

Completed proposals are to be submitted to Jeremy DiGorio, Chair, SACUBO Best Practices Committee, <u>info@sacubo.org</u> The deadline is November 10, 2020.

Best Practices Submission: Title: Electric Buses

#### **Primary\* Contact Information:**

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Salutation:	Prof.	Dr.	Mr.	🔀 Mrs.	Ms.
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\*Additional team contacts may be listed at the bottom of this form.

#### **Institution Information:**

Institution:
Research Comprehensive/Doctoral Small Institutions Community College
Year Founded: 1785
Geographical Location:
Number of Students: 39,147
Website: uga.edu
Statement of the Problem:

*Provide a brief statement identifying the challenge your institution encountered that benefited from your best practice.* 

The University of Georgia's main campus spans 762 acres. Transportation and Parking Services for the university services over 39,000 students, faculty, staff, and visitors a day all across this expansive campus. Transportation and Parking Services was faced with rising maintenance costs, flucuating costs of diesel, and the general aging of their fleet of diesel buses.

#### Identify the Solution (250-words maximum):

Describe how you identified and developed your best practice solution including those involved with the process, impact on the organization, finances and resources.

We identified electric buses as a best practice solution to overcoming the challenges with diesel buses. We found that students, faculty, and staff were excited at the prospect of a green solution to the large bus fleet on campus. The electric buses, although initially more expensive, save more money in the long run with less maintenance and upkeep.

Conversations within Auxiliary Services, Finance & Administration, Student Government Association, Office of Sustainability, and the College of Engineering helped us identify electric buses as a best practice solution. With the implementation of electric buses on campus we have dramatically reduced our emissions and maintence costs. Diesel buses cost between \$100-\$150 a day when you factor in fuel, maintenance, and depreciation. Electric buses cost an estimated \$10 a day in comparison. Response from the university community has been very positive to the new electric buses.

To financially support a new fleet of 33 electric buses, Transportation and Parking Services used grants to partially fund the project. In 2016, a grant from the State Road and Toll Association (SRTA) provided \$10 million with Auxiliary Services matching \$7.5 million to purchase 20 electric buses. In 2019, the Federal Transit Administration (FTA) provided a grant of \$7.5 million and with

Auxiliary Services putting forth \$3 million to purchase 13 additional electric buses. The University of Georgia put forth \$1 million to fund the infrastructure and charging facility. Other resources include consulting and oversight from the Center for Tranportation and the Environment (CTE).

#### **Implementation Timeline:**

Provide a bulleted list of the steps and implementation timeline of your best practice solution.

- 1. Spring 2016: Electric buses identified as a best practice solution.
- 2. June 2016: SRTA grant worth \$10 million secured.
- 3. 2017-2018: Identified and investigated three different electric bus vendors.
- **4.** Fall 2018: Identified Proterra as best choice for manufacturing the electric bus fleet.
- **5.** January 2019: Meeting with Proterra to start the production process.
- **6.** January-February 2019: Applied for FTA grant worth \$7.5 million.
- **7.** February 2019: Worked with the University Architects on site design for additional facilities and infrastructure needed to support electric bus fleet.
- **8.** April 2019: Auxiliary Services Marketing and Communications Department started working on a design to wrap the new electric bus fleet.
- 9. April-September 2019: Construction commenced on the Transit facility.
- 10. May 2019: Proterra sent an electric bus to test on campus for 3 weeks.
- **11.** August 20, 2019: Proterra started building the electric bus fleet.
- **12.** November 20, 2019: First electric bus was delivered to campus.
- 13. December 2019: Awarded FTA grant worth \$7.5 million.
- 14. January 2020: Last of electric bus fleet arrived on campus.
- **15.** February 2020: First of the electric bus fleet put in service on campus.
- 16. March 2020: Received additional 3 buses to add to fleet.
- **17.** August 2020: All electric buses put into service on campus.

#### **Benefits & Retrospect:**

Provide a brief statement of the benefits achieved by implementing the best practice solution.

With the addition of a 33 electric bus fleet on campus, we have been able to dramatically reduce maintenance and fuel costs. Students, faculty, and staff have had a very positive reaction to the new buses which provide a smooth, quiet ride in addition to reducing emissions on campus. We were also able to increase opportunities for experiential learning and research. We partnered with UGA's College of Engineering on four capstone projects that focused on collecting data, improving charging station efficiencies, and accommodating solar panels at the transit facility.

#### **Additional Team Contact Information:**

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Form: Updated August 2020