Tech projects update Wyoming’s image

We have the best license plate in the nation. And the best quarter, too — bar none. Clayton Danks and Steamboat may not be names familiar to most people in the United States, but their profile sure is, and for a long time their image has identified Wyoming and its culture. But through the work of the Legislature and the governor and a host of private concerns, Wyoming may soon become identified — in a very positive way — with more than just the Wild West.

The National Center for Atmospheric Research supercomputer is a joint project between the University of Wyoming, the National Science Foundation, the State of Wyoming, Cheyenne LEADS, the Wyoming Business Council and Cheyenne Light, Fuel and Power.

When completed in June 2012, the supercomputer will be among the world’s 25 fastest — quite an achievement for a state with a population of around 500,000.

But beyond being a first-class facility for the investigation of such things as weather, climate, computer science and carbon sequestration, the supercomputer and the commitment to build it mark an important shift in the way Wyoming sees its role in the coming decades.

That role — at least from the standpoint of our economy — has principally been exporting natural resources to an energy-hungry country. More than one pundit has made the obvious observation that Wyoming’s economy waxes and wanes with the fortunes of the mineral extraction industry. Building a supercomputer, and training the people who program and operate it, gives the state a chance to export expertise, not just energy.

There are other examples of the same forward-looking approach to diversifying Wyoming’s economy, too.

One is the carbon sequestration experiment in the Rock Springs uplift. This three-year feasibility study will assess the potential of injecting billions of tons of carbon dioxide — a potent greenhouse gas and a by-product of energy production — 10,000 feet underground, where an impermeable layer of rock above would contain it. If successful, this interim technology could help bridge the transition to an energy economy less based on carbon. Even for an interim technology, the project would have amazing potential: Experts estimate the Rock Springs uplift alone could contain all of the carbon dioxide produced by Wyoming for the next 400-plus years.

And then there’s the High Plains Gasification — Advanced Technology Center being built east of Cheyenne. Wyoming produces 40 percent of the nation’s coal. The Coal Gasification Center is only about one hundredth the size of a future commercial facility, but it will provide the data eventually needed to create commercial-scale plants that will use Powder River Basin coal to produce hydrogen, electricity and other energy while virtually eliminating air pollution, including carbon dioxide. Coal gasification is considered one of the most promising technologies in the search for clean energy — which is probably why General Electric has partnered with the University of Wyoming in the design and construction of the facility.

All of these are exciting projects with long-term positive potential.

So while I would be the last person to advocate a change in the quarter or the license plate, and while I am proud of Wyoming’s Western heritage, I am also excited by the prospect of new technologies that will offer real-world solutions to the constant tension between the demand for energy and the importance of preserving open spaces, clean water, and the kind of lifestyle that makes the image on our license plate fit so well with who we are.

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