

SECTION 1: OVERALL PROJECT SUMMARY AND APPROACH

The Tennessee Department of Environment and Conservation (TDEC) recently published its Priority Climate Action Plan (TN PCAP), utilizing funding from the U.S. Environmental Protection Agency (EPA). The actions outlined in the TN PCAP focus on major greenhouse gas (GHG) emissions sources in Tennessee, targeting impactful activities to reduce emissions that are near-term, implementation-ready, and have the support of an engaged public and stakeholder community. While the plan is focused on reducing harmful air pollution, the selected measures also protect Tennessee's natural resources, enhance the creation of new businesses and jobs, and improve the quality of life for all Tennesseans.

TDEC developed the PCAP under the guidance of a diverse, multidisciplinary advisory committee called the Emissions Reduction Planning Advisory Committee (ERPAC). The ERPAC includes representatives from stakeholder groups with a vested interest in emissions reductions. Additionally, TDEC undertook extensive public and stakeholder engagement, emphasizing low-income/disadvantaged communities (LIDACs) to inform PCAP development and the selection of included measures.

TDEC's Division of Air Pollution Control (APC) requests Climate Pollution Reduction Grant (CPRG) Implementation Grant funding for three critical sectors that account for more than half of all GHG emissions modeled for Tennessee.¹ Collectively, these programs will support communities across Tennessee by reducing emissions and promoting economic vitality:

1. **Transportation:** 39% of all GHG emissions in Tennessee come from the transportation sector.² Tennessee is a long state, touching parts of seven other states in the Southeast. Accordingly, Tennessee houses major interstate and highway corridors for the region, including some of the nation's most heavily trafficked freight corridors.³ While combustion vehicle traffic is dominant, the adoption of electric vehicles (EVs) is growing steadily throughout the state, primarily concentrated in urban, private consumer markets. Substantial funding is needed to boost EV adoption in Tennessee, to bolster fleet transitions at every scale, and hasten the buildout of publicly accessible community charging stations in the state's largest charging deserts, including rural and disadvantaged areas.
2. **Waste and Materials Management:** Methane and other GHGs from the waste decomposition represent a sizable source of GHG emissions with limited funding or other opportunities to tackle reduction measures. This sector also offers critical pathways to couple GHG emissions-reducing activities with direct co-benefits for Tennesseans. TDEC is proposing a program focused on recovering food to feed Tennesseans in need and diverting inedible food to compost or anaerobic digestion. This funding would create workforce pathways for meaningful employment, reliable access to fresh food for diverse populations, nutrient-rich soil amendments, and renewable energy capture.
3. **Renewable Energy Enhancement:** Tennessee is already home to a relatively clean electricity grid, with more than half of all electricity in the state generated by non-GHG-emitting sources (e.g., nuclear, hydropower). However, Tennessee's population and economy continue to grow, outpacing local utilities' development of electricity-generating facilities. The TN PCAP shows that electricity generation accounts for 22% of Tennessee's current GHG emissions footprint.⁴

¹ TDEC, TN PCAP, March 2024, https://www.tn.gov/content/dam/tn/environment/policy-planning/documents/tvers/opp_tvers_pcap.pdf.

² The University of Tennessee (UT) Baker School of Public Policy & Public Affairs (The Baker School) and the Tennessee Valley Authority (TVA), *The Valley Pathways Study Preliminary Findings*, February 2024, <https://www.tva.com/newsroom/press-releases/university-of-tennessee-baker-school-tva-release-landmark-clean-energy-study>.

³ US DOT, Federal Highway Administration, "Primary Highway Freight System: Tennessee," https://ops.fhwa.dot.gov/Freight/infrastructure/ismt/state_maps/states/tennessee.htm

⁴ TDEC, TN PCAP, March 2024, https://www.tn.gov/content/dam/tn/environment/policy-planning/documents/tvers/opp_tvers_pcap.pdf.

Without continued, strategic investment in renewable power, the region may have to rely on fossil fuel (e.g., natural gas) to meet growing load demand. Additionally, as a region prone to extreme weather events and other possible disruptions to grid performance, investment in renewable power can offer resiliency options for key buildings and community centers in an emergency.

Tennessee's approach also seeks to meet *Objective 1.2 Accelerate Resilience and Adaptation to Climate Change Impacts* through increased resilience via commercial solar projects to support government-owned and not-for-profit facilities. The State's application also aligns with *Objective 4.1: Improve Air Quality and Reduce Localized Pollution and Health Impacts*,⁵ as waste reduction, added renewable generation, and cleaner transportation will significantly improve health outcomes for Tennesseans.

As an individual applicant, TDEC is ready to take on the following roles and responsibilities:

1. Craft and administer targeted, competitive grant funding opportunities to local implementing agencies for each sector to achieve the most significant reduction of GHG emissions across the state.
2. Issue awards and oversee participants in adherence with EPA sub-award policies.
3. Monitor subrecipient project progress and ensure participants meet the milestones, timelines, and GHG emissions reduction targets in alignment with CPRG goals and objectives.
4. Track award progress and expenditures to maintain financial transparency and accountability.
5. Submit required progress reports, including a comprehensive final report, to EPA detailing the status of grant implementation and planned activities.
6. Engage in outreach and education initiatives, fostering community and stakeholder awareness and participation efforts.
7. Develop a Quality Assurance Project Plan (QAPP) to implement programs under CPRG funding.

EPA's CPRG funding is a once-in-a-generation opportunity to make a considerable impact on both the largest emitting and the most immovable categories of emissions in Tennessee. The programs outlined in this application aim for aggressive emissions reductions across communities statewide while promoting co-benefits to economic growth and resilience and supporting underserved communities.

1.A. Description of GHG Reduction Measures

Sector 1: Transportation

Measure 1.1: Increase the share of government fleets of light-duty EVs.

Scope: TDEC APC proposes replacing approximately 189 fuel-burning light-duty (LD) fleet automobiles and trucks owned and operated by Tennessee-based governmental entities with EVs (i.e., Class 1-3 diesel or gasoline vehicles belonging to public fleets). This measure also covers associated fleet charging infrastructure. TDEC and partners⁶ will provide technical assistance for fleet procurement and planning, charger design and layout, minimum specifications, load/demand management, rate structures, and information on other complementary funding sources (e.g., tax credits). This initiative will cover the entire geographic footprint of Tennessee with a program set-aside of 40% for vehicles that operate at least 50% of the time in Low-Income and Disadvantaged Communities (LIDACs).

⁵ EPA, "FY 2022-FY 2026 EPA Strategic Plan," <https://www.epa.gov/planandbudget/strategicplan>

⁶ Partners include the Tennessee Valley Authority (TVA), Tennessee Clean Fuels, and the Tennessee Department of Transportation (TDOT).

Structure: This program will supplement available funding⁷ for fleet vehicle replacement by focusing on a currently underserved category, LD vehicles. However, LD cars and trucks alone account for more than 50% of Tennessee's transportation sector's GHG emissions⁸. Projects awarded through this program would be funded via reimbursement grants, with payment to subrecipients following new vehicle purchase, old vehicle scrappage, and receipt of necessary documentation to verify proof of payment and scrappage. Subrecipients will receive at least 50% of the eligible EV and associated infrastructure costs, with a maximum funding cap of \$3 million and 50 vehicles per subrecipient.

TDEC APC will designate TDEC's Office of Energy Programs (OEP), the Governor-designated State Energy Office for Tennessee, to serve as implementer for this program, given OEP's role as program designer/implementer of funding sources like the VW Settlement EMT and DERA and its strong partnerships with TVA, Tennessee Clean Fuels, TDOT, Drive Electric TN, and other organizations supporting EV adoption in Tennessee.

This LD EV measure (1.1) will be implemented in tandem with a medium- and heavy-duty (MHD) EV measure (1.2) described below. TDEC will deploy funds via one program, a Fleet Vehicle Electrification Program (FVEP), allowing subrecipients to apply for both LD and MHD EV projects simultaneously.

Measure 1.2: Increase the share of electric medium- and heavy-duty vehicles, including buses.

Scope: TDEC proposes replacing approximately 22-184 fuel-burning MHD fleet vehicles (i.e., Class 4-8 diesel or gasoline vehicles) with EVs for public and private entities, alongside associated fleet charging infrastructure. As part of the FVEP described in measure 1.1, TDEC and partners will provide similar technical assistance. This initiative will cover the geographic footprint of Tennessee, with a program set-aside of 40% for projects that operate at least 50% of the time in LIDACs.

Structure: The program's design—including project and applicant eligibility, replacement/scrappage requirements, and funding caps—is informed by the State's VW Settlement EMT funding programs but provides for increased flexibility, providing a more comprehensive range of eligible projects and promoting timely funding spend-down. This includes the replacement of gasoline MHD vehicles, targeting a wider model year range for replacement vehicles, increasing the maximum funding allowed for vehicle replacement projects, and simplifying scrappage requirements.

Projects would be funded via reimbursement grants, with payment to subrecipients following new vehicle purchase, old vehicle scrappage, and receipt of necessary documentation to verify proof of payment and scrappage. Depending on the subrecipient type, projects will receive 50-75% of the eligible EV and associated infrastructure costs, with a maximum funding cap of \$3 million and a vehicle cap of 50 vehicles per subrecipient. The cost percentage to be covered by the federal funding will vary depending on vehicle ownership type (government or non-government). By limiting new vehicle purchases to only zero-emission EVs, projects would ensure that significant emissions reductions are achieved despite the more flexible vehicle eligibility requirements.

Measure 1.3: Expand community EV charging infrastructure.

Scope: TDEC proposes installing approximately 204 public EV charging stations at 51 project sites, with four stations per site. These charging stations are intended for use by LD cars and trucks. MHD vehicles,

⁷ Existing funding streams include the Volkswagen Diesel Settlement Environmental Mitigation Trust (VW Settlement EMT) and the Diesel Emissions Reduction Act (DERA) program.

⁸ TDEC, TN PCAP, March 2024, page 21, https://www.tn.gov/content/dam/tn/environment/policy-planning/documents/tvers/opp_tvers_pcap.pdf.

such as buses, could utilize these stations for periodic charging. This program will broaden the availability of both Direct Current Fast Charging (DCFC) and Level 2 charging in current charging deserts or gap areas to supplement existing efforts (e.g., the National Electric Vehicle Infrastructure Program [NEVI]⁹ and the Fast Charge TN Network¹⁰).

Structure: This Public EV Charging Infrastructure Program will fill charging gaps along the state's rural and secondary corridors, promoting EV adoption and accessibility for all Tennesseans. TDEC intends to release a competitive project solicitation, review, and select project proposals, and award grants. Subrecipients will then complete site host verification, site design, procurement of equipment and services, site electrical and construction make-ready, charger installation, station commissioning, and ongoing station operation and maintenance. The program focuses on serving LIDACs and underinvested areas, including rural communities and public spaces often left behind in EV charging infrastructure planning. By deploying both DCFC charging stations and Level 2 chargers, this project will fill critical infrastructure gaps unaddressed by current programs, bolster local economic development in Tennessee's rural communities, and encourage EV adoption beyond the state's urbanized areas and interstate corridors. The perception of visible, publicly accessible charging stations is vital in catalyzing EV adoption by providing a minimum viable backbone of an EV charging network across the state.

TDEC APC will designate TDEC OEP as the program's implementer, given OEP's current role as program designer/implementer of the Fast Charge TN Network (funded by the VW Settlement EMT) and its existing key partnerships.

Sector 2: Waste and Materials Management

Measure 2: Create outlets to reduce or divert waste, including food and/or yard waste.

Scope: TDEC proposes the establishment of grant-based assistance for entities across Tennessee to develop and/or expand upon existing food waste recovery and diversion programs. The goal is to establish projects that efficiently and safely collect, store, transport, and re-direct surplus food to local food banks and pantries in areas experiencing high rates of food insecurity or as food scraps for animals. The grants may support facility expansions, food storage equipment, refrigeration, transportation equipment (e.g., trucks to haul food and food/yard waste), and other potential food recovery investments. Grants will also support infrastructure¹¹ that diverts organic waste from landfills for composting or anaerobic digestion.

Structure: TDEC intends to administer this funding as a statewide, competitive reimbursement grant program, the Reducing Food in Landfills (TN REFILL) Program. Competitive grants will 1) bolster existing composting efforts, 2) support new programs in LIDACs, 3) rescue foods that food pantries can utilize, and 4) promote the implementation of anaerobic digestion. As waste is a particularly difficult-to-abate sector, TDEC will support the end uses for compost, digestate (the byproduct of anaerobic digestion), and other by-products derived from food waste to maximize GHG reductions. TDEC intends to release a competitive project solicitation, review and select project proposals, and award grants. Subrecipients will be responsible for implementation, including procurement of equipment or services and potential site construction/expansion costs.

⁹ DOT Federal Highway Administration, NEVI Program, https://www.fhwa.dot.gov/bipartisan-infrastructure-law/nevi_formula_program.cfm.

¹⁰ Fast Charge TN Network, <http://www.tn.gov/EVfastcharge>.

¹¹ Examples of food waste reduction infrastructure include collection, equipment, supplies, and facility investments.

TDEC APC will designate the TDEC Office of Sustainable Practices (OSP) to serve as the implementer for this program, given their current roles as food waste and sustainable materials management experts for the State of Tennessee. Additionally, TDEC OSP will collaborate with TDEC's Division of Solid Waste Management (DSWM), who will assist with advising on program development, promotion of the program, and review of grant applications.

Sector 3: Renewable Energy Enhancement

Measure 3: Increase commercial-scale solar infrastructure for government and non-profit entities.

Scope: TDEC proposes to install approximately 27.8-30.4 MW of commercial-scale solar infrastructure by developing a Renewable Energy Program focused exclusively on the government and not-for-profit sectors. This Renewable Energy Program will be strategically designed to not compete with or duplicate EPA's Solar for All program by limiting the types of eligible subrecipients, buildings, and/or facilities where solar will be deployed and use cases for solar deployment. Projects will be sized between 500kw-5 MW, and eligible subrecipients will include government entities (e.g., local, State, federal) and not-for-profit organizations (e.g., cooperative utilities, not-for-profits, higher education, and hospitals). Prioritization will be placed on buildings or facilities that serve an emergency management and response role. Additionally, the program will frame prudent guidelines for evaluating when energy storage may be recommended or required for specific projects based on the level of resiliency that such storage is expected to provide. Costs of accompanying storage, if recommended or required, would not be covered by federal CPRG funding but rather by subrecipients as part of the cost-share contribution.

Structure: TDEC intends to administer this funding as a statewide, competitive reimbursement grant program. In addition to the solar equipment/infrastructure cost, the proposed Renewable Energy Program will cover expenses such as siting, design, engineering, procurement, installation, interconnection, commissioning, ongoing operation, and maintenance. TDEC may also include costs associated with enabling upgrades (e.g., rooftop reinforcement), where necessary. Configuration options will be allowed both behind and in front of the meter. TDEC will work with community partners around the state (e.g., local governments, local power companies, technical/community colleges, and community-based organizations) and TVA to identify locations suitable for solar deployment.

TDEC APC will designate TDEC OEP to implement this program, given OEP's role with EPA's Solar for All Program and its existing partnerships.

All Sectors: Project Tasks, Risk Mitigation, and Support of CPRG Goals

Table 1 details tasks and milestones for implementing the proposed measures during the period of performance, October 2024-September 2029.

Table 1: Tennessee CPRG Program Tasks and Milestones

Task	Task Description	Anticipated Dates
All Sectors		
0.0	Continue ERPAC meetings and broader stakeholder engagement to seek feedback on funding program design and application(s) development. <ul style="list-style-type: none"> Transportation: Existing working groups for NEVI, Fast Charge TN, and Drive Electric TN will be leveraged to help lead community engagement efforts. Waste: Community-based organizations and TDEC's Office of External Affairs (OEA) will help TDEC connect with target audiences. Renewables: TDEC's existing Solar for All stakeholder group will be expanded. 	October 2024 – December 2025
0.1	Provide technical assistance and monitor project progress for all subrecipients throughout the duration of the project.	October 2024 – September 2029

Sector 1: Transportation		
1.1	Prepare Public EV Charging Infrastructure Program funding opportunity guidance, application manual and template, and promotional materials. <u>Assumption:</u> Six months, allowing time for clarification from EPA on required charging standards and expectations (e.g., NEVI compliance, BABA waiver processes) as well as collaboration with existing programs.	January 2025 – June 2025
1.2	Prepare Fleet Vehicle Electrification Program funding opportunity guidance, application manual and template, and promotional materials. <u>Assumption:</u> Six months, allowing time for clarification from EPA on required vehicle and charging procurement standards and expectations as well as collaboration with other existing programs.	July 2025 – September 2025
1.3	Educate Public EV Charging Infrastructure Program stakeholders about guidance and solicit applications. Funds to be spent in one round. <u>Assumption:</u> Solicitations open for three months.	July 2025 – September 2025
1.4	Educate Fleet Vehicle Electrification Program stakeholders about program guidance and solicit applications for projects. Funds to be spent in one round. <u>Assumption:</u> See task 1.3.	October 2025 – December 2025
1.5	Review Public EV Charging Infrastructure Program applications, select projects, and contract. <u>Assumption:</u> One month for applicant review. Two months for contract execution.	October 2025 – December 2025
1.6	Review Fleet Vehicle Electrification Program applications, select projects, and contract. <u>Assumption:</u> See task 1.5.	January 2026 – March 2026
Sector 2: Waste and Materials Management		
2.1	Prepare TN REFILL funding opportunity guidance, application manual and template, and promotional materials. Begin raising awareness around the upcoming funding opportunity. <u>Assumption:</u> Seven months, allowing time for clarification from EPA on allowable activities and collaboration with existing programs.	January 2025 – July 2025
2.2	Educate TN REFILL stakeholders about program guidance and solicit applications for projects. Conduct road show presenting at conferences, hosting grant workshop, and additional informational sessions. <u>Assumption:</u> Education and promotion will take roughly three months.	August 2025 – October 2025
2.3	Solicit and select TN REFILL applications for first round of funding, select projects, and enter into grant contracts with subrecipients. <u>Assumption:</u> Solicitations open for three months. One month for applicant review. Two months for grant contract execution.	November 2025 – April 2026
2.4	Solicit and select TN REFILL applications for round two of funding (if necessary). <u>Assumption:</u> See task 2.3.	October 2026 – March 2027
Sector 3: Renewable Energy Enhancement		
3.1	Prepare Renewable Energy Program funding opportunity guidance, application manual and template, and promotional materials. <u>Assumption:</u> Six months, allowing time for clarification from EPA on allowable activities as well as collaboration with existing programs.	October 2024 – March 2025
3.2	Educate Renewable Energy Program stakeholders about program guidance and solicit applications for projects. Funds to be spent in one round. <u>Assumption:</u> Solicitations open for three months, allowing time for education/application completion.	April 2025 – June 2025
3.3	Review Renewable Energy Program applications, select projects, and contract. <u>Assumption:</u> One month for applicant review. Two months for grant contract execution.	July 2025 – September 2025

Table 2 details anticipated risks associated with measure implementation and mitigation strategies for each risk that will be utilized to keep the program aligned with the above task and milestone periods.

Table 2: Tennessee CPRG Program Risks and Mitigation Strategies

Risk	Effect on GHG Reductions	Mitigation Strategy
Program undersubscribed in certain communities where most needed (i.e., not enough composting households, minimal community charging and vehicle replacement applications)	GHG emission reductions and criteria co-benefits may not occur over the same geographic scope as anticipated	Track applicant locations and perform targeted outreach to areas where the program is not receiving applications (i.e., undersubscribed areas)
Supply chain issues increasing final cost of projects vs. estimated costs at time of application to EPA	Fewer projects funded, thus reducing the cumulative GHG emission reductions	Less projects can be completed than estimated, but TDEC still to ensure a wide geographic reach and equity focus on projects to be completed

Subrecipient projects fail to materialize (due to inability to meet cost share, supply delays, etc.)	Delays may reduce cumulative GHG emission reductions in the near-term (2025 – 2030), due to slower ramp-up of CPRG programming	Design programs at outset to be spent in one round (with appealing terms, funding amounts, etc.); develop waitlist for backup projects; be prepared to hold second round of solicitations if needed (possibly in summer 2027)
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Table 3 identifies the measures in the TN PCAP.

Table 3: List of GHG Reduction Measures and PCAP Page Reference for Each Measure

TN PCAP Title(s) and Page Numbers ¹²
4.1. Programs to increase the share of state and local government fleets of light-duty vehicles (page 29).
4.2. Programs to expand community electric vehicle charging infrastructure (page 29).
4.3. Programs to increase the share of electric medium- and heavy-duty vehicles, including buses (page 29-30).
5.1. Programs and incentives to reduce or divert waste (including food and/or yard waste) (page 30).
6.1. Programs to increase commercial-scale solar infrastructure among government and non-profit entities (page 30).

The combined sectors addressed by these proposed measures, transportation, waste and materials management, and renewable energy enhancement, account for more than half of all GHG emissions modeled for Tennessee¹³ and represent priorities measures for funding in Tennessee.

Additionally, these measures will advance the goals of EPA’s CPRG Program, including:

1. Contribute to significant cumulative GHG emissions reductions by 2030 and beyond, targeting several of Tennessee’s highest emitting and difficult-to-abate GHG sectors.
2. Achieve substantial community benefits, particularly in LIDACs, by:
 - a. Reducing criteria/hazardous air pollutants that impact human health.
 - b. Providing direct investment in community energy and waste infrastructure, including:
 - i. Vehicles serving the public and private sectors,
 - ii. Publicly accessible charging infrastructure,
 - iii. Recovery of surplus food for food pantries/shelters serving LIDACs, and
 - iv. Added resiliency for buildings serving LIDACs as emergency management facilities and/or as community shelters in times of need.
 - c. Promoting job creation and professional development in the sectors of focus.
3. Complement other funding sources to maximize these GHG reductions and community benefits. This includes leveraging programs mentioned throughout the application.
4. Develop replicable innovative programs that can be scaled up across multiple jurisdictions. Emphasis will be placed on ensuring that the benefits of all measures are equitably delivered to LIDACs and documenting how to work with subrecipients to meet this and other CPRG goals.

1.B. Demonstration of Funding Need

CPRG implementation funding is necessary to fully implement the proposed transportation, waste, and renewables sector measures described in Section 1.A. **Table 4** lists federal and non-federal funding sources that TDEC has explored, applied for, or secured related to the proposed measures.

Table 4: Current Funding Sources for Proposed Measures

Measure	Funding Source	Funding Status	Need for CPRG Funding
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¹² TDEC, TN PCAP, March 2024, https://www.tn.gov/content/dam/tn/environment/policy-planning/documents/tvers/opp_tvers_pcap.pdf.

¹³ Ibid, page 14.

Sector 1: Transportation Measure 1.1: Increase the share of state and local government fleets of LD EVs. Measure 1.2: Increase the share of electric MHD vehicles, including buses. Measure 1.3: Expand community EV charging infrastructure.	DERA Program, EPA (managed by OEP)	Funded	Vehicle eligibility and cost-share requirements are limiting. CPRG funds are needed to address higher upfront costs of EV purchase and expand eligible vehicle pool.
	VW Settlement EMT (managed by OEP)	Funded	Vehicle eligibility requirements are limiting. CPRG can address higher upfront costs of EV and eligible vehicle pool.
	Charging & Fueling Infrastructure, DOT	Not funded	Community charging gaps remain due to program not being funded. CPRG funds are needed to help address gaps not served by NEVI and Fast Charge TN, particularly along secondary corridors in rural areas and LIDACs.
Sector 2: Waste and Materials Management Measure 2: Create outlets to reduce or divert waste, including food and/or yard waste.	Campus Food Pantry Grant (TDEC OSP)	Funded	Program funded with a limited one-time funding source that did not allow for additional rounds. CPRG funds would allow for substantial additional food recovery infrastructure investment.
	Organics Management Grant (TDEC DSWM)	Funded	This grant is only offered every 3-6 years, maximum funding for 2023 is \$300,000, with local governments and non-profits as the only eligible entities. CPRG would allow for scaled investment and include funding to for-profit entities, which comprise the largest share of food waste diversion infrastructure in Tennessee.
Sector 3: Renewable Energy Enhancement Measure 3: Increase commercial-scale solar infrastructure among government and non-profit entities.	Solar for All (to be managed by OEP)	Not yet awarded	Program focuses exclusively on residential-serving solar. CPRG funds are needed to address existing gaps in commercial solar for government-owned and not-for-profit facilities, especially those serving LIDACs and/or used for emergency management, shelter, or community resilience.

CPRG funding would support GHG emission reduction goals that are not currently achievable with current program funding. In addition to the funding sources summarized below, TDEC is involved in existing partnerships that provide funding or support project implementation:

Transportation: TDEC offers several programs targeted at EV and charging station deployment in Tennessee. However, additional government and utility investment is needed to accommodate the EV transition and ensuing GHG reductions:

- The Fleet Vehicle Electrification Program (measures 1.1 and 1.2) will supplement funding already available for fleet vehicle replacement by including LD vehicles. Other existing funding streams targeting vehicle replacement exclude LD vehicles from project eligibility despite their contribution to GHG emissions in Tennessee¹⁴. TDEC's proposed program would solve other deficiencies of currently available funding by 1) allowing the replacement of gasoline vehicles, 2) targeting a more comprehensive model year range for replacement vehicles, 3) increasing the maximum funding allowed for vehicle replacement projects, and 4) simplifying scrappage requirements, to expand the pool of eligible projects and ensure timely funding spend-down.
- In 2019, Drive Electric Tennessee¹⁵ conducted a Statewide EV Charging Infrastructure Needs Assessment¹⁶ to evaluate the condition of the state's current EV charging infrastructure and identify needs. This study found that lower-demand EV charging sites (e.g., secondary corridor charging, rural charging) are less appealing to private investors and may require public

¹⁴ Ibid, page 21.

¹⁵ Throughout 2018, a team of TN stakeholders—including State agencies, utilities, cities, universities, EV manufacturers, businesses, and advocacy groups—gathered to comprise Drive Electric Tennessee.

¹⁶ Drive Electric Tennessee, "Statewide EV Charging Infrastructure Needs Assessment," <https://www.tn.gov/environment/program-areas/energy/state-energy-office--seo/programs-projects/programs-and-projects/sustainable-transportation-and-alternative-fuels/sustainable-transportation-and-alternative-fuels/drive-electric-tennessee.html>.

investment. The Needs Assessment also concluded that EV charging infrastructure should be prioritized for secondary highway corridors and rural destinations to relieve range anxiety and connect rural and urban areas. NEVI funding alone cannot meet charging infrastructure demands in Tennessee. Other funds have yet to be secured for these markets, making CPRG funding imperative for building a strong EV charging network in communities across the state.

Waste and Materials Management: This measure will lower GHG emissions by diverting landfill-bound food and support feeding individuals with limited income and/or access to affordable and nutritious food. A recent study by Vanderbilt University shows a rise in food-insecure families in Tennessee. In 2021, 31.3% of parents reported low or very low food security; however, that number grew in 2022 to 41.2%.¹⁷ This same report also noted that race was a critical factor; while more than half of black parents conveyed low or very low food security, just over one-third of white parents reported the same. Meanwhile, Tennesseans landfill roughly 1.4 million tons of food scraps annually.¹⁸ CPRG funding is imperative for serving this sector, which lacks widely accessible funding in Tennessee.

Renewable Energy Enhancement: This measure will complement Solar for All programming in Tennessee, which the State expects to secure funding to invest in residential solar. According to data from Environment America, Tennessee has the potential for solar power to meet 24 times Tennessee's electricity consumption in 2020¹⁹. Tennessee's CPRG focus is intentionally designed to avoid duplicating the residential-serving solar to be deployed under the Solar for All Program.

1.C. Transformative Impact

Communities in Tennessee are poised to experience transformative impacts through these measures, resulting in emission reductions, positive health outcomes, economic development, decreased waste, and increased electricity reliability. The programs aim to support long-term GHG emission reductions and community benefits by targeting currently unfunded or underfunded sectors and designing scalable programs to support the adoption of GHG reduction measures. Transformative impacts include:

- Converting to EVs can achieve significant operations and maintenance savings, which can be re-invested into future EV fleet purchases.
- Alleviating range anxiety, one of the most significant barriers to EV adoption for rural and underserved markets, catalyzing increased adoption of EVs from diverse populations.
- Increasing the demand for waste management end-use markets will accelerate the demand for future waste and materials management projects.
- Using food waste diversion and recovery to curtail landfill inputs and prolong landfill lifespans, thus curbing the creation of new, concentrated GHG-emitting sites.
- Accruing operations and maintenance savings through local solar power generation can be re-invested into further solar deployment or other clean energy technologies.
- Improving reliability through solar deployment and potential deployment of subrecipient-funded storage. This could enable utilities to use a virtual power plant model to help actively manage grid load, lowering the need for power from fossil fuel sources during peak demand.

¹⁷ Vanderbilt Center for Child Health Policy utilized a USDA questionnaire for this poll. "Food Insecurity in Tennessee Families," Results published March 23, 2023. <https://news.vumc.org/2023/03/23/poll-shows-food-insecurity-on-rise-in-tennessee/>.

¹⁸ This figure is calculated with the following assumptions: Tennessee's landfilled municipal solid waste is equal to the national average calculated in 2018 (4.9 lbs./person/day: EPA Advancing Sustainable Materials Management Fact Sheet 2018), Tennessee landfills food at an equal rate to the national average in 2018 (24% of MSW), and Tennessee's population in 2018: 6.7 million.

¹⁹ Environment America Research and Policy Center, "We Have The Power," Published June 2021, https://publicinterestnetwork.org/wp-content/uploads/2022/07/We_Have_The_Power_2021-Environment_America_Frontier_Group-9.pdf

- Fostering near-term workforce development opportunities will promote a greater preparedness and demand for transportation, waste management, and clean energy projects.

SECTION 2: IMPACT OF GHG REDUCTION MEASURES

Table 5 provides estimates of the cumulative emission reductions in metric tons of carbon dioxide equivalent (MT CO₂e) anticipated from the implementation of the proposed measures for two time periods: 2025-2030 and 2025-2050. The quantified GHG emission reductions account for reductions estimated with CPRG Implementation grant funding; many programs will result in additional funding and reduction potential. Further details on quantification methods, relevant assumptions, annual emission reduction estimates, and any uncertainties associated with the estimates are provided in the Technical Appendix to this application.

2.A. Magnitude of GHG Reductions from 2025-2030 and 2025-2050

Table 5: Cumulative GHG Emission Reductions Anticipated from Implementation of Proposed Measures

Priority Measure	Cumulative GHG emission reductions (MT CO ₂ e)	
	2025–2030	2025–2050
Transportation: CO₂e generated from AFLEET, which includes aggregates of CO₂, CH₄, and N₂O. On average, CO₂ emissions are 95-99% of the total GHGs from a gasoline passenger vehicle.		
1.1. Increase the share of state and local government fleets of LD EVs.	-1,064	-7,139
1.2. Increase the share of electric MHD vehicles, including buses. ²⁰	-7,724	-51,933
1.3. Expand community EV charging infrastructure.	-1,565	-10,507
Waste and Materials Management: CO₂e generated from WARM, which reflects primarily CH₄.		
2. Create outlets to reduce or divert waste, including food and/or yard waste.	-791,935	-5,317,277
Renewable Energy Enhancement: CO₂e generated from AVERT, which reflects CO₂.		
3. Increase commercial-scale solar infrastructure for government and non-profit entities. ²¹	-74,425	-539,539
Total	-876,714	-5,926,395

2.B. Durability of Emissions Reductions

Sector 1: Transportation

TDEC is seeking funding for a comprehensive initiative to address emissions in the transportation sector, including converting fleets to EVs and expanding community charging infrastructure. As access to reliable charging options and EV models grows, Tennessee has witnessed a surge in registered EVs; EV registrations experienced a 275% increase from 9,660 EVs to 36,301 EVs between 2019 and 2023, with a 40% rise solely in 2022 to 2023.²² This shift is pivotal in reducing emissions linked to fuel-burning vehicles. The life of a fleet vehicle is between 10-15 years, with the life of charging stations around 10 years. As the grid continues to improve through renewable power generation and storage, EV and charging station operational emissions will continue to shrink. The proposed transportation measures will achieve long-term cumulative reductions in GHG emissions over the next 25 years and beyond.

Measure 1.1: Increase the share of state and local government fleets of LD EVs.

GHG Reductions: As shown in **Table 5**, over the next five years, GHG reductions from this measure are estimated to reach 1,064 MT CO₂e. GHG reductions during 2025-2050 will reach 7,139 MT CO₂e.

²⁰ TDEC modeled two cases for this measure: one case modeled 100% of measure funds supporting MD vehicle conversions (high-range scenario) and one case modeled 100% of measure funds supporting HD vehicle conversions (low-range scenario). MD vehicle conversions yielded larger emissions reductions, so those values are reflected here. The full range of emissions can be found in the calculation spreadsheet.

²¹ TDEC modeled two cases for this measure: one case for rooftop solar and the other for utility solar. Utility solar yielded larger emissions reductions so those values are reflected here. The full range of emissions reductions can be found in the calculation spreadsheet.

²² Drive Electric Tennessee, "Tennessee Numbers: EVs and EVSE" (2023), <https://www.driveelectrictn.org/numbers/>.

Durability: To ensure the long-term durability and success of measure 1.1, TDEC will:

1. Implement project performance tracking with regular oversight from TDEC.
2. Conduct or strengthen campaigns to educate about the benefits of EVs, including cost savings, improved air quality, and reduced maintenance.
3. Develop training initiatives for government officials, fleet managers, and maintenance staff so they effectively manage and maintain EVs and associated chargers.

Measure 1.2: Increase the share of electric MHD vehicles, including buses.

GHG Reductions: Measure 1.2 is estimated to contribute to a decrease of 7,724 MT CO₂e from 2025-2030. Between 2025-2050, GHG emissions reduction will reach approximately 51,933 MT CO₂e.

Durability: In addition to the activities outlined for measure 1.1 above, to ensure the lasting success of transitioning MHD fleets to electric, TDEC will:

1. Develop a detailed roadmap outlining the phased transition of MHD fleets to electric, providing a structured plan for electrification.
2. Expand collaborations with existing partners to initiate pilot programs and demonstration projects to highlight the EVs' performance, reliability, and cost-effectiveness.
3. Implement a data monitoring and reporting system for subrecipients to track the performance and emissions reductions achieved.

Measure 1.3: Expand community EV charging infrastructure.

GHG Reductions: Over the next five years, GHG reductions from this measure are estimated to reach 1,565 MT CO₂e. GHG reductions from 2025-2050 will reach 10,507 MT CO₂e.

Durability: To enhance the effectiveness and long-term success of measure 1.3, TDEC will:

1. Leverage program-funded charger utilization data to identify high-impact locations and continuously measure the program's success and longevity.
2. Work closely with existing partnerships and programs, such as Drive Electric Tennessee and Tennessee Clean Fuels, to expedite the deployment of charging stations in addition to the public's long-term use of them via higher EV adoption.
3. Create a comprehensive plan to ensure the functionality and reliability of charging stations post-installation through technology and maintenance planning.

Sector 2: Waste and Materials Management

TDEC plans to launch the TN REFILL to address the environmental impacts of food waste and cut GHG emissions created by Tennessee landfills. The program aims to mitigate the extensive ecological implications associated with this waste by expanding statewide composting and anaerobic digestion programs and supporting the growth of food recovery efforts.

Food waste in landfills is one of the most difficult-to-abate emissions sectors. Tennessee's current food waste management practices are on track to account for nearly 727,000 MT CO₂e in 2025 alone.²³ Organics account for 24.1% of disposed residential and municipal solid waste in Tennessee, and the amount for commercial and municipal entities is 15.81%.²⁴ The inadequacy of composting and anaerobic

²³ TDEC, "Tennessee Priority Climate Action Plan," (2024). pg. 116.

²⁴ TDEC 2015-2025 Solid Waste and Materials Management Plan. (April 2015). https://www.tn.gov/content/dam/tn/environment/solid-waste/documents/solid-waste/sw_2025-plan-final.pdf.

digestion facilities in Tennessee is evident, with over 30 permitted landfills and only three permitted compost facilities that receive food waste. This lack of composting and anaerobic digestion infrastructure in the state results in limited access to these alternatives for Tennesseans.²⁵ One in nine Tennesseans experiences food insecurity while much of Tennessee's discarded food remains perfectly suitable for consumption.²⁶ Investment in food recovery represents an opportunity to address food security needs in Tennessee communities while reducing organic inputs into landfills.

Measure 2: Create outlets for the reduction or diversion of waste, including food and/or yard waste.

GHG Reductions: TDEC's support for food waste recovery and diversion is expected to reduce approximately 791,935 MT CO₂e from 2025 through 2030 and approximately 5,317,277 MT CO₂e emissions from 2025 through 2050.

Durability: To ensure lasting GHG emissions reductions related to food recovery, TDEC will:

1. Encourage a subscription model for composting programs or ensure that subrecipients have accounted for future program costs by providing a phased budgeting approach.
2. Facilitate knowledge-sharing from entities that have successfully implemented waste programs.
3. Provide technical assistance and conduct workshops to explore new and innovative technologies and assess current infrastructure performance.
4. Encourage subrecipients to enhance capacity-building by hiring more full-time staff and providing ongoing logistics, food safety, and distribution training.
5. Encourage integrating technology for improved tracking, inventory management, and communication. Prioritize scalability and replicability in program design.
6. Prioritize awards to subrecipients supporting the diversification of food recovery outlets.
7. Prioritize awards to subrecipients with a record of successful food recovery/diversion or those that can be implemented quickly.

Sector 3: Renewable Energy Enhancement

TDEC is seeking funding for a comprehensive initiative to address electric power generation, the second largest emitting sector in the state, which includes the development of commercial-scale solar to support government and not-for-profit buildings, facilities, and campuses. This measure has the potential to achieve substantial, long-term cumulative reductions in GHG emissions over the next 25 years and beyond, in addition to enhancing reliability during times of emergency.

Measure 3: Increase commercial-scale solar infrastructure for government and non-profit entities.

GHG Reductions: Over the next five years, GHG reductions from this measure are estimated to reach 74,425 MT CO₂e. GHG reductions during 2025-2050 will reach 539,539 MT CO₂e.

Durability: To enhance the long-term success of renewable energy enhancements, TDEC will:

1. Design a program to complement existing programs, such as EPA's Solar for All program, ensuring alignment and avoiding duplication.
2. Establish prudent guidelines for evaluating when energy storage is recommended or required for specific projects. This includes assessing the level of resiliency that storage can provide for demand response needs and delivering power during grid outages. This energy storage will help maximize solar energy and grid performance, adding durability to GHG emissions reductions.

²⁵ Ibid.

²⁶ Feeding America, "Hunger in Tennessee." (2023).

3. Leverage partnerships with TVA and electric utilities to optimize solar placement, minimize redundancy, and maximize resiliency, enhancing solar deployment efforts' efficiency, effectiveness, and durability.
4. Collaborate with community partners, including local governments, power companies, higher educational institutions, and community-based organizations, to identify suitable locations for solar infrastructure deployment and ensure that projects are tailored to diverse communities' unique needs and resilience priorities.

2.C. Cost-Effectiveness of All GHG Reduction Measures

TDEC has calculated the cost-effectiveness of proposed GHG reduction measures.²⁷ Costs associated with each measure are detailed in the Budget Table spreadsheet accompanying this application.

Table 6: Cost-Effectiveness of GHG Reduction Measures, 2025-2030

Priority Measure	Requested CPRG Funding (\$)	GHG Reductions (MT CO ₂ e)	Cost-Effectiveness (\$/MT)
Transportation			
1.1. Increase the share of state and local government fleets of LD EVs.	21,152,528	-8,789	2,406.84
1.2. Increase the share of electric MHD vehicles, including buses. ²⁸			
1.3. Expand community EV charging infrastructure.	15,838,989	-1,565	10,121.98
Waste and Materials Management			
2. Create outlets to reduce or divert waste, including food and/or yard waste.	20,212,482	-791,935	25.52
Renewable Energy Enhancement			
3. Increase commercial-scale solar infrastructure for government and non-profit entities. ²⁹	38,117,816	-74,425	512.16
Total	95,321,815	-876,713	108.73

In reviewing the cost-effectiveness of the Transportation sector measures, TDEC considered the following:

- Fleet Vehicle Electrification Program costs will be maximized by prioritizing the replacement of high mileage, older gasoline and diesel vehicles accounting for an outsized portion of transportation emissions. Subrecipients will be required to show documentation that their vehicles meet minimum mileage thresholds to be eligible, and part of the competitive evaluation will include a review of each vehicle replacement's emissions reduction potential.
- Public EV Charging Infrastructure Program costs will be maximized by strategically placing charging sites (e.g., co-locating charging at popular destinations, ensuring charging sites have appropriate accessibility and driver accommodations, and placing charging along critical routes and highways). Subrecipients will be evaluated based on how well their proposed sites address these priority areas.
- TDEC will require cost share to maximize further the emissions reductions funded by CPRG.
- As detailed in Section 1.A., TDEC will use other funding and partnerships to provide technical assistance, ensuring that CPRG dollars are invested in necessary equipment and infrastructure.

²⁷ Calculations use the formula: (Requested CPRG funding) / (Sum of Quantified GHG reductions from CPRG funding from 2025-2030).

²⁸ TDEC modeled two cases for this measure: one case modeled 100% of measure funds supporting MD vehicle conversions (high-range scenario) and one case modeled 100% of measure funds supporting HD vehicle conversions (low-range scenario). MD vehicle conversions yielded larger emissions reductions so those values are reflected here. The full range of emissions can be found in the calculation spreadsheet.

²⁹ TDEC modeled two cases for this measure; one case modeled rooftop solar and the other case modeled utility solar. Utility solar yielded larger emissions reductions so those values are reflected here. The full range of emissions reductions can be found in the calculation spreadsheet.

In reviewing the cost-effectiveness of the Waste and Materials Management sector measure, TDEC considered the following:

- TDEC will require cost share to maximize further the emissions reductions funded by CPRG.
- Matching rates will be established during the program development year and vary based on entity type and whether the applicant includes a Community Benefit Plan.
- TDEC may fund anaerobic digestion infrastructure but will only consider applications that offer a rate similar to composting infrastructure.

In reviewing the cost-effectiveness of the Renewable Energy Enhancement measure, TDEC considered:

- Site selection plays a significant role in ensuring cost-effectiveness for solar deployment. This includes selecting sites based on infrastructure suitability (e.g., whether rooftop solar would require significant enabling upgrades on existing buildings) and interconnection to the grid (e.g., whether there is suitable access to transmission and distribution infrastructure at the proposed solar site). TDEC will require that subrecipients demonstrate communication and coordination with their local power companies to maximize the cost-effectiveness of solar investment.
- TDEC will require cost share for the Renewable Energy Enhancement program to maximize the emissions reductions funded by CPRG. Subrecipients will have to invest in their own solar projects, allowing the State to spread the CPRG dollars further and deploy more solar overall.
- As previously mentioned, any associated storage infrastructure will be provided as cost share by subrecipients. By limiting federal funds to only solar infrastructure, the State will be able to maximize the MW of new solar generation to be deployed.

2.D. Documentation of GHG Reduction Assumptions

Please see the Technical Appendix supporting this application for further details.

SECTION 3. ENVIRONMENTAL RESULTS – OUTPUTS, OUTCOMES, AND PERFORMANCE MEASURES

This CPRG application aligns with EPA's FY2022-FY2026 Strategic Plan as follows:

- Promotes cleaner transportation for the state's 5.5 million gasoline vehicles per Goal 1, Objective 1.1. (See Section 1 for citations and additional statistics).
- Aims to improve air quality through increased renewable energy projects, transportation electrification, and waste reduction per Goal 4, Objective 4.1.
- Emphasizes waste reduction to prevent environmental contamination, particularly addressing health and social impacts associated with landfills, per Goal 6, Objective 6.2.
- Increases grid resilience through commercial solar projects on government-owned and not-for-profit properties, per Goal 1, Objective 1.2.

3.A. Expected Outputs and Outcomes

Outputs from this proposal include:

- **All Measures:** Detailed semi-annual and final reports, as required by EPA.
- **Measure 1.1:** Converting 189 fuel-burning LD government vehicles to EVs.
- **Measure 1.2:** Replacing 22-184 fuel-burning MHD public and private fleet vehicles with EVs.
- **Measures 1.1 and 1.2:** Covering 50-75% of transportation project costs.
- **Measure 1.3:** Building approximately 204 new EV charging stations at 51 project sites.
- **Measure 1.3:** Creating community charging projects in at least 20 disadvantaged communities.
- **Measure 1.3:** Covering 80% of costs associated with public charging infrastructure.
- **Measures 1.1, 1.2, and 1.3:** Creating new project operation and maintenance jobs.

- **Measure 2:** Creating at least one local government-led residential curbside organic collection program or one new public-private partnership to facilitate composting in a new community, school district, or institution.
- **Measure 2:** Diverting 100,000 tons of food from landfills to food banks and other recovery organizations.
- **Measure 2:** Diverting 30,000 tons of food from landfills to composting and anaerobic digestion.
- **Measure 2:** Establishing and/or improving three waste diversion facilities (e.g., transfer stations, convenience centers, drop-off kiosks, compost facilities) to enable food scrap drop-off for compost or anaerobic digestion.
- **Measure 2:** Hiring 10 individuals to support food waste recovery and diversion.
- **Measure 3:** Deploying 27.8-30.4 MW DC of solar power.
- **Measure 3:** Deploying 3-30 MWh of solar storage (funded via cost share, not CPRG funds).
- **Measure 3:** Creating 6-60 commercial solar sites, with at least 40% of projects to benefit disadvantaged communities.
- **Measure 3:** Covering 70% of commercial solar infrastructure and installation costs.

Outcomes from this proposal include:

- **All Measures:** Reduced cumulative metric tons of GHG emissions:
 - 2025-2030: 876,714 metric tons CO₂e
 - 2025-2050: 5,926,395 metric tons CO₂e
- **All Measures:** Reduced exposure to hazardous air pollution and unhealthy ambient air quality.
- **All Measures:** Addition of high-quality, clean jobs through workforce development initiatives associated with the construction, operation, and maintenance of transportation, sustainable materials, and renewable energy projects.
- **All Measures:** Enhanced level of community engagement, as measured by increased ongoing actions to engage with organizations/residents of disadvantaged communities.
- **Measure 2:** Increased staff capacity at 20% of compost and food recovery organizations.
- **Measure 2:** Provision of 4 new training opportunities for professionals on food recovery, composting, and/or anaerobic digestion.
- **Measure 2:** Recovery of wholesome food for food banks/shelters, serving 1.5 million meals to Tennesseans suffering from food insecurity.
- **Measure 2:** 20% increase in composting service area in at least one municipality.
- **Measure 2:** Divert 20% of participating communities' waste to composting programs, reducing the need for additional landfill construction.
- **Measure 3:** Increased emergency response/shelter location resiliency due to solar installations.
- **Measure 3:** Lower grid energy demand for commercial energy participants.

For additional outcomes, **Table 7** provides estimates of the anticipated reductions in criteria air pollutants (CAP) and hazardous air pollutants (HAP) from Tennessee implementation.

Table 7: CAP/HAP Reductions Anticipated from Implementation of Proposed Measures

Priority Measure	Cumulative CAP/HAP emission reductions (MT) for 2025-2030 & 2025-2050 (A = 2025-2030, B = 2025-2050)			
	NO _x	PM _{2.5}	SO _x	VOCs
Transportation				
1.1. Increase the share of state and local government fleets of LD EVs.	A: -0.26 B: -1.74	A: -0.01 B: -0.08	A: -0.01 B: -0.05	A: -0.47 B: -3.15

1.2. Increase the share of electric MHD vehicles, including buses. ³⁰	A: -6.31 B: -42.44	A: -0.02 B: -0.15	A: -0.06 B: -0.39	A: -0.45 B: -3.03
1.3. Expand community EV charging infrastructure.	A: -0.14 B: -0.92	A: -0.01 B: -0.09	A: -0.01 B: -0.07	A: -0.67 B: -4.5
Water, Waste, and Sustainable Materials Management				
2.1 Create outlets to reduce or divert waste, including food and/or yard waste.	Not provided as an output from EPA’s WARM.			
Renewable Energy Enhancement				
3. Increase commercial-scale solar infrastructure for government and non-profit entities. ³¹	A: -28 B: -200	A: -7 B: -49	A: -33 B: -236	A: -2 B: -13
Total	A: -34.71 B: -245.1	A: -7.04 B: -49.32	A: -33.08 B: -236.51	A: -3.59 B: -23.68

Table 8 provides estimates of CAP and HAP reductions in LIDACs between 2025 and 2030. The State of Tennessee has 54% of total census tracts identified as LIDACs through CEJST. Therefore, **Table 8** assumes that 54% of the total CAP/HAP reductions would be realized in LIDACs.

Table 8: CAP/HAP Reductions Anticipated in LIDACs, Implementation of Proposed Measures, 2025-2030

Sectors	NO _x	PM _{2.5}	SO _x	VOCs
Transportation	-3.6	-0.02	-0.04	-0.9
Water, Waste, and Sustainable Materials Management	Not provided as an output from EPA's WARM.			
Renewable Energy Enhancement	-15.1	-3.8	-17.8	-1.08
Total	-18.7	-3.82	-17.84	-1.98

3.B. Performance Measures and Plan

TDEC APC's implementing partners (TDEC OEP and TDEC OSP) will track progress for each performance measure by aggregating subrecipient reports and providing summaries and data to TDEC APC for review. Some examples of required performance reporting are provided below, in addition to other metrics that will be tracked to support the measurement of outputs/outcomes detailed in section 3.A:

- **Fleet Vehicle Electrification Program:**
 - Number, type, and total purchase cost of vehicles and associated charging equipment
 - Documentation of replaced vehicle scrappage
 - Annual vehicle/charging infrastructure utilization in mileage and kWh consumption
 - Annual operations and maintenance savings because of EV adoption
 - Location of vehicle routes and charging (particularly as they overlap with LIDACs)
- **Public EV Charging Infrastructure Program:**
 - Number, type, and total purchase cost of public charging infrastructure
 - Annual charging infrastructure utilization in kWh and number of unique charging visits
- **TN REFILL Program:**
 - Number, type, and total purchase cost of funded waste management equipment
 - Number of participants engaged in community composting, recycling, etc. programs
 - Amount of food diverted to food banks/community shelters, plus the number of participants served at these locations
 - Amount of waste diverted from landfills
 - Number of new staff hired and/or trained to support waste and materials management

³⁰ TDEC modeled two cases for this measure: one case modeled 100% of measure funds supporting MD vehicle conversions (high-range scenario) and one case modeled 100% of measure funds supporting HD vehicle conversions (low-range scenario). MD vehicle conversions yielded larger emissions reductions, so those values are reflected here. The full range of emissions can be found in the calculation spreadsheet.

³¹ TDEC modeled two cases for this measure: one case for rooftop solar and one for utility solar. Utility solar yielded larger emissions reductions so those values are reflected here. The full range of emissions reductions can be found in the calculation spreadsheet.

- **Renewable Energy Program:**
 - Number, type, and total purchase cost of solar infrastructure and associated equipment/installation/other upgrades
 - Annual electricity generated and consumed by solar infrastructure
 - Annual energy consumption cost savings because of solar deployment

TDEC will provide EPA with updates for performance measures in the semi-annual and final reports.

3.C. Authorities, Implementation Timeline, and Milestones

Each division within TDEC has overarching roles and responsibilities, detailed in Section 1 of this proposal, along with a detailed implementation timeline, including tasks, key milestones, and key actions needed to meet measure goals and objectives by the end of the grant period for each measure. TDEC is endowed with relevant authority by Tennessee Code Annotated (TCA) and the Governor of Tennessee to implement all measures in the PCAP and this application.³²

SECTION 4: LOW-INCOME AND DISADVANTAGED COMMUNITIES

4.A. Community Benefits

In determining measures for CPRG Implementation funding, TDEC prioritized measures that benefit LIDACs.

Identifying Tennessee LIDACs: The TN PCAP defines LIDACS as census tracts that are both low-income or have limited formal education and are experiencing specific burdens, such as high rates of respiratory illness, high energy or housing costs, and exposure to legacy pollution. TDEC identified LIDAC areas using the Climate and Economic Justice Screening Tool (CEJST), leveraging EPA’s Environmental Justice Screening and Mapping Tool (EJScreen) to supplement CEJST where necessary as per EPA guidance. A list of all LIDAC census tracts under proposed CPRG funding is attached to this application.

Table 9: Transportation Sector Benefits to LIDACs

Benefit	Direct Benefit Measures	Indirect Benefit Measures	Discussion of how this benefit will be realized
Improved air quality and an overall improvement in public health	Measure 1.1 Measure 1.2	Measure 1.3	<p>LIDACs will experience the direct benefit of improved air quality and public health through fleet electrification efforts, which reduce tailpipe emissions. This benefit will be most prominent in communities where these vehicles are most driven (i.e., communities with elevated traffic pollution exposure), which are often LIDACs. To support this effort, TDEC identified communities with poor air quality risks as a primary focus (see more in Section 4.B).</p> <p>A 2022 study³³ calculates the positive outcomes of zero-emission transportation for Tennesseans: savings of \$24.9 billion in public health benefits; prevention of 2,180 premature deaths; prevention of 5,380 asthma attacks; and undoing 255,000 lost workdays. By targeting EVs and infrastructure serving LIDACs, TDEC can ensure that these public health benefits are delivered to underserved areas of the state.</p> <p>One disbenefit is the potential offset of improved air quality through increased power generation emissions, which would be most acute near the electric generating units and in other areas through increased secondary ozone</p>

³² TDEC, TN PCAP, pg 54, March 2024, https://www.tn.gov/content/dam/tn/environment/policy-planning/documents/tvers/opp_tvers_pcap.pdf.

³³ American Lung Association, “Zeroing in on Healthy Air,” March 2022. <https://www.lung.org/clean-air/electric-vehicle-report>.

			pollution. However, given the low ratio of EVs to the total amount of vehicles in Tennessee, any disbenefit would be minimal. This first step for fleets will create more EV visibility, raising consumer trust in EVs.
Transportation improvements	Measure 1.1 Measure 1.2 Measure 1.3		LIDAC residents will directly benefit from improved transportation fuel options and costs, with benefits increasing over time. In general, investments in EVs and charging infrastructure should reduce transportation costs and improve reliability. This may further create more stable transportation options because gasoline is susceptible to price fluctuations and supply chain disruptions. Lower-demand EV charging sites (e.g., those in rural or underserved areas, with significant LIDAC overlap) are less appealing to private investors and may require investment from public institutions and/or utilities ³⁴ . By prioritizing infrastructure needs for these communities, TDEC will help ensure that no Tennessee community is left behind.
Reduced noise pollution	Measure 1.1 Measure 1.2	Measure 1.3	EVs create significantly less noise than fuel-burning vehicles, resulting in reduced noise pollution in communities statewide. Like Benefit 1 above, the reduction in noise pollution will be felt most directly in high-traffic communities and in communities with less road barriers, which are often LIDAC areas.
Workforce development		Measure 1.1 Measure 1.2 Measure 1.3	Investment in new infrastructure and vehicle technology directly supports economic development by creating good-paying jobs and job training opportunities. Where feasible, this project will target grant funding in communities with high rates of unemployment and underemployment. By connecting individuals from LIDACs to this expanding job market, household incomes in these communities may increase, directly benefiting communities both now and in the future.
Community resilience		Measure 1.1 Measure 1.2 Measure 1.3	In addition to the many direct benefits these initiatives will produce, transportation resilience within LIDACs will be positively impacted, albeit indirectly. The increased use of EVs and electrification infrastructure will benefit communities throughout the state, especially during fuel shortages, particularly in disadvantaged communities where new technologies and infrastructure are slowed or non-existent due to a lack of resources or market neglect.

Table 10: Waste and Materials Management Benefits to LIDACs

Benefit	Discussion of how this benefit will be realized
Improved air quality and an overall improvement in public health	Measure 2 targets methane, which is nearly 28 times more potent and harmful than CO ₂ . The benefits will include fewer emissions from waste decomposition and less waste in local landfills. Reducing and diverting waste from landfills will reduce methane and VOCs emissions, thus improving air quality and overall public health. This is especially true for communities near landfills, which are often LIDACs. Additionally, these efforts may lower vehicle emissions associated with the transportation of waste. Improved air quality may be partially offset by emissions or electrical generation as a result additional transportation and/or refrigeration associated for food rescue initiatives. However, any potential disbenefit would be outweighed by the benefit gains made by diverting food in waste stream networks.
Workforce development	Expanding waste management services has the potential to create new, stable, and good-paying jobs, which have a positive impact on communities with the highest rates of unemployment and underemployment. By connecting un- and under-employed residents of LIDACs to this expanding job market, household incomes will increase and support economic capacity.
Addressing food insecurity	Much of Tennessee's discarded food remains perfectly suitable for consumption and could be redirected to address those in need. Food diversion projects proposed under measure 2 address a critical path for connecting those in need to reliable, healthy food access. For reference, one in nine Tennesseans currently experiences food insecurity. By diverting food to food banks and community shelters, TDEC can ensure that Tennesseans in need, including those in LIDACs, have resources to combat food insecurity.

³⁴ Drive Electric Tennessee's Statewide EV Charging Infrastructure Needs Assessment, <https://www.tn.gov/environment/program-areas/energy/state-energy-office--seo-/programs-projects/programs-and-projects/sustainable-transportation-and-alternative-fuels/sustainable-transportation-and-alternative-fuels/drive-electric-tennessee.html>.

Table 11: Renewable Energy Enhancement Benefits to LIDACs

Benefit	Discussion of how this benefit will be realized
Improved air quality and an overall improvement in public health	The addition of solar infrastructure for clean energy generation will improve air quality across the state by reducing emissions. This will improve quality of air and public health in LIDACs, which experience a higher burden of poor air quality as compared to the rest of Tennessee. ³⁵ Air quality improvements support public health outcomes, such as the occurrence of respiratory disease. This benefit will be realized in communities adjacent to electric generating units that generate emissions.
Community resilience	The addition of solar energy within LIDACs will improve reliability and performance. LIDAC government and not-for-profit entities will experience greater resilience during power outages and a higher level of security, with less susceptibility to energy-related vulnerabilities. Additionally, TDEC's prioritization of projects at emergency-response and other critical facilities will allow these facilities to serve as resilience hubs for LIDACs across Tennessee. This is particularly important, as LIDACs can be more susceptible to weather-related emergencies and other events.
Workforce development	Investment in new solar infrastructure directly supports economic development by creating good-paying jobs. TDEC's proposal will indirectly support increased job opportunities and training across the state. Where feasible, this project will target grant funding in communities with high rates of unemployment and underemployment. By connecting LIDACs to an expanding clean energy job market, household incomes in these communities may increase, directly benefiting communities both now and in the future.

The potential of these can improve the quality of life within the communities that need it most, leading to increased community resilience that is both measurable and sustainable.

Assessing and Reporting Community Benefits: Project partners will determine, quantify, and report a more thorough analysis of associated community benefits based on actual data collected during implementation. TDEC will carefully track and report program outputs and outcomes by subrecipients to determine program success. TDEC will also track and report the deployment of projects in and near identified LIDAC census tracts to quantify the reduction in GHG emissions, co-pollutant emissions, and other community benefits described in *Tables 9-11* above.

4.B. Community Engagement

Program Development through LIDAC Input: During the TN PCAP development, TDEC performed extensive community outreach and stakeholder engagement, including enhanced outreach efforts to LIDACs. Table 13 summarizes the public and stakeholder engagement strategies that supported the identification and prioritization of measures included in this implementation proposal.

Table 12: Engagement Strategies for LIDACs and Other Community Stakeholders

Engagement Strategy	Description of engagement carried out
Public meetings and community events	<p>TDEC compiled EJScreen Community Reports for the five locations where TVERS Public Meetings were held: Memphis, Nashville/Davidson County, Chattanooga, Knoxville, and the Tri-Cities area. Reports on these meetings can be found in the PCAP, Appendix E.</p> <p>TDEC promoted engagement opportunities through mail campaigns, email outreach, and individual presentations to community groups. Flyers promoting public meetings and public survey were mailed or hand delivered to houses of worship, neighborhood associations, nonprofit organizations, and popular gathering places like community centers, parks, and libraries in LIDAC communities. Additionally, personalized emails were sent to partners at colleges and universities, community and neighborhood groups, nonprofits, and other organizations numerous higher learning institutions.</p>
Public survey	Recognizing the hurdles many Tennesseans have with attending an evening, in-person public meeting, TDEC broadened engagement through an online public survey dispersed statewide. Participants were

³⁵ TACIR, "Collaborating to Improve Community Resiliency to Natural Disasters," September 2020, www.tn.gov/content/dam/tn/tacir/2020publications/2020CommunityResilience.pdf.

	asked to prioritize emission reduction sectors and to provide current individual actions they undertake to reduce GHG emissions, perceived barriers, and co-benefits/disbenefits to implementing emission reduction measures. TDEC promoted the survey via extensive outreach. Survey results are in the TN PCAP. A total of 1,636 surveys were completed; of the 1,292 respondents who provided their home location, 38% are from LIDACs.
Strategic engagement through LIDAC analysis	<p>TDEC analyzed the EJScreen Community Reports to identify any community engagement obstacles, such as English Proficiency. To provide effective outreach to these communities, TDEC translated the public survey into Spanish and translated promotional materials for the public meeting in Nashville into both Spanish and Arabic. TDEC also included a registration question about the need for in-person interpretive services.</p> <p>TDEC further refined the community outreach strategy by spatially overlaying CEJST data with relevant environmental metrics from EJScreen to identify specific communities that would most benefit from improved air quality. TDEC used these findings to enhance outreach communications.</p>
Stakeholder Input	<p>Transportation: TDEC hosted a stakeholder call with 39 attendees to align transportation program design with local needs. Along with the call (which bore excellent real-time feedback), TDEC also conducted a survey to collect additional feedback on program design, which had the following takeaways reflected in program design and planning:</p> <ul style="list-style-type: none"> • Need for Flexibility: Stakeholders emphasized the need for flexibility of programmatic details such as: types of charging covered (Level 2, Level 3, and DCFC); eligibility requirements of model years for replacements; and requirements for charging station sites. Respondents' main feedback was to allow fleets to implement solutions unique to their local and business needs. • Future-proofing Sites: Stakeholders encouraged TDEC to allow and encourage measures to future-proof charging sites for future infrastructure installation. • Technical Assistance: Respondents emphasized the need for technical assistance in infrastructure installation, resiliency planning, and route planning, as well as training for maintenance and repairs to ensure the effective operation of charging infrastructure. <p>Waste: TDEC requested and received input from 29 potential food waste reduction subrecipients to help shape program development. Requests for input were made to both composting and food recovery organizations, small and large, to fully understand program implementation across the State. Respondents outlined a variety of needs they would value in a CPRG-funded grant program:</p> <ul style="list-style-type: none"> • Infrastructure & Equipment: Respondents requested a variety of resources to strengthen existing programs such as additional land, facilities for processing and storing rescued food, composting equipment such as compost tumblers and compact loaders, and collection vehicles. • Building Program Capacity/Workforce: Respondents emphasized a need for funding full-time staff positions as well as the expansion of training and certification opportunities for both composting and food recovery efforts. • Increasing Collaboration: Stakeholders noted a need for technical assistance in finding opportunities for additional partnerships among food recovery organizations, private haulers for collection services, and municipalities for regulatory support. • Expanding Awareness: Respondents emphasized their funding needs for educational and outreach efforts through printed materials and digital marketing strategies to support the expansion of existing programs. <p>Solar: TDEC hosted a stakeholder call with 43 attendees for current Solar for All and CPRG potential subrecipients to obtain additional feedback. These attendees included representatives from local governments, utilities, community-based organizations, energy service companies, housing and development associations, among others. Stakeholders also responded to a TDEC email requesting additional feedback. Feedback from interested parties included the following takeaways:</p> <ul style="list-style-type: none"> • Need for Technical Assistance: Respondents encouraged TDEC to consider providing technical assistance to qualifying applicants, especially in terms of equity. • Additional Financing Collaboration: A stakeholder recommended that TDEC compile a database of low barrier bridge financing providing that entities could work with to implement projects. Some respondents noted that storage is significantly more expensive than the solar panels and direction to additional financing opportunities. • Flexibility with Facility Types: Stakeholders recommended that TDEC expand its definition of resiliency hubs and consider other non-government facilities such as churches, libraries, and

	schools that also serve as emergency shelters. Additionally, it has been suggested that energy facilities should be encouraged to seek weatherization prior to solar installation.
Letters of Commitment/Support	TDEC APC will serve an important role as conduit between CPRG program implementers and communities benefitting from the measures described in this application. Letters of Commitment have been received from program administrators and can be found in attachments to this application. Letters of Support have also been received from potential program participants and supporters.

Ongoing Engagement: During the development of the PCAP, TDEC strengthened ongoing community relationships and networks and developed new partnerships. TDEC will ensure subrecipients involve LIDACs in their program design and creation of promotional materials, guidance, and other messaging. The proposed programs will ensure continued engagement strategies through the initiatives in **Table 13**.

Table 13: Ongoing and Future Engagement Strategies for LIDACs and Other Community Stakeholders

Engagement Strategy	Description of engagement to be carried out
Grant Reporting	In addition to measuring program outputs and outcomes, subrecipients will be required to report on their ongoing LIDAC engagement efforts, including the iterative process of engagement. TDEC will compile broader findings and best practices and report out on a recurring basis.
Workforce Development	TDEC will complete a workforce planning analysis for the Comprehensive Climate Action Plan, including research and actionable recommendations on opportunities and strategies for employing LIDAC residents in new or emerging jobs. TDEC has an existing Workforce Development Advisory Committee that will be leveraged to support program design and implementation of the proposed measures.
Online Resources	TDEC has developed a website to share pertinent CPRG information and resources. Over the course of the CPRG program, the webpage will be regularly updated to reflect current information and resources for the public and stakeholders. TDEC also established a dedicated email inbox for TVERS, which will continue to be used when soliciting community feedback and questions: TDEC.TVERS@tn.gov.
Continued Communications	These efforts may include removing obstacles to engagement (such as limited English proficiency), holding town halls or listening sessions prior to project start, or customized communications efforts targeted at certain communities. These efforts aim to connect with as many LIDAC residents as possible to ensure broad implementation, maximizing program benefits.
Community Benefits Plans for Subrecipients	TDEC is interested in encouraging the inclusion of a Community Benefits Plan within subrecipient competitive grant applications, which would include descriptions of how subrecipients would perform community and labor outreach; demonstrate investment in America's workforce; support diversity, equity, inclusivity, and accessibility (DEIA) initiatives; and carry out Justice40 goals/deliver project benefits to LIDAC census tracts. Such plan creation and submission could possibly be incentivized by TDEC providing a lower cost share requirement, awarding additional points during application evaluation, etc.

SECTION 5: JOB QUALITY

TDEC is prioritizing the establishment of high-quality jobs, enforcement of strong labor standards, and advancement of a proficient workforce. TDEC is dedicated to giving special consideration to subrecipients that embody the Good Jobs Principles³⁶. Additionally, TDEC will integrate these attributes as fundamental criteria when evaluating competitive grant applications, requesting that subrecipients describe their support and creation of good jobs.

The installation, maintenance, and operation of EV charging stations require a workforce skilled in construction, electrical engineering, and ongoing operations and maintenance. As the demand for EVs rises, additional jobs will emerge in vehicle and equipment manufacturing, sales, and support services. Tennessee has emerged as a hub for the EV workforce, ranking first in the Southeast for EV

³⁶ The Federal Departments of Commerce and Labor have partnered to identify what comprises a good job. These eight principles create a framework for workers, businesses, labor unions, advocates, researchers, state and local governments, and federal agencies for a shared vision of job quality. The Good Jobs Initiative, <https://www.dol.gov/general/good-jobs/principles>.

manufacturing employment and investment and home to four significant OEMs manufacturing EVs.³⁷ To address workforce needs for the adoption of EVs and the installation of infrastructure, TDEC plans to:

- Mandate that all EV charging infrastructure installers must adhere to state guidelines, be licensed electricians, and have completed the EV Infrastructure Training Program (EVITP) certification.
- Encourage charging infrastructure installers/technicians in their certification as EV Supply Equipment (EVSE) Field Technicians through SAE International.
- Encourage fleet technicians to complete manufacturer or other training to maintain and operate EVs and associated charging equipment properly.

TN REFILL has the potential to create jobs, mainly through expanding composting, anaerobic digestion, and food recovery efforts. There are several avenues in which addressing the problem of food waste will create jobs, such as:

- Construction and expansion of composting and anaerobic digestion infrastructure will require skilled labor, technicians, equipment operators, and facility managers for day-to-day operations and maintenance.
- Transportation of organic waste to composting and anaerobic digestion facilities creates job opportunities for drivers, logistics coordinators, and support staff.
- Support food recovery organizations for collection, sorting, and transportation, such as logistics coordinators who can efficiently manage redistribution.
- Management of food banks and pantries requires staff, including program coordinators, case managers, and outreach specialists.

TDEC recently partnered with local governments, workforce development programs, community action organizations, and nonprofits to assess current solar workforce opportunities and potential gaps, capitalize on existing community-based assets, and tailor outreach to meet local needs. Through this effort, TDEC identified several avenues in which solar installation will support the workforce, including:

- Deployment of solar infrastructure will require a skilled workforce for installation, operation, and maintenance. This includes electricians, solar panel installers, technicians, and engineers responsible for designing, installing, and maintaining solar arrays.
- Increased demand for solar panels and related equipment could spur manufacturing jobs that produce solar panels, inverters, mounting hardware, and other components. Additionally, supply chain logistics transporting these materials will generate employment in the transportation and logistics sectors.
- Construction of solar projects involves site preparation, foundation installation, and structural assembly, all of which require laborers, construction workers, engineers, and project managers. As more solar projects are developed, this sector will see a surge in job opportunities.
- Increased need for workforce development programs and technical training initiatives focused on solar energy. Community colleges, vocational schools, and training centers can offer courses and certifications in solar installation, maintenance, and design, preparing individuals for careers in the renewable energy industry. TDEC has already initiated discussions with the Tennessee Board of Regents (TBR), the statewide system of 37 public community and technical colleges, to establish formal solar training and/or apprenticeships in the state. TBR has shown interest in restarting solar energy workforce programs at two colleges within the system, TCAT Jackson and Walters State.

³⁷ TN Department of Economic and Community Development, Electric Vehicle Manufacturing, <https://tnecd.com/industries/electric-vehicle-manufacturing/>

In conclusion, TDEC is prioritizing the creation of high-quality jobs, the promotion of strong labor standards, and the development of a skilled workforce through the implementation of CPRG funding. TDEC's pledge to give special consideration to implementers upholding these principles and to incorporate these goals as criteria in future contracts demonstrates a dedicated effort to foster job quality and workforce development, ensuring that sustainable economic growth is purposefully woven into program design.

SECTION 6: PROGRAMMATIC CAPABILITY AND PAST PERFORMANCE

6.A. Past Performance

TDEC APC has successfully implemented federal grants within its jurisdiction. Federally funded assistance agreements that TDEC APC is performing/has performed within the last three years include:

- **PM_{2.5} Air Monitoring Program:** This project, part of the nationwide PM_{2.5} monitoring network, involves deploying and maintaining fine particulate monitoring sites in Tennessee. It is ongoing and provides continued monitoring of air quality in compliance with the National Ambient Air Quality Standards (NAAQS).
- **Performance Partnership Grants:** This project awarded funding to support the operation of TDEC's ongoing environmental programs and their efforts to improve air quality, surface and groundwater quality, and ensure safe public drinking water supplies.
- **Enhancing Continuous Monitoring of PM_{2.5} and Other NAAQS Air Pollutants:** Funding was provided for upgrades and enhancements to air quality monitoring equipment that monitors PM_{2.5} and other EPA NAAQS air pollutants.
- **Diesel Emissions Reduction Act Funding:** As part of DERA grants and rebates, TDEC worked with Tennessee school districts to replace old diesel buses with cleaner electric models. These efforts, which reduce harmful emissions from diesel engines, work towards the grant's goals of protecting human health and improving air quality.
- **Multipurpose Grants for States:** These funds were awarded to support projects addressing pollutants.

Table 14: TDEC APC Funding Secured Over the Last Five Years

	Funding Opportunity #1	Funding Opportunity #2	Funding Opportunity #3	Funding Opportunity #4	Funding Opportunity #5
Project Title	PM _{2.5} Air Monitoring Program	Performance Partnership Grants	Enhancing Continuous Monitoring of PM _{2.5} and Other NAAQS Air Pollutants	Diesel Emissions Reduction Act Funding	Multipurpose Grants for States
Funding Agency	EPA	EPA	EPA	EPA	EPA
Assistance Listing Number	96497315	00D39119	02D25322	00D91019	02D14221
Description	Support for Tennessee's compliance with NAAQS	Operational support for Tennessee's programs to improve air/surface and ground water quality	Support Tennessee's compliance with NAAQS	Support for Tennessee's diesel emissions reduction programs	Support for mobile air monitoring capabilities

Funding Agency Contact	Patricia Gough 61 Forsyth St. Atlanta, GA 30303-8960 404-562-9511 Gough.Patricia@epa.gov	Adesuwa Erhunse 61 Forsyth St. Atlanta, GA 30303-8960 404-562-8358 erhunse.adesuwa@epa.gov	Patricia Gough 61 Forsyth St. Atlanta, GA 30303-8960 404-562-9511 Gough.Patricia@epa.gov	Patricia Gough 61 Forsyth St. Atlanta, GA 30303-8960 404-562-9511 Gough.Patricia@epa.gov	Patricia Gough 61 Forsyth St. Atlanta, GA 30303-8960 404-562-9511 Gough.Patricia@epa.gov
Status	Expended Total Project Costs of \$1,622,227	Expended Total Project Costs of \$9,589,179	Expended Total Project Costs of \$194,284	Expended Total Project Costs of \$665,367.70	Expended Total Project Costs of \$70,435
Reporting History	Final FFR issued	Final FFR issued	Final FFR issued	Final FFR issued	Final FFR issued

In these five funding opportunities alone, TDEC APC has successfully managed more than **\$12 million** of federal funding in recent years on projects that have improved air and water quality for Tennesseans by eliminating harmful pollutants. These projects have also added to or enhanced essential air quality monitoring tools, allowing the State of Tennessee to communicate in real-time with residents concerning air quality while contributing to a national data network. Other records of past performance, including examples from TDEC OEP and TDEC OSP, are available upon request to showcase the experience of TDEC APC's program implementers.

6.B. Staff Expertise

TDEC APC is staffed with knowledgeable federal grant managers who have successfully designed and managed numerous projects over the last 8 years. As the prime applicant, TDEC APC will be responsible for the general administration and oversight of all CPRG-funded activities. Critical contributors to CPRG-funded projects will include:

- **Michelle Walker Owenby:** As director for TDEC APC, she oversees program operations in ambient monitoring, air quality forecasting, compliance validation and inspections, permitting, regulatory and state implementation plan development, and enforcement. Additionally, she serves as the Technical Secretary for the Tennessee Air Pollution Control Board and will serve as the project manager for the CPRG implementation grant.
- **Mary-Margaret Chandler:** Finance and Grants Manager for TDEC APC, where she develops and manages the division's budget, conducts cost analysis (including fiscal review of revenue and expense forecasting), coordinates federal grant applications, creates grant compliance reporting, oversees the development of business policies and procedures (including audit and fiscal compliance programs), and serves as a lean facilitator and project manager. She will serve as the administrative contact for the CPRG implementation grant.

TDEC APC will be supported by other offices within TDEC, which will be responsible for implementing the funding programs described throughout this application as best fit their current background and programmatic offerings.

TDEC OEP: As the State Energy Office for Tennessee, this office provides education, outreach, technical assistance, and/or funding and financing opportunities for energy efficiency, energy management, renewable energy, energy security planning, preparedness, and response, and energy in transportation. As such, TDEC OEP staff have been responsible for administering hundreds of millions of dollars in federally funded programs across various sectors and energy use cases. Under this CPRG application, TDEC OEP will serve as an implementer for a Fleet Vehicle Electrification Program (measures 1.1 and 1.2), a Public EV Charging Infrastructure Program (measure 1.3), and a Renewable Energy Program (measure 3). TDEC OEP staff are equipped with expertise to support the proposed programs, as the

office has served as designer/implementer of funds on many projects (e.g., VW Settlement EMT, DERA, Fast Charge TN). TDEC OEP also has strong partnerships with TVA, TDOT, and other organizations in the energy space. Key contributors to this project include:

- **Molly R. Cripps:** Director for TDEC OEP. In addition, she serves as the Director of Operations for the Bureau of Environment. Molly leads teams that focus on the design and implementation of clean energy and sustainable transportation programs and projects. She serves as Governor Lee's designee to the State Energy Policy Council and is a member of the Executive Committee for the Drive Electric TN Consortium. Molly has served on the National Association of State Energy Officials Board of Directors since 2014 and is currently the Vice-Chair of the Executive Committee.
- **Alexa Voytek:** Deputy Director of Programs for TDEC OEP. She serves as the Principal Investigator and primary technical point of contact for the U.S. Department of Energy State Energy Program Annual Formula Grant for the State of Tennessee, manages OEP's Energy in Transportation Team, and leads strategic planning and policy development. Alexa will oversee the administration of the Fleet Vehicle Electrification Program, Public EV Charging Infrastructure Program, and Renewable Energy Program.
- **Nola Hastings:** Senior Grants Program Coordinator for TDEC OEP. She supports planning, design, implementation, compliance, procurement, reporting, project monitoring, and subrecipient and consultant contract management of federally funded programs. She is also the Compliance Coordinator for energy equity, Justice40, and environmental justice requirements. Nola will support program design, planning, implementation, compliance, and reporting for the Renewable Energy Program.
- **Mark Finlay:** Senior Energy Analyst for TDEC OEP. He contributes to sustainable transportation programming efforts and communications deliverables, including the administration of funding programs and support of TDOT for planning and implementing the State's NEVI funds. Mark will support program design, planning, implementation, compliance, and reporting for the Fleet Vehicle Electrification Program and Public EV Charging Infrastructure Program.

TDEC OSP: This office enhances TDEC's capacity to promote a culture of environmental sustainability, providing technical guidance to business, industry, and other public entities to promote environmental stewardship to conserve Tennessee's natural resources better and to fulfill TDEC's mission and vision. As such, TDEC OSP has a long history of supporting boots-on-the-ground sustainability projects in many sectors, including pollution prevention, food recovery and food waste programs, and more. Under this CPRG application, TDEC OSP will serve as an implementer for the TN REFILL Program. Key contributors to this project include:

- **Matthew Taylor:** As the Deputy Director for TDEC OSP, he is responsible for developing, overseeing, and administering sustainability programming in Tennessee. He will assist with TN REFILL, serve as the program's administrative contact, and provide program oversight.
- **Joelle E. Ciriacy:** Environmental Scientist for TDEC OSP. She serves as the Get Food Smart Tennessee program lead, facilitates Tennessee's annual Food Waste Prevention Week, and provides editorial support for several items, including OSP's monthly newsletter. Joelle will lead the TN REFILL Program.

Managing staff and program sponsor resumes are included in this application and can be found in the attachments.