric Vehicle Infrastructure Plan which will fund the expansion of public EV chargers across the State. ACCS would be an eligible applicant for that program, but again, the program does not fund electric vehicles, only chargers, and some of the requirements for the installation and operation of the funded chargers would be difficult for all ACCS colleges to meet. The EPA's CPRG program seems to be the right fit and the only available funding source that ACCS has found for what it wants to accomplish in transportation and vehicle GHG emission reduction.

Buildings: ACCS has sought and been successful in securing some funding for capital improvements from the State Legislature over the last few years, such as the \$52 million allocated for capital improvements at the HBCUs. These appropriations quickly lost value as construction costs soared in the post-pandemic recovery. They also were not ear-marked for HBCUs or other minority colleges; the expectation was for a fair and equitable distribution across all colleges. Consequently, there are still significant unmet infrastructure needs on the most vulnerable college campuses, particularly for renovations that would improve energy usage and lessen operational costs. In fact, there is currently a backlog of \$577 million in deferred maintenance projects at the HBCUs alone. Without CPRG funding, ACCS will be unable to complete the 15 proposed energy-efficiency building renovations on its HBCU and predominantly Black college campuses.

c. Transformative Impact

The ACCS I-CARE initiative can produce significant transformation in clean and renewable energy practices across the entire State of Alabama and ACCS will maximize that potential by conducting an awareness campaign during the grant period. ACCS colleges will post information on their participation in the initiative on their campuses and in digital communications. ACCS will do the same at the System Office location. The intent is for each College to keep a public running "scoreboard" of the total estimated GHG emission reductions achieved by the College through its participation in I-CARE, the cumulative fuel/energy savings, and measurable impacts to local communities. ACCS will publish the combined achievement at the state level. Seeing the environmental and financial impact of the initiative will likely influence others to consider the ways they can contribute to and benefit from climate pollution reduction measures. ACCS colleges serve more than 150,000 students through for-credit, non-credit, and Adult Education programs annually and have a combined workforce of nearly 10,000 full-time and part-time employees. The colleges and the ACCS System Office reach countless numbers of other external stakeholders through community networking and through social media and other digital communication. It is safe to say that the I-CARE awareness campaign has the potential to reach and influence hundreds of thousands of individuals across Alabama.

Aside from the I-CARE awareness campaign, each GHG reduction measure has its own unique potential for transformative impact. Please see the following paragraphs for a discussion of that potential by sector.

Transportation: Collectively, ACCS and its colleges operate a fleet of 779 vehicles, 99.5% of which are totally gasoline- or diesel-powered with 62% of those either over 10 years old or having more

than 80,000 miles. The potential exists to transition the entire fleet to EVs within 10 years. However, awareness of EVs and motivation to purchase them is minimal. Many employees who use an ACCS vehicle in the course of daily work have never even driven an EV nor used an EV charger and are skeptical of their feasibility and benefits. Plus, EVs are typically more expensive, and no total-electric vehicles are currently included in the State's approved bid lists. By covering the cost, the I-CARE initiative can provide the incentive to add EVs to college fleets; once in place, the experience driving EVs and realizing the savings on fuel will change mindsets. In addition, the project will provide data and information resources from the bid process for ACCS to share with the State of Alabama that could result in all-electric vehicles being added (or added sooner) to the State's pre-approved bid/procurement lists.

Buildings: ACCS maintains an inventory of more than 850 buildings on more than 130 campuses and instructional sites across its 24 member colleges. Many of these buildings were constructed in the 1960s during the State's establishment of the public 2-year college system and have had no substantial energy efficiency upgrades since then. Again, awareness and incentive are barriers to progress. Without proper building energy management systems and individual building metering, college administrators do not have the data to understand how inefficient buildings are impacting the college's bottom line, and therefore no motivation to make more responsible, cost-effective decisions about their facilities. The I-CARE initiative will demonstrate the rewards of renovating for energy efficiency and implementing smart management tools and will serve as the proof-of-concept to increase awareness and incentive for further investments in energy efficiency across the System.

Electric Power: According to the U.S. Department of Energy Combined Heat and Power and Microgrid Installation Databases⁴, Alabama can claim only 2 of the 967 microgrid installations in the U.S. as of December 31, 2023, a meager 0.2% of the total. These two installations account for only 2.5 MW of the US microgrid's 5,509 MW capacity, an even more meager 0.05% of total. The I-CARE initiative would expand Alabama's microgrid infrastructure and enable Alabama's community colleges to implement training for microgrid operations and maintenance, opening the door to jobs in the renewable energy sector to the average citizen. With a trained workforce, Alabama will be better positioned to support microgrid expansion and to accelerate the adoption of this emerging GHG emission reduction technology.

All Three Projects: Finally, consider the fact that no other organization has greater reach and greater influence on local governments, K-12 school systems, workforce and economic development agencies, business and industry, community organizations, and the average citizen in Alabama than the local community college. With 24 separate colleges and more than 130 instruction sites ranging from Huntsville at the Tennessee border to Mobile on the Gulf of Mexico and from Tuscaloosa on the Mississippi border to Phenix City on the Georgia border, ACCS spans the entire state. ACCS colleges serve all 67 counties and reach all communities located in the 551 CEJST Census tracts designated as disadvantaged by the EPA. In fact, 23 of the 24 colleges have at least one campus located directly in one of those tracts. Ninety-six (96) percent of Alabama Community College System students are from Alabama and 95% of those who graduate from ACCS colleges stay in Alabama to live and work. ACCS enrolls 55% of all first-time college students in Alabama and 65% of

⁴ See the USDOE webpage: <https://doe.icfwebservices.com/microgrid>

all college freshmen and sophomores in Alabama are enrolled in ACCS institutions. ACCS recently found one college's list of community partners (which included only the organizations' names in 2 columns per page) and it was 4 pages long. Happily, this is not atypical; rather it is a testament to the level of involvement and influence all ACCS colleges have with local communities. If there is one organization with the potential to inspire transformation for clean and renewable energy in Alabama, it is the Alabama Community College System.

2. Impact of GHG Reduction Measures

a. Magnitude of GHG Reductions from 2025 through 2030

The magnitude of GHG reductions through 2030 are shown in the summary table below, but more detailed information on the source of those reductions from the implementation of EVs, HVs, the 15 separate energy-efficiency building renovations, and the microgrid project, as well as the year-by-year timeline for achieving progressively higher reductions are provided in the separate attachments titled *GHGReductionSummaries_ACCS* and *GHGCalcs_ACCS* located in the Project Narrative Attachments form folder of the application.

8,784 Metric Tons Reduction in GHG (CO ₂ e) Emissions - 2025 through 2030 (TOTAL)
4,248 Metric Tons Reduction in GHG (CO ₂ e) Emissions - 2025 through 2030 (Transportation)
3,668 Metric Tons Reduction in GHG (CO ₂ e) Emissions - 2025 through 2030 (Buildings)
868 Metric Tons Reduction in GHG (CO ₂ e) Emissions - 2025 through 2030 (Electric Power)

We anticipate all 3 measures (Transportation, Building, and Electric Power) to be permanent reductions of GHG. Removing vehicles with internal combustion engines from service and decommissioning them is a permanent action. The buildings being retrofitted for energy efficiency will not be retrofitted in the future to systems with less energy efficiency. And the microgrid is not planned to be decommissioned after any certain number of years. The only change anticipated would be if a more renewable, sustainable energy source were invented that made solar obsolete.

b. Magnitude of GHG Reduction from 2025 through 2050

The magnitude of the GHG emission reductions through 2050 are summarized in the table below but more detailed information on the source of those reductions from the implementation of EVs, HVs, the 15 separate energy-efficiency building renovations, and the microgrid project, as well as the year-by-year timeline for achieving progressively higher reductions are provided in the separate attachments titled *GHGReductionSummaries_ACCS* and *GHGCalcs_ACCS* located in the Project Narrative Attachments form folder of the application.

53,450 Metric Tons Reduction in GHG (CO ₂ e) Emissions - 2025 through 2050 (TOTAL)
23,871 Metric Tons Reduction in GHG (CO ₂ e) Emissions - 2025 through 2050 (Transportation)
21,765 Metric Tons Reduction in GHG (CO ₂ e) Emissions - 2025 through 2050 (Buildings)
7,814 Metric Tons Reduction in GHG (CO ₂ e) Emissions - 2025 through 2050 (Electric Power)

Again, we anticipate all 3 measures (Transportation, Building, and Electric Power) to be permanent reductions of GHG. Removing vehicles with internal combustion engines from service and decommissioning them is a permanent action and will likely be complemented with additional replacements of similar vehicles with EVs in the coming years. The buildings being retrofitted for energy efficiency will not be retrofitted in the future to systems with less energy efficiency and will be complemented with similar energy-efficiency building renovations as future funding allows. The microgrid is not planned to be decommissioned after any certain number of years. The only change anticipated would be if a more renewable, sustainable energy source were invented that made solar obsolete. Thus, we expect GHG emission reductions to only get larger, not smaller, with time.

c. Cost Effectiveness of GHG Reductions

ACCS has calculated the cost effectiveness of the three combined GHG Reduction measures of Transportation, Buildings, and Electric Power using the EPA-provided formula of:

Cost effectiveness of GHG reductions = (Requested CPRG funding) / (Sum of Quantified GHG reductions from CPRG funding from 2025 through 2030)

Substituting the total budget request and total GHG reductions yields:

Cost effectiveness of GHG reductions = (\$105,014,021 / (8,784 MT CO₂e) = \$11,955/MT CO₂e

While this final number may appear high, please consider the permanence of these GHG emission reductions, the fact that the average annual reductions do not reach their expected maximums until Year 5, and that they are only expected to increase as ACCS continues to make more investments in clean and renewable energy (I-CARE). Also as discussed in an earlier section, the projects that ACCS has proposed, including the comprehensive awareness campaign and community outreach educational workshops, are likely to have significant transformational impact on not only the System of 24 community and technical colleges with 160,000+ internal stakeholders, but on the thousands of businesses, schools, local governments, community agencies, and other stakeholder organizations with whom ACCS partners and the hundreds of thousands of individuals that they serve.

d. Documentation of GHG Reduction Assumptions

Please see the attached Technical Appendix (file name *Techappx_ACCS*) demonstrating the reasonableness of ACCS's estimates of the GHG emission reductions expected for each measure for the requested 5-year and 25-year periods. For even more detail, please see the GHG emission reduction calculations spreadsheet (file name *GHGCalcs_ACCS*); both files are in the Project Narrative Attachments form folder of the application.

3. Environmental Results – Outputs, Outcomes, and Performance Measures

a. Expected Outputs and Outcomes

ACCS has developed a comprehensive set of outputs and outcomes for the I-CARE initiative and a thorough plan for tracking, measuring, and reporting progress toward achieving expected GHG reductions. The complete plan can be viewed in the attachment titled *PerformanceMetrics_ACCS* located in the Project Narrative Attachments folder of the application. Outputs, outcomes, and performance metrics follow a numbering and relational scheme to assist readers in understanding how each output contributes to specific measurable outcomes and how progress toward attainment of those outcomes is assessed by various performance metrics. All outputs, outcomes and performance metrics have been grouped according to which individual GHG reduction measure they correspond (Transportation, Buildings, or Electric Power). Any that are related to general grant-management activities impacting the entire project and those that impact (or are impacted by) all three GHG reduction measures are grouped together as “All 3 Measures”.

The following two tables show the I-CARE initiative’s planned outputs and outcomes, and a discussion follows to clarify a few specific table entries.

GHG Reduction Measure	No.	Outputs	Related Outcomes
Transportation	A1	200 Electric Vehicles Purchased and Implemented at ACCS Colleges	B1i, B2i, B3-B9, B12, B16
	A2	17 Hybrid Vehicles Purchased and Implemented at the ACCS System Office (Leased Facility; Not Permitted to Install Chargers)	B1i, B2i, B3-B9, B13, B16
	A3	96 Electric Vehicle Charging Stations Added to College Campuses	B1i, B2i, B3-B9, B15
	A4	200 Gasoline- and Diesel-Powered Vehicles Decommissioned	B1i, B2i, B3-B6, B14, B16
Buildings	A5	15 College Buildings Renovated for Energy Efficiency	B1ii, B2ii, B3-B9, B17, B18
	A6	6 College Campuses Equipped with Individual Building Utility Meters	B1ii, B2ii, B3-B9, B19
Electric Power	A7	1 Solar Microgrid Installed at the Alabama Energy Training Center at Beville State Community College	B1iii, B2iii, B3-B9, B20, B22
	A8	Training Curriculum Developed for Microgrid and EV Charger Operations and Maintenance	B21
	A9	10 Classes Taught in Renewable Energy (Microgrid) Operations and Maintenance	B21
All 3 Measures	A10	4 New High-Quality Jobs Created to Administer the Project and Advance Energy-Efficiency Policies and Practices Across ACCS (Buildings and Electric Power: 3; Transportation: 1)	B7-B9
	A11	1 Statewide I-CARE Awareness Campaign Implemented	B11
	A12	20 Community Workshops Conducted on Electric Vehicles, Home Energy-Efficiency and Community Energy Resilience (Transportation and Buildings: 18; Transportation and Electric Power: 2)	B10-B11

GHG Reduction Measure	No.	Outcomes	Related Performance Metrics
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All 3 Measures	B1	8,784 Metric Tons Reduction in GHG (CO ₂ e) Emissions - 2025 through 2030 (TOTAL)	C6, C10, C12
	i	4,248 Metric Tons Reduction in GHG (CO ₂ e) Emissions - 2025 through 2030 (Transportation)	C6
	ii	3,668 Metric Tons Reduction in GHG (CO ₂ e) Emissions - 2025 through 2030 (Buildings)	C10
	iii	868 Metric Tons Reduction in GHG (CO ₂ e) Emissions - 2025 through 2030 (Electric Power)	C12
	B2	53,450 Metric Tons Reduction in GHG (CO ₂ e) Emissions - 2025 through 2050 (TOTAL)	C6, C10, C12
	i	23,871 Metric Tons Reduction in GHG (CO ₂ e) Emissions - 2025 through 2050 (Transportation)	C6
	ii	21,765 Metric Tons Reduction in GHG (CO ₂ e) Emissions - 2025 through 2050 (Buildings)	C10
	iii	7,814 Metric Tons Reduction in GHG (CO ₂ e) Emissions - 2025 through 2050 (Electric Power)	C12
	B3	Reduction in Co-Pollutant Emissions in General (CAPs - Quantification Not Required in Application)	C6, C10, C12
	B4	Reduction in Co-Pollutant Emissions in LIDACs (CAPs - Quantification Not Required in Application)	C6, C10, C12
	B5	Improvement in Air Quality Across State of Alabama ¹	C19
	B6	Improvement in Incidence and Mortality Asthma Rates Across State of Alabama ¹	C20, C21
	B7	4 High-Quality Jobs Created (New Grant-Funded Project Management Jobs; Buildings and Electric Power: 3, Transportation: 1)	C15
	B8	4 High-Quality Jobs Created in LIDACs (Same as Above; Location: Census Tract 01101000200)	C15
	B9	28-Person Increase in ACCS Staff Trained to Implement, Monitor, and Assess GHG Reduction Measures (4 at System Office, 24 at colleges)	C22
Transportation	B10	Increased Levels of Community Engagement in All College Service Areas (35 Counties Face-to-Face, 32 Counties Digital) ²	C16, C18
	B11	Increased Levels of Community Awareness of Energy Efficiency Strategies and/or Benefits of Clean and Renewable Energy Statewide (Statewide) ³	C17
	B12	200-Unit Expansion of EVs in ACCS Fleet (XX% of Fleet)	C1
	B13	17-Unit Expansion of Hybrid Vehicles in ACCS System Office Fleet	C1
	B14	200-Unit Reduction of Gas/Diesel-Powered Vehicles in ACCS Fleet	C2
Buildings	B15	96-Unit Expanded EV Charging Station Infrastructure Across State of Alabama	C3
	B16	20% Reduction in Annual Gasoline/Diesel Fuel Consumption and Costs Across ACCS	C4, C5
	B17	1,295,293 kWh Reduction in Campus Energy Consumption Annually by 2030	C10
	B18	Increased Safety, Comfort, and Healthier Environment in 15 Renovated Buildings	C7, C9

	B19	New Access to Building-Level Data on Energy Usage on 6 College Campuses	C8
Electric Power	B20	50% Increase in Microgrid Installations in Alabama	C11
	B21	100-Worker Increase in State's Skilled Renewable Energy Workforce	C14
	B22	Increased Energy Resilience at Beville State Community College	C11, C12
	B23	2 Complete Training Curriculums Developed for Microgrid and EV Charger O&M	C13

Footnotes:

- 1) Qualitative outcome that cannot completely be attributed to the project activities alone.
- 2) Qualitative outcome to be assessed by outreach activity participation. See goals in corresponding performance metric(s).
- 3) Qualitative outcome to be assessed by surveys and other assessments. See goals in corresponding performance metric(s).

ACCS does expect that all I-CARE initiative GHG reduction measures will result in reductions of the co-pollutants Sulfur Dioxide, Nitrogen Dioxide, and Particulate Matter. Most of these reductions will occur as a result of the decommissioning of gasoline- and diesel-powered vehicles, but a small percentage will also result from the reduction in commercially-produced electric power due to the microgrid implementation and building renovations. ACCS developed a separate analysis of the anticipated CAPs reductions and the results of that analysis are given in the file titled *CAPsReductions_ACCS* located in the Project Narrative Attachments folder of the application package.

b. Performance Measures and Plan

The ACCS System Office will be directly responsible for project management for the I-CARE initiative. Adequate manpower has been allocated to ensure success in the tracking, assessing, and reporting on progress to achieve the expected outcomes and GHG reductions. The proposed budget includes 4 project managers who will be responsible for these tasks. All 4 will be under the direction of the Chief Facilities Officer, Mark Salmon, and this reflects the supervisory/reporting structure at ACCS colleges where both transportation and facilities typically report to a Director of Facilities. Project managers will ensure that the following performance metrics are tracked, assessed, and reported in a timely manner and that interventions are made if sufficient progress is not being made toward goals.

GHG Reduction Measure	No.	Performance Metrics			
		Description	Goal	Tracking Method	Assessment Methods
Transportation	C1	Electric Vehicles and Hybrid Vehicles Purchased and Placed in Service	217	Subgrants to colleges tracked using grant-management software at ACCS System Office; Purchase orders and vehicle inventory additions recorded in Capital Assets file records of Banner ERP System	Review of grant-management software reports and physical count of vehicle additions to Capital Assets in Banner ERP system

	C2	Gasoline and Diesel Vehicles Removed from Service	200	Vehicle decommissioning entered in Capital Assets records of Banner ERP System	Physical count of vehicle decommissionings in Capital Assets in Banner ERP System
	C3	EV Charging Stations Purchased and Installed on College Campuses	96	Subgrants to colleges tracked using grant-management software at ACCS System Office and charging station inventory tracked using financial management module of the Systemwide ERP system (Banner)	Purchases and charging station inventory reports pulled from grants management software and Banner and compared to project workplan and timeline
	C4	Gallons of Gas/Diesel Fuel Purchased Annually	20% Reduction	Vehicle fuel purchases recorded by Colleges and System Office in Banner.	Vehicle fuel purchase reports pulled from Banner bi-annually and annually, reviewed and analyzed against historical reports to calculate % reduction
	C5	Dollars Spent on Gas/Diesel Fuel Annually	20% Reduction	Vehicle fuel purchases recorded by Colleges and System Office in Banner. <i>Goal represents \$1,316,350 Yearly by 2028</i>	Vehicle fuel purchase reports pulled from Banner bi-annually and annually, reviewed and analyzed against historical reports to calculate % reduction
	C6	Miles Driven in Electric and Hybrid Vehicles	2,495,500	Vehicle odometer readings entered by colleges in online reporting tool. <i>Goal is based on an average of 11,500 miles driven per year as given by EPA for typical passenger vehicles.</i>	Reports prepared bi-annually and annually using online reporting tool data
	C7	Energy-Efficiency Building Renovations Completed	15	Subgrants to colleges tracked using grant-management software at ACCS System office. Project management tools utilized to plan and track progress.	Completion of final inspection walk-throughs
Buildings	C8	Campuses Equipped with Individual Building Meters	6	Subgrants to colleges tracked using grant-management software at ACCS System office. Project management tools utilized to plan and track progress.	Physical inspection on each campus

	C9	Building Occupant's Comfort, Safety, and Health	>=1 point increase in ratings on each measure	Pre- and post-renovation survey of students, faculty and staff that rates, on a scale of 1 to 5, the respondents' perceptions of comfort, safety, and healthy environment of the building.	Analysis of average ratings for each measure on pre-renovation versus post-renovation surveys.
	C10	Annual Energy Consumption Reduction of Renovated Buildings	1,295,293 kWh by 2030	Monthly readings of individual building meters entered by colleges into online reporting tool and submitted to ACCS monthly. <i>Detailed projections include gradually increasing energy consumption reduction goals by year.</i>	Reports prepared bi-annually and annually using online reporting tool data
Electric Power	C11	Microgrids Built, Installed, Tested, and Commissioned	1	Subgrant issued to college and project progress tracked through grant-management software and project management tools	Final inspection and testing performed on-site
	C12	Annual Energy Consumption Reduction due to Microgrid Installation	497,139 kWh by 2030	Microgrid energy system management data. <i>Detailed projections include gradually increasing energy consumption reduction goals by year.</i>	Review and compilation of monthly data for semi-annual and annual reporting.
	C13	Renewable Energy (Microgrid) Curriculum Developed	2	Electronic copies of course outlines, lesson plans, and assessments for Solar Microgrid and EV Chargers curriculum.	Review of electronic documents
	C14	Students Trained in Clean and Renewable Energy Operations and Maintenance	100	Student tracked through course registration and completion records.	Review and compilation of student enrollments and completions data
All 3 Measures	C15	Staff Hired to Manage Project	4	HR records of employment	Supervisor ensures positions have been filled
	C16	Number of: Community Workshops Conducted / Counties Reached / LIDACs Reached / Total Attendees	20 / 35 / 425 / 3,500	Copies of presentation materials and sign-in sheets with names and addresses of attendees	Summary report created from manual review and analysis of workshop documentation

	C17	Change in Workshop Attendees' Awareness of Energy Efficiency Strategies and Benefits of Clean and Renewable Energy	Awareness Increased in 100% of Survey Respondents	Workshop attendees' completion of electronic surveys gauging pre- and post-workshop knowledge of (a) energy-efficiency strategies for buildings, (b) benefits electric vehicles, and (c) benefits of microgrids	Analysis of change in respondent's answers to specific questions pre-workshop versus post-workshop
	C18	Awareness Campaign Updates Delivered	250 (2 times per year for 5 years by 24 colleges and ACCS)	Electronic copies of updates submitted to project manager at ACCS bi-annually	Electronic copies of updates reviewed by project manager and check-off sheet completed to ensure full participation
	C19	Annual Air Quality Index Median Rate for Each Alabama County	≥ 1 Point Reduction Achieved by 2030	Annual EPA Air Quality Index Report (https://www.epa.gov/outdoor-air-quality-data/air-quality-index-report)	EPA report reviewed annually and results for each county downloaded in CSV file for project records. Year 5 results entered in final report for the grant.
	C20	Alabama's Asthma Incidence Rate	$\leq 10.0\%$ (0.1 percentage point reduction) by 2030	Centers for Disease Control (CDC) Most Recent Asthma State or Territory Data - Adult Prevalence Report (https://www.cdc.gov/asthma/most_recent_data_states.htm)	CDC report reviewed annually and results for states downloaded in CSV file for project records. Year 5 result for Alabama entered in final report for the grant.
	C21	Alabama's Annual Asthma Mortality Rate (Adjusted Death Rate Per Million)	≤ 11.5 (0.1 point reduction) by 2030	Centers for Disease Control (CDC) Most Recent Asthma State or Territory Data - Mortality Report (https://www.cdc.gov/asthma/most_recent_data_states.htm)	CDC report reviewed annually and results for states downloaded in CSV file for project records. Year 5 result for Alabama entered in final report for the grant.

	C22	I-CARE implementing team members' knowledge and skill in implementing, managing, and assessing GHG reduction measures	Knowledge and skill increased in 100% of team members by Year 5	Team members' knowledge and skills assessed at project orientation meeting and project conclusion meeting with electronic survey tool.	Pre- and post-survey results analyzed to determine gains in knowledge and skill for each team member.
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c. Authorities, Implementation Timeline, and Milestones

ACCS, through the office of the Chancellor (the System Office), will be responsible for administering the CPRG grant and implementing a small portion of the funded project activities (procurement and implementation of 17 hybrid vehicles and decommissioning of 17 gas-powered vehicles). ACCS will also oversee the implementation of the remaining activities of the Transportation, Buildings, and Electric Power GHG reduction measures. ACCS will employ 3 grant-funded project managers at the System Office in the Division of Facilities to manage the implementation of projects associated each of the 3 GHG reduction measures and a 4th project manager will “float” and assume responsibility for coordinating with other divisions at the System Office to ensure successful grant administration.

Alabama Act 2015-125 established the ACCS Board of Trustees and gave the Board “all authority, powers, and duties... with respect to the supervision, administration, naming, financing, construction, and equipping of institutions of postsecondary education, including community and technical colleges, junior colleges, and trade schools”. Act 2015-125 also established the Chancellor as the Chief Executive Officer of the Alabama Community College System and delegated to the Chancellor, under the direction of the Board of Trustees, the “responsibility for the operation, management, control, supervision, maintenance, regulation, improvement, and enlargement of community colleges and technical colleges”. Thus, ACCS has the authority to implement the Transportation, Buildings, and Electric Power projects of the grant.

However, as stated at the beginning of this narrative, authority to implement does not guarantee success, and ACCS colleges must “own” their projects to ensure they are successful. Therefore, the majority of the funding from the grant will be distributed via subawards to the 24 ACCS institutions, which will be responsible for procurement and implementation of 200 electric vehicles, 96 EV charging stations, and 1 solar microgrid, plus the energy-efficiency renovations of 15 college buildings). Alabama Act 2015-125 gives the presidents of the colleges the authority to fulfill these responsibilities. The Act states that presidents of the colleges are “responsible to the Chancellor for the day-to-day operations of the colleges”. They are granted authority to act on behalf of their respective institutions to engage in contracts and agreements, such as will be required for CPRG subawards, to engage in capital projects, and to procure capitalized equipment through various Board of Trustees policies and according to corresponding procedures established by the Chancellor. The complete set of Board of Trustees Policies and Chancellor’s Procedures can be viewed at the ACCS website at <https://www.accs.edu/>.

Other entities whose cooperation or participation will be necessary for the implementation of the proposed projects include:

- i. Various yet-to-be-determined vendors for the procurement of electric vehicles and EV chargers;
- ii. Various yet-to-be-determined contractors for the provision of construction and installation services for the 15 building renovation projects and the microgrid project;
- iii. Various local electric utility providers who will assist with electrical installations necessary for Phase 3 service for Level 3 EV chargers at colleges that do not presently have such service and with the microgrid installation at the Alabama Energy Infrastructure Training Center at Beville State Community College.

A thoroughly detailed implementation timeline for each of the 3 proposed GHG reduction measures is included as an attachment titled *“ImplementationTimeline_ACCS”* in the Project Narrative Attachments folder of the application. It includes milestones for completing the key tasks for each project by the end of the grant period, gives estimated start- and end-dates for those tasks, along with the parties responsible, and accounts for semi-annual and final report preparation.

4. Low-Income and Disadvantaged Communities

a. Community Benefits

The Alabama Community College System spans the entire state geographically and its I-CARE initiative will be a statewide program benefitting all low-income and disadvantaged communities within the State. Alabama is composed of 1,181 Census tracts, and 655 (or 55%) of them are designated as disadvantaged according to the Climate and Economic Justice Screening Tool (CEJST). The list of CEJST Census tract IDs with the relevant jurisdiction [county] and community college(s) serving that county is attached. Each Census tract ID number has been color-coded to indicate the type of GHG reduction measures that will be implemented within or near that Census tract and to which the benefits of those reduction measures will accrue. Note that ACCS anticipates no negative impacts to low-income and disadvantaged communities from any of these GHG reduction measures.

Some degree of context regarding the characteristics of the State of Alabama and how ACCS serves its low-income and disadvantaged communities will help in understanding how those communities will benefit from GHG reduction measures of the I-CARE initiative. According to the most recent U.S. Census, 16.2 % of Alabama residents are below the federal poverty line, compared to 11.5% for the nation, and Alabama’s poverty rate is the 7th highest among all 50 states. Alabama also has a disproportionately high rate of disability and one of the lowest rates of educational attainment in the U.S. Furthermore, Alabama is one of 4 states in the East South-Central Region that has the highest percentage of households with high energy burdens (38%) as compared to other regions. ACCS colleges have a significant impact on the low-income and disadvantaged populations and communities in Alabama. Ninety-six percent (96%) of Alabama Community College System students are from Alabama and ACCS enrolls 55% of all first-time college students in Alabama. Six (6) of the 24 ACCS institutions are HBCUs (Historically Black Colleges and Universities) and 3 others have a predominantly Black student population. More than 40% of students System-wide identify as non-white and more than 60% identify as female. An average of 62% of students received some type of

financial aid and an average of 48% received federal financial aid annually over the last three academic years. When focusing on first-time, full-time Freshmen, those rates rise to 87% and 69% respectively for the year reported in the most recent published IPEDS data.

The expected direct and indirect benefits of the ACCS proposed project to the low income and disadvantaged communities of Alabama are numerous and are discussed relative to each GHG reduction measure in the following paragraphs.

Transportation: The replacement of 200 gasoline-powered and diesel-powered vehicles with electric vehicles will reduce greenhouse gas emissions and positively impact public air quality in the disadvantaged communities served locally by each college and in all communities through which those vehicles travel when transporting students, faculty, and staff to and from campus. The reduction in emissions, both GHGs and CAPs, will help reduce the incidence of asthma throughout Alabama where 10.1% of the population suffers from the disease. (Alabama ranks 22 out of 54 U.S. states/territories for rates of asthma and only 4 other states/territories have greater asthma mortality rates.) The amount of noise pollution generated by the colleges' vehicles will be reduced and the college's transportation costs will be lowered, freeing up financial resources that can be better used to increase academic, social, and financial support for disadvantaged and low-income students. ACCS plans to assess, quantify, and report GHG reductions due to adoption of EVs at the local college level and aggregate those results at the State level annually throughout the grant period and beyond. GHG reductions, including co-pollutant impacts, can be reasonably estimated using EV odometer readings and EV charging station meter readings and those estimates will quantify the benefit of GHG reduction for the low-income, disadvantaged communities in the colleges' service areas. ACCS will also review available data from EPA, the CDC, the NTA and/or other sources annually to gauge whether air quality, asthma rates, and noise levels have improved. However, quantifying how much of any improvement is due to project activities at these colleges is not possible since these benefits will likely be impacted by GHG reductions achieved by other entities in the area (including average citizens who independently decide to transition to EVs).

Buildings: Energy-efficiency building renovations will be performed exclusively on the campuses of 6 historically Black colleges (HBCUs) and 3 colleges with predominantly Black student populations. All 6 HBCU campuses are in Census tracts designated as disadvantaged by the CEJST, as are 2 of the other 3 colleges' campuses. Only Wallace Community College-Selma is technically not contained in a tract designated as disadvantaged by the CEJST. However, its campus borders CEJST Census tract number 01047956400 in Dallas County, a tract that meets **12 burden thresholds** including the low-income socioeconomic threshold. Furthermore, the College's service area contains 62 Census tracts, and 44 of those (71%) are CEJST-designated disadvantaged tracts.

Building renovations at these 9 colleges will include replacement of windows, doors, ceilings, floors, insulation, lighting, heating and air conditioning, and other mechanical systems with modern, energy-efficient alternatives. Renovations will also include implementation of building energy management systems that will ensure mechanical systems operate at peak efficiency with usage timed properly to align with schedules of classes and other events. Students attending class and studying in these renovated buildings daily will experience increased comfort, safety and a healthier environment with the reliability that comes from fully automated systems. Residents in the surrounding communities at large will enjoy the benefits of reduced greenhouse gases from the

reduced power consumption, as well as increased beautification of the public spaces on their local community college campus due to the accompanying structural and aesthetic improvement of buildings and grounds.

The implementation of building energy management systems will decrease the electricity consumed by these buildings at colleges that have some of the least financial resources and greatest student needs. Moreover, the adoption of campus-wide individual building metering will provide the mechanism for establishing benchmarks for existing energy usage and monitoring progress toward goals for greater energy efficiency. This will enable colleges to see the success of energy makeovers and provide incentive for additional renovations in the future. Colleges will learn from these successes and share their experiences through workshops designed to educate the community on the benefits of implementing similar GHG reduction measures. At least two workshops will be delivered over the course of the grant by each college (20 total workshops), one at the end of Year 3 and one at the end of Year 5, with one targeting local government and community leaders and the other open to all community residents. Thus, another key benefit to low-income, disadvantaged communities in the vicinity of building renovation projects will be greater awareness and appreciation of various building-related energy conservation strategies.

ACCS plans to assess, quantify, and report GHG reductions due to building renovations at the local college level and aggregate those results at the State level annually throughout the grant period and beyond. GHG reductions can be estimated using individual building data from individual meters integrated with building energy management systems. These estimations will serve to quantify the benefit of GHG reduction for the low-income, disadvantaged communities in the colleges' service areas. ACCS will also request that colleges conduct building-user satisfaction surveys pre- and post-renovation to gauge improvement in student, faculty, and staff comfort, safety, and health and those survey results will help ACCS quantify those benefits. Similar surveys will be administered before and after community workshops to gauge improvements in awareness of energy efficiency strategies and benefits of clean and renewable energy.

Electric Power: The construction and implementation of a solar microgrid at the new Alabama Energy Infrastructure Center on the Bevill State Community College campus will provide multiple benefits to low-income and disadvantaged communities in the immediate vicinity and across the state. The EITC is in Census tract number 01127020400 in Walker County, Alabama. Along with multiple other Census tracts that surround the EITC, the CEJST identifies this tract as disadvantaged. In fact, this Census track is at the 96th percentile for household energy costs, 86th percentile for poverty, and 98th percentile for low life expectancy in addition to meeting the burden threshold for low income. The area is also known for exceptionally low educational attainment with 17% of residents aged 25 or older holding less than a high school diploma.

The microgrid will be the newest addition to training resources at the EITC. The EITC represents a workforce development partnership between the Alabama State Legislature, ACCS, Bevill State Community College and the Alabama Power Company. It addresses the growing demand for skilled professionals in the energy sector by providing training to equip workers with the skills to thrive in this dynamic industry. In addition to the Bevill State location, the EITC also supports remote training at community colleges across the state. Training pathways include the following: Electric Vehicles, Connectivity, PV Solar/Microgrid, HVAC and Weatherization.

The Infrastructure Energy Training Center will support many high-quality jobs in the evolving energy sector and will deliver new workforce training opportunities conveniently located for residents of the many surrounding disadvantaged communities. The addition of the microgrid will be critical to enabling the EITC to train technicians for work with renewable (solar) electricity generation. Need-based scholarships are included in the project budget for up to 100 students undergoing microgrid-related training in the last two years of the grant period and will prioritize individuals living in communities designated as disadvantaged by the CEJST.

In addition to the benefits of workforce development opportunities for the residents of the area's low-income, disadvantaged communities, energy costs to the College will be reduced, energy resilience improved, and a return to the electrical grid of any excess energy produced by the microgrid that exceeds its battery storage has the potential for reducing energy costs for all consumers. The college will also conduct two community workshops, one at the end of Year 3 and one at the end of Year 5, to provide information on both the microgrid project and the college's implementation of electric vehicles. The first workshop will be open to the public but will target residents of the region's low-income, disadvantaged communities and will include information on upcoming workforce training and scholarships available at the EITC. The second will target city and county government officials and other community leaders and will provide a comprehensive review of the successes and lessons learned from the microgrid and EV implementations.

b. Community Engagement

The 24 community and technical colleges that comprise the Alabama Community College System effectively represent the low-income and disadvantaged communities that they serve and that will be impacted by the projects of the I-CARE initiative. ACCS colleges are truly community-based organizations, engaged in every facet of economic and community development throughout their service areas. By engagement, we mean much more than a college administrator sitting on the board of a local non-profit. ACCS colleges actively partner with their communities, seeking meaningful involvement from diverse stakeholders in college initiatives and constructive feedback on issues of common interest to inform decision-making. For example, in June of 2020, ACCS launched ASPIRE 2030, a System-wide capital improvements initiative benefitting all 24 colleges, but with a mission of engaging local communities, strengthening relationships with key stakeholders, better aligning services to business and industry needs, and, ultimately, increasing student success. Each college formed ASPIRE Self-Analysis Committees with members from the full spectrum of external community stakeholders including K-12 systems, higher education (universities), local government, business and industry, non-profits, and workforce and economic development organizations. These committees helped their colleges formulate a vision for 2030 that included identification of needs, a prioritization of those needs, a development of strategies to meet those needs, and, eventually, a capital improvement plan. Colleges were required to document the involvement of their external stakeholders in the strategic planning process and the level of that involvement was considered in the evaluation of their funding proposals.

The emphasis on community engagement throughout ACCS has only increased since 2020 and colleges have continued to increase their outreach. ACCS has full confidence in each college's ability to represent the needs and concerns of their local communities and ACCS included every college in

the planning and development of the I-CARE projects. College presidents and their key staff members were invited to participate in large-group virtual meetings to discuss projects and were also consulted on a one-on-one basis.

5. Job Quality

The I-CARE initiative will create 4 new jobs for project management. They will be open to all individuals qualified to perform the role. As a state government organization, the Alabama Community College System complies with all state and federal civil rights, equal employment opportunity, and non-discrimination rules and regulations, as do all its member colleges.

In addition, ACCS prides itself on having already established HR policies and practices that provide (a) fair and inclusive recruitment and hiring; (b) stable, predictable, competitive, transparent, and equitable pay that increases with increased skills and experience; (c) excellent State benefits including health insurance and a defined benefit retirement plan; (d) work environments that respect diversity, equity, inclusion, and accessibility, empowerment and representation; (e) safe, healthy, and accessible working conditions with defined and flexible work schedules, generous leave allowances, and an expectation of job security as applicable to the position; (f) an organizational culture that treats all employees as members of the ACCS family, encouraging mutual respect, open dialogue, and trust at all levels; (g) many employer-provided opportunities for job training and skill-building for career advancement inside and outside of ACCS.

Furthermore, ACCS works particularly hard to offer workforce training that leads to high-wage, high-demand skilled jobs that are family-sustaining and prioritizes partnerships with employers who value and exhibit the 8 Good Jobs Principles developed by the US Department of Labor and US Department of Commerce. ACCS understands the prevailing wage requirements of the Davis-Bacon acts as they relate to the renovation and construction projects associated with the Buildings and Electric Power GHG reduction measures of the I-CARE initiative and will ensure that all contracts awarded in support of those projects contain requirements for compliance.

6. Programmatic Capability and Past Performance

a. Past Performance

ACCS has extensive experience and success in performing both federally funded and state funded assistance agreements. The following table gives 3 examples of federal agreements that ACCS is currently performing or has performed within the last 3 years. Additional examples are available upon request and a discussion of ACCS's performance on each follows the table.

Project Title	Assistance Agreement Number	Funding Agency and CFDA Number	Description of Agreement	Funding Agency POC
ALAMAP Project (Alabama Advanced Manufacturing Apprenticeship Program)	HG-33165-19-60-A-1	US Department of Labor CFDA 17.268	The Scaling Apprenticeship program promotes the large-scale expansion of apprenticeships across the nation and increases apprenticeship opportunities for all Americans.	U.S. DOL / ETA Division of Federal Assistance Grant Officer Brinda Ruggles (866) 487-9243

Alabama Adult Education Program	V002A220001	US Department of Education Adult Education: State Grant Program CFDA 84.002	This program provides grants to states to fund local programs of adult education and literacy services, including workplace literacy services; family literacy services; English literacy programs and integrated English literacy-civics education programs	USDE Adult Education and Literacy Program Accountability Team Management and Program Analyst Sarah Yager 202-245-8273
ACCS Career and Technical Education Program	X230458	US Department of Education Perkins Title 1 Grant Program Career and Technical Education - Basic Grants to States (X200096) CFDA 84.048	This program funds the administration of the ACCS colleges Career and Technical Education programs in accordance with the Alabama State Plan and the Strengthening Career and Technical Education for the 21st Century Act, to include technical assistance, oversight for monitoring, and compliance and reporting of all data required under this law.	Pass-Through Agency Contact: Assistant State Superintendent of Evaluation, Accountability and Support for the Alabama State Department of Education Angela Martin 334-694-4710

ACCS is completing and managing (or has completed and managed) each of the above-listed agreements successfully. The awards for Adult Education and for Career/Technical Education (CTE) are recurring annual appropriations to the State. ACCS is Alabama's designated administrator for the Adult Education program and its funding and completes annual reporting on programmatic and financial management successfully each year. Similarly, ACCS is Alabama's designated administrator for the Postsecondary Perkins CTE funding and completes annual reporting on programmatic and financial management successfully each year.

The ACCS ALAMAP Project is currently in the 5th year of performance with a 1-year no-cost extension to help achieve programmatic goals. This grant was awarded just before the COVID-19 pandemic during which colleges, schools, and many businesses and industries were shut down. The effects of the pandemic had devastating impact on all USDOL/ETA Scaling Apprenticeship grantees' programs since their purpose was recruiting students into programs requiring participation on campus and on-site with an employer. All grantees experienced delays with the achievement of programmatic goals and most have had similar no-cost extensions. ACCS has recovered much of the ground lost during the pandemic and is still expanding apprenticeships across its colleges and gaining ground on meeting programmatic goals.

b. Reporting Requirements

For all of the above listed agreements, ACCS has had an excellent history of meeting the reporting requirements. Both the Adult Education and Career/Technical Education agreements require annual reporting that ACCS completes each year, reporting on progress toward achieving goals in a thorough and timely manner. The ALAMAP Project requires quarterly reporting, but ACCS's history of excellent and timely reporting for that grant is the same. In all cases, if/when progress was not being made toward programmatic goals, reasons for not meeting goals were provided with

sufficient justification. ACCS has an excellent record for financial management on all awards and will be happy to provide additional information on this experience.

c. Staff Expertise

ACCS can be trusted to efficiently and effectively manage the funding it would receive to support its work to reduce greenhouse gas emissions through EPA's Climate Pollution Reduction Grant.

The I-CARE initiative's implementation team will consist of personnel from the ACCS System Office's Division of Fiscal Services, Division of Economic and Workforce Development, Division of Instruction Research, and Development, and the Facilities Division. Although 24 different sub-awards will be distributed to ACCS colleges for implementation of the three GHG reduction measures, ACCS personnel will ultimately be responsible for overall project management, including project planning, project implementation, budgeting, procurement, compliance, reporting, monitoring, and program assessment.

Mark Salmon, ACCS Chief Facilities Officer, will provide executive leadership for the I-CARE Initiative. Mark has an MBA from the School of Management at Brigham Young University and a BS from the College of Engineering and Technology, also at Brigham Young University. He has more than 30 years of leadership experience in school facilities management. Prior to joining ACCS, Mark served as Executive Vice President/Senior Administrator of Facilities Operations for Troy University in Troy, Alabama. Mark has led ACCS colleges in the transition to a centralized and more intentionally managed facilities operation with emphasis on sustainability, cost-effectiveness, and environmental safety and health.

System Facilities Manager Matthew Tice will support Chief Facilities Officer Salmon with supervision of project directors assigned to the various GHG reduction measures and will oversee overall project management. He has special expertise in preparing, supporting and developing reports, estimates, budgets, processes, and fiscal and data analysis for facilities operations and construction and is currently performing those duties. Prior to working for ACCS, Matthew worked in a variety of roles for Troy University's Physical Plant, serving as Grounds Manager, Operations Manager and Director of Operations since 2020, overseeing the maintenance, housekeeping, and grounds for 118 academic, administrative and athletic facilities and 120 full-time employees. Matthew has served in the capacity of Senior Facilities Manager and Associate Facilities Manager in multiple states over his 18-year career. Matthew earned a Bachelor of Science in Facilities Management from Brigham Young University.

With nearly 50 years of experience in leadership in education facilities management between them, Mark and Matt are well-qualified to ensure grant activities meet projected timelines, are conducted in alignment with the grant agreement, and comply with all state and federal regulations. As mentioned above, the Facilities Division will hire 4 new project directors to manage the day-to-day implementation of the three GHG emission reduction measures and a competitive salary has been established for the positions to ensure qualified applicants.

ACCS Chief Financial Officer Sara Calhoun currently manages over \$1 billion in state and federal funding annually, and ensures that ACCS, as a state agency subject to state and federal audits, follows procurement policies and accounting practices that comply with all state and federal guidelines. Under her leadership, ACCS has achieved a sterling record of federal and state audits. The System Office has not received a finding on a state audit since 2010 and has an excellent record of audits of its federal programs as well. CFO Calhoun supervises the ACCS Division of Fiscal and Administrative Services, which will assume responsibility for program budgeting, fund management and accounting, procurement, sub-recipient financial monitoring and reporting and ensure compliance with rules, regulations, and guidelines governing the EPA grant. Sara has an Executive Master of Business Administration from Faulkner University, a Bachelor of Science in Business Administration for Accounting from Troy University, and a Bachelor of Science in Business Administration from Auburn University at Montgomery. The **Fiscal Services Grants Accountant, Cheryl Jarman**, will assist the Chief Financial Officer to fulfill these responsibilities on a day-to-day basis and has more than 20 years of experience in higher education grants accounting, including 5 at ACCS.

Keith Phillips, ACCS Vice Chancellor of Workforce and Economic Development, will provide leadership for the workforce training component in the Electric Power GHG reduction measure. He is assisted in day-to-day operations by an Executive Director, Barry May, and 8 other staff members. Vice Chancellor Phillips and his staff will manage curriculum development and implementation of training activities related to the solar microgrid operations at the Alabama Energy Infrastructure Training Center. Vice Chancellor Phillips has 15 years of experience in workforce development leadership and 8 years of experience as a bank president. Keith has BS in Agribusiness from Auburn University.

Lisa Rollan, Grants Coordinator in the Division of Instruction, Research, Development, was responsible for the development of this grant application and will assist all 3 of the other ACCS divisions heads responsible for the administration of the grant. In particular, she will ensure semi-annual and annual reporting is accomplished in a timely, effective, and efficient manner. Mrs. Rollan has more than 20 years of success in grants management, project management, and workforce development and has been key to the success of multiple federal-funded grant projects at ACCS. Lisa has a Master's degree in Public Administration and a BS in Psychology from Auburn University at Montgomery.

More details on the qualifications of the ACCS System Office I-CARE team members are provided in individual bios titled "*LastName_bio_ACCS*" located in the Other Attachments folder of the application.

7. Budget

ACCS has developed a comprehensive, cost-effective project budget to successfully support the activities of the I-CARE project. It is broken out by the three GHG reduction measures and utilizes the EPA-provided budget template. It can be found in the file titled *Budgetcalcs_ACCS* stored in the Project Narrative Attachments folder of the grant application. Accompanying the budget is a detailed budget narrative that explains ACCS's approach to ensuring proper management of grant funds and itemized budget tables for each budget line-item category. It can be found in the file titled *Budget_ACCS* in the Project Narrative Attachments folder of the grant application.