

DELTA AIR LINES, INC.
and
CENTER FOR TRANSPORTATION & THE ENVIRONMENT
hereby issues the following
REQUEST FOR PROPOSALS
for
DIESEL TO ELECTRIC DRIVE CONVERSIONS
OF
FMC COMMANDER 15 CONTAINER LOADERS

Purpose

Delta Air Lines, Inc. (“Delta”) and the Center for Transportation & the Environment (“CTE”) are seeking proposals from qualified vendors to re-power diesel ground service equipment (GSE) to all-electric units. Eleven (11) FMC COMMANDER 15 CONTAINER LOADERS will be repowered by replacing the diesel engine, transmission, and cooling systems with battery packs, electric drive motors, and an electric control system. The GSE are owned and operated by Delta. These GSE will be targeted to operate from Delta’s new international terminal, the Maynard H. Jackson Jr. International Terminal, also known as Terminal F. Each gate will have electric chargers installed capable of supporting the GSE outlined in this RFP. Due to the complexity of the systems, qualified firms are limited those possessing specific experience with converting FMC diesel container loaders to all-electric container loaders. Time is of the essence in the completion of the project.

Background

CTE is a non-profit organization and is responsible for the management and administration of a US Environmental Protection Agency (“EPA”) Diesel Emission Reduction Act (DERA) grant awarded to CTE in 2011. EPA’s National Clean Diesel Campaign seeks to achieve significant reductions in diesel emissions in terms of tons of pollution produced and diesel emissions exposure, particularly from fleets operating in areas designated by the Administrator as poor air quality areas. This project is part of the National Clean Diesel Funding Assistance Program (Award No. DE-95487411-0) and is subject to its terms and conditions.

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1 SCOPE

1.1 DEFINITIONS

1.1.1 “Scope of Work”

The terms “Scope of Work” or “Scope” shall refer to the content of this document and its referenced materials.

1.1.2 “Seller,” “Manufacturer,” or “Integrator”

The terms “Seller,” “Bidder,” “Manufacturer,” or “Integrator” shall refer to a company engaged in the conversion of aviation/industrial equipment, from internal combustion engine powered to battery electric powered. The Seller shall have successfully completed at least three (3) projects of the size and complexity of this work, which are operating to the Owner’s satisfaction.

1.1.3 “Owner”

The term “Owner” shall mean Delta Air Lines, Inc. or any of its authorized subsidiaries.

1.1.4 “Mobile Container Loader” or “Aircraft Loader”

The terms “Mobile Container Loader” or “Aircraft Loader” shall be defined as a mobile aircraft loading vehicle used for loading and unloading Unitized Loading Devices (ULD) in the cargo compartments of Delta’s wide-body aircraft. The definition of these vehicles is understood to mean the components, subcomponents and subsystems that constitute a complete, operable, and maintainable mobile cargo conveyor.

1.2 DESCRIPTION OF WORK

The project shall be for the repower of eleven (11) FMC Commander 15 Container Loaders to be located at Delta’s new international terminal, the Maynard H. Jackson Jr. International Terminal, also known as Terminal F at Hartsfield-Jackson Atlanta International Airport. Repower of existing internal combustion (IC) engine powered Mobile Container Loader(s) to Industrial Battery powered with the conversion designed in such a manner that the original vehicle performance characteristics remain as they were originally designed, or are equivalent to the vehicle OEM’s Industrial Battery powered version of the same equipment. The existing IC engine currently provides power to two (2) main vehicle systems that will have to be provided by the conversion:

1. Hydraulic System. Consists of conveying and lifting platform and bridge systems and vehicle propulsion. This hydraulic system is also used for steering / brake operation in some models.
2. 12 or 24vdc electrical power, depending on model and manufacturer.

1.3 SELLER’S RESPONSIBILITY

The Seller shall be responsible for the procurement, installation and inspection of all materials and equipment necessary for the Scope of Work. The Seller shall perform all of the project procurement, management, design, analysis, documentation, fabrication, shipping and storing of materials, and construction. Seller shall perform debugging, testing and

demonstration of material and equipment required to deliver an efficient, safe, and reliably operating mobile container loader, in conformance with all the requirements of this Scope of Work.

1.4 DRAWINGS AND DESCRIPTIONS

All descriptions, diagrams, drawings, and any other information conveyed from the Owner or Owner's representatives about the current Mobile Container Loader(s), its sub-systems, or components are believed to be accurate. However, it shall be the responsibility of the Seller to verify all information conveyed about the existing unit(s) and design accordingly. The Seller should be aware that wiring diagrams are available, but may not be complete and up to date.

1.5 FINISHED PRODUCT

It is imperative that the finished product maintains, or exceeds, the original vehicle characteristics, especially as they relate to safety items.

2 APPLICABLE DOCUMENTS

The following documents or portions thereof which are in effect on the date of proposals shall form a part of this Scope of Work (SOW) as applicable to a battery powered Mobile Container Loader. Supplementary documents or specifications that are referenced in any of the following publications shall also be considered a part of this SOW. All standards and codes referred to above and throughout this SOW will be of the latest revision in effect.

- DAL Engineering Report 15-23992-20 "Mobile Container Loader, Baggage/Cargo Compartment"
- Society of Automotive Engineers (SAE), Aerospace Recommended Practice (ARP), ARP No. 1247; General Requirements for Aerospace Ground Support Equipment, current revision.
- Society of Automotive Engineers (SAE), Aerospace Recommended Practice (ARP), ARP No. 1816; Charger for Battery Powered Ground Support Equipment, current revision.
- Society of Automotive Engineers (SAE), Aerospace Recommended Practice (ARP), ARP No. 1817; Batteries for Battery Powered Ground Support Equipment, current revision.
- Society of Automotive Engineers (SAE), Aerospace Recommended Practice (ARP), ARP No. 1892; Electrical Connectors for Use in Battery Powered Ground Support Equipment, current revision.
- Society of Automotive Engineers (SAE), Aerospace Recommended Practice (AIR), AIR No. 1375; Minimum Safety Requirements for Special Purpose Airline Ground Support Equipment, current revision.
- ATA Specifications No. 101, Ground Equipment Technical Data
- American Society of Mechanical Engineers (ASME) Standards
- Code of Federal Regulations (CFR) 49

DAL Engineering Report 15-23992-20 "Mobile Container Loader, Baggage/Cargo Compartment" is available at <http://www.cte.tv/gse-cl-rfp.html>

3 GENERAL REQUIREMENTS

All equipment, components, design, construction, and installation will conform to the requirements stated in this Scope of Work. It is understood that the original unit(s) supplied for the conversion meet the OEM specification requirements and that the conversion will not degrade or adversely alter any of the established systems. Should the Seller desire to deviate from any portion of this Scope of Work, either because the specification is in error, in violation of any law or regulation, or is in need of modification to permit a more satisfactory functional and economical design, the Seller must submit a written request for such deviation to the Owner. Requests will be evaluated by the Owner's GSE Engineering Department. The Seller shall submit to the Owner prior to any sale, production or procurement of material, a complete technical proposal of the equipment that the Seller believes to comply with this Scope. This proposal shall include necessary layout drawings, sketches, manuals, electrical schematics and diagrams, control system diagrams, software lists, and parts lists sufficient to adequately define and evaluate the proposal. Sellers are required to submit in writing a review of this Scope, indicating compliance or non-compliance with each item. All issues of non-compliance shall be explained.

As much as possible, components selected for the conversion shall be industry standard, off-the-shelf equipment, available from typical industry suppliers.

3.1 PERFORMANCE REQUIREMENTS

3.1.1 Speed and torque

The container loader shall be capable of speeds of 7 MPH minimum / 10 MPH maximum and have sufficient torque to allow it to move forward from a complete stop on a 5% grade. The container loader shall have, at a minimum, a selection of two speed modes. When in close proximity of the aircraft, the "creep" mode shall limit the loader to a maximum speed of 5 ft/min. Acceleration shall be smooth and without lurch. The second mode, when selected shall allow the loader to operate at normal travel speeds.

3.1.2 Loading Performance

The 15,000 lb. model shall be capable of lifting and conveying up to 15,000 lbs. of cargo. The 30,000 lb. model shall be capable of lifting and conveying up to 30,000 lbs. of cargo.

3.2 SPECIFIC REQUIREMENTS

3.2.1 Removal

Remove existing diesel / gas engine, radiator, air intake, engine exhaust system, fuel tank / lines, associated electrical controls and gauges. All removed equipment will be returned to Delta Air Lines.

3.2.2 Chassis

The Chassis shall be prepared in such a manner that if possible the conversion components occupy the space where the IC engine was located. All components and mounts (unless plated) shall be primed / painted with

polyurethane paint prior to assembly so that not bare metal is exposed. Once all components are located, including the industrial battery, the chassis shall remain at OE ride height. Battery compartment shall be designed to secure one each 80V, 340 Ah Industrial Battery and equipped with a cover to prevent inadvertent access to the battery (or batteries).

3.2.3 Conversion

Systems / Components required, but not limited to: Note: The following is a brief list of requirements. The Seller will also comply with the requirements listed in E.R. 15-23992-20 section 3.13.1.2 “Electrical Design and Equipment (Battery Operated Loaders)”, 3.13.1.9 “Instruments and Controls”, and 3.13.1.11 “Electrical Components”

1. Two (2) each 80V, 500Ah Industrial Battery (Deka 40-D125-9)
2. Vehicle AC Hydraulic Pump(s) Motor
3. AC Motor Controller. Curtis brand controller required, unless otherwise approved
4. DC/DC Power Converter capable of providing the 12 or 24vdc power previously provided by the engine alternator and storage battery
5. 80vdc Electric Powered Hydraulic Motor/Pump capable of the same flow / pressure of the existing pump
6. Safety System that will disable the vehicle drive system unless the park brake is released, and disable the platform lift unless the park brake is set. Bridge lift to be enabled in either circumstance.
7. Battery charging arrangement to allow battery charging without a dedicated charge receptacle. If the unit is equipped with more than one battery, a provision that ensures all batteries are charged simultaneously should be incorporated. Battery charging disconnect assembly to be mounted at the front of vehicle, near the battery access panel(s).
8. Instrument panel consisting of a non-keyed rotary “on/off” Switch (Pollack preferred), State of Charge (SOC) Meter (two separate gauges for the 24V system and the 160V battery on ground panel, and only 160V battery at operators panel visible from both sides), and Hour meter (recording key-on time).
9. System shall go into a Maintenance or “Creep” mode in the instance of low battery.
10. A timer that shuts down the system after a time of inactivity.
11. The connectors shall be Anderson Power Products “Eurostyle” connectors w/ BMID, rapid charging capability.

3.2.4 Batteries

- 3.2.4.1 *Delta Air Lines will purchase and have delivered to the conversion site all batteries required for the repower.*
- 3.2.4.2 *Batteries shall be cycled a minimum of 3 times before delivery.*

3.2.5 Battery trays

- 3.2.5.1 *The tray for the batteries shall be of a corrosion resistant material. Steel trays shall meet the following requirements:*

Minimum Steel Thickness

Bottom of Tray	1/4"
Ends	1/4"
Sides	3/16"
Partitions	1/8"

- 3.2.5.2 *The tray will be provided with 1 3/8" diameter lifting holes, each pair of holes positioned in line with the center of gravity of battery assembly, so that during lifting, the battery will remain stable. Each lifting hole must be capable of carrying the full weight of the battery.*
- 3.2.5.3 *All battery trays shall be protected against acid corrosion with a protective coating.*
- 3.2.5.4 *The tray shall be stamped at the lifting point with the actual weight of the battery.*

3.3 CHARGING REQUIREMENTS

The electric-drive belt loaders shall be charged with Aerovironment PosiCharge model GSE 800 multi-port industrial rapid chargers. The vehicles must be equipped with a PosiCharge Battery Monitor and Identification Device (BMID), which relays the battery temperature and parameters to the charger to allow maximum charge rate without battery damage. The BMID must record cumulative charge history and initiate scheduled equalization charges at regular intervals based on need. The vehicles must also be equipped with Euro Din receptacles to connect to the rapid chargers.

3.4 TRANSPORTATION

Transportation of the equipment to and from the conversion site will be paid by, and coordinated with, Delta.

3.5 OPTIONAL

"Jump Start" mechanism for powering the 24V system

4 RELIABILITY

The conversion equipment shall be designed and constructed with reliability of operation a primary consideration. The minimum reliability design requirement is that the equipment be

designed to operate between periodic preventative maintenance periods of 100 operating hours of six weeks, whichever occurs first.

5 MAINTENANCE

5.1 SERVICE AND ACCESS

- 5.1.1 The design shall stress simplicity, ruggedness and ease of maintenance. All system components shall be designed to operate with a minimum of routine maintenance using long life components, sealed against environmental elements.
- 5.1.2 Equipment components and systems requiring frequent inspection or maintenance shall be readily accessible. Suitable access doors or removable enclosures shall be approved for this purpose.
- 5.1.3 Access doors, covers and protective guards shall be designed for quick removal or opening. Access holes in protective guards are acceptable, but shall be held to a minimum number and size.
- 5.1.4 Access panels shall be hinged, pinned, etc., to prevent loss from the unit. Large panels of over 4 feet, in both height and width, which are normally removed only for heavy maintenance, i.e. major components overhaul or removal may be designed to be removed from the equipment when hinging or pinning is not practical.
- 5.1.5 Hinges shall be located on the forward edge of all vertically hung doors and on the lower edge of all horizontally hinged doors. Where possible, at least 8 inches of clearance above the ground shall exist when any door is open.
- 5.1.6 All hinged doors shall be provided with devices to secure them in the open or closed position such that they will not be blown by jet blast or ambient winds.
- 5.1.7 Major assemblies and components shall be capable of being disconnected and removed from the equipment without the necessity for extensive disassembly of other components. A design goal shall be that any major component should be able to be removed and reinstalled in a period not to exceed eight man-hours. All components / assemblies exceeding 80 lbs. for two person-handling or 30 lbs. for single person handling, require mechanical assistance and shall be provided with lift eye, forklift guides, etc.
- 5.1.8 The design of the system shall be such that only ordinary common hand tools and test equipment are required in routine maintenance operations and special tool requirements for overhaul/heavy repair work is kept at a minimum.

- 5.1.9 Components shall be protected from mechanical, electrical, and corrosion damage and malfunctions due to rain, snow, ice, sand, grit, deicing fluids, and other contaminants.

6 WORKMANSHIP

6.1 INSTALLATION

High standards of workmanship and methods shall be employed in the installation of the equipment. Particular attention shall be given to metal finishes to assure freedom from blemishes, defects, burrs and sharp edges. Quality of welding, painting, riveting and alignment of parts shall be maintained.

6.2 WELDS

All welds shall be of adequate length, area and strength to sustain the design load. Welds shall be reasonably uniform in appearance and cross section, and shall be free of cracks, inclusion, porosity, cavities, and other physical and metallurgical defects. All welding performed in the fabrication, assembly, and/or mounting of the equipment shall be accomplished by a licensed certified welder.

6.3 FASTENERS

Assembly screws, bolts, studs, and other threaded fasteners shall be corrosion-resistant material or plated to prevent corrosion. All fasteners shall be tight and shall retain tension in service.

6.4 WIRE PROTECTION

All wires and lines subject to chafing shall be provided with some means of protection. Acceptable devices include grommets, flexible sleeves or jackets, and other approved materials.

7 ENVIRONMENTAL

7.1 CORROSION

All parts shall be resistant to, or protected from corrosion caused by contaminated turbine fuel or moisture blown or splashed from the ground. Provisions shall be made to resist electrolytic corrosion where conditions tend to cause this corrosion. Fasteners shall be of corrosion resistant material or plated to prevent corrosion.

7.2 EXTERNAL USE

All installed components to be rated for continuous external use. The system and all components shall be capable of producing its rated output at any ambient temperature ranging from -40°F (-40°C) to +140°F (60°C) and at any ambient pressure encountered at elevations up to 10,000 feet above sea level.

7.3 RAINFALL AND WIND

The equipment and all its components shall be designed to operate satisfactorily during continuous exposure to heavy rainfall (0.30 in/hr) (0.76 cm/hr) driven by a 25 mph (40.2 km/hr) wind.

7.4 WEATHER ELEMENTS

The equipment and its components shall be capable of proper and continuous operation in such weather elements as rain, snow, ice, sand, salt, and grit as well as exposure to deicing fluids, aircraft hydraulic fluids, engine oil and cleaning solvents.

8 PROJECT REQUIREMENTS

8.1 GENERAL PERFORMANCE STANDARDS

This section presents performance and quality standards that are in addition to the ones described in other sections of this RFP.

The Bidder, prior to fabrication and construction, shall provide submittals for the necessary layout drawings, sketches, manuals, electrical schematics and diagrams, control system diagrams, software lists, and parts lists.

8.2 PROGRESS REPORTING

The Project covered in this RFP will be partially funded using an EPA grant and hence shall comply with EPA reporting requirements that are applicable to the grant. The Bidder shall participate in periodic Project status meetings and shall provide Project progress updates including, but not limited to, updated schedules.

8.3 PROJECT SCHEDULE

The Bidder shall provide a detailed schedule, including all project milestones. Please clearly state any assumptions used to establish the workplan, i.e. anticipated start date. The proposed project schedule shall include, at a minimum, the following tasks and milestones:

1. Proposal Accepted, contract executed, and purchase order completed.
2. Seller site visit to Delta to confirm the IC drive system components to be removed.
3. Delta confirmation and acceptance of Seller's final design specifications, layout drawings, sketches, manuals, electrical schematics and diagrams, control system diagrams, software lists, and parts lists.
4. Parts procurement.
5. Seller conversion. The conversion will occur in groups containing two container loaders each. Two container loaders will be shipped at a time, except for the first shipment, which will contain three container loaders. When the first two container loader conversions have been completed, they will be sent back to Delta and the next two container loaders will be shipped, until all 11 container loaders have been converted. Removed parts will be shipped back with converted container loaders.

9 FINAL ACCEPTANCE

9.1 FIRST ARTICLE INSPECTION

A first article inspection will be required by Delta before the shipment of the first converted unit, to ensure compliance with this Scope of Work. This demonstration shall be conducted on the Seller's premises. The Seller will schedule an initial operational demonstration and inspection of the unit's compliance with this Scope of Work for representatives of Delta. This demonstration will be sufficient in nature to permit the development of a discrepancy list of all items that Delta believes to be non-complying with the Scope of Work. The final decision as to the time and date of this demonstration shall be made by Delta.

9.2 FINAL DESIGN ACCEPTANCE

Final Design Acceptance of the unit is contingent upon the Seller satisfactorily correcting all items that the Owner believes to be non-complying with this Scope of Work. Once the unit has successfully completed the Final Design Acceptance, no other component that affects reliability, performance, or maintainability shall be changed without written authorization from Delta Air Lines.

10 TRAINING

Training necessary for support of operation and maintenance shall be provided upon delivery of the first unit. Specifics of the training will be developed between the Seller and the Delta GSE Training Department. Training should incorporate classroom and "hands-on" instruction. Scheduling should be coordinated with the Delta GSE Training Department.

11 MANUALS AND DOCUMENTS

11.1 SCHEMATICS

11.1.1 Wiring schematics shall be of the ladder diagram type.

11.1.2 All schematics and diagrams shall be of the same size as other pages incorporated in the manual to a maximum size of 11" x 17".

11.1.3 All schematics and diagram reference (number, name, etc.) of wires, relays, switches, pumps, motors, and etc. shall be the same as that shown on each component and be consistent throughout all manuals, publications, documents, and schematics.

11.2 MANUAL FORMAT AND DELIVERY

Operation, Maintenance and Part Manuals shall conform to the intent of SAE Aerospace Standard (AS) 4828 (Technical Manual Development for Ground Support Equipment) and

shall be furnished in electronic portable document format (.pdf) on compact disc format media in the following quantities:

- A. 1 each copy sixty (60) days prior to the delivery of the first unit type
- B. 1 each copy sixty (60) days prior to the delivery of additional units when either Delta Air Lines requested or vendor changes are such that the existing manual no longer applies to the current units.

11.3 MANUAL DELIVERY ADDRESS

All manuals are to be forwarded to the following address:

Delta Air Lines, Inc.

GSE Technical Publications – Dept. 115

2100 Central Cargo Circle, Atlanta, Georgia 30354

11.4 WARRANTY DOCUMENTS

All warranty documents shall be forwarded to the following address:

Delta Air Lines, Inc.

GSE Warranty Coordinator – Dept. 586

2100 Central Cargo Circle, Atlanta, Georgia 30354

11.5 BILL OF SALE/CERTIFICATE OF ORIGIN

All “Bill of Sale” and/or “Certificate of Origin” documents shall be forwarded to the following address:

Delta Air Lines, Inc.

Manager - Field Operations & Asset Utilization, Dept 115

2100 Central Cargo Circle, Atlanta, Georgia 30354

12 WARRANTY

Details of the warranty are to be determined between the Seller and Delta Air Lines GSE Management.

13 Bidder Qualifications

The following are mandatory requirements for qualifying as a responsible bidder. A bidder found not to meet these qualification requirements may be determined to be non-responsive and have its proposal rejected. The requirements are as follows:

13.1 EXPERIENCE

Due to the complexity of the systems, qualified firms are limited those possessing specific experience with converting FMC Commander 15 diesel container loaders to all-electric container loaders. The Bidder must have working knowledge of all systems and components

of both diesel and all-electric versions FMC Commander 15 Container Loaders, as well as the operational requirements of FMC Commander 15 Container Loaders.

13.2 SOLVENCY

1. Bidders must demonstrate sufficient financial strength, resources and capability to finance the entire work to be performed and complete the contract in a satisfactory manner.
2. Bidders shall include a current copy of Dun & Bradstreet or similarly recognized credit report.

13.3 INSURANCE

The insurance requirements for the project are as follows:

1. Ability to obtain insurance with coverage values that meet minimum requirements evidenced by a letter from an underwriter confirming that the bidder can be insured for the amount required to cover EPA's interest in the project.
 - a. The bidder agrees to obtain, maintain and pay the premiums for the following types and amounts of insurance coverage for the entire term of the contract to insure against liabilities, claims, losses, or damages resulting from work required by the contract documents:
 - i. Workers' Compensation Insurance as required by the state in which the work is performed and endorsed to include Broad Form All States Coverage, which shall cover all of bidder's employees engaged in the performance of the work; and Employer's Liability with limits of not less than \$1,000,000 each accident; \$1,000,000 each employee by disease and \$1,000,000 policy limit by disease;
 - ii. Business Automobile Liability Insurance covering claims for Bodily Injury or Property Damage, including onsite and offsite operations, and including owned, non-owned and hired vehicles with at least a \$1,000,000 combined single limit of liability;
 - iii. Commercial General Liability Insurance covering claims that the bidder or any of its employees, agents or subcontractors or suppliers become legally obligated to pay as damages due to Bodily Injury or Property Damage with limits of \$1,000,000 each occurrence and \$2,000,000 general aggregate. The policy shall include Products/Completed Operations; Contractual Liability; Personal Injury Liability and Broad Form Property Damage. If insurance is written on a claims-made form, coverage shall continue for a period of not less than 3 years following termination of this contract. Coverage shall also provide for a retroactive date of placement prior to the effective date of the contract.
 - iv. Umbrella Liability Insurance for an amount of not less than \$5,000,000 per occurrence and in the aggregate that follows form and applies excess of the primary coverage stated in i. – iii. above.
 - b. The bidder shall require its subcontractors, if any, to obtain an amount of insurance coverage, which is deemed adequate by the bidder. The subcontractors, prior to commencing any of the work, shall submit certificates evidencing such insurance coverage.

- c. The certificates of insurance will specify that the insurer will endeavor to provide a 30-day written notice to Owner of cancellation of such insurance. Coverage provided is primary and is not in excess of or contributing with any insurance or self-insurance maintained by Owner.
- d. All such insurance as indicated above shall be provided by insurance companies having A.M. Best's rating of not less than AVIII.

13.4 ASSURANCE

Proof that the bidder's human and physical resources are sufficient to allow it to perform the contract as specified and to assure delivery of all equipment within the time specified by the contract evidenced by the following:

1. A list of all staff, subcontractors, and suppliers to be involved with the project, complete with description of their role in the project, relevant work experience, certifications and expertise.
2. A letter signed by a principal of the proposed equipment vendor(s) verifying the delivery dates for the material.

13.5 COMPLIANCE WITH CODES

All work shall be in compliance with any and all applicable codes and regulations currently adopted by local, state, and federal authority as well as all industry standards, which may specifically apply to GSE electric conversions.

13.5.1 Errors and Omissions

Services provided under this agreement shall be performed in a manner consistent with the degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances.

In the event of any negligent act, error or omission, the Bidder retains the responsibility for the correction, repair or reconstruction of which may require additional field or office work, and shall be required to perform such corrective services as may be necessary without undue delay and without additional costs to the Owner.

The Bidder shall be responsible for damages including but not limited to direct and indirect damages incurred as a result of its negligent act, error or omission, and for losses or costs to repair or remedy construction. Acceptance of the services by CTE shall not relieve the Bidder of responsibility for subsequent correction.

13.5.2 Civil Rights

The following requirements apply to the underlying contract and shall be deemed to be incorporated therein by reference:

A. Nondiscrimination.

In accordance with Title VI of the Civil Rights Act, as amended, 42 U.S.C. § 2000d, section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6102, section 202 of the Americans with Disabilities Act of 1990, 42 U.S.C. § 12132, and Federal transit law at 49 U.S.C. § 5332, the Bidder agrees that it will not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, age, or disability. In addition, the bidder agrees to comply with applicable Federal implementing regulations and other implementing requirements Owner may issue.

B. Equal Employment Opportunity

i. Race, Color, Creed, National Origin, Sex

In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e, and Federal transit laws at 49 U.S.C. § 5332, the Bidder 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. Parts 60 et seq., (which implement Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," 42 U.S.C. § 2000e note), and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in the future affect construction activities undertaken in the course of the Project. The bidder agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, creed, national origin, sex, or age. Such action shall include, but not be limited to, the following: employment, upgrading, 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 bidder agrees to comply with any implementing requirements Owner may issue.

ii. Age

In accordance with section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. § § 623 and Federal transit law at 49 U.S.C. § 5332, the Bidder agrees to refrain from discrimination against present and prospective employees for reason of age. In addition, the bidder agrees to comply with any implementing requirements Owner may issue.

iii. Disabilities

In accordance with section 102 of the Americans with Disabilities Act, as amended, 42 U.S.C. § 12112, the Bidder agrees that it will comply with the requirements of U.S. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630, pertaining to employment of persons with disabilities. In addition, the bidder agrees to comply with any implementing requirements Owner may issue.

14 Other

14.1 INCORPORATION BY REFERENCE

Any bid accepted by Delta and CTE shall be subject to the grant requirements set forth in the Grant Award Agreement by and between CTE and EPA (Award No. DE-95487411), terms of which are incorporated herein and made a part hereof by reference. Bidder must certify that they have read and understood the EPA agreement terms and conditions. EPA Terms and Conditions are available at <http://www.cte.tv/gse-cl-rfp.html>.

14.2 CLAIMS AND DISPUTES

All claims, counterclaims, disputes and other matters in question arising out of this project will be decided in a court of competent jurisdiction within the State of Georgia.

14.3 NOTICE OF INTENT TO SUBMIT PROPOSAL

Interested bidders are encouraged to provide a Notice of Intent to Submit Proposal via email to GSE-CL-RFP@cte.tv, which shall include the following information: Company Name, Address, and Website; and Contact Person, Phone, and Email.

14.4 INFORMATION REQUESTS

Questions with regard to this RFP must be submitted via email to GSE-CL-RFP@cte.tv not later than close of business (5:00 p.m. ET) on 13 July 2012. Answers to submitted questions shall be posted and available to all bidders at <http://www.cte.tv/gse-cl-rfp.html>.

15 Proposal Requirements

Any proposal submitted to CTE for the Project must provide the requested information in the order presented below. The project narrative must be submitted as a single PDF document, subject to page limitations, with references to any attachments. Attachments must be submitted as PDF documents, except where noted. Any bid submittal package which fails to include the required items set forth below or which fails to complete the required items in their entirety will be rejected from consideration. Proposals from qualified bidders will be evaluated on several factors including, but not limited to project schedule, warranty services, warranty length, quality of documentation and technical writing skills, and price.

15.1 PROJECT NARRATIVE (not to exceed 30 pages)

1. **Cover Page** signed by authorized representative of the Bidder
2. **Project Summary** to include description of bidder's understanding of the project.
3. **Technical Proposal** to include a description of the proposed design and systems components. Also include descriptions of the conversion and testing procedures.
4. **Conversion Site Description** to include
 - a) Site address;
 - b) Facility description;

- c) Equipment descriptions, to include description of charging equipment available for conversion testing and inspection); and,
- d) Compliance description, to include descriptions of applicable safety and environmental regulations.

5. Bidder Qualifications

- a) Bidder shall provide its overall experience with the conversion of diesel vehicles to all electric drive vehicles.
- b) The bidder shall reference projects similar to the project covered in this RFP. The Bidder shall provide detailed information describing a minimum of three (3) projects located within North America, completed within the last ten (10) years that include provision of similar scope of services as described in this RFP, and that have been in operation for a period of at least one (1) year. A brief description of these selected projects shall be provided, including the history of the project, current status, and a description of the Bidder's specific involvement in these projects. For each of the projects identified, provide the following information:
 - a. Name and location of project
 - b. Client and owner (including address and phone number)
 - c. Client reference contact information
 - d. A general description of the services provided
 - e. Key personnel involved with each project
 - f. Actual project capital cost
 - g. Actual project completion schedule

- 6. **Disadvantaged Business Enterprise Participation**, to include a description of the bidder's MBE/WBE status and/or description of the MBE/WBE status of any vendors or contractors participating in the project.

7. Project Milestone Schedule and Detailed Workplan

8. Proposed Budget

15.2 ATTACHMENTS

- 1. Technical Specifications: layout drawings, sketches, manuals, electrical schematics and diagrams, control system diagrams, software lists, and parts lists.
- 2. EPA Terms & Conditions Certification (available at <http://www.cte.tv/gse-cl-rfp.html>)
- 3. Insurance Certificates
- 4. Dun & Bradstreet (or equivalent) report
- 5. A list of all staff, subcontractors, and suppliers to be involved with the project, complete with description of their role in the project, relevant work experience, certifications and expertise.

16 Bid Submittal Deadline

Interested bidders must submit all required proposal documents electronically no later than 5:00 p.m. EST on 20 July 2012. Proposals must be sent to gse-cl-rfp@cte.tv and received by 5:00 PM EST. CTE is not responsible for any issues with electronic submittal that may cause delays in receipt of proposals.

17 Basis of Award

Any contract resulting from this RFP shall be awarded to the firm whose proposal is deemed to be qualified considering the evaluation criteria stated herein and provides Delta with the best value among those considered technically acceptable. CTE and Delta reserve the right to meet or communicate with any bidder to clarify the responsiveness of its proposal and the responsibility of the bidder's organization together with its proposed subcontractors and suppliers, in order to ascertain technical acceptability. CTE and Delta reserve the right to withdraw this request at any time without prior notice. Furthermore, CTE and Delta make no representations that an agreement will be awarded to any Proposing Company responding to this invitation. CTE and Delta expressly reserves the right to accept or reject any and all Quotations, or any item or part thereof, or to waive any informalities or irregularities in Quotations received without indicating any reasons for such actions.

18 Award Announcement

CTE and Delta intend to announce the successful bidder or, in the alternative, reject all bids not later than 31 July 2012.