Energy expert Udall looks to the future

ASPEN

After 13 years at the helm of the Community Office for Resource Efficiency, Randy Udall stepped down this month.

As the director of the department created by the governments of Aspen and Pitkin County, he helped create numerous innovative, conservation-minded programs.

Fortunately, the longtime Carbondale resident is staying put and will remain a leading voice in the region on energy issues. Udall is in high demand as a speaker at energy conferences and with conservation groups because of his grasp of the changing picture on our fossil fuel lifestyle.

Prior to joining CORE, Udall was a college drop-out who worked as a carpenter and an Outward Bound instructor before becoming a freelance writer who concentrated on energy and environmental projects.

"I wrote my first feature on global warming in 1987," he said. "The potential impacts I mentioned " melting glaciers, threats to pikas and polar bears, reduced Colorado River runoff, longer growing seasons, intense droughts and longer fire seasons " seemed, then, to resemble science fiction.

"Of course, all that and more has come to pass," he said.

The Aspen Times caught up with Udall last week for an exit interview on some of the most pressing energy-related issues facing the country and the region.

CORE started the unique Renewable Energy Mitigation Program in 2000. Please summarize how that works. Has it been a success?

The program requires new homes in Pitkin County to meet a strict energy "budget." Homes that exceed that budget, because they want to use fossil fuels to snowmelt a driveway or heat an outdoor pool, pay a renewable energy mitigation fee. In addition, every home over a certain size must install some sort of renewable energy system, or pay an additional smaller fee. The REMP fund has raised $6 million since its inception, and the fees themselves represent the

world's stiffest carbon dioxide tax. We use the money to install energy efficiency systems or renewable energy systems on affordable housing projects, public buildings, schools; to buy wind power; and to fund rebates on efficient appliances and solar systems.

Does it send the wrong message to allow people to consume more energy by paying a fee?

Are we selling papal indulgences, a license to pollute? Perhaps, but we were careful to set the fees high enough that we avoid at least three pounds of pollution for every pound produced.

What accomplishments are you most proud of from your tenure with CORE?

The clean energy transition will take decades, but we have made a start here in the Roaring Fork Valley. Awareness of energy and climate issues is at an all-time high. We were the first valley in the state to wholeheartedly embrace wind energy. Ten years ago, when we started our wind power pioneers program with Holy Cross Energy, there was not a single utility-scale turbine in the state. This year $1 billion of wind will be installed in Colorado. We were the first place in the country to offer a solar production incentive program. I'm also proud of having worked with three local electric utilities that have received national recognition for their work on renewable energy. There are 2,000 municipal utilities in the U.S. Aspen Municipal is buying four times more wind energy, as a percentage of its load, than the next leading wind champion.

If you would have had a mandate to do whatever you felt necessary with CORE, what would have it been?

We were blessed with exceptional political support from the get-go. A long list of mayors and council members (from the city of Aspen), and county commissioners (from Pitkin County) and government staff avidly supported our work. We would not have gained an inch without it. Are bolder measures needed? Yes. It's my fault for not pushing them, but will see them in the years ahead.

You have spent a considerable amount of time educating people about peak oil. Do people "get it" and are they willing to make adjustments to their lifestyles?

Our peak oil conference in Houston in October was the largest in the world this

year. The Wall Street Journal ran a cover article on the topic this week. People are beginning to understand that energy " not the yen, euro or dollar " is the original currency, the source of all wealth. Most of the Houston presenters were Republicans, and the audience included many financial managers. Visit www.theoildrum.com, if you are interested in following the evolving discussion. Global oil production may have already peaked; if not, it will do so in the next four years. This topic is likely to soon dwarf climate change as a matter of public concern.

With all of the information you have absorbed about climate change, how do you think the central mountains of Colorado will be affected by 2100?

I moved to Colorado in 1973. During the following decade, I skied from New Mexico to Wyoming. If you spend time in the mountains or have a garden, you have already seen dramatic changes in our climate. We are clicking-and-dragging Colorado south, giving it the climate of New Mexico. What will happen to Oklahoma? Who cares! But many of us love Colorado, and celebrate snow. Snow is the West's most under-appreciated resource. Unfortunately, "Snowmass" peak in August no longer deserves the name. The ironic good news is that peak oil is going to T-bone climate change, and make its resolution easier than we currently imagine.

Nearly every "to-do" list to battle global warming promotes the use of clean-burning natural gas. Is western Colorado destined to be a sacrifice zone despite the concerns of many environmental organizations and citizens in the region?

The short answer is yes. There are many things the gas industry can do to reduce its impact, and it has done some of them already. Not voluntarily, but because of brave citizen activists urging industry to "do it right." That said, we are going to see 150,000 wells drilled here over the next 30 years. The Piceance is destined to be one of the nation's top gas fields. This year $2 billion will be taken out of the basin, most of it exported to other, energy-poor states, which will not be able to repay the favor later. This is why we ought to increase state severance tax rates to the same level they are in Wyoming and New Mexico. The way things currently are, we are leaving $1 million in uncollected revenue on the table every day. It's an outrage.

You have been critical of the potential for oil shale. What problems do you see there?

I'm not critical of oil shale; I'm skeptical, which is appropriate since it provides just 1/10,000 of global energy, and global production has fallen by half since

1990. I'll bring you a dump truck of oil shale today. You will soon discover that 20,000 pounds of oil shale contains only as much energy as 6,000 pounds of firewood or 3,000 pounds of coal. The difference is that once you have burned the oil shale, you have 15,000 pounds of ash to deal with. My "gift" has become household hazardous waste. It's true that there's a trillion tons of this stuff in Colorado. A one-pound chunk of oil shale has the same energy content as a one-pound potato. When it comes to energy, quality always trumps quantity. If Shell and Chevron want to spend their own money investigating oil shale, more power to them. Let's not subsidize it, however. To date, Shell has spent $200 million to produce 2,000 barrels. That's about $100,000 per barrel, a bit above the market price. In short, the Utes never bothered with oil shale, although it outcrops everywhere, and neither will we, at least not until things get really desperate.

What is the realistic potential for alternative energy sources, particularly solar and wind?

Solar and wind are the world's fastest growing energy sources, but still tiny in the grand scheme of things. Both resources are enormous, but these are energy fluxes not fuels, and too few people understand the difference. (Sunlight through your window is a flux, a chunk of oak is a fuel.) Wind provides about 10 of every 1,000 kilowatt-hours consumed in the U.S.; solar about 1. But both provide far more energy than oil shale! Their futures are very bright indeed. But we are in a race against time right now. We need to scale them up very rapidly in the decades ahead. On a personal level, living with solar power is a treat. Try it. Get your house out of intensive care.

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Odd jobs.