

DOWNLOAD PDF PRODUCTION AND CONSUMPTION OF MINERAL FUELS IN ILLINOIS, 1933-1964

Chapter 1 : IDEALS @ Illinois: Production and consumption of mineral fuels in Illinois,

Production and consumption of mineral fuels in Illinois, Welcome to the IDEALS Repository.

Gary, head of the United States Steel Corporation. Gary had called a series of meetings of industry heads beginning on Nov. The earlier trade organization, the American Iron and Steel Association, had been organized almost exclusively around the issue of the protective tariff and had become moribund and irrelevant in a period when the tariff was falling and had ceased to be a major political issue. Meetings and conventions of iron manufacturers to protest lower tariffs had been held as early as the s. The first to constitute a truly representative national sample was held in Pittsburgh on November 21, , to protest the lowered Walker Tariff of , which the ironmasters blamed for a depression in their industry. At a second meeting on December 20, , the participants agreed to publish statistics of the industry and protectionist literature. While these activities were carried on by subsequent organizations, the economic stimulus of the California gold rush and a new round of railroad building ended hard times in the iron industry and with them any impetus to organization. When the next downturn hit in , the Pennsylvania iron makers called another national meeting on March 6, , at which a formal body, the American Iron Association, was organized. Eckert of Reading, Pa. The Civil War brought a new round of prosperity and growth to the iron industry, but the prospect of a Union victory and the uncertainty over possible postwar developments sparked the formation of a new organization. Iron manufacturers again assembled in Philadelphia on November 16, , at the urging of Eber Brock Ward of Detroit, who had built the first successful Bessemer steel plant in the United States. The next day they organized the American Iron and Steel Association. Ward was named president; Samuel J. Wood, and Joseph H. Scranton vice presidents; and Robert H. The new organization received broad support and became permanent. The Association scored an early and important success with the passage of the high tariff of , behind whose high walls the modern American steel industry began to take shape. At almost the same time, the tariff debates also prompted the formation in New York City of the American Industrial League to coordinate the protectionist campaigns of all of American industry. In , the League appointed Daniel J. On April 1, , the Industrial League of Pennsylvania was fully organized with a Representative Council covering the transportation, iron, coal, chemical, textile, leather, paper and other industries. Within a month, the parent American Industrial League had ceased to meet. The Pennsylvania organization, based in the stronghold of American protectionism, became the de facto national organization. The League ceased to meet separately after The Association enjoyed at least modest success after the depression of , culminating in the McKinley Tariff of , the highest yet passed. While the old statistical operations of the Association continued with little change, the emphasis shifted from the tariff to issues like pricing, the sharing of technical information and more modern approaches to publicity and government and labor relations. It embraced the entire steel-making process from raw materials to finished products. By , the Institute had 2, individual and 98 corporate members, the latter numbering most of the major producers. The Institute is governed by a board of directors consisting of the chief executives of its corporate members. Like most trade associations its activities are carried out by an ever-expanding number of committees of specialists, of which there were 55 by the s. During World War I, the Institute under Judge Gary was the primary coordinator with the government for all industry production, allocation and prices. The passage of the National Industrial Recovery Act in the early days of the New Deal transformed the Institute as it did most trade associations. The NIRA worked to arrest the collapse of production and prices by imposing a system of industry-specific? Codes of Fair Competition,? Tower was named executive secretary in September and assumed active management of the Institute through May The Institute began active technical research in the late s with the appointment of a General Technical Committee. Much of this work focused on standardization. The first of a series of? In the s, the Institute began programs of cooperative research through its Committee on General Research. It also provided its members with up-to-date information on industrial relations, antitrust, health and safety. In recent years, the Institute has focused on

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trade and environmental issues. Still, the American Iron and Steel Institute remains the major industry trade association.

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Chapter 2 : All Southern Research Station Publications On-Line

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See other formats s This study traces the annual production and consumption of mineral fuels within the state. It also shows the source areas for fuels shipped in- to Illinois and the destination of mineral fuels exported from the state. Despite the fact that Illinois must supply a large share of its petroleum requirements from outside sources, much of the crude oil produced within Illinois is shipped elsewhere. Furthermore, while the state produces coal in excess of its own requirements and exports to other regions, it also imports quantities of coal from other states. Because a large share of the growth in energy consumption involved petroleum, which Illinois does not produce in sufficient quantities to meet its needs, an increase of percent in energy consumption from to was accompanied by a fuel production increase of only 87 percent. By , that total had risen to an estimated 51, trillion Btu, and the peak of energy consumption has not yet been approached U. Bureau of Mines, , v. In , the average U. By , his grandson was using about million Btu, or the equivalent of more than ten tons of coal annually. Although different types of energy sources have been used to provide this total consumption, coal was the most important until The new and increased uses and the substitution of petroleum products for other fuels had much to do with the relative decline in the importance of coal. In , the national use of petroleum products was hardly significant, but since then their use has grown steadily and strongly. Today, petroleum products and natural gas each account for more energy than does coal. The importance of natural gas as a marketed product parallels the development of pipelines since World War II. In , natural gas accounted for Water power must also be mentioned. Until the early part of the 19th century this energy source did much for Americans. Water wheels were the main power source for our pioneer and colonial manufacturersâ€”the creeks and streams of the northeastern coastal areas provided abundant mechanical power for early millers and textile manufacturers. However, ways of producing power efficiently in mobile units were found, and the importance of the water wheel declined. The perfection of the steam engine made it possible to have stationary power almost anywhere and also gave rise to new forms of transportation. Around , water power was called upon for the development of hydroelectric power. Great changes occurred in the general use of mineral fuels during the past 50 years. With coal, the long-run trend shows that industrial and utility consumers are the most important, and retail consumers are of declining significance. Railroads no longer use coal. Railroads and retail consumers accounted for 42 percent of coal consumption as late as , but the situation changed significantly after this. Since , utilities have been the primary consumers of coal. The primary use of petroleum products is for transportation. The automobile and the diesel locomotive gave the petroleum industry the dominant position in transportation. These distillate oils are used for heating, transportation, and industrial purposes. Coal lost much of its home heating market to the petroleum industry. The most important user of natural gas today is industry. The residential consumer, who prefers the cleanliness and convenience of natural gas, ranks second, In general, the national mineral fuel situation can be summed up as follows: The total use of energy in the nation increased more than six times since Coal was the major source of this energy until , but in a relative sense it is much less important today. The decline in the relative importance of coal resulted from the phenomenal growth in the total use of energy. Most of the total increase in the use of energy was provided by petroleum products and natural gas. Water power still provides only a very small portion of total energy used, but the absolute amount of energy produced by water is growing. Coal still serves important needs in cement, coke manufacture, and general industrial use and has a growing market in utilities, though it has lost the railroad and much of the retail market. Petroleum products are used mainly for motive power, although they do provide a significant amount of heating and industrial fuel for the nation. Natural gas is used mainly by industrial consumers, but residential consumers are of increasing importance. In a national analysis, interstate data can be ignored because the aggregate sums needed are automatically provided. However, in the analysis of a single state, interstate ship-

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ments greatly affect all aggregate sums and must be carefully accounted for. A satisfactory analysis must include both production and consumption. A state with a large number of refineries might receive large shipments and seem to consume great quantities of petroleum, though actually a major portion of the refined products could leave the state, rather than be consumed within it. Also, the quality of local supplies of a mineral fuel may not be the most suitable for use by local consumers, and thus may lie idle while fuel from other sources is imported. In this paper, an attempt is made to present a total view of mineral fuels within Illinois, first discussing production and then consumption. Production is examined to determine not only the quantity of production, but also the markets to which Illinois mineral fuels were sent. Total consumption of mineral fuels within Illinois is examined, and then the sources of this total are analyzed on the basis of geography as well as type of fuel. Characteristics of the Data Two specific problems arise in the use of available data: To evaluate coal, petroleum products, and natural gas in like terms, the Btu has been chosen as a basis of comparison. Table 1 presents the conversion factors for Btu as used in this study. There was no shortage of general statistical data for this project, but because of the widespread sources from which data collected over the years had to be gathered, it was difficult to find comparable data series. This is a greater problem with consumption than with production data. No continuous, comparable data series was available over a satisfactory time span for each of the fuels examined. Data collection methods used by various governmental and trade organizations and in some cases by individual researchers in the same organization were sufficiently different to make it necessary to choose arbitrarily among the available sources. Data from all these sources were combined and adjusted to provide a series as continuous and uniform as possible. The relative importance of coal declined in spite of a continuing growth in total energy consumption, and this decline continued after In , coal dropped to 55 percent of the total but rose immediately thereafter to 60 percent; it now accounts for about 75 percent of the total table 2. Other fuels U. Bureau of Mines, Information Circular , Oct. Commercial natural gas production is a mere trace compared to the other two fuels, and little encouragement comes from geologists to suggest any appreciable increase in the future. Although the data show a relative decline in the share of the fuels market supplied by coal, Illinois mines, in general, have increased production since More energy is now being used and, therefore, more fuel must be obtained. In some markets, where various fuels can serve a given purpose, there is strong competition; in other markets, however, there is little or no interchangeability of fuels. This is especially true in the use of coal and petroleum products in transportation. These products competed for the rail market, where they could do the same basic job, but in the automotive and air transport markets, there is no competition. Coal could not directly serve these markets, even if the petroleum industry did not exist. Automotive and air transport developments actually increased the use of coal indirectly through increased need for complementary production of steel, aluminum, and electricity. Data clearly show that though the relative proportions of coal and oil production changed, the absolute quantity of mineral fuel energy increased. Though coal production decreased from to , a more stable and generally rising level of production has been maintained in recent years. Between 50 and 70 percent of the coal produced annually in Illinois is consumed within the state. Table 3 shows the distribution of Illinois coal to consumers outside the state. Missouri and Iowa are the two most important consumers within this region. The next most important area for Illinois coal is the north-central market, those states north of the Ohio River, west of the Appalachian Mountains, and east of the Mississippi River. The main consumers are Indiana, Wisconsin, and Michigan. Among these states, Wisconsin consumes the most. Relatively small amounts of Illinois coal were used by the south-central area, those states south of the Ohio River, west of the Appalachians, and bordering the Mississippi River. The main consumers were Arkansas, Tennessee, Louisiana, and Mississippi, but their consumption of Illinois coal stopped after The 50 to 75 percent of total crude oil production that is not processed within the state finds its way almost exclusively to eastern markets. The bulk of this production goes to Ohio, Indiana, and Michigan, designated in table 3 as the north-central market. The next largest consuming area is the northeast market, especially New York, Pennsylvania, New Jersey, and Massachusetts. Shipment of crude petroleum to the south-central

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market, mainly Kentucky, Tennessee, Louisiana, Alabama, and Mississippi, has declined to nearly nothing. Only relatively insignificant amounts have ever been shipped from Illinois to areas of the nation other than these. In general, then, coal exports from Illinois go almost exclusively northward, while crude oil goes eastward. The relative amounts tend to change, but because of the proximity of Illinois producers to their older markets, shipments will probably continue to follow established patterns. As a result, total demand for mineral fuels increased approximately percent during the same period. Today, we make special demands of the fuels we use. Greater quantities are used for motive power because of the great increase in the number of automobiles. Consumer groups display strong preferences for heating fuels that offer specific advantages. The residential consumer wants a clean, convenient heat, even if it is expensive; his employer, however, clings to considerations of cost and will sacrifice a degree of cleanliness and convenience for monetary savings. Minerals Yearbooks, U. No Illinois coal is recorded as having been shipped to this region. North-central those states north of the Ohio River, west of the Appalachian Mountains, and east of the Mississippi River. Northwest those states west of the Mississippi River and north of a line parallel to the northern boundary of Arkansas. Southeast those states bordering the Atlantic Ocean and south of Pennsylvania. Industry has kept ahead of the population growth, and many of the processes of production require specific characteristics of fuels. In some industrial processes, ease of temperature control and freedom from contaminants may be equally as important as minimum cost. Aggregate Consumption of Mineral Fuels Within Illinois Compilation and use of data on the consumption of petroleum products and coal provide two distinct problems.

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Chapter 6 : American Iron and Steel Institute (AI&SI) Records, , bulk

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