Pastides: Catch the clean-energy vision

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Guest Columnist

In these gloomy economic times, we can at least take solace in the fact that filling up the gas tank doesn’t require emptying our wallets, as it did last summer.

But just as the economy will eventually rebound, so, too, will the price of gasoline. And that’s one of the reasons I’m looking forward to the 2009 National Hydrogen Association Conference that’s coming to Columbia March 30-April 3.

Hundreds of hydrogen industry exhibitors and visitors are expected for this event, which will showcase the latest technology in hydrogen fuel cells. Much has been written about the potential for hydrogen as an ultra-clean alternative energy carrier that could help ease our nation’s dependence on fossil fuels that are expensive and environmentally unfriendly.

While large-scale availability of hydrogen-fueled cars is probably years down the road, hydrogen fuel cells already are in use — in forklifts and as back-up energy sources for cell phone towers, for example, and their commercial presence is expected to grow dramatically.

So why should people care about the upcoming conference? For starters, this isn’t a trade show for industry insiders. The people who are bringing this event here — the city of Columbia, the S.C. Hydrogen & Fuel Cell Alliance, EngenuitySC and the University of South Carolina, to name a few — have worked hard to make this conference informative and entertaining for everyone, from grade-school students to adults.

For example, from 10 a.m. to 5 p.m. April 1 at the Columbia Metropolitan Convention Center, visitors can get a free ride in a hydrogen-powered vehicle. On April 2, a town hall-type meeting called “The Good and the Bad about Hydrogen” is planned. The session is designed to separate fact from fiction about a future hydrogen economy. That same day, visitors can tour the Columbia Fuel Cell District and USC’s new baseball stadium, which boasts the world’s first electronic scoreboard powered partly by a hydrogen fuel cell. And all of the conference exhibits will be open to the public, with hands-on displays for those who are especially curious.

The National Hydrogen Association was drawn to Columbia by the vision and commitment of Midlands and state leaders to develop a knowledge-based economy focusing on alternative energies such as hydrogen and fuel cell technology. Leaders from Columbia Mayor Bob Coble to S.C. House Speaker Bobby Harrell, U.S. Sen. Lindsey Graham and U.S. Rep. Bob Inglis have been pushing to develop the infrastructure for a hydrogen economy, and a lot already is in place:

• The University of South Carolina is home to the nation’s only industry/university fuel cell research center co-sponsored by the National Science Foundation and home of several of the nation’s leading scientists in this field. Boeing, Dow Corning, General Motors and others are working with us every day to develop new and better hydrogen fuel-cell technologies.

• The Greater Columbia Fuel Cell Challenge has funded more than $4 million in hydrogen and fuel cell demonstration and commercialization projects since its inception just three years ago.

• The S.C. Hydrogen & Fuel Cell Alliance is working to pull together all of the state’s hydrogen resources and expertise — from the Savannah River National Laboratory to the new hydrogen fueling station in downtown Columbia — to make the state a hub of hydrogen innovation.
All the planning and work on alternative energy is really being done with an eye toward the future. That’s because we’re trying to build something big — just like the petroleum industry that was developed decades ago in Texas or Silicon Valley in California or the Research Triangle Park in North Carolina. There aren’t many competitive areas in which South Carolina can lead the nation; alternative fuels clearly is a field in which the state can excel.

Some have said we’re putting too many eggs in one basket, but I would point out that the 2009 National Hydrogen Association Conference and our parallel efforts in South Carolina go far beyond hydrogen. It’s about developing clean alternative energy options, a national priority. We’ve invested a lot in hydrogen fuel-cell technology, but we’re also conducting important research in next-generation nuclear fuel, new solar energy technology, biomass energy generation and other types of fuel cells that convert myriad fuel sources into electricity.

We have no guarantee that hydrogen or any particular alternative energy will become the “next big thing,” but scientists have been pursuing big questions without the safety net of guarantees since the dawn of the first university.

Ultimately, our commitment is to the secure energy future of our country and the economic well-being of our state. Join us at the conference, and find out how that commitment can help build our future.

Dr. Pastides is president of the University of South Carolina and a passionate advocate for alternative fuel research and the environment.