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Tackling climate change, while we still can

By BRIAN HELMUTH
Guest Columnist

I've always been fascinated by science fiction, so a recent report about a city being built in the desert really caught my attention. In this futuristic city, people will move around in "personal rapid transit systems" — solar-powered cars that allow each person to zip from one part of the city to the next. The most amazing thing is that not only is the city being built in the searing heat of a desert, but the entire structure is designed to run without any gas, coal or oil. Masdar City, in the heart of the oil-producing United Arab Emirates, will have zero carbon emissions. When asked by the NPR interviewer why Abu Dhabi has committed \$4 billion to this project, Sultan Al Jaber, CEO of the company designing the city, replied "because we can ... and because we should."

Where did the capital come from to support this investment in this futuristic city? I'll leave you to ponder that riddle the next time you are filling your SUV at the pump. What truly caught my attention, however, was a statement made not by the Sultan but by Joe Palca, who filed the story: "when the oil runs out, which it eventually will, Abu Dhabi wants to be ready to sell the world solar or wind or whatever renewable technologies will be needed to supply people's energy needs."

Let's get down to brass tacks before the opportunity to act eludes us. Solutions to global warming require equal doses of two strategies: First, we must immediately find clever ways of reducing our greenhouse gas emissions, through both conservation and technology. Second, we must plan to deal with the unavoidable impacts that climate change will have on our natural and managed ecosystems and on human society.

We South Carolinians are at the forefront of climate change research, but we do not yet have policies in place to deal with the challenges of a warmer world.

After decades of observation and study, we know that climate change is happening and that, critically, we are on a "nonlinear" part of the curve, meaning that small changes in emissions are now resulting in large changes in our climate. The science is well understood, and reducing the amounts of carbon dioxide and methane that we put into the atmosphere now can make a huge difference to world temperatures. Making these reductions later may be, simply put, too late to avoid catastrophic consequences.

An equally important piece of the puzzle is to predict the future impacts of climate change (a science called "ecological forecasting") so that we can minimize, and in some cases triage, these effects. By preparing for the future effects of climate change, we may be able to reduce some of the damage it will cause. At the University of South Carolina, we are at the forefront of this effort, and have developed methods for predicting, on a worldwide basis, many of the impacts of climate change on coastal ecosystems. While vital, however, excellence in research must go hand-in-hand with sound policy.

Global climate change is not an insurmountable problem, but it does require that we get our act together, and that we do so now. True solutions to climate change require us to think big as a state, as a nation and as a world society. We face many problems and challenges, including emerging diseases, overpopulation and insufficient food supplies, but usually it is climate change that serves as the trigger that fires these bullets.

When a nation halfway around the world runs out of food, we feel the tremors of the resulting political unrest, like it or not.

A number of solution-oriented, bipartisan climate bills are being considered in the U.S. House and Senate, but as of yet none has gained the support of S.C. representatives. We need that legislation. Moreover, we must work together as a state to develop effective economic and environmental policies before the opportunity is beyond our grasp. It is time for this generation to step up to the plate and address the problem of climate change.

If there ever was a quintessentially American answer to why we should tackle the truly big challenges of our day, it is “because we can ... and because we should.”

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