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Nebraska and rural electrification through 1940

Roberta K. Barndt
University of Nebraska at Omaha

NEBRASKA AND RURAL ELECTRIFICATION THROUGH 1940

A Thesis

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by

Roberta K. Barndt

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789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 - 1346

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Graduate Committee

Name	Department
Phillip E. Vogel - Geography	
William C. Pratt	History

Karl A. Roberts History
Chairman

Right Author 2-24-77

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In Search of a Way

Since Nebraska is primarily an agricultural state, the struggle to bring electricity to its rural areas played an important role in the long-standing battle to decrease the disparity between living standards in rural and urban America. During the first two decades of the twentieth century, telephones and automobiles lessened rural isolation while increased utilization of tractors and other technological innovations rendered farm labor less tedious. (Nevertheless, without electricity, the one modern innovation that more than any other brought comfort and convenience within the reach of the urban masses, living and working conditions on the farm remained comparatively primitive.) Farm families performed backbreaking drudgery as had their forebearers for centuries without aid from electrical conveniences. Modern bathrooms were rare on farms not equiped with electric water pumps. Candles, lantern or gas lamps provided inadequate and dangerous lighting in houses and barns while only the moon illuminated country lanes and yards.

That farmers endured discomfort and inconvenience long rendered unnecessary in the cities by the wonders of electricity

reinforced a growing conviction that farmers were less intelligent than their bretheren who left the countryside in droves for the cities:

> The man who escaped from such slavery and graduated to the comforts and pleasures of city life began to wonder why everyone in the country did not follow him and decided that only the lack of ordinary intelligence could keep them at their everlasting grind.[1]

Some agencies interested in the welfare of those who worked on the land (primarily the agricultural experiment stations of the land grant colleges) and some power company engineers interested in expanding markets for electricity, demonstrated that farmers might well benefit more from this source of power than did city dwellers. In 1899, a power company in California discovered there was a ready market for electricity in irrigation.[2] Early in the twentieth century, research conducted first in Europe and later duplicated in American agricultural experiment stations proved that many tasks unique to agriculture, such as milking and hoisting hay, could be accomplished cheaper and easier with electricity

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[1]S. M. Kennedy, "Electricity, the Creator of Happy Farm Homes," National Electric Light Association Bulletin, December, 1924, p. 736. (Hereafter cited as NELA Bulletin.)

[2]S. M. McCrory, "Rural Electrification Grows as Farmers Find New Uses for Electricity," Yearbook of Agriculture, 1932 (Washington: U.S. Department of Agriculture, 1933), p. 450.

than any other known power source.[3] In 1911, the National Electric Light Association (NELA), comprising 90 percent of the nation's private power companies, organized a Committee on Electricity in Rural Districts. In 1913, that Committee enumerated fifty uses for electricity in the farm house and fifty additional uses on the farm outside the home.[4]

Some farmers were aware of the remarkable gift electricity offered them and they quickly sought its benefits for themselves. Theoretically, their readiest power sources should have been the private power companies that soon monopolized the largest share of urban markets. In spite of the farmers' desire for service and the promising new adaptations for electricity offered by agriculture, most power companies maintained it was not possible to provide service at a price the average farmer could pay. In cities and towns, a few miles of line could serve hundreds of private homes and commercial users. In the countryside, the same lines could

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[3] "Electricity on the Farm," Electrical World, January 6, 1919, pp. 40-42. German scientists performed most of the experiments reported in this article. R. W. Trullinger, "Some Research Features of the Application of Electricity to Agriculture," Transactions of the American Society of Agricultural Engineers 18(1924), pp. 11-41. (Hereafter cited as Trans. ASAE.) This study encompasses research conducted in Germany, England, Russia, New Zealand, Czechoslovakia, and the United States. Some of the experiments were on projects later found to be impractical. For example, scientists expended a considerable amount of time and energy trying to develop a satisfactory electric plow.

[4] Central Electric Light and Power Stations and Street and Electric Railways (Washington: Department of Commerce, 1915), p. 154.

serve only a few customers. What is more, neither agricultural experts nor power company executives were convinced that many farmers could, or would, expend money for electricity other than for lighting and a few small appliances. As a result, although they did serve some farms which were specialized and/or located close to urban centers (at rates far in excess of those charged urban customers), power companies largely ignored the farm market during the first two decades of the century.[5]

In 1923, when the NELA conducted a farm electrification survey, only 2.8 percent of the nation's farms had electricity provided by central power stations.[6] As Figure 1 shows, these farms were distributed unevenly throughout the country.

The 1923 NELA study showed that only 790, or .6 percent, of Nebraska's 129,458 farms had central station electric service.[7] A study conducted in the same year by the Agricultural Experiment Station in Lincoln, however, showed that approximately 8.1 percent of the state's farms had electricity.[8]

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[5]G. C. Neff, "Electric Power and the Farmer," NELA Bulletin, April, 1923, pp. 195-196; "Demand for Rural Service Based on Economic Reasons," Electrical World, October 23, 1920, pp. 817-819; J. C. Martin, " The Problem of Electrical Energy Use on the Farm," Trans. ASAE 16(1922), pp. 39-43; Harry Slattery, Rural America Lights Up (Washington: National Home Library Foundation, 1940), p. 14. (Hereafter cited as Slattery, Rural America.)

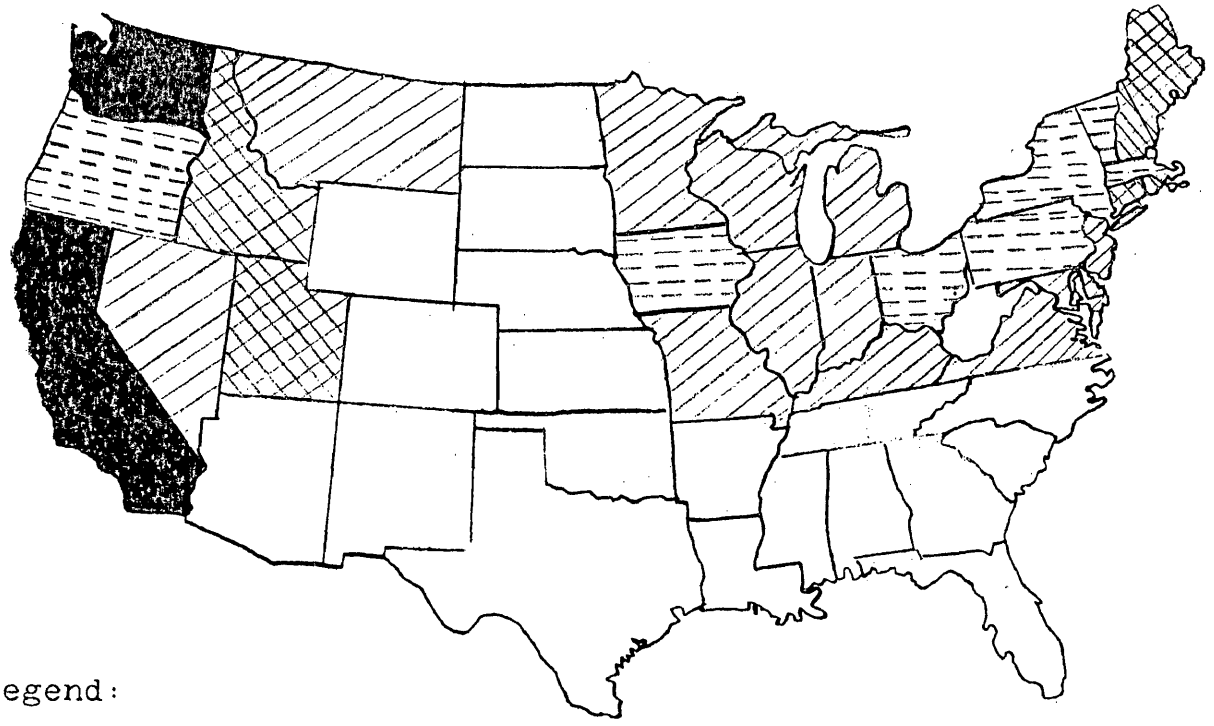
[6]"Ten Years of Rural Electrification," NELA Bulletin, September, 1932, p. 525.

[7]Ibid.

[8]J. O. Rankin, Nebraska Farm Homes: A Comparison of Some Living Conditions of Owners, Part Owners and Tenants,

Figure 1

United States Farms With
Central Station Electric Service
1923



SOURCE: "Ten Years of Rural Electrification," NELA Bulletin, September, 1932, p. 525.

The discrepency was not due to faulty survey methods. Since the power companies could not, or would not, serve agricultural areas, a study conducted by Electrical World in 1920 showed that 5.3 percent of the farms in the United States had resorted

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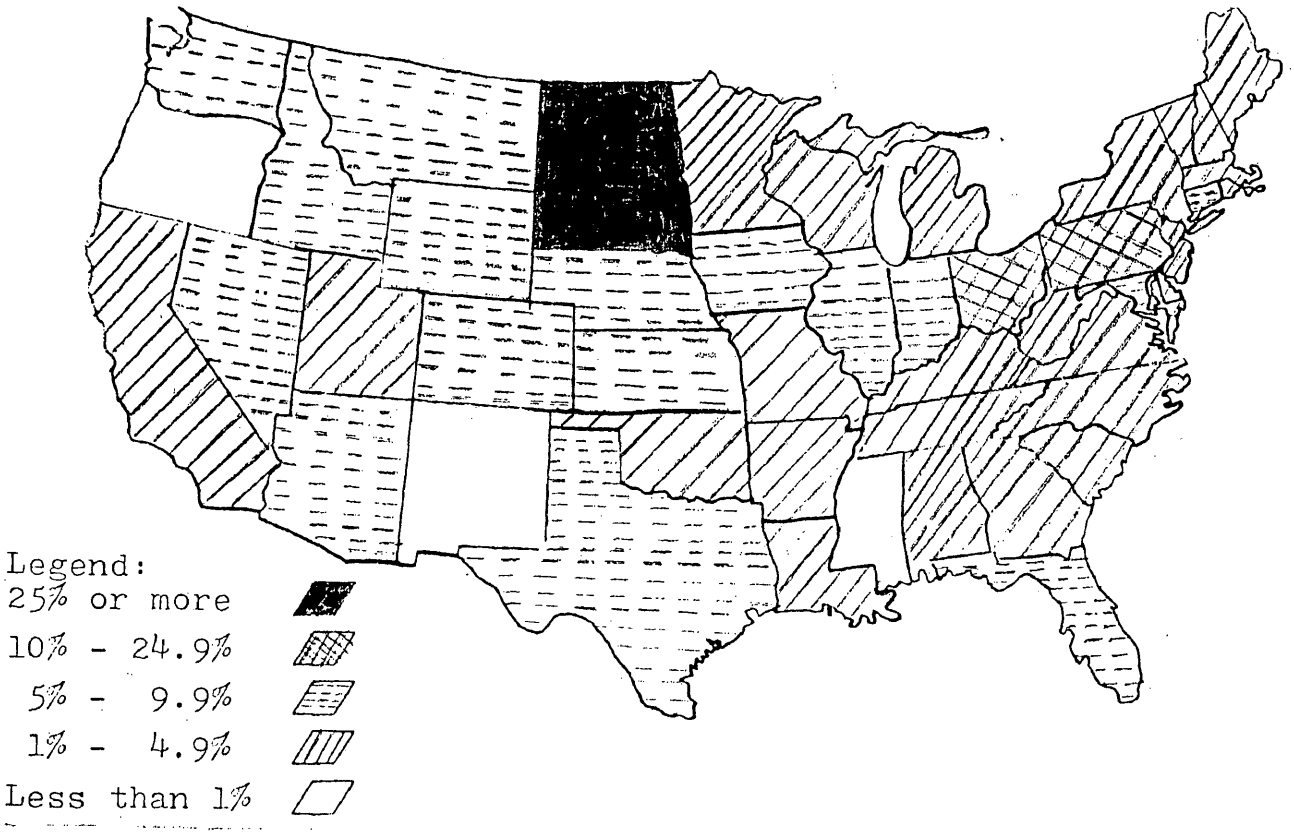
University of Nebraska Agricultural Experiment Station Bulletin 191, 1923, p. 40. (Hereafter cited as Rankin, Farm Homes.)

to home generating plants as a source of power. Figure 2 illustrates their locations.

Figure 2
United States Farms With
Home Generating Plants, 1920



SOURCE: "Electric Service in the American Home," Electrical World, May 15, 1920, p. 1134. The Electrical World survey claimed that 43 percent of the farms in North Dakota and 39 percent of the farms in South Dakota were served by home generating plants in 1920. The Census of 1930, however, showed that 6.3 percent of the farms in North Dakota and 8.6 percent of the farms in South Dakota had home generating plants. This wide disparity can only be explained by inaccuracy in one or the other study, or by Dakota farmers forsaking these plants in large numbers. The matter deserves considerable attention beyond the scope of this study.

Only five states--Ohio, Pennsylvania, North Dakota, South Dakota and Iowa--showed a higher percentage of farms utilizing these home generating plants than did Nebraska. Those areas that had plentiful water supplies pioneered in plants deriving power from fast moving streams and waterfalls.[9] Nebraska farmers showed some interest in this type of plant, but few streams in the state offered sufficient power without damming them at costs far beyond the means of most farmers.[10]

The Dakotas pioneered in wind-powered units which at first glance appeared uniquely adaptable to Nebraska conditions. In 1916, the Nebraska Farmer hailed a windmill unit invented by a North Dakota farmer as "one of the noteworthy achievements of the present year in farm mechanics."[11] Nevertheless, few Nebraska farmers moved to invest in wind-driven units for reasons stated best by a researcher from the United States Weather Bureau in Lincoln:

> The main reason why wind-driven electrical generators have not come into general use for rural homes is, probably, the hesitancy of the prospective purchaser to depend upon the capricious wind. He knows in a vague way

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[9]Plans for building water powered dynamos appeared in A. M. Daniels, "Electric Light and Power From Small Streams," Yearbook of Agriculture, 1918 (Washington: U.S. Department of Agriculture, 1919), pp. 221-238.

[10]"Installing Electric Light Plant," Nebraska Farmer, November 1, 1924, p. 1324.

[11]George F. Paul, "Power from Prairie Winds," Ibid, May 17, 1916, p. 603.

> that there are periods of low wind movement and his lack of information on the subject causes him to doubt the success of a generator so operated.[12]

Studies conducted by the Experiment Station in Lincoln in conjunction with the Weather Bureau indicated that the farmers who doubted the practicability of these wind powered generators showed good judgment. A review of weather records compiled over a ten year period (1912-1921) proved low wind velocity, especially during summer and early fall, would drain storage batteries. The best the study could offer was "while the data presented may not prove the feasibility of operating electrical generators by wind power, they at least show the possibilities."[13]

The most popular home generators in Nebraska were those powered by gasoline engines. Some farmers utilizing these units reported satisfaction with their performance.[14] The Agricultural Experiment Station, however, reported several serious drawbacks in their operation. In the first place, these units were expensive. They cost between $250.00 and $800.00, averaging $500.00. This figure did not include the

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[12]Harry G. Carter, "Wind as Motive Power for Electrical Generators," Monthly Weather Review, September, 1926, p. 374.

[13]Ibid, p. 376.

[14]Thomas A. Leadley, "Seven Years in Cheyenne County," Nebraska Farmer, September 2, 2926, p. 911+; "Farm Light and Power for 5 Cents a Day," Nebraska Farmer, October 11, 1924, pp. 1226-1227. The title of this article is misleading. The 5 cents a day figure included only the cost of gasoline.

cost of batteries, fuel or upkeep. They required a complete overhaul on an average of once every three years and replacement approximately every nine years. The units were also inconvenient. Some models did not include storage batteries which necessitated starting a noisy generator to turn on even a small night light. Others required considerable attention while batteries stored power. Most appliances, which were not constructed for the voltage utilized by these units, required individual adaptors. What is more, repair service was not always available in the event of breakdown.[15]

In spite of their drawbacks, unit generating plants of one type or another remained the most popular method of rural electrification in Nebraska through the first third of the century. In 1929, 13,895 farms, whose locations are illustrated in Figure 3, had home generating units.[16]

Few farmers preferred home generating plants if there were any way possible to hook up to highlines. Several groups of farmers in Nebraska constructed short lines at their own expense to the nearest power source. One such community enterprise constructed the Dannebrog Farm Line in Howard County.

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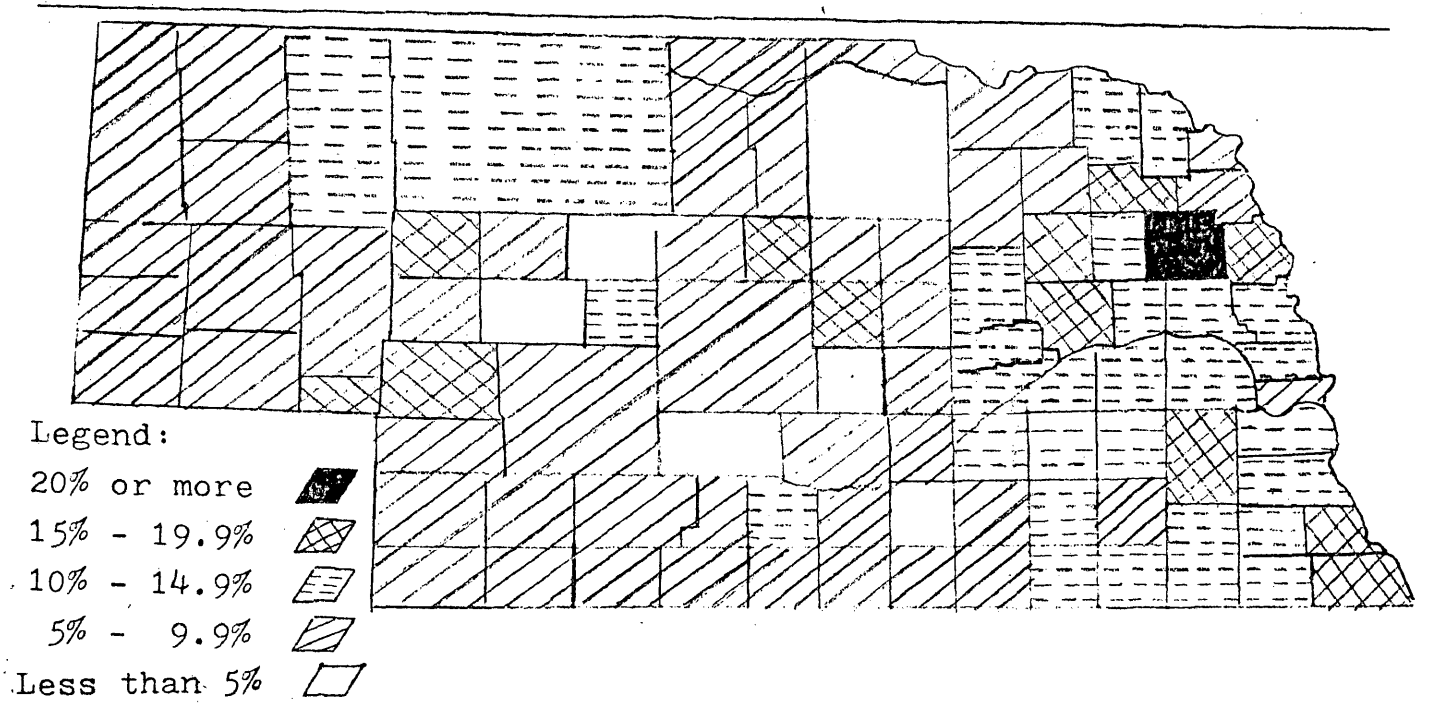
[15]E. E. Brackett and E. B. Lewis, Unit Electric Plants for Nebraska Farms, University of Nebraska Agricultural Experiment Station Bulletin 235, 1929.

[16]U.S. Department of Commerce, Bureau of the Census, Fifteenth Census of the United States, 1930: Agriculture, Volume II, Part 1, The Northern States, pp. 1280-1287. (Hereafter cited as Census of Agriculture, 1930.)

Figure 3

Nebraska Farms With
Home Generating Plants, 1929



SOURCE: Census of Agriculture, 1930, Volume II, Part 1, The Northern States, pp. 1280-1287

Paying on an average of five cents per kilowatt hour (kwh), patrons on this line received the cheapest electric power available to farmers anywhere in the state. The six mile long line connecting ten farms was constructed in the early 1920's at an average cost of $600.00 per farm. The patrons paid for all maintenance and repairs. The local utility company, from which the line obtained power, handled meter reading and bookkeeping.[17]

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[17]E. E. Brackett and E. B. Lewis, Use of Electricity on Nebraska Farms, 1920-1934, University of Nebraska Agricultural Experiment Station Bulletin 289, 1935, p. 5. (Hereafter cited

In 1919, the Nebraska State Legislature passed a bill providing that if 10 percent of the voting residents in a given area petitioned to do so, they could form a public power district supported by revenue bonds or special taxation. This act called for the election of Boards of Directors whose duties it would be to handle funding and debt liquidation. The Boards were also empowered ". . .to secure surveys, make plans, construct and maintain such lines, transformer stations, and any and all apparatus, appliances and means for transmitting and distributing electric current within said district."[18] In 1923, farmers in Platte and Saunders Counties moved to organize rural power districts utilizing the 1919 legislation.

Private power companies in Nebraska, and indeed in the entire nation, opposed formation of cooperative ventures such as that at Dannebrog or publicly-financed power districts such as those made possible by the 1919 Nebraska legislation. They claimed that amateurs handling such undertakings would make failure inevitable, forcing the power companies to either assume management at a loss or make enemies among the people deprived of luxuries to which they had become accustomed.[19]

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as Brackett and Lewis, Use of Electricity.) The power company claimed this arrangement was not profitable for them because none of the farms used much electricity.

[18]Chapter 217, Laws of Nebraska, 1919: 929.

[19]Edward N. Hurley, "Public Obligation to Utilities," NELA Bulletin, February, 1923, pp. 68-71; E. A. Stewart, "High Line Problems When Electricity Comes," Successful Farming, November, 1928, p. 9+.

Some years later, a book published by the Middle West Utilities Company, the holding company which controlled the power company in Columbus, center of the Platte County Farmers' Light District, asserted that:

> . . .for the farmer to link his farmstead to a localized or financially feeble power system would merely give him access to electrical power, without participation in any of the economies or reductions of capital costs which result from the connection of a farm to operating systems that enjoy the benefits conferred by integration under well organized public utility investment companies.[20]

Apparently unwilling to deprive farmers in their area of future benefits, when expansion into the countryside could be deemed feasible, the power company in Columbus instigated suit against the new power district. The lower courts ruled in favor of the district. When the case reached the State Supreme Court in 1924, however, that body ruled the legislation under which the district had been organized was unconstitutional. The judges maintained that the State Legislature did not have authority to delegate powers to Boards of Directors so absolute that they could draw boundaries that excluded farms which could be taxed to support the district.[21]

The court decision halted the Platte County district before it could serve any customers. In Saunders County ,

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[20]Middle West Utilities Company, Harvests and Highlines (Chicago: Middle West Utilities Company, 1930), p. 115. (Hereafter cited as MWUC, Harvests and Highlines.)

[21]Ira Elliott, Appellant v. Fred Wille et. al. Appellees, 112 Neb. 78 (1924).

near Wahoo, however, the First Farmers' Electric District voted $30,000 in revenue bonds and went into operation in November, 1923 providing power purchased from the municipal plant in Wahoo to about seventy farmsteads that had not previously had electricity.[22]

After the Supreme Court declared unconstitutional the legislation under which the First Farmers' District had been formed, Senator Frank Dolezal of Saunders County introduced a bill which passed the 1925 legislative session validating the district's bonds.[23] In 1926, the Supreme Court declared the legislation invalid since its provisions depended upon the act found unconstitutional in 1924.[24] Unwilling to be deterred, in 1927, the First Farmers' District encouraged legislation introduced by George F. Frush of Saunders County designed to meet the court's earlier objections by providing for public meetings at which the citizenry could have some voice in determining line locations.[25] The final blow came in 1930 when the Nebraska Supreme Court claimed the 1927 legislation, although couched in general terms, was ". . .a special and purely local act, applying only to this particular

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[22]Brackett and Lewis, Use of Electricity, pp. 7-9.

[23]Chapter 89, Laws of Nebraska, 1925: 268.

[24]Gurt E. Swanson, et. al., Appellants v. A. S. Dolezal, County Clerk, et. al., Appellees, 114 Neb. 540 (1926).

[25]Chapter 106, Laws of Nebraska, 1927: 289.

district, and for that reason,. . .is in violation of constitutional restrictions."[26] With no further hope of legal redress, the First Farmers' District dissolved after selling its lines to the Iowa-Nebraska Light and Power Company.[27]

The power companies could not have hoped to avoid serious criticism when they opposed rural self-help projects while making no move to extend service into rural areas. "The farmer, a user of power, trying to force the utility, a seller of power, to sell him the product it has for sale" created an embarrassment for the power companies that they tried to alleviate by at least a semblence of positive activity.[28] The most hopeful evidence of impending progress came from the Committee on the Relation of Electricity to Agriculture (CREA). This organization grew out of a meeting in Chicago in 1922 between representatives of the Farm Bureau Federation and the NELA. These two groups formally organized the CREA in September, 1923 and invited other interested parties to participate. Ultimately, the committee embraced representatives from the following organizations in twenty-seven states:

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[26]Johan A. Anderson, et. al., Appellants v. Frank Lehmkuhl, County Clerk, et. al., Appellees; State ex. rel. First Farmers Electric District, Appellants v. Frank Lehmkuhl, County Clerk, et. al., Appellees, 112 Neb. 451 (1930).

[27]Robert E. Firth, Public Power in Nebraska (Lincoln: University of Nebraska Press, 1962), p. 39. (Hereafter cited as Firth, Public Power.)

[28]G. H. Neff, "Electric Power and the Farmer," NELA Bulletin, April, 1923, p. 195.

American Farm Bureau Federation
National Electric Light Association
National Grange
Individual Plant Manufacturers
American Society of Agricultural Engineers
American Home Economics Association
General Federation of Women's Clubs
National Association of Farm Equipment Manufacturers
National Electrical Manufacturers Association
U.S. Department of Agriculture
U.S. Department of Commerce
U.S. Department of the Interior[29]

The CREA announced itself to be a fact-finding body whose chief objective would be to give ". . .purpose and direction to the work necessary in determining the maximum economic uses for electricity in agriculture."[30] The committee determined its goal could best be realized by collecting data relative to rural electrification then in service in the United States and abroad and by exploring new uses for power on the farm primarily through research under the direction of the State Agricultural Experiment Stations.[31]

A flurry of activity followed the creation of the CREA as studies abounded concerning the nation's rural electrification problem. The most publicized study was that conducted by the Agricultural Experiment Station in Minnesota which

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[29]Slattery, Rural America, pp. 15-16.

[30]"What Will Electricity Do For Agriculture?" NELA Bulletin, March 1924, p. 146.

[31]Ibid, pp. 146-147; "Report of Rural Line Committee, A.S.A.E.", NELA Bulletin, January, 1924, pp. 29-31; J. W. Coverdale, "Organization and Work of Committee on Relation of Electricity to Agriculture," NELA Bulletin, December, 1923, pp. 712-714.

supervised an experimental rural line near Red Wing. Since the Red Wing experiment was the first of its kind in the nation, power companies paid particular attention to consumption as the twenty-one farms on the 6.3 mile long line made use of appliances and equipment loaned them by private concerns in the area. Farmers, on the other hand, showed interest in the rate structure established by the Northern States Power Company which built the lines and supplied power. Neither power companies nor farmers were impressed by the results. Consumption, which averaged 151 kwh for the entire year 1924 and 265 kwh in 1927, was deemed too low to warrant rural extension. A base monthly rate of $6.90 plus five cents for each of the first thirty kwh and three cents for each additional kwh appeared to be beyond the buying power of most farmers.[32]

Nebraska became the nineteenth state affiliated with the CREA in January, 1926 with the creation of the Nebraska State Committee on Rural Electric Service headed by E. E. Brackett of the College of Agriculture in Lincoln. The organization's executive committee included a cross section of professors from the agricultural college, home economists, farmers, farm editors, and representatives from farm organizations, power companies, and electrical equipment manufacturers.[33]

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[32]"First Rural Test Line Now Operating in Minnesota," NELA Bulletin, January, 1924, pp. 26-28; Charles F. Stuart, "Getting on a Working Basis to Solve the Rural Electrification Problem," NELA Bulletin, November, 1924, pp. 667-670; Slattery, Rural America, pp. 18-19.

[33]Brackett and Lewis, Use of Electricity, pp. 3-4n.

In March, 1926, the Committee listened to a report delivered by the project's director summarizing what was then known about rural electrification in Nebraska. Brackett informed his audience:

1. Conditions in Nebraska did not differ significantly from other states in the area in regard to rural electrification;

2. Power companies had paid scant attention to the need for rural electrification;

3. Utilization of tractor motors as a power source (particularly for irrigation) might restrict usage of electric motors to relatively few tasks;

4. Most farmers had few plans to use electricity for more than lighting and a few household appliances because those persons that equiped their farms with electricity did so primarily to improve living conditions;

5. Consumption of electricity increased with years of service;

6. Consumers made most use of electricity where the cost was lowest; and

7. Farmers were willing to make extensive use of electricity when convinced that investment in electrical devices would prove beneficial and profitable.[34]

The Committee on Rural Electric Service called for further investigation of rural electrification in the state. In compliance with that decision, the Agricultural Experiment

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[34]Elvyn Arthur Stoneman, "The Rural Electrification Authority with Special Reference to Nebraska Conditions," Unpublished Master's Thesis, Department of Geography, University of Nebraska, 1943, p. 29. (Hereafter cited as Stoneman, "Rural Electrification Authority.") Brackett derived his material primarily from inquiries conducted by the Experiment Station in 1924 and 1925.

Station conducted studies during the next several years and published the results in a series of bulletins co-authored by chairman Brackett and E. B. Lewis who also served on the Committee and was a faculty member in the Agricultural College. The studies encompassed statistics regarding unit generating plants and central station service provided by power companies, municipalities, the small farmer-owned lines and the ill-fated power districts. They detailed numbers of persons involved, costs, power consumption and degree of satisfaction expressed by suppliers and consumers.

The Brackett and Lewis studies did not present a particularly hopeful picture for those farmers desiring service from the power companies, or for power companies that hoped to profit from serving rural areas. A study in 1927 showed that power companies in the state charged their farm customers as much as eighteen cents per kwh for service. Some companies that charged lower rates found their returns were unprofitable. When they raised the rates, consumption dropped to a level that benefited neither the power companies nor their customers. Power companies proved unwilling to serve farms located along lines connecting towns on the grounds that trouble on the farm might disrupt service in the towns. As a result, lines built exclusively for rural use served most farms. It was standard practice to require farmers to pay most of the cost of these lines, although they remained the exclusive property of the company that constructed them. Statistics varied from company to company and from area to area, but everywhere in the

state, rural customers paid more than urban and profits to the companies from farm lines were less than from urban lines.[35]

A similar study in 1929 reflected more optimism. Although costs remained high for the farmers and profits low for the power companies, there was some progress noted on both counts. Average power consumption increased during the two years from 521 kwh for 1927 to 724 for 1929. Average revenue per consumer increased from $49.32 to $68.90 during the same period. Costs per kwh declined from an average of 8.95 cents in 1927 to 7.77 cents in 1929. The study also reported that companies were no longer reluctant to connect farms along already existing inter-town lines. Indeed, the bulk of farms served during the period 1927-1929 belonged in this category.[36]

As Table I demonstrates, many farms in the United States and in Nebraska obtained electricity in the mid and late 1920's:

Table I
United States and Nebraska Farms with Central Station Electricity, 1923-1929

	No. Farms Served United States	No. Farms Served Nebraska
1923	177,561	790
1924	204,780	1,000
1925	246,150	1,500
1926	309,125	2,500
1927	393,321	4,000
1928	506,242	6,260
1929	576,168	7,485

SOURCE: "Ten Years of Rural Electrification," NELA Bulletin, September, 1923, p. 523.

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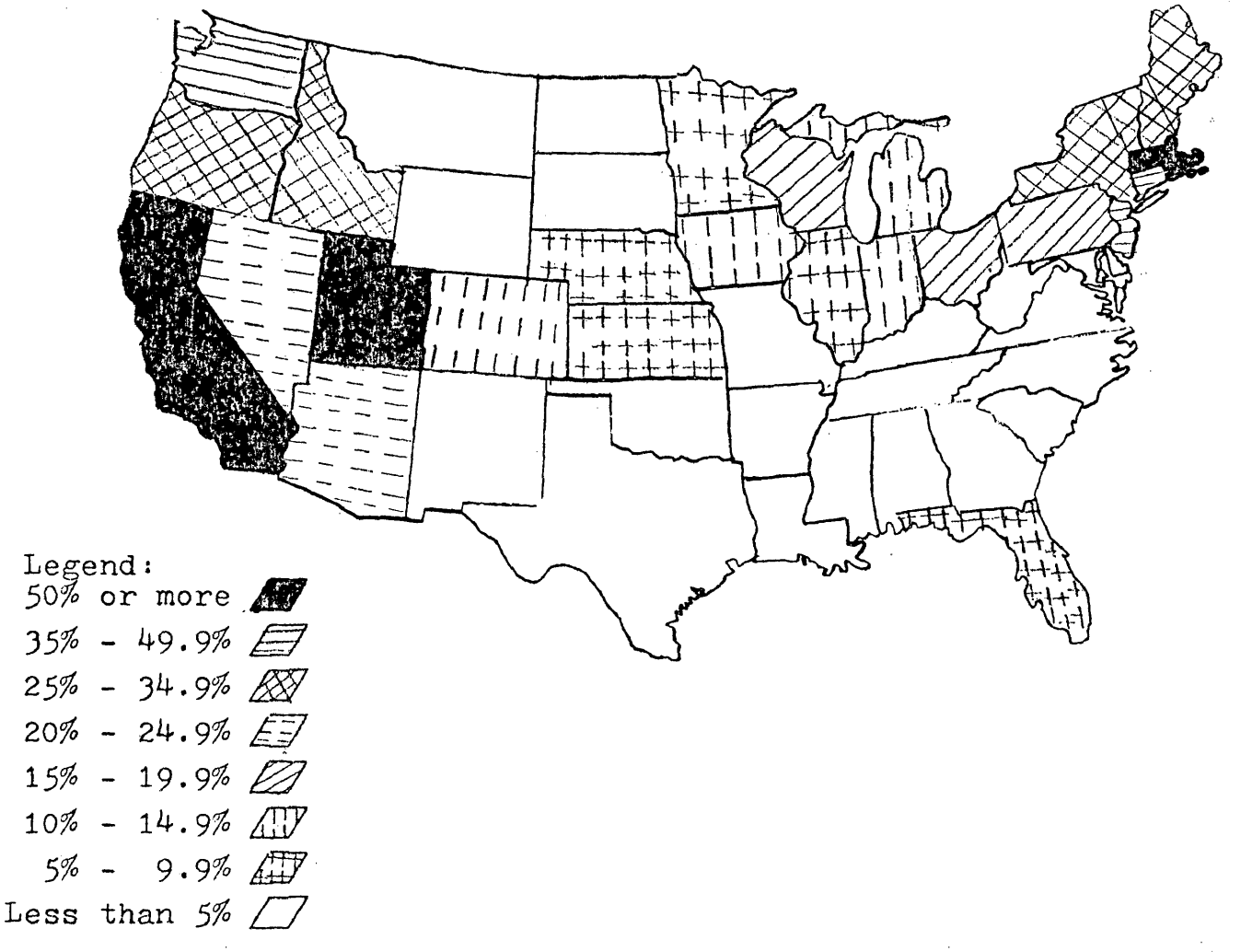
[35]E. E. Brackett and E. B. Lewis, Rural Electric Service Supplied from Central Stations in Nebraska in 1927, University of Nebraska Agricultural Experiment Station Bulletin 226, 1929.

[36]Ibid, Rural Electric Service in Nebraska, University of Nebraska Agricultural Experiment Station Bulletin 254, 1931. (Hereafter cited as Brackett and Lewis, Rural Electric Service.)

Nevertheless, as Figures 4 and 5 demonstrate, a solution to the rural electrification problem seemed far away at the end of the decade:

Figure 4

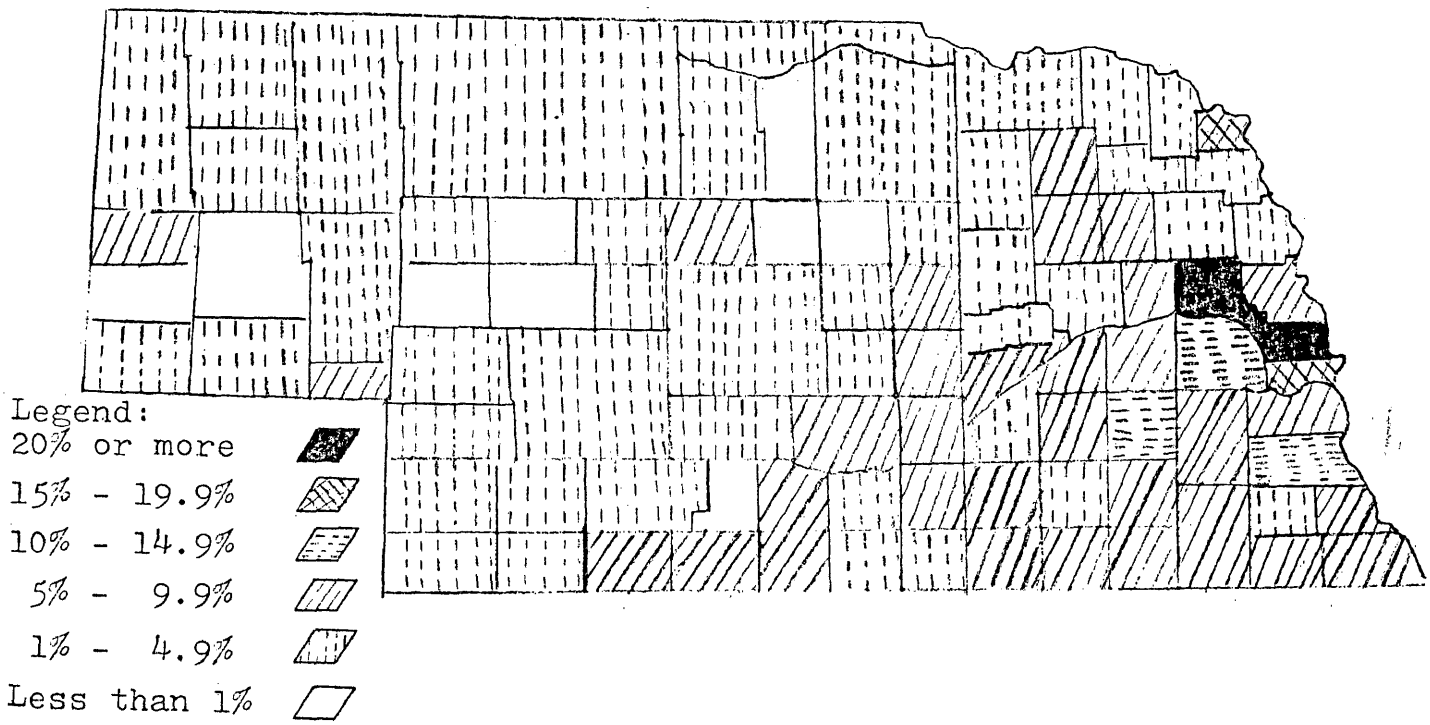
United States Farms With
Central Station Electricity, 1929



SOURCE: 1930 Census of Agriculture, Volume IV, General Report, p. 518.

The Power companies left virtually untapped the agricultural market in the sparsely settled plains states. They also ignored the desperately poor southeast.

Figure 5
Nebraska Farms With
Central Station Electricity, 1929

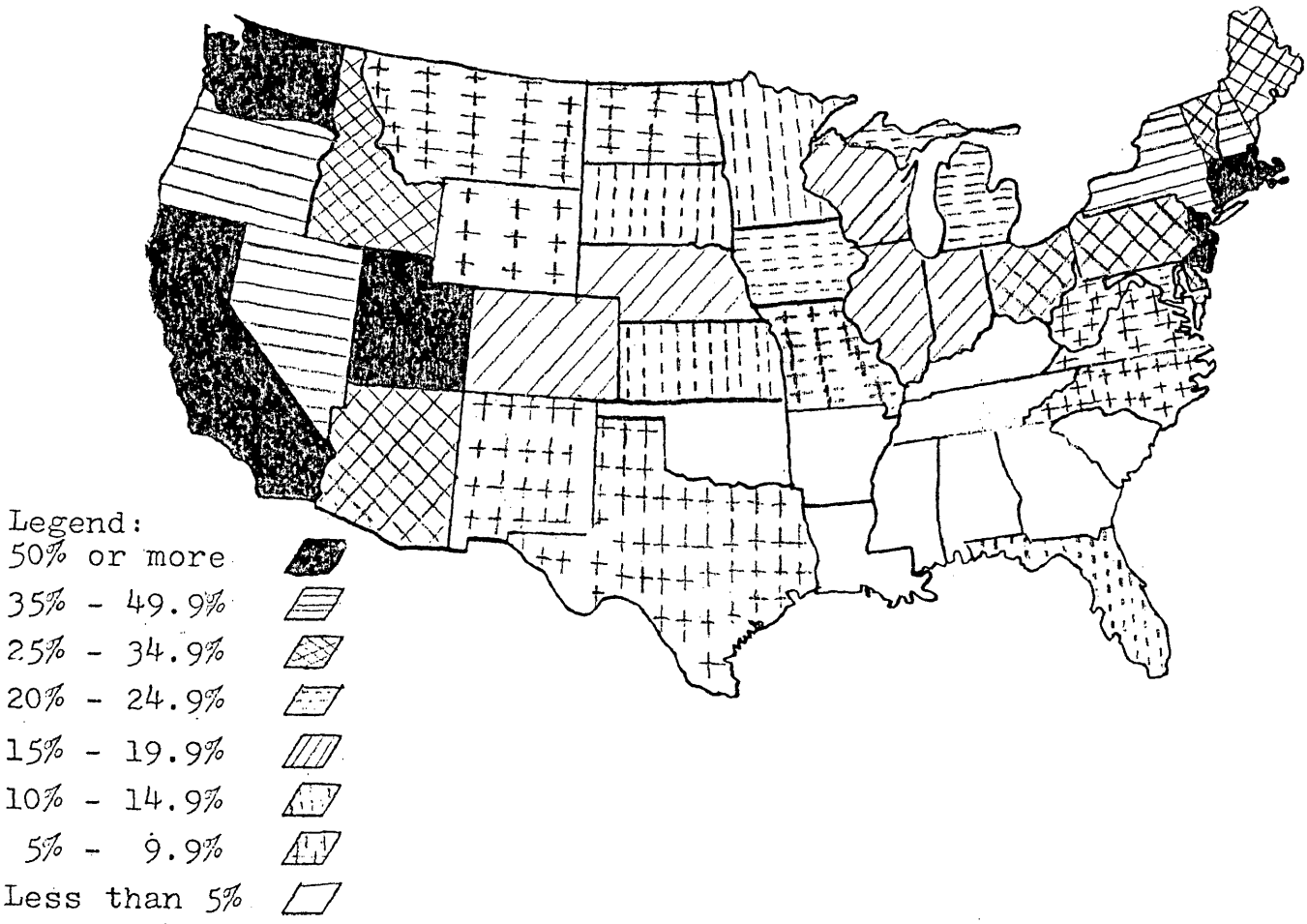


SOURCE: Census of Agriculture, 1930, Volume II, Part 1, The Northern States, pp. 1280-1287.

Obviously, few parts of rural Nebraska benefited from power company extensions during the 1920's. There was no widespread movement to serve farms.

As Figures 6 and 7 make clear, the electrification pattern alters somewhat both in the United States as a whole and in Nebraska when one includes home generating plants. Still, wide sections of the countryside had no electricity from any source. The "darkest" area was the southeast where farm income was the lowest in the nation. This points out that economics played a very important role in determining who could or could not have electricity. The situation in

Figure 6
United States Farms with Electricity
From Every Source, 1929



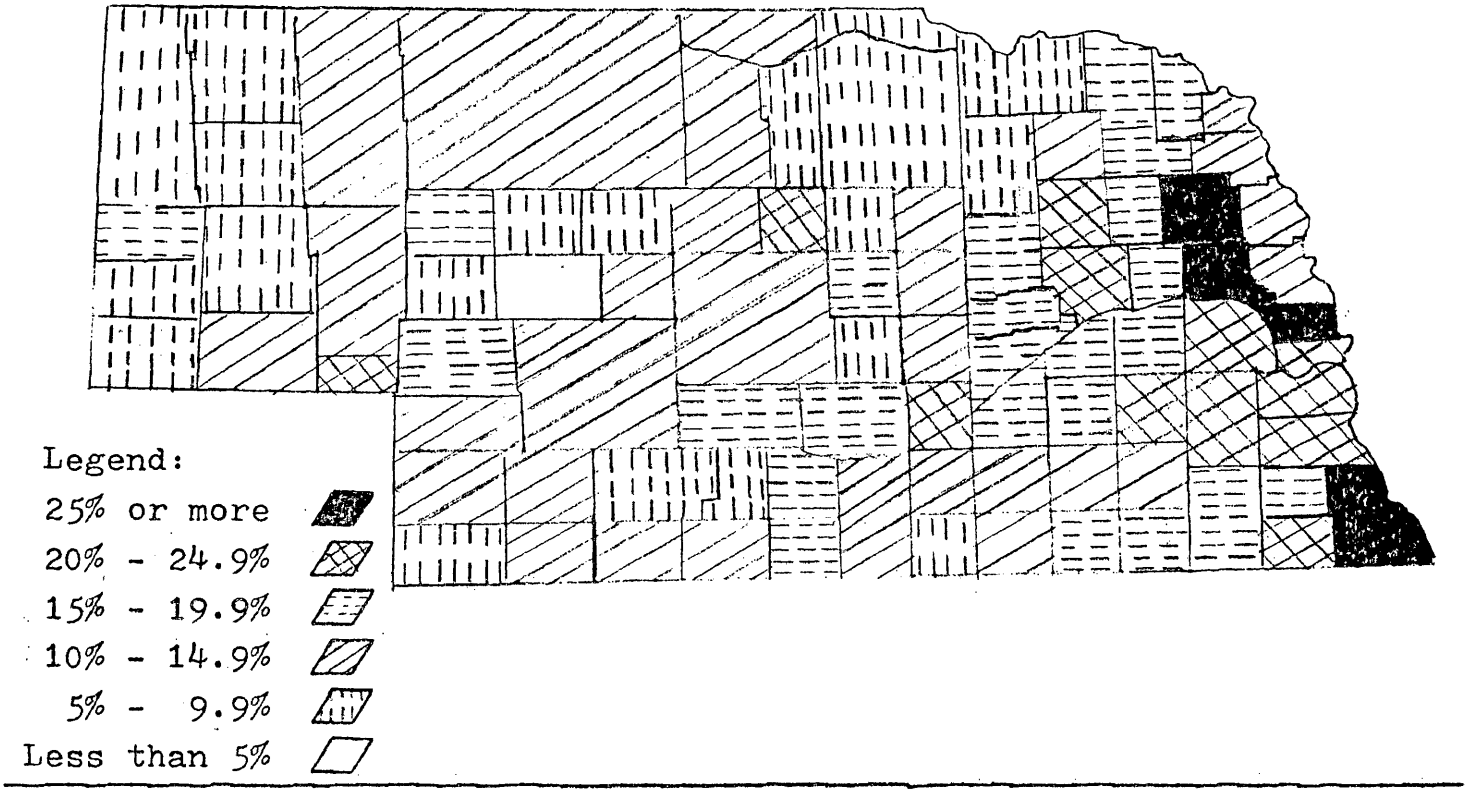
SOURCE: Census of Agriculture, 1930, Volume IV, General Report, p. 518.

Nebraska differed from the national pattern only in detail. In 1923, most electrified Nebraska farms were located in the eastern part of the state where distances between farms were not excessive. They were also more likely to be operated by owners than by tenants.[37] As Figure 7 makes clear, at the

[37]Rankin, Farm Homes, pp. 43-45.

end of the 1920's, with rare exceptions, those counties with the highest percentages of electrified farms still were located in the eastern part of the state:

Figure 7
Nebraska Farms with Electricity
From Every Source, 1929



SOURCE: Census of Agriculture, 1930, Volume II, Part 1, The Northern States, pp. 1280-1287.

What is more, as Table II illustrates, an overwhelming preponderance of those electrified farms were owner rather than tenant operated. Tenants were less likely to have money readily available for home improvements, especially for someone else's property.

Table II
Owner/Tenant Rural Electrification
in Nebraska, 1929

	Percent of Electrified Farms	Percent with Central Station Electricity	Percent with Home Generators
All	17.4	5.8	11.6
Owner-Operated	25.1	8.5	16.6
Tenant-Operated	8.4	2.8	5.6

SOURCE: 1930 Census of Agriculture, Volume IV, General Report, p. 518.

Since rural electrification was expensive for the farmer, whether attained by home generating plants or from highlines, it is not surprising that those Nebraska counties with the highest percentages of electrified farms were also the counties reporting the highest farm values:

Table III
Relationship Between Farm Values
and Rural Electrification
in Nebraska, 1929

Average Percentage of Electrified Farms	Average Farm Value
25% or more	$28,174
20% - 24.9%	22,803
15% - 19.9%	22,217*
10% - 14.9%	17,373
Less than 10%	15,468

SOURCE: 1930 Census of Agriculture, Volume II, Part 1, The Northern States, pp. 1218-1222 and 1287.

*This average is unbalanced due to the inclusion of Grant County which enjoyed the highest average valuation in the state.

In 1930, extending electrification to more than a few select farms seemed an impossible dream. Farm families wanted the service, especially as they were made increasingly aware of its potentialities for improving their lives. The farmers who attended the State Fair in 1927 saw a model electrified farm surrounded by work-saving appliances and equipment.[38] The Nebraska Farmer pointed out in the same year that studies in Illinois proved that 50 to 60 percent of farm work could be made easier with electricity.[39] Every farm wife who did without electricity could sympathize with a woman from Burt County who wrote to the Nebraska Farmer:

> I was on a visit this summer in town where they had an electric washer, an electric iron, and running water in the house. When I cam back home the water seemed so much farther to carry, the washing machine so much harder to turn, and the irons either too hot or too cold.[40]

In 1930, there were 121 farms in the county with an average valuation of $53,841. Twenty-four of those farms, or 19.8 percent, had electricity. Four received central station service while twenty had home generating plants. If one excludes Grant County from the tabulation, the average farm value for those counties reporting 15% - 19.9% electrification was $20,843.

[38] "Nebraska's Big Fair," Nebraska Farmer, September 17, 1927, p. 1320.

[39] I. W. Dickerson, "Electricity Lightens Work," Ibid, February 19, 1927, p. 323.

[40] "Home Conveniences vs. The Family," Ibid, June 4, 1927, p. 899. The title is revealing. The article was a series of letters written by farm women who defended or rejected electrification in comparison with other necessities or luxuries which their families desired.

Most farmers did not have electricity because they could not afford either to buy home generating plants or to pay for line extensions. Even if they could afford the original expense, they could not afford to buy electrical appliances. Many of those who did have a little money set aside decided to spend it on an automobile rather than electricity.[41] Farmers wanted electricity, but they wanted it on terms comparable to those that ". . .even the poorest laborer can /get/ in town. . . ."[42]

As the Twenties drew to a close, there was some indication that the power companies desired to do more than study the rural electrification problem. The Nebraska Power Company, headquartered in Omaha, moved a rural service division into the main office and set about to make electricity "the most important employee of the farmer."[43] The NELA published an advertisement in the Nebraska Farmer assuring farmers that:

> The same force which has done so much for industry will soon be available to an increasing number of farms. The resources and experience of more than forty years of

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[41] Ibid. The woman who wrote the letter cited above claimed women were seldom asked about how the money should be spent. If asked, she would have electricity rather than the automobile her husband purchased. Another farm wife, however, claimed it was worth the inconvenience and extra work involved in running a household without electricity to have an automobile in order to escape the monotony and isolation of farm life.

[42] Ibid.

[43] Robert M. Oliver, "Speeding Electricity to the Farm," Flash, November, 1928, p. 9. (Hereafter cited as Oliver, "Speeding.")

> successful city services are back of this movement to bring the farmer the greatest practical help he has ever had.[44]

The Middle West Division of the NELA devoted an entire conference to rural electrification in Omaha in 1925. L. O. Ripley, President of the Division, told the gathering, "It is our duty to put electricity on every farm in our district or explain why it cannot be done at this time."[45]

Unfortunately, in spite of rhetoric and good intentions, it was easier to explain why it could not be done than it was to extend lines into rural areas. The power companies had to answer to stockholders. They did not feel they could serve farmers at a loss or even at cost. The NELA advertisement promised to extend service ". . .to groups of farmers, which together, can use sufficient power to justify the building and maintaining of rural lines."[46] The Nebraska Power Company stated ". . .the price must provide sufficient revenue for the electric service company to permit a return on the investment necessary in serving the farmer."[47]

When depression gripped the nation in 1929, the power companies virtually ceased any efforts to serve agricultural markets, claiming they could do so only after incomes increased

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[44]Advertisement, Nebraska Farmer, April 16, 1927, p. 679.

[45]Evening Omaha World-Herald, May 20, 1925, p. 4.

[46]Advertisement, Nebraska Farmer, April 16, 1927, p. 679.

[47]Oliver, "Speeding," p. 9.

to the point where farmers could afford electricity. As the Middle West Utilities Company said:

> If every farm in the United States were now prepared to use electric power exclusively, and if electric powered machines had been invented to displace every animal, steam and internal combustion motor, the possible revenue from all that great block of farm power would not justify the construction of a generating and transmission system big enough to reach and serve more than a tiny fraction of the farms of the country.[48]

It became increasingly apparent that if farmers were to enter the electrical age, the power companies would have to be convinced that their basic premises about rural service were wrong, or an alternative means had to be found for extending that service. As the new decade opened, a number of interested Nebraskans sought for the alternative means.

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[48]MWUC, Harvests and Highlines, p. 107.

Chapter II

Public Power

Farmers were not the only Americans dissatisfied with power companies during the first three decades of the twentieth century. Although rates for domestic power consumption declined during that time, evidence indicated that a few holding companies, which controlled most of the nation's power supply, gleaned fantastic profits by reducing costs while passing along only a fraction of that reduction to consumers. It was difficult to prove that electric rates were higher than warranted because the utility interests hid their profits behind complicated rate schedules and record-keeping systems. Furthermore, although they claimed electrical distribution costs were extremely high, power interests conducted no investigations to learn what distribution costs actually were and discouraged others from conducting such investigations. They also spent millions of dollars, largely through the National Electric Light Association, to distribute propaganda favorable to their position in journals, newspapers, and even textbooks.[1]

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[1]David Y. Thomas, "The Light and Power Industry Considered," Southwestern Social Science Quarterly XII(June, 1931), pp. 1-23; Morris L. Cooke, "Paying Too Much for Electricity," The New Republic, December 21, 1932, pp. 150-152; U. S. Congress, Senate, Report of the Federal Trade Commission, Senate Document 92, 70th Congress, 1st Session, 1929, pt. 4. (Hereafter cited as FTC Report, 1929.)

It was a Nebraskan who dug beneath the surface and uncovered the "power trust" scandal. Republican Senator George W. Norris of McCook appointed himself spokesman for those who believed that utility executives lined their pockets at the expense of small domestic consumers. It was also Norris who popularized the obvious solution--public power generated, distributed, and managed at taxpayer expense.[2]

Norris pointed to the neighboring Canadian province of Ontario as an example of how a government could productively manage public power. There, publicly owned and operated hydroelectric projects provided inexpensive electricity and excellent service to both urban and rural customers. Norris envisioned

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[2]Norris developed his interest in public power after his appointment as Chairman of the Senate Committee on Agriculture in 1920. That committee was responsible for Wilson Dam, built at Muscle Shoals on the Tennessee River during the First World War by the government in order to generate electricity for the production of explosives. After the war ended, there was considerable pressure on Congress to turn the Muscle Shoals project over to private interests. Norris carefully investigated Muscle Shoals and concluded the nation's best interests required that the United States develop the project to provide flood control and cheap electric power. His position was not popular, and it was to be many years before his dream of a large-scale government-sponsored power facility on the Tennessee River could be realized. The struggle to develop Muscle Shoals involved Norris in the nationwide power controversy. From that time until his forced retirement from the Senate in 1943, public power consumed most of the Senator's time and energy. Richard L. Neuberger and Stephen B. Kahn, Integrity: The Life of George W. Norris (New York: The Vanguard Press, 1937), pp. 205-229. George W. Norris, Fighting Liberal (New York: The MacMillan Co., 1945), pp. 249-260. (Hereafter cited as Norris, Fighting Liberal.)

a nationwide public power network patterned after the Ontario model.[3]

Norris' proposals generated considerable opposition. There were not many persons willing to see the Federal Government assume responsibility for the electric power industry in a nation traditionally dependent upon private enterprise. Secretary of Commerce Herbert Hoover reiterated all the arguments against public power. He maintained that there were many specific instances to prove that government usually failed when it ventured into business; government did not belong in industry because it offered unfair competition to private enterprise; and the idea of government involvement in business was socialistic and, therefore, contrary to American tradition. Hoover also observed that since public utilities did not pay taxes, the people were deprived of a large amount of revenue which could be collected from similar operations in private hands.[4]

Enough people agreed with Hoover to prevent any nationwide public power project from gaining serious attention. That did not mean that the United States failed to experiment extensively

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[3]In one of his most telling arguments in support of the Ontario public power experiment, Norris compared power rates for identical service in Niagara Falls, New York and Niagara Falls, Ontario. Rates on the American side were more than double those charged in Canada. He also pointed out that on the Minnesota-Ontario border, although both sides received power from the same private company, rates were much lower in Canada where the private company had to compete with public power. The company's annual reports nevertheless claimed a profit for the Canadian operation. U. S. Congress, Senate, 69th Congress, 2nd Session, Congressional Record, January 26, 1929, 70:2256-2258.

[4]FTC Report, 1929, pt. 2, pp. 221-238.

with public power. Even before Norris began his long Congressional career in 1903, public power, in the form of municipally-owned and operated generation and distribution systems, provided a considerable amount of the nation's electricity supply. Nebraska had more municipally-owned electric facilities than any other state. In fact, between 1886 and 1931, 307 of the state's 535 municipalities receiving electric service either owned their own generating and distributing systems or purchased power from private sources and publicly financed distribution.[5]

Few Nebraska towns and cities ventured into public power because of ideological conviction that the citizenry would benefit from this method of service. For many years, it was the only way they could get electricity. Nebraska communities are as widely dispersed as farms, and private investors were unwilling to extend into scattered localities until they proved profitable.[6] By the mid 1920's, improved transmission capabilities and expanding local markets convinced private power companies there was money to be made in small Nebraska towns. At the same time, many municipal plants needed extensive renovation or replacement, and local taxpayers were hard-pressed to

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[5]Paul Jerome Raver and Marion R. Sumner, Municipally Owned Electric Utilities in Nebraska (Chicago: Institute for Economic Research, 1932), p. 13-17.

[6]Ibid, p. 58.

provide the necessary funding. One by one, the municipalities sold their power facilities to private companies until by 1930, only 199 towns were engaged in transmitting power and only sixty-five of that number had generating plants.[7]

Public power advocates, who viewed this turn of events with consternation, sought a way to keep the municipal facilities out of private hands. They concluded municipal operations could remain solvent if they increased their customer loads by extending beyond city limits to include any nearby communities and the untapped rural market eager for electricity. This could be accomplished only if state legislation regulating municipal power could be changed because the law forbade municipalities from extending beyond city limits ". . .for the purpose of selling electricity, power, steam, or other products of its plant. . ."[8] The public power advocates, pointing out that farmers would benefit from new legislation, called upon rural people for support in an attempt to force favorable action through the state legislature.[9]

Private power interests in the state staunchly opposed any attempts to extend municipal power. Not surprisingly,

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[7]Lane W. Lancaster, "Public Power and the People of Nebraska," National Municipal Review 20(May, 1931), p. 272. (Hereafter cited as Lancaster, "Power and People.") Even after the number of municipal systems declined, Nebraska still had more municipalities engaged in public power than did any other state.

[8]Chapter 49, Laws of Nebraska, 1919: 142.

[9]Lancaster, "Power and People," p. 273.

they aimed much of their campaign to the rural population. Rufus E. Lee, President of the Continental Gas and Electric Company, expressed the most popular argument against municipal power in 1924 when he claimed:

> Every time a city takes over a public utility it shifts the burden of taxes which the utility bore on the taxpayers and the biggest taxpayers are the farmers. Municipal ownership is the enemy of the farmer and the sooner the farmer withdraws his support from such ventures and the men who promote and advocate them the sooner his burden of taxation will be lightened.[10]

The State Legislature failed to approve any measure allowing municipalities to extend their power lines beyond city limits until 1929. Legislation passed in that year allowed cities and towns to extend their lines, but forbade them to incur expenses in so doing.[11] In effect, this meant that any farmer purchasing power from a municipality had to bear the entire cost of line construction and power distribution. Since even most of the private power companies bore a portion of such costs, this measure offered little incentive to extend rural electrification through municipal power.

Early in 1930, the League of Nebraska Municipalities, convinced that the State Legislature was in the pocket of the "power trust", determined to take their cause directly to the people.[12] The president of that organization was C. A. Sorensen,

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[10]Evening Omaha World-Herald, May 9, 1924, p. 4.

[11]Chapter 43, Laws of Nebraska, 1929: 187.

[12]C. A. Sorensen, "Rural Electrification: A Story of Social Pioneering," Nebraska History 25(October-December,

Attorney General of the State. Sorensen, a staunch supporter and personal friend of Senator Norris, believed as wholeheartedly in public power as did the Senator. He authored a municipal power bill, and, sponsored by the People's Light and Power Association, an organization created by the League of Nebraska Municipalities, he began a campaign to place this law on the November, 1930 ballot through initiative.[13]

The legislation which Sorensen penned not only provided that towns and cities could extend electric service twenty-five miles beyond their borders, it also provided that municipalities could pledge future earnings to pay for their power facilities. This clause was sponsored by Fairbanks, Morse and Company which hoped to sell new power plants to many Nebraska communities. Although the state Supreme Court had earlier upheld the right of municipalities to pledge future earnings for such purposes, the decision had not been unanimous. Fairbanks, Morse feared that without specific legislative

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1944), p. 259. (Hereafter cited as Sorensen, "Rural Electrification: Social Pioneering.") Sorensen claimed that since the Senate repeatedly passed power bills which the House voted down, this proved that the "power trust" could control the legislature by controlling one house. He partially attributed the decision to adopt a one-house legislature in the 1930's to the legislature's reluctance to pass a significant power bill in the 1920's.

[13] Ibid. Sorensen's venture into public power promotion was a natural outgrowth of his political and social philosophy. The Attorney General had long been one of the state's leading progressives. During the First World War, he was a member of and attorney for the Non-Partisan League which went to court accused of disloyalty by the State Council of Defense. He also served as attorney for the Nebraska Women's Suffrage Association.

permission, a future court might consider such financing unconstitutional. Fairbanks, Morse provided the money expended by the 1930 Light and Power Association campaign in return for including this clause in the bill.[14]

Sorensen and his supporters believed that some municipalities had disposed of their electric utility facilities because city officials and attorneys had "sold out" their constituents to the "power trust."[15] To prevent future sell outs, the initiative required that before city officials could dispose of power facilities, they must publish a notice of intent, and, not less than four months later, submit the proposal to the voters in a general election. The sale could not take place unless 60 percent of those voting approved.[16]

In 1918 and 1924, Sorensen was Norris' campaign manager. Biographical Sketch, Christian Abraham Sorensen, Christian A. Sorensen Papers, Nebraska State Historical Society, Lincoln, Nebraska. (Hereafter cited as Sorensen Papers.)

[14]C. G. Wallace and Harold O. Johnson, "Municipally Owned Power Plants in Nebraska," Nebraska History 43(September, 1962), pp. 198-199. (Hereafter cited as Wallace and Johnson, "Municipally Owned Power.") Although the claims about Fairbanks, Morse and Company in this article do not appear in other accounts, they are probably accurate. Wallace was in a position to know. His father worked closely with Sorensen and he himself served as President of the Southern Nebraska Rural Public Power District.

[15]Sorensen to Judson King, July 26, 1939, Sorensen Papers, Box 1, Folder 13. (Hereafter cited as Sorensen to King, July 26, 1939, Sorensen Papers.) The letter to King was in response to a request for information about public power which King hoped to incorporate into an article. Apparently King did not utilize the material to Sorensen's satisfaction because the latter used it as the basis for his own article which appeared in Nebraska History in 1944. Whole paragraphs from the letter were repeated verbatim in the article. See Sorensen, "Rural Electrification: Social Pioneering."

[16]Initiative Petition, Sorensen Papers, Box 27, Folder 4, People's Light and Power Association.

The People's Light and Power Association collected 20,000 more signatures than necessary to place their measure on the ballot. The private utility interests then confused the issue by drafting two municipal power initiative bills of their own and collecting enough signatures to place them on the ballot. These power company bills read much the same as that composed by Sorensen, but included clauses requiring elections before even twenty feet of line could be constructed or before even the smallest piece of equipment could be purchased. Sorensen prepared and distributed pamphlets and stumped the state supporting his legislation, urging citizens to remember that the correct legislation would be numbered 324.[17]

In the November election, Initiative 324 carried every precinct in the state.[18] Professor Lane W. Lancaster of the University of Nebraska attributed this overwhelming success to rural demand for cheap electric power.[19] His assessment was probably correct. He was also correct when he maintained that the measure would fall short of its supporters' hopes.[20]

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[17]Scrapbook XVII, Ibid, Box 66. This scrapbook contains newspaper clippings recounting Sorensen's speeches throughout the state supporting Initiative 324. It also contains a pamphlet written by Sorensen which shows a sample ballot and points out the "jokers" in the other two initiatives.

[18]Wallace and Johnson, "Municipally Owned Power," p. 201.

[19]Lancaster, "Power and People," p. 272.

[20]Ibid, p. 274.

Initiative 324 was an important piece of legislation because it set a precedent for financing public improvements by pledgir future earnings.[21] It also slowed private company acquisition of municipal facilities.[22] It did not, however, play a significant role in rural electrification.

Many farms in the state were not near enough to any of the municipalities with generating plants to connect with the operations. What is more, in order to extend service to more customers, most of the municipal operations would have had t purchase new generating plants and new equipment. In the midst of depression, they were unable, or unwilling, to assume the added financial burden.[23] Besides, the towns and cities were as doubtful as the private power companies that farmers would make enough use of electricity to make serving them worthwhile. Their doubts might have been reinforced by one of the Brackett and Lewis studies. Their findings showed that in the few instances in which farmers received power from municipal facilities before 1930, the farmers, who paid the entire cost of line extensions, used so little current that neither they nor the towns benefited from the arrangement.[24]

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[21]Wallace and Johnson, "Municipally Owned Power," p. 201.

[22]Sorensen to King, July 26, 1939, Sorensen Papers.

[23]Sorensen, "Rural Electrification: Social Pioneering," p. 261.

[24]Brackett and Lewis, Rural Electric Service, p. 5. The study showed that the municipalities charged their rural customers an average of 8.5 cents per kwh for electric service.

Obviously, municipal public power was not going to answer the need for rural electrification. In fact, as the depression deepened, those seeking electricity for rural Nebraska lost ground. Some farmers who had electricity were forced to discontinue service when they could not come up with enough money to pay their monthly bills. The number of farms with central station electricity declined from 9,930 in 1931 to 9,813 in 1932.[25]

Sorensen saw three obstacles which had to be overcome before rural electrification could become a reality in Nebraska:

1. Lack of proper legislation under which farmers could organize;
2. Lack of a low-cost wholesale electric energy supply;
3. Lack of money available at low interest rates.[26]

In 1933, the Nebraska Legislature passed a bill which removed two of these obstacles by providing for a means of organization and adequate low-cost power.

The Legislature's action was rooted in another pressing agricultural problem--the need for water. Periodic drought made it apparent early in the state's history that successful

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Since they paid the entire cost of line extension, and in view of the high rates for power, it is doubtful that the farmers involved could afford to utilize electricity for more than lighting.

[25]"Ten Years of Rural Electrification," NELA Bulletin, September, 1932, p. 522.

[26]Sorensen to King, July 26, 1939, Sorensen Papers.

agriculture in a large part of Nebraska would have to depend on irrigation. For many years, forward-looking individuals proposed extensive irrigation projects, but their efforts came to nothing because they could not secure adequate financial backing.[27]

In 1932, in an effort to bolster the depressed economy, the Hoover administration created the Reconstruction Finance Corporation (RFC). The Emergency Relief and Construction Act empowered that agency to loan money to states or political subdivisions of states for self-liquidating public works projects.[28] At that time, farm and business groups were actively promoting three irrigation projects in Nebraska; the Loup River Project near Columbus, the Platte Valley Project near North Platte, and the Tri-County Project (also known as the Central Nebraska Project) near Ogallala. These groups became convinced that if they could secure legislation establishing the legality of public power and irrigation districts as political subdivisions of the state, they would have no difficulty obtaining funds to finance the projects from the Federal Government. With that end in view, promotors from the three areas converged on Attorney General Sorensen's office in Lincoln. Sympathetic to their aims (and indeed partially responsible for their decision to seek aid from

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[27]Firth, Public Power, pp. 9-36.

[28]Emergency Relief and Construction Act, Statutes at Large, Vol. 47, 709 (1932).

the RFC), Sorensen drafted a bill for presentation to the 1933 legislative session.[29]

By the terms of that bill, 15 percent of the eligible voters in an area (which might include any number of voting precincts, an entire county, parts of several counties, or several entire counties) could petition to form a public power and/or irrigation district and select a temporary Board of Directors. If the Department of Roads and Irrigation approved the project, the district would become a political subdivision of the state. At the next general election, the voters would choose five to twenty-one persons, eligible to vote and residing within the district, to serve six-year terms on a Board of Directors. The Board would handle the district's day-to-day operations. In answer to the court's objections to the taxing powers conferred on the districts by the 1919 public power legislation, Sorensen's measure stipulated districts could neither tax nor be taxed. They could borrow money on future earnings through bond issues or from the Federal Government. In order to prevent districts from falling into the hands of the "power trust", the bill forbade Boards of Directors from selling or leasing facilities ". . .to any private person, firm, association, or corporation for operating or any other purpose."[30]

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[29]Firth, Public Power, pp 36 and 40; Sorensen to King, July 26, 1939, Sorensen Papers; Gene E. Hamaker, Irrigation Pioneers: A History of the Tri-County Project to 1935 (Minden, Nebraska: Warp Publishing Company, 1964), p. 126..

[30]Chapter 86, Laws of Nebraska, 1933: 337.

Sorensen's proposals, introduced in the Legislature as Senate File 310 by Senator Thomas Gass (Dem., Kearney), ran into immediate opposition. All the old arguments against public power found proponents. Senator H. E. Sanders (Dem., Omaha) expressed concern that the state would lose considerable tax revenue if power resources were developed by public rather than private interests.[31] A resolution signed by members of the National Farmers Holiday Association of Nebraska, the Nebraska Farmers Union, the Nebraska Socialist Party and the Nebraska Federation of County Taxpayers League expressed another concern about taxation. These groups feared that if power districts could be formed without a popular vote, the 15 percent of the voters who signed a petition could form entities that would ultimately have to be supported by the already tax-burdened farmers.[32] Senator J. P. O'Furey (Dem., Hartington) restated the old argument that, if passed, the measure would introduce socialism into the state.[33] Farmers in the Grand Island area, represented by Senator F. E. McCormick (Dem., Wolback), introduced another facet into the

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[31]Evening Omaha World-Herald, March 11, 1933, p. 6.

[32]Giles H. Penstone, "Public Power Districts and Cooperatives: Their Contribution to Rural Electrification," Nebraska Law Review 30(March, 1951), p. 449. (Hereafter cited as Penstone, "Power Districts and Cooperatives.")

[33]Evening Omaha World-Herald, March 17, 1933, p. 12.

discussion. They opposed Sorensen's bill because they feared intensive irrigation along the Platte Valley would lower the water table in the Grand Island area.[34]

Senate File 310 passed the legislature by one vote. Sorensen later claimed victory resulted because ". . .progressives were on the march."[35] A more likely explanation is that in view of the dire need for outside aid from any source, the Legislature acted in the hope that the Federal Government would approve the proposed irrigation projects and pump money into the state's economy. Their hopes were realized. When Franklin D. Roosevelt assumed the Presidency in 1933, his administration transfered many functions from the RFC to a new agency--the Public Works Administration (PWA). The PWA approved the Loup River and Platte Valley projects in 1933 and the Tri-County Project in 1935.[36]

The three irrigation projects promised to answer the need for a power supply. Since none of the districts could hope to succeed financially unless they sold electric power as well as water, all three planned large hydroelectric plants. Years of construction problems and litigation intervened before the projects went into operation, but their continuing

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[34] Ibid.

[35] Sorensen to King, July 26, 1939, Sorensen Papers.

[36] Clarence A. Davis, "Inter-Relationships of Nebraska's Public Power Agencies," Nebraska Law Review 30(March, 1951), pp. 420-422. (Hereafter cited as Davis, "Inter-Relationships of Power Agencies.")

progress gave evidence that adequate power would be available from a source other than profit-motivated private interests.[37]

Senate File 310 removed another obstacle to rural power development by providing a vehicle through which farmers could organize. When the State Supreme Court upheld the constitutionality of the act, there was no longer any legal doubt that public power districts could be formed.[38] The legal right to organize was not enough, however, without a means to finance electrification projects. Senate File 310 provided that funding must come from either bond issues or from the Federal Government.[39] Since bond issues were out of the question in depression-ridden Nebraska, the only real alternative was Federal financing.

The first attempt to get federal funding for a rural power project did not originate with farmers. Businessmen in Beatrice, the seat of Gage County, circulated the petitions to form the first rural district soon after the State Legislature approved Senate File 310. They were motivated primarily by a desire to stimulate the county's failing economy. One of the leading

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[37]For accounts of the complex legal and technical problems faced by the three big power and irrigation projects in the early stages of development, see Neil M. Clark, "PWA's Problem Children," Saturday Evening Post, September 25, 1937, pp. 5-7+ and Maxwell S. Stewart, "Nebraska Fights for Survival," Nation, April 3, 1937, pp. 375-377. As the titles indicate, the Clark article was highly critical while Stewart presented a sympathetic treatment.

[38]State ex. rel. Walter Loseke, Relator v. Charles B. Fricke et. al., Respondents, 126 Neb. 736 (1934).

[39]Chapter 86, Laws of Nebraska, 1933, Sec. 9 and 12.

organizers was Carl Schaefer, president and principal owner of the Gage County Electric Company, who sought a market for the company's surplus power.[40] Other businessmen wanted to sell electrical appliances and equipment, while social leaders hoped to alleviate unemployment.[41]

The Department of Roads and Irrigation approved the District, and, in August, 1933, the Board of Directors set out to obtain a loan from the PWA. Although the State PWA Board approved the project in December, 1933, Washington officials delayed action for a full year. They approved the project in December, 1934, but demanded that a host of new requirements be met before funding could be made available. The District tried to comply with each new requirement. On at least one occasion, the PWA seemed on the verge of advancing $575,000 on a loan-grant arrangement, but no money ever changed hands.[42] The need for readily available money for the development of rural electrification had not yet been met.

By 1934, farmers all over the country believed if they were to obtain reasonably priced rural power, it would have

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[40] Interview with Willard Richardson, Henningson, Durham and Richardson, Omaha, Nebraska, September 15, 1975. (Hereafter cited as Richardson Interview.) Richardson served as Schaefer's personal secretary when the Gage County project was under consideration.

[41] Stoneman, "Rural Electrification Authority," p. 36.

[42] Sunday Omaha World-Herald, June 23, 1935, p. 13A; Paul D. Marvin, "20th Anniversary," Sorensen Papers, Box 16, Folder 45. (Hereafter cited as Marvin, "20th Anniversary," Sorensen Papers.) The Norris Rural Public Power District published this

to come with help from Federal programs. The farm organizations dropped out of the CREA because they were convinced that the utility company sponsors planned no constructive action. These organizations turned their attention instead to the Federal Government. They were encouraged because Norris' efforts to develop a Federal power project in the Muscle Shoals area finally bore fruit in 1933 with the creation of the Tennessee Valley Authority.

In November, 1934, the convention of the National Grange declared that:

> Whereas, the Government has adopted a policy of developing electrical power plants, and
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> Whereas, we believe the policy will make it possible for thousands of farmers to enjoy the benefits of cheap light and power, therefore
>
> Be it resolved, that we favor the development and completion of all such projects including main transmission lines in a manner that will deliver the power to the people under Government operation and control at the lowest possible cost.[43]

In December of the same year, the Farm Bureau issued their own call for action:

> We recommend that electrification of agriculture should be extended into

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pamphlet in honor of the district's twentieth anniversary in 1953. Marvin was the first president of the district's Board of Directors. He claimed that the PWA did not act on the loan request because, "There were too many private utility engineers in key positions in the PWA to let construction start."

[43]Slattery, Rural America, pp. 27-28.

> every possible section of the country. . . that ways and means be provided. . .for financing at low interest rates cooperative electric light and power associations; farmers' mutual telephone companies, and similar cooperative organizations.[44]

President Roosevelt proved willing to support rural electrification. He had learned from his own experience what it cost to obtain power in rural America. When he moved to Warm Springs, Georgia in the early 1920's in an attempt to alleviate the crippling effects of polio, he found that his electric bill was several times higher than it had been in his Hyde Park, New York home.[45] While he was Governor of New York, he initiated a program to bring cheap electric power to farms and small towns by harnessing the St. Lawrence River.[46] As President, he approved the TVA as one of his first official acts. Roosevelt did not need much convincing that a general government-sponsored electrification program was in order.

The Emergency Relief Appropriations Act of April, 1935 provided the legal impetus for rural electrification funding by the Federal Government. The act allocated money for relief work on beneficial public works projects. Among the projects

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[44] Ibid, p. 28.

[45] New York Times, August 13, 1938, p. 3. Roosevelt related this experience when he dedicated a rural electrification project in Barnesville, Georgia.

[46] Morris L. Cooke, "The Early Days of the Rural Electrification Idea: 1914-1936," The American Political Science Review XLII(June, 1948), pp. 441-443. (Hereafter cited as Cooke, "Early Days.")

specifically named was rural electrification funded for $100,000,000 to be distributed at the discretion of the President through the Federal Emergency Relief Administration (FERA).[47]

In December, 1934, even before Congress passed and the President signed the Emergency Relief Appropriations Act, the FERA launched a study in twenty-six states to determine the need for, and feasibility of, federally funded rural electrification. Nebraska was one of the states chosen as a study site. E. B. Lewis, of the Brackett and Lewis team that authored the Agricultural Experiment Station studies relative to power development, was selected to conduct the study. During the first few months of 1935, Lewis surveyed seventy-two of the state's ninety-three counties under the FERA directive that the study need not be comprehensive, but must include both questionable and promising areas for potential electric power development.[48]

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[47] Emergency Relief Appropriations Act, Statutes at Large, Vol. 49, 115 (1935).

[48] Evening Omaha World-Herald, May 17, 1935, p. 40; Thomas Hibben, Engineering Division, Federal Emergency Relief Administration, Washington D. C., to Earl N. Watson, Regional Engineer, Federal Emergency Relief Administration, Denver, Colorado, January 23, 1935; J. R. Carahan, State Director, Work Division, Nebraska Emergency Relief Administration, Lincoln Nebraska to George Andrews, Staff Engineer, Federal Emergency Relief Administration, Records of the Works Progress Administration, Records of the Federal Emergency Relief Administration Work Division, Rural Electrification Survey, General Correspondence, Nebraska, Record Group 69, National Archives, Washington, D. C. (Hereafter cited as Rural Electrification Survey.)

Lewis' final report did not offer much encouragement for those hoping to electrify rural Nebraska. He found that most farmers who then had electricity utilized only about sixty kwh per month. Most of the farmers questioned who did or did not have electricity answered in the negative when asked if they could or would expend money for electrical appliances and equipment. He divided the state's farms into four categories as potential users of electric power: 1) Owner-operated showing good improvements--best prospects; 2) tenant operated with good improvements--fair prospects, especially if the tenants were related to the owner or operating under long-term leases; 3) owner-operated with poor improvements--doubtful prospects. Lack of improvements indicated financial difficulty; and, 4) tenant-operated with poor improvements--extremely unlikely prospects. In as much as about half the state's farms were tenant-operated, most of which fell into the poor improvement category, and many owner-operated farms were struggling under depression and drought, Lewis concluded that only about ten thousand farms in the seventy-two counties surveyed offered much promise as customers for electric power.[49]

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[49]After an extensive search failed to turn up the survey in its entirety, the author had no choice but to rely on a preliminary report supplied by the National Archives and a few secondary materials which summarized the study. E. B. Lewis to J. B. Carnahan, March 9, 1935, Rural Electrification Survey; Hastings Daily Tribune, July 27, 1935; Carlyle Hodgkin, "Electricity on the Farm," Nebraska Farmer, February 1, 1936, pp. Cover sheet+.

Lewis' efforts met considerable suspicion and opposition from those Nebraskans who believed rural power should be, and could be, developed immediately, regardless of conditions. While the survey was in progress, persons in Scotts Bluff County opined that Lewis was in League with a local power company plot to discourage public rural electrification.[50]

After the results of the final report were made known, George Kline, editor of the Nebraska Beacon in Lincoln, a newspaper devoted almost exclusively to the promotion of public power, hinted at a connection between the FERA and a spy network recently alleged to be operating on the campus of the Municipal University of Omaha.[51] George E. Johnson, Chief Engineer of the Tri-County Project and active promotor of rural electrification, went so far as to threaten a press attack on the

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[50]C. B. Turner to Sorensen, February 7, 1935, Sorensen Papers, Box 19, Folder 1.

[51]Nebraska Beacon, Lincoln, Nebraska, August 8, 1935. According to W. E. Sealock, President of the Municipal University of Omaha, the Board of Regents hired a group of students to spy on other students and faculty and report on any teaching or other activities violating the Board's concept of "correct" thinking and behavior. Shortly after Sealock charged that this spy network was in operation, the Board of Regents fired him. Morning Omaha World-Herald, June 28, 1935, p. 1. Soon after his dismissal, Sealock commited suicide. Evening Omaha World-Herald, July 8, 1935, p. 1.

Apparently Kline inferred a connection between the spy network and the FERA report (which he considered highly detrimental to public power) because the President of the Board of Regents was J. . Davidson who was also Chairman of the Nebraska Power Company Board of Directors and a leading opponent of public power forces in the state.

University of Nebraska if the Chancellor and the Dean of the College of Agriculture did not, ". . .straighten out Mr. Lewis and give him an opportunity to correct his statements. . . ."[52]

Proponents of rural electrification in Nebraska feared that any adverse publicity about conditions might lessen the state's chances to obtain a fair share of federal funding. In contemplation of passage of the Emergency Relief Appropriations Act, six new rural public power districts emerged in early 1935. All eagerly awaited word from Washington that Congress had made funds available and the President had found a way to distribute the money. No one knew how much or in what way funds would be allocated in the state, but the power advocates were certain that Nebraska farmers could, and would, utilize enough electricity to warrant government help. They refused to countenance any contrary opinions such as Lewis had expressed.[53] Time would tell if their faith was justified.

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[52]George E. Johnson to Chancellor [Edgar A.] Burnett and Dean [William W.] Burr, University of Nebraska, Lincoln, Nebraska, August 9, 1935, Sorensen Papers, Box 20, Folder 2.

[53]Ibid; Sorensen to Senator Norris, April 15, 1935, Ibid, Box 1, Folder 17; Sorensen to Glen Wallace, President, Southern Nebraska Rural Public Power District, June 13, 1935, Ibid, Box 20, Folder 2.

Chapter III

The Rural Electrification Administration

President Roosevelt acted to provide Federal aid for rural electrification long before results were in from the Federal Emergency Relief Administration survey. On May 11, 1935, as had been authorized by the Emergency Relief Appropriations Act, he created the Rural Electrification Administration (REA) through Executive Order 7037:

> To initiate, formulate, administer and supervise a program of approved projects with respect to the generation, transmission, and distribution of electric energy in rural areas.[1]

Most interested parties approved the creation of REA. An article in Collier's prophesied that rural electrification would serve as a major impetus to economic recovery. The author reasoned those farmers benefiting from the program would purchase enough appliances and equipment to keep manufacturing concerns occupied for years to come.[2] An editorial in the Omaha World-Herald applied the Collier's theory to Nebraska conditions and concluded the state's economy would

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[1]Franklin D. Roosevelt, Executive Order 7037, May 11, 1935. (Hereafter cited as Executive Order 7037.)

[2]John T. Flynn, "All Lit up and Going Places," Collier's, August 24, 1935, pp. 12-13+. (Hereafter cited as Flynn, "Lit Up and Going Places.")

benefit enormously by expanding rural electrification.[3] Government willingness to spend "real hard money" indicated to the Nebraska Farmer that the days when rural electrification was "largely just a phrase" were nearing an end.[4] Even vehemently anti-New Deal organs such as the Farm Journal praised Roosevelt's action:

> We are not boosters for the Washington alphabeticals, as a general thing. . . . But Washington occasionally does something right, and one of those accidents is the plan for helping to modernize farm homes. . . .[5]

General approval did not preclude many persons (even well-wishers) from doubting REA's ability to alter significantly the nation's bleak rural electrification picture. The Farm Journal questioned the feasibility of extending lines into sparsely settled or very poor agricultural regions.[6] The Collier's article pointed out large numbers of mortgaged, tenant-operated and impoverished farms would have to be excluded from rural electrification plans.[7] An article in Successful Farming concluded:

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[3]Morning Omaha World Herald, August 20, 1935, p. 4.

[4]"News from the Nation's Capital," Nebraska Farmer, May 11, 1935, p. 26.

[5]"Can We All Have Electricity?" Farm Journal, June, 1935, p. 12.

[6]Ibid.

[7]Flynn, "Lit Up and Going Places," p. 38.

> Until greater progress is made in the science of rural electrification, most of the folks who live in. . .thinly settled areas must continue to get along without its help.[8]

Utility executive Hudson W. Reed claimed in Electrical World that most of the nation's unelectrified farms were doubtful prospects even if the Federal Government financed extensions. He maintained that all the best agricultural power markets (large, specialized operations located in thickly-settled areas with nearby commercial ventures) already were being served.[9] Perhaps most telling, the agency's first director, Morris L. Cooke, expressed doubt that REA could aid more than one-fifth of the unelectrified farms in the United States.[10]

Cooke qualified as an advocate of rural electrification as well as anyone in the nation. In the early 1920's, he headed a power survey in Pennsylvania which, in part, dealt with the need for rural electrification. When Roosevelt was Governor of New York, Cooke served his as a member of the state's Power Authority. The new REA Director had been one of Norris's staunchest supporters in the drive to organize the Tennessee Valley Authority. In the early 1930's, he chaired

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[8]Floyd B. Nichols, "More Power to the Farmlands," Successful Farming, November, 1935, p. 45.

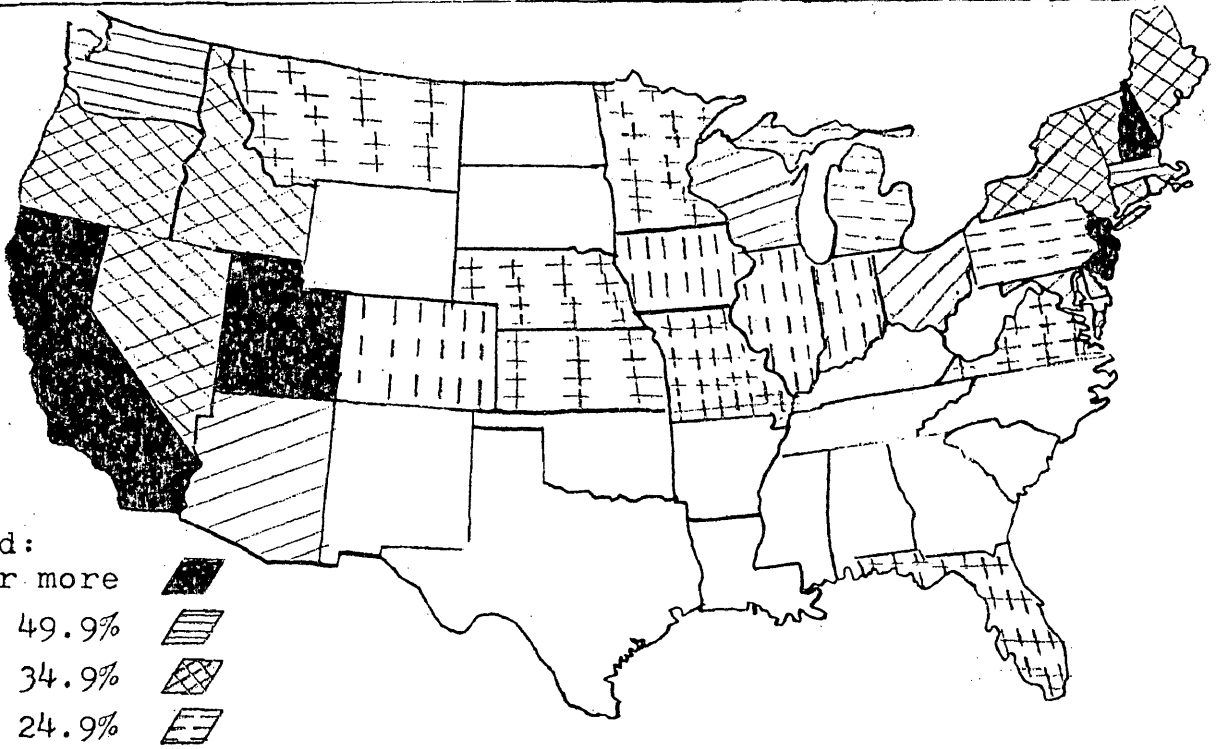
[9]Hudson W. Reed, "Rural Electrification," Electrical World, June 8, 1935, pp. 58-60.

[10]New York Times, May 19, 1935, p. IV-11.

the Mississippi Valley Committee which pinpointed the need for rural electrification in that area. He had also vigorously championed the Emergency Relief Appropriations Act.[11] Only very good reasons could force an individual with Cooke's credentials to doubt that REA could accomplish more than a small part of the task facing the Agency. And very good reasons abounded.

In the first place, as Figure 8 points out, the job ahead was monumental. Nearly 90 percent of the nation's farms

Figure 8
United States Farms with Central Station Electric Service, 1935



SOURCE: "Rural Electrification in the United States-1935," Rural Electrification Administration News, March, 1936, p. 16.

[11] H. S. Person, "The Rural Electrification Administration in Perspective," Agricultural History 24(April, 1950), pp. 70-71n. (Hereafter cited as Person, "REA in Perspective.")

still did not have centrally provided electricity. What is more, the Emergency Relief Appropriations Act imposed a two-year time limitation on funding.[12] Table IV illustrates progress in rural electrification during the six years prior to the formation of REA. Although the power companies primarily responsible for this electrification did not pursue the rural market with enthusiasm or alacrity during the early days of the depression, the figures make clear that two years hardly offered enough time for significant advancement:

Table IV
United States Farms With
Central Station Electricity
1929 and 1935

State	Percentage of Farms With Central Station Service in 1929	Percentage of Farms With Central Station Service in 1935	Percent of Increase or Decrease
Alabama	1.5	4.0	+ 2.5
Arizona	21.7	29.6	+ 7.9
Arkansas	1.1	1.2	+ .1
California	58.1	53.9	- 4.2
Colorado	10.9	11.2	+ .3
Connecticut	44.6	31.5	-13.1
Deleware	10.6	17.3	+ 6.7
Florida	7.0	7.8	+ .8
Georgia	1.4	2.8	+ 1.4
Idaho	25.7	29.8	+ 4.1
Illinois	8.5	12.3	+ 3.8
Indiana	10.2	11.7	+ 1.5
Iowa	11.7	14.4	+ 2.7
Kansas	6.2	7.6	+ 1.4
Kentucky	2.4	3.0	+ .6
Louisiana	1.2	1.7	+ .5
Maine	28.0	33.3	+ 5.3
Maryland	14.4	15.1	+ .7
Massachusetts	54.0	41.3	-12.7
Michigan	14.3	21.4	+ 7.1
Minnesota	6.7	6.8	+ .1
Mississippi	.8	.9	+ .1

[12] Emergency Relief Appropriations Act, Statutes at Large 49, 115 (1935).

Table IV-Continued

State	Percentage of Farms with Central Station Service in 1929	Percentage of Farms with Central Station Service in 1935	Percent of Increase or Decrease
Missouri	4.9	6.4	+ 1.5
Montana	4.2	5.5	+ 1.3
North Carolina	3.1	3.2	+ .1
North Dakota	2.2	2.3	+ .1
Nebraska	5.8	7.1	+ 1.3
New Hampshire	33.6	53.7	+20.1
New Jersey	43.2	51.6	+ 8.4
New Mexico	3.5	3.3	- .2
New York	27.1	32.7	+ 5.6
Nevada	23.5	25.6	+ 2.1
Ohio	17.2	18.8	+ 1.6
Oklahoma	1.9	2.6	+ .7
Oregon	27.2	27.5	+ .3
Pennsylvania	19.3	23.6	+ 4.3
Rhode Island	50.3	45.6	- 4.7
South Carolina	1.9	2.3	+ .4
South Dakota	3.0	3.5	+ .5
Tennessee	2.7	3.6	+ .9
Texas	2.0	2.3	+ .3
Utah	53.2	52.5	- .7
Vermont	25.7	29.4	+ 3.7
Virginia	4.5	7.6	+ 3.1
Washington	41.0	47.5	+ 6.5
West Virginia	3.4	3.5	+ .1
Wisconsin	16.6	19.6	+ 3.0
Wyoming	2.8	3.0	+ .2
UNITED STATES	15.9	17.6	+ 1.7

SOURCE: Census of Agriculture, 1930, Volume IV, General Report, p. 518; "Rural Electrification in the United States--1935," Rural Electrification Administration News, March, 1936, p. 16. It would be interesting to learn why New Hampshire, Maine, and Vermont show large gains while Connecticut, Rhode Island, and Massachusetts show losses. One wonders why Connecticut lost the highest percentage of electrified farms while New Hampshire gained the highest percentage of any states in the country.

Before REA could even begin to serve its primary function, Cooke and his staff had to organize the new agency from top to bottom and establish guidelines for operation. They had

only one prescribed stipulation. Roosevelt's Executive Order required: "That in so far as practicable, the persons employed under the authority of this Executive Order shall be selected from those receiving relief."[13] It was up to the REA staff to determine how to fulfill this stipulation. They also had to answer such basic questions as: Would money be allocated in the form of loans or grants, or some combination of the two? Would money be placed in the hands of individual farmers, private power companies, state or local agencies, or would REA utilize their own personnel to construct and manage projects? Funding was to be used for power projects in "rural areas," but what was to be the definition of "rural"? As an experienced bureaucrat, Cooke could not have suffered many illusions about time required for decision-making and organization, but even he must have been discouraged by the number and complexity of obstacles that lay ahead.

Almost immediately after Roosevelt created REA, Cooke was besieged with requests for information about how to obtain money. One of the earliest appeals came from C. A. Sorensen of Nebraska. Sorensen's term as State Attorney General ended in 1933, but he remained in the forefront of the struggle for public power. When several newly-formed power districts hired him as their legal representative, he journeyed to Washington to confer with Cooke soon after the director assumed his

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[13]Executive Order 7037. This proviso reflected the requirements and the spirit of the Emergency Relief Appropriations Act.

responsibilities. Sorensen told Cooke that Nebraska power districts were prepared to construct between fifteen and twenty thousand miles of rural lines to serve 35,000 unelectrified farms if the REA would provide $4,880,000.[14] Sorensen based his figures on the districts which he personally represented. According to a series of articles which columnist Bill Lawrence wrote for the Omaha World-Herald during the summer of 1935, plans for the state were considerably more ambitious than Sorensen indicated to Cooke. If the World-Herald figures were correct, Nebraska power districts hoped to serve 71,479 customers at an anticipated cost of $14,712,230.[15] Figure 9 shows the approximate location and extent of these planned projects. The situation in these districts reflected the unresolved confusion in Washington as well as some confusion unique to the state.

Sorensen apparently believed once the Federal Government acted to appropriate funds, it would not be long before districts could construct lines. In March, 1935, the newly-organized Chimney Rock District launched a campaign to raise money for a preliminary survey which could be sent to Washington as soon

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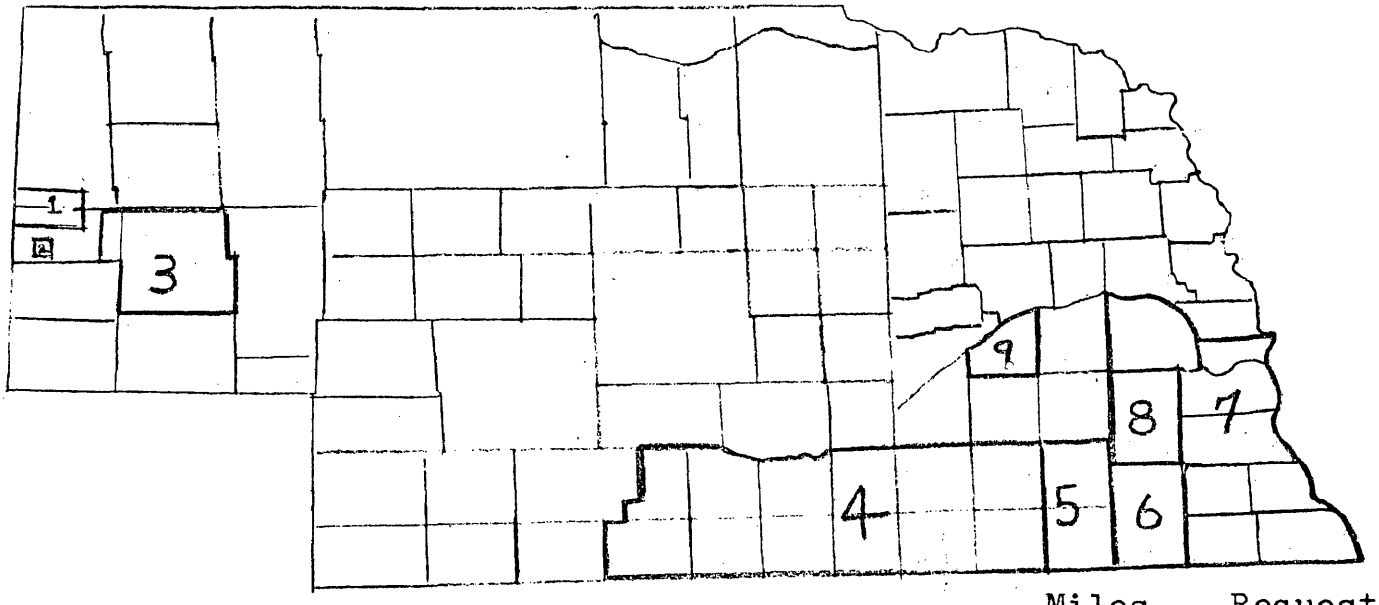
[14]Newspaper clipping from Lincoln Star dated June 8, 1935, Sorensen Papers, Box 66, Scrapbook, Volume XVIX.

[15]Sunday Omaha World-Herald: June 16, 1935, p. 15A; June 23, 1935, p. 13A; June 30, 1935, p. 10A; July 7, 1935, p. 10E; July 28, 1935, p. 10E; August 4, 1935, p. 11A; August 11, 1935, p. 11A; August 25, 1935, p. 12A. (Hereafter cited as Lawrence Articles.)

Figure 9
Proposed Rural Electrification Projects
Nebraska, 1935



District	Counties	Customers	Miles of Line	Requested Funds
1. Roosevelt	Pts. of Sioux & Scotts Bluff	1,072	362	$450,000
2. Gering Valley	Pt. of Scotts Bluff	260	62.2	100,000
3. Chimney Rock	Pt. of Scotts Bluff & All of Morrill	1,122	368	900,000
4. Southern Nebraska	Gosper, Furnas, Phelps, Harlan, Kearney, Franklin, Adams, Webster, Clay, Nuckolls, Fillmore, Thayer	12,000	?	7,328,718
5. Norris	Saline & Jefferson	4,300	1,557	1,693,500
6. Southeastern Nebraska	Gage	1,200	600	575,000
7. Eastern Nebraska	Sarpy, Saunders, Cass, Lancaster, Otoe, Johnson, Pawnee, Nemaha, Richardson	48,000	12,000	2,500,000
8. Lancaster Co.	Lancaster	3,025	783	885,012
9. Polk Co.	Polk	500	200	280,000

SOURCE: Lawrence Articles. At this stage, the Southeastern Nebraska District was not actually asking for money from REA. It was September before the PWA definitely declined the district's request for funding and application was filed with REA. Marvin, "20th Anniversary," Sorensen Papers.

as Roosevelt signed the Emergency Relief Appropriations Act. The local paper reported Sorensen:

> . . .gave assurance that any money raised in the community for the preliminary work would be returned to the individual or group advancing the money when the first money was received from the government. Mr. Sorensen stated that when the final plans were presented to the government that it would require but a very short time for approval.[16]

Such assurances nearly guaranteed that any delay in Federal funding would create ill will for the district and headaches for Sorensen.

Interested Nebraskans generally believed REA would provide a combination of grants and loans to power projects. George Kline, secretary of the Eastern Nebraska District, informed his readers in the Nebraska Beacon on June 2, "A grant of 45 percent for. . .rural electrification in the sparsely settled regions is possible. . . ."[17] On the following day, Sorensen wrote the president of the Norris District, ". . .the plan now is that the government will donate 45 percent of the cost and loan the balance. . .for 30 years at 3 percent."[18] Under the assumption that grants would be forthcoming, several of the districts included a considerable amount of "thin" territory--widely dispersed and/or poor

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[16]Bayard Transcript, March 28, 1935.

[17]Nebraska Beacon, June 2, 1935.

[18]Sorensen to R. N. McCord, June 3, 1935, Sorensen Papers, Box 14, Folder 1.

farms. The rationale was that if loans comprised only a part of money advanced by the government, principle and interest payments would be small enough that a few profitable areas could offset the unprofitable sections in each district.

With so many unelectrified areas in the state, it was ironic that both the Eastern Nebraska and Lancaster County Districts sought to electrify the farms in Lancaster County. This duplication of effort resulted from differing viewpoints and misunderstanding. Proponents of the Eastern Nebraska District, most notably George Kline, sought to include Lincoln in their project. Kline was certain Lincoln residents could be weaned away from the Iowa-Nebraska Power Company if the district offered lower rates. He anticipated that the district would purchase power wholesale from the municipal plant in Lincoln, which had long competed for customers with Iowa-Nebraska Light and Power, to serve both the city and nearby farms.[19] On the other hand, those who organized the Lancaster County District excluded Lincoln from their project. They maintained, through their attorney, C. A. Sorensen, that if Lincoln were included, city dwellers, who already had electricity, would have the votes to control a district supposedly organized to serve farms.[20]

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[19]Nebraska Beacon, July 11, 1935.

[20]Lincoln Evening State Journal, August 13, 1935, p. 1+

Sorensen and Kline accused each other of seeking to cripple rural electrification in that part of Nebraska.[21] Undoubtedly both meant well, but the overlapping jurisdictions did indeed serve to injure rural electrification efforts. Both districts secured signatures from 15 percent of the eligible voters and submitted their proposals to the Department of Roads and Irrigation as required by Senate File 310. State Engineer A. C. Tilley, who headed the Department of Roads and Irrigation, refused to take sides. He approved both overlapping districts on the same day.[22] It was to be many months before personal negotiation and court litigation resolved the conflict.

Any move to put the fledgling power districts on sound footing depended upon decisions reached by the REA staff in Washington who still groped to develop a workable organization. One of Cooke's first and most important decisions was that since the agency could find no other practical way to disseminate funds, REA would serve strictly as a lending agency for projects that were sound enough to pay off principle

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[21]Sorensen to George E. Johnson, July 2, 1935, Sorensen Papers, Box 12, Folder 2; Nebraska Beacon, June 27, 1935.

[22]Sorensen to A. R. Wallick, President, Lancaster County Rural Public Power District, October 11, 1935; Sorensen to Senator Norris, April 2, 1936, Sorensen Papers Box 12, Folders 2 & 3.

plus 3 percent interest over a twenty-year period. There would be no grants.[23]

This was not a popular move in Nebraska. Members of the Chimney Rock Board of Directors urged Nebraska citizens to request that their Congressmen apply pressure on REA to adopt a more liberal policy.[24] Sorensen agreed, and he claimed Norris agreed, that REA's position was discriminatory, especially since PWA and other federal agencies provided grants for urban public works projects. "Now that farmers want to build similar projects, they in all fairness ought to be treated just as generously as the city people were." Nevertheless, Sorensen cautioned, ". . .we ought not do do anything that might create ill will toward our districts."[25] All argument ceased in August, 1935 when Roosevelt, through Executive Order 7130, decreed REA would serve as a lending agency for self-liquidating projects.[26]

When faced with the requirement that they be able to return all government funding advanced to them plus interest, some Nebraska power districts felt compelled to eliminate

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[23]"Plans and Terms Announced for Rural Electric Loans," Rural Electrification Administration News, September, 1935, p. 7. Cooke made his decision early in the summer. He outlined the plan in detail in this, the first issue of the Administration's house organ.

[24]C. B. Turner to Sorensen, July 2, 1935, Sorensen Papers Box 19, Folder 1.

[25]Sorensen to C. B. Turner, July 3, 1935, Ibid.

[26]Franklin D. Roosevelt, Executive Order 7130, August 7, 1935. (Hereafter cited as Executive Order 7130).

previously included "thin" territory. Some of them accomplished this task with less tact than might have been desired. For example, the Southern Nebraska District, originally designed to encompass twelve counties, whittled its territory down to three counties--Adams, Phelps and Fillmore. Furnas, Harlan, Franklin and Webster Counties were excluded at a meeting to which their representatives had not been invited. When pressed for an explanation, directors of the reduced district maintained that they had to change their plans because of the Republican Valley flood. That disastrous flood, one of the worst in the state's history, caused fantastic property damage and personal loss in the excluded counties. The affected farmers were no longer considered financially able to utilize the amount of current necessary for sound projects.[27] Obviously, when they felt it expedient, power district administrators employed the same arguments used by the "power trust."

Cooke and his associates next had to decide to whom the agency would loan money. Cooke explained at his first press conference that REA could move in to handle projects independently or the agency could provide money to private utility companies, state or local governments, or farmer-operated ventures.[28] A month later, he stated the agency would probably

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[27]L. L. Cowan, Four Scores and Seven Years (Oxford, Nebraska: Oxford Centennial Committee, 1968), p. 318.

[28]New York Times, May 14, 1935, p. 27.

utilize all its options.[29] When REA decided to serve exclusively as a lending agency, however, the decision eliminated government-managed projects from consideration.

As Cooke viewed the situation, only the private power companies had sufficient organization, facilities and experience to handle successfully large-scale rural electrification.[30] His reasoning made good sense. At the time, private companies controlled 95 percent of the nation's electrical industry. Most of the rest was in the hands of municipal facilities which, on the whole, had no desire to expand beyond their city limits. Eighteen states besides Nebraska had legislation on the books permitting public power districts. In all of these states except Nebraska and Nevada, however, laws regulating formation and operation were so cumbersome as to render the procedure almost inoperable.[31] What is more, even in

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[29]Morris L. Cooke, "Electrify the Farm," Today, June 8, 1935, p. 22.

[30]Leonard Church, "New Deal Proposed in Rural Electrification, An Interview with Morris Llewellyn Cooke," Electrical World, July 6, 1935, p. 29. (Hereafter cited as Church, "Cooke Interview.")

[31]In 1935, the states with legislation allowing for the formation of public power districts were California, Arizona, Nebraska, Montana, Michigan, Washington, Oregon, Wisconsin, Wyoming, South Carolina, Alabama, Nevada, South Dakota, Tennessee, Mississippi, Idaho, Texas and New Mexico. All but Nebraska and Nevada required elections before districts could be organized. Most required elections before revenue bonds could be issued. Some required elections before every proposed extension. As a result of these obstacles, as late as 1949, only six states (Arizona, California, Nebraska, Nevada, Oregon, and Washington) actually had organized and put into operation public power districts. Penstone, "Power Districts and Cooperatives," pp. 445-446, 450-451.

Nebraska and Nevada, public power districts were untried and their organizers inexperienced. Rural electric cooperatives offered one possibility since there were already forty-five such organizations in the country when REA came into being.[32] The potential for farmer cooperatives seemed limited, however, because no state except Iowa had legislation specifically permiting the formation of electric cooperatives. Those in operation had organized under general cooperative laws subject to attack and differing interpretations in the courts. Several states did not have any cooperative laws.[33] Also, farmer cooperatives would be in the hands of persons not familiar with electrification projects.

One of Cooke's first official acts as REA director was to call upon representatives from his only acceptable alternative, the private power interests, to develop a nationwide plan for rural electrification. His overtures met with scepticism, but not, at first, with hostility. In Electrical World, power executive Hudson W. Reed pointed out all the pitfalls ahead in any rural electrification venture, but he also promised:

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[32]In 1935, those states with farmer-owned electric cooperatives were Idaho, Iowa, Minnesota, Washington, Wisconsin, Illinois, Indiana, Missouri, North Carolina, Wyoming and Virginia. Florence E. Parker, Consumer Cooperatives in the United States, 1936, Bulletin 659, U. S. Department of Labor, Bureau of Labor Statistics, 1939, p. 88. (Hereafter cited as Parker, Consumer Cooperatives.)

[33]Slattery, Rural America, pp. 38-39.

> There is no question as to the industry cooperating to the fullest extent with the Rural Electrification Administration. Assurance has been given to the Administrator that it will make every possible effort and sacrifice to further this desirable social program.[34]

The utility executives whom Cooke called upon formed a committee chaired by W. W. Freeman of the Columbia Gas and Electric Company to develop a feasible rural electrification program. They submitted a proposal in late July calling for the construction of 279,180 miles of rural lines in 1935 and 1936 to serve 351,000 rural customers. The committee estimated costs would be in the neighborhood of $238,000,000. They recommended that REA loan power companies $100,000,000, to which the industry would add $13,685,000, for lines, meters, transformers, and services. Other government agencies would then loan individual farmers $124,564,000 for house wiring, service extensions and appliances.[35]

Cooke rejected the report mainly because it included a statement that rate changes need not be considered. The executives claimed the farmers' problem was not excessive rates, but financing house wiring and appliances. To this Cooke replied:

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[34]Hudson W. Reed, "Rural Electrification," Electrical World, June 8, 1935, p. 58.

[35]"Private Utilities Submit a Program for Rural Electrification Partly Financed by REA Funds," Rural Electrification Administration News, September, 1935, p. 18; John D. Garwood and W. C. Tuthill, The Rural Electrification Administration, an Evaluation (Washington: American Enterprise Institute for Public Research, 1963), p. 5.

> On the contrary, we hold rate simplification and even rate reduction over large areas to be the heart of the problem of electrifying rural America. Naturally, in weighing the relative desirability of loans it will be necessary for REA to consider carefully existing and proposed rate structures with reference to developing the large use essential to the success of our program.[36]

After Cooke rejected their recommendations, the attitude which the utility interests displayed toward REA quickly changed to open hostility. The rejected report was not the only reason for this change in stance. In August, 1935, Congress passed and Roosevelt signed a lengthy utility act, proposed by Senator Norris, which called for close regulation of utility companies and required the destruction of the pyramided holding company network under which the industry operated.[37] The utilities planned to fight this legislation and felt it would do their cause no good to accept government money while opposing that government in court. Besides, they considered REA to be part of a New Deal conspiracy against utility interests. They also objected to the requirement that relief labor be employed on projects and they objected to procedural requirements for obtaining loans.[38]

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[36] "Private Utilities Submit a Program for Rural Electrification Partly Financed by REA Funds," Rural Electrification Administration News, September, 1935, p. 19.

[37] Public Utility Act of 1935, Statutes at Large, 49, pt. 1, 803 (1935).

[38] Frederick William Muller, Public Rural Electrification (Washington: American Council on Public Affairs, 1944), pp. 22-23. (Hereafter cited as Muller, Public Rural Electrification.)

By late summer, large-scale power company participation in any government-sponsored rural electrification program was out of the question. Electrical World expressed the new power company attitude in a September article refuting Collier's claim that rural electrification would vastly improve the nation's economy:

> Many citizens were surprised and interested to learn recently that the hidden secret of recovery had been discovered at last. It was nothing more nor less than the electrification of the American farm, with parlor lights in every pigpen and floodlights in every henroost.[39]

Failure to participate in the REA program did not mean failure to participate in rural electrification. In fact, after the creation of REA, power companies suddenly extended into areas never previously considered profitable enough for exploitation on reasonable terms. The Nebraska Power Company served as a prime example. One month after Roosevelt created REA, that company reduced farm service costs by 40 percent.[40] An advertisement in the Omaha Bee News informed farmers:

> Cheap electricity has been made available to every farmer living in the territory served by the Nebraska Power Co. . . . No longer will. . .farmers be forced to suffer the drudgeries and inconveniences that exist on farms which are not wired with cheap electricity. . . .Farmers who

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[39]Raymond S. Tompkins, "The Electrified Farmer in the New Deal Dell," Electrical World, September 14, 1935, p. 42.

[40]Joe Murphy, Omaha Public Power District, "Highlights in the History of Omaha's Electric Utilities," Prepared as reference for Omaha World-Herald Diamond Anniversary editorial, April 20, 1960.

> have not signed up for cheap electricity may do so before winter sets in. The Nebraska Power Co. will be glad to send a representative to any farm in the territory it serves and explain the new electric rates.[41]

Between 1927 and 1935, the Nebraska Power Company connected approximately 1,360 farms. During the next fifteen months, that company constructed 256 miles of rural line and served 761 new farms in the Omaha vicinity.[42]

The rural electrification picture improved considerably in 1935, but the biggest contribution REA offered this movement was the agency's presence as a potential competitor for the rural power market. Cooke and his staff received too few satisfactory applications from power companies or other groups for the agency to serve as a significant participant in rural electrification.[43]

By the end of 1935, it was obvious that most requests for money would come from farmer cooperatives. Many leaders of cooperatives not connected with electrification advised Cooke not to employ this type of organization in the rural electrification efforts because they feared government interference would hinder the cooperative movement. By default, however, REA turned to cooperatives as the most feasible

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[41] Omaha Bee News, October 27, 1935, p. 16F.

[42] E. M. Ruede, "We Serve Nebraska Farms; Density Only 2.2 Per Mile," Electric Light and Power, November, 1936, p. 30.

[43] Person, "REA in Perspective," p. 76.

organs for power development after the utility interests refused to participate in the program.[44]

The situation in Nebraska differed from that in most of the rest of the country. Since the state had highly satisfactory legislation on the books for the formation of power districts, electric cooperatives never gained a foothold in Nebraska for many years primarily because power districts were exempt from taxation while cooperatives were not.[45]

The cooperatives and the power districts created considerable difficulties for REA. Cooke believed the agency should serve the same functions as other government lending organizations--evaluation, auditing, and collection. He did not feel REA should become directly involved with borrowers or potential borrowers. If the inexperienced individuals who organized and operated the groups seeking funds were to have any chance to succeed, however, they had to receive guidance. REA had no choice but to assume an advisory role in order to protect its loans and make sure construction met acceptable standards.[46]

Cooke faced another serious problem. Soon after creating REA, President Roosevelt issued three directives designed to

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[44] Ibid.

[45] A few electric cooperatives were formed in Nebraska after World War II. Most of them were in thinly settled portions of the state. Penstone maintains this was due to farmers there being more familiar with the cooperative idea than in other areas of the state. Penstone, "Power Districts and Cooperatives," pp. 462, 464.

[46] Muller, Public Rural Electrification, p. 44.

insure that agencies funded by the Emergency Relief Appropriations Act provided relief to the nation's unemployed. These directives required that at least 25 percent of all monies expended by these agencies be spent for labor, and at least 90 percent of all labor be culled from relief rolls.[47] The Executive Order which established that REA would serve as a lending agency ameliorated these demands by specifically exempting the agency from their provisions except that:

> Preference in the employment of workers shall be given to persons from the public relief rolls, and except with the specific authorization of the Rural Electrification Administration at least 90 per cent of all persons working on a work project shall have been taken from the public relief rolls.[48]

Although Roosevelt permitted Cooke to make exceptions in the relief effort, he expected those exceptions would be few.[49]

Cooke could find no way to honor the President's expectations. Much money was needed for wiring, transformers, appliances and other tangible items, but relatively little was needed for labor. What is more, the workmen most needed were electricians and other skilled craftsmen not likely to be found on relief, especially in those areas most needing electrification. When Roosevelt pressured him to provide more work for the unemployed, Cooke concluded the agency

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[47]Person, "REA in Perspective," p. 71.

[48]Executive Order 7130.

[49]Cooke, "Early Days," p. 446.

could succeed only if divorced from the relief effort. He felt the program should be established independently through congressional legislation.[50]

At about the same time, Senator Norris reached the same conclusion. He wrote Cooke on October 24, 1935, requesting the Director's opinion of federal subsidies for a long-range rural electrification program.[51] Cooke replied that the agency hoped to be instrumental in doubling the number of farm consumers during the next year or two, but this would still leave 75 percent of the nation's farms without electric service. More progress required long-term federal aid. Cooke estimated:

> . . .it should be possible. . .to have fifty percent of all rural homes--farm and non-farm--electrified in 10 years at a total investment, private and public of $1,500,000,000.[52]

After this exchange, Norris drafted a rural electrification bill which he introduced into the Senate and Representative Sam Rayburn (Dem.) from Texas introduced into the House of Representatives in January, 1936. In that bill, Norris sought to prohibit utility companies from obtaining REA loans. He succeeded in giving preference to "States, Territories, and subdivision and agencies thereof, municipalities, peoples utilities districts, and cooperatives, non-profit

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[50] Ibid.

[51] "Senator Norris Proposes Federal Program to Electrify All Farms," Rural Electrification Administration News, November, 1935, pp. 4-6.

[52] Ibid, p. 9.

or limited dividend associations. . . ." The act provided for REA to receive $410,000,000 spread over the next ten years with $50,000,000 alloted for the first year and $40,000,000 for each of the following nine years. Loans financed by REA were to go to self-liquidating projects in areas ". . .not included within the boundaries of any city, village, or borough having a population in excess of fifteen hundred inhabitants. . . ."[53] Borrowers, using distribution lines and equipment for collatoral, were to repay their loans, plus the same interest which the government had to pay for its loans, within twenty-five years after project approval. REA was empowered to make additional loans to borrowing agencies, who could reloan the money to individuals, for ". . .the wiring of. . .premises. . .and the acquisition of electrical and plumbing equipment and appliances." REA personnel were to be selected on a non-partisan basis from civil service rosters. The agency was not to sponsor projects in areas where rural electrification was already available.[54]

After considerable debate, the bill passed Congress and Roosevelt signed it into law on May 20, 1936.[55] In September,

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[53]This clause, of course, prevented the development of any further schemes such as that Kline set forth to include Lincoln in the Eastern Nebraska District. Perhaps Norris had Kline in mind when he drafted this section.

[54]Rural Electrification Act, Statutes at Large, 49, 1361 (1936).

[55]The debate included a long, ludicrous argument over whether the United States had more or fewer electrified farms

the President transfered all jurisdiction, functions, records, personnel, and unexpired appropriations from the REA established by Executive Order 7037 to the REA established by the Rural Electrification Act.[56]

When the Rural Electrification Act went before Congress, it would have taken a confirmed optimist to judge REA a success. As Figure 10 illustrates, the agency had approved only forty-two projects. It had committed a little more than $8,000,000 out of the $100,000,000 allocated for rural electrification by the Emergency Relief Appropriations Act.[57]

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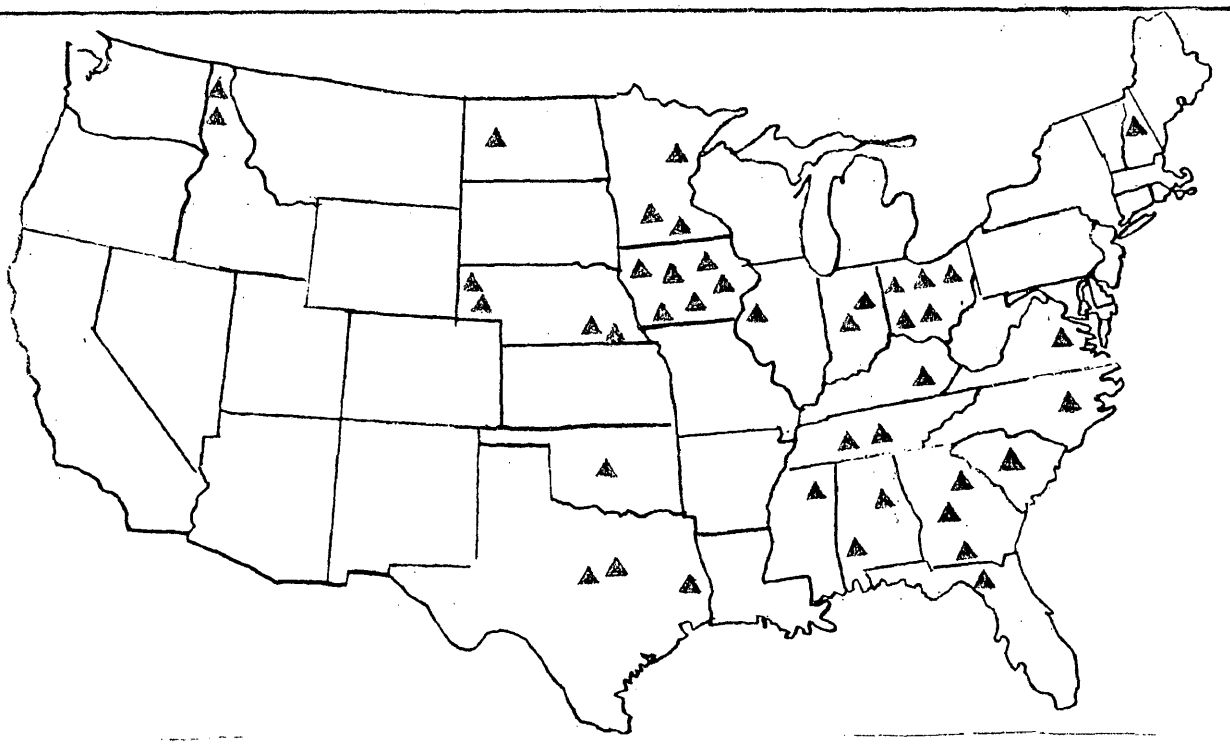
than other "civilized" nations. (See U. S. Congress, House, 74th Congress, 2nd Session, Congressional Record, April 9, 1936, 80:5278.)

A conference committee had to iron out differing opinions in the Senate and the House over interest rates and personnel selection. Norris sought to establish interest rates at 3 percent while the version of the bill passed in the House required borrowers to pay at least 3 percent, or any higher amount set at the discretion of the REA director. The House also felt personnel selection should not be subject to civil service requirements. Norris was willing to compromise on interest rates. In fact, when House members proposed a compromise whereby borrowers would pay the same interest rates paid by the government, Norris was pleased. Government interest rates seldom reached, let alone exceeded, 3 percent. The Senator refused to budge on his stand that personnel be under civil service because he felt the agency should be free from political patronage. When he threatened to carry the issue to the voters in that year's congressional campaign, the House delegates conceeded. Norris, Fighting Liberal, pp. 320-323.

[56]Franklin D. Roosevelt, Executive Order 7458, September 26, 1936.

[57]"Approved Rural Electrification Projects," Business Week, April 18, 1936, p. 38.

Figure 10
First Approved REA Projects



SOURCE: "Approved Rural Electrification Projects," Business Week, April 18, 1936, p. 38.

Nebraska fared relatively well from the first REA loans. The state received more that $1,000,000 of the first $8,000,000 advanced--more than any other state except Ohio.[58] Nevertheless, as a comparison between Figures 11 and 9 makes clear, fewer projects were funded than were seeking money, and none of those funded received as much money as requested.

Project approval did not necessarily mean immediate funding. REA approved the Lancaster County District, for example, but refused to advance any money until the State Supreme Court ruled on the District's legality. Although

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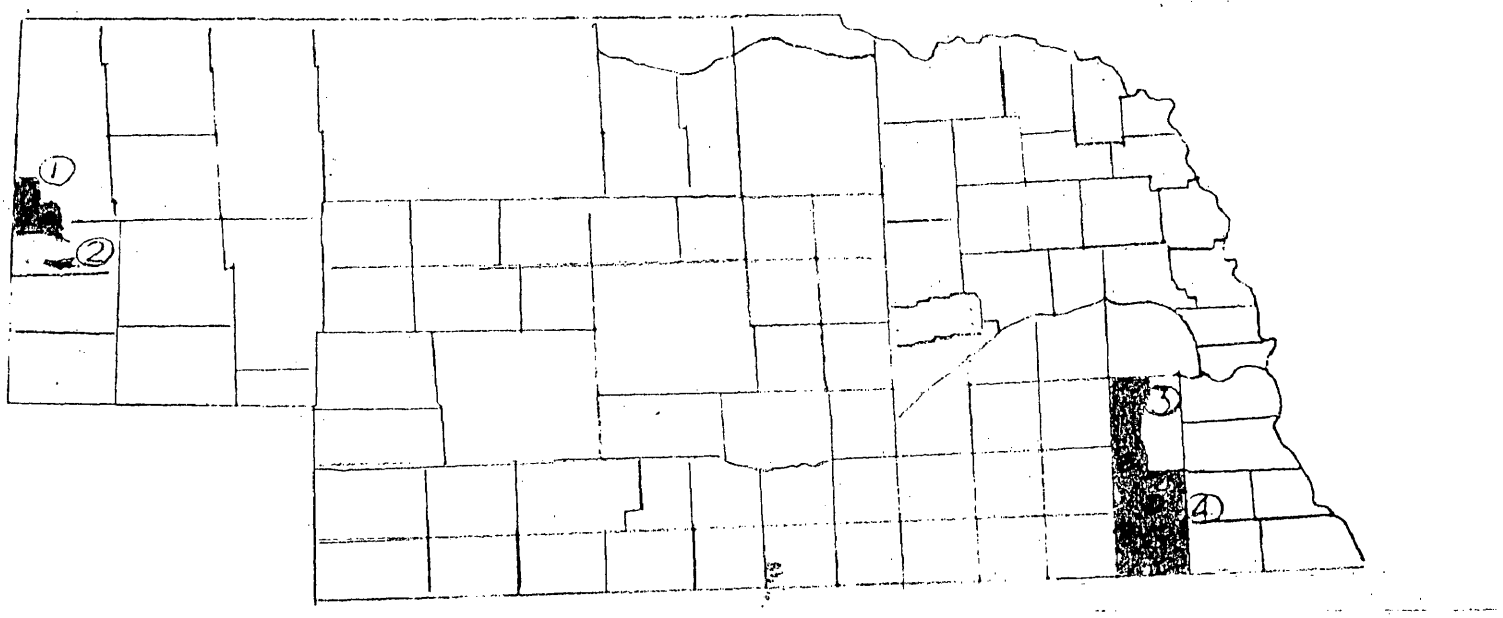
[58] Ibid.

Figure 11

First Approved REA Projects in Nebraska



	District	Counties	Customers	Miles of Line	Funds Allocated
1.	Roosevelt	Pts. of Sioux & Scotts Bluff	839	226.5	$310,000
2.	Gering Valley	Pt. of Scotts Bluff	143	47.0	65,000
3.	Lancaster Co.	Pt. of Lancaster	900	354.0	396,000
4.	Southeastern Nebraska	Most of Gage	1,117	450.0	440,000

SOURCE: "Approved Rural Electrification Projects," Business Week, April 18, 1936, p. 38; U.S. Rural Electrification Administration, Annual Report of the Rural Electrification Administration, 1939, p. 260.

the Eastern Nebraska District agreed to stay out of that part of Lancaster County which the Lancaster County District planned to electrify first, REA felt a test case was necessary. When the Department of Roads and Irrigation had approved both the Lancaster County and Eastern Nebraska Districts, that body,

in effect, had approved the creation of a district within a district.[59]

Supporters of another potential REA project eagerly awaited the Court's decision. The Southern Nebraska District had been formed within the borders of the Tri-County Power and Irrigation District. Convinced that the Lancaster County case would serve as a precedent for other rural electrification projects in Nebraska, REA postponed consideration of the Southern Nebraska application while the Supreme Court deliberated.[60]

The directors of the Loup River Power and Irrigation District were also uncertain the 1933 legislation allowing for the creation of public power districts permitted one district to be formed within another. When asked for an opinion, the State Attorney General, William H. Wright, reinforced their fears. Convinced that farmers in Platte County would be denied electricity if the Loup District did not aid them, the directors applied for an REA loan in February, 1936.[61]

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[59]Sorensen to Ralph E. Stephens, Secretary, Lancaster County Rural Public Power District, February 13, 1936, Sorensen Papers, Box 12, Folder 3.

[60]Sorensen to Ernest Sjogren, Director, Southern Nebraska Rural Public Power District, April 8, 1936, Ibid, Box 20, Folder 3.

[61]Columbus Daily Telegram, May 6, 1936; Interview with Paul Hamilton, Engineer, Chicago, Illinois, November 26, 1975. Hamilton, now living in Ohio, worked many years as an engineer for the Loup River Project. The author met him by chance while waiting for a plane at O'Hare International Airport in Chicago.

On April 4, 1936, the Supreme Court ruled that one district could be formed within another so long as their functions did not conflict.[62] One potential obstacle to rural electrification in the state had been removed. Other obstacles remained.

Sorensen was concerned about the provision in the Rural Electrification Act which prohibited REA from financing projects in areas where electrification was already available.[63] The Nebraska Railway Commission, whose responsibility it was to approve or disapprove line locations, routinely granted permits to any number of parties seeking to build lines along identical routes. Sorensen feared if REA construed permits to build lines, rather than lines actually built and energized, as valid reason for not financing projects,

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Firth claims the Loup District involved itself with REA to provide a market for its power supply. (See Firth, Public Power, p. 135.) It is unlikely that this is the entire explanation. In 1936, the Loup District had no power supply to market. Besides, few people believed farmers would consume much current. It is more likely that the district directors feared local antagonism if the farmers in other parts of Nebraska got electricity while they did not because a power district was already present.

[62] State, Ex. Rel. William H. Wright, Attorney General, Relator, v. Lancaster County Rural Public Power District et. al., Respondents, 130 Neb. 677 (1936.)

[63] Norris did not like this provision in his bill. He included it after consultation with other members of the Senate convinced him without it the bill would never pass the upper house. Norris, Fighting Liberal, pp. 323-324.

". . .then the private power companies of Nebraska will ask and obtain a permit along all the roads in the state."[64]

Sorensen had reason to worry about the power companies. The Iowa-Nebraska Power Company had secured a permit to construct 175 miles of lines in Lancaster County. A map which accompanied their application to the Railway Commission indicated the proposed lines were to be constructed in five to twenty mile segments throughout the county. Committees from the Lancaster County District polled farmers along the proposed routes. They learned that only a few had signed contracts to purchase electricity from the utility company. With few customer contracts in hand, Iowa-Nebraska could only have been motivated by a desire to obstruct the power district.[65]

In Western Nebraska, delay in securing REA approval for the Chimney Rock District created dissatisfaction. One district director expressed his fear to Sorensen that the eastern part of the state would obtain all REA money just as they had "used up the PWA fund."[66] That same director wrote to H. H. Henningson, the district's consulting engineer, suggesting that if he found it impossible to comply with REA's

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[64]Sorensen to Russel P. Fischer, Assistant Counsel, REA, April 11, 1936, Sorensen Papers, Box 12, Folder 3.

[65]Sorensen to Senator Norris, April 2, 1936, Ibid, Box 19, Folder 2.

[66]Frank Thomas, Director, Chimney Rock District, to Sorensen, May 24, 1936, Ibid.

demands for more engineering data, ". . .then we would be pleased to have you recommend some other responsible Engineering Co. who could take hold of this where you left off and get them going."[67]

C. B. Turner, temporary manager for all three Western Nebraska districts, felt REA was harrassing their projects unnecessarily. When the agency added a requirement that to be funded projects had to secure signatures from proposed power users, Turner complained, ". . .it will add considerable time and expense to the great amount of work that we have already done."[68] He was concerned especially because the Western Public Service Company was in the field recruiting some of the district's largest potential customers, ". . .for the first time and not until after we have worked so hard to get electricity for them."[69]

The Norris District failed to gain approval because its directors could not locate a wholesale power supply. On their application to REA, the directors indicated the district would buy power from whatever supplier would sell it the

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[67]Frank Thomas to H. H. Henningston (sic.), May 24, 1936, Ibid. (Copy.)

[68]C. B. Turner to Boyd Fisher, Chief Development Section, REA, June 28, 1936, Ibid. (Copy.)

[69]C. B. Turner to Morris L. Cooke, June 7, 1936, Ibid. (Copy.)

cheapest.[70] In October, however, REA informed Sorensen a definite supplier and a definite rate would have to be determined before the district could be approved.[71] The Mayor of Fairbury, P. D. Petersen, who had been instrumental in getting the district organized, talked with REA officials. He learned they would consider a rate of 1.25 cents per kwh acceptable. He assured Sorensen the town's municipal plant would try to meet this rate.[72] There the matter stood. Apparently the plant managers were not as willing as the mayor to secure new customers.

REA projects in Nebraska were not off to a good start a full year after the agency's establishment. Funding had been secured in a few instances, but no REA-funded projects were electrified. Indeed, no construction was under way.

The REA staff in Washington had ironed out many problems, and made some important decisions. The agency was guaranteed existence and had every expectation of funding for the next ten years. Yet, it was by no means certain that REA and the projects depending on the agency would be able to accomplish anything approaching large-scale rural electrification.

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[70]Sorensen to Bill Lawrence, Omaha World-Herald, July 24, 1935, Ibid, Box 14, Folder 1.

[71]Sorensen to R. N. McCord, October 11, 1935, Ibid.

[72]P. D. Petersen, Mayor of Fairbury, to Sorensen, November 12, 1935, Ibid.

Chapter IV

Organizing the REA Projects

The Rural Electrification Administration's primary goal, as identified by Director Morris L. Cooke, was ". . .to electrify as many American farms and farm homes as possible . . .in the shortest possible time."[1] The agency's biggest problem was to make that goal compatible with the requirement in the Rural Electrification Act that projects pay back the money loaned them within twenty-five years. Rural electrification could not be developed on a paying basis in most rural areas until technology and efficiency reduced costs and farmer-managed projects secured aid in organization, management and marketing.

In 1931, Maurice J. Kelly, operations superintendent for a large Canadian utility company, spelled out a program for reducing rural electrification costs. Kelly maintained construction in rural areas need not be as sophisticated, or expensive, as in urban areas. Since relatively few customers would be utilizing current, he considered it unnecessary to construct lines designed to carry heavy current loads along most rural routes. Kelly advocated developing simpler transformers and meters. He also felt poles could be safely spaced

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[1]Morris L. Cooke, "The New Viewpoint," Rural Electrification Administration News, October, 1935, p. 1. (Hereafter cited as Cooke, "Viewpoint.")

at wider than customary intervals. He recommended standardized and simplified record-keeping systems along with strict employee accountability for keeping administrative costs at a minimum.[2]

Kelly submitted a paper encompassing his recommendations to the National Electric Light Association (NELA), the organization in the United States most likely to be interested in reducing costs. Since Kelly seemed to have discovered the secret to increased rural distribution profits, the NELA awarded him a prize for his innovative approach, and then largely ignored his suggestions.[3]

Cooke and his staff were not interested in increasing profits, but they were interested in reducing costs in order to lessen the farmer's financial burden for electrification. Cooke believed that if farmers were provided with inexpensive electric power, they would refute the theory that farmers never utilized enough current to make serving them feasible. He proposed to eliminate all charges for lines, transformers and other items except current, house-wiring and appliances. He felt farm customers should pay a minimum monthly amount of no more than $3.00 to $3.50 which would include forty or fifty kwh of current. Cost per kwh would be lowered substantially for electricity utilized

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[2]Maurice J. Kelly, "Profitable Rural Distribution," NELA Bulletin, February, 1932, pp. 76-77+.

[3]Kelly received the Second Annual McGraw Prize, Ibid, p. 76.

beyond the minimum. What is more, Cooke favored explaining minimum charges and rate schedules in an easily understood fashion to all farm customers.[4]

REA adopted, and expanded upon, the methodology for reducing costs set forth by Kelly in an effort to meet Cooke's rate expectations while at the same time making it possible for projects to pay for themselves in twenty-five years. For example, REA engineers adopted lighter, cheaper lines for most rural projects.[5] REA engineers reduced costs substantially by initiating "wide area coverage." Rather than constructing lines in a haphazard fashion to each customer as had been the practice, this process called for lines to be constructed over wide areas to include as many farms as possible, even if every farm did not subscribe to electrification at the time.[6]

The engineers promoted other cost-reducing techniques. They reduced construction costs $70.00 per mile by expanding distance between poles to approximately 400 feet as compared with the previously standard 200 to 250 feet. REA also helped an enterprising inventor market a transformer costing $21.00 to replace the $60.00 product then in use. The agency adopted

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[4]Cooke, "Viewpoint," pp. 2-3.

[5]Robert T. Beall, "Rural Electrification," 1940 Yearbook of Agriculture, Farmers in a Changing World, (Washington: U.S. Department of Agriculture, 1940), pp. 797-798. (Hereafter cited as Beall, "Rural Electrification.")

[6]Morris Llewellyn Cooke, "Electricity Goes to the Country." Survey Graphic, September, 1935, p. 508.

a meter which farmers could, and did, read themselves. The old-style meter cost $10.40; the new, $7.50 with no overhead for a meter reader's salary. The agency also introduced an efficient assembly line process for line construction which greatly reduced time and cost in the field. REA accountants worked to lower costs by standardizing record-keeping methods. They also worked out arrangements with companies to provide cheaper workmen's compensation, public liability and other insurance needs for rural electrification projects.[7]

The cost-reducing campaign was highly successful. When REA went into operation in 1935, it cost between $1,500 and $2,000 to construct a mile of rural line. By 1938, that amount had been cut to between $700 and $1,000 per mile.[8] Perhaps the greatest proof of this success came when private utility companies adopted most of the cost-reducing techniques as their own.[9]

Lowering amounts which projects needed to borrow from REA was not enough. The Rural Electrification Act stipulated projects could be loaned money which could be reloaned to individuals at low interest rates for wiring and appliances.

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[7]Slattery, Rural America, pp. 49-56.

[8]John R. Carmody, "Electricity for the Farmer," in M. B. Schnapper, ed., The Federal Government Today, a Summary of Recent Innovations and Renovations (New York: American Council on Public Affairs, 1938), pp. 73-74.

[9]G. A. Clark, "Rural Electrification, the Cost and the Cure," Electric Light and Power, August, 1935, pp. 20-23; Lew Meyers, "Building 'Last Frontier'", Flash, June, 1939, pp. 8-9.

Many depression-ridden farmers, however, were reluctant to increase their indebtedness. REA, therefore, found a way to reduce expenses for individual farmers. The agency developed a group-wiring plan whereby all farmers in a given project contracted to have wiring done on a competative bidding basis. After the plan was implemented, home wiring costs declined from an average of $70.00 to $55.00 for each home. REA also instituted group purchasing for appliances and they found lighting manufacturers willing to put together packages, each containing enough light fixtures for a six-room house, at a cost of about $18.00 per package.[10]

Lower costs signified little if projects were not organized on sound economic and management principles. To insure sound local organizations, REA expended considerable time and effort advising and watching over proposed and funded projects. Field representatives handled most of the agency's advisory responsibilities. These representatives were all directly responsible to REA in Washington because Cooke decided early that the agency would serve its functions most efficiently if there were no regional offices. REA divided the nation into units for administrative purposes and staffed each unit with a utilization representative, who had marketing responsibilities, a home electrification specialist and an agricultural electrification specialist. These persons lived

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[10]U.S. Department of Agriculture, Rural Electrification Administration, Rural Lines-U.S.A.: The Story of Cooperative Rural Electrification, Miscellaneous Publication 811, 1966, p. 12. (Hereafter cited as USDA, Rural Lines.)

in the areas which they served, but they did not maintain regional offices.[11]

The field representatives supposedly were not responsible for organizing projects. Their function was to aid projects organized through local initiative by attending meetings, advising and answering questions about procedure whenever called upon to do so. In practice, however, some REA field personnel actively participated in project organization.[12]

Field personnel acted to see that local projects fulfilled REA requirements. These requirements were many. REA restricted all expenditures to construction, transmission maintenance and necessary personnel. The agency insisted upon the right to approve banks where funds were deposited. They also exercised the right to approve managers, construction superintendents, consulting engineers and attorneys. Field personnel supervised bid openings, and checked all contracts let for construction, materials, engineering, and wholesale power supply. All projects had to carry sufficient insurance, and the carriers had to be approved. Books had to be kept up-to-date and subject to periodic audit. Monthly and annual reports had to be prepared. No lines could be energized without proof of proper construction and no houses could be served

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[11] "Six Field-Utilization Units of REA Sponsor Load Building in 38 States," Rural Electrification Administration News, October, 1937, p. 15.

[12] Muller, Public Rural Electrification, pp. 95-96.

until inspected for wiring safety. Borrowers could not dispose of encumbered property without REA approval. Projects had to charge rates high enough to meet all expenses, plus pay on principle and interest owed REA.[13]

REA assumed responsibility for encouraging farmers to utilize enough electricity to keep projects solvent. As part of this campaign, the agency sent a monthly periodical, The Rural Electrification Administration News, to project customers. That publication kept farmers abreast of agency decisions, new uses for electricity, technological advances, and significant developments in REA projects all over the country. To this publication, REA added posters, brochures, and pamphlets which were sent to persons requesting information. Part of the information disseminated included details about new uses REA engineers discovered for electricity on the farm. REA also provided material to farm publications pointing out that increased power consumption meant decreased cost per kilowatt hour.[14]

Early in 1937, Morris L. Cooke, the guiding spirit of REA during its formative period, resigned as REA director. His successor, John R. Carmody, had worked with REA since the agency's inception. He had also been chief engineer for

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[13] Ibid, pp. 92-94.

[14] For examples of material printed in farm publications encouraging increased consumption, see, "R.E.A.," Farm Journal, March, 1937, p. 63; "Wanted--More Farmers Who Use Electricity Because it Pays," Nebraska Farmer, March 15, 1937, pp. 7+.

the Civil Works Administration, a member of the Railway Mediations Board, and a member of the National Labor Relations Board.[15]

Under Carmody, REA moved to advance rural electrification by influencing state legislatures. The agency developed a model Rural Electrification Cooperative Act in 1937, and recommended its adoption to legislatures in states which had inadequate or no cooperative legislation.[16] Carmody presided over an innovative approach to marketing in 1938 when REA organized a Farm Equipment Demonstration tour. The "REA Circus" as the tour was popularly dubbed, took electric powered farm equipment and appliances supplied by hopeful manufacturers and retailers on truck beds to newly-organized projects and put on practical demonstrations. These shows relied upon agricultural extension agents and personnel from State Agricultural Colleges for publicity and recommendations for likely local "best sellers." The tours were highly popular. They also sold equipment and introduced new power marketing techniques.[17]

Local power projects benefited enormously from REA attention. Nebraska's rural power districts, for example,

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[15]Paul W. Ward, "Washington Weekly," Nation, March 27, 1937, p. 343. (Hereafter cited as Ward, "Washington Weekly."

[16]Slattery, Rural America, p. 45.

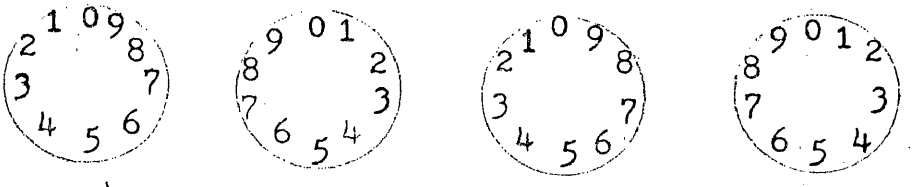
[17]U.S. Rural Electrification Administration, Annual Report of the Rural Electrification Administration, 1939, pp. 76-80. (Hereafter cited as REA, Annual Report, 1939.)

quickly and gratefully adopted most of the innovations REA developed for their benefit.

The self-read meter was a popular item in Nebraska. In his 1937 Annual Report, the Agricultural Extension Agent for Johnson County in the Southeast Nebraska District explained the utilization of these meters. Each month, the power district mailed cards to consumers:

READ YOUR OWN METER

10,000 1,000 100 10



Kilowatt Hours

The above represents your meter dials. To record the reading, mark these dials with a line in the position which you see the hands on your meter.

MARK YOUR METER CARD THE 28th AND RETURN AT ONCE.

Name: _____

Date: _____

The District then computed charges due and sent out billings.[18] Such a system left the door open to fraud, but no evidence indicates farmers reported less electricity than they actually consumed.

Many of the power districts took full advantage of the REA plan to wire farms and purchase appliances in quantity.

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[18]Lewis F. Boyden, Johnson County Agricultural Extension Agent Annual Report, 1937, County Agricultural Extension Agents Annual Reports, Agricultural Extension Office, Lincoln, Nebraska, p. 38. (Hereafter cited as Agricultural Extension Agent Report.)

Some districts made satisfactory arrangements for wiring with local farm bureau cooperatives. In Howard County, the Farm Bureau Non-stock Cooperative purchased house wiring materials wholesale and resold them at actual cost plus 10 percent. The agricultural agent estimated this venture saved each farm an average of $20.00[19] In Burt County, the Farm Bureau charged cost plus 35 percent for wiring materials, but this amount also covered labor for an experienced supervisor and three crews who wired the farms.[20]

Mass appliance purchases not only benefited farmers, but also some merchants. The Sears and Roebuck Store in Beatrice, for example, gleefully reported selling ninety-three refrigerators within a month after rural lines were energized in Gage County.[21]

REA field representatives performed valuable services for Nebraska's rural power districts. One of the most important functions was to speak before mass meetings called to organize districts. A meeting in Wayne was probably typical. There, G. J. Long of the REA spoke on the same program with Wayne Thurman of the Agricultural Extension office in Lincoln. The two speakers explained procedures for organizing REA projects,

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[19]A. W. Krueger, Howard County Agricultural Extension Agent Report, 1939, p. 12.

[20]W. E. Beachler, Burt County Agricultural Extension Agent Report, 1937, p. 17.

[21]Clipping from Nebraska Hardware Merchant, December, 1937, Sorensen Papers, Box 66, Scrapbook Volume XXXI.

repayment terms, possible power supplies, and anticipated rates to over one hundred farmers and their families. The group then voted to attempt to organize a project.[22]

Not all meetings produced immediate action. Long travelled over snow-packed roads to a meeting in Merrick County where only forty farmers turned out to hear him speak.[23] Two years later, the hoped-for project was still not under way.[24] The representatives sometimes did more than speak. In Cedar County, the REA representative conducted a training session for volunteers who were to canvass farms for potential customers.[25]

REA representatives also held meetings to encourage power consumption. After lines were energized in Platte County, representatives held meetings in Columbus where local merchants exhibited appliances and farm equipment to encourage farmers to utilize electricity.[26] A meeting in Dakota County explained to farmers who had not originally registered intent

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[22]Wayne Herald, December 17, 1936.

[23]R. A. Stewart, Merrick County Agricultural Extension Agent Report, 1937, p. 25.

[24]Ibid, 1939, pp. 34-36.

[25]Myrle F. White, Cedar County Agricultural Extension Agent Report, 1936, p. 21.

[26]Walter E. Spilker, Platte County Agricultural Extension Agent Report, 1938, p. 58.

to take electricity from the REA lines that it was still possible to get extensions to their farms funded by the project's allotment.[27]

The REA Circus was very popular with Nebraska farmers who obtained electricity from the REA projects. When the Circus appeared in the Cedar-Knox District, for example, between 1,200 and 1,500 spectators turned out to view the equipment on display. A radio interviewer broadcasting from the scene asked passers-by how much money they intended to spend in the near future for electrical appliances. Answers ranged from $100.00 to $500.00.[28] In view of the depressed economic conditions of the time, the farmers and their wives must have been highly impressed with the equipment on display.

Although Nebraska's rural power districts singly and collectively acknowledged a debt to REA that went far beyond repayable borrowed funds, the relationships between the funding agency and the power districts were often far from harmonious. Not even all of REA's engineering advances met with universal approval.

The Agricultural Extension Agent for Morrill County considered REA's decision to approve only light-line construction a serious mistake. Since many customers in the Chimney Rock District proposed to utilize electricity for

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[27]Walter E. White, Dakota County Agricultural Extension Agent Report, 1939, p. 29.

[28]Coleridge Blade, December 28, 1938.

irrigation, he felt they would soon need more than the single-phase current carried on the light lines.[29] Apparently REA agreed that irrigation necessitated heavier lines in some instances. The Buffalo County Rural Public Power District, most of whose customers hoped to irrigate their land, became the first REA project in the United States funded to build lines designed to carry three-phase rather than single-phase current.[30]

John P. Robertson, Senator Norris' secretary, notified Sorensen that REA was dissatisfied with the Henningson Engineering Company, consulting engineers for many of Nebraska's power districts, because the company insisted upon more stringent standards than the agency felt was necessary.[31] This disfavor resulted when the Henningson Engineering Company protested REA's plan to lengthen distance between poles. That company believed wind and ice would break lines if the new plan were instituted on the Great Plains.[32]

Relations were not always cordial between REA personnel and individuals in the power districts. Petrus Nelson, Manager of the Polk County District, ordered a representative

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[29]A. C. Nelson, Morrill County Agricultural Extension Agent Report, 1937, p. 12.

[30]Leonard Wenzl, Buffalo County Agricultural Extension Agent Report, 1937, p. 27.

[31]John P. Robertson to Sorensen, June 29, 1936, Sorensen Papers, Box 12, Folder 3.

[32]Richardson Interview.

from the REA Utilization Division to leave the state.[33] The Home Demonstration Agent for Burt County resented that REA field representatives showed up in the district without advance warning, expecting well-attended meetings at a moment's notice.[34] The Henningson Engineering Company believed the REA engineers who supervised engineering contracts in Nebraska harrassed the company on several occasions.[35]

Late in 1935, the state's rural power districts organized into the Nebraska Association of Rural Public Power Districts. At the Association's annual meeting in December, 1938, W. W. Teare, Field Representative for REA, took it upon himself to oppose the group's plan to assume publication of a monthly newsletter, Electric Service, then being published locally by one of the districts. The secretary's minutes reported Mr. Teare's comments were ". . .resented by all those present."[36] REA opposed the publication because the agency considered it

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[33]Boyd Fisher, REA, to Sorensen, May 2, 1938, Sorensen Papers, Box 28, Folder 10. (Hereafter cited as Fisher to Sorensen, May 2, 1938, Sorensen Papers.)

[34]Miriam T. Fraser, Burt County Home Demonstration Agent Annual Report, 1937, pp. 59-60.

[35]Richardson Interview.

[36]Nebraska Association of Rural Public Power Districts, Minutes of the Third Annual Meeting, December 9, 1938. (Typewritten), Nebraska Rural Electrification Association, Lincoln, Nebraska. (Hereafter cited as Nebraska Association of Rural Public Power Districts, Minutes.)

to be a "potential racket."[37] REA's wishes prevailed. By July, 1939, Electric Service had been withdrawn from circulation at REA's insistence.[38]

REA control over manager selection created some friction. Project managers had difficult jobs. They had to supervise installation and upkeep of equipment, maintain lines, and connect new customers. They also served as office managers, hiring, firing, and training personnel and supervising all accounting procedures. They had to satisfy and consult with local boards and they kept REA informed of project development. Managers, as project representatives, served important public relations functions. It also fell to managers to see that contractors met their obligations.[39] Understandably, REA insisted that individuals hired to serve as managers be experienced and qualified. In 1938, Directors of a district formed in Hamilton County indicated preference for Arnold Erickson, a local resident, to serve as project manager. REA disapproved Erickson's appointment because he had no previous experience with electrification. The Board of Directors

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[37]Fisher to Sorensen, May 2, 1938, Sorensen Papers.

[38]Nebraska Association of Rural Public Power Districts, Minutes, July 7, 1939.

[39]Slattery, Rural America, pp. 60-62.

immediately protested this decision.[40] In this instance, REA relented. Although Erickson was ". . .the type of man who. . .would very likely fail to service with maximum effectiveness," the agency feared local opposition would hinder another candidate's ability to handle the position.[41]

REA exercised veto power to ease the Henningson Engineering Company out of Nebraska's rural electrification projects. Early in 1939, REA refused to approve the firm for engineering work on any future projects on the grounds that the company already had more REA work than could be satisfactorily handled.[42]

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[40] T. A. Williamsen, President, and Edwin Huenefeld, Secretary, Board of Directors, Hamilton County Rural Public Power District to C. A. Winder, Director, Division of Operations Supervision, REA, December 22, 1938, Sorensen Papers, Box 26, Folder 2. (Copy.)

[41] C. A. Winder to Sorensen, January 5, 1939, Ibid, Folder 3.

[42] Ibid. Henningson believed this action resulted because a new REA regional engineer, Ben Kreim, had a consulting engineer friend for whom he hoped to secure REA work. Richardson Interview. There is some evidence, however, that REA was dissatisfied with Henningson long before Kreim became regional engineer. In 1936, one of REA's field representatives told the manager of the Chimney Rock District that REA was sceptical of Henningson because he had been associated with several power company operations before he contracted to work on REA projects. C. B. Turner to Sorensen, July 8, 1936, Ibid, Box 19, Folder 2. In that same year, Sorensen received a letter from REA suggesting another engineering firm be selected to handle the Polk County project since Henningson already had more work than he could handle. REA (no signature) to Sorensen, November 11, 1936, Ibid, Box 10, Folder 2.

This move caused financial loss to Henningson's company beyond what might have been gleaned from future contracts. Under the assumption that REA's decision would be rescinded, Henningson proceeded to perform engineering work for the Northeast Nebraska District near Dakota City. When he submitted a statement for $1,744.40 to cover his services, REA refused to approve payment.[43]

Not even the man who was perhaps the state's hardest working REA advocate escaped censure from REA. In 1938, the agency's General Counsel's office in Washington suggested that Sorensen handled too many projects to be fully effective and insisted that local attorneys be retained to assume part of the load.[44] Although Sorensen was overworked, that others would reap financial reward after he paved the way must have been a bitter blow to an individual who, although not personally wealthy, had performed Herculean efforts, sometimes for years with little or no compensation.

Sorensen reached an agreement with the Norris District in March, 1935 whereby he would receive $300.00 and no more until the federal government advanced funds to the project. When he journeyed to Washington in June, Sorensen had not yet

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[43]A. L. Budwig, Project Superintendent, Northeast Nebraska Rural Public Power District, to Sorensen, March 1, 1939, Sorensen Papers, Box 21, Folder 2.

[44]Allen Moore, Special Assistant to REA's General Counsel, July 23, 1938, Ibid, Box 28, Folder 9.

received any part of his retainer. He requested the directors to advance some money in order that he could afford to travel in the district's interests.[45] It was another month before the directors advanced $100.00.[46] In August, 1937, Sorensen received his first payment from the Polk County District.[47] His appreciation note expressed what must have been heartfelt relief. "You don't know how glad I am to get this. It is now more than two years since we started work on this project."[48]

Sorensen detailed his duties in reply to a request from REA that he do so in order to give the agency some idea of what constituted "reasonable" compensation. He attended and addressed mass meetings preparatory to district formation and he attended as many board of director's meetings as possible after districts were formed. He mediated disputes within districts and served as intermediary between the districts and REA. He advised on personnel selection and pay scales. He suggested adequate charges for project patrons. The attorney

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[45]Sorensen to R. N. McCord, Director, Norris Rural Public Power District, June 3, 1935, Ibid, Box 14, Folder 1.

[46]Sorensen to L. S. Hiatt, Secretary, Norris Rural Public Power District, July 9, 1935, Ibid. This letter expressed appreciation for the advance.

[47]E. K. Ekstrand, Manager, Polk County Rural Public Power District, August 14, 1937, Ibid, Box 10, Folder 3.

[48]Sorensen to E. K. Ekstrand, August 16, 1937, Ibid.

represented districts before the Department of Roads and Irrigation, the State Railway Commission and in court when necessary. He did all he could to prevent incompetent or corrupt firms from cheating projects. Sorensen drafted petitions for organizations and contracts for services, equipment, and power supply. He served as friend and adviser to inexperienced managers and directors. His importance to each district was such that the lawyer did not dare take a vacation. As Sorensen explained, "If I were gone two weeks. . .the districts which I represent would probably think it necessary to get another attorney."[49] An examination of his personal papers indicates Sorensen did not exaggerate his efforts in the slightest.

REA restrictions on utilization of borrowed funds created no end of difficulties for the power districts. One major problem centered around Nebraska's obsolete rural telephone systems. These systems used only one transmission line and completed the circuit through the ground. The REA projects also utilized the ground for the return circuit. As a result, the more powerful electric lines created such loud hums on the telephone lines that telephones were rendered inoperable. In most cases, many of the same persons served by the small

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[49]Sorensen to Allen Moore, July 26, 1937, Ibid, Box 28, Folder 8. (Hereafter cited as Sorensen to Moore, July 26, 1937, Sorensen Papers.)

telephone companies which owned these lines hoped to be served by the power projects. The telephone companies favored modernizing their lines by constructing a second line for return circuit. In this way, they could not only accomodate the power projects, but also provide better customer service. Unfortunately, most of them could not afford to do so, and, against the wishes expressed by local projects, REA refused to allow funds borrowed from the agency to be used for this purpose.[50]

Several power projects in the state suffered from this situation, but the consequences were probably most severe in Hamilton County. The Hamilton County Farmers Telephone Association fully appreciated the need for electric service. Yet, when an ice storm wiped out the company's financial reserves, there was no money left for modernization. Consequently, the company's stockholders voted against signing a requested waiver of damages for the power district.[51] Sorensen favored testing the telephone association's right to stand in the way of an REA project in court, but the district's board of directors, who understood the telephone company's plight, publicly declared:

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[50]Richardson Interview.

[51]Aurora News, February 24, 1939.

> . . .the Board of Directors of the Hamilton County Rural Public Power District request any and all persons to refrain from taking any action against the Hamilton County Farmers Telephone Association as such action would be detrimental to both the Telephone Association and Rural Electrification.[52]

The Hamilton County District originally planned to construct 200 miles of lines to serve over 500 farms. Rerouting to avoid telephone lines reduced the district to eighty miles of line serving fewer than 200 customers.[53]

REA's insistence upon farm wiring inspection before lines could be energized created additional difficulties for the power districts. Nebraskans realized the advisability of farm inspections. As Sorensen pointed out, "when a project gets under way the farmers are besieged by electricians, good, bad, and indifferent. Some of them are honest but incompetent and some of them just ordinary shysters."[54] Inexperienced farmers had no way to know if buildings were safely wired if they were not inspected. Difficulties arose because the districts found it hard to find a satisfactory agency to perform the inspection service since REA would not allow borrowed funds to be used for this purpose. The first solution came from the state's Association of Farm Insurance Companies. That group, which insured 85 percent of the state's farms,

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[52] Ibid, March 3, 1939.

[53] H. Paul Cooke, Hamilton County Agricultural Extension Agent Report, 1937, p. 27.

[54] Sorensen to Moore, July 26, 1937, Sorensen Papers.

agreed to inspect free of charge all farms which they insured, and those farms not insured for a small fee.[55] The arrangement, which proved to be more costly than anticipated, was not satisfactory for the insurance association. As a result, the group suspended their inspection program on November 1, 1937.[56] Representatives from REA then contacted the Governor's Office and requested the state to assume responsibility for farm inspection. Governor Roy Cochran agreed that the State Fire Marshall's office would take on the task.[57]

The Fire Marshall, Horace M. Davis, concluded his office could best assure safe practices if those persons wiring farmsteads were properly trained. He, therefore, established wiring schools in districts where lines would soon be energized.[58] There were two types of wiring schools; one type trained farmers who hoped to wire their own and their neighbors' premises, while the other informed professional electricians about new techniques and minimum REA standards. A district in Stanton County particularly appreciated the school to train farmers. There, many depression-ridden farmers along the REA lines hoped to save money by wiring their own farms

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[55] Ibid.

[56] H. J. Requartee, Chairman, State Association of Mutual Insurance Companies, to J. W. Pyles, REA, October 25, 1937, Ibid, Box 28, Folder 8.

[57] Sorensen to R. N. McCord, November 1, 1937, Ibid, Box 14, Folder 3.

[58] Nebraska Association of Rural Public Power Districts, Minutes, February 25, 1938.

and secure added income by wiring buildings for more financially secure neighbors.[59] Both types of schools were held in York County. The school for farmers drew more people than there were chairs in the meeting room.[60] The County Agent doubted farmers actually benefited from the school because the instructor used terminology beyond the experience of most of those present. He felt the school for electricians, however, did do much ". . .to raise the standard of wiring in not only farm homes but also town homes."[61]

Several districts encountered difficulty because REA would not approve using borrowed funds to buy easements for crossing private property. Most landowners raised no objections to having poles and wires cross their lands, even if they themselves did not want electricity. There were, however, a few recalcitrants in every district, especially since they were not paid for any inconvenience caused them. Although by law power districts enjoyed the right of eminent domain, exercising that right was a long, expensive procedure which the power districts felt it advisable to avoid whenever possible.[62] For example, when a landowner in Lancaster County insisted

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[59]Walter R. Chase, Stanton County Agricultural Extension Agent Report, 1939, p. 46.

[60]York Daily News-Times, February 22, 1939.

[61]P. B. McMullen, York County Agricultural Extension Agent Report, 1939, p. 27.

[62]Sorensen to Moore, July 26, 1937, Sorensen Papers.

that if a pole and guy wires were not removed from his property, he would move them himself, it proved more expedient to move the offending items than take the case to court.[63]

Important as it was to reach a satisfactory relationship with REA, organizing and developing power projects involved many other factors. Although most farmers wanted electricity, some local persons or groups had to expend considerable effort before desire could be translated into reality. Frederick William Muller described those persons who exercised the needed initiative. In most cases, leadership came from the same persons who were active in other rural activities. They were ". . .the same kind of men, very often the same men, who were on the Farm Bureau Board of Directors, or the soil conservation committee or the school board."[64] Farm organizations, especially the Farm Bureau, played important parts in the rural electrification effort.[65]

Nebraska exemplified the national pattern. In fact, more "prominent" citizens were leaders in rural electrification than was true in most other states. The 1933 legislation under which the power districts were organized permitted all eligible voters within a district to serve on boards of directors.

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[63]Sam C. Zimmerman to Lancaster County Rural Public Power District, February 9, 1935; Sorensen to H. H. Henningson, February 22, 1938; H. H. Henningson to Sorensen, February 24, 1938, Ibid, Box 12, Folder 5.

[64]Muller, Public Rural Electrification, p. 75.

[65]Ibid, pp. 72-73.

As a result, non-farmers were as eligible as farmers to organize and lead power projects. The Eastern Nebraska District relied especially on non-farm leadership. The President of the Board of Directors was a prominent physician, Dr. A. P. Fitzsimmons of Tecumseh, the secretary was newspaper editor George Kline, and Charles W. Bryan, Mayor of Lincoln and former governor, served as a board member for a short time.[66] Sorensen felt REA officials were more inclined to favor projects if they had influential leaders. He believed, however, that well-known and wealthy farmers were more likely to gain REA support than were prestigious non-farmers.[67]

Nebraska's Farm Bureau leaders played an important role both in organizing and in managing rural electrification districts. In fact, these leaders, working in conjunction with the county agricultural extension agents under the direction of the State Extension Office in Lincoln, probably exercised more influence than any other group at the local level.

The county agents were often the individuals who compiled information about rural electrification and took the initiative to organize power districts. Myrle F. White, agent for Cedar County, exemplified the procedure generally followed.

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[66]Sunday Omaha World-Herald, August 11, 1935, p. 11A.

[67]Sorensen to Glen Wallace, May 6, 1935, Sorensen Papers, Box 20, Folder 2.

In 1936, he and a few interested farmers investigated the requirements for organizing power districts. He then discussed a potential project with some of the county's leading farmers who agreed the matter was worthy of consideration by the Farm Bureau Board of Directors. The Board called a county-wide mass meeting addressed by representatives from REA, a representative from the Henningson Engineering Company, and a member of the Board of a power project that had already organized. When those attending voted to proceed with a project, White divided the audience into precincts, and each precinct elected local chairmen who in turn elected a county chairman and chose the county agent to serve as secretary and official correspondent. This group comprised a temporary board of directors until the voters could choose a permanent board at the next general election.[68]

County agents frequently influenced director selection. For example, agent A. H. Maunders of Phelps County which made up a part of the Southern Nebraska District reported that although the district was the brainchild of the Hastings Junior Chamber of Commerce rather than the Farm Bureau, "Mr. Ernest T. Sjogren of Axtell and Mr. Forrest Morrison

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[68]Myrle F. White, Cedar County Agricultural Extension Agent Report, 1936, pp. 20-23. County agents frequently served districts as secretaries. The author attempted to learn why this was true, but was unable to obtain any definite information. A likely explanation is that county agents were often the best educated individuals in the districts' leadership strata. They were also accustomed to frequent written communication.

of Loomis were selected as temporary directors for Phelps County, at the suggestion of the Agricultural Agent."[69] In Seward County, those who attended the mass meeting called to organize a district, authorized County Agent K. C. Foutz to select the entire temporary Board of Directors.[70]

County agents sometimes concluded power projects were not feasible even though local farmers believed differently. H. Paul Cook of Hamilton County thought crop failures precluded a successful project in that county. Nevertheless, because so many people expressed interest, he determined to give it a try. As a result, by 1939, the county had an energized, although struggling, power district.[71] In Fillmore County, interest in rural electrification remained high even after the Southern Nebraska District excluded the county from its organization plans. Agent Paige G. Hall, however, decided that a project was not feasible because of poor crops, adverse weather conditions, and, most especially, an unfavorable tenant-landlord situation:

> In Fillmore County there are approximately 73% of the farms operated by tenants. Because of the crop conditions, the landlord has not received during the past several years of drouth conditions enough income

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[69] A. H. Maunders, Phelps County Agricultural Extension Agent Report, 1937, p. 23.

[70] K. C. Foutz, Seward County Agricultural Extension Agent Report, 1937, p. 16.

[71] H. Paul Cook, Hamilton County Agricultural Extension Agent Report, 1937, p. 36.

> from the farm to pay the taxes. He is not in any frame of mind to cooperate with either the tenants or a rural electrification program committee in putting any more expense in improvements of this nature on his farm.[72]

Although the "uninformed" continued to press him to develop a project, Hall declined to do so "until the landlord-tenant relationship is altered or until prosperous times for the farmer arrive."[73]

After power projects went into actual operation, the Farm Bureau and county agents continued to perform important services for the districts. The Southern Nebraska District, comprising Kearney, Adams, and Phelps Counties located its headquarters in Minden, County seat of Kearney County. Rather than require farmers from Phelps and Adams County to either journey to Minden or pay their bills by mail, the county agents in Holdrege in Phelps County and Hastings in Adams County agreed to accept payments in their offices. The agents deposited these funds in special accounts in local banks and mailed lump sum checks each month to the power district office in Minden.[74]

The county agents sponsored educational activities centering around rural electrification. The agent in Phelps County

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[72]Paige G. Hall, Fillmore County Agricultural Extension Agent Report, 1938, p. 16.

[73]Ibid, 1939, p. 28.

[74]Howard M. Adams, Adams County Agricultural Extension Agent Report, 1939, pp. 35-36; Donald C. Joy, Phelps County Agricultural Agent Report, 1939, p. 28.

organized a boys club known as the Center Workers. The members studied home wiring and prepared an electrical equipment exhibit for the Junior Fair.[75]

The agents also called demonstration meetings at the request of the State Extension Office. Some of these meetings featured Ruby Loper, electrical engineer from the College of Agriculture. She utilized a model home to demonstrate convenient placement for wall outlets and lighting fixtures. Agricultural Engineer Eugene White, also from the College, conducted other meetings to demonstrate electrical farm equipment. Most county agents considered both the Loper and White demonstrations to be highly beneficial. J. H. Williams did not agree. He felt the meetings were held prematurely in Madison County where a power district was well under way but lines were not yet energized. In his opinion, lighting and equipment demonstrations would have generated much more interest and benefited more people after farmers already had electricity.[76]

The Farm Bureau and the agricultural agents did not actively participate in every district's formation. The Norris District originated when a farmer asked the Mayor

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[75]Donald C. Joy, Phelps County Agricultural Extension Agent Report, 1939, p. 29.

[76]J. H. Williams, Madison County Agricultural Extension Agent Report, 1939, p. 20.

of Fairbury to extend municipal lines to his farm. Since Fairbury could not afford to construct additional lines, Mayor P. D. Peterson took the initiative to form a power district which encompassed both Saline and Jefferson Counties.[77] The county agent for Jefferson County reported, "This project has been practically isolated from Extension activities. . . due to the organization promoting rural electrification being not too friendly toward extension."[78]

No matter how they originated, many of the power projects had to cope with internal friction and conflict with other districts on a scale that equaled or surpassed difficulties with REA in Washington. The disagreement between the Lancaster County District and the Eastern Nebraska District over which project would serve the farmers of Lancaster County was the most extreme example of conflict between districts. It took two years and a need to unite against a common enemy to resolve this conflict. A final settlement evolved only to thwart an Iowa-Nebraska Light and Power Company effort to block both districts by constructing lines along proposed power district routes. The Lancaster County District relinquished the northeastern portion of the county to the Eastern Nebraska District. In return, the Eastern Nebraska District turned some customers

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[77]Marvin, "20th Anniversary," Sorensen Papers.

[78]Victor M. Rediger, Jefferson County Agricultural Extension Agent Report, 1937, p. 24.

in Cass and Saunders Counties over to the Lancaster County District.[79]

There were other minor disputes between power districts. Most of these centered around misunderstandings about district boundaries. All were settled amicably without the open hostility which characterized the Lancaster County-Eastern Nebraska conflict. Internal problems were not so easily resolved.

The Board of Directors of the Eastern Nebraska District had serious differences which resulted in an REA-imposed bloodletting. The problems between the directors received their first public airing in June, 1937, when Director George Craven accused George Kline and another director, Belle Betz, of using district funds for their own benefit.[80] Kline countercharged that, "Mr. Craven had never assisted the board in any way but had continuously tried to cause dissension, trouble and delay in working out the projects."[81] Kline and Betz were cleared of the charges against them in an open hearing, but the board remained split between two opposing factions. Finally, REA attorney Boyd Fisher intervened. Utilizing the district's desire for an additional allotment to extend its lines, he forced seven of the ten directors to resign their offices. He eliminated four directors,

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[79]R. T. Abernathy to Farmers in Northeastern Lancaster County, October 19, 1937, Sorensen Papers, Box 12, Folder 4.

[80]Tecumseh Chieftain, June 10, 1937.

[81]Nebraska Beacon, June 10, 1937.

including the president, Dr. A. P. Fitzsimmons, because they were candidates for public office. Fisher explained, ". . . we /the REA/ cannot make an allotment so long as candidates for policy-making public offices are on the board."[82] Fisher then forced Craven, Kline and Betz off the board on the grounds that they were all Lincoln residents and Lincoln was not within the Eastern Nebraska District.[83]

The Southern Nebraska District suffered serious internal problems, some of which resulted from actions taken in the REA office in Washington. The district ran under the assumption that lines would be constructed simultaneously in Adams, Phelps and Kearney Counties. When REA approved the first allotment, however, the agency stipulated funds were to be utilized in Adams County alone.[84] REA's actions resulted from a decision that projects be funded on a county basis, even when projects

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[82]This was clearly a tactical move. There were candidates for public office on other boards in the state who were not asked to resign. As Sorensen pointed out to a worried candidate for county commissioner who also served as secretary for the Stanton County District, "The fact that you are a candidate for County Commissioner does not disqualify you as a member of the Board of Directors. In several of the Districts there are Directors who are also members of the County Board." Sorensen to Harry B. Nichols, July 29, 1938, Sorensen Papers, Box 23, Folder 3.

[83]Evening Omaha World-Herald, July 23, 1938, p. 1. Kline was no longer editor of the Nebraska Beacon, so his comments on this turn of events are not available.

[84]Glen Wallace to Sorensen, August 11, 1936, Sorensen Papers, Box 20, Folder 3.

encompassed more than one county. When REA officials knew how much money Congress would allot the agency for the year, they divided the allotment among the states. Those states which received high allotments one year had their funding reduced the next. There was never enough money alloted to Nebraska to cover requests. The decision to distribute funds on a county basis was a move to prevent any one district from monopolizing more than a fair share of the funds available to the state.[85]

However laudable REA's motives might have been, the situation created an immediate storm in the Southern Nebraska District. The area's Congressman, C. G. Binderup, added fuel to the flame when he reported REA intended to finance all three counties until the president of the board (who lived in Adams County) requested that an allotment be made for Adams County alone.[86] Whatever Binderup's intent, his information was erroneous. Sorensen communicated with the REA office about the growing rift in the district and succeeded in getting assurance that although all three counties would not be funded simultaneously, they would be funded consecutively without a long wait between completing one county and beginning another.[87] When REA followed through with this arrangement, the storm subsided.

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[85]Sorensen to Ernest Sjogren, September 15, 1936, Ibid.

[86]Ernest Sjogren to Sorensen, September 17, 1936, Ibid.

[87]Sorensen to Holdrege Citizen and Holdrege Progress, October 28, 1936, Ibid.

An inexperienced and incompetent manager created additional friction in the Southern Nebraska District. The District's president, Glen Wallace, wanted the board to select an experienced manager.[88] The board members did not honor his wishes because they were unwilling to pay the salary demanded by the experienced candidate for the position. The manager which the board selected, Earl Carlson, badly mismanaged his financial responsibilities. He kept no records and failed to pay contractors for completed work even though money for that payment was in the bank serving no purpose except to garner the "good will of the banker."[89] Wallace, disgusted with the manager and with the unbusinesslike board, resigned his office.[90] The president resumed his duties when Carlson resigned instead and the board agreed to seek an experienced replacement.[91]

No Nebraska project encountered more difficulties because of a manager than did the Chimney Rock District. C. B. Turner was dedicated to his job and to the cause of rural electrification. He was also overworked, underpaid and hampered by personal problems. Turner assumed responsibility not only

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[88]Glen Wallace to Sorensen, June 22, 1937, Ibid.

[89]Glen Wallace to Sorensen, December 12, 1937, Ibid.

[90]Glen Wallace to Southern Nebraska Rural Public Power District Board of Directors, December 11, 1937, Ibid. (Copy.)

[91]Sorensen to Forrest Morrison, December 24, 1937, Ibid.

for the Chimney Rock District but also for the Gering Valley and Roosevelt Districts. For his efforts, he was to be paid $150.00 per month and five cents per mile for his car.[92] Even this meager compensation dwindled because of an REA stipulation that mileage be limited to $50.00 per month; the agency refused to make an exception in spite of the undeniable fact that the vast territory which Turner supervised required him to expend far more than that on travel. In Turner's own words, "all of my time is given to this work . . . .My salary is $150.00 per month. My car expenses alone are $100.00 a month. I have one girl in high school and another in a University."[93]

Turner added to his workload by starting a house wiring business. He hoped to reap some financial benefit from the REA projects which he had struggled so long to develop. Unfortunately, Turner did not charge enough for his services, and rather than improving his financial position, his wiring business forced him into debts which he could not pay.[94]

A manager's private problems would not ordinarily have affected the district for whom he worked. Turner's plight

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[92]Sorensen to W. E. Herring, REA, May 4, 1937, Ibid, Box 19, Folder 3.

[93]C. B. Turner to Boyd Fisher, REA, October 28, 1937, Ibid.

[94]Sorensen to Boyd Fisher, December 7, 1937, Ibid.

proved to be an exception. When he bought supplies for his business, Turner signed repayment agreements over his title as manager of the Chimney Rock District. Naturally, his creditors turned to the District for their money after the manager proved unable to meet his obligations.[95] The District disclaimed all responsibility for Turner's actions.[96] Turner's creditors promptly sued the District for the money owed them.[97] Insensed by the predicament they faced, the board of directors fired the hapless manager.[98] Soon thereafter, he left the area and declared bankruptcy.[99]

Turner's departure did not end the matter for the Chimney Rock District. In fact, the ordeal continued for another two years as the case went through the judicial system until it reached the Nebraska Supreme Court. The judges reached a decision which was to prove significant for all the power districts in the state. Ruling against Chimney Rock, the Supreme Court concluded districts could be held responsible for an employee's actions, even if such action were not approved by the board of directors, so long as the

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[95]A. V. Sorensen, Midwest Electric Supply, Omaha, to Sorensen, November 8, 1937, Ibid.

[96]Sorensen to A. V. Sorensen, November 12, 1937, Ibid.

[97]R. O. Chambers, President, Board of Directors, Chimney Rock Rural Public Power District, December 19, 1937, Ibid.

[98]Minutes, Chimney Rock Rural Public Power District Board of Directors Meeting, February, 1938, Ibid, Folder 25.

[99]H. G. Wallensiek, Attorney, Grand Island, to Sorensen, February 25, 1938, Ibid, Folder 4.

employee exercised a conceded authority to act in the district's name.[100]

Difficulties with REA, with one another, and within districts did not prevent Nebraska's rural power districts from uniting for their common good when the occasion demanded. The Nebraska Association of Rural Public Power Districts served as the agency for this common action. Sorensen organized the association in August, 1935 and served as its first president. It was January, 1937 before he felt it necessary to call a general meeting. He chose that occasion because he believed the districts should initiate legislation in the interest of rural electrification for consideration by the state legislature then in session. Sorensen felt the association, by displaying a common front, could become a lobbying force impossible to ignore.[101]

Sorensen's theory might well have been correct. The group drafted several amendments to the 1933 legislation under which the districts operated which were subsequently passed in the legislature. One amendment prevented any federal agency (meaning REA, of course) which might come into possession of a power district through foreclosure from selling it to a private power company. Another declared that the State's only regulatory agency, the Railway Commission, would

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[100] A. V. Sorensen, Appelant v. Chimney Rock Public Power District, Appellee, 293 N.W. 121 (1940.)

[101] Nebraska Association of Rural Public Power Districts, Minutes, January 28, 1937; "Nebraska State-wide Has Played Important Part in Electrification," Nebraska Electric Farmer, February, 1949, pp. 3+.

have no authority to determine what rates the districts could charge for services rendered. Still another amendment made provision for districts to expand beyond their original boundaries. One important amendment for those persons seeking to serve as directors reduced required bond from $10,000 to $1,000.[102]

In sum, procedural decisions reached by REA, as well as relationships between REA and the districts, among districts and within districts were not as significant as the results produced. REA's stated purpose was to electrify farms. Nebraska's power districts were organized for the same purpose. How well they succeeded must be the only basis for judging their success or failure.

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[102]Chapter 152, Laws of Nebraska, 1937: 577.

Chapter V

Light and Darkness

When Morris L. Cooke resigned as REA director, Washington correspondent Paul W. Ward marked the occasion by commenting, "REA stands today as one of the most complete failures among all the Roosevelt administration's undertakings."[1] His assessment was understandable. At the end of 1936, nineteen months after Roosevelt created the agency, only twenty-eight REA sponsored projects had energized lines.[2] By the time Cooke resigned, however, REA's policy decisions had been adopted and implemented and fledgling projects were mushrooming all over the country. Two hundred eighteen of those projects in thirty-seven states had received REA approval and ninety-four were under construction when the agency submitted its first annual report at the end of 1936.[3] In mid-1938, 241 energized REA projects were providing electricity to approximately 100,000 rural customers.[4] Two

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[1] Ward, "Washington Weekly," p. 343.

[2] U.S., Rural Electrification Administration, First Annual Report of the Rural Electrification Administration, 1935-1936, p. 7.

[3] Ibid.

[4] U.S., Rural Electrification Administration, Annual Report of the Rural Electrification Administration, 1938, p. 111. (Hereafter cited as REA, Annual Report, 1938.)

years later, 630 projects were serving 568,000 customers along 233,166 miles of REA-financed lines.[5]

REA efforts were often hampered by obstructionist tactics employed by private utility companies. These companies constructed "spite lines" to the most likely prospects in the midst of proposed REA projects while skipping the smaller, poorer farms. "Cream skimming," as infuriated REA officials termed this tactic, rendered many promising wide-area coverage projects economically unfeasible, thus depriving less promising farms of electricity, sometimes for several years. In 1938, 20 percent of the nation's REA projects reported such utility company interference.[6]

"Cream skimming" was not the only obstacle the utility companies placed in the path of REA projects. Even though these companies refused to participate in government sponsored power enterprises, the agency's leaders assumed wholesale power for REA projects would be purchased from private sources. It seemed wasteful to build new generating facilities when ample energy was already available. Besides, money tied up in expensive power plant construction was money that could not be used for distribution lines.[7] In

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[5]U.S., Department of Agriculture, Annual Report of the Secretary of Agriculture, 1940, p. 141.

[6]REA, Annual Report, 1938, pp. 76-82.

[7]U.S., Rural Electrification Administration, Annual Report of the Rural Electrification Administration, 1937, p. 2. (Hereafter cited as REA, Annual Report, 1937.)

some cases, however, private companies either refused to sell current to REA projects or demanded higher rates than the projects could pay and still meet their repayment obligations. As a result, REA sometimes found it necessary to loan money for power-plant construction. By 1939, 3.6 percent of the power generated for REA projects came from REA-financed plants.[8]

Obstructionist tactics notwithstanding, private power company contributions to rural electrification during the last half of the 1930's more than matched REA's achievements. Increased emphasis on serving farm customers was exemplified in 1936 when utility companies more than doubled the miles of rural lines they constructed in 1935.[9] That accelerated momentum electrified 578,436 rural dwellings between early 1935 and mid 1940.[10] The lights shown as brightly in farm homes served by companies motivated by a desire to prevent REA competition as in those homes served for less selfish reasons. What is more, as REA officials pointed out, many private companies cooperated with and even helped fledgling farmer-operated projects rather than obstructing their operations.[11]

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[8]Beall, "Rural Electrification" p. 800; REA, Annual Report, 1939, p. 132.

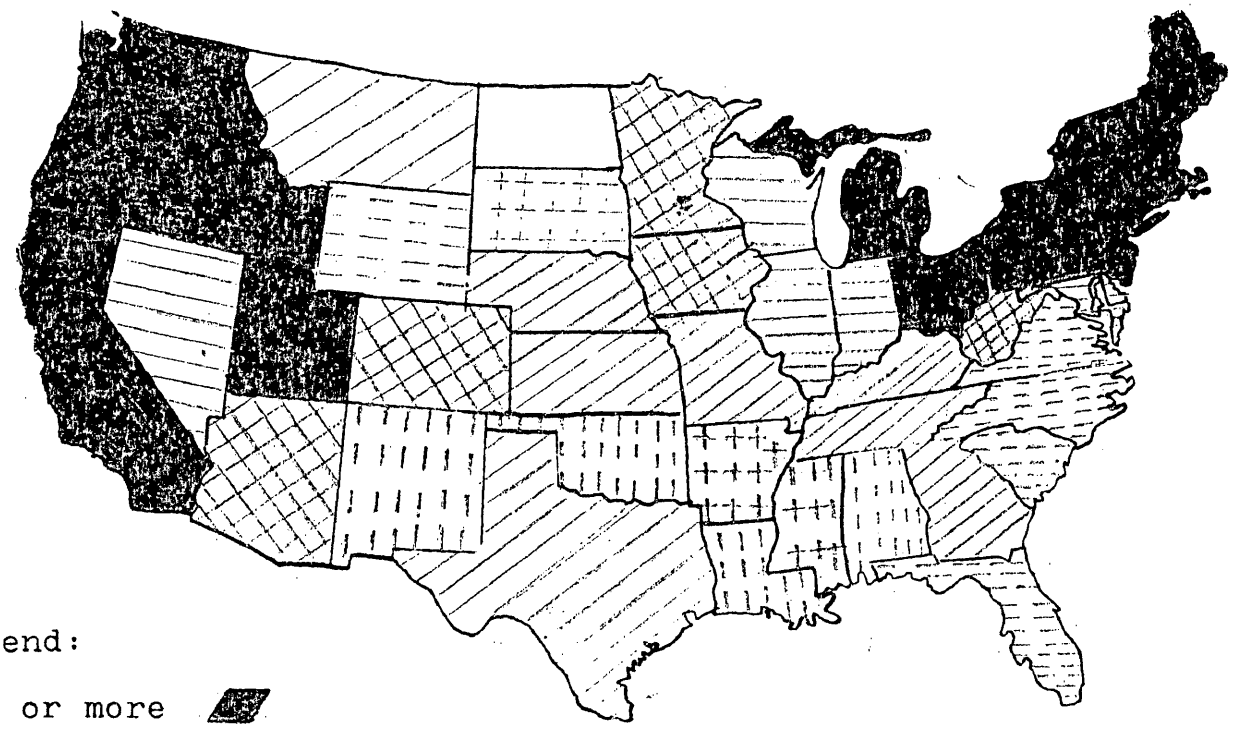
[9]REA, Annual Report, 1937, p. 2.

[10]U.S., Department of Agriculture, Rural Electrification Administration, Annual Report of the Rural Electrification Administration, 1940, p. 54.

[11]REA, Annual Report, 1938, pp. 76-82.

Figures 12 and 13 demonstrate the results of REA and utility company emphasis on rural electrification during the last half of the 1930's. Figure 12 shows the location of farms with central station electricity in 1940 while Figure 13 demonstrates how dramatically different the rural electrification picture was at the end of the decade from that in early 1935:

Figure 12
United States Farms With
Central Station Electricity, 1940



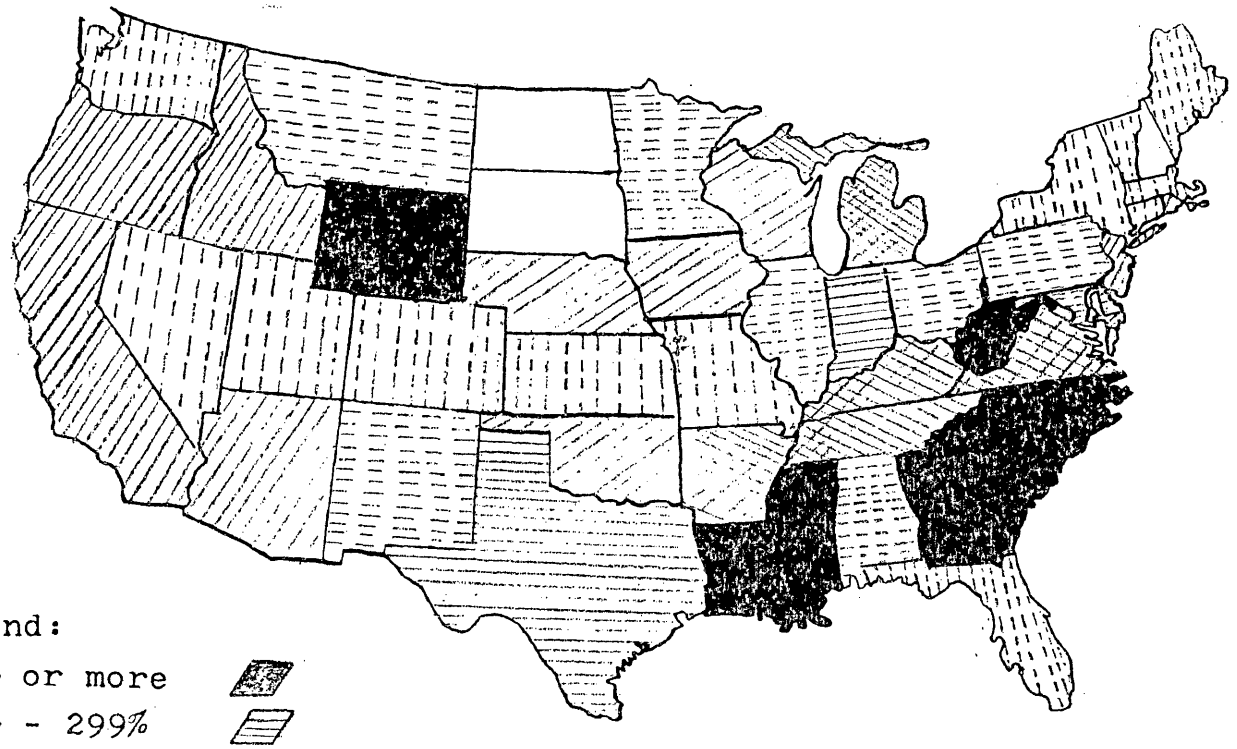
Legend:

50% or more
35% - 49.9%
25% - 34.9%
20% - 24.9%
15% - 19.9%
10% - 14.9%
5% - 9.9%
Less than 5%

SOURCE: U.S., Department of Commerce, Bureau of the Census, Sixteenth Census of the United States, 1940, Agriculture, Volume III, General Report, Statistics by Subjects, pp. 546-553.

Figure 13

Increase in Central Station
Electric Service on
United States Farms, 1935-1939



SOURCE: REA, Annual Report, 1939, p. 352. New Hampshire, North Dakota and South Dakota showed declines in rural electrification during this period. REA attributed the decline to a reclassification of "farm" in New Hampshire and a similar reclassification in the Dakotas along with severe drought conditions.

Although the number of farms with central station electric power did not increase as dramatically in Nebraska as in some other states, the late 1930's witnessed more significant changes than in any previous comparable time period. Sixty-eight percent more Nebraska farms had central station electricity in 1939 than had that service in 1935.[12] This figure is remarkable when one considers that during that time, average farm values in the state declined from $11,696 to $9,399. What is more, 4 percent fewer farms had automobiles and 29 percent fewer farms had telephones at the end of the decade than at the beginning.[13] Figure 14 illustrates the distribution of Nebraska's farms which had central station electricity in 1940.

REA-financed projects were responsible for 87 percent of Nebraska's central station rural electrification between 1935 and 1940.[14] In fact, by 1939, nearly half the farms electrified with central station service during the state's history derived power from REA public power districts.[15]

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[12]REA, Annual Report, 1939, p. 352.

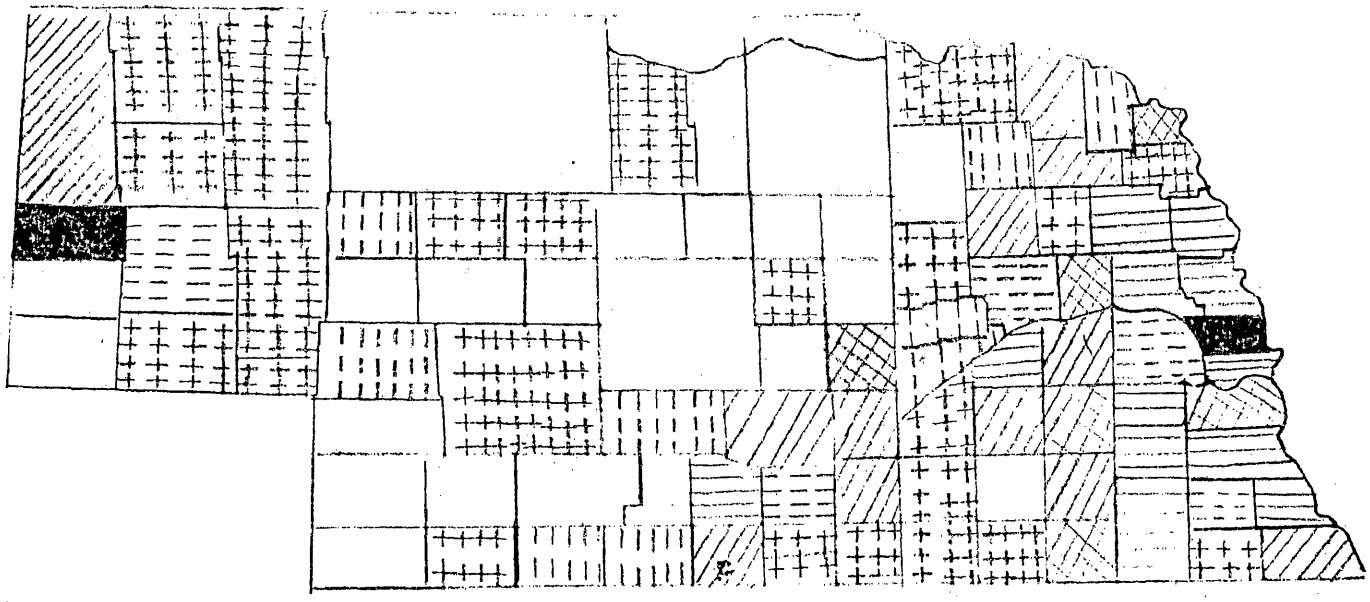
[13]Census of Agriculture, 1940, Vol. 1, State Reports, Part 2, West North Central, p. 576.

[14]Ibid, Vol. III, General Report, Statistics by Subjects, p. 548; U. S. Congress, Senate, 80th Congress, 2nd Session, Congressional Record, February 17, 1948, p. 1371. (Hereafter cited as Congressional Record, February 17, 1948); REA, Annual Report, 1939, p. 353.

[15]REA, Annual Report, 1939, p. 353.

Figure 14

Nebraska Farms with Central Station Electric Service, 1940



Legend:

50% or more
35% - 49.9%
25% - 34.9%
20% - 24.9%
15% - 19.9%
10% - 14.9%
5% - 9.9%
Less than 5%

SOURCE: Census of Agriculture, 1940, Volume I, State Reports, Part 2, West North Central, pp. 644-651.

Still, the public power districts were slow going into operation as were REA projects all over the country. When the Nebraska Association of Rural Public Power Districts met for the organization's first annual meeting in January,

1937, representatives from only two districts could report lines had been energized. One of these energized projects was the Southeastern Nebraska District in Gage County which had the advantage of having been planned and organized two years before REA was created. Even in this district, only one-fifth of the farms the project was designed to serve were receiving power. The other REA project serving customers was the Gering Valley District, the smallest power district in the state. The relatively uncomplicated project provided power to only 105 customers along 37 miles of line.[16] By the end of the decade, fifteen districts were partially or wholly energized, nine were under construction, and four had been allocated funds and were awaiting construction.[17] Figure 15 shows where these districts were located.

Private utility companies played a less active role in rural electrification in Nebraska during the late 1930's than their counterparts in many other states. Nevertheless, by late 1936, the Omaha World-Herald could report power companies were extending into the countryside at an unprecedented rate. Activity was most pronounced in the eastern part of the state served by the Nebraska Power Company and Iowa-Nebraska Light and Power.[18]

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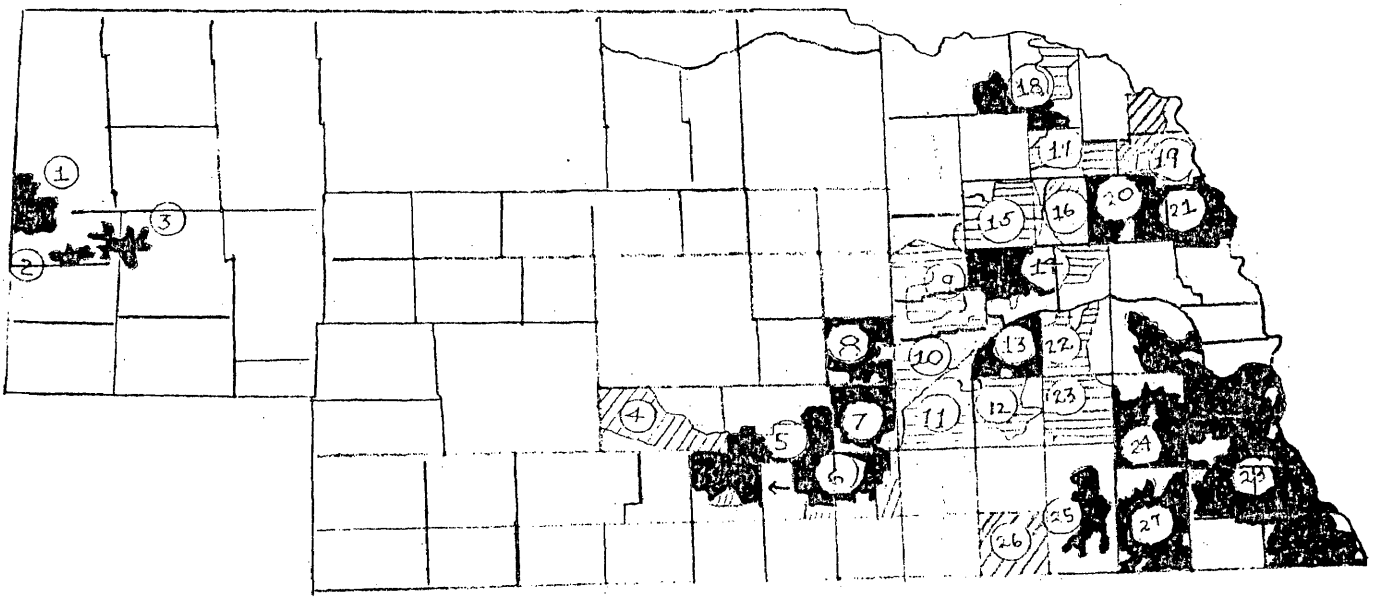
[16]REA, Annual Report, 1939, p. 260; Nebraska Association of Rural Public Power Districts, Minutes, January 28, 1937.

[17]REA, Annual Report, 1939, pp. 260-261.

[18]Sunday Omaha World-Herald, November 22, 1936, p. 12A.

Figure 15

REA-Financed Public Power Districts
in Nebraska, 1939



Legend:

Energized

Under Construction

Loan Approved

1. Roosevelt RPPD
2. Gering Valley RPPD
3. Chimney Rock RPPD
4. Dawson County RPPD
5. Buffalo County RPPD
6. Southern Nebraska RPPD
7. Hall County RPPD
8. Howard County RPPD
9. Boone County RPPD
10. Merrick County RPPD
11. Hamilton County RPPD
12. York County RPPD
13. Polk County RPPD
14. Loup River PPD
15. Madison County RPPD
16. Stanton County RPPD
17. Wayne County RPPD
18. Cedar County RPPD
19. Northeastern Nebraska RPPD
20. Cuming County RPPD
21. Burt County RPPD
22. Butler County RPPD
23. Seward County RPPD
24. Lancaster County RPPD
25. Norris RPPD
26. Thayer County RPPD
27. Southeastern Nebraska RPPD
28. Eastern Nebraska RPPD

SOURCE: REA, Annual Report, 1939, pp. 260-261

Undoubtedly, much of the newly found interest in rural electrification resulted from a desire to forestall competition from REA projects. In some instances, utility companies successfully prevented REA projects from organizing. In Washington County, farmers expressed considerable interest in forming a power district in 1935.[19] When the Nebraska Power Company and Iowa-Nebraska Light and Power constructed several miles of line in the county, farm leaders concluded by 1937 that the power companies' efforts had rendered an REA-sponsored undertaking unnecessary and inadvisable.[20]

Although the County Agricultural Extension Agent complained that farm rates were too high, farmers in Washington County probably were not badly served by the power companies.[21] At least lines were so widely constructed that nearly every farm could be served.[22] The utilities acted far less commendably in other counties in the state.

Iowa-Nebraska Light and Power announced plans to construct 175 miles of rural line in short segments throughout Lancaster County shortly after the Lancaster County District was created. It hardly seems coincidental that among the

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[19]George E. Bates, Washington County Agricultural Extension Agent Report, 1935, p. 47.

[20]E. D. Fahrney, Washington County Agricultural Extension Agent Report, 1936, p. 40 and 1937, p. 47.

[21]Ibid, 1936, p. 40.

[22]Ibid, 1937, p. 47.

few farms that would have benefited from this haphazard construction were those owned by seven of the power district's twelve newly elected directors.[23] That same power company constructed a spite line through the center of the Madison County Power District's intended territory.[24]

In western Nebraska, in spite of repeated entreaties to do so, the Western Public Service Company refused to extend lines to serve rural areas in Scotts Bluff County unless farmers bore the entire cost of line construction and agreed to high monthly minimum service charges. After farm leaders organized the Chimney Rock District, however, power company representatives moved into a potentially lucrative portion of the proposed district and agreed to provide electricity to farmers in the area within thirty days. Western Public Service did not honor the commitment to provide power within the agreed upon time. Indeed, the company waited until all organizational difficulties were ironed out between REA and the Chimney Rock District before commencing line construction.[25]

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[23]Sorensen, "Rural Electrification: Social Pioneering," p. 267.

[24]Interview with J. H. Williams, Omaha Nebraska, November 22, 1975. Williams, now deceased, was the County Agricultural Extension Agent in Madison County from 1931 to 1939.

[25]C. B. Turner to W. E. Herring, REA, February 13, 1937, Sorensen Papers, Box 19, Folder 3 (copy); Frank Long Affidavit, February 1, 1938 and G. M. Crabill Affidavit, January 27, 1938, Sorensen Papers, Box 19, Legal Papers Folder.

REA did not consider it necessary to finance power generation facilities in Nebraska during the 1930's because of the three PWA projects under construction in the state. Yet, several REA power districts needed wholesale power long before the PWA facilities were completed. As a result, the power districts had to sign temporary contracts with whatever sources were available. The only available sources were usually private utility companies, and those companies often charged much higher wholesale rates than the one cent per kwh considered reasonable by REA. The Southeastern Nebraska District paid 1.8 cents per kwh.[26] Other districts paid two cents or more per kwh before the hydro-districts were in operation in the early 1940's.[27]

Nebraska's utility companies were not complete ogres during the 1930's. They did, after all, reduce rural rates and extend into the countryside as never before. What is more, they sometimes aided REA projects. For example, after fighting the Lancaster County Power District for two years, Iowa-Nebraska Light and Power provided transformer and meter installations which made it possible for project officials to hold energizing ceremonies on the date scheduled.[28]

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[26]Marvin, "20th Anniversary," Sorensen Papers.

[27]H. H. Henningson To Sorensen, March 12, 1938, Sorensen Papers, Box 22, Folder 3.

[28]Lincoln Evening State Journal, October 29, 1937, p. 1. Iowa-Nebraska Light and Power was not wholly motivated by unselfish considerations. The company had just signed a contract to provide the district with wholesale power until the Loup River hydro-project could serve as a permanent power source.

The Lancaster County District's energizing ceremony was one of several held to commemorate rural electrification. In retrospect, the hackneyed and self-congratulatory rituals seem comical. They did, however, make clear how highly prized electricity was to Nebraska's rural residents.

In Lancaster County, energizing was commemorated at the home of Ralph Stephens, a member of the district's Board of Directors. Governor R. L. Cochran was the keynote speaker. After the Governor spoke to the assembled farmers, ". . .he gave the signal with his outstretched hand and said, 'Let there be light.' The wireman closed the switch and there was Light!"[29]

When Burt County's REA project was ready to serve customers, nearly every business in the county closed for the occasion. One local newspaper featured front-page pictures showing some of the 2,000 people who dressed in their Sunday-best and gathered in Bertha to see the lights go on. The large crowd of happy farm families who could not be accommodated in the town hall where the speakers were assembled heard the program through loud speakers set up outside.[30]

The Cuming County Power District scheduled the energizing ceremony to coincide with the county fair. The Board of

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[29]J. F. Purbaugh, Lancaster County Agricultural Extension Agent Report, 1937, p. 49.

[30]Burt County Herald (Tekamah), April 21, 1938.

Directors were to turn on the district's "juice." The excited directors yanked so hard on the rope attached to the switch that they wrenched the entire mechanism from the power pole.[31] Polk County's oldest resident, a farm woman who lived along the route soon to be served, closed the switch for that county's project. She did not yank the switch from the pole, but she was no doubt every bit as enthusiastic as her counterparts in Cuming County.[32]

In nearly every REA district, appliance and farm equipment demonstrations were put on either before energizing or as part of the ceremony to turn on the "juice." Before the REA Circus became a going concern in 1939, these demonstrations were sponsored by the individual districts, generally in cooperation with local merchants. One of the earliest demonstrations made up part of the 1935 Adams County Fair in Hastings. Merchants donated a large pavillion where the Southern Nebraska Power District put on the exhibit.[33] The Buffalo County Power District hosted one of Nebraska's more ambitious demonstrations in 1938 when that REA project sponsored a three-day "electrical exposition." Business concerns displayed their products to farm families who came to

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[31] West Point Republican, September 1, 1938.

[32] Howard Peterson, Polk County Agricultural Extension Agent Report, 1938, p. 28.

[33] Glen Wallace to Sorensen, July 25, 1935, Sorensen Papers, Box 20, Folder 2.

the show from every part of the state. The Governor and other state dignitaries along with representatives from REA in Washington and the State Agricultural College participated in the program.[34] In 1939, electrical exhibits assumed a statewide flavor when the Nebraska Association of Rural Public Power Districts voted to make an appliance and equipment display an annual event at the Nebraska State Fair.[35]

The merchants who displayed their wares at the equipment demonstrations did so because they hoped to tap a new market for their products. Rural electrification leaders were also motivated by a desire to sell--they hoped to stimulate power consumption. In order to remain solvent, REA projects, encumbered by relatively high wholesale rates and the need to pay off their loans, either had to charge relatively high minimum rates which every customer would pay no matter how little power each consumed or they had to sell large quantities of current and make money on volume sales. In view of the vehement distaste power company practices had engendered in the state, volume sales were infinitely preferable to high minimum rates. In the 1930's, however, Nebraska's farmers did not offer much promise as big customers. A farmer

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[34]Leonard Wenzl, Buffalo County Agricultural Extension Agent Report, 1938, pp. 27-28; Kearney Daily Hub, April 22 and 23, 1938.

[35]Nebraska Association of Rural Public Power Districts, Minutes, July 7, 1939.

in Stanton County, concerned about that county's proposed electrification project, offered the best explanation:

> I for myself would like to see it /electricity/ on every farm. But. . .how many of us can afford it?. . .With all these unsettled conditions such as drouth, grasshoppers and high prices of all feeds the farmer has to buy. . .lots of families at present don't know where the next loaf of bread or pair of overalls will come from . . . .Where will the farmer find enough cash to buy necessary equipment. . .when most of us can't pay taxes?[36]

In spite of promotional activities and low-cost government loans to finance appliances and equipment, several Nebraska REA projects discovered that most farmers could not or would not consume enough power to allow the power districts to be financially secure during the 1930's. Although statistics for the entire state are not readily available, the Cuming County Agricultural Extension Agent reported extensively on equipment utilized and power consumed after that county's rural electrification district had been in operation for approximately one year. Farm values in Cuming County were nearly $3,000 higher than the average for the state as a whole.[37] It is reasonable to assume, therefore, that conditions were relatively better and farmers had more money to spend for electricity than in some other areas of the state served by REA projects.

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[36]Letter to the Editor, Stanton Register, March 4, 1937.

[37]Census of Agriculture, 1940, Vol. I, State Reports, Part 2, West North Central, p. 577.

Customers served by the Cuming County District paid a minimum of $3.50 per month for which they received fifty kwh of current. Small increments were added for fifty kwh blocks of current utilized beyond the minimum. The rate scale was comparable to those in use throughout the state. Fewer than half of the district's 735 customers utilized more than the fifty kwh minimum. Only fifty customers utilized more than 100 kwh; only seven utilized more than 200 kwh. An appliance survey revealed that almost one-third of the 735 farm families served by the power district used current only for household lighting. The most popular appliance in the district was the electric iron (492 farms) followed by the radio (472 farms), washing machine (453 farms) and refrigerator (125 farms). Electricity was utilized much less extensively outside than inside the home. Eighty-nine farms had cream separators, eighty-two had water pumps and forty-four had electrically lighted poultry houses.[38]

None of Nebraska's REA power districts defaulted on their loans, but bankruptcy seemed imminent on several occasions. The Superintendent of the Lancaster County District reported that after lines were energized, farmers who had agreed to buy current from the district failed to have their

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[38]J. R. Watson, Cuming County Agricultural Extension Agent Report, 1939, pp. 22-23.

premises wired. Four months after the first section of the county's project went into operation, there were 350 miles of energized lines serving 350 customers.[39] At that time, REA officials believed a financially secure project had to have at least 2.7 customers for every mile of line.[40]

In Western Nebraska, twenty-two of the 105 customers served by the Gering Valley District did not pay their bills on time in August, 1937.[41] The Roosevelt Rural Power District found it necessary to request a postponement of the time when they had to start repaying the principal on their REA loan. Income from the project had not produced sufficient revenue to reimburse either the engineer or the attorney for their services much less repay the district's obligation to REA.[42]

The manager of the Southeastern Nebraska District expressed doubt that the district could meet the date when payments to REA were scheduled to begin. Crop failures in Gage County were so severe in 1937 that farmers asked to have

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[39]Nebraska Association of Rural Public Power Districts, Minutes, February 25, 1938.

[40]Sorensen to Thomas A. Williamson, President, Hamilton County Rural Public Power District, May 26, 1938, Sorensen Papers, Box 26, Folder 2.

[41]Manager, Gering Valley Rural Public Power District, to Power Users (no date), Ibid, Box 26, Gering Valley, Folder 3. (copy). The author assumes the date from information in the body of the letter and from dates on other letters in the file.

[42]Sorensen to Boyd Fisher, REA, March 19, 1938, Ibid, Box 23, Folder 2.

current disconnected in early 1938 in order to purchase seed for the next crop with the money they would have used to pay their electric bills.[43]

As Figure 15 indicates, Nebraska's REA power districts were located in those relatively populous, prosperous parts of the state which private utility interests had overlooked. Since projects in these areas had to struggle to survive, it seemed clear that for most of Nebraska, central station electricity would have to wait. In 1937, when only a few districts were in operation, the Nebraska Farmer told the magazine's readers: "Farmers who are expecting the government's rural electrification program to supply every locality in the state with highline power will be doomed to disappointment."[44]

The County Agricultural Extension Agents who reported prevailing attitudes toward rural electrification indicated that many farmers in the state suffered no illusions about the possibilities of imminent power development. In 1937, the agent in Custer County reported that there was no particular interest in rural electrification in the County, and he

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[43]Paul D. Marvin to Sorensen, January 11, 1938, Ibid, Box 26, Southeastern Nebraska, Folder 1; Marvin, "20th Anniversary," Sorensen Papers.

[44]Editorial, Nebraska Farmer, May 22, 1937, p. 7.

expressed doubt that there would be any interest until farmers could catch up with their debts.[45]

A rural electrification committee in Perkins County conducted a survey in 1937 to determine how many potential power consumers were located in the county. The results showed that until the return of normal crop years, there would not be enough consumers to make a project feasible.[46] A survey in Blaine, Grant, Hooker and Thomas Counties showed that, although the area included some of the most prosperous ranches in the state, dwellings were too widely dispersed to make a project feasible.[47]

The dual problems of poverty and widely scattered farms and ranches which had delayed rural power development for years continued to plague Nebraska's farmers in spite of REA and the newly acquired interest in rural electrification displayed by private power companies. Indeed, the percentage of farms with central station electricity in Nebraska declined in relation to the rest of the country during the last half of the 1930's. In December, 1934, a higher percentage of farms in twenty-eight states had central station electricity than in Nebraska. By June, 1939, Nebraska had dropped to thirty-fourth position.[48]

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[45] M. L. Gould, Custer County Agricultural Extension Agent Report, 1937, p. 26.

[46] T. A. Alexander, Perkins County Agricultural Extension Agent Report, 1937, p. 27.

[47] A. F. Silkett, Blaine, Grant, Hooker and Thomas County Agricultural Extension Agent Report, 1936, p. 14.

[48] REA, Annual Report, 1940, p. 54.

Those farmers and ranchers who could afford electricity but were too far distant from high lines for hook up continued to rely on home generating units as a power source. These units underwent considerable improvement during the 1930's. Batteries for wind charger units were less likely to run out of charge during short periods of becalmed weather than was true earlier. These improved units gained popularity in parts of Nebraska.[49] Gasoline powered units were made more convenient. Compact generators designed for small jobs could be easily transported from one part of the farm to another. Slightly larger but still compact units were touted as the renter's answer to rural electrification. These generators could be transported from farm to farm if tenants were forced, or found it expedient, to move. These portable units, of course, did not provide current for more than lights and a few small appliances.[50]

About 9 percent of the electrified farms in the United States obtained power from home generators in 1940.[51] As

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[49]George A. Garrison, Hayes County Agricultural Extension Agent Report, 1939, p. 6; A. F. Silkett, Blaine, Grant, Hooker and Thomas County Agricultural Extension Agent Report, 1936, pp. 14-15.

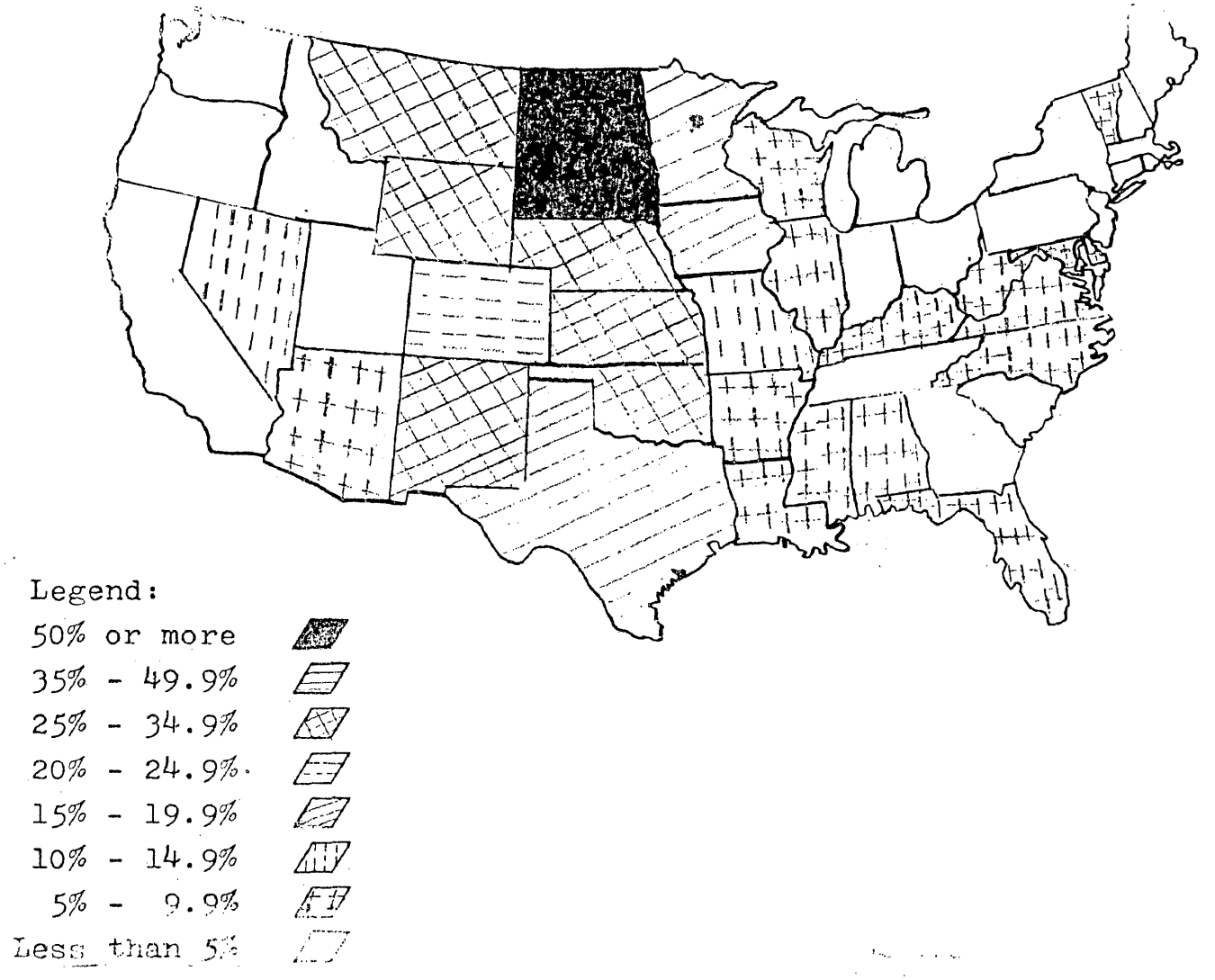
[50]"Short-Order Electricity," Successful Farming, September, 1937, pp. 32-34.

[51]Census of Agriculture, 1940, Vol. III, General Report, Statistics by Subjects, p. 546.

Figure 16 illustrates, most of these units were located in the Plains States. Home generators were no longer popular in areas where farms were relatively close together. Farmers who had sufficient capital to afford electricity were near enough to neighbors in similar circumstances to develop central station power projects.

Figure 16

Percent of Electrified
United States Farms Utilizing
Home Generating Plants, 1940

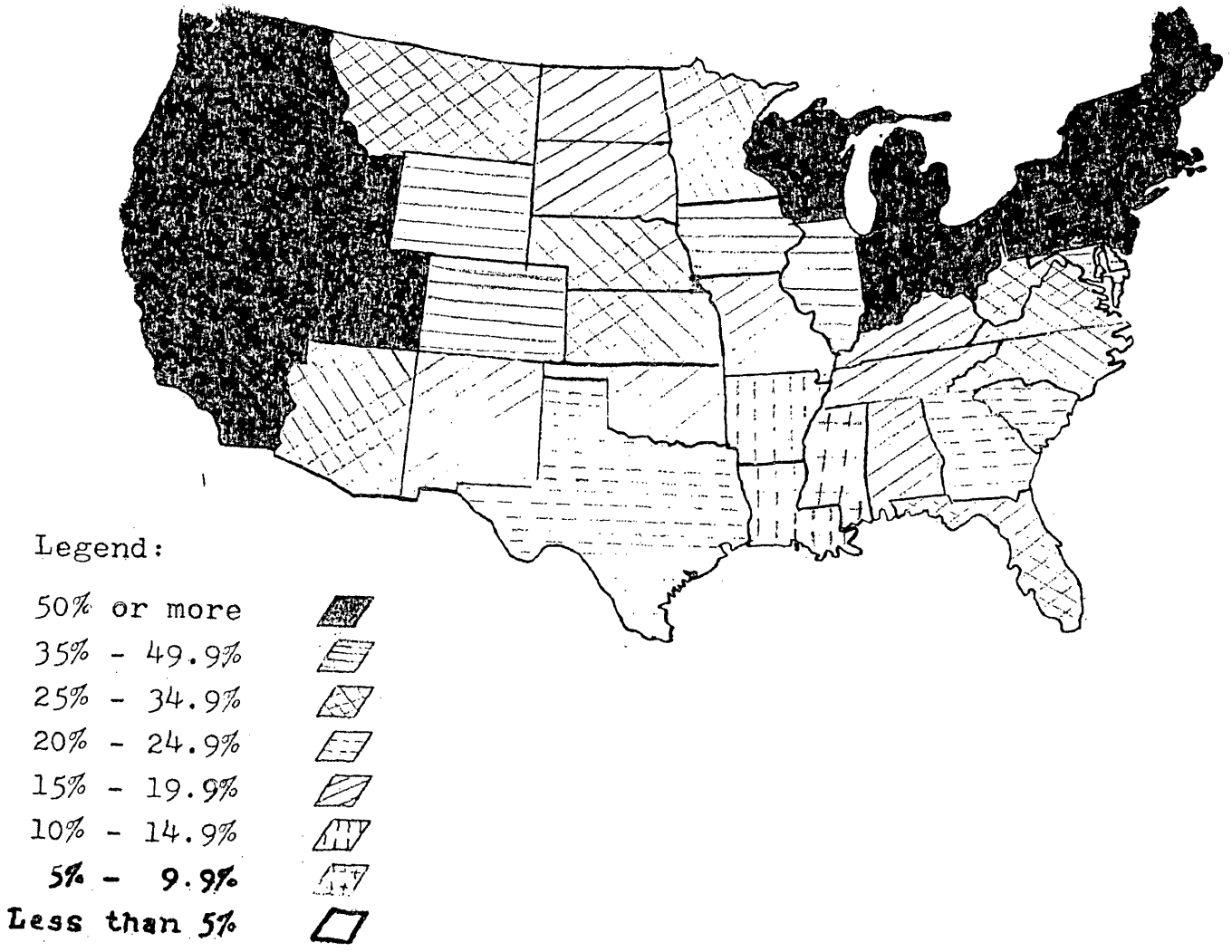


SOURCE: Census of Agriculture, 1940, Volume III, General Report, Statistics by Subjects, p. 546.

By 1940, slightly more than 30 percent of the nation's farms had central station electricity. When home generating units were added, the percent of electrified farms increased to 33.3.[52] Figure 17 illustrates their distribution:

Figure 17

United States Farms Electrified
From Every Source, 1940



SOURCE: Census of Agriculture, 1940, Volume III, General Report, Statistics by Subjects, p. 546.

[52] Ibid.

When one compares Figure 17 with Figure 12, it becomes apparent that home generators made their impact felt most in the plains states.

In Nebraska, 9.9 percent of the state's farms, 34.6 percent of all the farms with electricity, obtained power from home generating units in 1940.[53] In only two states, North and South Dakota, did higher percentages of electrified farms rely on home generators.[54] Figure 18 illustrates the distribution of these home units in Nebraska. While home generating units were located in every part of the state, not surprisingly, most were in those counties where farms were widely dispersed or where a ranch economy existed.

In 1940, 18.9 percent of the state's farms had central station electricity. When home generators were added, 28.8 percent of the farms were electrified.[55] Figure 19 shows their distribution. As a comparison between Figures 14 and 19 shows, home generating units made a significant impact on rural electrification statistics, especially in less populated regions of the state.

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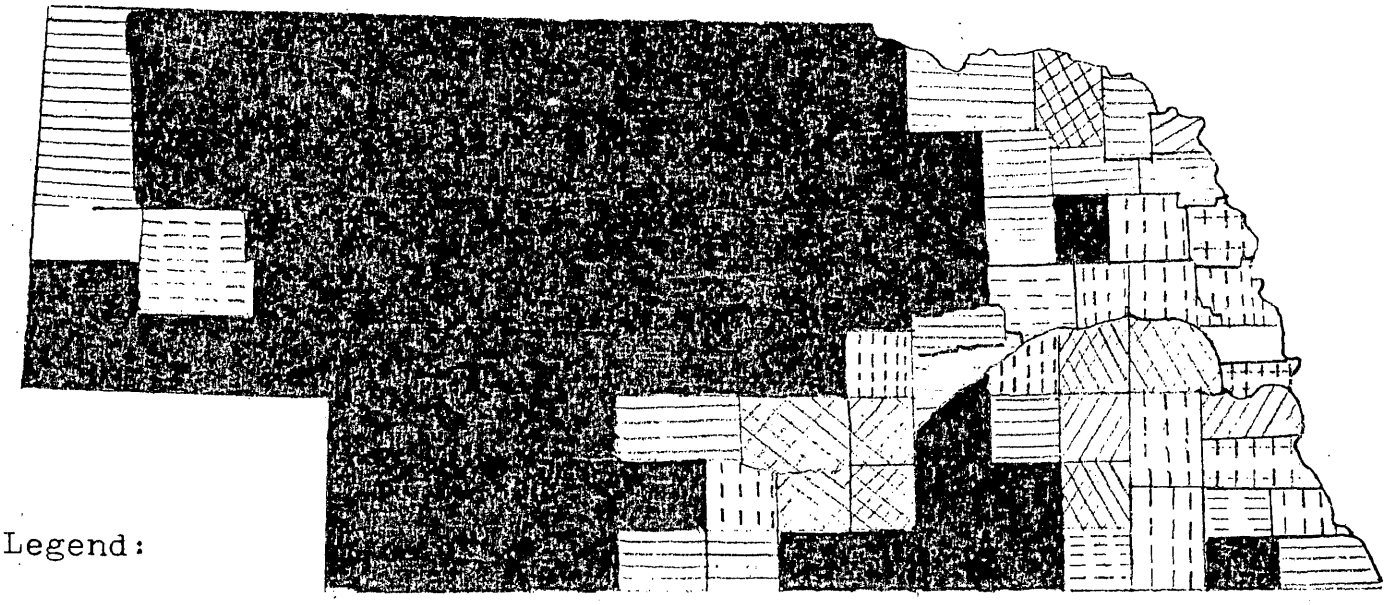
[53] Ibid, Volume I, State Reports, Part 2, West North Central, p. 644.

[54] Ibid, Volume III, General Reports, Statistics by Subjects, pp. 546-553.

[55] Ibid, p. 644

Figure 18

Percent of Electrified
Nebraska Farms Utilizing
Home Generating Units, 1940



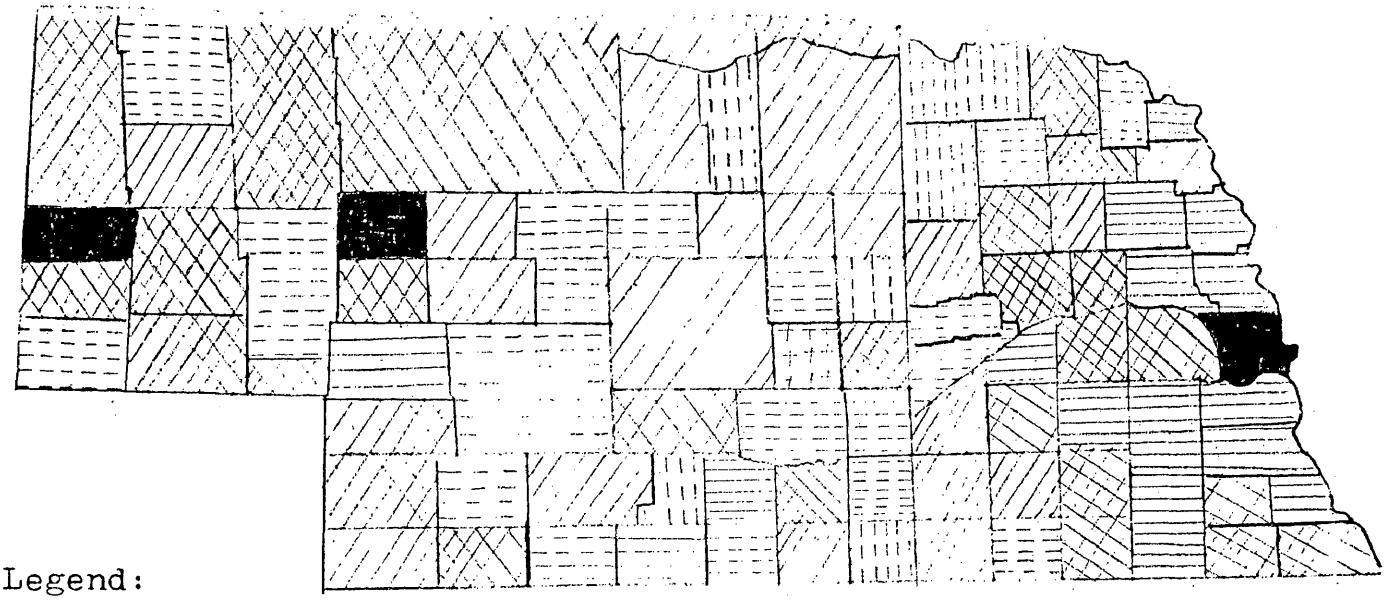
Legend:

50% or more
35% - 49.9%
25% - 34.9%
20% - 24.9%
15% - 19.9%
10% - 14.9%
5% - 9.9%
Less than 5%

SOURCE: Census of Agriculture, 1940, Volume I, State Reports, Part 2, West North Central, pp. 644-651.

Figure 19

Nebraska Farms Electrified
From Every Source, 1940



Legend:

50% or more
35% - 49.9%
25% - 34.9%
20% - 24.9%
15% - 19.9%
10% - 14.9%
5% - 9.9%

SOURCE: Census of Agriculture, 1940, Volume I, State Reports, Part 2, West North Central, pp. 644-651.

Vast improvement notwithstanding, in 1940 as in earlier times, electricity was a benefit normally enjoyed only by prosperous Nebraska farmers in more densely populated parts of the state. Figure 19 shows that with rare exceptions, most electrified farmers were still located in the eastern, more populous counties. Table V demonstrates that there was still a direct relationship between relative wealth and rural electrification.

Table V

Relationship Between Farm Values and Electrification in Nebraska, 1940

Electrification	Average Farm Values
50% or more	$25,279
35% - 49.9%	11,266
25% - 34.9%	10,940
20% - 24.9%	9,438
15% - 19.9%	7,728
10% - 14.9%	7,725
Less than 10%	5,271

SOURCE: Census of Agriculture, 1940, Volume I, State Reports, Part 2, West North Central, pp. 576-584.

What is more, in the United States and in Nebraska, electrification was much less often found on tenant-operated than on owner-operated farms in 1940 as Table VI makes clear.

Table VI

Owner/Tenant Rural Electrification
In the United States and In Nebraska, 1940

	Percent of Electrified Farms Nebraska	Percent of Electrified Farms United States
All	28.8	33.3
Owner-Operated	39.2	42.2
Tenant-Operated	19.6	19.5

SOURCE: Census of Agriculture, 1940, Volume I, State Reports, Part 2, West North Central, p. 571; Volume III, General Report, Statistics by Subjects, p. 544.

Many more farms had electricity in 1940 than anyone could have dreamed possible at the beginning of the most dismal decade in the nation's agricultural history. Yet, most farmers still did not have the most important technological blessing since the wheel. Economic conditions had to improve significantly and an answer had to be found to the perplexing problem of serving widely dispersed farms before nationwide rural electrification could become a reality rather than just a dream.

Chapter VI
Aftermath: The Job Completed

In 1939, in an attempt to slow spiraling government costs, the Roosevelt Administration reduced administrative expenses by combining some government agencies. George Norris believed REA should be retained as an independent agency in order to keep rural power development relatively free of partisan politics.[1] Nevertheless, Congress and the President concluded that REA's independence could no longer be justified. A struggle then ensued between the Department of the Interior, where Secretary Harold Ickes believed all power development should be administratively housed, and the Department of Agriculture, the agency traditionally most concerned with the welfare of rural Americans.[2] The issue was resolved when Congress passed and the President signed legislation placing REA under the Department of Agriculture.[3]

During the early 1940's, REA experienced problems generated by the Second World War. Although Congress continued

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[1]Norris, Fighting Liberal, p. 325.

[2]Harold L. Ickes, The Secret Diary of Harold L. Ickes, Volume III, The Lowering Clouds (New York: Simon and Schuster, 1954), pp. 78-79.

[3]Reorganization Act, Statutes at Large, 53, Sec. 4, 561 (1939).

to appropriate money for rural electrification, copper, steel, and other products needed for line construction were funneled into the war effort. Only those rural projects which could show demonstratably that they would contribute to the war received the needed materials. Farms located near new military bases received first priority in order that power from the REA lines could be utilized by the bases. Other farmers who lived near completed REA projects could get electricity on their farms if they appeared before county boards. These Boards were authorized by the War Production Board to grant requests for power extensions to those farmers who could show their agricultural production would be significantly increased by electrification.[4]

In spite of the roadblocks which it placed in the path of rural power development, the Second World War proved once and for all the value of electrification to American agriculture. Mechanized farms utilizing electric as well as gasoline-powered machinery provided the vast amounts of food which America and her allies needed to fight the war. Congress recognized the value of rural electrification in 1944 by passing legislation which extended the life of REA indefinitely. (The agency's functions were due to expire in 1946.) The bill also reduced interest rates to a flat 2 percent and extended repayment terms to thirty years.[5]

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[4]Person, "REA in Perspective," pp. 79-80.

[5]Department of Agriculture Organic Act, Statutes at Large 58, 739 (1944).

Table VII makes clear that the federal government recognized the importance of rural electrification to the war effort in another significant way. Although each farm seeking to be connected to an REA project had to be considered on individual merit, a phenomenal number of farms obtained electricity:

Table VII

United States Farms Energized
Through REA Projects, 1940-1945

Year	Number Farms Energized
1940*	259,184
1941	238,929
1942	227,771
1943	110,019
1944	75,517
1945	128,997

*Pre-war peak year.

SOURCE: U. S. Department of Agriculture, Agricultural Statistics, 1950, p. 702.

During and immediately after the war, farmers proved conclusively that if they profited enough from their crops to allow them to afford more than bare necessities, they would utilize enough current to make it worthwhile to serve them. In 1939, the average American farm consumed 50 kwh of current.[6] In 1948, average rural monthly consumption

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[6]USDA, Rural Lines, p. 39.

reached 121 kilowatt hours.[7] In 1946, Claude Wickard, who was then REA director, made it evident that rural power consumption exceeded earlier expectations. He admitted that the light lines constructed to serve farms in the 1930's no longer were adequate to meet rural needs. He estimated that before long most single-phase lines would have to be replaced with multi-phase lines designed to carry heavy current loads.[8] As a result, REA found it necessary not only to assume responsibility for extending lines to the nation's remaining electrified farms, but also for updating previously constructed lines.[9]

Increased rural power consumption forced REA to utilize a large part of the agency's budget to finance power generating facilities. Those power companies that carried the long-standing rivalry with REA into the post-war era continued to charge impossibly high wholesale power rates. Most of the need for capital to finance generating facilities, however, resulted from line extensions into areas where no power plants were located or where existing facilities lacked capability to serve all the consumers desiring electricity.[10] In 1946

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[7]U.S. Department of Agriculture, Agricultural Statistics, 1950, p. 702. (Hereafter cited as USDA, Agricultural Statistics, 1950.)

[8]"Wickard Concedes Over Half of REA Lines Inadequate," Electrical World, September 7, 1946, p. 5.

[9]U.S. Department of Agriculture, Annual Report of the Secretary of Agriculture, 1949, p. 88. (Hereafter cited as USDA, Secretary of Agriculture Report, 1949.)

[10]Person, "REA in Perspective," pp. 82-83.

utility interests pressured Congress to prevent REA from loaning funds to construct power plants.[11] That this effort was unsuccessful was proven in 1948 when 11 percent of the agency's loanable funds were used to finance generating facilities.[12] Only one year later, 18 percent of the budget went for that purpose.[13]

In 1949, REA assumed yet another burden. While the number of electrified farms increased dramatically after 1935, the number of farms with telephone service did not increase appreciably, and for many sections of the country, actually decreased between 1920 and 1950.[14] The lack of rural communications proved detrimental to the war effort. Farmers needing scarce repair parts for machinery or persons seeking particular farm produce were forced to waste precious time, gasoline, and tire rubber because they could not obtain needed

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[11] Ibid, pp. 80-81.

[12] U. S. Department of Agriculture, Annual Report of the Secretary of Agriculture, 1948, p. 152.

[13] USDA, Secretary of Agriculture Annual Report, 1949, p. 88.

[14] "Farms Without Telephones," Rural Electrification Administration News, December, 1951-January, 1952, pp. 23-24. Most of the early rural telephone lines were cheaply constructed affairs that simply did not hold up for long periods of time. During the depression, money was not available to refurbish the lines. As a result, small marginally-profitable telephone companies went out of business and were not immediately replaced. REA caused some telephone companies to fail when electric lines interfered with unimproved telephone lines to such an extent that telephones were rendered inoperable. U.S. Department of Agriculture, Rural Electrification Administration, Twenty-five Years of Progress: Rural Telephone Service, U.S.A., REA Publication 3251, 1975, pp. 5-7.

information by using telephones.[15] Therefore, in the interest of national security, Congress amended the Rural Electrification Act of 1936 by allowing REA to loan money to existing groups for improving or constructing rural telephone lines.[16]

Although in the post-war period, REA expended increasingly more energy and money improving existing electric lines, constructing generating facilities, and extending rural telephone service, the agency's primary commitment continued to be providing loans to electrify rural areas that had never before enjoyed that benefit. The task was made difficult by a shortage of necessary materials exacerbated after the war by an affluent populace who wanted long-denied automobiles and other luxuries. REA was also handicapped by dependence on annual Congressional appropriations. The legislative body generally supported REA's objectives, but frequently threatened budget cuts which undermined morale and made it difficult to retain competent personnel. Congress also subjected REA to a Congressional investigation in the late 1940's which studied the agency's hiring practices. Although the investigation granted REA a "clean bill of health," the study cost the agency considerable

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[15] U. S. Department of Agriculture, Annual Report of the Secretary of Agriculture, 1951, p. 23.

[16] An Act to Amend the Rural Electrification Act to Provide for Rural Telephones, and for Other Purposes, Statutes at Large 63, 948 (1949).

precious time and energy that might have been expended in the rural electrification effort.[17]

Difficulties notwithstanding, REA accomplished the agency's assigned task remarkably soon after the war ended. in June, 1946, 52.9 percent of the nation's farms had central station electricity.[18] Three years later, in June, 1949, the lights were on in seventy-five out of every one hundred farms.[19] Within another three years, in October, 1952, 88 percent of the farms were hooked up to highlines.[20] By 1956, when more than 97 percent of the farms had electricity, it was safe to conclude that the job was done.[21] Nearly every farmer who wanted electricity had access to highlines.

Although private utility companies continued to extend lines into the countryside, REA assumed most of the post-war electrification burden. By 1950, three out of every four farms being connected to highlines received power from

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[17]Person, "REA in Perspective," pp. 79-82.

[18]U.S. Department of Agriculture, Rural Electrification Administration, Annual Reports of the Department of Agriculture, 1946, Report of the Rural Electrification Administration, p. 36.

[19]USDA, Report of the Secretary of Agriculture, 1949, p. 86.

[20]"Status of the Rural Electrification Program, October 31, 1952," Rural Electrification Administration News, February-March, 1953, p. 9.

[21]U.S. Department of Agriculture, Agricultural Statistics, 1956, p. 569.

REA-financed projects.[22] As in the beginning of the federally-financed rural electrification movement, most REA projects continued to be consumer cooperatives. In 1950, there were 1,066 projects which had borrowed money from REA. Nine hundred seventy-six of those borrowers were cooperatives; forty-one were public power districts; twenty-four were states, towns and other public bodies; and twenty-five were power companies.[23]

Twenty-five of the public power districts and eleven of the consumer cooperatives financed by REA in 1950 were located in Nebraska.[24] At that time, 77.7 percent of the farms in the state had central station service.[25] All of those farms, except a few served directly by the PWA hydroelectric projects and even fewer served by municipalities, received electricity from the REA-financed power distribution systems. There were no longer any private power companies in Nebraska.

Early in the 1940's, the three hydroelectric districts formed the Consumers Public Power District (CPPD) to market jointly the electric energy generated by their facilities. At that time, available markets were limited to the private power companies, which already had nearly enough generating facilities to meet their needs; the municipal systems, several

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[22]Person, "REA in Perspective," p. 82.

[23]USDA, Agricultural Statistics, 1950, pp. 698-699.

[24]Ibid, p. 698.

[25]U.S. Department of Commerce, Bureau of the Census, United States Census of Agriculture, 1950, Nebraska, Counties and State Economic Areas, pp. 40-46. (Hereafter cited as Census of Agriculture, 1950.)

of which still generated their own power, and a few struggling REA projects, which were not expected to purchase much current. To solve their marketing problems, CPPD set out to purchase all the private companies in the state. It was an opportune moment for the state's public power advocates. After having fought the 1935 Utility Holding Company Act for years, the nation's private utility interests were forced to rid themselves of all pyramided holdings more than two steps removed from parent companies. Most of the power companies in Nebraska were much more than two steps removed from the top of their respective corporate structures. By 1942, the utility interests' need to sell out and CPPD's willingness to pay fair prices (financed by revenue bonds) resulted in publicly generated and distributed power in all parts of the state except that area served by the Nebraska Power Company headquartered in Omaha. When it became clear that CPPD might soon buy out the Nebraska Power Company, business leaders in Omaha, already disgruntled by that company's high rate structure, organized the Omaha Public Power District (OPPD) to make the purchase instead. In 1946, when the Nebraska Power Company sold out to OPPD, Nebraska became the only state where all power facilities were publicly owned and controlled.[26]

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[26]This explanation oversimplifies Nebraska's final push for public power. For an excellent, although still abbreviated, outline of public acquisition of the state's private power companies, see Judson King, "Nebraska, the Public Power State," Public Utilities Fortnightly, March 13, 1947, pp. 357-363; March 27, 1947, pp. 419-426; April 10, 1947, pp. 483-488. Robert E. Firth's Public Power in Nebraska, which provides a detailed account tying together all phases of power development through 1966, is also an excellent source. An account of the origins of OPPD is found in Martin H. Pennock, "The Formation of the Omaha Public Power District," Unpublished Master's Thesis, Department of History, University of Nebraska at Omaha, 1971.

When the public power advocates were pushing for public ownership of the state's generating and distributing facilities, one of their most pursuasive arguments was that consumers would pay less for their electricity.[27] Rural power costs did decline under the public systems. In 1942, farmers paid on an average of 5.04 cents per kwh; by 1948, the average cost had declined 34 percent to 3.32 cents per kilowatt hour.[28]

Power consumption increased dramatically as power costs declined and farm incomes accelerated. The early leaders in the rural electrification effort hoped Nebraska's farms eventually would utilize as much as 100 kwh every month. By the end of the 1940's, average consumption in the older districts was 250 kwh while some individual farmers used more than 1,000 kwh every month.[29] This increased individual consumption, along with growing numbers of rural consumers and added urban power demands, overtaxed the hydro-generating projects that had wondered a decade earlier how they could sell all the power they generated. It was obvious that new generating facilities would have to be constructed, but there seemed no ready way to pay for the needed expansion.[30]

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[27]Sunday Omaha World-Herald, January 25, 1942, p. 11C.

[28]Lincoln Star-Journal, November 14, 1948, p. D-8.

[29]Ernest Sjogren, "Here's P-O-W-E-R To You!" Nebraska Electric Farmer, October, 1950, p. 4.

[30]Ibid, November, 1950, p. 20

Representatives from all of the state's power interests met in late 1948 to discuss power needs. The obvious answer was increased wholesale rates which could be passed along to consumers. All the interested parties recognized the need for higher rates. The generating facilities furnished electricity to the distributing districts at rates set by contracts signed in the early years of the decade. Inflation had decreased the difference between generation costs and income to the point where the hydro facilities were in financial difficulty. Nevertheless, the rural districts and CPPD bulked at paying enough to make the hydro projects solvent and allow for expansion.[31] In September, 1949, the power interests arrived at an agreement. By its terms, the hydro-districts were to ask the Federal Works Administration (PWA's successor), to refund the loans owed the agency so that additional bond issues could provide new capital. REA was to be petitioned for a loan to pay for the needed generating facility. The hydro-districts agreed to sell current to the distributing districts on a cost-of-service basis. This meant that when inflation rendered it necessary, the generating facilities could increase prices without renegotiating contracts. The rural districts consented to buy all their power from the hydro-districts for ten years while CPPD agreed to make all

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[31]CPPD, while a "stepchild" of the hydro-projects, was not involved in power generation. The agency was concerned exclusively with marketing and distributing power in the urban

purchases from that source through 1972. The rural districts agreed to carry current over their lines to CPPD customers, and CPPD consented to provide the same service for rural districts.[32]

Soon thereafter, REA ventured into power generation in Nebraska for the first time. The agency loaned $8,500,000 to construct a new power plant in Bellevue.[33] Later, there were other REA-financed power plants constructed in the state. In 1958, the nation's first REA-financed 100,000 kilowatt single-unit generating facility went into operation in Nebraska.[34]

While the public power districts worked together to increase the state's generating capabilities, the push continued to electrify more farms. Increased farm income eliminated

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areas of the state in the same way that the rural districts marketed and distributed power in the rural areas of the state. They shared a common desire to keep wholesale power prices charged by the hydro-districts as low as possible.

[32]Clarence A. Davis, "Nebraska's Public Power Explained," Pamphlet, Nebraska State Historical Society, no date or publisher, pp. 31-32. (Hereafter cited as Davis, "Public Power Explained.") Davis was attorney for the Nebraska Power Company for many years. In that capacity, he fought the public power advocates, but when their takeover was completed, he went to work for CPPD. Richardson Interview.

OPPD remained aloof from the arrangements made by the other public power bodies in the state. At that time, that agency had the capability to generate and distribute all the power needed by its customers.

[33]Davis, "Public Power Explained," pp. 43-44.

[34]USDA, Rural Lines, p. 32.

one major obstacle to rural electrification, but vast distances between rural dwellings still rendered power development difficult. That problem proved so nearly insurmountable that by 1947, only North Dakota, South Dakota and Mississippi had lower percentages of electrified farms.[35]

Rural electrification accelerated rapidly in Nebraska in the late 1940's. Most of the steps leading to that expansion were taken in the early years of the decade but did not bear fruit until the war ended.

The Pace Act, as the legislation which reduced interest rates and moderated repayment terms in 1944 was commonly known, made it possible for REA projects to expand to serve areas not previously considered accessible. When the first lines had been energized in the Madison County District in 1940, 116 miles of line served 148 customers. In 1948, the district extended lines into Antelope County and changed the district's name to the Elkhorn Rural Public Power District.[36] In the 1930's, farm leaders in Antelope County had tried to develop an independent project, but the old problems of poverty and widely-dispersed farms prevented them from succeeding.[37] By 1956, when the

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[35]Congressional Record, February 17, 1948, p. 1368.

[36]Harold Severson, Elkhorn Rural Public Power District: Democracy in Action (Kenyon, Minnesota: Midwest Historical Features, 1965), p. 10. (Hereafter cited as Severson, Elkhorn District.)

[37]Herman M. Staley, Antelope County Agricultural Extension Agent Report, 1937, pp. 28-29; 1938, p. 35.

Elkhorn District completed line construction 1,813 miles of line served 3,325 customers--95 percent of the farms in Madison and Antelope Counties.[38]

Some districts consolidated to reduce administrative costs and facilitate expansion. In 1942, the Loup District's rural power division separated from the hydro-district and formed the Cornhusker Rural Public Power District. A year later, the Boone-Nance District joined the Cornhusker operation. Between 1945 and 1951, the combined district more than tripled in size. By the end of that time, 4,900 customers received power along 2,600 miles of line.[39] In 1941, the Lancaster County, Southeastern Nebraska, Norris, and Thayer County Districts consolidated into the Norris Rural Public Power District. During the following twelve years, the district's customer load increased from fewer than 2,000 in 1941 to more than 8,200 in 1953.[40]

Fourteen new rural power projects were organized in Nebraska during the 1940's. These projects, unlike their earlier counterparts, served less densely populated portions of the state. Southeastern, panhandle and sandhills counties that had earlier found it impossible to organize power projects obtained electricity.[41]

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[38]Seversen, Elkhorn District, pp. 9-10.

[39]Columbus Daily Telegram, April 11, 1952.

[40]Marvin, "20th Anniversary," Sorensen Papers.

[41]USDA, Rural Lines, pp. 43-48.

The new, expanded and consolidated rural power projects, as illustrated by Figure 20, nearly completed the electrification of rural Nebraska by the end of 1957. At that time, 93.4 percent of the state's farms were connected to highlines. Every county in the state but Douglas and Sarpy, well-served by OPPD, had at least one rural power project operating within its borders.[42]

Nebraska's farmers and their families benefited beyond measurement from rural electrification. Flickering lights disappeared from houses and barns. Dark farm yards were made brighter and safer. Electric irons and washing machines reduced washday drudgery. Electric ranges made it possible to cook meals in summer without enduring heat from red-hot wood stoves. Refrigeration provided dependable and simple food storage. Electric-powered water pumps made indoor plumbing commonplace. Milking, hoisting hay, sawing and innumerable other farm tasks were made easier.

E. B. Lewis and those who agreed with his 1935 survey were correct when they claimed that relative prosperity would have to preceed wide-spread rural electrification in Nebraska. During the depression, nearly every farm family spent available money for necessities. When prosperity returned, farmers could, and did, purchase and use the appliances and equipment which consumed enough current to insure project survival in sparsely

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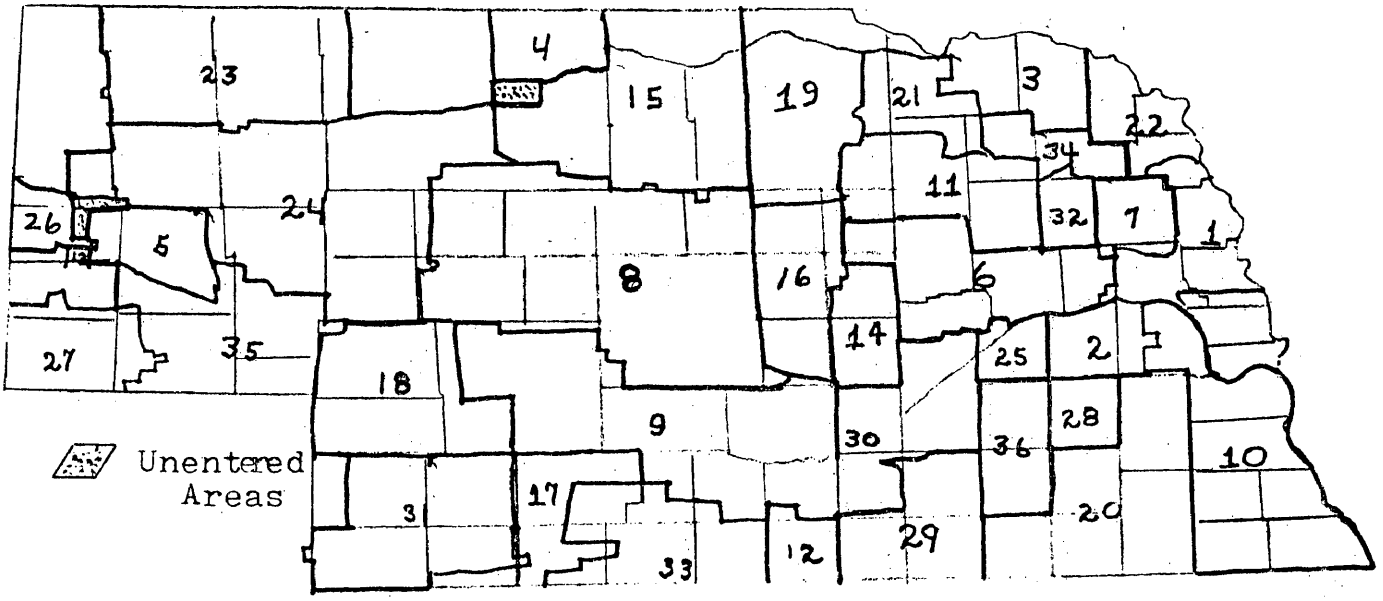
[42]Firth, Public Power, pp. 178-179.

Figure 20
Nebraska's REA Projects, 1957



1. Burt County RPPD
2. Butler County RPPD
3. Cedar-Knox County RPPD
4. Cherry-Todd Elec. Coop., Inc.
5. Chimney Rock RPPD
6. Cornhusker RPPD
7. Cuming County RPPD
8. Custer RPPD
9. Dawson County RPPD
10. Eastern Nebraska RPPD
11. Elkhorn RPPD
12. Franklin County RPPD
13. Gering Valley RPPD
14. Howard-Greeley RPPD
15. KBR RPPD
16. Loup Valley RPPD
17. McCook RPPD
18. The Midwest Electric Membership Corp.
19. Niobrara Valley Elec. Membership Assoc.
20. Norris RPPD
21. North Central Nebraska RPPD
22. Northeast Nebr. RPPD
23. Northwest RPPD
24. Panhandle Rural Elec. Membership Assoc.
25. Polk County RPPD
26. Roosevelt RPPD
27. Rural Electric Company
28. Seward County RPPD
29. South Central Membership Assoc.
30. Southern Nebraska RPPD
31. Southwest RPPD
32. Stanton County RPPD
33. Twin Valleys RPPD
34. Wayne County RPPD
35. Wheatbelt RPPD
36. York County RPPD

SOURCE: Firth, Public Power, pp. 178-179.

settled areas. Conversely, those rural power advocates were correct when they maintained power development would do much to improve rural prosperity.

Electric-powered irrigation more than doubled crop yields in parts of the rain-starved Great Plains.[43] REA projects served many small towns with fewer than 1,500 residents. Agriculture connected industries such as feed-grinding plants appeared in many of these towns after the electric lines came through.[44] By 1948, each farm family spent an average of $1,200 in local merchant's establishments for appliances and equipment within the first year after coming of electricity. REA projects employed local linemen, managers, bookkeepers, and stenographers. Money borrowed from REA purchased wires, transformers, poles, trucks and tools.[45] Rural electrification increased tax revenues while benefiting landowners by adding 10 to 15 percent to farm market values.[46]

When Nebraska's rural areas obtained electricity, most of the state moved into the twentieth century for the first time. The undeniable benefits that accompanied that step forward were not easily or quickly accomplished, but the results

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[43]"Power Along the Platte," Rural Electrification Administration News, December, 1942, pp. 13-14.

[44]"Electrifying the Northern Great Plains," Ibid, February, 1946, pp. 12-13+.

[45]Lincoln Star-Journal, November 14, 1948, p. D-4.

[46]Ibid, p. D-8.

made the effort worthwhile. Many Nebraskans have grown up on the state's farms and ranches without undergoing any more hardships than their urban counterparts. Modern rural life-styles serve as the only, and the best possible, monument to those who won the struggle for rural electrification in Nebraska.

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