



Monthly Review

F E D E R A L R E S E R V E B A N K O F S T . L O U I S

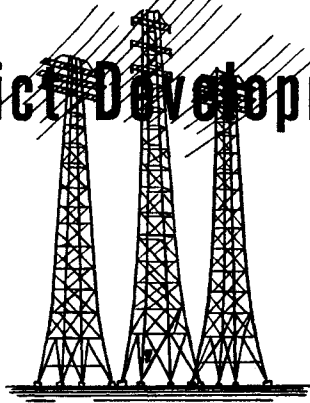
Volume XXXIV

AUGUST, 1952

Number 8

ELECTRIC POWER

A Resource For District Development



Electric power is basic to American life today. It has increased productivity in industry, made work easier and life more enjoyable.

Electric power systems serving the Eighth District have some 9 million kilowatts of capacity. The industry is made up of privately owned systems and those publicly owned. Their effectiveness has been improved by interconnection of existing facilities. Reserve margins in many of these systems, generally below desirable levels, are being improved.

To supply increased power for defense and for an expanding economy, district utilities have scheduled more than 50 per cent increase in generating capacity in 1952-53. TVA will increase its capacity by 62 per cent and other Federal projects will be constructed. Privately owned utilities have scheduled additions of 45 per cent in the two years, partly aided by rapid amortization for tax purposes. Included in these public and private expansions, is the joint supply of electric energy to the Paducah AEC plant. In terms of future expansion, potential hydroelectric power capacity is large in this district.

Rates are an important aspect of this power resource. In general, they have decreased. Residential rates in this district have a wide range, but average less than for the United States, and industrial rates in major, district cities are below the national average.

The Eighth District's available electric power capacity and the expansions scheduled provide a firm base for present production and future development.



TWO RECENT DEVELOPMENTS have characterized the outstanding features of the electric power industry in the Eighth Federal Reserve District today: the cooperation of publicly and privately owned systems and their growth to meet the expanding needs of the district. First, the Tennessee Valley Authority and privately owned facilities will share equally in supplying the huge electric power requirements for the Atomic Energy Commission's uranium separation plant near Paducah, Kentucky. Second, a privately owned utility with the cooperation of the publicly owned facilities at Bull Shoals Dam will supply the large amounts of electricity needed by an aluminum reduction plant recently located in Arkansas. At the same time, one of these developments, Bull Shoals Dam, represents a step toward more efficient use of our water resources.

Electric power is basic to American life today.

In the seventy years since electric power was first generated commercially, it has become an essential element in our daily life as we know it. Today life without electricity would be possible only on a basis severely restricted from present known standards.

Progress in the United States can be attributed in part to constantly improved technologies and increased use of energy. Among the forms of energy, electricity has grown most rapidly in use over the past quarter century. During the past three decades the consumption of electricity has approximately doubled every ten years—in 1950 it was about eight times the 1920 level. By comparison, the total national output (exclusive of price changes) has risen about 2½ times.

In 1951 electric power consumption in the United States totaled 318 billion kilowatt-hours, compared with 74 billion in 1925.¹ The largest part of the 1951 total, about 158 billion kilowatt-hours, was used for industrial purposes; residential and farm consumption was about 85 billion kilowatt-hours; and commercial and other consumption some 75 billion kilowatt-hours.

It has increased productivity in industry, . . .

Electric power applied to modern machines and techniques has enabled industry to utilize both human and material resources with increasing efficiency. It is estimated that electric motors provided at least 93 per cent of the mechanical power used in industrial plants in 1947. The amount of electric

¹A kilowatt-hour is a measure of the amount of electricity produced or used. One kilowatt-hour represents the electricity consumed in using a 100-watt light bulb for ten hours.

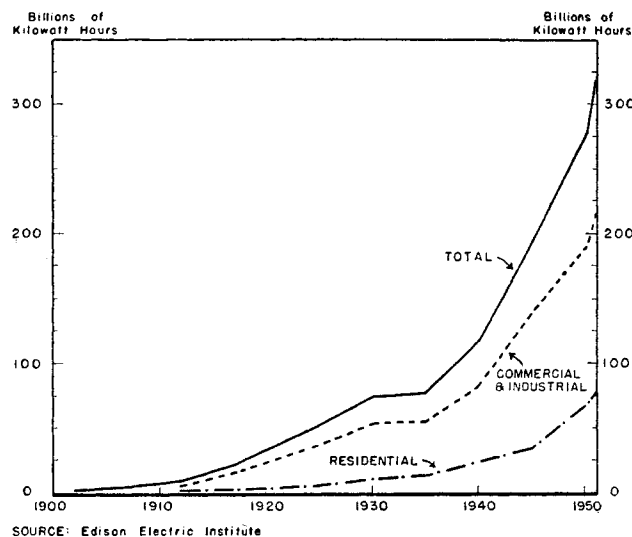
energy per man hour of labor in manufacturing industries increased from an average of 2.6 kilowatt-hours in 1929 to 6.3 kilowatt-hours in 1950. Electric motors applied to machines give greater flexibility to the production processes and electronic controls make possible much greater precision. Electro-chemical industries, such as aluminum reduction, special steels, and abrasives, also have resulted in more efficient use of our natural resources.

. . . made work easier and life more enjoyable.

The use of electric appliances has grown tremendously in American homes ever since electricity has been available for residential use. In 1920 the average residential customer in the United States used 339 kilowatt-hours of electricity annually; by 1951 the average use was 2,004 kilowatt-hours. By 1950 electricity was being used for lighting and other purposes in 92 per cent of all houses in the United States. According to a recent survey 99 per cent of the homes wired for electricity had radio receivers, 90 per cent had electric irons, 87 per cent electric refrigerators, 79 per cent electric clocks, and 74 per cent electric washers.

I.

Use of electric energy has increased tremendously.



Farm life too has been changed greatly by the use of electricity. In addition to the applications in the farm home, electric energy has reduced the human energy required for many of the tasks on the farm and has allowed use of new devices which have increased productivity.²

²Cf., "Postwar Changes in Eighth District Agriculture," MONTHLY REVIEW, Federal Reserve Bank of St. Louis, December, 1951.

Electric power systems serving the Eighth District have some 9 million kilowatts of capacity.

Measurement of electric power facilities of an area such as the Eighth Federal Reserve District could be in terms of generating capacities installed within the area, in terms of available power, or in terms of the total capacities of all electric power systems serving any part of the area. The first, of course, would omit power transmitted into the area from generating plants outside and would in some cases over-state the capacity to the extent that power generated in the area is sold elsewhere. The second, measurement in terms of available power, regardless of the location of the generating capacity, would appear to be the most accurate. However, each system's power resources would have to be allocated to this district on some basis such as consumption or transmission capacity. (In these terms, the district has some 4 million kilowatts of electric power capacity.) The third method of measuring electric power facilities, that of using the over-all capacity of the systems serving any part of the district, is the more meaningful and useful, and certainly a less arbitrary, concept. Data used hereafter, therefore, will be based on this last method. As of December 31, 1951, systems serving any part of the district had a total capacity of 9.1 million kilowatts.

The industry is made up of privately owned systems . . .

Electric power facilities in the Eighth Federal Reserve District are diverse in type of ownership, size, and technique of generation.

The present structure of the industry has evolved from efforts to provide adequate service for all who desire it, at reasonable rates which give due consideration to the right of the utility to adequate compensation.

Government regulation of the electric power industry stems from the technological and economic conditions which make a monopoly the most efficient type of organization for an area. Such regulation is designed to bring private and public interests

³Generating capacity data are in terms of manufacturers' "name-plate rating" of generators in kilowatts. In practice, the effective capacity of generating units is usually higher than the name-plate rating. However, neither the name-plate nor the effective rating fully measures the capacity resources of generating facilities, since most are capable of considerable overload, often for quite an extended period.

into agreement and is a substitute for normal market competition in other lines. Public operation was another step taken, first by municipalities and later by the Federal government, in attempting to perform the main duties of utilities effectively. During the 1930's the Federal government actively entered the electric utility field to extend service to more customers, especially rural, and to develop water resources by means of multipurpose dams which could control floods, aid navigation and produce electricity.

While changes in the structure have been less frequent in recent years, they have by no means ceased. And all of the changes made to date may appear insignificant in relation to the possible revolution which the production of electricity from atomic energy may bring.

Privately owned electric utilities serving this district had installed capacity of 5.1 million kilowatts as of December 31, 1951, or 56 per cent of the capacity of all systems serving this district. Most of the privately owned facilities are large and integrated with other systems.

Of the installed capacity of the large privately owned systems serving this district, 11 per cent is powered by falling water. In this connection it might be noted that hydro capacity is generally less firm than steam capacity. Union Electric Company, serving the St. Louis area, has two large hydro plants with a combined capacity of 247,600 kilowatts, or 21 per cent of the firm's total installed capacity. The Louisville Gas and Electric Company has a hydro plant with installed capacity of 80,320 kilowatts and Arkansas Power and Light Company has two totaling 65,300 kilowatts capacity. In all, privately owned hydro plants serving this district have installed capacity of 451,000 kilowatts.⁴

. . . and those publicly owned.

Publicly owned utilities serving this district had generating facilities capable of producing 4.0 million kilowatts, or 44 per cent of the total. The

⁴In addition to the electricity produced by utilities, many industrial establishments generate their own power. As of December 31, 1950, industrial establishments located in the seven district states had 1.8 million kilowatts generating capacity. However, most of this was located in the large industrial areas in northern Illinois and Indiana, outside the Eighth District. Such private industrial plant capacities are not included in the figures in this study.

THIS REPORT, springing from a continuing interest in the Eighth District—its structure, its problems, its growth—describes the basic power generating and distributing facilities available and in pros-

pect at the present time for this district.

It seeks to take no side in the controversial question of public versus private power, nor does it present any analysis of the issues involved in this controversy.

greater part of this is owned by the Tennessee Valley Authority, with total installed generating capacity of 3.7 million kilowatts. (Only about one-seventh of TVA sales are made to consumers in the Eighth District.)

Most of the power generated in fiscal 1951 by the TVA was produced at hydro plants (86 per cent), but the proportion is declining. In fiscal 1950, for example, the ratio was 94 per cent. Since future expansions will be primarily in the form of steam plants the proportion of hydro produced electricity can be expected to continue to drop in the future.

Of the 16.5 billion kilowatt-hours of power sold by TVA in 1951, including 2.0 billion kilowatt-hours purchased from neighboring systems, 70 per cent went to municipal and cooperative distribution systems (8.8 billion kilowatt-hours) and Federal agencies (2.8 billion kilowatt-hours). Direct sales to industry also made up a large part of the total—4.5 billion kilowatt-hours or 27 per cent. Private utility companies in the neighboring areas purchased about 0.4 billion kilowatt-hours of electricity last year.

In this district, the TVA distributes power to municipal and cooperative distribution systems in western Kentucky, Tennessee and northern Mississippi. Chemical plants at Calvert City, Kentucky, obtain electric power directly from this agency. The Louisville Gas and Electric Company purchased a small part of its power supply last year from TVA. Of the 2.6 billion kilowatt-hours of total energy sold in the Eighth Federal Reserve District by TVA last year, 1.1 billion kilowatt-hours were consumed in Memphis, which has a municipal electric distribution system.

Municipal systems—another form of public ownership—had an installed capacity of 407,000 kilowatts in the Eighth District as of December 31, 1950. As indicated in Table I, municipally owned

TABLE I
MUNICIPAL ELECTRIC POWER SYSTEMS
EIGHTH FEDERAL RESERVE DISTRICT
December 31, 1950

Area	Number	Installed Capacity in kilowatts
Arkansas	12	35,008
Indiana	9	156,250
Illinois	7	21,844
Kentucky	9	29,960
Mississippi	10	77,050
Missouri	25	63,203
Tennessee	13	23,852
TOTAL	85	407,167

Source: Federal Power Commission, Statistics of Publicly Owned Electric Utilities, 1950.

generating capacity is fairly widely distributed among district states. However, municipal systems in the vicinity of the TVA generally purchase rather than generate their power.

Other publicly owned generating facilities in

operation at the close of 1951 were the Norfolk Dam project (U. S. Corps of Engineers) and the Narrows Dam project (U. S. Department of Interior) in Arkansas. Power from these dams, which have a combined capacity of 87,000 kilowatts, is marketed through the Southwestern Power Administration, a Federal agency, and sold to privately owned utilities, rural electric cooperatives, and municipalities in the vicinity.

In rural areas the main task has been the distribution of electric power. Both rural electric cooperatives and privately owned utilities have been active in the extension of power lines in rural areas. Cooperatives generally purchase their power requirements from other utility systems in the vicinity; only a small amount of generating facilities is owned by them—30,000 kilowatts capacity in the Eighth District. The distribution of power to the farms in this district has progressed rapidly in recent years. As of December 31, 1951, 82 per cent of the farms in seven district states were electrified according to Edison Electric Institute.

Their effectiveness has been improved by interconnection of existing facilities.

Interconnections between systems make each kilowatt of capacity more effective over a wider area. Power requirements in an area of interconnected systems can be supplied at lower cost through interchange of "off-peak" surplus power by using the most efficient equipment. This allows the hydro- and steam-generating plants to be used cooperatively to the best advantage. In general, interconnections reduce the size of reserves needed and, since peak loads are not usually coincident, allow a system to meet peak loads larger than available capacity. In the last ten years the large increase in the capacity of transmission lines has reduced the cost of long distance transmission. Power can now be economically transmitted as much as 600 miles.

In this district interconnections of existing facilities are nearly complete. An example of the advantages of interconnected systems may be seen in the cooperative supply of power to the aluminum reduction plant being erected near Arkadelphia, Arkansas. About five-eighths of the power is to be supplied from privately owned plants while the "peaking power" is to be obtained from publicly owned hydro plants. A leading example of interconnections is the Southwest Power Pool, made up of utilities in Nebraska, eastern Kansas, Oklahoma, Missouri, Arkansas, eastern Texas, Louisiana and western Mississippi. Power is interchanged between these systems with the fullest use made of the most

efficient equipment. Another example of interconnection between systems is the provision of the Paducah AEC plant requirements by TVA and Electric Energy, Inc., discussed in more detail at a later point.

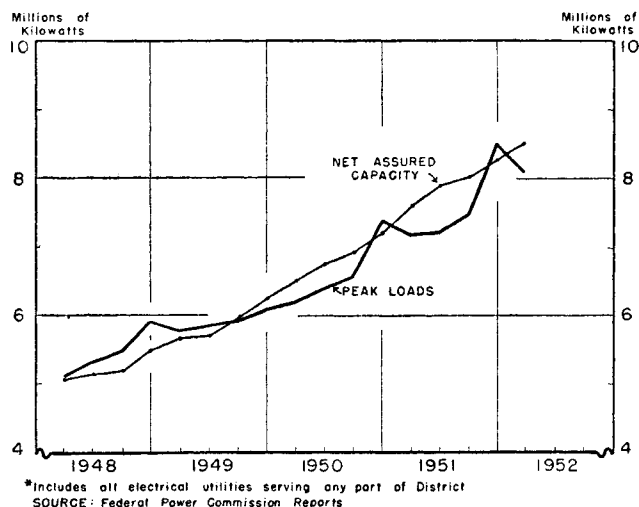
Reserve margins in many of these systems, presently below desirable levels, are being improved.

Power demand varies with the hour of the day, the day of the week, and the month of the year. Utilities must have sufficient capacity to meet the highest combined demand. Reserves, the margin between capacity and peak loads, are necessary to allow for maintenance and possible failures of generating equipment. This margin averaged 7 per cent of the generating capability in December, 1951 for the nation as a whole. In general, a margin of capacity over peak load of about twice this percentage is considered desirable. A reserve of this size would permit a sudden expansion of production (and electric energy loads) such as might be required in case of all-out war.

As indicated in Chart II, the utilities serving this district had total net assured capacity insufficient

II.

GENERATING CAPACITY AND PEAK LOADS IN EIGHTH FEDERAL RESERVE DISTRICT*



to meet the total peak load demands during 1948, March and June 1949, and both December 1950 and 1951.⁵ The largest deficits in the past two years have been in the TVA system, while most other systems have usually had reserve capacity over peak demands. Nevertheless, outside the TVA, the reserve margin has fallen below a desirable level. March 1952 data, the latest available, again showed that certain district utilities had peak loads in excess of

⁵Net assured capacity is equal to installed capacity plus net firm power purchases less reserves.

their net assured capacity. Further, according to the March, 1952 data, the scheduled additions to capacity by the end of 1952 will not be sufficient in many of these cases to meet the estimated peak loads in December, 1952, when demand will be seasonally high. This does not imply a power shortage in the areas served by these utilities, but does indicate higher capacity operation than is usually considered good practice. The narrow margins and occasional deficits point up the need for additional capacity. It is of interest to note that by December, 1953, scheduled additions to capacity will make the combined capability of the utilities serving this district sufficient to meet expected peak loads.

To supply the increased power for defense and for an expanding economy, district utilities have scheduled more than 50 per cent increase in generating capacity in 1952-53.

Long-range projections by the President's Materials Policy Commission indicate that the demand for electricity is expected to continue to rise in the next quarter century, although at a somewhat slower pace than in the past twenty-five years. If total national output should double again from 1950 to 1975 as it did in the previous twenty-five years, the demand for electricity may increase 2½ times. In order to meet the projected power demands during the next twenty-five years, generating capacity would have to be increased about 2½ times the 1950 level or to approximately 300 million kilowatts. Such long-range planning is important in defining the scope of the industry's task. However, projections over such an extended period are not necessary for an individual utility system, since the time required to erect a new steam-electric generating plant is about three years and for a hydroelectric generating plant about five years. In actual practice most utility systems forecast their demands annually for five-year periods.

At the time of the Korean invasion, the power suppliers in the nation had planned a 17 million kilowatt increase in generating capacity over a three-year period to meet the requirements of an expanding economy. After Korea the mobilization program required still further expansion of the utility industry. A goal of 107 million kilowatts of generating capacity by December 31, 1954, was established for large utilities by the Defense Production Administration. This represented an increase of 32 million kilowatts above the December 31, 1951, capacity.

In order to do their part in achieving the national goal, utilities serving this district have scheduled

a 54 per cent increase in generating capacity by December 31, 1953. The following table indicates the increase scheduled for completion from March, 1952 through 1953 by both privately and publicly owned utilities serving this district.

TABLE II
CAPACITY AND EXPANSION OF
ELECTRIC UTILITY SYSTEMS SERVING
THE EIGHTH DISTRICT

	Class I Systems*			
	(in thousands of kilowatts)			
	Installed Capacity March 31, 1952	Scheduled Additions Apr-Dec 1952	1953	Per cent Increase from March 31, 1952
Total Eighth District	8,987	2,223	2,590	54
Total Privately Owned	5,107	1,011	1,280	45
Total Publicly Owned	3,880	1,212	1,310	65
TVA	3,747	1,052	1,280	62
Other Federal	87	160	.....	184
Municipal**	46	.....	30	65

Source: Federal Power Commission

* Those with net energy of 50 million kilowatt-hours or more annually.

** Springfield, Missouri, and Owensboro, Kentucky.

TVA will increase its capacity by 62 per cent . . .

The installed capacity of the TVA system as of December 31, 1951, was 3.5 million kilowatts. Additions now under construction by the Tennessee Valley Authority, including the multiple-purpose projects on the Cumberland River being installed or planned by the Corps of Engineers, will provide 3.6 million kilowatts of generating capacity. Nearly 2.8 million kilowatts of steam-electric generating capacity is now under construction with the remaining capacity in the form of hydro plants at new or existing dams. One of the reasons for the shift from water to steam power by the TVA is that most of the feasible hydroelectric power sites in the region have already been developed. Remaining hydro sites are far from sufficient in potential capacity to meet the anticipated future demands for power in the TVA area.

. . . and other Federal projects will be constructed.

In this district two new Federal projects are in the process of completion: the Blakely Mountain and Bull Shoals hydroelectric plants, both located in Arkansas. Generating capacity of 160,000 kilowatts is being installed at Bull Shoals and is scheduled to become available late this year. The dam also has capacity for additional generators of equivalent rating which can be installed in the future. The Blakely Mountain project, not included in the above table since it is scheduled for completion in 1954, will have an installed generating capacity of 75,000 kilowatts. Power from these projects will be marketed through the Southwestern Power Administration. Further additions to capacity in the Arkansas-Missouri area will come from Table Rock Dam, which is considered to have a potential hydro capacity of 168,000 kilowatts. In the recently completed session, Congress appropriated \$3 million to start construction on this dam.

Privately owned utilities have scheduled additions of 45 per cent in the two years, . . .

Nearly all privately owned utilities serving this district (all those serving metropolitan areas) have expansion programs underway. The construction projects scheduled for completion by the end of 1953 will add 2.3 million kilowatts, an increase of 45 per cent, to their 5.1 million kilowatts of generating capacity installed as of December 31, 1951.

Most of the expansions being carried out by the privately owned utilities will be steam plants. In Arkansas, most plants now being erected will use natural gas as the major source of fuel.

In other sections of the district steam plants will be fueled primarily by coal, although their furnaces may be converted to use either gas or oil fuel if either necessary or economical. For example, Union Electric Company now uses coal as a major source of fuel in its St. Louis steam plants during most of the year, but because of the advantageous rates offered for natural gas during periods of low industrial and domestic use, it converts to this fuel during the summer months. Natural gas in 1950 comprised 28 per cent of this company's total fuel requirements.

In addition to helping meet the expanded needs for electric power, new plants now being constructed will also increase the average efficiency of the utilities. For example, national average fuel consumption for producing electric energy in 1951 was 1.14 pounds of coal (and the equivalent in other fuels) per kilowatt-hour produced. However, new plants now being constructed are capable of producing a kilowatt-hour of electricity with consumption of only 0.8 of a pound per kilowatt-hour. As new plants are put on the line older and less efficient plants are usually put on a standby basis and used to meet peak load requirements.

. . . partly aided by rapid amortization for tax purposes.

Expansion of electric power production is an essential part of the defense mobilization program. To help bring about the needed expansion, utilities, along with other industries basic to the program, have recourse to rapid amortization of costs for tax purposes as noted in the preceding issue of this REVIEW. The tax amortization certificates allow a write-off of part of the cost of new facilities in a five-year period instead of the much longer term normally permitted.

Through July 9, 1952 applications from the entire United States for certificates of tax amortization had been approved for 445 electric utility projects

estimated to cost \$3.1 billion. This sum is equivalent to a little more than one year's investment by the electric utility industry. In the past three years construction expenditures averaged \$2.7 billion a year. When completed these projects will add about 18.3 million kilowatts to the electric power capacity of the United States. The average amount certified for rapid amortization was 44.7 per cent of the cost of the facilities eligible.

Expansion of electric power facilities located in this district and being aided by fast write-offs will cost about \$168 million and provide about 1.9 million kilowatts capacity. The following table indicates the geographic location of the tax-aided expansions in the Eighth Federal Reserve District, and the investment and generating capacity involved.

Area (district portion of state)	Amount (in millions)	Capacity (in kilowatts)
Arkansas	\$ 57.2	432,000
Illinois	26.8	90,000
Kentucky	9.5	60,000
Missouri	51.6	265,000
Mississippi	23.3	200,000
Total	\$168.4	1,947,000

Included in these public and private expansions is the joint supply of electric energy to the Paducah AEC plant.

The leading example in this district of cooperation of publicly and privately owned systems to supply the demands of defense mobilization program is to be found in connection with the Atomic Energy Commission plant at Paducah, Kentucky. Five privately owned utilities in the neighborhood of the AEC plant organized Electric Energy, Inc., which in turn is erecting, across the Ohio River at Joppa, Illinois, an electric generating plant for the purpose of supplying one-half the power requirement of the Paducah uranium separation project.⁶ To supply the other half of the AEC plant's demand for about one million kilowatts of energy, TVA is building a steam-electric generating plant (Shawnee) near Paducah, Kentucky. The generating capacity of the Shawnee plant will be 540,000 kilowatts; that of the Joppa plant will be 652,000 kilowatts.

These plants will have energy resources available for distribution to users other than the AEC. For instance, Electric Energy, Inc., has a twenty-five year contract to supply from 427,500 to 500,000 kilowatts of power to AEC. The participating utilities have the right to use the excess capacity of the power plant over and above that supplied to AEC and are obligated to purchase power from Electric Energy, Inc., in the ratio of their participating

⁶ The five privately owned utilities are: Union Electric Company, Illinois Power Company, Central Illinois Public Service Company, Kentucky Utilities Company, and Middle South Utilities, Inc.

interests. Total annual energy production available to the utilities from the Joppa plant is estimated at about 850 million kilowatt-hours. Transmission lines in process of construction will tie the plant with systems of the participating utilities and the TVA.

In terms of future expansion, potential hydroelectric power capacity is large in this district.

Turning again to consideration of the expansion of electric power production in the district, the possibilities of future expansion in hydroelectric power capacity should be considered. Hydroelectric power has the advantage of using an inexhaustible source of energy—the flow of water. In addition, the development of rivers for irrigation, navigation, flood control, recreation, and pollution abatement can be combined with the production of electricity. As a result, hydroelectric power costs are reduced by the sharing of joint costs with other functions of a multipurpose project.

The Federal Power Commission has estimated that the total hydroelectric power potential of the United States is about 105 million kilowatts. As of December 31, 1951, the installed capacity of all hydro plants, except those in private industrial use, was less than 19 million kilowatts, leaving a total of about 86 million kilowatts undeveloped power capacity. However, this total indicates merely an upper limit to potential development since it does not give consideration to economic or other factors which might rule out some projects.

In this district hydroelectric power capacity of 696,000 kilowatts has been developed, according to the Federal Power Commission, while undeveloped water resources in this district have the capacity for some 6 million kilowatts of power. Here again, potential development may be limited by economic and other reasons.

Potential hydroelectric power developments, classified as either good or fair, located in the Missouri River basin and also within the boundaries of the Eighth Federal Reserve District are indicated in the following table:

Name	Stream	Ultimate Potential Installed Capacity (kilowatts)	Classification
Stockton.....	Sac Creek.....	6,700	Fair
Hackleman.....	Cedar Creek.....	1,400	Fair
Pomme de Terre.....	Pomme de Terre River....	6,500	Fair
Richland.....	Gasconade River.....	25,000	Good
Rich Fountain.....	Gasconade River.....	35,000	Good
Pin Oak Bluff.....	Gasconade River.....	19,800	Fair
TOTAL		94,400	Good or Fair

Source: Bureau of Reclamation, U. S. Department of Interior, Power, Resources, Requirements, and Supply—Missouri River Basin, July, 1951.

In Arkansas and Missouri, hydroelectric developments currently in operation, under construction, or authorized by the Federal government are:

Name	Existing	Capacity in Kilowatts Under Construction	Authorized Additions or New Projects
Narrows Dam	17,000	.....	7,500
Norfolk Dam	70,000	.....	70,000
Blakely Mountain .....	.....	75,000	.....
Bull Shoals .....	.....	160,000	160,000
Table Rock .....	.....	.....	168,000

As indicated in Table III, the potential undeveloped hydroelectric power capacity in the Illinois, Indiana, Tennessee, and Mississippi areas of the Eighth Federal Reserve District is relatively small.

TABLE III
EXISTING AND UNDEVELOPED HYDROELECTRIC POWER CAPACITY IN THE EIGHTH FEDERAL RESERVE DISTRICT
(in kilowatts)

State	Existing	Undeveloped
Arkansas	156,140	1,696,000
Missouri	150,525	2,252,000
Illinois	0	945,000
Indiana	3,200	125,000
Kentucky	242,360	990,000
Tennessee	144,000	72,000
Mississippi	0	32,000
TOTAL	696,225	6,112,000

Source: Federal Power Commission, letter dated September 7, 1951.

Rates are an important aspect of this power resource.

A discussion of the electric power resources of an area would be incomplete without an analysis of the cost of such power. Reasonable electric power rates are important for the industrial growth of an area and the extension and increased use of electricity on farms and in homes.

Where large quantities of electricity are used in the production processes and the cost of it becomes a substantial part of the total costs of production, the rates for electricity, as well as the adequacy of supply, become significant factors in plant location. This is especially true in operations involving electrolysis (as in aluminum reduction) and some involving controlled amounts of heat (such as production of ferro-alloys, special steels and abrasives). The five largest electric power consuming industries are chemicals, petroleum and coal products, iron and steel, paper, and nonferrous metals. And these industries are among the most rapidly growing.

The aluminum industry is an example of the importance of power costs in the location of plants. Although Arkansas has produced about 95 per cent of the bauxite ores mined domestically, the aluminum reduction industry, prior to World War II, had been located in other parts of the nation because of the cheaper electric power available in those spots.

In the manufacture of aluminum, about 9 kilowatt-hours of electric energy are used for each pound produced. At 2 mills per kilowatt-hour, the cost of energy per pound of aluminum is about one-tenth the present price. Thus, an increase of 1 mill per kilowatt-hour of electricity results in an addition of about 5 per cent in the total cost of the metal.

Other examples exist of the importance of adequate, low-cost electric power in the location of certain industrial plants. The influx of chemical plants in the Tennessee Valley area has been attributed in part to the availability of large supplies of low-cost power.

Not only are rates important industrially, they are of importance on the farm and to individual urban consumers. The lower the cost, the greater the likelihood of increased use.

In general, they have decreased.

The average charge for residential service in the district has probably decreased at about the same percentage as for the nation. In the large cities in the United States this average charge has declined from 6.03 cents a kilowatt-hour in 1925 (for the use of 100 kilowatt-hours per month) to 3.62 cents in 1951. Since 1935 the cost of electric power for commercial light service has decreased even more markedly than has the cost of residential service. But the reduction in the cost of industrial service since 1935 has been only about 4 per cent.

Between 1925 and 1950 the average price paid for industrial and commercial electricity, adjusted for changes in the purchasing power of the dollar, dropped 58 per cent, and for residential use 70 per cent. The declining prices of electric power were made possible by lowered real costs. Among the more important increases in efficiency have been the steady technical advances in production, transmission, and distribution of electricity, the economies inherent in larger volume operations and sales.

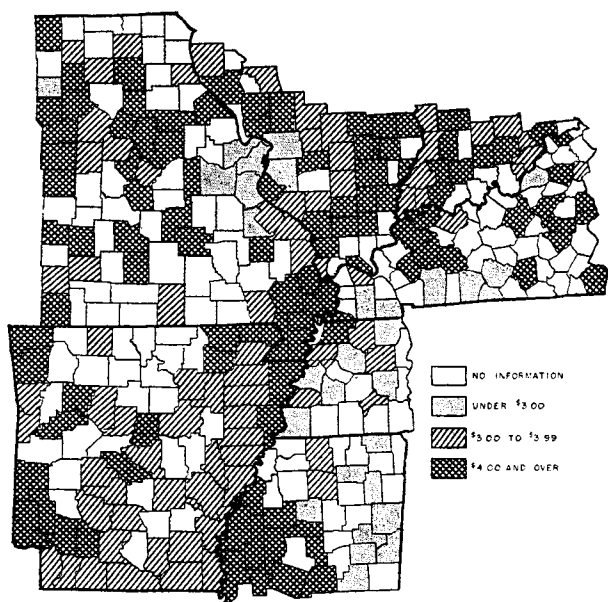
While the over-all trend of electric power rates has been downward over the past few years, some exceptions should be noted. For example, the Tennessee Valley Authority, in order to finance the cost of building new steam generating plants and meet the higher costs of producing electricity with fuel, increased their industrial power rates in 1951. Increases in some cases were as much as 12 per cent. A few other utilities serving this district also have increased rates recently.

Residential rates in this district have a wide range, but average less than for the United States, . . .

The variation in cost of electric energy for domestic users in communities of more than 2,500 population is indicated in Chart III. In general, the areas served by the Tennessee Valley Authority obtain electricity at the lowest rate of any of the areas in the Eighth District. Domestic users in the St. Louis

III.

**MONTHLY ELECTRIC POWER COSTS*
FOR COMMUNITIES OVER 2,500
RESIDENTIAL SERVICE
(FOR 100 K. W. H.)**



*As of January 1, 1951
SOURCE: Federal Power Commission

area also benefit from relatively low-cost rates. For the Eighth Federal Reserve District as a whole, the average residential rate for 100 kilowatt-hour monthly use was \$3.34 as of January 1, 1951, compared with a national average of \$3.74.

Residential power rates are significantly higher in small communities than in the larger metropolitan areas or in areas served by the larger utilities. For example, in Arkansas for cities between 2,500 and 10,000 population the average cost of electricity is \$4.13 for 100 kilowatt-hours per month, as compared with an average of \$3.79 in cities of over 10,000 population. The difference would be even more marked when analyzed by the size of the electric utility system supplying the power. The lower rates in metropolitan areas are attributed to lower costs and the efficiencies obtained by large-scale operations. The economies of large-scale operations make it possible for a privately owned utility to charge rates below those charged by some municipally

owned systems. For example, in district portions of Missouri, publicly owned systems (mostly small) charged \$3.89 for 100 kilowatt-hours a month, as compared with \$3.03 charged by privately owned systems. (See Table IV)

**TABLE IV
NET MONTHLY BILL FOR 100 KILOWATT-HOURS
RESIDENTIAL SERVICE BY UTILITY OWNERSHIP,
EIGHTH FEDERAL RESERVE DISTRICT AS OF
JANUARY 1, 1951**

Area in District	Communities with Population of					
	2,500-10,000		over 10,000		All	
	Public	Private	Public	Private	Public	Private
Arkansas	\$4.51	\$3.98	\$3.75	\$3.80	\$4.16	\$3.86
Illinois	5.29	4.15	3.92	3.51	5.02	3.75
Indiana	4.51	3.99	3.66	3.71	4.15	3.78
Kentucky	2.96	3.90	3.57	2.70	3.43	2.89
Mississippi	3.07	4.05	3.35	4.05	3.20	4.05
Missouri	4.45	3.51	3.51	2.94	3.89	3.03
Tennessee	2.92	.....	2.51	.....	2.57	.....
Eighth District Total	\$4.00	\$3.89	\$3.03	\$3.16	\$3.35	\$3.34

Source: Federal Power Commission, Typical Residential Electric Bills, Cities of 2,500 Population and More, as of January 1, 1951.

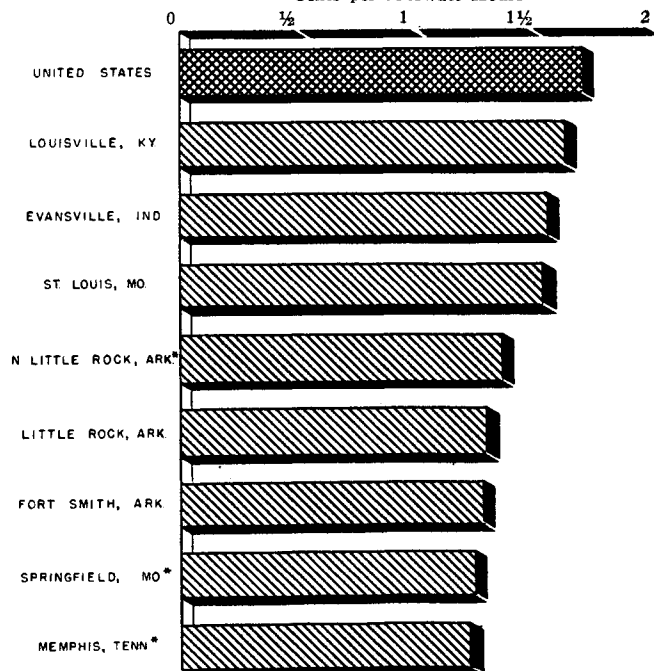
. . . and industrial rates in major district cities are below the national average.

As indicated in Chart IV, electric energy rates for industrial service in all major cities in the district are below the national average. The comparison is made on the basis of medium usage (300 kilowatt demand and 60,000 kilowatt-hour monthly consumption). The schedule giving the lowest rate for this demand and amount of use was selected.

IV.

Industrial electric power in Eighth District costs less than United States average.

INDUSTRIAL SERVICE
Cents per Kilowatt Hours**



* Publicly owned utility
** Average charge in cents per kw-hr for 300 kw billing demand and 60,000 kw-hr monthly consumption. Rates in effect January 1, 1951

Industrial rates in many cases are competitive with the costs of electricity generated by manufacturing plants for their own use. Usually only very large industrial plants or those using exceptionally large amounts of electricity can generate their own power at less cost than it can be purchased. In some processes requiring large amounts of live steam, it also can be produced at less cost. In general, the trend has been for industries to purchase electricity from public utility systems rather than to generate their own energy.

The Eighth District's available electric power capacity and the expansions scheduled provide a firm base for present production and future development.

In general, although not uniformly in all areas, the electric power industry serving the Eighth

Federal Reserve District has adequate facilities to meet demand. In rural areas, electrification continues to progress. The average electric rate in this district is well under the national average, but further reductions in some areas would be helpful in stimulating industrial and residential use. The hydroelectric potential is still largely undeveloped and use of economically feasible sites would aid in the development of the district. The industry is expanding rapidly. By 1953, the more than 50 per cent additions to capacity now scheduled will make total capacity sufficient to meet estimated peak loads. If the use of electricity continues to grow as expected, the industry may have to approximately double its capacity in the next ten years.

WILLIAM H. KESTER

Survey of Current Conditions

ACTIVITY in many lines in the Eighth Federal Reserve District during June and early July was higher than in previous months. The steel strike, however, caused a spreading restriction of industrial output in the period. As a result, although employment increased slightly during the month ended at mid-June in the major district cities, layoffs became numerous in July. Wholesale prices continued to decline slowly. On the more active side, bank loans increased in July, construction activity continued to improve seasonally and adjusted department store sales advanced in June. These sales were helped by the hot weather prevailing in most parts of the district. At the same time the weather had an unfavorable effect on the growing conditions for district crops.

Nationally, the volume of industrial production in June, as measured by the Federal Reserve Board, dropped to 203 per cent of the 1935-39 average, compared with 211 per cent for May and 221 per cent in June last year. Primary factor in the decline was the work stoppage in the steel industry. Production of durable goods other than iron and steel increased somewhat and production of nondurable goods was estimated to have increased from 181 per cent of the base period in May to 185 per cent in June. Nondurable goods production improved, reflecting mainly the termination of the three-week work stoppage at oil refineries.

During June and July, the steel strike was the dominant factor in the business situation. In June, steel mill operations were only 18 per cent of capacity, and, in the third week of July about 15 per cent of capacity. Many metal-consuming industries were already shut down and continued operation at pre-strike levels in the remaining plants was increasingly difficult.

Despite settlement of the steel strike late in July, the protracted loss of production affected industries producing less-essential metal goods and, at least, one defense industry in this district. It will be some weeks before most metal-working plants can obtain enough steel to return to previous levels of operations. Resultant layoffs or reductions in the work weeks will cut into personal incomes and into potential spending power. Construction expenditures will also be reduced for a time by the loss of structural steel production. Thus the temporary immediate effect of the steel strike is to slow down total activity and, to some extent, over-all spending.

Other factors may tend to offset these deflationary tendencies. Defense expenditures will continue to increase, if present schedules are held, to about \$60 to \$65 billion next year from the second quarter 1952 level of \$51 billion. And retail trade, which has shown a measure of strength in recent months, may

continue to improve despite the temporary setback in incomes. The level of retail trade will be determined in part by the willingness of consumers to draw upon previous savings, reduce the proportion of current income saved, or step up the proportion of credit purchases.

Employment

The steel strike was the dominant influence on the labor markets of the district and the nation in late June and early July. It had little effect on employment in other industries until the latter part of June. In July, layoffs due to lack of steel became more numerous and as of mid-month the number of workers idled either directly or indirectly was estimated at over 1 million for the nation as a whole. In this district layoffs due to the steel shortages were temporarily solved at some plants by scheduling plant-wide vacations in July. However, many plants may not reopen for some time after the close of the vacation periods, as steel supplies are not expected to become generally available until several weeks after resumption of operations at the mills. Primarily affected so far by the shortage of steel were the automobile, refrigerator and appliance manufacturers. In St. Louis during July the employment situation was further aggravated by the strike of trucking workers.

In June, initial claims for unemployment insurance rose in the seven district states from 23,600 in the week of May 31 to 36,800 for the week of June 28. More recent information indicates this rising trend in June continued in July. For example, in St. Louis initial claims jumped from 1,199 for the week of June 14 to 4,081 for the week of July 12.

During the first half of the year, employment in the six metropolitan areas in this district increased. The over-all gain was primarily due to increasing employment in defense-related industries, and to seasonal changes such as in construction. More-than-seasonal decreases in employment in a few industries, such as whiskey and coal mining, partially offset this increase. The relation of labor supply to demand in the metropolitan areas of the district remained virtually unchanged so far in 1952: a moderate labor surplus over immediate and expected near term requirements.

Employment in the United States rose seasonally from May to June, as large numbers of students entered the labor market at the end of the school

term. Total civilian employment was estimated at 62.6 million persons in the week ending June 14, about 1.4 million above the May level. Most of the increase in employment was in agriculture, with nonfarm employment showing little change. Not all of those entering the labor market found jobs, and, in the survey week, unemployment totaled 1.8 million, up 216,000 from May, but 162,000 below June last year.

In the first six months employment has averaged 60.5 million persons, an increase of about 300,000 over the average of the first half of last year. At the same time unemployment averaged less—1.8 million in the first half of 1952 against 2.1 million in the same period last year. Virtually all of this improvement between 1951 and 1952 occurred among women.

While more people were employed, the average work week in factories was down about one-half hour in the first five months of 1952 compared with the same months last year. By May the work week had declined to 40.0 hours—equal to the pre-Korea levels of two years earlier. Hourly earnings in factories continued to increase in the first five months and averaged 5 per cent over the level of a year earlier as a result partly of an increased proportion of workers in higher-wage defense-related industries and partly increased wage rates. In May, the United States average hourly earnings in manufacturing was \$1.66.

PRICES

WHOLESALE PRICES IN THE UNITED STATES

Bureau of Labor Statistics (1947-49=100)	June, '52	May, '52	June, '51	June, 1952 compared with	
				May, '52	June, '51
All Commodities.....	111.3	111.6	115.1	-0-%	+ 3%
Farm Products.....	107.3	107.9	113.9	-1	+ 6
Foods.....	108.7	108.6	111.3	-0-	+ 2
Other.....	112.6	113.0	116.2	-0-	+ 3

CONSUMER PRICE INDEX*

Bureau of Labor Statistics (1935-39=100)	June 15, 1952	Mar. 15, 1952	June 15, 1951	June 15, 1952 compared with	
				May 15, '52	June 15, '51
United States.....	189.6	188.0	185.2	+ 1%	+ 2%
St. Louis.....	192.7	190.2	185.0	+ 1	+ 4
Memphis.....	191.2	190.2	187.8	+ 1	+ 2

*New series.

RETAIL FOOD*

Bureau of Labor Statistics (1935-39=100)	June 15, 1952	May 15, 1952	June 15, 1951	June 15, 1952 compared with	
				May 15, '52	June 15, '51
U.S. (51 cities).....	231.5	230.8	226.9	-0-%	+ 2%
St. Louis.....	247.6	243.6	238.2	+ 2	+ 4
Little Rock.....	228.7	226.5	225.2	+ 1	+ 2
Louisville.....	218.1	216.4	215.5	+ 1	+ 1
Memphis.....	235.6	231.7	233.0	+ 2	+ 1

*New series.

Industry

Through June and early July, industrial production in the district again dropped moderately due to work stoppages, weak demand, and seasonal slowdowns.

Manufacturing—Consumption of electric power at reporting industrial firms in six district cities remained about the same in June as in May and, on balance, use of power was also about the same this June as a year ago. But there was a large variation

between reporting cities, with Pine Bluff being particularly far below last year as chemical production there continued at a reduced level. At other cities, the chemical and metals industries were less active in June than in May, but about the same as last year, according to the sample.

Early July promised some relief for this area from the effects of the steel strike as an agreement was reached July 11 with workers at the largest district producer of ingot, the only one struck. This mill, which supplies a number of manufacturers in this district resumed full production starting the week of July 13. In June the district steel industry operated at only 36 per cent of capacity.

Lumber production continued to run slightly ahead of orders and shipments. Average weekly production of southern pine in June was 8 per cent below that of May and 4 per cent below June, 1951. Southern hardwood production improved slightly from May to June, but, as during last month, was running about 20 per cent under the level of a year ago.

Whiskey production reached its low point for the year with only 17 of the 61 Kentucky distilleries in operation on June 30, a drop of 10 from last month and 4 less than on June 30, 1951.

Shoe producers, however, were looking ahead to the fall market with some optimism. For example, International Shoe Company reported orders for fall lines of civilian shoes are showing large percentage increases over the comparable period last year. On the other hand, present prospects indicate that military requirements for shoes will not be large during the remainder of 1952.

Meat packing under Federal inspection was up 14 per cent from May and 2 per cent ahead of June, 1951. Early shipments of cattle from drouth-stricken pastures helped swell the slaughter total.

Freight interchanges at 25 railroads in the St. Louis area during June reflected the lessened industrial activity in the district and nation as volume dropped to 15 per cent under that of June last year. In early July, transportation in St. Louis was severely affected by a truck strike, though interchange of freight between railroads was stopped for only five days.

Mining—Coal production in June continued at levels well below a year ago, but showed some recovery from May. Crude oil production in June was 3 per cent above the level of June, 1951.

INDUSTRY CONSUMPTION OF ELECTRICITY DAILY AVERAGE

(K. W. H. in thous.)	June, 1952 K. W. H.	May, 1952 K. W. H.	June, 1951 K. W. H.	June, 1952 compared with May, 1952 June, 1951	
Evansville.....	830	846	783	- 2%	+ 6%
Little Rock.....	547	559	573	- 2	- 5
Louisville.....	4,135	4,079	3,919	+ 1	+ 5
Memphis.....	1,458	1,428	1,394	+ 2	+ 5
Pine Bluff.....	328	330	458	- 1	-28
St. Louis.....	4,840	4,864	4,852	- 1	-0-
Totals.....	12,138	12,102	11,999	-0-%	+ 1%

LOADS INTERCHANGED FOR 25 RAILROADS AT ST. LOUIS

June, '52	May, '52	June, '51	First Nine Days July, '52 July, '51		6 mos. '52	6 mos. '51
98,767	108,597	116,421	29,061	30,032	650,387	701,588

Source: Terminal Railroad Association of St. Louis.

COAL PRODUCTION INDEX 1935-39 = 100

Unadjusted			Adjusted		
June, '52	May, '52	June, '51	June, '52	May, '52	June, '51
117.5 P	107.4	147.5	125.0 P	104.3	156.9

CRUDE OIL PRODUCTION—DAILY AVERAGE*

(In thousands of bbls.)	June, 1952	June, 1951	June, 1952 compared with June, 1951
Arkansas.....	76.2	77.4	- 2%
Illinois.....	170.0	169.2	-0-
Indiana.....	32.8	30.0	+ 9
Kentucky.....	33.9	28.0	+21
Total.....	313.9	304.0	+ 3%

* May, 1952, figures not available due to strike at refineries.

SHOE PRODUCTION INDEX 1935-39 = 100

Unadjusted			Adjusted		
May, '52	Apr., '52	May, '51	May, '52	Apr., '52	May, '51
145.4	145.4	133.1	150.0	143.0	137.2

P—Preliminary.

CONSTRUCTION

BUILDING PERMITS Month of June, 1952

(Cost in thousands)	New Construction				Repairs, etc.			
	Number		Cost		Number		Cost	
	1952	1951	1952	1951	1952	1951	1952	1951
Evansville.....	59	178	\$ 77	\$ 680	113	127	\$ 222	\$ 78
Little Rock.....	46	51	409	392	222	205	350	98
Louisville.....	253	217	1,335	1,256	93	90	155	98
Memphis.....	1,424	1,721	3,066	2,815	221	226	322	252
St. Louis.....	265	281	1,558	2,122	268	276	857	430
June Totals.....	2,047	2,448	\$ 6,445	\$ 7,265	917	924	\$1,906	\$ 956
May Totals.....	3,143	2,414	\$13,070	\$17,443	1,011	1,056	\$1,225	\$1,693

Construction

In the Eighth District, construction contract awards in June, as reported by the F. W. Dodge Corporation, increased 19 per cent from May and were 24 per cent ahead of June, 1951. The number of dwelling units included in construction contracts awarded during June in the St. Louis territory of the Dodge Corporation, which includes most of the Eighth District, was 2,468, compared with 2,113 a year earlier.

For the first six months the number of dwelling units contracted for in the St. Louis territory increased by 5 per cent from the first half of 1951. The value of construction contracts awarded for commercial buildings was ahead by 4 per cent, manufacturing building awards were up 104 per cent, and all other nonresidential building awards rose 13 per cent in the first half of 1952 over the same period of a year earlier. Construction contracts awarded for public works were up 82 per cent but public and private utility construction was down 2 per cent.

In the nation as a whole moderate expansion of construction activity, mostly seasonal, took place during June, moving the dollar figure up 7 per cent over May and 6 per cent above June, 1951. Public construction expenditures increased about 10 per cent from May to June, while private outlays were up only 5 per cent. In comparison with June, 1951, public outlays were 23 per cent larger while private remained about the same.

New construction outlays during the first half of 1952 reached a record total of nearly \$15 billion—4 per cent higher than last year. Substantially larger expenditures for military facilities, industrial expansion, and public utility construction were principal factors in creating the record. The level of private construction was reduced 4 per cent from last year primarily by lessened residential building (down 8 per cent) and a smaller volume of most types of nonresidential building. Industrial plant construction, while ahead 31 per cent in the first six months over the first half last year, has shown a declining trend in recent months as more work was completed than started.

Trade

During June, sales of reporting retail lines in the district remained at high levels as a record-breaking heat wave sent consumers scrambling for "hot weather" merchandise. In some lines the heat was at first credited with stimulating sales,

TRADE

DEPARTMENT STORES

	Net Sales		Stocks on Hand	Stock Turnover		
	June, 1952 compared with May, '52	6 mos. '52 to same period '51	June 30, '52 comp. with June 30, '51	Jan. 1 to June 30, 1952 1951		
8th F.R. District.....	- 8%	+12%	+ 2%	-13%	1.82	1.61
Ft. Smith, Ark. ¹	-20	-0-	+ 1	- 6	1.68	1.59
Little Rock, Ark.....	-19	+14	+ 3	-13	1.79	1.52
Quincy, Ill.....	-13	- 6	- 8	-13	1.81	1.66
Evansville, Ind.....	-17	+ 6	+ 3	-17	1.61	1.46
Louisville, Ky.....	- 5	+14	+ 3	- 2	1.93	1.84
Paducah, Ky.....	- 1	+38	+34	.....	.....	.....
St. Louis Area ²	- 2	+12	+ 2	-17	1.81	1.55
Springfield, Mo.....	-18	- 4	+ 4	-10	1.58	1.38
Memphis, Tenn.....	-17	+15	+ 3	- 6	1.89	1.79
All Other Cities*.....	- 9	+12	+ 4	- 5	1.55	1.48

* Fayetteville, Pine Bluff, Arkansas; Harrisburg, Mt. Vernon, Illinois; Vincennes, Indiana; Danville, Hopkinsville, Mayfield, Kentucky; Chillicothe, Missouri; Greenville, Mississippi; and Jackson, Tennessee.

¹ In order to permit publication of figures for this city (or area), a special sample has been constructed which is not confined exclusively to department stores. Figures for any such nondepartment stores, however, are not used in computing the district percentage changes or in computing department store indexes.

² Includes St. Louis, Clayton, Maplewood, Missouri; Alton and Belleville, Illinois.

Outstanding orders of reporting stores at the end of June, 1952, were 9 per cent larger than on the corresponding date a year ago.

Percentage of accounts and notes receivable outstanding June 1, 1952, collected during June, by cities:

	Instalment Accounts	Excl. Instal. Accounts	Instalment Accounts	Excl. Instal. Accounts	
Fort Smith.....	%	44%	Quincy.....	19%	59%
Little Rock.....	18	44	St. Louis.....	20	50
Louisville.....	19	45	Other Cities.....	14	48
Memphis.....	22	39	8th F.R. Dist..	19	47

INDEXES OF DEPARTMENT STORE SALES AND STOCKS

8th Federal Reserve District

	June, 1952	May, 1952	Apr., 1952	June, 1951
Sales (daily average), unadjusted ³	103	106	101	90
Sales (daily average), seasonally adjusted ³	111	102	98	98
Stocks, unadjusted ⁴	118	124	122	136
Stocks, seasonally adjusted ⁴	125	124	114	143

³ Daily average 1947-49=100

⁴ End of Month Average 1947-49=100

SPECIALTY STORES

	Net Sales		Stocks on Hand	Stock Turnover		
	June, 1952 compared with May, '52	6 mos. '52 to same period '51	June 30, '52 comp. with June 30, '51	Jan. 1 to June 30, 1952 1951		
Men's Furnishings.....	+ 1%	+ 9%	-0%	-22%	1.10	.97
Boots and Shoes.....	-13	- 2	+ 3	- 2	2.15	2.02

Percentage of accounts and notes receivable outstanding June 1, 1952, collected during June:

Men's Furnishings..... 42% Boots and Shoes..... 40%

Trading days: June, 1952—25; May, 1952—26; June, 1951—26.

RETAIL FURNITURE STORES

	Net Sales		Inventories		Ratio of Collections	
	June, 1952 compared with May, '52	June, '51	June, 1952 compared with May, '52	June, '51	June, '52	June, '51
8th Dist. Total ¹	- 6%	+11%	- 4%	-13%	24%	27%
St. Louis Area ²	- 2	-0-	+ 3	- 9	54	57
St. Louis.....	- 2	- 1	+ 3	- 9	57	60
Louisville Area ³	- 9	+12	- 9	-17	13	15
Louisville.....	-15	+ 9	- 7	-15	12	14
Memphis.....	- 6	+25	*	*	13	16
Little Rock.....	+ 5	+27	-19	- 9	19	21
Springfield.....	-13	+19	*	*	15	15
Fort Smith.....	-20	+23	*	*	*	*

* Not shown separately due to insufficient coverage, but included in Eighth District totals.

¹ In addition to following cities, includes stores in Blytheville, Pine Bluff, Arkansas; Hopkinsville, Owensboro, Kentucky; Greenwood, Mississippi; Hannibal, Missouri; and Evansville, Indiana.

² Includes St. Louis, Missouri; and Alton, Illinois.

³ Includes Louisville, Kentucky; and New Albany, Indiana.

PERCENTAGE DISTRIBUTION OF FURNITURE SALES

	June, '52	May, '52	June, '51
Cash Sales	13%	14%	15%
Credit Sales	87	86	85
Total Sales	100%	100%	100%

WHOLESALING

Line of Commodities Data furnished by Bureau of Census, U.S. Dept. of Commerce*	Net Sales		Stocks
	June, 1952, compared with May, '52	June, '51	June 30, 1952, compared with June 30, 1951
Automotive Supplies.....	+ 5%	+12%%
Drugs and Chemicals.....	- 2	+ 1	.....
Dry Goods.....	- 6	-14	-13
Groceries.....	- 9	- 6	-31
Hardware.....	-0-	+ 3	-17
Tobacco and its Products.....	- 1	+ 7	+ 5
Miscellaneous.....	-10	- 4	-18
**Total All Lines.....	- 3%	-0-%	-22%

**Preliminary.

**Includes certain items not listed above.

but was then blamed when volume slackened later on. Women's specialty shops, apparently experienced difficulty in maintaining adequate stocks of summer goods. Sales of electric fans attained such proportions that in St. Louis, for example, it was virtually impossible to purchase a brand-name window fan. Electric refrigerator sales also boomed. But automobile dealers were not as fortunate as other retailers. Some pickup in sales of used cars was noted early in June, but as the month progressed and the heat continued consumer interest slackened. New car sales were stimulated by consumer fears that the steel strike would curtail production and by seasonal influences.

Department store sales during June dropped less than seasonally from those in May and were substantially above June, 1951. The less-than-seasonal decline from May placed seasonally adjusted daily sales in the month at 111 per cent of the 1947-49 average—the highest since January, 1951. In comparison they were 102 per cent in May and 98 per cent in June, 1951. Cumulative sales during the first six months of 1952 totaled 2 per cent larger than in the comparable period of 1951. At the end of the first quarter this year, sales totaled somewhat less than in the like period of 1951 which included the second post-Korea buying wave. But the later Easter this year, together with the success of seasonal promotions during May and "hot weather" buying during June served to boost sales in the first half this year over those a year ago.

Furniture store sales at reporting district stores during June dropped 6 per cent below those in May but totaled 11 per cent larger than a year ago.

The retail value of inventories held by reporting retail lines at the end of June dropped generally below the level both a month ago and a year ago. At this time a year ago retailers were in the midst of "working down" inventories that were out of line with the slack consumer buying.

At district department stores on June 30 the value of outstanding orders was about 70 per cent above May 31 and one-tenth larger than June 30, 1951.

Banking and Finance

Earning assets of district weekly reporting banks were up in the first three weeks of July. The gain centered in loans to businesses and on securities and in net purchases of Government bonds.

Reserve positions of banks nationally were tight over most of the first six months of 1952. Despite this pressure bank credit continued to climb in the period. In the six months the private money supply contracted moderately, but much less than in the corresponding period in 1951.

Savings bond sales were up significantly in both June and July. The improved showing reflected the more favorable terms on these issues offered by the Treasury.

Banking—Bank credit expanded rather sharply in the first three weeks of July at district weekly reporting banks. The gain primarily reflected two developments: 1) a greater-than-seasonal expansion in business loans, and 2) the purchasing and financing of nonbank purchases of the Treasury's new 2 $\frac{3}{8}$'s bonds of June, 1958. Also both consumer and real estate loans were up moderately. Largely as a result of the expansion in bank credit, deposits rose \$127 million.

The business loan growth, \$32 million in total, was shared in by most reporting centers, but was greatest at St. Louis banks. Most types of businesses increased their loans outstanding. Both commodity dealers and food manufacturers, in contrast with the trend of the previous six months, expanded their borrowings substantially in the

DEBITS TO DEPOSIT ACCOUNTS

(In thousands of dollars)				June, 1952 compared with	
	June, 1952	May, 1952	June, 1951	May, '52	June, '51
El Dorado, Ark.....	\$ 23,762	\$ 32,233	\$ 25,519	- 26%	- 7%
Fort Smith, Ark.....	44,459	46,166	44,736	- 4	- 1
Helena, Ark.....	7,010	6,999	6,827	-0-	+ 3
Little Rock, Ark.....	150,937	153,688	143,997	- 2	+ 5
Pine Bluff, Ark.....	34,278	35,586	28,205	- 4	+ 22
Texarkana, Ark.*.....	18,057	18,959	12,811	- 5	+ 41
Alton, Ill.....	33,045	30,998	30,115	+ 7	+ 10
E. St. L. -Nat.S.Y., Ill.....	129,552	122,120	121,041	+ 6	+ 7
Quincy, Ill.....	35,241	36,417	35,512	- 3	- 1
Evansville, Ind.....	142,987	140,633	141,007	+ 2	+ 1
Louisville, Ky.....	656,861	666,642	644,293	- 1	+ 2
Owensboro, Ky.....	43,150	37,488	43,327	+ 15	-0-
Paducah, Ky.....	43,126	43,621	25,520	- 1	+ 69
Greenville, Miss.....	19,995	21,066	18,233	- 5	+ 10
Cape Girardeau, Mo.....	12,505	12,963	13,632	- 4	+ 8
Hannibal, Mo.....	10,413	10,015	9,859	+ 4	+ 6
Jefferson City, Mo.....	48,758	52,282	40,338	- 7	+ 21
St. Louis, Mo.....	1,989,005	1,807,501	1,904,851	+ 10	+ 4
Sedalia, Mo.....	10,843	11,473	10,430	- 5	+ 4
Springfield, Mo.....	67,832	67,965	71,462	-0-	- 5
Jackson, Tenn.....	19,277	20,025	19,259	- 4	-0-
Memphis, Tenn.....	540,883	547,285	530,559	- 1	+ 2
Totals.....	\$4,081,976	\$3,922,125	\$3,921,533	+ 4%	+ 4%

* These figures are for Texarkana, Arkansas, only. Total debits for banks in Texarkana, Texas-Arkansas, including banks in the Eleven District, amounted to \$38,362.

first three weeks of July (normally the seasonal upswing in these loans does not begin until the final week of July). Loans to sales finance companies and wholesale concerns were also up significantly.

Loans on securities rose \$10 million and Government bond holdings jumped \$41 million in the three weeks. These increases, which centered in the first week of July, were in large part occasioned by the purchasing and financing of nonbank purchases of the new Treasury bond issue. The district's gains in these categories were not as sharp as those at the large New York City banks.

Nationally as well as districtwise, reserve positions of member banks were under pressure over most of the first half of 1952. Two exceptions were the first few weeks of the year when banks received a large seasonal inflow of currency and a period after mid-March that reflected heavy Treasury expenditures and the building-up of the Treasury's "X" balances with the banks.

Heavy drains of funds during the six months came from net Federal Reserve System sales of Government securities, made in part to meet a nonbank demand for these obligations. On the other hand, a flow of currency into banks in January and a net inflow of gold in the first quarter added to bank reserves.

Despite the prevailing tight position of the money market, and the seasonal decline in loans to businesses, total loans at all commercial banks in the country rose roughly \$1.5 billion in the first

half of 1952. Consumer, real estate, security, agricultural and bank loans all shared in the gain. The gain was only about two-thirds as much as the increase in the comparable period last year.

Districtwise, loans at member banks contracted \$75 million in the first half of 1952. The decline was the result of a seasonal drop in loans to businesses (which is sharper than nationally), partially offset by increases in most other types of borrowing. In the first quarter, the business loan contraction was more than normal but in the second it was less than normal.

The net repayments of loans by businesses both in the district and nation came, in great part, from a seasonal liquidation of loans by processors and distributors of agricultural products. On balance, sales finance companies also reduced their borrowings, although loans to these companies have increased considerably since the suspension of Regulation W in the early part of May. A partial offset to these net repayments was the increase in borrowings by metal and metal products manufacturers reflecting the increased tempo of the defense program.

Savings Bonds—Preliminary reports for July indicate that savings bonds sales were, as in June, substantially higher than in recent months. Partly responsible for the increased sales were the more favorable terms offered by the Treasury. Some of the major changes were: 1) In the Series E bond the over-all interest rate increased from 2.9 to 3.0 per cent compounded semiannually (by shortening

EIGHTH DISTRICT MEMBER BANK ASSETS AND LIABILITIES BY SELECTED GROUPS

(In Millions of Dollars)	All Member			Large City Banks ¹			Smaller Banks ²		
	June, 1952	Change from:		June, 1952	Change from:		June, 1952	Change from:	
		June, 1952	June, 1951 to June, 1952		June, 1952	June, 1951 to June, 1952		June, 1952	June, 1951 to June, 1952
Assets									
1. Loans and Investments.....	4,211	+ 19	+231	2,443	+ 21	+122	1,768	— 2	+109
a. Loans.....	1,889	+ 1	+ 88	1,224	— 8	+ 41	665	+ 9	+ 47
b. U.S. Government Obligations.....	1,921	+ 15	+105	1,017	+ 24	+ 52	904	— 2	+ 53
c. Other Securities.....	401	+ 3	+ 38	202	+ 5	+ 29	199	— 2	+ 9
2. Reserves and Other Cash Balances.....	1,364	+ 32	+ 80	852	+ 16	+ 44	512	+ 16	+ 36
a. Reserves with the F.R. bank.....	703	+ 25	+ 34	454	+ 14	+ 22	249	+ 11	+ 12
b. Other Cash Balances ³	661	+ 7	+ 46	398	+ 2	+ 22	263	+ 5	+ 24
3. Other Assets.....	50	— 0	+ 3	32	— 1	+ 3	18	+ 1	— 0
4. Total Assets.....	5,625	+ 51	+314	3,327	+ 36	+169	2,298	+ 15	+145
Liabilities and Capital									
5. Gross Demand Deposits.....	4,167	+ 63	+209	2,557	+ 51	+108	1,610	+ 12	+101
a. Deposits of Banks.....	629	+ 7	+ 39	594	+ 7	+ 37	35	— 0	+ 2
b. Other Demand Deposits.....	3,538	+ 56	+170	1,963	+ 44	+ 71	1,575	+ 12	+ 99
6. Time Deposits.....	1,022	+ 2	+ 55	496	— 1	+ 19	526	+ 3	+ 36
7. Borrowings and Other Liabilities.....	63	— 15	+ 18	56	— 15	+ 22	7	— 0	— 4
8. Total Capital Accounts.....	373	+ 1	+ 32	218	+ 1	+ 20	155	— 0	+ 12
9. Total Liabilities and Capital Accounts.....	5,625	+ 51	+314	3,327	+ 36	+169	2,298	+ 15	+145

¹ Includes 13 St. Louis, 6 Louisville, 3 Memphis, 3 Evansville, 4 Little Rock and 4 East St. Louis-National Stock Yards, Illinois, banks.

² Includes all other Eighth District member banks. Some of these banks are located in smaller urban centers, but the majority are rural area banks.

³ Includes vault cash, balances with other banks in the United States, and cash items reported in process of collection.

the maturity to 9 year, 8 months) and the intermediate redemption schedule was raised. 2) An entirely new current income savings bond (Series H) is now being issued on terms similar to those on Series E bonds except that interest is paid by check each six months. 3) Series J and K bonds with yields of $2\frac{3}{4}$ per cent and improved intermediate yields have replaced Series F and G bonds.

Agriculture

The crop outlook nationally on July 1 (the date of the latest official estimate) was favorable. In the Eighth District, however, growing conditions were not favorable over much of the area due to hot dry weather during June and early July. Rains during the second week of July were beneficial especially in southern Missouri and northwestern Arkansas, where the drouth had been particularly severe. Scattered rains also gave some relief in other areas of the mid-South, although general rains were still needed at mid-July. Early planted corn and pastures were particularly hard hit.

Crop Estimates—Corn production in district states on July 1 was estimated at 1,139 million bushels, 7 per cent more than in 1951. Largest expected increase was in Missouri where the 1951 crop was considerably below the average of recent years. The crop nationally was estimated at 3,365 million bushels, compared with 2,941 million bushels in 1951.

ACREAGE AND PROSPECTIVE PRODUCTION OF CORN EIGHTH DISTRICT STATES, JULY 1

	Acreage		Production	
	Thousands of acres 1952	Per cent change from 1951	Thousands of bushels 1952	Per cent change from 1951
Arkansas	998	+ 1%	19,960	-14%
Illinois	9,211	+ 3	525,027	+ 7
Indiana	4,601	+ 1	248,454	+ 3
Kentucky	2,129	- 1	80,902	- 0-
Mississippi	1,809	+ 2	36,180	- 5
Missouri	4,271	+10	166,569	+26
Tennessee	1,992	- 1	61,752	+ 2
District States	25,011	+ 3	1,138,844	+ 7
United States	82,232	+ 1	3,365,089	+14

Source: Crop Production, July 1, 1952, USDA

Oats acreage in Eighth District states was estimated to be 2 per cent larger than in 1951 compared with a 6 per cent increase nationally. Prospective district production, however, was expected to be 7 per cent larger than the crop of 1951, compared with a 3 per cent increase for the nation. Production in all district states, except Missouri, was expected to exceed the 1951 crop. The decline in district states, reflecting drouth conditions, was expected to be greater on a percentage basis than for the nation. Greatest declines were in Arkansas

and Missouri where a 27 per cent reduction was expected.

Dry weather up to July 1 had retarded tobacco growth. On that date burley tobacco production was estimated at 598 million pounds, 3 per cent less than in 1951. The reduction in Kentucky was estimated at 7 per cent. Fire-cured production also was expected to decline due to dry weather.

District rice production was expected to be up 11 per cent, with a 5 per cent increase estimated for Arkansas and 86 per cent increase in Mississippi.

The July 1 estimates for cotton and soybeans are in terms of acreages rather than production units. It was estimated that cotton acreage in district states and nationally was reduced about 7 per cent. Among district states, slightly larger acreages were in cultivation in Tennessee, but this increase was more than offset by declines in Arkansas, Missouri and Mississippi.

ACREAGES OF COTTON AND SOYBEANS EIGHTH DISTRICT STATES, JULY 1

(Acreage amounts in thousands)

	Cotton		Soybeans	
	1952 Acreage	Per cent change from 1951	1952 Acreage	Per cent change from 1951
Arkansas	1,880	-14%	870	+43%
Illinois	-	-	3,498	- 4
Indiana	-	-	1,481	- 5
Kentucky	-	-	136	+ 5
Mississippi	2,380	- 3	450	+ 6
Missouri	500	-12	1,712	+33
Tennessee	820	+ 2	203	+11
District States	5,580	- 7	8,350	+ 7
United States	26,051	- 7	13,906	+ 5

Source: Crop Production, July 1, 1952, USDA

Soybeans acreage declined in Indiana and Illinois. However, substantially larger acreages were planted (33 and 43 per cent, respectively) in Missouri and Arkansas. Total acreage in the nation increased 5 per cent, compared with a 7 per cent increase in the district.

Farm income—Farm income in district states during the first four months of 1952 has lagged behind the rest of the country and has lagged behind a comparable period in 1951. During this period cash farm income in district states declined 2 per cent compared with 1951. Nationally, farm income was up 3 per cent for the period.

AGRICULTURE

RECEIPTS AND SHIPMENTS AT NATIONAL STOCK YARDS

	Receipts			Shipments		
	June, '52	June, 1952 compared with May, '52 June, '51		June, '52	June, 1952 compared with May, '52 June, '51	
Cattle and calves...	96,728	+17%	+24%	38,533	- 8%	+10%
Hogs.....	267,808	+ 1	- 7	90,817	- 7	-11
Sheep.....	59,070	- 8	+ 5	33,391	-26	-11
Horses.....	-	-	-	-	-	-
Totals.....	423,606	+ 3%	-0%	162,741	-12%	- 7%