# Electric truck saves energy around town

April 11th, 2007

Meg Miller, CT News Reporter



David Roper, retired physics professor at Virginia Tech, recently purchased a Zapcar Xebra, Virginia's first electric pickup truck of its kind. It is not only different from other cars in the state because of its battery, but the $12,000 dollar truck is also quite a sight driving around Blacksburg with its vibrant electric blue color and ZAPCAR, in white lettering, printed along the side.

Roper said that the Zapcar Xebra can go a maximum of approximately 40 mph, and can run for 30 miles. The batteries, stored underneath the truck bed, provide the 6.7 horsepower used to keep it going. Though this may not seem like much compared to cars with combustion engines, Roper said that part of the reason he got it was it can go faster and farther than most other electric cars in its price range.

Roper said that he has had an interest in an alternative to conventional gas-powered cars for quite a while now.

"I bought a Prius in 2005 that now has 22,000 miles on it because I wanted to cut down on carbon dioxide emissions," Roper said. "I bought for my wife a Highlander hybrid for the same reason."

Roper said that he thinks most families should have one bio-diesel plug-in hybrid, a hybrid with a larger battery that can be charged by plugging it into any plug and also uses bio-diesel as its fuel for vacations and long distances, and one electric car just for driving around town.

However, there is one problem with the Xebra. Because of its three wheels, the Virginia Department of Motor Vehicles recognizes the truck as a motorcycle and requires Roper to obtain a motorcycle license to drive it. He said that he thinks this type of car should not be rated as a motorcycle.

"I am supposed to be driving with a helmet and another motorcycle passenger," Roper said.

Roper also said that his truck was not yet a finished product, and that he enjoys fixing it up and making it better.

"I'm working on a solar panel roof," Roper said. "It will trickle charge the battery, but not fully charge it."

Therefore, the name "Sunroper" became the winning name of an online contest held by Roper to name the truck. Roper said that the panel will "rope the sun," which will extend the truck's range a little bit. He also paid an extra thousand dollars for bigger batteries, which will also help.

But the main reason Roper purchased the truck is because of his concern with cutting back on carbon emissions that can help cause global warming.

"I've done a lot of research in global warming and energy, a lot of reading, and have come to realize the dire situation we are in right now," Roper said. "I'm always looking around for how I can help."

Purchasing the truck is not the only way Roper is trying to help. He has helped to make Blacksburg a "cool city" and has taught classes at the YMCA Open University about gas/electric hybrids. He also plans to teach more on the bio-diesel plug-in hybrid and is encouraging others to set up an electric car dealership in Blacksburg.

"I'm on a crusade, you could say," Roper said.

Roper's wife, Jeanne Roper, a retired associate professor in urban affairs and planning, said that people around Blacksburg have been responding positively to his promotion of electric and hybrid vehicles.

"He is a very high energy person, and he is very committed to the things that he is working on," Roper said about her husband.

Just driving the truck around town, Roper is spreading the news. On the front of the car is a bumper sticker that says "Want one?" with Roper's email address underneath of it.

"If people come up to me and say 'I want one of these,' I can tell them how to get one," Roper said, "It's easy to get them and that's what I'm trying to tell people."

The Xebra is built in China, and then shipped to California, where parts such as seat belts and American batteries are installed. Roper said that the truck could be delivered right to one's door.

John Chermak, a professor in the geosciences department, agrees that the electric and hybrid cars are more energy efficient.

“They are very, very efficient in terms of energy in versus energy out, whereas the combustion engine is less efficient,” Chermak said.

Roper said that since electricity here comes from a coal-burning power plant, his truck puts about 60 -70 percent as much carbon dioxide into the air as a gas-powered vehicle that uses the same amount of energy per mile. He said that if the electricity came from renewable energy sources such as wind and solar power, there would be no carbon emissions.

“I think that when (students) go to buy their next car, I think they shouldn’t buy an SUV,” Roper said. “I think that they should either buy a hybrid, an electric, or a bio-fueled vehicle … so you’re not part of the problem, you’re part of the solution.”