Are the Rocky Mountain States Maximizing the Benefits of Fossil Fuel Development?

By Julia Haggerty, Ph.D. April 22, 2011

The link between energy policy and economic development—how best to encourage job and revenue creation while managing the impacts and risks of fossil fuel extraction—has been one of the most debated issues in the capitols of the five Rocky Mountain energy-producing states: Colorado, Montana, New Mexico, Utah, and Wyoming.

Several years ago, in response to the natural gas boom of 2003-2008, Headwaters Economics conducted a series of studies that analyzed the effectiveness of fossil fuel production as a local and state-wide economic development strategy.

Now, following the end of the recent recession, we have produced a new report that analyzes the relative success that states and communities have had maximizing the benefits and minimizing the costs of energy development during the volatile decade of the 2000s.

The report reaches two critical conclusions.

First, energy employment and revenue respond directly to commodity prices—meaning that the benefits of energy development are highly volatile and that policy is a relatively weak driver of the location and pace of extraction activities. This sets up challenges, but also opportunities.

Volatility is a challenge because mining jobs can disappear as quickly as they are created. During the recession, employment and income from mining and energy development in the fivestate region followed commodity price trends, and compensation from mining shrank by the largest percent—16.1 percent from 2008 to 2009—of any economic sector.

Revenue is similarly price-sensitive. State energy revenues grew well into Fiscal Year 2009, but the eventual decline of fossil fuel prices resulted in severance taxes losing value at a faster rate than other revenue sources in FY 2010. This created more financial exposure, not less, for energy-producing states during the recession.

Still, tax revenue from fossil fuel extraction is the longest-lasting economic legacy of fossil fuel development. While the value of energy revenue varies from year to year, it continues to accrue long after most jobs have left a region.

Since price and resource quality dominate where and when fossil fuel is developed, states can increase base tax rates without seeing a loss in production or energy-related jobs. By maximizing fossil fuel revenue, and ensuring it is well-managed and adequately distributed, states increase the benefits of energy development.

Second, fossil fuel extraction plays a limited role in overall state economies. Energy-related jobs in every state, except for Wyoming, provide less than three percent of both total employment and total personal income.

In rural, energy-focused areas like parts of western Colorado and southwestern Wyoming, however, mining's share of employment can be as many as one-in-three or one-in-four jobs.

Our study observed that the costs and benefits of fossil fuel extraction are experienced unevenly in energy-producing regions. Cities and towns carry much of the burden of energy development by serving as housing and service centers for oil and gas fields, but typically cannot tap into the property tax revenue that is the backbone of mineral wealth.

At the same time, revenue-rich but sparsely-populated counties often are overwhelmed by the build-up phase of an energy boom and are poorly equipped to mitigate and monitor long-term cumulative impacts.

The ability of communities to use increased energy revenue to diversify and stabilize local economies varies based on state revenue distribution and on local decision-making. It also depends on an ability to understand and address potentially costly cumulative impacts of energy development on those amenities—such as scenery, water, and air quality—essential to long-term economic prosperity.

With an oil boom now underway and future demand of natural gas likely to grow, maximizing the public returns and minimizing risks of fossil fuel extraction will remain a critical challenge in Colorado, Montana, New Mexico, Utah, and Wyoming. While policy largely does not drive energy development decisions, better state and local strategies can better link fossil fuel production and economic development.

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