

Studies indicate that use of these processes will generate a 3-billion barrel increase in potential domestic reserves. Widespread use of these simulators is not only producing more domestic oil and natural gas, but additional revenue for the government from federal taxes and revenues. By developing these computer simulation tools, DOE has calculated that the return to the taxpayer is over \$1,000 for every \$1 invested by the government.

Regulations Based on Solid Science

Now being applied in four other States, the DOE methodology is likely to lead to hundreds of millions of dollars in regulatory compliance costs while ensuring that drinking water supplies in and around oil- and gas-producing regions remain safe.

Domestic natural gas and oil producers face the challenge of producing from older reservoirs while complying with increasingly costly environmental regulations. For example, to comply with regulations drafted by the Environmental Protection Agency under the Safe Drinking Water Act, producers must conduct an Area of Review (AOR) of all disposal and injection wells including those grandfathered under current rules. Well-by-well reviews, however, may not be necessary if there is little risk of contaminating ground water.

To help regulators determine whether variances to the well-by-well reviews could be granted and still assure groundwater protection, DOE began working with the University of Missouri-Rolla to develop a methodology to validate AOR variance requests. The methodology was first tested in East Texas in August 1995.

Based on the reservoir pressure analysis generated by this methodology, the Texas Railroad Commission granted AOR variances to the East Texas Salt Water Disposal Company and other operators in the field. This variance saved operators in the field \$86 million in compliance costs, allowing more dollars to be used for actual oil and gas production.

Now being applied in four other States, the DOE methodology is likely to lead to reduce regulatory compliance costs by hundreds of millions of dollars while ensuring that drinking water supplies in and around oil- and gas-producing regions remain safe.