

**CONSULTANT SERVICES AGREEMENT
BETWEEN
CITY of COLUMBIA, MISSOURI
AND
CENTER FOR TRANSPORTATION AND THE ENVIRONMENT, INC.**

This Agreement made and entered into on this 20 of October, 2022 by and between the Center for Transportation and the Environment (herein referred to as "CTE"), located at 730 Peachtree Street, Suite 450, Atlanta, GA 30308 and the City of Columbia, Missouri (herein referred to as "COMO" located at 701 E. Broadway, Columbia, MO 65201 both hereinafter referred to collectively as the "Parties" and individually as "Party," serves as the contract for the scope of work that CTE agrees to provide under the 2022 Low-No COMO BEB Deployment Project.

In consideration of the mutual covenants contained herein, the parties agree as follows:

The following attachments are incorporated by reference and made part of this Agreement herein:

Attachment I: CTE Statement of Work & Budget

Attachment II: Applicable Federal Terms & Conditions

Attachment III: Work Authorization Affidavit Form

1) STATEMENT OF SERVICES TO BE PERFORMED

By executing this Agreement, CTE agrees to perform and comply with the scope of work set forth in the Statement of Work (herein "Work"), attached and fully incorporated herein as *Attachment I*. CTE shall diligently work to perform the Work specified in the time and manner described and in accordance with the terms and provisions of this Agreement. CTE agrees to perform the Work with that standard of professional care, skill, and diligence normally provided in the performance of similar services.

2) FEDERAL FUNDING

CTE acknowledges that this Agreement is funded in part by the Federal Transit Administration (FTA) and is subject to Federal Terms & Conditions, included herein as *Attachment II*. With regard to their scope of work, CTE shall comply with all Federal Terms & Conditions applicable to the Work provided under this Agreement. Furthermore, CTE shall not take any action or fail to take any action that would jeopardize COMO's compliance with applicable Federal Terms and Conditions.

3) TERM OF AGREEMENT

The period of performance for this Agreement shall commence upon the execution of this Agreement by both Parties. Services, work products and/or deliverables defined in CTE's Statement of Work shall be completed no later than December 31, 2025.

4) AGREEMENT AMOUNT / INVOICING

A. This is a firm-fixed price agreement with milestone payments. The total firm fixed price to be paid for the Work performed under this Agreement is **Five Hundred Forty Thousand Five Hundred Dollars (\$540,500.00)**. It is expressly understood by both Parties that in

no event will the total amount to be paid by COMO under the terms of this Agreement exceed this amount unless otherwise agreed to by both Parties in writing and executed as an amendment to this Agreement.

- B. CTE will invoice COMO upon completion of each milestone deliverable, as well as on a monthly basis for some milestones, depending on what is outlined in *Attachment 1, CTE Statement of Work & Budget*. For any milestone deliverable requiring more than three months to complete, CTE shall have the option to submit an invoice for a progress payment on a pro rata basis.
- C. A final invoice will be submitted by CTE within 30 days of the end date of the project or Termination of this Agreement.
- D. Invoices will be submitted to City of Columbia, MO Public Works, ATTN: Director of Public Works, P.O. Box 6015 Columbia, MO 65205-6015 by mail or courier. Payments to CTE shall be made via check or wire transfer.
- E. COMO agrees to pay all uncontested amounts within thirty (30) days of receipt of an invoice. COMO expressly reserves the right to disapprove in whole or in part a request for payment where COMO reasonably believes the services invoiced were not performed in a timely and satisfactory manner under the terms of this Agreement. COMO shall notify CTE in writing of the contested invoice within thirty (30) days of its receipt and provide reasoning for COMO's disapproval. CTE shall provide written response to COMO within fifteen (15) days of receipt of notice of contested invoice providing a cure for the issue presented or otherwise explaining its justification for the invoice. If the issue remains, then the Parties may mutually reach an acceptable agreement on the issue.

5) CHANGE ORDERS

COMO may, at any time, by written order, make changes within the scope of work and services contained in *Attachment 1*. If such changes cause an increase in the budgeted cost of or the time required for performance, CTE shall notify COMO and provide a proposed adjustment within ten (10) days receipt of the written change order. Any and all agreed adjustments shall be detailed in a written supplement to this Agreement and signed by both Parties.

6) TERMINATION

This Agreement may be terminated in whole or in part as follows:

- A. By either Party, if the other Party materially fails to comply with the terms and conditions of this Agreement and such failure is not corrected within fifteen (15) days following receipt of written notice from the non-breaching party.
- B. By CTE, upon thirty (30) days written notification to COMO setting forth the reasons for such termination, the effective date, and, in the case of partial termination, the portion to be terminated.
- C. By COMO, upon thirty (30) days written notification to CTE setting forth the reasons for such termination, the effective date, and, in the case of partial termination, the portion to be terminated.
- D. By COMO, if COMO's prime award supporting this Agreement is terminated by FTA.

Upon Termination, COMO will reimburse CTE for the contract price for all services performed in accordance with the manner of performance up to the effective date of termination, to include works in-progress.

7) INSURANCE

For the duration of this Agreement, CTE shall maintain, and shall require subcontractors, if any, to maintain the following insurance policies and minimum limits:

- A. Workers' Compensation insurance at statutory limits of not less than:
 - i. \$1,000,000 – Bodily Injury: Each Accident
 - ii. \$1,000,000 – Disease: Each Employee
 - iii. \$1,000,000 – Disease: Policy Limit; and
- B. Commercial General Insurance at \$1,000,000 per occurrence, \$2,000,000 general aggregate; and
- C. Automobile Liability Insurance at \$1,000,000 combined single limit for all hired, scheduled, and non-owned autos; and
- D. \$1,000,000 in Professional Liability Insurance.

Upon request, CTE shall furnish the COMO with a certificate(s) of insurance showing CTE and subcontractors, if any, have complied with this Article. CTE shall provide the COMO thirty (30) days written notification of cancellation of such policies.

8) INDEMNIFICATION

To the fullest extent not prohibited by law, CTE shall indemnify and hold harmless COMO, its directors, officers, agents, and employees from and against all claims, damages, losses, and expenses (including but not limited to attorney's fees) arising by and to the extent caused by any negligent act or failure to act of CTE, of any subcontractor (meaning anyone including, but not limited to, consultants having a contract with CTE or a subcontractor for part of the services), of anyone directly or indirectly employed by CTE or by any subcontractor, or anyone for whose acts CTE or its subcontractor may be liable in connection with providing these services. This provision does not, however, require CTE to indemnify, hold harmless, or defend COMO from its own negligence.

9) INDEPENDENT CONTRACTOR

The Parties agree that CTE, as well as any individual working for CTE, is an independent contractor and not an employee of COMO for any purpose. Nothing contained in this Agreement shall be construed to create the relationship of employer and employee, principal and agent, partnership, or joint venture. Both Parties acknowledge that neither CTE nor any of its employees or subcontractors are employees of COMO for state or federal tax purposes and is not entitled to any employee benefits of COMO.

10) OWNERSHIP OF WORK

Upon payment of services rendered, CTE assigns to COMO all of its rights in the final version of the original works produced pursuant to this Agreement. If any CTE intellectual property (methods, processes, trade secrets, preexisting software) is included in its work, CTE grants COMO a nonexclusive, royalty-free, license to display and otherwise make lawful use of those materials as contemplated by this Agreement, so long as credit to CTE is provided. CTE may retain a copy of all material produced under this Agreement for use in its general business activities.

11) CONFIDENTIALITY

CTE agrees to keep confidential any COMO technical data, electronic files, and other written or oral information not in the public domain or not previously known and will not disclose any such data to any other party without COMO's prior written consent unless required by law.

12) EQUAL EMPLOYMENT OPPORTUNITY

During the performance of this Agreement, CTE shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, age, disability, marital status, military status veteran status, sexual orientation, gender identity or expression, genetic information, HIV/AIDS status or any other protected characteristic under applicable law. CTE shall take affirmative actions to ensure that applicants are employed, and that employees are treated during their employment, without regard to their race, religion, color, sex, disability, national origin, or any other characteristic protected under state, federal, or local laws. CTE further agrees to include a similar provision in all subcontracts, except subcontracts for standard commercial supplies or raw materials.

13) RECORDS AND AUDITS

CTE shall maintain records containing pertinent information (including billings, invoices, dates, length of time, services rendered, etc.) for a period of four (4) years after expiration or termination of this Agreement. COMO has the right to review and to copy any records and supporting documentation pertaining to the performance of this Agreement and CTE agrees to allow the authorized auditor(s) reasonable access to such records during normal business hours. CTE agrees to include a similar right of COMO in any subcontracts related to performance of this Agreement.

14) FORCE MAJEURE

Neither CTE nor COMO shall be liable for or deemed to be in default for any delay or failure in performance under this Agreement or interruption of services resulting, directly or indirectly, from acts of God, civil or military authority, acts of public enemy or hostile governmental action, strikes, labor disputes, pandemics, fire or other casualty, inability to obtain labor or materials or reasonable substitutes for labor or materials necessary for performance of the services, or other causes, except financial, that are beyond the reasonable control of CTE or COMO. Notwithstanding the above, if the cause of the force majeure event is due to party's own action or inaction, then such cause shall not excuse that party from performance under this Agreement.

15) MISCELLANEOUS

- A. **Assignment.** Neither Party may assign its respective rights or duties under this Agreement to a third Party (except to a successor in interest to substantially all of the business of the assignor) without the prior written consent of the other Party.
- B. **Amendment or Waiver.** This Agreement may not be modified, amended or waived except by a written instrument executed by duly authorized representatives of both parties. No failure or delay in exercising any right shall operate as a waiver thereof.
- C. **Unauthorized Aliens Prohibited.** CTE shall comply with Missouri Revised Statute Section 285.530 in that CTE shall not knowingly employ, hire for employment, or continue to employ an unauthorized alien to perform work within the state of Missouri. As a condition for the award of this Agreement, CTE shall by sworn affidavit and provision of documentation, affirm (i) its enrollment and participation in a

federal work authorization program with respect to the employees working in connection with the contracted services (ii) that it does not knowingly employ any person who is an unauthorized alien in connection with the contracted services. The form of the Work Authorization Affidavit is set forth in **Attachment III** attached hereto and made a part of this Agreement. CTE shall require all subcontractors to observe the requirements of this section and shall obtain a Work Authorization Affidavit from each subcontractor performing any of the contracted services.

- D. **No Waiver of Immunities.** In no event shall the language of this Agreement constitute or be construed as a waiver or limitation for either Party's rights or defenses with regard to each Party's applicable sovereign, governmental, or official immunities and protections as provided by federal and state constitution or laws.
- E. **General Laws.** CTE shall comply with all federal, state and local laws, rules, regulations and ordinances in performance of the Work under this Agreement.
- F. **Counterparts.** This Agreement may be executed and delivered in any number of counterparts, each of which, when executed and delivered, shall be deemed an original, and all of which together shall constitute the same contract.
- G. **Entire Agreement.** This Agreement constitutes the entire agreement of the Parties with respect to the subject matter of the Agreement and supersedes all previous oral and written agreements, understandings, and communications of the Parties relating to such matters.
- H. **Governing Law.** This Agreement shall be governed, interpreted, and enforced in accordance with the laws of the State of Missouri and the laws of the United States, as applicable. The venue for all litigation arising out of, or relating to this Agreement shall be in Boone County, Missouri, or the United States Western District of Missouri. The Parties hereto irrevocably agree to submit to the exclusive jurisdiction of such courts in the State of Missouri.
- I. **Headings.** Headings on the sections and paragraphs of this Agreement are for convenience and reference only, and the words contained therein shall in no way be held to explain, modify, amplify, or aid in the interpretation, construction, or meaning of the provisions of this Agreement.
- J. **Severability.** Should any part of this Agreement be rendered or declared invalid or unenforceable by a court of competent jurisdiction, it shall not affect the validity of any other provision, which shall remain in full force and effect.
- K. **Subcontracting.** CTE may subcontract with third party providers in performance of specific tasks included in CTE's Statement of Work. In the event that subcontractors are used, CTE will notify COMO of the intent to use subcontractors and ensure subcontractor adherence to the same quality standards and assurances required of CTE, including adherence to applicable Federal Terms and Conditions.
- L. **Survival of Terms.** The provision of section 8 (Indemnification), 10 (Ownership of Work) and 11 (Confidentiality) shall survive the expiration or termination of this Agreement as well as the provisions which by their nature would be intended to be applicable following any such termination or expiration.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement by their duly authorized representatives as of the date of the last signatory to this Agreement.

COMO: City of Columbia, Missouri

BY: _____
De'Carlton Seewood, City Manager

SSC

DATE: _____

ATTEST:

BY: _____
Sheela Amin, City Clerk

APPROVED AS TO FORM:

BY: _____
Nancy Thompson, City Counselor

CERTIFICATION: I hereby certify that this Agreement is within the purpose of the appropriation to which it is to be charged, Account No. 55316188-604023 PT073, and that there is an unencumbered balance to the credit of such appropriation sufficient to pay therefor.

Matthew Lue, Director of Finance

CTE: Center for Transportation and the Environment, Inc.

BY: _____
Dan Raudebaugh, Executive Director

DATE: 10-20-22

Enclosures:

Attachment I: CTE Statement of Work & Budget

Attachment II: Applicable Federal Terms & Conditions

Attachment I

CTE Statement of Work & Budget

Attachment I **CTE Statement of Work & Budget**

CTE will use its Zero-Emission Smart Deployment Methodology to guide this project. Through eight primary phases, our methodology was designed to help agencies understand ZEB technologies and how to successfully deploy them. This Scope of Work (SOW) details these eight phases of the project and the specific tasks CTE will complete to support COMO in the deployment of five BYD battery electric buses, three of which will be purchased with 2022 Low-No funds and two of which will be purchased through other funds. Herein, COMO is individually referred to as “Agency”. This SOW also includes CTE’s project controls and risk managing procedures to guide the effective and efficient management of this project. Each phase includes a brief summary of the activities included in this phase of the project and an estimated time to complete. Each phase also includes a description of the services provided by CTE during that phase and the associated CTE deliverables including payment type and value. A summation table of the phases and CTE milestones can be found at the end of this SOW.

Phase 1: Project Planning

Estimated Time to Complete: 2 months

Phase 1 CTE Fee Total: \$34,000

CTE developed a high-level schedule as part of the 2022 LowNo grant proposal that includes estimated durations for all project phases. CTE will work with each team member to refine the general schedule from the proposal to incorporate specific project goals and constraints.

Under Phase 1, CTE will also work with Agency and other partners to finalize the project scope and approach, and define tasks, roles and responsibilities, and preliminary risks.

Phase 1 will result in an in-person formal kickoff of the project with all stakeholders and project team members to align the project team on tasks, assignments, timelines, and expectations to successfully meet project goals and objectives.

CTE will develop a project workbook that will outline these project goals and objectives, scope, and approach that will guide the execution of deliverables of the project. The Workbook will define the key milestones, as well as activities and tasks, and timeline for the project.

CTE’s deliverables and associated fees and billing frequency for this phase of the project are included in the table below.

I D	Deliverable	Billing Frequency	Fee
A	Project Kick Off Meeting Agendas, Presentations and Minutes	One-time at deliverable completion	\$28,000

B	Project Workbook	One-time at deliverable completion	\$6,000
		Total	\$34,000

Phase 2: Requirements Analysis

Estimated Time to Complete: 4 months

Phase 2 CTE Fee Total: \$51,000

This task includes bus modeling, route simulation, charge modeling, rate modeling, and confirmation of the technical specifications for the bus and charging equipment.

CTE will determine the detailed requirements for the buses to reliably complete service, and develop deployment options that may influence operating costs, quality of service, or reliability. CTE's task for this phase are discussed below.

Bus and Route Analysis

CTE will collect route data on existing Agency buses using GPS data loggers to capture time, distance, speed, acceleration, location, and grade. CTE will also collect local environmental conditions, passenger loading profiles, route planning details, and blocking schedules from Agency. CTE will model the selected Agency routes and the BYD 35-foot battery electric bus under a full range of operating conditions to predict the performance and energy consumption of the bus on the selected routes. The model uses powertrain simulation software developed by Argonne National Laboratory called AUTONOMIE.

Bus modeling is critical to battery electric bus deployments because range and charging needs can be highly dependent on route, traffic and weather conditions—particularly in the case of on-route charging operations where agencies must have an accurate assessment of variable charging time requirements to ensure charging can be accommodated in the planned blocking schedule.

CTE will use the results of the bus modeling to evaluate charging time requirements, inform the technical specifications of the buses, validate that the buses will perform as expected in Agency's specific operating conditions, and identify risks in the current deployment plans along with corresponding corrective actions.

Charge and Utility Rate Modeling

CTE will use the energy consumption requirements determined during the Bus and Route Analysis to develop charging schedules based on various possible charging strategies (e.g. on-route only, on-route with depot backup, primary depot charging with on-route range extension charging). CTE will then develop an electrical utility rate model to evaluate the potential electrical loads, consumption, and cost implications of the various charging strategies using the applicable electrical utility rate schedules.

Based on the results of this analysis, CTE will evaluate the tradeoffs between cost, on-time performance, headway and reliability for the various strategies developed to support Agency in selecting the optimal deployment approaches based on their specific goals.

CTE's deliverables and associated fees and billing frequency for this phase of the project are included in the table below.

ID	Deliverables	Billing Frequency	Fee
C	Bus and Route Analysis Modeling Presentation	One-time at deliverable completion	\$26,000
D	Charge Modeling Presentation	One-time at deliverable completion	\$12,500
E	Rate Modeling Presentation	One-time at deliverable completion	\$12,500
		Total	\$51,000

Phase 3: Bus Procurement and Build

Estimated Time to Complete: 12 months

Phase 3 CTE Fee Total: \$87,500

In this phase of the project, Agency will finalize the bus specification and other documents required for BYD bus procurement via a state contract. Agency will purchase the BYD buses through an available FTA approved state contract. BYD will submit their final design for Agency approval before proceeding with production. Agency and CTE will participate in a pre-production meeting at BYD's facility to confirm the design, and review quality control, quality assurance, and production procedures that will be in place for this order. Once the buses enter the production line, Agency and CTE will meet with BYD regularly during the bus build to track progress. The phase will end with the delivery of the buses.

CTE will assist Agency as they finalize specifications and other documents required for bus. CTE will review the specifications for potential risks based on their experience with zero emission buses. Prior to the award, CTE will provide a Pre-Award Buy America Audit.

CTE will provide periodic inspection services. The goal of the inspection is to ensure that the buses meet the agency's specifications and that BYD is adhering to their quality control and quality assurance standards. Agency will conduct pre-delivery inspection and approve buses for delivery and post-delivery acceptance inspections. These efforts are consistent with both the Inspection and Test and Inspection and Test Status elements of FTA's Quality Management System.

After delivery, CTE will conduct a Post-Delivery Buy America Audit to ensure the buses meet Buy America requirements. Agency, with assistance from CTE, will conduct a pre-delivery inspection and approve buses for delivery and post-delivery acceptance inspections. If needed, CTE may engage the services of external vendors to complete the resident inspections, quality assessments, and Buy America audits.

Throughout this phase of the project, CTE will provide guidance and oversight to Agency on bus manufacturing and design. There are no CTE deliverables associated with this service

and fees associated are included in the monthly project management fee and described in more detail in Phase 8.

CTE's deliverables and associated fees and billing frequency for this phase of the project are included in the table below.

ID	Deliverables	Billing Frequency	Fee
F	CTE Review of Technical Specifications for Buses	One-time at deliverable completion	\$22,000
G	Pre-Award Buy America Audits	One-time at deliverable completion	\$7,750
H	Post-Delivery Buy America Audits	One-time at deliverable completion	\$7,750
I	Inspection Reports	TBD based on final inspection scope	\$50,000
		Total	\$87,500

Phase 4: Infrastructure Procurement, Design, and Build

Estimated Time to Complete: 12 months

Phase 4 CTE Fee Total: \$5,000

This phase of the project includes all necessary steps to procure, design, build and install the charging infrastructure. Agency and CTE will begin with developing a charging specification and other documents required for procurement of chargers.

Agency will decide the procurement methodology for acquiring the chargers either through a bid process or buying through BYD. If a Request for Proposals to select a vendor for charging equipment is issued, CTE will assist Agency in the technical evaluation of proposals received from charging vendors to ensure that Agency understands the performance capabilities of each proposed charger.

Similarly, Agency will determine the procurement process for design, construction and installation of the charging equipment. Agency shall issue an RFP or IFB for site engineering (including civil, electrical, and mechanical), permitting, construction, and equipment installation, as needed.

CTE and BYD will work with Agency during these tasks to finalize site concepts for depot charging stations. The project team shall also meet with the local electrical utility to review charging requirements and site plans to ensure there are no issues with utility service to the facility.

Once the site preparation is completed and the charging equipment has been installed, the charging station installation contractor shall coordinate site inspection by the utility and the local authority having jurisdiction. The contractor or the charging equipment vendor will conduct grid-side commissioning after inspection and approval to energize is provided.

Once the battery electric buses are delivered, BYD and charger vendor will commission the equipment for charging operations with their buses.

As referenced in the narrative above, CTE will provide guidance, oversight and coordination to Agency throughout this phase of the project. There are no CTE deliverables associated with this service. CTE fees for providing this advisory service are included in the monthly project management fee and described in more detail in Phase 8.

CTE's deliverables and associated fees and billing frequency for this phase of the project are included in the table below.

ID	Deliverables	Billing Frequency	Fee
J	CTE Review of Technical Specifications for Chargers	One-time at deliverable completion	\$5,000
		Total	\$5,000

Phase 5: Bus and Infrastructure Deployment

Estimated Time to Complete: 2 months

Phase 5 CTE Fee Total: \$35,000

Agency and CTE will work to develop a plan for post-delivery acceptance and performance validation testing, as well as for beginning revenue service. Agency will conduct post-delivery inspections and acceptance testing. Transit Agency staff will receive the necessary training to operate and maintain the vehicles and charging equipment. Once buses and the charging stations have completed testing and acceptance by Agency, CTE will work with Agency and BYD to validate the performance and operation of the buses and chargers through CTE's performance validation approach. This phase will close with the buses entering revenue service.

After delivery and acceptances of the buses, CTE will conduct on-site validation testing, where buses and chargers are operated along the planned route under controlled conditions (ambient temperature, HVAC load, passenger load, traffic patterns, etc.). This testing will validate the planning analyses conducted in Phase 3, and confirm the buses and chargers meet the requirements of the technical specifications. CTE will use the test results to support Agency in determining spec compliance, rectifying findings and finalizing the deployment strategy and schedules based on real world performance.

CTE's deliverables and associated fees and billing frequency for this phase of the project are included in the table below.

ID	Deliverables	Billing Frequency	Fee
K	Validation Test Plan	One-time at deliverable completion	\$5,000
L	Validation Test Report	One-time at deliverable completion	\$30,000
M	Updates to Operating and Charging	--	--

	Recommendations Document as Needed		
		Total	\$35,000

Phase 6: Deployment Validation and Key Performance Indicators

Estimated Time to Complete: 16 months

Phase 6 CTE Fee Total: \$95,000

After revenue service of the buses begins, CTE will collect, analyze, and report on Key Performance Indicators (KPIs) to help track and understand the performance of the electric buses for a period of 12 months. These indicators will allow Agency and FTA to fully understand operational metrics to determine if the projected benefits have been realized from the deployment of the electric buses, including impact on emissions, reductions in fuel consumption and cost, reductions in maintenance and costs, and any potential increase in ridership.

CTE will conduct a reporting workshop with Agency to determine the KPIs they wish to capture and the procedures for collecting data.

For the current four BYD battery electric buses that Agency has in its fleet, CTE will keep the KPI Dashboard updated monthly with data for those buses, so that Agency can access the updated data. Once the new buses through this project are added to Agency's fleet, CTE will add the additional buses to the KPI Dashboard in order to provide Agency with KPI data for the Agency's entire battery electric bus fleet.

CTE's deliverables and associated fees and billing frequency for this phase of the project are included in the table below.

ID	Deliverables	Billing Frequency	Fee
N	Interim KPI Dashboard Updates (for the four 30' BYD battery electric buses currently in COMO's fleet)	Monthly over a 24-month period, beginning at start of project	\$30,000
O	KPI Workshop Agenda, Presentation and Meeting Minutes	One-time at deliverable completion	\$5,000
P	Monthly or Quarterly KPI Reports	Monthly or quarterly installments over a 12 month period	\$60,000
		Total	\$95,000

Phase 7: Project Close Out

Estimated Time to Complete: 2 months

Phase 7 CTE Fee Total: \$11,000

After the data collection period is over, CTE will issue a final report summarizing project results, findings, and lessons learned. Transit Agency will close out the project with FTA.

CTE's deliverables and associated fees and billing frequency for this phase of the project are included in the table below.

ID	Deliverables	Fee	Billing Frequency
Q	Final Report	One-time at deliverable completion	\$11,000
		Total	\$11,000

Phase 8: Project Management, Administration, Reporting, and Control

Estimated Time to Complete: 3 years

Phase 8 Fee Total: \$222,000

CTE will manage the entire deployment project including deployment planning; bus specification development; charger selection; infrastructure planning and procurement support; and final deployment. Project management will include but is not limited to the following activities:

- *Coordinating regular meetings and information sharing between project partners and stakeholders* — CTE will coordinate regular, timely and appropriate meetings with the needed staff. This will include recurring status meetings, as well as focused workshops and other events. Meeting coordination includes detailed agendas, meeting minutes and follow-up. These meetings and communications reduce effort required from agency's staff, increase transparency, and ensure that the agency's interests and goals are prioritized and fulfilled throughout the project term.
- *Advocating for the transit agency's interests* – CTE will act as an advocate and advisor solely focused on Agency's interests and concerns. CTE's 25 years of expert experience in electric vehicle technology is crucial when considering the unique requirements of battery electric bus system planning, design, and construction. CTE's unbiased experience and broad network of industry contacts results in rapid and impartial guidance, helping transit agencies select the technology that will best suit their needs and avoid pitfalls of electric bus implementation without being beholden to the bus manufacturer. CTE has proven experience in ensuring transparency on the capabilities, operation, and maintenance of battery electric buses, and ensuring that the final buses meet all specifications and service requirements.
- *Technical Advisory*– CTE provides technical advisory services throughout the project to ensure that agency staff understand the differences in technology and the best practices for deploying and operating ZEBs. CTE will advise Agency on ZEB technology best practices, key deployment strategies; ZEB supplier terms and conditions; charging strategies; oversight of bus manufacturing and design; construction and installation of charging stations; and ZEB training, operations, and maintenance.

- *Tracking project tasks, risks, budget and timeline* — CTE will develop and maintain the project schedule, and ensure that all milestones and deliverables are completed effectively and on time. CTE will also rigorously track and drive the resolution of project risks and action items to ensure project success. The Risk and Action Item Mitigation Plan (detailed below) ensures timely resolution of critical path tasks and active mitigation of project risks.

CTE's project management fees will be split into years and invoiced in monthly installments.

ID	Project Management	Billing Frequency	Fee
R	Year 1	Monthly installments over a 12 month period	\$108,000
S	Year 2	Monthly installments over a 12 month period	\$72,000
T	Year 3	Monthly installments over a 12 month period	\$42,000
		Total	\$222,000

Deliverables associated with this phase of the project may include but are not limited to the following:

Project Status Meeting Agendas and Minutes
 Quarterly Management Reports (QMRs)
 Ad hoc Reports, Communications, and Presentations as requested
 Technical Review of RFP Responses for Charging Equipment
 Technical Review of Site Plans for Charging Equipment
 Tracking Project Tasks, Risks, Budgets, and Timeline

Project Administration, Reporting & Control

CTE will guide the entire project by the control and risk management procedures detailed below. CTE's centralized management of the work program will enable team members to concentrate on exceeding project goals and ensure production of deliverables in a clear and well-coordinated manner. Details of CTE's processes for ensuring the efficient accomplishment of these tasks are as follows.

Collaboration Tools

CTE will use e-mail to share project files and communications, coordinate tasks, track issues, and maintain project calendars.

Communications Plan

Team members will participate in weekly or bi-weekly conference calls to discuss project status and current issues. Meeting minutes will be taken and shared to ensure open access to proceedings. Online video conferencing will be employed when team members desire a

presentation format to share status updates. CTE will schedule additional conference calls with team members as needed.

Reporting Plan

CTE will provide Agency with quarterly summaries of project status and activities, as well as Quarterly Management Reports (QMRs). The QMRs provide a summary of project status, progress, and accomplishments of the previous quarter and projections for the remainder of the project. The QMR will be structured to allow Agency to easily incorporate the information into the required FTA Quarterly Report submitted by Agency. The QMR will document project progress and activities as well as describe any known risks and plans for mitigation.

CTE will compile the QMRs with input from team members. CTE will provide team members with a QMR template that will include:

- Summary narrative of accomplishments by task/milestone during the period
- Estimated % completion and expected completion dates of task/milestone
- Significant events affecting progress and discussion of project variances
- Remaining activities and expected completion dates

CTE will also compile a Final Management Report at the end of the project to summarize the project accomplishments, realized benefits, and lessons learned.

Risk and Action Item Management and Mitigation Plan

CTE provides strong and engaged oversight of project progress through the suite of management controls and procedure outlined above. CTE's management method allows us to anticipate and manage potential risks and ensures quick recognition of any unexpected project risks that arise. All identified risks are documented; assigned to project team members for research, analysis, and resolution; and tracked through the project. Risks and related tasks are prioritized to ensure that project team members remain focused on the right activities at the right time. Critical issues that remain unresolved or proposed solutions that impact project timeline, scope, budget or resources are escalated to Agency management for immediate attention.

Schedule Control Plan

CTE will be responsible for maintaining the overall schedule with input from team members.

Team members will report schedule status for their assigned tasks during the regular team calls. If the actual progress for a task is determined to be behind the planned schedule, CTE will work with Agency to develop appropriate corrective action based on the schedule variance, the amount of work remaining, the impact on other tasks, and impact on the overall schedule.

CTE Deliverables

Phase	Task	Billing Frequency	Deliverable	Total	Cost per Installment (\$)
1	Project Planning			\$34,000	
		One-time at deliverable completion	Project Kick Off Meeting Agendas, Presentations and Minutes		\$28,000
		One-time at deliverable completion	Project Workbook		\$6,000
2	Requirements Analysis			\$51,000	
		One-time at deliverable completion	Bus and Route Analysis Modeling Presentation		\$26,000
		One-time at deliverable completion	Charge Modeling Presentation		\$12,500
		One-time at deliverable completion	Rate Modeling Presentation		\$12,500
3	Bus Procurement and Build			\$87,500	
		One-time at deliverable completion	CTE Review of Technical Specifications for Buses		\$22,000
		One-time at deliverable completion	Pre-Award Buy America Audits		\$7,750
		One-time at deliverable completion	Post-Delivery Buy America Audits		\$7,750
		TBD based on final inspection scope	Inspection Reports		\$50,000
4	Infrastructure Procurement, Design, and Build			\$5,000	
		One-time at deliverable completion	CTE Review of Technical Specifications for Chargers		\$5,000
5	Bus and Infrastructure Deployment			\$35,000	
		One-time at deliverable completion	Validation Test Plan		\$5,000
		One-time at deliverable completion	Validation Test Report		\$30,000
		--	Updates to Operating and Charging Recommendations Document as Needed		--
6	Deployment Validation and Key Performance Indicators			\$95,000	

		Monthly installments over a 24-month period	Monthly KPI Dashboard Updates		\$30,000
		One-time at deliverable completion	KPI Workshop Agenda, Presentation and Meeting Minutes		\$5,000
		Monthly or quarterly installments over a 12 month period	Monthly or Quarterly KPI Reports		\$60,000
7	Project Close Out			\$11,000	
		One-time at deliverable completion	Final Report		\$11,000
8	Project Management, Administration, Reporting, and Control			\$222,000	
		Monthly installments over 12-month period	Year 1		\$108,000
		Monthly installments over 12-month period	Year 2		\$72,000
		Monthly installments over 12-month period	Year 3		\$42,000
Total CTE Budget				\$540,500	

Attachment II

Federal Terms & Conditions

Attachment II
Applicable Federal Terms & Conditions

1. No Government Obligation to Third Parties

- (a) COMO and Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying contract, absent the express written consent by the Federal Government, the Federal Government is not a party to this contract and shall not be subject to any obligations or liabilities to COMO, Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract.
- (b) The Contractor agrees to include the above clause in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

2. Program Fraud and False or Fraudulent Statements and Related Acts

- (a) The Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. § § 3801 et seq. and U.S. DOT regulations, "Program Fraud Civil Remedies", 49 C.F.R. Part 31, apply to its actions pertaining to this Project. Upon execution of the underlying Agreement, the Contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the underlying contract or the FTA assisted project for which this contract work is being performed. In addition to other penalties that may be applicable, the Contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on the Contractor to the extent the Federal Government deems appropriate.
- (b) The Contractor also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U.S.C. § 5307, the Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5307(n)(1) on the Contractor, to the extent the Federal Government deems appropriate.
- (c) The Contractor agrees to include the above two clauses in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clauses shall not be modified, except to identify the subcontractor who will be subject to the provisions.

3. Access to Records and Reports

- (a) Record Retention. The Contractor will retain, and will require its subcontractors of all tiers to retain, complete and readily accessible records related in whole or in part to the contract, including, but not limited to, data, documents, reports, statistics, sub-

agreements, leases, subcontracts, arrangements, other third party agreements of any type, and supporting materials related to those records.

- (b) **Retention Period.** The Contractor agrees to comply with the record retention requirements in accordance with 2 C.F.R. § 200.333. The Contractor shall maintain all books, records, accounts and reports required under this Contract for a period of at not less than three (3) years after the date of termination or expiration of this Contract, except in the event of litigation or settlement of claims arising from the performance of this Contract, in which case records shall be maintained until the disposition of all such litigation, appeals, claims or exceptions related thereto.
- (c) **Access to Records.** The Contractor agrees to provide sufficient access to COMO, the FTA Administrator, the Comptroller General of the United States or any of their authorized representatives and its contractors to inspect and audit records and information related to performance of this contract as reasonably may be required.
- (d) **Access to the Sites of Performance.** The Contractor agrees to permit COMO, the FTA Administrator, the Comptroller General of the United States or any of their authorized representatives and its contractors access to the sites of performance under this contract as reasonably may be required.

4. Federal Changes

Contractor shall at all times comply with all applicable FTA regulations, policies, procedures and directives, including without limitation those listed directly or by reference in the Master Agreement between COMO and FTA, as they may be amended or promulgated from time to time during the term of this contract. Contractor's failure to so comply shall constitute a material breach of this contract.

5. Civil Rights Requirements

The following requirements apply to the underlying contract:

- (a) **Nondiscrimination** - In accordance with Federal transit law at 49 U.S.C. § 5332, the Contractor agrees that it will not discriminate against any employee or applicant for A-26 employment because of race, color, religion, national origin, sex, disability, or age. In addition, the Contractor agrees to comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.
- (b) **Race, Color, Creed, National Origin, Sex** - In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e et seq., and Federal transit laws at 49 U.S.C. § 5332, the Contractor agrees to comply with all applicable equal employment opportunity requirements of U.S. Department of Labor (U.S. DOL) regulations, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. chapter 60, and Executive Order No. 11246, "Equal Employment Opportunity in Federal Employment," September 24, 1965, 42 U.S.C. § 2000e note, as amended by any later Executive Order that amends or supersedes it, referenced in 42 U.S.C. § 2000e note. The Contractor agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, national origin, or sex (including sexual orientation and gender identity). Such action shall include, but not be limited to, the following: employment, promotion, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue

- (c) Age - In accordance with the Age Discrimination in Employment Act, 29 U.S.C. §§ 621-634, U.S. Equal Employment Opportunity Commission (U.S. EEOC) regulations, "Age Discrimination in Employment Act," 29 C.F.R. part 1625, the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6101 et seq., U.S. Health and Human Services regulations, "Nondiscrimination on the Basis of Age in Programs or Activities Receiving Federal Financial Assistance," 45 C.F.R. part 90, and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees to refrain from discrimination against present and prospective employees for reason of age. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.
- (d) Disabilities - In accordance with section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794, the Americans with Disabilities Act of 1990, as amended, 42 U.S.C. § 12101 et seq., the Architectural Barriers Act of 1968, as amended, 42 U.S.C. § A-27 4151 et seq., and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees that it will not discriminate against individuals on the basis of disability. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

The Contractor also agrees to include these requirements in each subcontract financed in whole or in part with Federal assistance provided by FTA, modified only if necessary to identify the affected parties.

6. Employee Protections

The Contractor shall comply with all federal laws, regulations, and requirements providing wage and hour protections for non-construction employees, in accordance with 40 U.S.C. § 3702, Contract Work Hours and Safety Standards Act, and other relevant parts of that Act, 40 U.S.C. § 3701 et seq., and U.S. DOL regulations, "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction (also Labor Standards Provisions Applicable to Non-construction Contracts Subject to the Contract Work Hours and Safety Standards Act)," 29 C.F.R. part 5.

The Contractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three (3) years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid.

Such records maintained under this paragraph shall be made available by the Contractor for inspection, copying, or transcription by authorized representatives of the FTA and the Department of Labor, and the Contractor will permit such representatives to interview employees during working hours on the job.

The contractor shall require the inclusion of the language of this clause within subcontracts of all tiers.

7. Disputes

COMO and the Contractor intend to resolve all disputes under this Agreement to the best of their abilities in an informal manner. To accomplish this end, the parties will use an Alternative

Dispute Resolution process to resolve disputes in a manner designed to avoid litigation. In general, the parties contemplate that the Alternative Dispute Resolution process will include, at a minimum, an attempt to resolve disputes through communications between their staffs, and, if resolution is not reached at that level, a procedure for review and action on such disputes by appropriate management level officials within COMO and the Contractor's organization. In the event that a resolution of the dispute is not mutually agreed upon, the parties can agree to mediate the dispute or proceed with litigation. Notwithstanding any provision of this section, or any other provision of this Contract, it is expressly agreed and understood that any court proceeding arising out of a dispute under the Contract shall be heard by a Court de novo and the court shall not be limited in such proceeding to the issue of whether COMO acted in an arbitrary, capricious or grossly erroneous manner.

Pending final settlement of any dispute, the parties shall proceed diligently with the performance of the Contract, and in accordance with COMO's direction or decisions made thereof.

- (1) Performance during Dispute. Unless otherwise directed by COMO, Contractor shall continue performance under this Contract while matters in dispute are being resolved.
- (2) Claims for Damages. Should either party to the Contract suffer injury or damage to person or property because of any act or omission of the party or of any of its employees, agents or others for whose acts it is legally liable, a claim for damages therefor shall be made in writing to such other party within a reasonable time after the first observance of such injury or damage.
- (3) Remedies. Unless this Contract provides otherwise, all claims, counterclaims, disputes and other matters in question between COMO and the Contractor arising out of or relating to this agreement or its breach will be decided by arbitration if the parties mutually agree, or in a court of competent jurisdiction within the State in which COMO is located.
- (4) Rights and Remedies. The duties and obligations imposed by the Contract documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by COMO or Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

8. Energy Conservation Requirements

The contractor agrees to comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act.

The Contractor agrees to include the requirements of this section in all its subcontracts that these requirements flow down to all subcontractor tiers.

9. Government-Wide Debarment and Suspension (Nonprocurement)

Contractor shall comply and facilitate compliance with U.S. DOT regulations, "Nonprocurement Suspension and Debarment," 2 C.F.R. part 1200, which adopts and supplements the U.S. Office of Management and Budget (U.S. OMB) "Guidelines to Agencies on Governmentwide

Debarment and Suspension (Nonprocurement)", 2 C.F.R. Part 180. As such, the contractor shall verify that none of the contractor, its principals, as defined at 2 CFR 1200, or affiliates, as defined at 2 CFR 1200, are not presently declared by any Federal department or agency to be:

- i. Debarred from participation in any federally assisted Award;
- ii. Suspended from participation in any federally assisted Award;
- iii. Proposed for debarment from participation in any federally assisted Award;
- iv. Declared ineligible to participate in any federally assisted Award;
- v. Voluntarily excluded from participation in any federally assisted Award; or
- vi. Disqualified from participation in any federally assisted Award.

The contractor is required to comply with 2 CFR 1200, and must include the requirement to comply with 2 CFR 1200 in any lower tier contract for \$25,000 or more.

By executing this Agreement, Contractor certifies as follows:

The certification in this clause is a material representation of fact relied upon by COMO. If it is later determined that Contractor knowingly rendered an erroneous certification, in addition to remedies available to COMO, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment. Contractor agrees to comply with the requirements of 2 CFR 1200 while this offer is valid and throughout the period of any contract that may arise from this offer. Contractor further agrees to include a provision requiring such compliance in its lower tier covered transactions.

10. Lobbying

Upon execution of the underlying Agreement, Contractor certifies, to the best of his or her knowledge and belief, that:

- (a) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (b) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (c) Contractor will require that the language of this certification be included in the award documents for all sub-awards for more than \$100,000 at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification clause is a material representation of fact upon which reliance was placed when this Agreement was entered into. Submission of this certification clause is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any

person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

11. Clean Air and Federal Water Pollution Control Act

- (a) The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. §§ 7401-7671q and the Federal Water Pollution Control Act as amended, (33 U.S.C. §§1251-1387). The Contractor agrees to not use any violating facilities, to report each violation of use of prohibited facilities to Transit Agency and understands and agrees that Transit Agency will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.
- (b) The Contractor also agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FTA.

12. Recycled Products

The Contractor agrees to provide a preference for those products and services that conserve natural resources, protect the environment, and are energy efficient by complying with and facilitating compliance with Section 6002 of the Resource Conservation and Recovery Act, as amended, 42 U.S.C. § 6962, and U.S. Environmental Protection Agency (U.S. EPA), "Comprehensive Procurement Guideline for Products Containing Recovered Materials," 40 C.F.R. part 247.

13. Safe Operation of Motor Vehicles

- (a) **Seat Belt Use.** The Contractor is encouraged to adopt and promote on-the-job seat belt use policies and programs for its employees and other personnel that operate company-owned vehicles, company-rented vehicles, or personally operated vehicles. The terms "company-owned" and "company-leased" refer to vehicles owned or leased either by the Contractor or AGENCY.
- (b) **Distracted Driving.** The Contractor agrees to adopt and enforce workplace safety policies to decrease crashes caused by distracted drivers, including policies to ban text messaging while using an electronic device supplied by an employer, and driving a vehicle the driver owns or rents, a vehicle Contractor owns, leases, or rents, or a privately-owned vehicle when on official business in connection with the work performed under this agreement.

Attachment III

Work Authorization Affidavit Form