

**Sole Source
Written Determination**

Agency Identification: Greenville Technical College

Description of the agency need that this procurement fulfills: *(See instructions on last page for guidance)*

We are trying to create a pathway that encourages and allows our students to learn, test and diagnose basic electricity problems in a way that mirrors the high voltage systems found in today's electric vehicles without the risk that is normally involved when working with a live vehicle.

Describe the Market Based on Research Performed: *(See instructions on last page for guidance)*

Listed below are links to the websites for companies with similar products including the last link which shows the company that has the requested product. These websites were visited to review the specifications of the products offered by each of these companies.

<https://seslabs.com/>

<https://www.nvistech.com/product/battery-management-training-system/>

<https://www.automotivetrainingequipment.com/products/electric-vehicle-educational-trainer-msev1>

<https://www.nvistech.com/product/regenerative-charging-and-braking-training-system/>

<https://www.atechtraining.com/electricity-trainer>

https://www.consulab.com/products#cat_l3-hybrid-electric-vehicle_prod_ev-400-053287-automotive-high-voltage-safety-trainer

Information gained from these websites include:

- How the vehicle manufacturers engineer electric vehicles determines the type and required equipment that will be needed for students to learn, train and diagnose those vehicles.
- The product will be obtained from the manufacturer's authorized representative.
- The place of delivery will be Greenville Technical College. It will take approximately two months to receive the items after the order is placed.
- One-year limited warranty
- Training will be provided by the product manufacturer.

Sole Source Vendor Name: Georgia Educational Solutions (GES)

Based upon the following determination, Agency proposes to acquire the supplies, construction, information technology, and/or services described herein from the vendor named above per SC Code Ann § 11-35-1560 and SC Regulation 19-445.2105, Sole Source Procurement.

Description of supplies, construction, information technology, and/or services vendor will provide under the contract: *(See instructions on last page for guidance.)*

4 Consulab EV-400 High Voltage Safety Trainers

1 Consulab CL-1919-12 Ohm's Law & DC Circuits Trainer 12 Pack w/ Storage Cart

Includes Basic training via MS Teams with a ConsuLab educational specialist.

Explain why the described solution is the only solution that meets the agency's need and how no other identified solutions were sufficient. *(See instructions on last page for guidance)*

The chosen solution is the only one that fully meets the college's needs because it is the only product identified that meets all of the College's required criteria without buying multiple trainers. The required

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criteria are the following:

Demonstrate knowledge of electric vehicle components by correctly identifying, locating, and explaining the function of major EV systems, including the power electronics module, traction motor, charging system components, high-voltage battery pack, DC-DC converter, and thermal management systems

Demonstrate knowledge of Ohm's Law and Watt's Law through calculations of current, voltage, resistance, and power in EV circuits, including practical applications in battery charging, motor operation, and power distribution systems.

Demonstrate knowledge of EV battery fundamentals, including cell chemistry types, battery pack architecture, voltage characteristics, capacity ratings, thermal behavior, charging profiles, state of charge determination, and safety protocols for high-voltage battery systems.

Demonstrate knowledge of Battery Management System (BMS) operations including cell balancing, temperature monitoring, state of charge calculation, fault detection, safety interlocks, and communication with vehicle control systems.

Demonstrate knowledge of AC and DC motor fundamentals including motor types used in EVs, working principles, torque-speed characteristics, power rating, and control strategies for different driving conditions.

Demonstrate knowledge of BEV electricity flow patterns during charging, driving, and regeneration modes by explaining power conversion processes, energy transfer between components, and efficiency considerations at each stage.

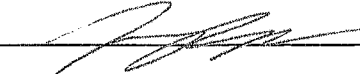
Demonstrate knowledge of EV charging station operation including AC/DC charging standards, power levels, communication protocols, safety features, charging connectors, and troubleshooting common charging issues.

Demonstrate knowledge of high and low voltage system architecture including isolation requirements, safety interlocks, voltage conversion, power distribution, wiring standards, and diagnostic procedures for both system architectures.

No other solution met all of the required criteria without buying multiple trainers, for example, some did not include training and support, some products were not customizable to meet the College's academic training needs and some products did not have the required functionality. Per the attached letter from Consulab, the only authorized distributor of these products in South Carolina is Georgia Educational Solutions (GES).

Note: Determination is not complete without required signatures and dates

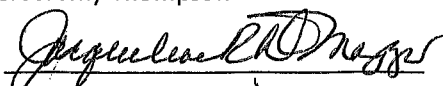
Required Signatures:

Prepared by: 

Date: 7/7/2025

Printed Name: Jeremy Thompson

Title: GM ASEP Academic Program Director

Approved by: 

Approval Date: 7/8/2025

Printed Name: Jacqueline Di Maggio

Title: VP for Finance

The last page contains instructions and is not required to be retained.



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May 22nd, 2025

Mr. Jeremy Thompson
Automotive Technology
Greenville Technical College
227 N. Pleasantburg Drive
Greenville, SC 29607

Hello Jeremy,

Please be advised that Georgia Educational Solutions (GES), with offices Peachtree Corners, GA, is the sole authorized source for all ConsuLab Training Aids products in the States of Georgia, Tennessee, and South Carolina.

This includes, but is not limited to ConsuLab Quote #26908-400 specifically for their new EV-400 High Voltage Safety Trainer. This also includes ConsuLab Quote #26908-1818-12 specifically for their CL-1919-12 Ohm's Law & DC Circuits Trainer (12 Pack) in a mobile storage cart. Please see the associated specifications for complete details.

ConsuLab training aids are not available through any other third-party reseller or distributor in the above listed territories.

We appreciate this opportunity to continue providing premium quality training aids for use in your auto/diesel program. Should you require any additional information about ConsuLab training aids, please feel free to contact me either by telephone at 1-800-567-0791, extension 6073, or by email at jbukowski@consulab.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'John Bukowski', with a stylized flourish at the end.

John Bukowski
Vice President of Customer Experience
and Satisfaction

cc: Jimmy Dinsmore, ConsuLab