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Online Extra: Fuel cells helping S.C. meet world energy challenge

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Guest Columnist

The S.C. Policy Council's recent column concerning South Carolina's leaders and their support for hydrogen and fuel cell research and deployment is uninformed at best ("Hydrogen research wastes scarce tax dollars," Friday). Rather than focus on the global progress being made in the evolution of this timely technology and its potential to provide an alternative energy source, its misguided argument instead relies on a limited knowledge of the hydrogen industry and quotes taken out of context.

Hydrogen fuel cells are commercial and in the marketplace today. While automobiles and transportation are a significant future market for the fuel-cell industry, most of the focus today is on niche transportation, portable and stationary fuel cells. Bridgestone Firestone and Genco in Aiken County are committed to converting their fleets of electric forklifts to fuel-cell/electric because there is a cost benefit today.

Dantherm Power, a Danish company, is in the initial stages of launching its U.S. fuel-cell entry for stationary power through its Spartanburg-based manufacturing facility; one of its first U.S. installations is in Columbia. Trulite is manufacturing portable fuel-cell refueling cartridges in Columbia, and has contracts with the U.S. Navy and major battery manufacturers.

The largest commercial order on record was initiated early last year when India committed to purchasing 10,000 stationary fuel cells for telecom backup power from Ballard Power Systems based in Canada.

You can buy micro-fuel cells for your cell phone online at BestBuy.com (Medis Technologies). New technologies have been the engine of the U.S. economy for the past 50 years (think computers, telecom, software, the Internet, GPS, etc.), and like fuel cells, all have all started in niches before growing to mass markets.

Hydrogen and fuel cells represent just one technology in a portfolio of technologies that our country must embrace to solve the energy challenge. It is one of the major components in our national road map for employing green technologies. We are taking steps to redirect a portion of the \$900 billion we send to oil-producing countries back to our country.

The number of automobiles in the world will triple from 750 million to 2.25 billion by 2050; today, 97 percent of transport fuel comes from oil. Automobile executives generally agree that cars will evolve from gasoline internal combustion to gas and plug-in electric hybrids to fuel-cell electric hybrids. The only question is whether the car of the future will be developed here or in another part of the world. The leading companies in the industry — Honda, Toyota, General Motors, BMW, Volkswagen, Kia, etc. — all have developed fuel-cell electric prototypes.

House Speaker Bobby Harrell and other leaders are working to build a brighter future for our region by building on a competitive advantage we already have in the market.

South Carolina is investing in and building its hydrogen fuel cell innovation pipeline to grow the jobs of tomorrow. Investments in world-class researchers such as Ken Reifsnider, such facilities as Innovista and Savannah River National Lab, and such commercialization programs as SC Launch already have begun to yield fruit. USC attracted a \$12.5 million investment from the Department of Energy to build a Frontier Energy Research Center with the goal to advance engineering devices including fuel cells, electrolyzers, electrodes, photovoltaics, combustion devices, fuel-processing devices and functional membranes and coatings.

In fact, the greater Columbia region alone attracted more than \$60 million in confirmed and pending federal and private-sector investment in hydrogen and fuel-cell technology in only five years. These investments by the state, the university and the private sector have led to more than 100 knowledge-based jobs being created at USC and the private sector. Recently, Brian Benicewicz, an endowed chair at the University of South Carolina, was awarded a \$320,000 research grant from BASF to study fuel-cell membranes. In the year that Dr. Benicewicz has been a part of the S.C. landscape, he has garnered more than \$1.2 million in federal and private research grants.

South Carolina has seen company formation in this industry as well with start-ups and landing parties such as Tetramer Technologies, Trulite and Boroscience and existing industry-expansion groups such as Kusters Zima and Dantherm Power.

The energy challenge is global — and it will not be going away in our lifetime. This opportunity represents one of the best chances South Carolina has to lead the nation in creating the type of next-generation economy that will make our state and the United States competitive in the 21st century and beyond. There is no reward without risk.

The hydrogen economy in South Carolina is alive and growing thanks to the vision and leadership of our entire community. Hydrogen is taking its place in the overall alternative energy equation of our country. We would welcome the Policy Council joining our efforts to make South Carolina a center of excellence in hydrogen, fuel cells and other alternative energy technologies. We are stronger together than divided.

Mr. Wilson, a venture partner with First Mark Capital, has founded, invested in and managed a number of the state's most significant technology companies.

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