



Research Brief

Managing the Effects of the Shale Gas Boom

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As I drive north from Cumberland, Maryland, I see the first of two wind farms atop the forested Pennsylvania ridge tops. Just past the second wind farm, on the left I pass a surface coal mine perched on a bench overlooking a prosperous-looking dairy farm. Further north, by the side of an uncompleted segment of U.S. 219, there are 40 or 50 wind turbine blades and tower segments wrapped in plastic and lying flat, awaiting construction. On the radio, the parent company of West Penn Power has announced the phase out of two older coal-fired generating stations — no longer worth the upkeep and reinvestment needed to meet clean air standards.

With the support of the Heinz Endowments, ELI is collaborating with the Center for Energy Policy and Management at Washington & Jefferson College in Washington County, Pennsylvania (heart of the Marcellus shale boom). Together, we're looking at past experiences of boom and bust in natural resource activities to identify strategies Pennsylvania communities can implement to minimize the harms and maximize the benefits of the natural gas boom.

Every form of energy development carries environmental, economic, and social consequences. At ELI, we're thinking strategically about ways law can address the rapidly evolving energy economy, drawing on years of practical experience.

I started my own law career over thirty years ago as an enforcer of the then-new federal environmental laws governing coal mines. In the 1980s, I represented oil refineries and synthetic fuel developers, as well as citizen groups, among other private practice clients.

Since then, my work at ELI has encompassed mining, water resources, biological diversity, and sustainable uses of land. After seeing the impacts of many forms of energy development on water resources, I've been working on improvements in wind farm siting — one form of energy generation that has few impacts on water resources. Our wind siting guide for local elected officials, applying the best scientific research and state and local models, was published in February. In April, we completed a phase of ongoing work with five states that are pursuing a consistent approach to offshore wind development.

But my sojourn over the hills of southwestern Pennsylvania is a microcosm of the mixed portfolio of energy development and legal issues currently in play. Last year, I briefed The Nature Conservancy on state laws and policies that address habitat impacts of all types of energy development in the Central Appalachian states — specifically including wind, coal, and oil and gas, including shale gas. And earlier this year, ELI cosponsored a series of five seminars with ALI-CLE on shale gas development. A clear-eyed view of legal and policy tradeoffs is critically important work in helping lawmakers, corporations, citizen groups, and regulators manage a rapidly evolving energy transformation.

While New York is continuing its long series of regulatory evaluations about whether to permit hydraulic fracturing to recover deep reserves of natural gas, and Maryland is pondering the most recent recommendations of its legislatively mandated study of best practices in shale development, Pennsylvania (like Texas, North Dakota, and Ohio) has jumped in to expand and promote this form of energy development.

Revenues from Pennsylvania's new unconventional natural gas impact fee ("don't call it a tax") are being sprinkled across hundreds of local and county governments, and parceled out to various state agencies and authorities. Does it make a difference how they spend these funds? Are local governments seeing benefits or mostly impacts of gas development during the well drilling and hydraulic fracturing phase? What effects have citizen concerns about groundwater had on housing valuation, tax bases, and infrastructure planning?

Our research will yield strategies for public and private investment, guidance for governments, and public policy and legislative recommendations. We're now preparing a white paper for decisionmakers for guidance in managing rapid energy transformations; a manual designed for local officials that includes best practices based on practical experience; and a web-available fact sheet designed for the general public.

ELI is now in an especially good position to examine how smart choices can lead to a better environment and healthier communities. This is not only a question of sustainability, but also one of managing impacts of social, technological, economic, and environmental change. Driving westward on I-70 toward Washington County, I reflect that ELI is once again working on the edge of change, with partners and across sectors, and with transparency. This is the right place for a lawyer to be.