RURAL ELECTRIFICATION IN OREGON: 1930-1955

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"Electricity is a modern necessity of life and ought to be found in every village, every home and every farm in every part of the United States." [1] President Franklin D. Roosevelt (1938).

Thomas Edison invented the incandescent light bulb in 1879. Three years later he opened the first commercial power plant and began generating and distributing electricity to customers in lower Manhattan, New York.[2] The electrical revolution had begun; and like no other force in history, electricity completely transformed how people lived. By turn of the century, residents of every major city in America were enjoying its benefits. In fact, its distribution and application in cities was so universal and met such basic needs that it became an absolute necessity for modern life.[3] By the 1930s, however, the failure to electrify the whole country had deprived the millions of people who lived in rural areas of the convenience of a modern standard of living. For nearly half a century while urban Americans enjoyed the pleasures of electricity, rural Americans continued to toil in darkness.

Electrification had not proceeded at the same pace in rural as in urban districts primarily because the private electric industry believed bringing electricity to the countryside was not economically feasible. Private utilities determined that if they were to extend lines to these remote locations, they would see little to no returns on invested capital. Thus, by the 1930s, nine out of ten rural homes in America were without electric service. But, beginning in 1935, the federal government recognized its duty to provide assistance to rural Americans so that they too could have the convenience of electricity in their homes and on their farms. The idea of providing federal assistance to accomplish rural electrification was formally recognized when President Franklin Roosevelt signed Executive Order Number 7037, thereby creating the Rural

[1] Richard A. Pence, ed., *The Next Greatest Thing* (Washington, D.C.: National Rural Electric Cooperative Association, 1984), 77.
[2] Rick Steber, *The First Fifty Years: Blachly-Lane County Cooperative Electric Association* (Prineville, OR: Bonanza Publishing, 1987), 3.
[3] Hart Edward Rutledge, "Rural Electrification in Washington" (master's thesis, University of Washington, 1933), 1.

Electrification Administration in May of 1935. By 1955, just twenty years after the administration's establishment, almost all of rural America had been electrified.[4]

The electrification of rural America revolutionized how a vast portion of Americans lived and worked. Given the historical ramifications of such an undertaking, the historiography on the subject is vast. Many of the works that explore rural electrification are national in scope, however, and examine rural electrification from many different localities in order to exemplify overall trends. A prime example of this is *The Next Greatest Thing*, edited by Richard A. Pence. This work examines electricity's direct impact on social change in rural communities by using source material and personal accounts from around the country to form an integrated national history of the subject. In addition, David Nye's work, *Electrifying America*, also examines the national history of rural electrification and people's adaptation to it by providing several detailed illustrations from around the country.

In contrast, the scholarly works that are more limited in scope tend to focus on one aspect of rural electrification, such as rural electric cooperatives. Brian Cannon's "Power Relations: Western Rural Electric Cooperatives and the New Deal," is a good example. In this work, Cannon surveyed the process of rural electrification between westerners at the grassroots level and the Rural Electrification Administration (REA) at the national level. He argued that REA empowered rural residents rather than deprived them of their initiative or agency. This was exemplified by the fact that many rural people eagerly, and voluntarily, directed the federal government's attention to their areas by applying for federal loans to assist in the electrification process.[5]

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[4] Joe F. Davis, *Use of Electricity on Farms: A Summary Report of Ten Area Studies.* Agricultural Information Bulletin, no. 161 (Washington, D.C.: U.S. Department of Agriculture, Agricultural Research Service, 1956), 4-5.
[5] Brian Q. Cannon, "Power Relations: Western Rural Electric Cooperatives and the New Deal," *Western Historical Quarterly* 31, no. 2 (Summer 2000): 135.

With regard to scholarly works that focus on the process of rural electrification in specific locations, however, there are a rather limited number of secondary accounts. Emily Borne's *Power to the People: A History of Rural Electrification in Indiana* is one of the few works that has delineated the story of rural electrification in a specific state. In this piece, she articulated the process of rural electrification in Indiana by examining the history of the Rural Electrification Administration and the establishment of cooperatives throughout the state. She also gave a brief overview of each cooperative and emphasized the power of local initiative in making rural electrification such a success in Indiana. Unfortunately, the process of rural electrification in Oregon is yet to be examined and complied in such a detailed fashion as Borne's study. This is how I think my study can significantly add to the historiography of rural electrification.

Whether writing the national history of rural electrification or on more detailed aspects of the phenomenon, the scholars who have contributed to historiography of rural electrification have all asked and answered similar, over-arching questions: What role did the government play in bringing electricity to rural America? How did rural Americans organize and work together in order to bring electricity to their homes? And, what did rural Americans do with the electricity they received? In this study, I would like to address these questions by investigating the process of rural electrification in Oregon. Some other questions I want to analyze and answer are: What role did private and public utilities of Oregon play in bringing electricity to rural areas? When and how were rural electric cooperatives established in the state, and what kind of challenges did they face in bringing electricity to their localities? And, how important was the role of the government, both local and federal, in securing electricity for rural residents in Oregon?

In order to answer these questions and to accomplish my goal of writing a history of rural electrification in Oregon, it will be necessary to employ an interdisciplinary approach. I will

analyze statistical and governmental documents such as electric power records and legislative reports, which I have obtained from the Oregon State Archives. I will also try to capture the human experience in order to delineate how rural Oregonians put to use the electricity they received. To accomplish the latter, I have conducted an oral history interview and compiled personal testimonies found in local periodicals and books. And since there is no written history detailing the process of rural electrification in Oregon that can serve as my foundation, it will be imperative to create the groundwork myself. To do this, I will piece together the published and unpublished primary source materials I have collected in order to chronicle the unique history of this profound social change in Oregon. The secondary sources that are available on the subject of rural electrification will provide useful information for specific sections of my thesis. For instance, there are several works that have been written on hydroelectric power and the construction Bonneville Dam.[6] Furthermore, all of the works that have been written on the Rural Electrification Administration, such as Fredrick W. Muller's *Public Rural Electrification*, will be helpful in analyzing the role of the federal government in bringing electricity to rural areas.

The introduction of electricity in the countryside vastly altered an entire way of living that had remained constant for decades. It alleviated the drudges of rural existence and quite literally brightened the futures of rural residents. By the 1930s, approximately 65 percent of American farmers had automobiles; 40 percent had telephones; 25 percent had battery-powered

[6] Gene Tollefson, *BPA & The Struggle for Power at Cost* (Oregon: Bonneville Power Administration, 1987); Bonneville Power Administration, *Columbia River Power for the People: A History of Policies of the Bonneville Power Administration* (Washington, D.C.: U.S. Department of Energy and Bonneville Power Administration, 1981); Bonneville Commission, *Report of the Bonneville Commission on Matters Relating to Bonneville Power Development and Use to the Thirty-Eighth Legislative Assembly of the State of Oregon* (Salem, OR: State Printing Department, 1934); Bayard O. Wheeler, "The Production and Distribution of Bonneville Power," *Land & Public Utility Economics* 14 no. 4 (November 1938); Wesley Arden Dick, "When Dans Weren't Damned: The Public Power Crusade and Visions of the Good Life in the Pacific Northwest," *Environmental Review: ER* 13, no. 3/4, 1989 Conference Papers, Part One (Autumn – Winter 1989); Vera Springer, *Power and the Pacific Northwest: A History of Bonneville Power Administration*, eds. Paul Alelyunas and Dan Schausten (Washington, D.C.: Bonneville Power Administration and U.S. Department of the Interior, 1976).

radios; but less than 10 percent had electricity.[7] Morris Cooke, the former head of the Rural Electrification Administration, once asserted, "Of the returns in terms of social well-being, national safety, agricultural and industrial advance, and of individual happiness and security, there is no yardstick adequate for the measuring" the value of rural electrification.[8] He was right, for life in rural America without the advantage of electricity was burdensome and difficult since farm chores and agricultural processes were largely dependent upon human labor for their completion. The electrification of rural areas was thus an important development in American history that should not be overlooked and is deserving of particular attention and research. The fact that there has only been a few works complied on rural electrification at the state level has come more as a challenge than a deterrent. Overall, I hope to offer something new to the historiography of rural electrification by focusing on Oregon's unique experience in electrifying its rural areas.

Not only was agriculture the last major sector inside the United States to be electrified, but America also lagged far behind other, more progressive nations in implementing a program for rural electrification. The First World Power Conference held in London in 1924, addressed this issue and contrasted US backwardness with the success of rural electrification in other countries.[9] In 1935, only one American farm in nine had electricity, compared to levels of over 95 percent in Holland, 85 percent in Denmark, or 90 percent in France and Germany, while even remote New Zealand and Tasmania boasted far higher levels than the United States.[10] As one observer aptly noted, "pigs in Norway, Sweden and several other European countries had

[7] Address Delivered by Morris Cook, Under the Auspices of the National Grange, Over the National Farm and Home Hour, 19 October 1935; Oregon State Planning Board, Power Records, "Rural Electrification Correspondence, 1935" Oregon State Archives, 89A-24.
[8] Kathryn A. Flynn and Richard Polese, *The New Deal: A 75th Anniversary Celebration* (Utah: Gibbs Smith, 2008), 124.
[9] [Gus Norwood], *SEPA History* (1984), 103; Gus Norwood Collection, "Histories," Salem Electric Archives.
[10] David E. Nye, *Electrifying America: Social Meanings of a New Technology, 1880-1940* (Massachusetts: The MIT Press, 1990), 299.

electricity in their (farrowing) houses for many years before millions of farmers and rural people of this country knew the miracle of the light bulb in their homes."[11] Consider some consequences with this: the American farmer had no electric lights, no washing machine, no power with which to operate a pump to provide running water, and no energy with which to put to use everything from a toaster to modern milking machines.[12] Thus, when electricity finally arrived, it changed everything.

It is important to note that the low national average of rural electrified areas hid important regional differences, for most of the progress made was concentrated in the Northeast and far West. In 1930, Oregon's population constituted less than 1 percent of the nations' total; but despite having a relatively low population, Oregon boasted one of the highest levels of rural electrification in the country.[13] In 1930, 28.4 percent of the farms in Oregon had electric service, compared to the national average of only 10.4 percent.[14] Not only did Oregon have one of the highest averages of rural electric consumption, but it was also one of the pioneers in rural electric development. In fact, the first known rural electric line in the nation to bring light and power to the farmer was built in 1906 along Brookside Drive near Hood River, Oregon. It was a two-mile extension that served the farm homes of James M. Hamblett, W. J. Baker, A. O. Hershey, W. H. Peugh and E. H. Sheppard.[15]

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[11] Jack Doyle, *Lines Across the Land – Rural Electric Cooperatives: The Changing Politics of Energy in Rural America*, ed. Vic Reinemer (Washington, D. C.: Environmental Policy Institute, 1979), 1.
[12] John Gunther, *Inside U.S.A.* (New York: Harper & Brothers, 1947), 131.
[13] Nye, *Electrifying America,* 301.
[14] Oregon State Planning Board, *Use of Electricity in Oregon with Forecasts of Future Demands, A Report* (Portland, OR, 1936), 34.
[15] Northwest Electric Light & Power Association, *Complete Rural Electrification for the Pacific-Intermountain Northwest*, Oregon: Portland General Electric Co., 1945), 6. In July, 1906, James M. Hamblett's house was the first to be connected.

According to an *Oregon Voter* article published in 1933, Oregon's early advancement in rural electrification was entirely due to private enterprise.[16] While it was true that private companies in the state, such as Portland General Electric (PGE), had been extending service to rural consumers, it was at a very slow pace.[17] Moreover, private utility's rates were steep, their terms for extending lines to rural areas were onerous, and construction costs were very high.[18] And on the few occasions when private utilities did extend lines to rural areas, they did so only in the most profitable and easily accessible areas. Some farmers, for instance, who lived on the fringes of the city or adjacent to major highways, were able to enjoy the advantages of electric service. Even in these few and favored locations, though, the rates were still high and the service was often unpredictable.[19] In 1929, Grover Neff, Chairman of Rural Lines Committee of the National Electric Light Association, aptly asserted, "The average central station manager is seemingly not offering the farmer much help and in some cases is actually opposing the extension of lines into rural districts. This is indeed an unusual situation. The farmer, a user of power, trying to force the utility, a seller of power, to sell him the product it has for sale." But, the private companies had already determined that the electrification of rural areas, as desirable as it may have been from a social viewpoint, was an economic impossibility.[20] Thus, it quickly became clear that rural America was severely underserved and that the willingness of the private companies to provide service only went so far. In order to correct this injustice, many people in

[16] "Heating Farm Homes *By Electricity*" *Oregon Voter*, 4 November 1933, p. 8.
[17] PGE continues as a subsidiary of Portland Electric Power Company (PEPCO) after it was dissolved in 1948.
[18] John M. Carmody, "Rural Electrification in the United States," *Annals of the American Academy of Political and Social Science* 201 (January 1939): 84.
[19] Erma Angevine, ed., *People – Their Power: The Rural Electric Fact Book* (Washington, D.C.: National Rural Electric Cooperative Association, 1980), 4.
[20] "We've Proved Them Wrong!" *Mississippi Rural Electric News*, January 1961, p. 2; Gus Norwood Collection, "Histories," Salem Electric Archives.

Oregon fought to bring the state into the power business and create competition through public power.

Prior to the 1930s, private electric companies in Oregon ruled supreme. These companies became so powerful that they held the people of Oregon politically and economically in an iron grip. Politically, these companies extended into every section of the state; they controlled city councils, the legislature, and high public officials.[21] Economically, the people of Oregon paid tribute to their monopoly in the way of excessive rates and limited economic development, especially in the countryside.[22] Political leaders of Oregon, namely state Senator George W. Joseph and Julius L. Meier, an Independent politician and later governor of Oregon, recognized that something had to be done to release Oregon and its residents from the powerful grip of the private electric companies. Their solution was the development of public power. "Which shall it be," asked Meier, "private development for the further enrichment of the coffers of the power trust, or public development for the benefit of the State of Oregon and its people?"[23]

Before 1926, there was no widespread organized movement in Oregon looking into the public ownership of power. Throughout the 1910s and 1920s, George Joseph introduced numerous public power amendments in the state Senate, but his ideas were often the subject of ridicule.[24] The first statewide movement for public power to attract general attention, then, was the Oregon Water and Power Board Development amendment, which was initiated in 1926 by the Housewives' Council of Portland. This amendment proposed to create the Oregon Water and

[21] Henry M. Hanzen, *Power: A Dramatic Story of the Crusade for Public Power, Culminating in Bonneville* (Salem, OR: Salem Capital Press, 1947), 16.
[22] Hanzen, *Power: A Dramatic Story of the Crusade for Public Power*, 31.
[23] Hanzen, *Power: A Dramatic Story of the Crusade for Public Power*, 30.
[24] Specifically Senator Joseph stated, "While in the state senate I introduced constitutional amendments which would have authorized the state or any municipality to develop our water power, believing firmly that the only way it will be saved for our people is by public development, and not by turning it over to the power trust. At the committee meetings at which my amendment were considered I was the subject of ridicule." From Hanzen, *Power: A Dramatic Story of the Crusade for Public Power*, 27.

Power Board, which would be granted full authority over the conservation, development, storage, and distribution of electric energy for domestic purposes.[25] Arguments for the measure stressed the economic savings associated with public power. However, the opposition to the amendment was enormous. The State Grange, which would have provided much needed support for the measure, only gave a last-minute endorsement to the Housewives' amendment because the organization was disgruntled with the failure to place its public power measure on the ballot.[26] In the last issue that would reach voters before the election, the Master of the Grange devoted a full column in the *Grange Bulletin* in favor of the Housewives' amendment, making numerous rate comparisons in an attempt to discredit the privately-owned electric companies in Oregon.[27] Despite efforts, the amendment was defeated at the November 1926 election by about four to one, with an 111,779 majority against it.[28] After the defeat, proponents of public power ownership admitted it was probably for the future good of their cause that the amendment had failed; and they were right.

The next and, ultimately, most important step taken toward the development of public power in Oregon was when the State Grange authorized its executive committee to draw up a plan for the formation of public utility districts in 1929. Like the Housewives' Council's amendment in 1926, this amendment did not go unopposed. In the Oregon Voter Pamphlet, *Why Every Citizen of Oregon Should Vote No*, it asserted, "This amendment is unwise and dangerous…we should overwhelmingly refuse to set up a brand new class of political bodies, and clothe them with unlimited power to spend money and levy taxes to engage in private

[25] Emerson P. Schmidt, "The Movement for Public Ownership of Power in Oregon," *Journal of Land & Public Utility Economics* 7, no. 1 (February 1931): 54.
[26] The Grange's proposed amendment would have allowed State and municipalities to develop and operate hydro-electric plants to sell the energy at cost from Schmidt, in Schmidt, "Movement for Public Ownership of Power in Oregon," 53.
[27] Ibid.
[28] Schmidt, "The Movement for Public Ownership of Power in Oregon," 56.

business, as this amendment proposes."[29] Furthermore, opponents reminded voters that less than four years ago the people of Oregon had rejected the Housewives' Council's amendment to put the state of Oregon in the power business.

On the other side were adamant supporters of the Grange amendment, which included public power advocates such as Julius L. Meir. In fact, Meir's approval for the new amendment was evidenced by his testimony,

> In Oregon the tentacles of the [power] octopus are the Pacific Power & Light Company, the California-Oregon Power Company, the Northwestern Electric Company, and the Portland Electric Power Company. A solution for Oregon's power problem is offered by the People's Water and Power District Constitutional Amendment initiated by the Oregon State Grange. The continuance of private development means the surrender of our last and greatest resource to the power monopoly – means that the people will forever pay tribute to this monopoly in the way of high rates and retarded economic development. Public development means the preservation of our power sites – their development for the benefit of the people – power at cost for light, heat and industry – progress and industrial expansion. Let us develop it for the people's benefit, and forever liberate Oregon from the stifling domination of the private power monopoly.[30]

To Meir's delight, the people adopted the Grange amendment with a majority vote of 32,998 on November 4, 1930.[31] The promulgation of the amendment established legislation for the creation of People's Utility Districts under Article XI, section twelve in the Oregon Constitution.[32] This new legislation began the liberation process of Oregonians from the domination of the private power monopoly, and offered a means by which rural Oregonians could organize for electricity.

Specifically, this amendment established People's Utility Districts (PUDs) as separate governmental entities with the authority to tax and to sells bonds for the purpose of providing

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[29] Utility Taxpayers Committee, *Why Every Citizen of Oregon Should Vote No on the so-Called "People's Water and Power Utility Districts Constitutional Amendment" at Election, November 4, 1930* (Oregon City, OR: Oregon City Enterprise, 1930), 4.
[30] Hanzen, *Power: A Dramatic Story of the Crusade for Public Power*, 30-1.
[31] Julius Meier was also elected governor in 1930, which signified Oregonians commitment to public power.
[32] Tillamook PUD, "What is a PUD?," Tillamook People's Utility District, http://www.tpud.org/about_why.html (accessed May 25, 2010).

electricity to people within a specified district, including the rural customers private utilities had neglected.[33] In 1942, the *Oregon Voter's* column, "Stymie for PUDs," asserted, "Virtually all PUDs of Oregon were created on the theory that service would be extended to include farms…Take away the votes of families promised an electric line to brighten their home and mechanically do their chores and many a PUD election which carried would have failed."[34] The potential for People's Utility Districts to bring power to unserved rural areas was greatly impeded, however, by the arduous process laid out in the PUD law.

According to Oregon law, in order for a PUD to be established, a preliminary petition had to first be filed with the Hydroelectric Commission, who would then conduct a hearing. After the hearing, the Commission would recommend changes in the proposal, which then had to be incorporated by the sponsors in the final petition. Only after the Commission made an advisory finding as to the feasibility of the proposal, was the plan placed before the voters.[35] But victory at the polls did not establish the district. Following the election, the whole procedure had to be validated by a court action, and if the procedure was validated, only then was the district technically formed.[36] However, the PUD was sill impotent until it was able to secure bonds to finance the acquisition of operating facilities. The Oregon law specifically required that bond issues be approved by the voters and validated in the courts. Many voters defeated the bond issues, however, because they disliked debt and failed to recognize that the bonds being issued

[33] Richard Eymann, "Public Power: The Yardstick That keeps Electric Costs Lower," *Oregon Grange Bulletin* 85, no. 6, 4 November 1985, p. 14.
[34] "Stymie for PUDs," *Oregon Voter*, 22 August 1942, p. 6.
[35] Hydroelectric Commission of Oregon, *Instructions and Suggestions for Procedure in Forming Peoples' Utility Districts* (Salem, OR: Hydroelectric Commission of Oregon, 1935), 2.
[36] "Power Districts: An Emerging Device for Low Cost Electricity," *Yale Law Journal* 60, no. 3 (1951): 490-1, http://www.jstor.org/stable/793379.

were typically revenue bonds that did not obligate taxpayers in anyway.[37] This provision alone virtually crippled the formation of all PUDs in Oregon.[38]

In addition to the impeded progress brought about by stringent provisions of the Oregon law, another prohibitive element in the formation of PUDs was opposition by private power companies. These companies had significant influence in the legislature and were often times able to deny PUD boards from issuing bonds without even going to the voters. The obstructive nature of the bond authorization requirements, furthered by the efforts of privately owned companies was illustrated by the fact that in 1950, of the twelve districts actually formed in Oregon since 1931, only four had commenced operations.[39] Evidence of the latter was brought to the attention of the people through the remarks of Walter M Pierce in an address before the House of Representative on March 4, 1937. He asserted,

> Under our State law, written into the statutes through the efforts of the State Grange, the work of forming power districts has been going forward slowly. This rather slow development can be traced directly to the private utilities which use every possible scheme for blocking the organization of a district.[40]

In fact, a Federal Power Commission inquiry in 1941 found that five private utilities operating in the Northwest had spent at least $790,000 for propaganda purposes against proposed People's Utility Districts between 1935 and 1940. The Commission speculated that the actual total of such expenditures might have been well over one million dollars.[41] The efforts of the private companies were further evidenced in the daily newspapers that told of PUD after PUD being

[37] "Power Districts: An Emerging Device for Low Cost Electricity," 492.
[38] Marquis W. Childs, *The Farmer Takes a Hand: The Electric Power Revolution in Rural America* (New York: Double Day & Company, Inc., 1952), 206.
[39] "Power Districts: An Emerging Device for Low Cost Electricity," 492.
[40] Walter Marcus Pierce, *Public Ownership of Utilities and Bonneville Dam Power Problems: Remarks of Hon. Walter M. Pierce*, (Washington, D.C.: U.S. Government Printing Office, 1937), 3.
[41] Pacific Northwest Public Power Records Survey and Western Washington University, *Guide to Historical Records of Pacific Northwest Public Power Utilities* (Bellingham, WA: Pacific NW PP Records Survey, 1981), 2.

turned down by voters all over the state.[42] J.D. Ross, future administrator of Bonneville Power Administration, asserted that the private companies were "inefficient monopolist attempting to get by propaganda and falsehood and politics what they [could not] get by engineering and merit."[43] And, even though the private company's propaganda efforts worked in most cases to deter the creation of PUDs, the districts that were formed helped bring electricity to rural areas of the state. One such People's Utility District was Tillamook PUD.

In 1933, Tillamook PUD became the first People's Utility District to be established in Oregon. However, it took the PUD fifteen years of hard work from its inception before the system was actually functional; thus, Tillamook PUD serves as a particularly good example of the long and arduous process of formation many PUDs in Oregon had to endure. In 1932, there was widespread dissatisfaction with the high rates and poor service offered by the investor-owned utility, Mountain States Power Company, in Tillamook County. Much of the discontent steamed from the company's failure to extend service to rural areas.[44] In 1933, voters of Tillamook County passed the PUD initiative, but it was not until 1940 that voters finally authorized the district to issue $750,000 in electric revenue bonds. Shortly after that, the PUD reached a tentative agreement with the Mountain States Power Company to buy its generating facilities for $625,000.[45] However, the district could not reach a final agreement with the company, and after eighteen months of negotiations, the purchase agreement fell through. As a result, the district had to wait even longer to make good on their promise to bring public power to the residents of Tillamook County.

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[42] A.L. Lindbeck, "PUD War Up Again," *OR Journal*, 19 September 1940, p. 23.
[43] "J.D. Ross' Ideas on Political Ownership," Memoranda prepared by Wesley A. Dick, 4; Gus Norwood Collection "Histories," Salem Electric Archives.
[44] Tollefson, *BPA & The Struggle for Power at Cost*, 105.
[45] "Tillamook PUD Goes into Business," *Oregon Grange Bulletin* 48, no. 19, 5 March 1949, p. 3.

Tillamook PUD's opportunity to formally commence operations came after the promulgation of the Rural Electrification Act in 1936 and the establishment of the federal government's program to offer low-interest loans to areas where rural residents had not yet received electricity. Since there were a number of unserved farms in Tillamook County, the PUD immediately decided to apply for an REA loan in an effort to serve these rural areas. In 1947, the PUD obtained a loan of $95,000 to be used in the construction of seventeen miles of line to serve twenty-three customers.[46] Two years later, the PUD was up and running, operating a system that served approximately 250 rural customers.[47] In fact, because of the better service and lower rates provided by Tillamook PUD, other customers in the County wanted to make the switch from Mountain States Power service to PUD service, but at that time REA regulations frowned upon the idea. Tillamook PUD's competitive system was proof that public power could succeed despite legislative obstacles and the private power companies that stood in its way. The only other successful People's Utility Districts in Oregon up until the 1950s, however, were Central Lincoln PUD, Clatskanie PUD, and Northern Wasco PUD.[48]

Oregonians' determination to be released from the powerful grip of the private power industry was evidenced by their passage of the People's Utility District amendment in 1930, and was further exemplified by the effort many citizens put forth in establishing PUDs across the state. The limited success of PUDs, however, highlighted the fact that much remained to be done in Oregon with regards to rural electrification. In fact, rural electrification did not really take off in the state, and the rest of the country, until the federal government intervened in 1935.

[46] "Rural Electrification," *Oregon Voter*, 8 February 1947, p. 21
[47] Ibid.
[48] Pacific Northwest Public Power Records Survey, *Guide to Historical Records*, 26-9.

The assistance provided by the federal government was the factor that, above all others, finally changed the situation and made universal rural electrification a reality.[49]

Prior to the federal government's initiatives of the 1930s, there had been two major programmatic efforts that looked into the feasibility of providing electricity to rural Americans. One was the Committee on the Relation of Electricity to Agriculture (CREA) and the second was Giant Power in Pennsylvania. CREA was established in 1923 and was a joint effort by several organizations, such as the National Grange, National Light Association, and the United States Department of Agriculture, whose main objective was to study and promote the use of electricity on the farm. From its inception, however, the organization was the focal point of controversy between those who wanted rural electrification accomplished under private sponsorship and those who advocated public power.[50]

CREA was funded by private utility companies and headquartered in the Farm Bureau offices in Chicago, but branches of the organization were established in several states, including in Oregon. The organization's leaders insisted that the rural electrification was a task to be accomplished by the private power companies. Guy E. Tripp, Chairman of the Westinghouse Company, speaking on the subject of "Restoring the Balance Between Industry and Agriculture" in 1926, agreed that rural electrification was the job of the private companies not the government stating, "No government body – State or Federal – can do it effectively [electrify rural areas]. The driving force of all government effort is political expediency, and political expediency is a

[49] Fredrick William Muller, *Public Rural Electrification* (Washington, D. C.: American Council on Public Affairs, 1944), 2. In order to ensure universal coverage, the government enacted the policy of area coverage with the Pace Act in 1944. This amendment also set the interest rate at two-percent and extended the years of repayment from 25 to 35 years in Clyde T. Ellis, *A Giant Step* (New York: Random House, 1966), 112. It is also important to note, that the intervention of the federal government in the field of rural electrification, spurred the private utilities to action.
[50] Philip J. Funigiello, *Toward a National Power Policy: The New Deal and the Electric Utility Industry, 1933-1941* (University of Pittsburgh Press, 1973), 124.

power tool when applied to economic problems."[51] However, CREA was established first and foremost as a fact-finding agency. The hope was that the findings of such an independent committee would prove how extensively rural residents would use electricity and ultimately, how profitable electricity would be when applied to agriculture.[52] In order to prove this, CREA set up a rural electrification demonstration near Red Wing, Minnesota. Half of the farms in the experiment were equipped with just about all the modern electric appliances and equipment then in existence. In the end, when the number of household and farm chores reduced by electricity was compared to those farms homes without it, the differences were striking. In fact, none of the participants wanted to give back any of the electric appliances at the conclusion of the trial.[53]

Even though the Red Wing experiment proved the value of electricity in improving living conditions on the farm, public power groups criticized CREA and their investigations as half-hearted attempts to electrify the farm, and ultimately, as a guise to make it look as if the private electric industry was addressing the rural electrification problem.[54] CREA continued to conduct studies until the committee disbanded in the 1930s after concluding that the costs of electrifying the countryside would be prohibitive for the private electric companies to undertake. At this point, the private sector was still too preoccupied with providing service only to areas where they would see high returns on their investments.

The other organization to seriously look into the possibility of electrifying rural areas was Giant Power of Pennsylvania. It was to be a statewide, government-assisted program aimed at providing an abundant supply of electric power. Pennsylvania's governor, Gifford Pinchot,

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[51] Harry Slattery, *Rural America Lights Up*, ed. Sherman R. Mittell (Washington, D. C.: National Home Library Foundation, 1940), 17.
[52] Ibid.
[53] Wesley Arden Dick, "Visions of Abundance: The Public Power Crusade in the Pacific Northwest in the Era of J.D. Ross and the New Deal" (PhD diss., University of Washington, 1973), 9-10.
[54] Ronald R. Kline, *Consumers in the Country: Technology and Social Change in Rural America* (Maryland: Johns Hopkins University Press, 2000), 136.

proposed the plan in the early 1920s, stating that electricity would be distributed by private, municipal, or cooperative utilities to serve factories and homes, and to electrify rural areas. Pinchot believed that the private sector had failed to provide adequate service to the state's rural inhabitants and contended their rates were excessive, which made electric power inaccessible to the state's rural population.[55] He saw Giant Power as a means of bringing about social transformation through cheaper power and the implementation of electricity in the countryside. Pinchot asserted, "The most radical change in electric utility thinking will come through completely disassociating rural rates and service from urban rates and service…No material progress can be made until the principle is abandoned."[56] He sought to abandon this principle with the creation of Giant Power.

Pinchot recruited Morris L. Cooke to head the Giant Power Survey, which proposed a bold plan of action that included rate reform, new power plant construction, recycling of coal byproducts, building of transmission lines, and extension of service to isolated areas.[57] With regard to his idea, Pinchot asserted:

> Giant Power is a plan to bring cheaper and better electric service to all those who have it now, and to bring good and cheap electric service to those who are still without it. It is a plan by which most of the drudgery of human life can be taken from [the] shoulders of men and women who toil, and replaced by the power of electricity.[58]

In essence, the idea was to build a statewide grid of electric lines, fed mainly by power plants at the coal mines to serve both town and countryside.[59] The power plants, the transmission lines, and the local distributors would each be under separate management, and the state would

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[55] Amy Friedlander, *Power and Light: Electricity in the U.S. Energy Infrastructure 1870-1940* (Virginia: Corporation for National Research Initiatives, 1996), 85.
[56] Morris Llewellyn Cook, ed., "Giant Power: Large Scale Electrical Development as a Social Factor," *The Annals of Political Science and Social Science* CXVIII (March 1925):53.
[57] Friedlander, *Power and Light*, *86*.
[58] Thomas P. Hughes, *Networks of Power: Electrification in Western Society, 1880-1930* (Maryland: Johns Hopkins University Press, 1983), 298.
[59] David Cushman Coyle, *Conservation, an American Story of Conflict and Accomplishment* (New Jersey: Rutgers University Press, 1957), 166.

regulate prices to keep them low for all consumers; Giant Power implied electricity for the public welfare rather than simply for profit.[60] In fact, about a third of Cook's report on Giant Power was dedicated to various aspects of rural electrification, and he opened his technical report by stating, "When farmers of Pennsylvania wake up to the fact that electricity can transform their lives from drudgery and ineffectiveness to comfort and accomplishment, nothing will prevent them from having it. There is no insurmountable obstacle in the way; will for electric power will bring it."[61] Private electric companies, however, unanimously condemned the proposed idea, calling it "socialistic theory," and united with Republican legislators to kill the Giant Power plan in the Pennsylvania Legislature.[62] Although Giant Power was shot down, it was nevertheless a landmark proposal that demonstrated the plausibility of rural electrification on a wide-scale basis. Among other experiences, Cooke took away from the project the idea that extension of power to rural areas could be self-supporting if there were a minimum of three farms per mile. This would become a cornerstone policy at REA after Cooke was appointed to head the agency in 1935.[63]

Until the mid-1930s, the federal government only pointed to the problem of rural electrification and expected rural Americans to secure for themselves electrical service through private companies. But as previously evidenced, this expectation was unrealistic, for even when private companies were willing to extend electric service into rural districts, the economic burden of constructing the lines was placed on the rural customer. In fact, it cost nearly two to three thousand dollars to construct just one mile of line, and many rural residences were several

[60] Dick, "Visions of Abundance," 8.
[61] [Gus Norwood], *SEPA History*, 75.
[62] Nye, *Electrifying America*, 297.
[63] Friedlander, *Power and Light*, *86*-7.

miles from distribution lines.[64] At a time when the annual farmer's income was $1,800 there were very few farm families who could afford the cost of initial line construction.[65] Furthermore, the consumption rates in the countryside were exorbitant, up to four times higher than rates in urban areas, as Franklin Roosevelt suggested at the Rural Electric Cooperative dedication at Barnesville, Georgia in 1938,

> Fourteen years ago a Democratic Yankee came to a neighboring county in your state in search of pool of warm water wherein he might swim his way back to health…There was only one discordant note in that first stay of mine at Warm Springs. When the first-of-the month bill came for electric lights for my little cottage, I found that the charge was 18 cents a kilowatt hour – about four times what I pay at Hyde Park, N.Y. That started my long study of public utility charges for electric current and the whole subject of getting electricity into farm home.[66]

In order to ensure the widest possible use of electricity, the government needed to lower the cost, not only in order to make it more affordable to rural residents, but also to break the monopoly of private power companies through public competition.

It was becoming increasingly evident that rural Americans wanted to have the convenience of electricity in their homes and on their farms, but the private electric industry endorsed the claim it was not a charitable institution. This attitude was doubtlessly expressed in an editorial news article in the *Electrical World* for May 28, 1932, entitled "How Stand Rural Electrification?"

> The primary interest of the electric utility in rural electrification is revenue. Social responsibility is a factor, a strong one, but electric utilities are not eleemosynary institutions and they cannot undertake to serve any class of customers on any narrower base than that the revenue will pay at least the cost. Therefore, conspicuous advances in farm electrification must wait until the converging efforts in reduction of cost of service

[64] Nye, *Electrifying America*, 303.
[65] Donald H. Cooper, ed., *Rural Electric Facts: An American Success Story* (Norwest Rural Electric Cooperative Association, 1970), 9.
[66] Emily Borne, *Power to the People: A History of Rural Electrification in Indiana* (Indiana Statewide Association of Rural Electric Cooperative Inc., 1985), 8.

> and in persuading the farmer actually to use electricity have met and merged into a single stream of progress.[67]

The remarks of a few utility leaders also conveyed the impression to the public that the industry was motivated solely by greed: "Unless rural service is worth more than it costs, it should not be supplied," declared one utility magnate.[68] Consequently, many people feared that full electrification of rural areas would occur slowly if the dominant criterion for constructing lines was profit; until service replaced profit, the rural dweller was doomed to remain in darkness. It had become obvious that rural America had neither the advantage of an easily served population nor willing financers interested in backing the expensive development of electric power in the countryside.[69] Thus, it became the federal government's priority to not only fund the construction of lines, but also to ultimately lower consumption rates.

Prior to Franklin D. Roosevelt taking office in 1932 and establishing the Rural Electrification Administration in 1935, he was a long-time advocate of the benefits of rural electrification. In fact, while Roosevelt was governor of New York in the late-1920s, he established a state Power Authority with approval from the state Legislature. This agency was charged with developing waterpower from the St. Lawrence River and made the first comprehensive study of electricity distribution costs. Results of this study, in combination with the findings from other national studies, began to show the plausibility of providing service to rural residents.[70] In fact, the success of Roosevelt's Power Authority in New York was an impetus for starting a nationwide rural electrification program when he became president.[71]

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[67] Slattery, *Rural America Lights Up*, 25.
[68] Funigiello, *Toward a National Power Policy*, 124.
[69] Doyle, *Lines Across the Land*, 1.
[70] Rural electric facts, 11.
[71] Borne, *Power to the People*, 9.

The power issue was a significant topic during the 1932 Presidential campaign. Judson King published a forty-seven page booklet entitled, "Power Records of the Presidential Candidates," which fifteen senators and twenty-two congressmen signed a cover statement to addressing the importance of the power issue in the forthcoming election:

> We regard the power question in its economic, industrial and social aspects as one of the most important issues before the American people in this campaign of 1932. Its political significance cannot be over estimated and must challenge the attention of those interested in any progressive movement or measure. The reason is plain. The combined utility and banking interest, headed by the Power Trust, have the most powerful and widely organized political machine ever known in our history. It is strenuously working to control the nomination of candidates for the Presidency and the Congress of both dominant political parties (dicks thesis, 113).

The "tentacles" of the power trust did not have Franklin Delano Roosevelt in its mighty grip. In fact, Roosevelt made correcting the injustices of the private power industry one of the main objectives of his presidential campaign, using the lack of rural prosperity as a telling example. Roosevelt accused the investor-owned utility companies of exploiting ratepayers and slowing economic development in the countryside through monopoly pricing practices, which were based on the premises that profit was more important than service.[72] In fact, Roosevelt addressed this very topic in a speech at Portland, Oregon on September 21, 1932. In his speech he asked, "What prevents our American people from taking full advantage of this great economic and human agency? The answer is simple. The reason is frankly and definitely that many selfish interests in control of the power industry have not been sufficiently far-sighted to establish rates low enough to encourage widespread public use."[73]

[72] William M. Emmons III, "Franklin D. Roosevelt, Electric Utilities, and the Power of Competition," *Journal of Economic History* 53, no. 4 (December 1993): 880.
[73] Samuel Rosenman, ed., "Campaign Addresses on Public Utilities," in *The Public Papers and Addresses of Franklin D. Roosevelt*, 13 vols. (New York: Random House 1938-1950), 1:734.

Roosevelt continued his speech by explaining why electric power development was of such national concern. He also called for better regulation of private utilities and upheld the right of the people to establish public power systems:

> As I see it, the object of Government is the welfare of the people. The liberty of people to carry on their business should not be abridged unless the larger interests of the many are concerned. When the interests of the many are concerned, the interests of the few must yield. It is the purpose of the Government to see not only that the legitimate interests of the few are protected but that the welfare and rights of the many are conserved…With the advance of civilization, many other necessities of a monopolistic character have been added to the list of public utilities, such as railroads, street railways, pipelines, and, more recently, the distribution of electricity…cold figures do not measure the human importance of the electric power in our present social order. Electricity is no longer a luxury. It is a definite necessity. It lights our homes, our places of work and our streets…In our homes it serves not only for light, but it can become the willing servant of the family in countless ways. It can relieve the drudgery of the housewife and lift the great burden off the shoulders of the hardworking farmer. I say 'can become' because we are most certainly backward in the use of electricity on our farms.[74]

This speech articulated a campaign promise that Roosevelt carried out after his election in 1932. After that date, rural electrification became a social program; it was discussed less in terms of profit and loss and more in terms of rights and minimal standards.[75] During his twelve years as President, Roosevelt served as the catalyst of revolutionary change in rural America and endowed the nation with a substantial national power program that would, in less than three decades, bring about the near completion of rural electrification. After displaying a hands-off attitude for nearly half a century, the federal government decided to take an active role in bringing electricity to the long-denied rural residents of Oregon and the rest of the country.[76] Public power awareness was created in Oregon in the 1920s by George Joseph, Julius Meier, and Grange leaders. By the 1930s, the time had come for the federal government to step in and build

[74] Samuel Rosenman, "Campaign Addresses on Public Utilities," 727-34.
[75] Nye, *Electrifying America*, 304.
[76] Bonneville Power Administration, *Columbia River Power for the People*, 27.

off their initiatives and assume leadership to see to it that rural Oregonians, and rural residents across America, received electric power in their homes and on their farms.

The project of rural electrification was national in scope, size and importance for it affected the life, prosperity and happiness of millions of Americans. It was obvious, then, that a program so vast and of such national significance would eventually need to rely on federal assistance to carry it past formidable obstacles to a successful culmination.[77] T. W. Norcross, author of the 1935 *A New Deal in Rural Electrification: A National Plan*, stated, "Nowhere in the field of private enterprise at this time is there a movement strong enough to bring about the changes required to secure rural electrification to the extent and within the time set up in the new objectives. Federal assistance, therefore, is an essential factor in overcoming existing conditions which prevent adequate progress" in rural electrification.[78] Norcross, however, was certainly not the only one who believed in the power of the federal government to bring about universal rural electrification, Morris Cooke was another.

In fact, Cook made the issue of rural electrification one of his major priorities as was first evidenced by his involvement with Giant Power in Pennsylvania in the 1920s. His stance on the issue was again made clear when he issued a governmental report in 1934 in which he asserted, "Having recognized the advantages of rural electric service and reached the conclusion that only under Governmental leadership and control is any considerable electrification of 'dirt farms' possible, the obvious obligation is to get it done."[79] The issuance of this document, entitled "National Plan for the Advancement of Rural Electrification Under Federal Leadership and Control with State and Local Cooperative and as a Wholly Public Enterprise," was a significant

[77] T. W. Norcross, *A New Deal in Rural Electrification: A National Plan* (Washington, D.C.: National Power Policy Committee, 1935), 2, http://naldr.nal.usda.gov/NALWeb/Agricola_Link.asp?Accession=CAT10930569.
[78] Norcross, *A New Deal in Rural Electrification*, 23.
[79] Pence, *The Next Greatest Thing*, 61.

turning point in the rural electrification process in America. Specifically, the report convinced Roosevelt and other government officials of the desirability and the do-ability of rural electrification if the federal government provided assistance.[80] In fact, the content presented in this document ultimately led to the creation of the Rural Electrification Administration in 1935; Cooke asserted, "It may be said that the reception accorded this report made certain that the Federal Government would see that rural electrification was made an essential feature of our economy."[81] For Cooke, the cure for darkness in the countryside was a governmental assistance agency, a solution which he wrote about in his report under a section titled, "The Answer – a Rural Electrification Agency."[82]

Morris Cooke's desire for government intervention in the form a federal agency was formally recognized on May 11, 1935 when President Roosevelt signed Executive Order 7037 thereby creating the Rural Electrification Administration (REA). The new administration was placed under the authority of the Emergency Relief Appropriation Act and was assigned the following duties: "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."[83] It is also important to mention that since the new agency was established under the larger Emergency Relief Appropriate Act, rural electrification became one element in a general program for the relief of unemployment. This was a controlling factor in the administration's initial activities since the Emergency Relief Appropriation Act required that at least 25 percent of funds be spent directly for labor and 90 percent of that labor needed to be taken from the

[80] Pence, *The Next Greatest Thing*, 63. This report is often referred to as the "12 minute memo." To encourage readership Cooke had the words "This report can be read in 12 minutes," inscribed on the cover.
[81] Borne, *Power to the People*, 9.
[82] Ibid.
[83] United States Rural Electrification Administration, *Electric Power on the Farm: The Story of Electricity, its Usefulness on Farms, and the Movement to Electrify Rural America*, ed. David Cushman (Washington, D.C.: U.S. Government Printing Office, 1936), 90.

unemployed relief rolls, most of who were not skilled technicians.[84] The Rural Electrification Administration's leaders quickly determined, however, that power lines could not be built with unskilled labor. Given the situation, Roosevelt took the agency out of the relief business and made it a low-interest lending agency, establishing the federal pattern that was to bring light to millions of rural Americans. With this change, rural electrification had essentially become a national business investment.[85]

After the promulgation of REA in 1935, Oregon District Chairman Marshall Dana sent a letter to State Treasurer Rufus C. Holman addressing the particular situation the new administration would face in bringing electricity to Oregon. "It will be difficult," he stated, "to reach the majority of the farms still unserved, on an economic basis, because of the remoteness from present transmission lines, and the small number of potential consumers per mile of transmission line, in extensive areas of the state."[86] The obstacles the administration faced in Oregon were not exclusive to the state, however, for many rural areas in the nation faced the same problems. As a result, REA developed a national plan for rural electrification and even engineered new methods for line construction to cut costs, which had long been a prohibitive factor in bringing electricity to the remote farmer. In fact, by 1940 the cost of building a mile of line had been drastically reduced from two to three thousand dollars to $720.[87] This new low cost was entirely due to the efforts of REA engineers and their ingenuity in developing innovative techniques that made construction more economical, such as reducing the number of poles needed per mile.

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[84] Borne, *Power to the People*, 10.
[85] H. S. Person, "The Rural Electrification Administration in Perspective," *Agricultural History* 24, no. 2 (April 1950): 73.
[86] Letter to Rufus C. Holman from District Chairman Marshall N. Dana, 16 November 1935; Oregon State Planning Board, Power Records, "Power Committee Correspondence, 1924-1935" Oregon State Archives, 4/10/4/5, 9 of 22, 89A-24.
[87] Cooper, *Rural Electric Facts*, 18.

Morris Cooke, appointed director of the new Rural Electrification Administration, started the national program of rural electrification by turning to the first logical borrowers of REA appropriations – the privately owned electric companies. He met with the top power companies and asked them for a proposal on how they would proceed with REA loans. Cooke was outraged by their plan, however. Their report claimed that "there are very few farms requiring electricity for major farm operations that are not now served," and that the problem of the farmer is "a social rather than economic problem."[88] The private power companies also proposed that they take the entire $100 million of REA appropriations for the construction of 78,180 miles of new lines and the connection of 351,000 prospective rural customers.[89] But what about the other millions of rural residents in America, how were they going to receive electric power? The shortsightedness of the private utilities' proposal, therefore, no longer made them a frontrunner for the allotment of REA funds. In fact, their disinterest in providing universal electric coverage would eventually lead to the passage of the Rural Electrification Act in 1936.

At the end of 1935, many government officials were disappointed with the progress of REA. There was a feeling that the need existed for a more positive, long-range program outside the restrictive framework of a mere relief project. Early in 1936, Senator George Norris of Nebraska and Representative Sam Rayburn of Texas vowed to make REA a permanent loan agency.[90] The Norris-Rayburn Bill, as it became known, called for REA to be set up as an independent agency with the authority to distribute loans for the advancement of rural electrification. An important condition of this bill was that preference in loan dispersal would always be given to "municipalities, people's utility districts and cooperative, nonprofit or limited

[88] Person, "The Rural Electrification Administration in Perspective," 74
[89] Ibid.
[90] In 1944, Congress passed the Department of Agriculture Organics, popularly referred to as the Pace Act, which authorized the continuance of the Rural Electrification Administration indefinitely in Cooper, *Rural Electric Facts*, 27.

dividend associations."[91] In the hearings that were conducted on the Norris-Rayburn Bill, the private power companies did all they could to warn Congress about what they felt was the inevitable ineffectiveness of non-profit companies in the electric power industry. The most heated debate over the passage of the bill took place on the floor of the House of Representatives. The chief House defender of government intervention into the field of rural electrification was Mississippi's John Elliot Rankin. When Connecticut's Schuyler Merritt rose to defend the "progress" private utilities had made in electrifying rural areas in America, Rankin took him on:

> Rankin: The gentleman says electric service is quite new. Of course it is no more new in this country than in Europe.
> Merritt: If you compare [Europe] with the Eastern states or California, I think the results as satisfactory here as they are there.
> Rankin: I wonder if the gentleman knows that in New Zealand two-thirds of their farms are electrified, [and] in the United States 10 percent are…
> Merritt: In New Zealand they deal with enormous tracts of land…Also, New Zealand is a socialistic state.
> Rankin: I wonder if the gentleman knows that in France and Germany 90 percent of their farms are electrified. Those are not socialistic states.
> Merritt: No, they are not socialistic, but they are imperialistic.
> Rankin: I wonder if the gentleman knows that Holland and Switzerland are practically a 100 percent electrified.
> Merritt: But they are no larger than our New England.
> Rankin: I understand that there is not state in New England that has even 25 percent of its rural farms electrified.
> Merritt: I do not care to give this gentleman more time.[92]

This heated exchange was evidence that the passage of the Rural Electrification Act, the name the Norris-Rayburn bill was given after it was signed, was not void of disagreement and controversy. There were people on both sides of the issue – there were those who believed government intervention was necessary to complete rural electrification, and then there were those who adamantly opposed the idea. Despite many heated debates, however, the measure

[91] Pence, *The Next Greatest Thing*, 66.
[92] Pence, *The Next Greatest Thing*, 67.

cleared both chambers, and on May 20, 1936, President Roosevelt signed the new Rural Electrification Act into law, one year and ten days after the Rural Electrification Administration had been created by executive order.[93]

With Roosevelt's signature on May 20, 1936 REA changed its course of action. From that point forward, the Rural Electrification Administration was to strictly be an independent, government lending agency, which would distribute low-interest-bearing and self-liquidating loans to interested borrowers.[94] This legislation was crucial to the continued progress of rural electrification since the federal government could finance at a lower interest rate than private utilities. Furthermore, without pressure from stockholders, REA could be more generous in its lending terms, especially to regular citizens who collectively turned out to be the most significant borrowers. "It became apparent," Morris Cooke wrote in his first annual report, "that the [private] industry was not even going to use a portion of the funds available for rural electrification, and farm organizations of a co-operative character forged to the front as the principal borrowers under the REA program."[95]

The Rural Electrification Administration's main objective was to foster the expansion of rural electrification, and it was decided early in the process that the cooperative was to do the job the private power industry had failed to do. Specifically, the wording of the new Act reinforced the latter by offering first preference for financing to nonprofit organizations such as cooperatives, People's Utility Districts, and municipalities, so long as they were willing to extend lines into rural areas not yet served.[96] A highly significant document that exposed the cooperatives' potential in bringing electricity to rural areas was a report titled, "A Study of

[93] Pence, *The Next Greatest Thing*, 66.
[94] Person, "The Rural Electrification Administration in Perspective," 73.
[95] Childs, *The Farmer Takes a Hand*, 63.
[96] Angevine, ed., *People – Their Power: The Rural Electric Fact Book*, 24.

Cooperative Consumer Associations for Rural Electrification," prepared in 1935 by Udo Rall, head of the Federal Emergency Relief Administration's Division of Self-Help Cooperatives.[97] The report recognized that the job of rural electrification could best be accomplished through cooperative organizations with the financial and technical assistance of the federal government.[98] This report, along with the negative response of the private power industry, made REA particularly responsive to cooperatives. In spite of the difficultly of organization and operation, the cooperative idea, in partnership with REA, became the dynamic force that would bring rural America out of the darkness.[99]

American farmers had long been familiar with cooperative organizations. Ever since the pioneer days, farmers had been establishing cooperatives to accomplish any task too large for the individual farm family to handle alone.[100] Thus, when the power companies showed little interest in using REA funds to build electric lines into rural districts, it was only natural that the leaders of farm organizations proposed the formation of another type of cooperative; this one to provide electric service to those who had gone without for so long. In fact, as early as 1910 Theodore Roosevelt emphasized the importance of effective cooperation among farmers so that they could attain electricity. In particular, he believed it was the responsibility of the government to alert farmers to the monopolistic ways of the private power industry so rural residents could become aware and organize to counter the actions of the private companies. In the *Report of the Country Life Commission* released in 1910, Roosevelt asserted, "It is the obvious duty of the Government to call the attention to farmers to the growing monopolization of water power. The farmers above all should have that power, on reasonable terms…for lightening

[97] Kline, *Consumers in the Country*, 142.
[98] Joseph G. Knapp, *The Advance of American Cooperative Enterprise: 1920-1945* (Illinois: The Interstate Printers & Publishers, Inc., 1973), 360-1.
[99] Pence, *The Next Greatest Thing*, 81.
[100] Angevine, *People – Their Power*, 11.

their homes and for innumerable uses in the daily tasks on the farm."[101] If the private power industry was not going to administer that power to rural areas, the farmers would have to get it themselves.

The establishment of electric cooperatives turned out to be a very successful method by which many rural residents were able to provide power to their localities and keep initial construction costs to a minimum.[102] Specifically, these cooperatives were set up as non-profit businesses that were not restricted by county boundaries. However, they could only serve rural areas that were not already being provided with electric service. Furthermore, cooperatives were autonomous organizations controlled by their members.[103] This was unlike investor-owned utilities, which were run by a select few individuals and the amount of say in everyday operations was governed by the number of shares held. Thus, at a time when the private, investor-owned utilities refused to electrify rural America, these residents turned to a type of organization they had long been familiar with to contract for their own power. As a result, rural electrification became a great grassroots movement. Rural residents wanted electricity and they were determined to get it. As early as 1929 this enterprising attitude could be felt, and was captured in the words of Dr. E. A. White, an agricultural engineer and director of CREA. He asserted, "The farmers have made up their minds that electricity is something they can and are going to have."[104] Farmers, who had long been denied the convenience of electricity by private power companies, now had the opportunity to attain it by working cooperatively, demanding legislative action, and borrowing enough money from the federal Rural Electrification

[101] Nye, *Electrifying America*, 288.
[102] Angevine, *People – Their Power*, 11.
[103] A. R. Bellerue, *REA Co-ops: A Compulsory-Political System* (Colorado: Pine Tree Publications, 1966), 2.
[104] Slattery, *Rural America Lights Up*, 21.

Administration to build their own lines.[105] The *Star* editorial further defined the situation stating, "It is not part of the great American dream that the people shall be led by the hand, and literally nursed into prosperity. Nothing of the kind. The dream calls for self-confident people to take advantage of opportunities furnished by government or agencies assisted by government."[106] And that is just what rural residents did. All across the nation, they overcame the difficulties of organization and in a short time rural electric cooperatives, financed by REA loans, began to spring up. This marked the first step towards universal rural electrification of America.

These organizational efforts were demonstrated by rural Oregonians as well. On April 28, 1937, after the articles of incorporation were filed in Salem, Blachly-Lane County Cooperative Electric Association became the first REA-financed cooperative to operate in Oregon. Frank Savage, the first manager of Blachy-Lane Country Cooperative, stated, "The REA designated Blachy-Lane as 'Oregon 2'. The application 'Oregon 1' was not approved so we were the first to receive a loan from REA."[107] The original impetus for the formation of an electric cooperative in the county came from rural residents who, like so many around the country, had been unable to secure service from the private utilities. The story of the founding of Blachy-Lane County Cooperative is said to have begun in 1933 when Lake Creek Valley farmer Ray Cogdon challenged his neighbors saying, "I do believe that if we were all to get behind it, we could have electricity in this valley."[108] In 1934, the community rallied together and formed one of the first People's Utility Districts in Oregon, Lake Creek PUD. But before the PUD was formally recognized, the Rural Electrification Act was passed and members decided to go with

[105] Clyde T. Ellis, "The Triumph of Rural Electric Cooperatives," in *Consumer Activists: They Made a Difference: A History of Consumer Action Related by Leaders in the Consumer Movement* (Mount Vernon, NY: Consumers Union Foundation, 1982), 59.
[106] Dick, "Visions of Abundance," 144.
[107] Steber, *The First Fifty Years*, 24.
[108] Steber, *The First Fifty Years*, 4.

REA instead. Shortly after Blachly-Lane County Cooperative's establishment, REA provided $98,000 in loans for initial start-up costs. On November 4, 1938, the cooperative energized forty-six miles of line, which brought electricity to 125 rural residents.[109] In 1940, the cooperative announced that it was given approval to extend its service area by ten and a half miles. To accomplish this, REA loaned Blachly-Lane County Cooperative another $55,000 to assist with construction costs.[110] After the line was built, several of the county's residents were able to experience for the first time the benefits of electricity, a feeling that had long been denied to them by the private power companies in the area, namely Mountain States Power. By 1941, REA had approved a total of $224,000 in loans to Blachy-Lane County Cooperative and approximately 300 members were receiving electric service.[111]

A similar story of local cooperation and organization could be told in The Dalles, home of Wasco Electric Cooperative. By 1940, the private power company in the area, Pacific Power and Light, had run its power lines from town to town, and like most private utilities throughout the nation, had neglected to extend service to the rural areas in its territory. Thus, it did not come as a surprise to Eric Johnson, a rancher from the area, or his sixteen neighbors when Pacific Power and Light told them it would not be economically feasible to extend lines to their homes.[112] As a result, local residents held a meeting to inquire about an alternative means by which they could secure electricity for their homes and farms. At this meeting, residents decided to organize an electric cooperative. That was in April of 1940. By August, REA had granted the new Wasco Electric Cooperative a loan to aid in initial start-up costs, and in February of 1941,

[109] Blachly-Lane County Cooperative, "Our History," http://www.blachlylane.coop/about/history.php (accessed November 3, 2009).
[110] "Blachly Power Extension Sure: Definite Word on Loan Revealed by Savage," *Eugene Register Guard*, 23 July 1939, p. 1.
[111] Steber, *The First Fifty Years*, 6.
[112] Childs, *The Farmer Takes a Hand*, 207.

the cooperative was ready to energize its first twenty-six miles of line.[113] As in so many other places around the country, the opening of Wasco Electric Cooperative's electric generating system was a matter of community celebration.[114] The thought that the benefits of electricity were finally at their finger tips, generated a noticeable level of excitement among the county's rural population. To express their enthusiasm, a huge picnic was organized to celebrate the momentous occasion. Several hundred farmers who attended the event listened to speeches about how, through cooperative effort, they had done what the private electric companies had said was impossible. By 1952, Wasco Electric Cooperative's network consisted of a thousand miles of distribution line, which provided electric service to 1350 customers.[115]

The Wasco Electric Cooperative was particularly concerned with the principle of area coverage when electrifying the county's rural areas. Abiding by this concept ensured all residents were connected to power lines not just the most easily accessible, which had long been the policy of the private electric companies. In fact, by the late 1940s, almost complete area coverage had been achieved by the cooperative.[116] To exemplify the cooperative's commitment to area coverage, in one section of the county there were only seven farmhouses in twenty-nine miles. Given the vast distance between these homes, the private electric companies would have surely determined that it was impossible on an economic basis to extend service to these residences. The cooperative, however, was determined to supply them with electric service, and serve them they did. By 1952, those farmhouses were using $20,000 worth of power a year.[117] Another example that portrays Wasco Electric Cooperative's commitment to area coverage was what the cooperative did for rural residents of Sherman County. Farmers in Sherman County

[113] Ibid.
[114] Knapp, *The Advance of America Cooperative Enterprise*, 368.
[115] Childs, *The Farmer Takes a Hand*, 207.
[116] Childs, *The Farmer Takes a Hand*, 208.
[117] Childs, *The Farmer Takes a Hand*, 209.

were faced with choosing between the service of Wasco Electric Cooperative or the service of the private power company, Pacific Power and Light. To determine which entity would service the area, a meeting was held to hear proposals from both parties. After the 165 farmers assembled heard the offer of Pacific Power and Light, Eric Johnson, head of the Wasco Electric Cooperative, arose to make his proposal. He pointed to maps of the area and told the private company's representative, "All right, if you will promise to serve everybody on this map as we do, we'll give you our maps and let you serve the farmers."[118] The spokesman for Pacific Power and Light Company declined, and Wasco Electric Cooperative, still committed to the principle of area coverage, extended its services to rural residents of Sherman County.

Another example of the pioneering ventures of rural Oregonians to secure electric power was the establishment of Midstate Electric Cooperative in LaPine, Oregon. The cooperative was founded in 1949 and the impulsion for organization came from a number of rural residents who were disappointed by the private electric companies' lack of effort in extending service to their areas.[119] In 1954, the Rural Electrification Administration issued Midstate Electric Cooperative a $995,000 loan to furnish power for the Fort Rock, Silver Lake and Christmas Lake valleys of Northern Lake County.[120] According to the *Bend Bulletin*, "the money will be used in the construction of 192 miles of distribution line… [and] it will serve 327 rural consumers."[121] However, given the rough terrain of the area and the vast distance between residences, the cost of constructing the initial lines was a staggering $3,043 per customer.[122]

The Harney Electric Cooperative of Burns was yet another electric cooperative organized by the efforts of rural Oregonians. Like so many other cooperatives in the state, Harney Electric

[118] Ibid.
[119] Pacific Northwest Public Power Records, *Guide to Historical Records*, 34.
[120] "Oregon Highly Electrified," *Oregon Farmer,* 16 May 1957, p. 20.
[121] "Loan Approval Given Midstate Cooperative," *Bend Bulletin*, 15 June 1954, p. 1.
[122] "Oregon Highly Electrified," *Oregon Farmer*, p. 20.

came into existence because many rural residents in the county were unable to obtain power from the private power companies at a decent rate they could afford. The cooperative was founded October 8, 1954 and energized soon after. A loan of $1,110,000 was allotted to the new Harney Electric Cooperative by REA in 1956. The distribution lines that would be constructed with these appropriations would result in electric service being extended to 350 Malheur and Harney County rural consumers, all of whom were still lacking power.[123] In 1959, REA issued Harney Electric Cooperative another loan in the amount of $5,100,000 – 2.5 million of which would be spent expanding the cooperative's territory in Oregon and providing electric service to hundreds of more rural residents in the county. According to the *Bend Bulletin* from June 29, 1959, "Harney Cooperative plans to construct 213 miles of new transmission lines between Burns and Northern Nevada and 736 miles of distributions lines…Senator Richard L. Neuberger (D-Ore.) said this power grid would bring electric service to one of the most sparsely populated areas in the west and would end the kerosene lamp era for nearly 500 farm families."[124]

Another part of Oregon where the private electric companies refused to provide rural residents with service was Lane County. In 1939, local residents held a meeting to discuss the possibility of organizing an electric cooperative. Due to the high level of turn out and interest, McKenzie River Electric Cooperative Incorporation was established. In 1940, a man by the name Frank Bennett informed McKenzie River's directors that other residents in the area were also interested in organizing electric cooperatives. He told the directors that these other groups would appreciate being allowed to begin preliminary organization under the name of the existing cooperative. The initial intention of these groups was to eventually separate and become their own entities. However, the directors quickly realized that one large cooperative would be most

[123] "Loan Approved for Harney Co-op," *Eugene Register Guard*, 29 February 1956, sec. A, p. 5.
[124] "Big REA Loan Okayed for Burns," *Bend Bulletin*, 29 June 1959, p. 5.

beneficial to all parties involved. In 1940, everyone agreed and the groups combined to form Lane County Electric Cooperative. The new integrated cooperative began accepting memberships immediately, and the number of potential customers expanded from the original 260 in the McKenzie River area to more than 700 members across the county.[125]

In 1940, a contract was sent by Lane County Electric Cooperative to REA headquarters in Washington, D.C. This document completed negotiations between the federal agency and the cooperative, making available the first $53,000 of the $300,000 appropriated for the construction of power lines in the county.[126] Surveyors and engineers immediately set to work and by 1941, construction of the first forty-five miles of transmission line along the McKenzie River was complete. The contract for building the initial line was awarded to the firm of Wayman and Huenergard, which submitted a low bid of $55,615 in May of 1941.[127] The *Eugene Register Guard* made this statement about the situation in the September 15, 1941 edition: "A dream of years with McKenzie valley residents that they might have electric lights for their homes and farms came up one step closer to realization this week with the announcement from the Lane County Electric Co-operative office that erection of the poles has been started on the McKenzie project by the contractors, Wayman and Huenergard."[128] By 1942, Lane County Electric Cooperative had received approval for REA loans totaling $595,000. This money would be used to expand the cooperative's network so that it could serve an additional 1,300 members south and east of Eugene.[129] Like so many other rural areas in Oregon, rural residents in Lane County witnessed what cooperative action could accomplish; it could over come supposedly economic impossibilities and usher in a new era of prosperity in the countryside.

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[125] Edison Kenyon, *50 Years Lane Electric Co-op: 1939-1989* (Oregon: Eugene Print, 1989), 7.
[126] "Bennett Resigns Position With REA," *Eugene Register Guard*, 7 August 1940, p. 1.
[127] Kenyon, *50 Years Lane Electric Co-op*, 12.
[128] "Raising of Poles Begins on REA McKenzie Project," *Eugene Register Guard*, 15 September 1941, p. 3.
[129] Kenyon, *50 Years Lane Electric Co-op*, 12-3.

However, sometimes the plan of cooperatives to supply electricity to residents in certain areas was undermined by the activities of the private electric companies – the same companies that refused to serve rural areas in the past. For instance, cooperative membership lists would be complete, but then the local power company would construct a power line right through the heart of the proposed service area. On occasion, the private companies did this during the night while the members were sleeping, leaving them unable to take any steps to prevent it. When private power companies took part in these actions they were "skimming the cream," hooking up the most easily accessible rural residences, areas the cooperative had particularly counted on to make the whole system pay out.[130] Consequently, this behavior sometimes led to a cooperative going out of business before it was even energized. These kinds of incidences were not isolated and occurred around the country, including in Oregon. For a specific example we look to Lane County.

The private power company, Mountain States, was of serious concern to the Lane County Electric Cooperative. In the minutes of a board meeting, the cooperative's secretary reported on a discussion that concluded, "The private power company [Mountain States Power] is a very serious threat to the cooperative in nearly every district" and added "delay in construction…no doubt will result in the loss of considerable territory."[131] Rural residents of Lane County who lived during the initial start-up phase remembered how a Lane Electric crew would be constructing a line along one side of a road while a crew from Mountain States would be constructing another line along the other side. Jim Paddock, former employee and board member of Lane County Electric, recalled an instance when the race to connect customers took place on opposite sides of a lake,

[130] Pence, *The Next Greatest Thing*, 88.
[131] Kenyon, *50 Years Lane Electric Co-op*, 9.

> When I came down in 1949 they were just finishing the line that went around Dorena Dam. They were just starting to work on the dam. Lane Electric was not serving down there yet, and we had to get our line down to Culp Creek. The old Mountain States Power Company was on one side of the dam and Lane Electric was on the other. It was a funny thing to see. When we got service in first, they (Mountain States) just dropped their construction and left the poles. They hadn't even gotten the crossarms on many of them. They just left the poles sitting in the ground. They were there for years after.[132]

As nonsensical as it was the duplication of line and the race between cooperatives and private power companies to hook up rural customers was very real indeed. For cooperatives, it meant the difference between success and failure of a cooperative, and for the private utility it meant the difference between a new market and the loss of potential profits. It ultimately became a race to see which entity could reach a group of new customers first.

Mountains Power Company was also a threat to Blachy-Lane County Cooperative as well. As soon as the cooperative was established, the private company sought to undermine the efforts of local residents by constructing lines into the most populated areas of the new cooperative's territory. Exemplifying this, Mountain States Power built sixty miles of line into the Elmire-Noti area, the area between Cheshire and Eugene, and in the area north of Junction City as well.[133] Harold Livingston, a member and former employee of the Blachy-Lane Cooperative, described the situation stating, "We went to work [building line] and when Mountain States saw all the activity they got busy on the other side of the road. We raced. Our side won because we had more at stake."[134] This latter remark was very true. Many rural residents had put their hearts and souls into making sure their home and farm was supplied with electric power, and no private company was going to get them to back down; they had waited too long to enjoy the benefits of electricity to let their efforts be compromised without a fight.

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[132] Ibid.
[133] Steber, *The First Fifty Years*, 6.
[134] Steber, *The First Fifty Years*, 14.

Another instance of competition between cooperatives and the private power industry occurred between Malheur Cooperative Electric Association and the Idaho Power Company in eastern Oregon. The *Oregon Voter* spoke of the "squabble" in the August 3, 1940 issue stating: "A serious conflict involving a federally sponsored power project reached its climax in eastern Oregon the past week. The 'scrap' is between Malheur Cooperative Electric Association and Idaho Power Co and centers upon intent of each to serve certain rural areas in Malheur County."[135] Malheur Cooperative Electric Association had just been granted a $108,000 loan by REA to construct 115 miles of lines to serve approximately 347 farms in the county.[136] Farmers planned to do most of the line building, including cutting and placing of the poles. So, when Idaho Power Company came in and tried to build spite lines through the heart of cooperative's territory, rural residences in Malheur County were furious. The *Oregon Voter* article also described how both parties in the rivalry had built almost one hundred miles of duplicating line.[137] Even four years later, the scrap was still ongoing. Morton Tompkins, a resident of Malheur County, asserted, "Now is the time for advocates to get busy…If the private companies won't sell out on reasonable terms, we'll [continue] to parallel their lines."[138] However, in 1949 Malheur Cooperative Electric Association lost the battle, and Idaho Power Company acquired the cooperative's operating facilities and territory.[139]

Despite these "battles" and setbacks, the determination of rural Oregonians to bring electricity to their areas was also evidenced by the fact that when a plan for a People's Utility District had fallen through, residents did not give up; instead, they organized electric

[135] "Power Squabble," *Oregon Voter*, 3 August 1940, p. 18.
[136] "REA in Malheur," *Oregon Voter,* 3 February 1940, p. 20.
[137] "Power Squabble," *Oregon Voter*, p. 18.
[138] "Morton Tompkins," *Oregon Voter*, 11 March 1944, p. 16.
[139] "Idaho Power Company History," Funding Universe, http://www.fundinguniverse.com/company-histories/Idaho-Power-Company-Company-History.html (accessed November 25, 2009).

cooperatives. One place where this occurred was in Hood River County. In 1942, Hood River People's Utility District was organized. Two years later, on January 7, 1944, the board of directors submitted to voters a request for the permission to issue up to $175,000,000 worth of revenue bonds for the purpose of acquiring the operating facilities of the private power company in the area.[140] On January 9, 1944 word came that the bond issue election had failed; the *New York Times* asserted the next day that, "Voters of the Hood River People's Utility District…defeated yesterday a proposed $175,000,000 revenue bond issue to finance the greatest public power venture in the Pacific Northwest's history."[141] After the failure of the bond issue, citizens did not give up and, instead, established Hood River Cooperative in 1945 to serve the rural areas still without power.[142] In addition to this example, the failure of Lake Creek People's Utility District, McKenzie River People's Utility District, Nehalem Basin People's Utility District, and Central Oregon People's Utility District, all resulted in the establishment of electric cooperatives as well to provide rural residents still without power.[143] Despite limited success, People's Utility Districts, together with REA cooperatives, were able to extend electric service to rural areas of Oregon that had been neglected by the private power companies.

By 1954, fifteen Oregon cooperatives had been established, with systems stretching across nearly 80 percent of the state and providing electric service to thousands of rural residents.[144] The power brought to rural Oregonians through these cooperatives forecasted a new era of development and prosperity. Prior to government intervention, there were few instances of power in the countryside. People lived a drab, burdensome lifestyle, and their chance of

[140] "Hood River Co. PUD Asks Bond Vote," *Mt. Adams Sun*, 26 November 1943, p. 1.
[141] "Utility District Bands $175,000,000 Venture: Voters in the Hood River Valley Refuse to Authorize Bonds," *New York Times*, 9 January 1944, p. S6.
[142] Pacific Northwest Public Power Records Survey, *Guide to Historical Records*, 33.
[143] Pacific Northwest Public Power Records Survey, *Guide to Historical Records*, 26-9.
[144] Mark Glasess, "Reader Challenges REA Column," *Statesman Journal*, 19 April 1986, sec. A, p. 8.

acquiring power was difficult and costly. The issuance of the REA's loan program spurred the actions of rural Americans and provided funding so that they could be advocates for themselves. In fact, it was local leadership and the efforts of committed rural citizens that made rural electrification in the widest possible sense come to fruition.[145] The REA preferred, in fact, to build upon local initiative as the agency's monthly publication, *Rural Electrification News*, explained, "Healthy cooperatives cannot be called into existence by external promotion. They have to develop from the initiative of the people who are going to do the cooperating."[146] And that is what happened; rural electrification was accomplished by the untiring efforts and dedicated service of many people across the nation.[147] In Oregon, as well, its residents accepted the challenges before them and demonstrated the capacity to manage successfully a type of enterprise outside the boundaries of their previous experiences. [148] The evidence of their achievements could be found in the successful establishment of several cooperatives around the state. Rural Oregonians wanted electricity, and when the private companies refused to provide service to their area, they banded together to contract their own power with the help of the federal government through REA loans.

As previously exemplified by the duplication of rural distribution lines, the widespread interest in rural electrification engendered by the activities of cooperatives and People's Utility Districts resulted in the private power companies of the state entering the fight to hook up rural customers. While at first most of this activity was done in a spiteful, vengeful way, overtime the private power companies began to offer service to rural residents on more reasonable terms.

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[145] Pence, *The Next Greatest Thing*, 147.
[146] Brian Q. Cannon, "Power Relations: Western Rural Electric Cooperatives and the New Deal," *Western Historical Quarterly* 31, no. 2 (Summer 2000): 138.
[147] Lester R. Johnson, speaking on a Tribute to REA Pioneers, on February 28, 1962, to the House of Representatives, *Cong. Rec*., 87th Cong., A1527; Gus Norwood Collection, "Histories," Salem Electric Archives.
[148] Person, "The Rural Electrification Administration in Perspective," 88.

Many companies began to lower rates, liberalize line extension requirements and embark upon vigorous programs of rural line construction across the state.[149] In fact, prior to the establishment of public power bodies, the private electric companies of Oregon were responsible for electrifying most of the 27.5 percent of rural Oregon homes that had electric service by 1935. For instance, Mountain States Power Company, which served the Willamette Valley, started distributing power to rural areas within its territory in 1911, and Portland General Electric Company began experimenting with rural line extensions just one year later.[150] Due to the activities of these private companies, rural electrification in Oregon was well under way prior to the establishment of PUDs and cooperatives; however, most private companies were forced to limit expansion into rural areas for their own survival since serving sparsely populated areas was not cost effective. After REA was established, though, many private companies began to make a more concerted effort to reach farmers and other rural residents in the state.

By the mid-1930s, providing electric service to rural areas started to become an important source of growth for many private power companies in Oregon. One such company was Pacific Power and Light, which had utilities in Astoria, Pendleton, and The Dalles. By 1941, the company had 73,000 customers, and was responsible for electrifying 4,400 farms in both Oregon and Washington. [151] Another company that experienced important growth from the extension of line into rural areas was PGE. In fact, PGE applied for an REA loan of $100,000 in 1937 to aid in the construction of approximately one hundred miles of rural line. The loan, at a low interest rate of 2 percent, was approved by REA officials. According to in article in the *Capital Journal*

[149] The exact extent private electric companies in Oregon participated in rural electrification is cause for further research and more definitive examples.
[150] Northwest Electric Light & Power Association, *Complete Rural Electrification for the Pacific-Intermountain Northwest*, 6.
[151] "PacifiCorp Company History," Funding Universe, http://fundinguniverse.com/company-histories/PacifiCorp-Company-History.html (accessed December 5, 2009).

on October 6, 1937, "negotiations for the money had almost been completed. Then Congressman (OR) Walter M. Pierce, friend of the famer and 'free power' disciple extraordinary, injected himself into the picture to protest such a loan to a private utility."[152] The Congressman's objections were heard, and ultimately had the effect of preventing the investor-owned electric company from securing the REA loan. Despite this set back, PGE still extended service to rural areas under the company's relatively liberal extension policies of the time, backed by the assistance and finance of the Electric Home and Farm Authority.[153]

During the 1930s, Portland General Electric strung 558 miles of new transmission line, primarily all to rural customers. By 1937, PGE had extended service into 86 percent of the rural area in its territory and only a few, sparsely populated areas remained unserved. But PGE was determined to eventually serve these folks too, as was evidenced by the company's annual report of 1937, which specifically asserted it was prepared to extend service to these remote locations when economically practicable.[154] In less than ten years, PGE blanketed its rural territory with 3,532 miles of distribution line and offered rural residents electric rates comparable with the low rates enjoyed by their urban counterparts. The company also had plans to extend two hundred more miles of rural line in 1945 to serve areas in its territory still without power.[155] In fact, Portland General Electric's success in extending line to rural areas helped deter the creation of a People's Utility District in Washington County in 1942. An analysis of a PUD election by PGE in 1938 revealed that voters in rural areas where the private company had not built lines were strongly in favor of public power. The results of these findings caused PGE to start extending

[152] Arthur H. Greisser, *PGE: History of Portland General Electric Company, 1889-1981* (Portland, OR: Portland General Electric, 1982), 96.
[153] Ibid.
[154] Craig Wollner, *Electrifying Eden: Portland General Electric, 1889-1965* (Portland, OR: Oregon Historical Society Press, 1990), 157.
[155] Northwest Electric Light & Power Association, *Complete Rural Electrification for the Pacific-Intermountain Northwest*, 1.

more line into rural areas, and to be sure the company captured the support of rural residents, it even reduced services rates by 24.53 percent. These actions ultimately succeeded in winning over rural residents' votes at the May 15, 1942 election; the proposed PUD measure in Washington County was defeated by 3,201 "no" votes out of a total of 5,201 votes.[156]

In 1930, Oregon had only contained 15,767 electrified farms. Just a decade later, the total number of farms in the state being served was 38,850, or 63 percent. This remarkable gain marked a 146 percent increase in the number of rural Oregonians that had the modern convenience of electricity in their homes and on their farms.[157] By 1955, twenty years after the promulgation of the Rural Electrification Act, a survey showed that 97.2 percent of Oregon's farms were electrified.[158] All told, REA was responsible for advancing $28,445,352 in electric loans to seventeen Oregon borrowers, fifteen of them cooperatives. The federal financing permitted service to 31,019 rural Oregonians from 9,006 miles of line.[159] The rest of rural Oregonians obtained their power via People's Utility Districts or from the private electric companies in the state.

Perhaps the most pivotal element contributing to the success of rural electrification in Oregon was Bonneville Dam and the power it generated. Throughout the late-nineteenth and early-twentieth centuries, residents of the Pacific Northwest had been told about the greatness of the Columbia River:

> The Columbia River is the miracle river of America…It is the greatest hydroelectric stream in America…It is an oil well that will never run dry, a coal mine that will never thin out…The greatest single asset of the Pacific Northwest is the Columbia River.[160]

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[156] Greisser, *PGE: History of Portland General Electric*, 97.
[157] "Electric Farms: Oregon Beats All Averages," *Oregon Voter*, 15 November 1941, p. 19.
[158] Joe F. Davis, *Use of Electricity on Farms: A Summary Report of Ten Area Studies*, 4-5
[159] "Oregon REA Loans Soar: Figures Doubled Over Last Year," *Oregonian*, 13 September 1954, p. 6.
[160] Bonneville Power Administration, *Columbia River Power for the People*, 47.

These quotations paraphrase what dozens of public officials had been telling citizens of the Pacific Northwest for decades. Even though the physical frontier in America had vanished by the 1930s, the Pacific Northwest was still considered a land of opportunity, exceptionally favored by nature.[161] "Nature," declared the First Annual Report of the Bonneville Administrator "has endowed the Pacific Northwest with an incomparable wealth of resources, especially in the inexhaustible supply of hydroelectric energy of the Columbia River and its tributaries."[162] Officials contested that construction of dams along the Columbia River would help achieve widespread electrical modernization and be especially beneficial in electrifying the countryside.

In March of 1925, the River and Harbor Act directed the Corps of Engineers and the Federal Power Commission to jointly estimate how much it would cost to survey the nation's rivers where power development appeared to be practicable. In April of that year, the Corps submitted to Congress a list of rivers across the nation that they deemed worthy of a detailed investigation; this was the now famous House of Representatives Document 308.[163] One of the rivers identified by the report was the Columbia. By the time the investigation was complete, it wound up costing approximately $734,100. Despite the cost, the findings of the survey were invaluable and led the way for House Document 103, which called for the construction of the first federal dam on the Columbia River to be built at Bonneville.[164] This document also declared that the Columbia River was "capable of being developed into one of the greatest

[161] United States Department of Interior, *First Annual Report of the Bonneville Administrator* (Washington, D.C.: U.S. Government Printing Office, 1939), 4.
[162] United States Department of Interior, *First Annual Report of the Bonneville Administrator*, 57.
[163] William F. Willingham, "Columbia River Multi-Purpose Development in the 1930," in *Army Engineers and the Development of Oregon: A History of the Portland District U.S. Army Corps of Engineers* (1983); 93. http://140.194.76.129/publications/misc/un24/toc.htm (accessed May 25, 2010).
[164] Abbie B. Liel and David P. Billington, "Engineering Innovation at Bonneville Dam," *Technology and Culture* 49, no. 3 (2008): 730. http://ceae.colorado.edu/~liel/bonneville.pdf (accessed May 25, 2010).

systems of low-cost hydroelectric power in the United States."[165] In fact, approximately 40 percent of the nation's potential hydropower lay in the Columbia River alone.[166] President Franklin Roosevelt was aware of this fact and promised in his famed power speech in Portland, Oregon in 1932 that the Columbia River would be the next large hydroelectric development undertaken in the United States. On September 30, 1933 that promise was carried out when construction formally began on Bonneville Dam under the direction of the Corps of Engineers as Public Works project number twenty-eight.[167]

In 1934, President Franklin Roosevelt stood at the future site of the Bonneville Dam and delivered a powerful speech to the mass crowd assembled and to many more listening by radio. He stated:

> Yes, seeing is believing…While we are improving navigation, we are creating power, more power – and I always believed in the old saying, 'More power to you.' I don't believe that you can have enough power for a long time to come, and the power that we are developing here is going to be power which for all time is going to be controlled by the government. Two years ago, when I was in Portland, I laid down the principle the government needs yardsticks so that the people of this country will know whether they are paying the proper price for electricity of all kinds. And I conceived the idea that the government should create yardsticks.[168]

When President Roosevelt assured the crowd that Bonneville power was to be government controlled for all time, one spectator uttered, "See, I told you he'd help the little fellow. No grafting holding company's going to get this dam."[169] The harnessing of the mighty Columbia's waters for the development of power offered the promise of a more prosperous region and a better standard of living for thousands of people.[170] In order to protect these invaluable benefits

[165] United States Department of Interior, *First Annual Report of the Bonneville Administrator*, 2.
[166] Dick, "Visions of Abundance," 117.
[167] Department of the Interior, *First Annual Report of the Bonneville Administrator*, 3.
[168] Fred, Lockley and Marshall N. Dana, *More Power to You* (Portland, OR: Oregon Journal, 1934), 108.
[169] Dick, "When Dans Weren't Damned," 134.
[170] Department of the Interior, *First Annual Report of the Bonneville Administrator*, 4.

from the predatory interests of the private companies, the federal government sought direct control and authority over the dams and the power that was to be generated.

The 1934 *Report of the Bonneville Commission Relating to Bonneville Power Development and Use* claimed that the Bonneville project had aroused an interest in the public as nothing had done for decades. The authors of the report speculated that this increased level of interest was due to the vast amount of power Bonneville Dam was anticipated to generate after its completion.[171] The people believed the new hydroelectric power, if properly used, would mean the start of an era of marvelous development and increased prosperity for the Pacific Northwest, especially the countryside.[172] According to the *Minority Report Market for Bonneville Power*, rural residences in Oregon made up the largest potential market for Bonneville power; "it is the most immediate and certain market," the report declared.[173] Private utilities, however, were among the doubters. Kendall Hoyt articulated the private companies' outlook in 1936 when he asserted the dams were justified ostensibly and the real purpose for their construction was the socialization of electrical utilities. Hoyt declared, "Each dam is a white elephant which tramples out legitimate business, eats taxpayers' money, and cannot be sold or slaughtered because it is a sacred thing for which the public ownership group will fight fanatically."[174] He also articulated that despite reports by the Bonneville Commission, there was no immediate market for the power generated by Bonneville Dam and claimed that the private utilities would thus be caught in a "squeeze play." J.D. Ross, who became the first administrator

[171] Bonneville Commission, *Report of the Bonneville Commission on Matters Relating to Bonneville Power Development and Use*, 6.
[172] The Honorable Walter M. Pierce of Oregon stated, "Our farmers have been encouraged to believe they are to farm in a new era as soon as Bonneville power is developed and marketed…If the people retain their rights, we shall see a remarkable development of rural electrification." From Pierce, *Public Ownership of Utilities and Bonneville Dam Power Problems*, 3.
[173] Bonneville Commission, *Report of the Bonneville Commission on Matters Relating to Bonneville Power Development and Use*, 25.
[174] Dick, "When Dans Weren't Damned," 134. And succeed they did in creating a market. In fact, by 1944 Bonneville Dam supplied 50 percent of the entire power load in Oregon, from Gunther, *Inside the U.S.A.*, 121.

of Bonneville Power, disagreed and declared, "I think the market is about what you make it, and we are certainly going to succeed in making a market."[175] And succeed they did.

The prospect of federal power finally became a reality in the Pacific Northwest on September 28, 1937. On that date, President Roosevelt pressed a button starting two hydroelectric generators installed at Bonneville Dam.[176] Two months prior, on August 20, Roosevelt had signed the Bonneville Project Act. This act created a new bureau within the Department of Interior, which was formally named the Bonneville Power Administration (BPA) in 1940. The Act was one of the more striking pieces of social legislation in the history of the United States, in that it specifically required the administrator to market electricity so as "to encourage the widest possible use of all electric energy that can be generated," and, when selling it, at all times "give preference and priority to public bodies and cooperatives;" the interests of the private utilities would come second.[177] The Bonneville Project Act, under section 4b, further ensured that Bonneville power would benefit these preference-distributors by reserving a minimum of 50 percent capacity for their use.[178] The idea behind the preference clause was the belief that low-cost electricity, to the greatest possible extent, should benefit consumers and not simply add to the profits of private power companies.

Another way Bonneville Dam would directly benefit the consumer was by being federally owned. This particular ownership made the wholesale of Bonneville power a national yardstick as to the costs of generating electric power, a measure to which private rates could be compared and then adjusted accordingly. Prior to the federal yardstick standard, private companies' rates went unchecked and often resulted in exorbitant electric bills, especially for

[175] Tollefson, *BPA & The Struggle for Power at Cost,* 131.
[176] Bayard O. Wheeler, "The Production and Distribution of Bonneville Power," 359.
[177] Gunther, *Inside the U.S.A.*, 121.
[178] Wheeler, "The Production and Distribution of Bonneville Power," 363.

rural customers. In 1932, Roosevelt asserted that the new federal dams, particularly Bonneville Dam, "[would] be forever a yardstick to prevent extortion against the public, and to encourage the wider use of that servant of the people – electricity."[179] The intention behind the yardstick principle was to keep rates down for all customers, both urban and rural. In 1936, Mrs. William Munroe, Democratic member of the House of Representatives from Hood River, Oregon, voiced her concern about the exorbitant rates of the private power companies, particularly for rural customers:

> We must remember the great things that power can do for rural communities and farm homes…The prices that farmers of this district are forced to pay to private utilities for power is too much, Bonneville must be used to solve this problem, not only in this community, but elsewhere in Oregon…We must get rates down so that our farm homes and small towns will reap the benefits of Bonneville through power that they cannot have now because its cots too much. Those who have no power need it. Those that have it need it cheaper.[180]

People in the Northwest had long been at the mercy of the private utility's excessive rates. So, when it came time to set a rate schedule for the power generated at Bonneville Dam, new BPA administrator J. D. Ross believed that the public should have the opportunity to express their views on what they felt were fair rates. Specifically, he stated, "Bonneville Dam belongs to the whole Northwest. It is the property of all the people, and I am calling upon them to help me in the important task of distributing its benefits as widely as possible."[181] In order gather people's opinions, hearings were held in communities throughout the Pacific Northwest. A direct result of these hearings was the grassroots acceptance of uniform rates for Bonneville power throughout the region. Under a uniform rate, power purchased 300 miles from Bonneville Dam would cost the same as power sold to a customer fifteen miles from the generator. Thus, in order

[179] Hanzen, *Power: A Dramatic Story of the Crusade for Public Power*, 33.
[180] Duane Hennessy, "Electric Power for People Aim," *Oregonian*, 11 December 1936, available at Northwest History Database, Washington State University.
[181] Vera Springer, *Power and the Pacific Northwest, 35*.

to keep rates low and to encourage the equitable distribution of electricity, the standard of a uniform rate was codified in the Bonneville Project Act. In June of 1938, Ross, with approval of the Federal Power Commission, established the rate per kilowatt year at $14.50 at the dam and $17.50 for power elsewhere on the transmission system.[182]

The establishment of a uniform rate policy at Bonneville was especially significant for rural residents. These people had long been told that if they wanted power delivered to their remote locations they were going to have to pay excessively higher rates than their urban counterparts. Roosevelt spoke about the benefits of low-cost power for rural areas at the dedication of Bonneville Dam in 1937 when he stated,

> Truly, in the construction of this dam, we have had our eyes on the future of the nation. Its cost will be returned to the people of the United States many times over in the cheapening of electrical power and the distribution of the power, to hundreds of rural communities within a great radius.[183]

With Bonneville's uniform rate policy, rural residents were charged the same low price, no matter how far they lived from Bonneville Dam.[184] After receiving power generated by the dam, Lee Wood, president of Oregon Rural Electric Cooperative Association, asserted, "The people of my cooperative well remember how we paid the Pacific Power and Light Company six times as much as we now pay for wholesale power generated at Bonneville… [The new power] made it possible to do things on our farms that we could not previously afford to do."[185] In addition, the low wholesale rate policy adopted by Bonneville Power Administration also forced the private

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[182] Springer, *Power and the Pacific Northwest*, 35-6. By 1944, Bonneville Dam had accounted for 50 percent of the entire power load of Oregon in Gunther, *Inside U.S.A*, 121.
[183] "Roosevelt Sees Dream Fulfilled – Satisfaction Expressed in Completion of the Dam," *Oregonian*, 29 September 1937, p. 9.
[184] Prior to Bonneville power, Umatilla Electric Cooperative was buying wholesale power via the private company Pacific Power and Light. When Umatilla Electric Cooperative signed a contract with Bonneville Power Administration in 1942, they saw a significant cut in power rates from Umatilla Electric Cooperative, "History of Cooperative," http://www.umatillaelectric.com/about/HistoryCooperative.cfm (accessed December 10, 2009).
[185] Statement of Lee Wood at US Army Engineers Hearing on the Columbia River Review Report, Portland, OR, 15 November 1957, 1; Gus Norwood Collection, "Histories," Salem Electric Archives.

electric companies of the region to lower their prices in order to remain competitive. As a result, thousands of customers across Oregon saw significant reductions in their monthly electric bills. Evidence of the latter could be seen in a statistical report compiled by the Branch of Power Management, *Rates and Statistics Section of the Bonneville Power Administration*, released on September 1, 1945. Since the building of Bonneville Dam, the report cited, private companies had been reducing their rates. Cumulatively, reductions forced upon the private companies by the low rate schedules adopted by public power projects like BPA meant an estimated saving of $46,600,000 to ratepayers of Oregon and Washington from 1935 to 1945.[186]

Further recognizing the need for Bonneville power to benefit rural customers, the Bonneville Act set up the premise that the BPA "shall be operated for the benefit of the general public and particularly of domestic and rural customers."[187] This directive made known BPA's recognition of rural customers as an integral part of the Bonneville program. Perhaps one of the most significant roles Bonneville Power Administration was to play in rural electrification began when administrator J.D. Ross obtained $10.75 million in public works funds in 1938. With this allotment, Ross made the decision for BPA to build transmission lines. These proved to be fundamental to the successful extension of electric service to rural areas of Oregon and the Pacific Northwest.[188] By 1944, Bonneville Power Administration was one of the three largest power-marketing agencies in the nation. Following the directives of the preference clause, the administration first distributed its power to the electric cooperatives and PUDs of Oregon. After Bonneville power was sold to these preference organizations, power was then distributed to the

[186] "Oregon PUD Progress: A Summery of Present Status and Future Programs of People's Utility Districts," *Oregon Grange Bulletin* 45, no. 10, 1943, p. 3.
[187] Carl G. Izett and Thomas M. C. Martin, *A Study of Rural Electrification in Marion County, Oregon* (Portland, OR: Rural Projects Unit, System Planning and Marketing Division, Bonneville Power Administration, United States Department of the Interior, 1942), 1.
[188] Bonneville Power Administration, *Columbia River Power for the People*, 142.

state's private power companies who were also significant contributors in the rural electrification process of Oregon.[189] Ross had always believed that Bonneville, in addition to being a financial institution, was also humanitarian. He asserted, "I think the humanitarian use is by far the greatest. It is not just what the electricity costs; it is what our people can do with it that constitutes the help to humanity and makes it a real success."[190]

By 1955, 97.2 percent of rural Oregon had been electrified.[191] Now that almost all rural Oregonians had electric power, they began putting it to use. Before electricity was distributed to rural areas, hours were spent pumping and carrying water, kitchen duties seemed like never-ending drudgery, and the completion of farm chores was an arduous process. Farm tasks were tedious and laborious; farmers had to milk their cows by hand and the children had to fetch water for the animals by bucket. Consequently, many rural residences began to question if they were working for their home, or if their home working for them. After electricity arrived, however, it became the universal servant in the house and on the farm. Tom Minter, who was an employee of Blachly-Lane County Cooperative, described the level of excitement shown by customers when electricity was finally made available to them,

> The people were so excited to get electricity. It was a big deal when they flipped the switch and on would come the lights. Boy, were they proud! And folks got milking machines, refrigerators and it all showed on their bills. But most never complained because they realized everything electricity was doing for them and they were thankful to have it.[192]

Many rural residents were grateful the moment they received electricity. They became even more appreciative of it once they saw how it could be used in both the home and on the farm.[193]

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[189] United States Department of the Interior, *Annual Report of the Department of the Interior* (Washington, D.C.: U.S. Government Printing Office, 1944), xv.
[190] Funigiello, *Toward a National Power Policy*, 202.
[191] Joe F. Davis, *Use of Electricity on Farms: A Summary Report of Ten Area Studies*, 4-5.
[192] Steber, *The First Fifty Years*, 16-7.
[193] United States, *Farmers in a Changing World* (Washington, D.C.: United States Department of Agriculture, 1940), 805.

The initial desire of rural residents, particularly women, to acquire electricity often arose from its potential to be helpful around the house. Electricity could be used to power lights bulbs and appliances, such as washing machines, which made performing common household tasks and chores less burdensome.[194] Specifically, electric service in the rural home meant a better standard of living, improved health, and greater contentment for the entire family. In a letter addressed to Gertrude Dieken, women's editor of the *Farm Journal*, one farm woman wrote, "Until it is electrified, the farm home is sadly out of step with the society in which it exists."[195] Thus, in order to bring rural residents out of the "Dark Ages" and into the modern electrified world, electrification of the rural home became necessary.

One of the major, yet simple conveniences electricity brought to the rural home was lighting. Before electric lights, rural residents lived and completed their chores with poorly lit kerosene lamps, which were hard on a person's eyesight and led to many cases of eyestrain.[196] When electric lights were installed, however, they provided a better quality of light, which made it easier for rural residents to complete their chores, read, sew, or do any work that required attention to detail. Lew Holt, who grew up on a farm near Dallas, Oregon, recalled his first experience with electrical lighting in his rural home when he asserted, "Our house was wired for electricity with one bulb hanging in each room turned on by a string. Although one bulb in the middle of the room must have been terrible, we thought it was great! It was so much better than the kerosene lamps that we carried from room to room."[197] Irene Benninger, who was a member of Blachly-Lane County Cooperative, also recalled her experiences with electricity and said the best thing about it was that her family now had lights all over the house. Prior to acquiring

[194] Ibid.
[195] Kline, *Consumers in the Country*, 266.
[196] United States, *Making Light Work for You* (Washington, D.C.: U.S. Government Printing Office, 1948), p. 3.
[197] Lew Holt, interview by author, Salem, OR, 2 November 2009.

electricity, Irene's family had one kerosene lantern, so if someone picked up the lantern to walk into another room, everyone in the first room would be left in the dark.[198] Elma Rust, who was also a member of Blachly-Lane County Cooperative, was amazed how filthy her home was when she turned on her new electric lights stating, "I remember the first time I turned on the electric lights. The light was so much brighter than the kerosene lamps that I thought, 'My goodness, I really have some cleaning to do around here.'"[199]

After the advent of electric lighting in rural homes, there were no more lamps to fill with kerosene, no more wicks to trim, and no more globes to wash. Once electric light bulbs were installed, rural residents eagerly threw away their old kerosene lamps and some even performed burial ceremonies for the glass kerosene containers that had served farm families for decades.[200] May Grant, former director of the Benton-Lincoln cooperative, asserted in 1955 that she had stumbled around in the dark for more than 50 years and spent countless hours most of those years filling kerosene lamps. With introduction of electricity, May was not only relieved that she no longer had to fill kerosene lamps, but also exuberant that her family could finally experience a standard of living more in line with how their urban counterparts had been living with the convenience of electricity in their homes.[201] Furthermore, the end in the use of kerosene lamps also made life better for rural residents by eliminating the ever-present fear of fire if a lantern was to be accidentally knocked over.[202] Fire in the rural home or barn frequently meant a total loss, and records showed that the annual fire loss in rural areas at this time averaged $250,000,000; an obviously large price for rural residents to pay.[203] Another positive benefit of

[198] Steber, *The First Fifty Years*, 12-3.
[199] Steber, *The First Fifty Years*, 23.
[200] Flynn, *The New Deal: A 75th Anniversary Celebration*, 127.
[201] "We Will Not Settle for Less than Full Development," *NW Ruralite* 2, no. 5, 1955, p. 1.
[202] Coyle, *Electric Power on the Farm*, 54.
[203] United States, *Electrifying Your Farm and Home* (Washington, D.C.: Rural Electrification Administration, 1936), 8.

electric lights was that they freed rural residents from dependence on the seasons and movements of the sun. A study showed that electric lights added two to four hours a day to a family's potential working time, giving them more flexibility in planning the day's activities.[204] With electric lights in the home and barn, people were able to begin chores before sunrise and finish them after sunset if they needed to, which was especially beneficial in the winter months.

Indoor plumbing, a convenience made possible by electric pumps, also significantly contributed to the improvement of rural living. Prior to indoor plumbing, most women had to haul inside every drop of water they used for household chores, and after using it, had to haul it back outside house. From statistics that have been collected, it was estimated that rural residents carried an average of 50 tons of water each year.[205] The introduction of the electric pump was thus a welcome addition to the rural house, for it brought the convenience of running water inside and eliminated the arduous task of pumping and carrying water from a well. This innovation also made bathing easier and more frequent, greatly improving sanitation. In addition, the electric pump also added to the comfort and convenience of the family by allowing for indoor bathroom facilities.[206] The burden of washing clothes by hand was also eliminated by the installation of an electric pump. Instead of having to fetch water and scrub clothes with a washboard, the electric washing machine just had to be loaded and turned on. In fact, the washing machine saved women an average of twenty, eight-hour days per year.[207] For this reason, the washing machine was one of the first appliances many farm families purchased. By 1950, 89 percent of electrified farms in the Pacific states reported owning a washing machine.[208]

[204] Nye, *Electrifying America*, 323.
[205] United States, *Electrifying Your Farm and Home*, 5.
[206] Nye, *Electrifying America*, 323.
[207] Ibid.
[208] Kline, *Consumers in the Country*, 298.

Electricity also brought other domestic electrical appliances. By far the most desired and most influential of all the new devices that came to the country with rural electrification was the radio. The radio had special meaning for the rural family because it ended their isolation from the world. [209] With the turn of a dial, rural residents were able to stay informed and up-to-date on news from around the world. Some other important electric appliances that were acquired by rural residents and used to modernize their homes were refrigerators, irons, toasters, and vacuum cleaners.[210] Refrigerators, in particular, became important to rural families since they could delay the spoilage of food and improve the family diet.[211] Collectively, the utilization of these new electrical appliances lengthened the number of productive hours in a day, eliminated much of the heaviest and tedious labor, and improved family health and comfort.[212] A rural resident testified to the benefits brought by electricity stating,

> The good fairy, electricity, has waved her magic wand across my path and now I lead a charmed life…No water to be carried uphill; no waste water to be carried out; no kerosene lamps to be cleaned and filled; no hand-scorching sad-irons to be used; no fuel to clutter up my kitchen in pails and boxes; no ashes to be swept up and carried out…It seems too good to be true."[213]

However, it is important to mention that the attainment and application of modern electrical devices eliminated drudgery in the rural home, but not labor.[214] A prime example of this was the installation of an electric pump, which made possible the convenience of indoor bathroom

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[209] Pence, *Next Greatest Thing*, 111.
[210] Financing for these new appliances was available through REA loans. In Flynn, *The New Deal: A 75th Anniversary Celebration*, 127.
[211] Nye, *Electrifying America*, 323.
[212] Nye, *Electrifying America*, 324.
[213] Kline, *Consumer in the Countryside*, 265.
[214] Friedlander, *Power and Light*, 69. This is one of the ironies of household technology. Many businesses marketed electrical appliances as laborsaving devices that would relieve the lot of the overworked farmwoman. Whose work was actually being saved, however? An Iowa survey from 1952 stated, "some farmers said electrification had meant saving in labor and benefits from timeliness in doing some jobs, because the those job had been taken over, wholly or partly, by the women of the family." From Kline, *Consumers in the Country*, 266. Louisan Mamer also looked at the timesaving benefits of electrical appliances on the farm. Prior to her research, she believed these appliances generally saved time. Mamer acknowledged, however, that her time studies often showed the opposite effect. "Frequently, however, no time is saved at all by having electric equipment, a woman just does more work in the same length of time," thus raising her standards of housework. From Kline, *Consumers in the Country*, 268.

facilities. Now that the bathroom was located in the house, rural residents actually spent more time scrubbing and cleaning it than what they did when the facility was located outdoors.[215] Nevertheless, the new domestic convinces made possible by electricity actually did a lot to improve the living standards of rural residents; thus, contributing to the modernization of the rural home.

Aside from the application of electricity in the home, electric power offered substantial opportunities for more effective and profitable performance when applied to several farm operations as well.[216] Good lighting on the farm, as in the home, increased productivity. Prior to electricity, kerosene lanterns were the main source of lighting in the barns. Their use provided inadequate illumination, and also created dangerous working conditions. Farmers often had to hold the lantern with one hand while working or set it down, which if knocked over, created a great risk of igniting a fire.[217] Lew Holt recalled the hardships of carrying a lantern out to the barn stating, "All those years that I worked in the barn after dark, I always had to carry a lantern. How much easier and better it would have been if…the barn [had] at least one light bulb."[218] Once the barn was wired, however, the light produced was sufficient enough for farmers to work freely with two hands all night if necessary and greatly eliminated the risk of fires. Furthermore, electricity also allowed for the installation of heat lamps in barns, which helped ensure the survival of chicks. Russell Boggan, rural resident of Wallowa County enthusiastically explained in *NW Ruralite* how she was raising 200 baby chicks and had not lost any thanks to electric heat lamps; "In the past, before the convenience of electricity had been brought to the farm, the limit

[215] Kline, *Consumers in the Country*, 266.
[216] United States, *Farmers in a Changing World*, 806.
[217] Nye, *Electrifying America*, 323.
[218] Lew Holt, interviewed by author, 2 November 2009.

of survival was between 50 and 100 chicks and some losses were always expected."[219] After the arrival of electricity, the losses were drastically reduced.

By far one of the greatest contributions electricity made to the farmer was its ability to replace a human worker with more efficient labor. Prior to the attainment of electricity, the farmer's idea of a good hired hand was a steady, healthy laborer. After the introduction of the electric motor, however, electricity became the farmer's perfect hired hand, for it could complete as much work in an hour as a man could do in a day.[220] In addition, the electric motor was portable and it stayed on the job as long as it was needed, and even replaced tiresome and repetitious tasks such as turning gristmills and feed cutters by hand, which resulted in farm processes becoming more efficient and economical. A study conducted by Joe Davis in 1950, found that about 1.2 billion man-hours of labor were saved when electricity was applied to farming operations.[221] Electric water pumps were especially helpful in reducing hours of labor. For instance, on the average farm more than 450 gallons of water per day were required to properly care for the livestock; a single cow required twenty-five gallons of water per day and on a hot day, a thirsty herd could drink water about as fast as a farm hand could pump it. But a water pump, run by an electric motor, could deliver one thousand gallons of water a day, significantly eliminating hours of labor and thus improving efficiency. [222]

In addition to water pumping, electric motors were also put to use to aid in the laborious tasks of feed and storage processing, milking cows, and many lifting and transporting operations. Milking a cow, for instance, over a ten-month period required an average of about twenty-seven

[219] G. A. Lepard, "Many Happy Returns Since Power Came to Folks in Wallowa County Just a Year Ago," *NW Ruralite* 6, no. 5, 1959, p. 1.
[220] Pence, *Next Greatest Thing*, 104.
[221] Robert Darwin Partridge, "Governmental Assistance in Rural Electrification: Its Objectives, Accomplishments, and Significance" (master's thesis, American University, 1955), 84.
[222] Nye, *Electrifying America*, 323.

kilowatt hours. Hand milking, on the other hand, required a minimum of one hundred and fifty hours per cow over a ten-month period. Thus, it quickly became apparent that the savings in labor costs were substantial when electric power was used in place of human labor.[223] Electricity could also be used to cool milk, run clipping and shearing machines, shell corn, saw wood and many other chores at little cost to the farmer. Collectively, the application and utilization of electricity in farm processes meant the most efficient and most economical operation. Electricity saved the farmer time and increased production, which translated into a more prosperous business.[224]

The attainment of electricity was such an important, transformative event in the lives of rural Americans that one farmer offering witness in a rural Tennessee church in the early 1940s summed it up by proclaiming, "Brothers and sisters, I want to tell you this. The greatest thing on earth is to have the love of God in your heart, and the next greatest thing is to have electricity in your house."[225] Rural Americans had waited a long time for electricity and once it arrived, it was something special. Minnie Boggan of Wallowa County declared, "I just can't express my feeling of the change that electricity has made here. You just can't understand what it has meant to us."[226] Electricity increased efficiency and farm output, reduced the drudgery of rural existence, and added to the comfort and pleasure of the family. Eleanor Roosevelt summed up the importance of rural electricity when she stated, "One cannot measure what electricity has done to give the farmer's wife and family better health, greater happiness, and, probably more

[223] Partridge, "Governmental Assistance in Rural Electrification," 80.
[224] United States, *Electrifying Your Farm and Home*, 8.
[225] Flynn, *The New Deal: A 75th Anniversary Celebration*, 129.
[226] G. A. Lepard, "Many Happy Returns Since Power Came to Folks in Wallowa County Just a Year Ago," *NW Ruralite* 6, no. 5, 1959, p. 1.

important than all, human dignity."[227] The acquisition of electricity, however, was long and, at times, difficult process.

When the first federal census was taken in 1790, more than 90 percent of Americans were farmers.[228] By the end of the nineteenth century, however, thousands of rural residents were leaving the darkness of the countryside for the bright lights of the cities. Without the benefits of electricity to assist them, people who stayed behind lived and worked in drudgery. Representative John Rankin commented on the farm-to-city migration asserting, "The time will come when our people are not going to stay in the country unless they can get electricity for their home and household duties. A good many of our young men and women are leaving the county home for the town home, but [electricity] will make it possible for them to stay at home and enjoy all the conveniences of the city."[229] Thus, the electrification of rural areas offered rural people a way to improve their lives and still remain in the countryside.

One of the main reasons inequality existed in the distribution of electricity between urban and rural areas was because the only providers of electricity during the early part of the nineteenth century were private companies. These companies claimed rural electrification was not only unfeasible on an economic basis, but that many farmers would have little, if any, use for electricity. So, when rural residents asked the private companies to extend line into the countryside, they were constantly told "No," for it would cost the companies more than what they could make in return. Consequently, the private electric companies had the people of the nation in a powerful grip as their monopolies extended across the country. Starting in the 1920s, however, rural Americans became desperate for another way to bring electricity to their localities

[227] [Gus Norwood], *SEPA History*, 110.
[228] Stories from PA History, "Agriculture and Rural Life: Chapter Three, Changes in Rural Life," ExplorePAhistory.com, http://explorepahistory.com/story.php?storyId=4&chapter=4 (accessed May 25, 2010).
[229] Dick, "Visions of Abundance," 176.

so they too could experience its benefits. In Oregon, that opportunity came with the creation of public power. The promulgation of the People's Utility District Law in 1930 provided a glimmer of hope to rural residents and offered them a way to organize and contract for their own power. The limitations of the law, combined with the power exerted by the private power companies, however, virtually crippled all attempts at organization of PUDs in the state. The failure of PUDs to extend power to rural Oregonians, coupled with the growing recognition that electricity was no longer a luxury, made its control and allocation an issue of national importance by 1935.[230]

The weakness of the PUD program in Oregon and the unwillingness of the private companies to extend line into rural areas required an aggressive federal initiative to insure that residents of sparsely populated areas were no longer disadvantaged by comparison with their urban counterparts. Recognizing its duty to help the American people, the federal government created the Rural Electrification Administration in 1935, thereby institutionalizing a national program for the electrification of rural America. The intervention of the government in this process could be validated by quoting Abraham Lincoln who stated, "The legitimate object of government is to do for a community of people whatever they need to have done but cannot do at all in their separate and individual capacities."[231] Prior the government's assistance, the inability of rural Americans to secure electric power from the private companies had led to an extremely low national rate of rural electrification. In Oregon, less than 30 percent of rural residents had electric power and, on average, less than 10 percent of the nation's rural areas were electrified. The federal government's creation of the Rural Electrification Administration in 1935 finally

[230] Jay L. Brigham, *Empowering the West: Electrical Politics Before FDR* (University Press of Kansas, 1998), preface x.
[231] Milton A. Chase, *Search for Power: Recollections of a Career in Rural Electrification* (Washington, D.C.: National Rural Electric Cooperative Association, 1985), 134.

offered a way by which rural residents could obtain electricity on reasonable terms, signaling the beginning of the full-scale electrification of rural America. The Roosevelt administration recognized that enabling rural citizens to obtain credit to electrify the areas themselves represented the most effective way for breaking down the private power companies' ineffectual program of rural electrification.[232] As a result, rural electrification became a great grassroots movement. This phenomenon was illustrated across the country and in Oregon as well. Time and again, the private power companies in the state told rural Oregonians that they could not, and would not, extend lines to their communities. As a result, rural residents across the state decided to band together and establish PUDs and cooperatives to ensure that the convenience of electricity was brought to their homes and farms.

Ironically, after the initial success of PUDs and cooperatives, the private companies began to extend transmission lines into the same areas that just a few years prior they had believed was economically unfeasible to do so. Prior to REA, many private utilities in Oregon were willing, on a very limited and economic basis, to hook up the most easily accessible areas. This left thousands of rural residents in the more remote locations in darkness to fend for themselves. But after the private power companies witnessed the success of public power organizations in bringing electricity to rural areas, many companies began to liberalize line extension policies and help in the process of rural electrification as well.

The federal government's program of rural electrification was possibly the most successful federal program ever developed. The thrust REA gave rural electrification was demonstrated by how fast rural electrification took off after its establishment. Oregon went from having less than 30 percent of its rural areas electrified prior to REA, to nearly 100 percent by

[232] Ronald C. Tobey, *Technology as Freedom: The New Deal in the Electrical Modernization of the American Home* (Los Angeles, CA: University of California Press, 1996), 112-3.

1955, just two decades after the administration was established.[233] Congressional Record from May 12, 1966 attested to the program's effectiveness and to the competence of its administrators who made rural electrification possible,

> I can think of no other Federal program which has done more to close the gap between rural and urban living and working conditions than rural electrification…Throughout the years, the rural electrification program has been blessed with dedicated and competent REA administrators who have combined the vision and the practicality necessary to translate what was once considered a visionary idea into a sound and workable program.[234]

This program illustrated that when having made the decision, one can accomplish remarkable things. The efforts of rural residents also served as a prime example of how determination and dedication to a cause can lead to a successful conclusion, which in this particular story was the electrification of nearly all of rural America.

In Oregon, the story of rural electrification resembled the national story. After REA was established, rural Oregonians banded together and formed cooperatives across the state and brought electricity into their homes and on to their farms. Their associative actions, like elsewhere across the nation, spurred the initiative of the private companies of the state to invest in bringing power to the rural areas they had long neglected. However, Oregon had a particular advantage over other states in the process of rural electrification with the vast hydroelectric potential available in the state, which was harnessed with the completion of Bonneville Dam in 1937. Overall, it could be asserted that rural electrification in Oregon was a collective process. It was initiated by the private power companies, and expanded and ignited by the initiative of rural Oregonians with the formation of People's Utility Districts and electric cooperatives, which

[233] Joe F. Davis, *Use of Electricity on Farms: A Summary Report of Ten Area Studies*, 4-5.
[234] Mr. Hull, speaking on the 31st Anniversary of the Rural Electrification Administration, on May 12, 1966, to the House of Representatives, 89th Cong., *Cong. Rec.*: 9969; Gus Norwood Collection, "Histories," Salem Electric Archives.

were crucially aided by the government's federal programs – the Rural Electrification Administration and the Bonneville Power Administration.

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