

Electricity for a Region:

The Southwest Power Administration

*By Jeanette Ford**

The typical farm of the Southwest in the 1930s had no electricity. Houses were lighted by coal oil lamps, cooking was done on kerosene stoves, and radios were battery operated. Refrigeration consisted of a trip to town on Saturday for a 50-pound block of ice which was carefully hoarded through the week. Milking was done by hand, air-conditioning was non-existent, and water was pumped by wind-mills. A few inventive farmers rigged up wind-powered generators which lighted a single electric bulb in the house, but had the disadvantage of providing no light on windless nights. There were no electrical appliances, large or small, in the house, barn, or tool shed. The myriad of devices which are taken for granted by today's farm families were not available.

In addition to lack of electric power on farms, there was lack of electric power available for manufacturing. In 1929 only 30,000 persons were employed in factories in all of Oklahoma.¹ Until the 1940s, private companies supplied most industrial power needs, using natural gas as the primary form of energy. Steam plants to generate electricity were added by many utility companies to try to keep up with the growing demands of industry.²

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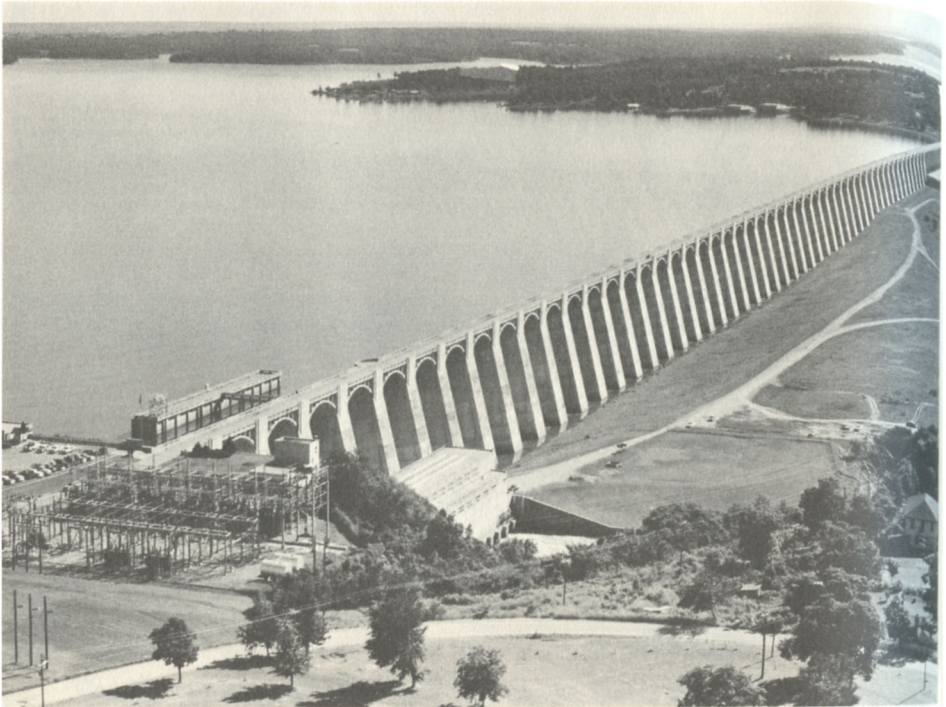


A farm near Reydon, Oklahoma. As late as the 1930s, many farms in Oklahoma still had no electricity, a problem the federal government tried to solve by creating power distribution systems (Courtesy Oklahoma Historical Society).

In 1935 electric power for interior America was one of the large issues facing Congress. Only 10 percent of the rural homes and farms of America had electricity available. In the Southwest the figure was lower; only three to eight farms out of every 100 had electricity. At the same time, farms of Germany and Japan were 90 percent electrified and the rural areas of Italy and France were 94 percent electrified.³ The deprivation of the American countryside seemed unjustified. Only in those areas served by the Tennessee Valley Authority was electrical power readily available to farmers and industry at a rate they could afford. The hydroelectric power plant provided the key.

Hydroelectric power integrated with thermally-generated power resulted in a less expensive product. This came about because of the unique qualities of the relationship between electrical supply and consumer demand. In the first place, electricity could not be stored except in small quantities. As it was produced in a steam (thermal) plant, the generators had to be kept running twenty-four hours a day.

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Pensacola Dam (left) on Grand River was the basis of the Grand River Dam Authority, which became an integral part of the Southwestern Power Administration in 1941. Dennison Dam (right) on Red River was the second major project included in the SWPA. In September of 1946, the Pensacola Dam was turned back to the State of Oklahoma (Courtesy Oklahoma Historical Society).

For thermal plants to have power available for consumers at all times, they had to maintain enough generating capacity to meet the peak demand of customers. This reserve capacity was necessary because generators required maintenance from time to time in which no electricity was produced. When generators were operated as a part of an interconnected utility system, the reserve was approximately 15 percent of the estimated peak demand. If generators were not interconnected within a larger system, the reserve had to be doubled.

Fortunately, water could be stored in dams and released through hydroelectric generators whenever consumer demands were at their peak. If hydroelectric power could be integrated into the same system as thermally generated power, it could be utilized as peak power and as standby power when other generators were being serviced. When steam plant generation was replaced with power from a hydroelectric

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plant, the cost of building additional thermal plant generators was saved.⁴ In addition, the development of hydroelectric power utilized the water which normally lost its energy as it flowed unimpeded to the sea. This aided in conserving valuable mineral and petroleum resources which were required to provide an equivalent amount of energy.⁵

The Tennessee Valley Authority's success in providing economical electrical service along with flood control, irrigation, and reclamation of marginal lands, provided a model for further progress. However, private power companies continued to lobby for a hands-off policy by the government. The Army Corps of Engineers was one of the few federal agencies active in establishing power projects. Their 1936 report on the Red River "recommended the dual use of some reservoirs and dams to produce hydroelectric power." They further suggested "that Denison dam be constructed as a dual purpose reservoir for flood control and hydroelectric power. The electricity sold from the dam then could be used to help pay for the project and its upkeep."⁶ As a result of this report, the Denison dam project was approved by Congress and construction was begun by the Corps in 1939.

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The coming of World War II turned the attention of the nation to defense rather than rural electrification. However, as the Corps of Engineers was commissioned to complete the Denison dam project and to build Norfolk Dam in central Arkansas in order to provide for defense plants, a secondary objective was accomplished. More hydroelectric power was provided by the projects than was necessary for defense purposes. This provided the impetus for the formation of a marketing agency for surplus energy. President Franklin Delano Roosevelt assigned this responsibility to Secretary of the Interior Harold L. Ickes, who established the Southwestern Power Administration on September 1, 1943.

The chief responsibility of the new agency was disposition of power from three hydroelectric projects: Denison Dam Project, Norfolk Dam Project, and Grand River Dam Project.⁷ Executive Order 9373, signed August 30, 1943, authorized the Secretary of the Interior to integrate the power facilities of the three projects, to interconnect the projects with other public or privately-owned utility systems in the area, to "interchange or purchase such electric energy from these systems, and to sell and dispose of electric energy to war plants and establishments, public bodies and cooperatives, and other persons, in that order of preference."

Functions of the Southwestern Power Administration were to terminate six months after the close of World War II. However, other forces not connected to the war effort kept the agency alive. A group of senators and congressmen, including Robert S. Kerr and A.S. (Mike) Monroney of Oklahoma and Sam Rayburn of Texas, realized that rural electrification would still be a viable issue after the close of the war. At their urging, Congress passed the Flood Control Act of 1944. Section 5 of the Act stated,

Electric power and energy generated at reservoir projects under the control of the War Department and in the opinion of the Secretary of War not required in the operation of such projects shall be delivered to the Secretary of the Interior, who shall transmit and dispose of such power and energy in such manner as to encourage the most widespread use thereof at the lowest possible rates to consumers consistent with sound business principles. . .⁸

Using this authorization, the Secretary of the Interior extended the life of the Southwestern Power Administration and issued the following program responsibilities: (1) construct or acquire and maintain transmission lines; (2) sell energy to the United States, rural coopera-

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tives financed by Rural Electrification Administration, and private cooperatives; (3) interconnect with other utility systems; (4) acquire real and personal property; (5) dispose of real and personal property no longer required; and (6) execute contracts and agreements.⁹

The geographical area served by the Southwestern Power Administration was defined to include "all other reservoir projects constructed by the War Department in the area comprised of the states of Arkansas and Louisiana, of that part of the states of Kansas and Missouri lying south of the Missouri River Basin and east of the 98th meridian, and of that part of the states of Kansas and Missouri lying south of the Missouri River Basin and east of the 98th meridian, and of that part of the states of Texas and Oklahoma lying east of the 99th meridian and north of the San Antonio River Basin."¹⁰ This area included four great river systems: the Arkansas, fourth largest river in the United States, draining an area of 160,000 square miles; the White River, draining 28,000 square miles; the Red River, which is the eighth longest river in the United States and drains 94,000 square miles; and the Gulf Coastal system which includes the Sabine, Angelina, Neches, Trinity, Brazos, and Colorado Rivers.¹¹

The Flood Control Act of 1944 also provided that rates for the sale of electrical energy were to be subject to approval by the Federal Power Commission and were to be set with regard to the recovery of the cost of producing and transmitting energy. The rates were to cover the amortization of capital investments of hydroelectric plants over a reasonable period of years. Money received by Southwestern Power Administration from the sale of electricity was to be deposited in the Treasury of the United States as miscellaneous receipts. A continuing fund of \$100,000 was set up in the Treasury for the use of the Administrator for emergency expenses.

Douglas G. Wright was selected as the first administrator of the Southwestern Power Administration by the Secretary of the Interior. By experience, education, and personality he was well qualified to accomplish the objectives of the organization. After receiving a degree in engineering in 1931 from the United States Naval Academy at Annapolis, Maryland, he served as a teacher and engineer in Mississippi, Nebraska, and Washington, D.C. In November of 1941, he was transferred from the position of Acting Chief of the Power Division of the Federal Works Administration (FWA) in Washington, D.C. to Vinita, Oklahoma, as a special representative of the FWA Administrator. There he supervised the construction, operation, and sale of power at the Grand River Dam Project. From this location he

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also supervised all other FWA power projects west of the Mississippi.¹² As the first administrator of the newly created Southwestern Power Administration, Wright formulated the organization, staffed key positions with capable persons, directed relationships with other agencies and with Congress, and set the course for proper administration of programs and funds. He also promoted the acceptance of the organization by electric cooperatives, municipalities, and power companies in the six-state area the administration served.

The Southwestern Power Administration was moved from Vinita, Oklahoma, and reorganized with headquarters in Tulsa, Oklahoma, a liaison office in Washington, D.C., and a Texas-Louisiana Area Office in Denison, Texas. Henry W. Blalock was first assistant to the administrator in the Washington Office, serving from 1946 to 1954. This office served as the "hub in the Administration's participation in the development of Federal power policies and programs by the Congress, the Executive Office of the President, and the Secretary of the Interior, Division of Water and Power, as they relate to the objectives and programs of Southwestern Power Administration."¹³ The staff of the office received and answered many requests from Congressional members and the general public about Southwestern Power Administration. The Texas-Louisiana Area Office was responsible for the activities of the Southwestern Power Administration in the area it served. Staff duties included responsibilities for public relations and the staff was encouraged to attend annual meetings of electric cooperatives, informing the members about the functions and services of the agency. An additional area office was opened in Little Rock, Arkansas, in 1949.

By 1951 the organization of the agency included the Office of the Chief Counsel, the Office of Reports and Information, and six Divisions: Operations, Engineering, Finance, Administration, Sales, and Land.¹⁴ The office of the chief counsel performed legal services and advised agency administrators concerning legal aspects of policies and programs. The office of reports and information assisted in compiling information about marketing and was responsible for coordinating all reporting within the agency. The division of operations maintained all power facilities, transmission lines, substations, metering and laboratory facilities, access roads and rights-of-way, and garage and shop facilities. A field operations center, consisting of a maintenance branch and an administrative branch, was opened in Muskogee, Oklahoma, in 1951. The division of engineering planned, designed, and inspected construction of transmission lines

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and other power facilities. The division of finance coordinated the budget and executed programs of finance, accounting, and auditing. The division of administration procured equipment and supplies, conducted the personnel program, and provided office and transportation services. The division of sales negotiated contracts for the delivery of wholesale power, developed rate schedules, and administered the customer billing program. The division of land appraised, acquired, and maintained real estate for transmission lines, substations, switching, and related facilities.¹⁵

In 1952 pressure from private power companies threatened the first program responsibility of the Southwestern Power Administration, which was to "construct or acquire and maintain transmission lines." The companies sought to control all transmission lines leading from each dam site. According to administrator Wright, this would have given private interests monopolistic powers in the sale of electricity.¹⁶ In order to accomplish their aims, the private companies lobbied members of Congress to make a drastic reduction in the annual appropriation to the Southwestern Power Administration. Lack of funds would force the agency to submit to plans for privately controlled transmission lines and dam-site sale of power. With the aid of congressmen who were knowledgeable about rural electrification, the 1952 Congressional appropriation for Southwestern Power Administration was one of the largest to that time, \$5,600,000,¹⁷ and enabled the agency to build the necessary transmission lines. Among those who aided in this triumph were Senators J. William Fullbright, Thomas C. Hennings, Jr., Robert S. Kerr, Hubert H. Humphrey, A.S. (Mike) Monroney, and Lister Hill, and Representatives Clarence Cannon, Sam Rayburn, Michael J. Kirwan, and Buy Gordon.

Wright served as administrator of the agency from the creation of Southwestern Power Administration in 1943 until 1969. During these twenty-six years, Southwestern Power Administration facilities increased from the operation of three projects producing under 70,000 KWH to the operation of fifteen with an installed capacity of 1433.5 MWH. By 1952 the Southwestern Power Administration had become one of the "largest integrated power systems in the world."¹⁸ In 1965 Lake Eufaula, which is larger than any other body of water between the Great Lakes and the Gulf of Mexico,¹⁹ was completed as part of the Southwestern Power Administration's hydroelectric system.

Peter C. King followed Wright as administrator of the Southwestern Power Administration in July, 1969, and served until February,

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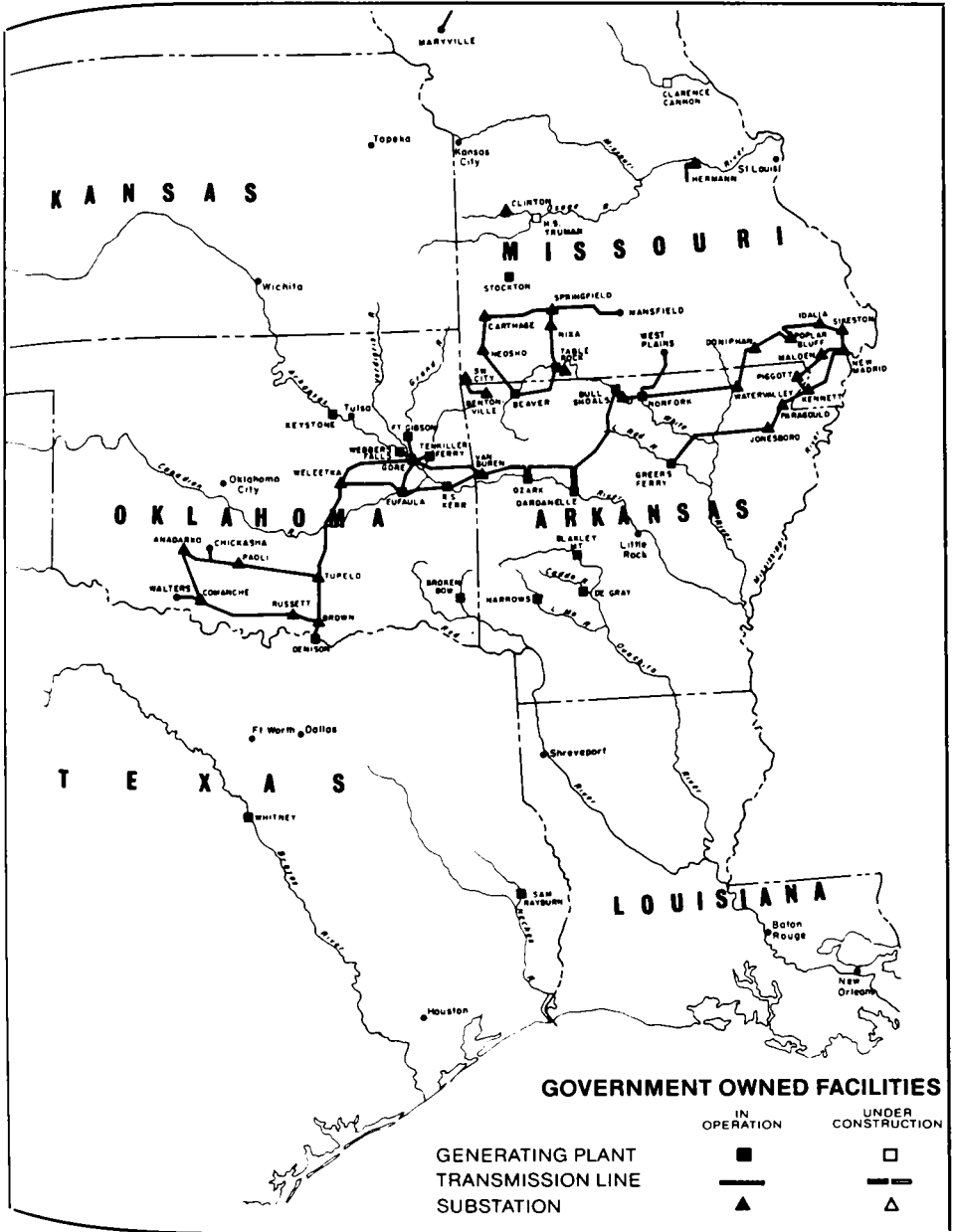
1977. A reorganization during this time divided Southwestern Power Administration into three divisions: power marketing, power facilities, and administrative management. The number of hydroelectric plants was increased from fifteen to twenty-one with an increase in generating capacity from 1,433.5 MWH to 1,916.7 MWH.

Above average precipitation for the years 1973 through 1975 allowed record production of electricity by Southwestern Power Administration projects. Increased sales during these productive years resulted in a net revenue of \$46 million which enabled the agency to repay the financial deficit caused by missed interest payment which had accumulated during the first twenty-five years of operation. A turning point in power marketing was reached in 1974, as power produced by the reservoir projects no longer was able to meet requirements of customers. At this point federal transmission lines were made available to customers for energy provided by commercial sources.²¹ In 1976 installation of a system control and data acquisition system was initiated at the Springfield, Missouri, Control Center. The system, initially designed to control and monitor ten remote substations in the eastern Arkansas-Missouri area, controls and monitors twenty-one remote substations throughout the Southwestern Power Administration's system.

The present administrator, James B. Hammett, who began serving in 1977, was formerly chief of the customer service branch of the power marketing division of the agency. Major emphases by Hammett have been renegotiation of contracts with customers and system-wide rate adjustments to improve the financial stability of Southwestern Power Administration and allocation of agency resources in a fair and equitable basis with emphasis on the widespread use principle envisioned by the Flood Control Act of 1944.

The first emphasis, a renegotiation of customer contracts, improved the marketing program in 1977. Because of severe drought conditions in most of the area served by the agency, production of electricity was down, forcing the agency to purchase over \$25 million worth of thermal or exchange power from outside sources in order to meet contract requirements with customers. Thus, a \$9.8 million deficit was incurred in 1977. To improve its financial position, Southwestern Power Administration renegotiated customer contracts reducing obligations to furnish 736 million kilowatt hours or approximately one-third of its annual firm load.²² In 1978 purchases of thermally-generated power were down to \$8.6 million and the agency recorded \$2.9 million revenue after expenses were accounted for.²³

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By 1973 the Southwestern Power Administration controlled generating plants and transmission lines from Texas to Missouri (Source: 1973 Annual Report, SWPA).

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The second emphasis by Hammett, a general system rate increase, was effected April 1, 1979. Southwestern Power Administration studies in 1978 indicated need for an annual \$20 billion rate adjustment in order to continue payment on capital indebtedness. Five public forums were conducted with agency customers resulting in a compromise rate increase of more than \$16 million. Customers of the agency reached consensus that the rate increase was necessary and equitable for two reasons. First, rates had not been increased since 1957, although operation costs had significantly risen. Second, power purchased outside of Southwestern Power Administration cost more than that purchased from the agency. The rate increase is presently in effect on an interim basis pending final action by the Federal Energy Regulatory Commission, the successor of the Federal Power Commission.

On October 1, 1977, the Southwestern Power Administration was transferred from the Department of Interior to the newly-created Department of Energy.²⁴ It is one of six Federal agencies which market electric power throughout the United States.

Because hydroelectric power is finite, depending upon the amount of rainfall, and because consumption of power continues to increase, hydroelectric power has accounted for an increasingly smaller percentage of power consumed in the Southwest. Studies are being made whether or not less attractive hydrosites should be developed to increase power production capability. In 1964, with ten hydroelectric plants, the generation capacity of Southwestern Power System was 977 million kilowatts. In 1974, with twenty-one power plants, generating capacity was increased to 1,916 million kilowatts. With the addition of the Clarence Cannon and the Harry S. Truman Dam Projects now under construction in Missouri, installed capacity will increase to 2,134 million kilowatts.²⁵

At the present time, Southwestern Power Administration markets power from twenty-one dam projects, 1,700 miles of transmission lines, thirty-one substations, and nineteen radio-microwave stations, selling power to fourteen electrical cooperatives, five government agencies, six industries, and thirty-seven municipalities.

Throughout its thirty-six years of operation, the Southwestern Power Administration has played an important role in the electrification of the Southwest which has been essential to the region's economic development.

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ENDNOTES

*Mrs. Ford is an archivist at the Federal Records Center, Ft. Worth, Texas.

¹ Arrell M. Gibson, *Oklahoma, A History of Five Centuries* (Norman: Harlow Publishing Corporation, 1965), p. 440.

² *Ibid.*, p. 459.

³ "I Want to Know about the Electric Industry," 1950-1951, Edison Electric Institute, quoted in "Southwestern Power Administration—Its Objectives, Its Program, Its History and Its Accomplishment." General Records, Washington Liaison Office, Records of the Southwestern Power Administration, Record Group 387, Federal Records Center, Fort Worth.

⁴ *United States vs. Arkansas*, Supreme Court of Arkansas. General Records, Washington Liaison Office, RG 387, FRC Fort Worth.

⁵ *1954 Annual Report*, Southwestern Power Administration, RG 387, FRC Fort Worth.

⁶ James Ware, "Soldiers, Disasters and Dams: The Army Corps of Engineers and Flood Control in the Red River Valley, 1936-1946," *The Chronicles of Oklahoma*, Vol. LVII, Number 1 (Spring, 1979), pp. 29-31.

⁷ The Grand River Dam Project was built and operated by the State of Oklahoma until its takeover in November, 1941, by the President under the First War Powers Act (55 Stat. 838). It was returned to the State of Oklahoma on September 1, 1946.

⁸ 58 Stat. 890.

⁹ Department of Interior Order, dated November 21, 1945.

¹⁰ *Ibid.*

¹¹ "Resources for Tomorrow," Secretary of Interior Annual Report for 1954, RG 387, FRC Fort Worth.

¹² Biographical Sketch, Douglas G. Wright. File "Publicity and Public Press, 1959." RG 387, FRC Fort Worth.

¹³ File "Organization Charts," General Records, Records of the Washington Liaison Office, RG 387, FRC Fort Worth.

¹⁴ *Ibid.*

¹⁵ *Ibid.*

¹⁶ "Statement before Committee on Public Works, House of Representatives, H.R. 3036," File "Speeches" General Records, Washington Liaison Office, RG 387, FRC Fort Worth.

¹⁷ *1953 Annual Report*, Southwestern Power Administration, RG 387, FRC Fort Worth.

¹⁸ "The Little Hand" File, "Speeches" General Records, Washington Liaison Office, RG 387, FRC Fort Worth.

¹⁹ Gibson, *Oklahoma, A History of Five Centuries*. p. 440.

²⁰ *1977 Annual Report*, Southwestern Power Administration, RG 387, FRC Fort Worth.

²¹ *1975 Annual Report*, Southwestern Power Administration, RG 387, FRC Fort Worth.

²² *1976 Annual Report*, Southwestern Power Administration, RG 387, FRC Fort Worth.

²³ *1977 Annual Report*, Southwestern Power Administration, RG 387, FRC Fort Worth.

²⁴ Public Law 95-91, dated August 4, 1977.

²⁵ *1978 Annual Report*, Southwestern Power Commission, RG 387, FRC Fort Worth.