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F. Larry Leistritz

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COAL IN THE U.S. ENERGY MARKET

RICHARD L. GORDON

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Pp. 225

The purpose of this book is to survey the history and prospects of the coal industry in the United States. Coal accounted for more than 70 percent of all U.S. fuel consumption during the period 1900 to 1920, but its share decreased to less than 20 percent by the 1970's. In recent years rising costs and decreasing availability of oil and gas have led national policy makers to suggest that a shift toward greater reliance on coal may be both desirable and imminent. The major objective of the book is to appraise the outlook for coal in various segments of the U.S. energy market.

The book includes an evaluation of the present situation and future outlook with respect to the costs of mining and transporting coal as well as an assessment of the prospects for coal use in major consuming sectors. Historic patterns of coal production and consumption are reviewed, and a number of recent coal consumption forecasts are summarized and compared. In addition, the author devotes a complete chapter to review of recent public policy decisions which have major effects on the outlook for coal.

Because of the pervasive influence of public policy on coal production and use, energy policy is treated in the first chapter. Examination of recent policy decisions indicates that their effect has been to place severe restrictions on coal production and use. The critical policy areas affecting coal production have been underground mine health and safety, strip mine reclamation, and leasing of federal and Indian lands. Air pollution regulation has been the dominant influence on coal use. The author concludes that: "These controls promise to equal or exceed those created for nuclear power."

Historic patterns of coal production and use indicate that electric utilities have assumed an increasing importance in coal consumption. The electric utilities' share of total coal consumption rose from 13 percent in 1947 to 42 percent in 1960 and 70 percent in 1976. Today, the industrial sector is the only other major user of coal; coal consumption by the household, commercial, and transportation sectors has declined to negligible levels. Thus, it appears that the prospects for coal in the near future will depend primarily on fuel choice decisions by electric utilities and, to a lesser extent, by the industrial sector.

A review of coal production and transportation cost analyses indicates that "... the competitive position of coal is far more uncer-

tain than the publicists contend." The author concludes that present coal reserve data and mining cost analyses provide only a limited basis for coal supply analysis. Three recent coal supply studies are reviewed. These studies indicate that the availability of low cost coal, particularly east of the Mississippi, may be considerably less than is often suggested. All three studies show that efficient coal supply expansion will involve significant increases in the share of national output produced by the western mining areas because of the more elastic supply of coal in the West compared to the East. Transportation costs have a major influence on the competitive position of coal. A review of studies aimed at estimating costs of expanded coal transportation via unit trains and slurry pipelines is undertaken.

Analysis of factors affecting coal utilization includes presentation of alternative projections. These projections are based on various assumptions regarding future trends in capital and operating costs of both nuclear power plants and electric generating facilities fired by eastern and western coal. The author concludes that, while the uncertainties in this area are substantial and a wide range of outcomes is plausible, nuclear power may pose a considerable threat to coal. Regarding the relative position of eastern and western coal, the author offers his opinion that "... western coal will indeed increase its market share even in the face of the best available technology approach to air pollution control."

In conclusion, this is an excellent book which deserves serious attention. It provides a thorough review of the factors affecting coal use through the mid-1970's and identifies the critical parameters affecting future production and consumption patterns. A number of major energy policy analyses have been completed over the last few years, and the book serves a very useful role in interpreting and integrating these studies. In addition, the author presents substantial original analysis in the area of utility fuel choice. Although much of the analysis is based on complex econometric models, the results are presented in a manner suitable for the general reader. The wealth of data will be useful to many, and the insights regarding data limitations will be valuable to all serious students of U.S. energy policy. Readers will appreciate the bibliography and fine job of indexing which enhance the book's usefulness as a reference.

F. LARRY LEISTRITZ*

*Visiting Professor of Agricultural Economics, Texas A&M University.