III. Regional Effects of Producing Gas From Devonian Shale

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The regional effects of the production of gas from Devonian shale will depend largely on what happens to the price of natural gas. If the regulated price were allowed to move closer to the level that would be determined by prevailing market forces, there undoubtedly would be an increase in investment in new wells in the Devonian shale area. The same result would likely occur if controls on gas prices were eliminated.[1]

A significant addition to the available supply of natural gas might reduce upward pressure on gas prices. The regions that would probably benefit most from reduced pressure on gas prices are the New England, Middle Atlantic, East North Central, and South Atlantic States.[2] These are regions in which the price of natural gas has consistently been above the national average, and they include the major industrial States east of the Mississippi. Only four States in these regions—West Virginia, Virginia, Pennsylvania, and Illinois—are among the Nation's 20 top energy-producing States. The other 18, and Washington, D. C., import most or all of the coal, oil, or natural gas they consume.

States which have been hardest hit by the dramatic rise in energy prices since 1973 are those which are both heavily industrialized and largely or entirely dependent on outside sources for their energy supplies. These States were industrialized at a time when energy prices were low, relative to other prices, and when the costs of transporting or transmitting energy were also relatively low. Of even greater importance is the growing number of people who are unable to buy natural gas at any price. Some consumers would benefit greatly from an increase in the Nation's supply of natural gas, even if this gas were available in the future only at substantially higher prices than those that have prevailed up to now.

In an economy in which prices are determined by market forces—whether the markets are considered to be "perfectly" competitive or not—there will always be some shifting about of industry. There have been major industrial migrations in the past, notably a shift of much of the textile and garment industries from north to south. These and other industrial migrations of the past have been the result of interregional labor cost differentials. Wage differentials have been reduced in recent years, and as the importance of labor costs as locational determinants have diminished, other costs which vary over space have become more important.

The cost of energy is likely to become an increasingly important locational determinant for a fairly wide range of industrial activities, but equally important—and in some cases more important—will be energy *availability.* Industrialists in relatively energy-intensive activities—such as those producing various chemical, plastic, rubber, and glass products—might be willing to relocate, or at least to expand, in areas with known reserves of natural gas. Indeed, one characteristic of Devonian shale gas wells—their long productive lives—could be considered a major advantage by manufacturers anxious to avoid supply interruptions over a long period of time. Most consumers of natural gas, including industrial consumers, buy their gas from a utility. But in an era of supply uncertainty, however, with strong inflationary pressures which will guarantee rising gas prices, there may be a growing incentive for industrial establishments to own their own gas wells and reserves. The availability of natural gas could make the Devonian shale areas highly attractive locations for energy-intensive activities.

[1] See A V. Kneese, "Natural Resources Policy, 1976-1986," in *U.S Economic Growth from 7976 to 1986: Prospects, Problems, and Patterns, Vol* 4, Resources and Energy, Congress of the United States., Joint Economic Committee p. 139, Nov. 16, 1976.

[2] The States Included in these regions are: *New* England: Maine, Massachusetts, Connecticut, Vermont, New Hampshire, and Rhode Island; *Middle Atlantic:* New York, New Jersey, and Pennsylvania; *East North* Central: Ohio, Indiana, Illinois, Michigan, and Wisconsin; *South Atlantic:* Delaware, Maryland (including D.C,), Virginia, West Virginia, the Carolinas, Georgia, and Florida.