Seneca launches electric fleet

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SENECA — There are cities with more electric buses, but Seneca, according to the founder of Greenville-based bus manufacturer Proterra, now has the world's first all-electric municipal bus fleet.

City, state and federal officials gathered Friday at Seneca's Electric Transit Facility to celebrate what many said is the future of mass transit — a system that burns no fuel, creates no pollution and runs virtually silently.

"Who would have ever thought that in the foothills of the South Carolina Appalachian Mountains, the city administrator for a small town of nine or 10 thousand people, surrounded by a group of visionaries...would carve out the cornerstone for a concept that is changing the transit industry worldwide," said Dale Hill, founder of Proterra.

"This battery electric bus fleet is the first all-electric bus fleet in the world. In the world," he emphasized as the crowd of about 200 applauded. "The electric city, wow."

The city is running six electric buses that cost up to $900,000 each but will pay for their extra cost in lower fuel expenses in 12 years, Hill said. They have a life expectancy of 18 years, he said.

The Seneca fleet is operated by Clemson Area Transit, which also runs a separate system in Clemson, and makes hourly trips to Clemson in addition to providing local transportation in Seneca, officials said.

The buses can run for 35 miles between charges and get the equivalent of 19 miles per gallon compared to four miles per gallon for standard diesel buses. The Seneca buses have reduced carbon dioxide emissions by 500,000 pounds since they went into service in September, according to Proterra CEO Ryan Popple.

More than a dozen engineering graduates of Clemson University who work for Proterra and a professor at Clemson's International Center for Automotive Research played a major role in the design of the vehicles, he said.



PAUL BROWN

A Proterra bus rolls out of Seneca's Electric Transit Facility

"The talent from Clemson University is in these vehicles," he said. "These vehicles wouldn't be possible without the local engineering talent and innovation."

Proterra, he said, is the first

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company to combine the use of light-weight composite materials such as is used in military vehicles and airplanes with electro-traction motors and lithium ion batteries.

"I think here in the city of Seneca we've proved that an electric vehicle that's four to five times more energy efficient than a diesel vehicle can do the job," he said. "I think we've proved here with the first fleet in the United States to go 100 percent EV electric that this is the future of the industry."

Having a fleet near the Proterra's headquarters is a benefit for the company in monitoring and improving its product, he added.

"To have a deployment that's very close to us where our engineers and technicains can go and see the product in real world service, where I can meet with the staff at Clemson Area Transit or the administrators and managers for the city of Seneca and learn what it's going to take to really make zero emission vehicles a reality for transit, that's incredibly powerful," he said.

The city and company waited until the buses had logged 100,000 miles to declare the project a success and make the announcement.

Seneca Mayor Dan Alexander said development of the system was a cooperative effort between Seneca and as the city of Clemson and the CATbus system as well as state and federal agencies.

The city received $5.9 million from the U.S. Federal Transit Administration and $540,000 from the state Department of Transportation, which the city matched with about $510,000 of its own money, according to City Planner Ed Halbig.

Al Babinicz, director of the Clemson Area Transit system, also known as CATbus, said the bus system is working with Proterra on developing solar power as a source of energy to charge the bus batteries. The bus system's office is powered by solar panels, he said.

Seneca is using a former textile plant to house and maintain its fleet — something that couldn't be done safely using diesel buses because of the accumulation of fumes, officials said.

For Alexander, the mayor, the important thing is providing a safe, reliable and environmentally friendly transportation system for Seneca residents who need it. Many of the riders are Clemson students, but also elderly and working poor folks use them regularly, he said.

"It's all about the people who ride these buses," he said.