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Clean-coal technology is important to future

By George P. Cole

After more than 35 years in the mining industry, my experience has led me to believe that the battle to control greenhouse-gas emissions is winnable not now, but in time. The battle goes badly now for much the same reason that any battle goes badly. In part it is inappropriate strategy fighting with too little support and with the wrong weapons in a battle that involves an array of exceedingly complex issues. And in part it is a failure of will.

Washington is finally talking about climate, but, for action, try the national laboratories and universities, where research is under way to burn coal more efficiently, using supercritical boilers that emit less carbon dioxide per megawatt produced than conventional plants.

If the predictions of technological breakthroughs in carbon capture-and-storage are realized, the possibilities for the use of coal in the United States and throughout the world would be unlimited.

This certainly is not to suggest that the development of clean-coal technologies alone will be enough to win the battle against global warming. Hydropower has an essential role to play, along with other carbon-free energy sources such as solar and wind. Together with coal, they can continue to provide the large amounts of electricity that will be needed to ensure our economic security.

We need to keep in mind that coal accounts for roughly half of the electricity in Nevada and nationally, and demand for power continues to grow. Scientists and engineers recognize coal's importance and know that a huge market exists worldwide for advances in clean-coal technology. But we have only scratched the surface in creating techniques for carbon mitigation.

That said, technological innovation works best with a market-based approach. The notion that we should impose mandatory controls on carbon emissions ignores the need for the kind of investments that will be required to develop new technologies. Breakthroughs won't appear overnight, and whether they come sooner or later will depend in large part on the level of funding.

Take carbon storage. The Bush administration has earmarked \$641 million in the fiscal 2009 budget for research and development technology to increase the cost-effectiveness of carbon capture and storage. This would pave the way toward a large-scale

demonstration of carbon sequestration, in which carbon dioxide from coal plants is injected deep underground into salt formations or depleted oil and gas fields. Such demonstrations are needed to find out whether the process is safe and practical, and they will require continued government support at that level for a decade or more. Congress will need to make sure funds are forthcoming.

Those environmental alarmists who question whether new coal-burning technologies can make much of a difference and want to shut down coal plants, despite the enormous economic damage it would cause, ignore the impressive improvements that have already been made.

Using scrubbers and other emission controls, the electric power industry since 1980 has reduced sulfur dioxide emissions by 40 percent and nitrogen oxides by 44 percent, while power demand rose 77 percent. That's worth considering the next time the anti-coal crowd maintains it is acting in the public interest.

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