

**Rural Electrification:  
Breaking Barriers with the Flip of a Switch**

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Group Documentary

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We became interested in the topic of rural electrification because our community is in rural northwest Iowa and some of our group members have family members who remember when electricity came to their farms. After researching the topic, we felt it fit the Breaking Barriers in History theme very well and had a tremendous impact on millions of farm families and our nation's history.

Electricity was common in most U.S. cities and towns by the early 1900s. However, in 1923, 97 percent of the six million farm families in America were still in the dark. Remote locations and the expense of installing electricity created a barrier that left rural America behind. The Rural Electrification Administration was created in 1935 to provide loans and expertise to farmers who organized thousands of rural electric cooperatives. These cooperatives broke numerous technological and cultural barriers to bring electric service to homes and farms in rural America. Nearly 98 percent of U.S. farms received electric service within 30 years.

During our research, we interviewed Wanda Philips, Margaret Talbott and Orion Samuelson about their personal experiences with rural electrification. We interviewed Paul Bormann of USDA Rural Development and Lyle Corver of North West REC to learn about modern RECs and the REA's legacy. We obtained primary sources from the Boone Valley Electric Cooperative, the first Iowa electric cooperative energized under the REA program. We conducted research at the Sioux City Library and Northwestern College, and searched EBSCO, JSTOR and Plymouth County newspaper online archives. We accessed photos from *The Next Greatest Thing* book through the National REC Association.

We wrote our documentary script, then recorded the audio using Audacity and imported files into Adobe Premiere Pro. We chose pictures and videos that matched the script and were time period appropriate. Editing the documentary was exciting, yet challenging because we learned a new software program with new features and capabilities. We were creative in overcoming social distancing challenges due to COVID-19 by communicating through email, Google docs, and weekly zoom meetings.

The creation of rural electric cooperatives broke many barriers including reducing the costs of installing and delivering electric service, overcoming private utilities' claims that rural service was too costly, and farmers' concerns about the \$5 membership fee and government loan programs. When electricity was delivered, farm families broke barriers by increasing agricultural production, improving living standards and boosting rural economies by creating jobs and supporting local communities. Nationally, the rural electrification program was a success because nearly all the local cooperatives that obtained loans paid them off within the 30 year term.

While conducting research for our documentary, we came to an understanding of how important this topic is to American history. The rural electrification program changed lives by giving millions of people access to running water, electric lighting, and new farm technologies. The local cooperatives formed more than 80 years ago not only brought electricity to rural America, they also continue to provide electric service and drive economic development to 56 percent of America today.

# Annotated Bibliography

## Primary Sources

### Documentaries

“Power and the Land.” *Department of Agriculture, Rural Electrification Administration*, 1940. Posted by *Electriccoops, National Rural Electric Cooperative Association*, 13 June 2013. [www.youtube.com/watch?v=-KVwWAJBJUA](http://www.youtube.com/watch?v=-KVwWAJBJUA). Accessed 12 Nov. 2019.

In 1940, the REA commissioned this video as a way to show farmers how electricity could improve their lives. It premiered in a theatre in Ohio on August 31, 1940, and eventually showed in 5,000 movie theaters across the United States. We found this documentary to be very helpful and we used clips from it throughout our own documentary. It was interesting to learn another way farmers were informed how much their lives would change if they got electricity.

Samuelson, Orion. “Electrification, Farmhouse and Farm Equipment.” *Illinois State Museum Society*, 2000. [www.avbarn.museum.state.il.us/viewclip/3776](http://www.avbarn.museum.state.il.us/viewclip/3776). Accessed 16 Jan. 2020.

Mr. Samuelson is the former host of the National Farm Report, WGN Radio, Chicago. He was interviewed on rural electrification and during this segment he talked about remembering what it was like to get electricity on their farm on April 11, 1948. He talked about how the date you got electricity was just as important of a date as birthdays or anniversaries. Mr. Samuelson also talked about ways their lives changed once they got electricity and how it made life on the farm easier. We used parts of this interview in our documentary.

### Interviews

Philips, Wanda. Personal Interview. 30 Dec. 2019.

Mrs. Wanda Philips gave us great and useful information about what her life was like growing up on a farm in Nebraska without electricity, and the difference it made in her life when she acquired electricity. Wanda was born in 1931 during the start of the Dust Bowl. She told us about her schooling and how she had to get all of her homework done before the sun went down, otherwise there wouldn't be enough light for her to study. Wanda's dad contributed to forming cooperatives by going from farmhouse to farmhouse trying to convince farmers to sign-up for electricity. Wanda was in high school by the time their farm received

electricity, and she said she felt like a part of the world once they had electricity. Overall, Wanda gave us helpful information about growing up without electricity and what a miracle it was when the lights finally came on. We also used parts of our interview with Wanda in our documentary.

Samuelson, Orion. Telephone Interview. 9 March 2020.

We had the opportunity to interview radio broadcaster Orion Samuelson. He told us about how life on the farm changed after he got electricity, how rural electrification benefited others, and why radio was and is important to farmers. We learned that even though his house was ready to be wired, they had to wait until World War II was over because they didn't have access to copper wires. Also, we learned people bought more appliances in towns which helped the local economies. This interview helped us understand how important rural electrification was to all of America.

Talbott, Margaret. Personal Interview. 19 Feb. 2020.

Ben interviewed his great aunt Margaret (Philips) Talbott about rural electrification. She lived in the farm house that Ben lives in now before the REC brought wired electricity to it. She provided interesting information such as how there was a windmill charger to provide some electricity to the farm and house before the REC service was installed. She described the different appliances used in the house before and after electricity and the importance of farm radio and market reports. She felt their family was very fortunate because they were the last farm in their county to be electrified before World War II.

## **Journal Articles**

Carmody, John M. "Rural Electrification." *The Military Engineer*, vol. 30, no. 171, 1938, pp. 206–208. *JSTOR*, [www.jstor.org/stable/44559019](http://www.jstor.org/stable/44559019). Accessed 25 Mar. 2020. This article written by John Carmody, Administrator of the REA, showed us how desperate the farmers were getting for electricity, one even going so far as to say, "If we can't get electricity pretty soon, we are going into the business of raising lightning bugs." We learned how the REA works, the private electric companies' stimulus, benefits of rural electrification, and the prospects for the future generations. This source helped us learn more about rural electrification, as well providing pictures, statistics, and quotes.

Carmody, John M. "Rural Electrification in the United States." *The Annals of the American Academy of Political and Social Science*, vol. 201, 1939, pp. 82–88. *JSTOR*, [www.jstor.org/stable/1022068](http://www.jstor.org/stable/1022068). Accessed 25 Mar. 2020.

Only 10% of farms across America were getting electricity when the REA was first set up in 1935. More than 300 REA-financed projects were energized by November 1, 1938, serving about 135,000 homes and approximately 675,000 people within those homes. After World War II there was a distinct increase in the number of rural electric cooperatives. From reading this source we learned about how World War II delayed some farms ability to get electricity.

Carmody, John M. "Rural Electrification: Progress and Future Prospects." *Journal of Farm Economics*, vol. 20, no. 1, 1938, pp. 361–369. *JSTOR*, [www.jstor.org/stable/1231551](http://www.jstor.org/stable/1231551). Accessed 25 Mar. 2020.

We were interested in reading this article written by John Carmody, Administrator of the Rural Electrification Administration. Mr. Carmody covered many topics such as the amount of money borrowed for rural electrification, the improvement of efficiency when getting electricity to farmers, how many customers had been helped, the effort to lower the costs of lines for farmers, and how much money the REA was lending. The article also talked about the barriers of rural electrification and how the REA could see these barriers in clear view. Overall, this was an excellent source that helped us learn more statistics and how the REA was able to break the barriers that stood in the way of getting electricity to farmers.

Cooke, Morris Llewellyn. "The Early Days of the Rural Electrification Idea: 1914-1936." *The American Political Science Review*, vol. 42, no. 3, 1948, pp. 431–447. *JSTOR*, [www.jstor.org/stable/1949909](http://www.jstor.org/stable/1949909). Accessed 25 Mar. 2020.

This article, written by Morris L. Cooke, first Administrator of the Rural Electrification Administration, focused on the early days of rural electrification (1914-1936) and gave us insight on how the REA was started. It also gave credit to all of the people who helped develop the REA, not just President Roosevelt and Cooke. This source helped us better understand the process of rural electrification in the early years, prior to the Rural Electrification Act.

Dow, Edward F. "Progress of Rural Electrification." *The Journal of Land & Public Utility Economics*, vol. 13, no. 2, 1937, pp. 211–213. *JSTOR*, [www.jstor.org/stable/3158715](http://www.jstor.org/stable/3158715). Accessed 25 Mar. 2020.

The REA helped make life on the farm more pleasant and it sped up production in many ways which then increased the farmers' profit. It also brought many cultural benefits by bringing radios to farms. In 1936 alone, 25,000 miles of line was put down and over 110,000 farms got electricity. The REA had exceeded their goal and really helped bring electricity to farms around the U.S. and helped the U.S. become one of the leading countries in the world for rural electrification.

Erdman, H. E. "Some Social and Economic Aspects of Rural Electrification." *Journal of Farm Economics*, vol. 12, no. 2, 1930, pp. 311–319. *JSTOR*, [www.jstor.org/stable/1230246](http://www.jstor.org/stable/1230246). Accessed 25 Mar. 2020.

We learned by getting electricity, farmers would save money because they didn't need as many hired hands. Electricity on farms also made farmers more comfortable because they had fans and artificial light. Work for women inside the house was easier too because they had electric powered appliances. This article helped our project by explaining the influence electricity had on agriculture, its significance in saving women time in their homes, and its overall influence on rural people.

## Magazines

"Electricity for the Farm." *Wallaces' Farmer*, Illinois Digital Newspaper Collection, 8 June 1935.

[www.idnc.library.illinois.edu/?a=d&d=WAF19350608.2.34&srpos=3&e=---1935---1960--en-20-WAF-1-byDA-img-txIN-rural+electrification](http://www.idnc.library.illinois.edu/?a=d&d=WAF19350608.2.34&srpos=3&e=---1935---1960--en-20-WAF-1-byDA-img-txIN-rural+electrification). Accessed 1 Apr. 2020.

Morris L. Cooke said, "Of our farm homes 92 percent are without high line service and 86 percent without electric service of any kind. If ever there was a time that conditions were favorable for the extension of electrification to the farm and rural areas of the nation, that time is now." Cooke saw what farmers were lacking on the farms and helped the REA to bring the same appliances and opportunities that people who lived in town had to the rural areas. This article helped us learn more about the REA and how determined Cooke was to help rural farmers.

“Electricity for the Farmer.” *Wallaces’ Farmer*, Illinois Digital Newspaper Collection, 28 Sept. 1935.  
[www.idnc.library.illinois.edu/?a=d&d=WAF19350928.2.31&srpos=6&e=-09-1935-28-20-WAF-1-byDA-img-txIN-Electricity](http://www.idnc.library.illinois.edu/?a=d&d=WAF19350928.2.31&srpos=6&e=-09-1935-28-20-WAF-1-byDA-img-txIN-Electricity). Accessed 7 Apr. 2020.  
This article talked about what the REA is and how it helped get farmers electricity. It answered some of the more frequently asked questions, such as how can a farmer get electricity on their farm, how many miles of line would be needed, and how much electricity you should use if you want electrification from the REA. This source helped us by learning how the REA communicated with farmers when they were first forming.

“Electricity is on the Way.” *Wallaces’ Farmer*, Illinois Digital Newspaper Collection, 1 Aug. 1937.  
[www.idnc.library.illinois.edu/?a=d&d=FFW19370801.2.4&srpos=2&e=-08-1937-01-20-FFW-1-byDA-img-txIN-Electricity+](http://www.idnc.library.illinois.edu/?a=d&d=FFW19370801.2.4&srpos=2&e=-08-1937-01-20-FFW-1-byDA-img-txIN-Electricity+). Accessed 8 Apr. 2020.  
Many farmers were excited about getting electricity and they couldn’t wait to buy all the new electric appliances. One farmer's wife went to buy a floor lamp but she couldn’t decide between two of them. She eventually chose one. Her husband was so excited about electricity, he went back and bought the second one. When farmhouses first received electricity, everyone would go around to flip the on and off switch. It was a dream come true for them. The average cost of an electric bill back in 1937 ranged from \$4-7/month. This magazine article helped us better understand how exciting getting electricity really was for rural families.

“Farmers Want Electricity.” *Wallaces’ Farmer*, Illinois Digital Newspaper Collection, 2 Feb. 1936.  
[www.idnc.library.illinois.edu/?a=d&d=WAF19360215.2.3&srpos=13&e=-1935-02-02-1936-02-20-WAF-1-byDA-img-txIN-rural+electrification-----](http://www.idnc.library.illinois.edu/?a=d&d=WAF19360215.2.3&srpos=13&e=-1935-02-02-1936-02-20-WAF-1-byDA-img-txIN-rural+electrification-----) Accessed 1 Apr. 2020.  
This article talked about how farmers in Iowa were interested in electricity. It showed the results from a survey of 11 counties in Iowa; 92% of the farmers that took the survey were willing to support the rural electrification program. The results also talked about the farmers’ interest in lights, refrigerators, water heaters, vacuums, electric farm tools, and other products. This source helped us by telling us how interested farmers were in electricity.



“Federal Aid on Wiring.” *Wallaces’ Farmer*, Illinois Digital Newspaper Collection, 4 Jan. 1936. [www.idnc.library.illinois.edu/?a=d&d=WAF19360104.2.14&e=-----en-20-WAF-61-byDA-img-txIN-rural+electrification](http://www.idnc.library.illinois.edu/?a=d&d=WAF19360104.2.14&e=-----en-20-WAF-61-byDA-img-txIN-rural+electrification). Accessed 24 Mar. 2020.

From this source we learned Morris Cooke, REA Administrator, made an announcement stating the REA would finance the wiring of homes and other farm buildings where rural electrification was occurring. The financing was available for rural lines built with REA funds as well as those built with private financing. By combining efforts, this helped reduce costs for all. This helped us learn how Cooke continually worked to make rural electrification available for all farmers, even cooperating with private contractors.

“Lightning Does the Chores Around the Farm.” *Wallaces’ Farmer*, Illinois Digital Newspaper Collection, 11 Jan. 1941. [www.idnc.library.illinois.edu/?a=d&d=PFR19410111.2.41&srpos=1&e=-01-1941---en-20-PFR-1-byDA-img-txIN-Lightning+does+the+chores](http://www.idnc.library.illinois.edu/?a=d&d=PFR19410111.2.41&srpos=1&e=-01-1941---en-20-PFR-1-byDA-img-txIN-Lightning+does+the+chores). Accessed 8 Apr. 2020.

Reading this article we learned the very first electric line was constructed in Oregon in 1906 and at that time farmers bought their electricity wholesale. Power companies couldn't see how they could afford to put up lines in rural areas because there were only 3-4 customers per mile compared to the 50-150 customers per mile in the city. Once the REA was established more farmers were able to get electricity. We learned 1 kilowatt of electricity cost less than \$.05. With 1 kilowatt of electricity, you could do such chores as grind 100 lbs. of grain, milk 1 cow for 20 days, pump all the water you needed to your house for 2 days, or iron for 2 hours. This source helped us learn how electricity made chores much easier.

Pruke N, Sarah. “Honor System.” *The Saturday Evening Post*, Vol. 212, Issue 4, 22 July 1939, p 24, Master File Premier. [www.ebsco.com](http://www.ebsco.com). Accessed 7 Jan. 2020. This source was a postscript in response to the change made by the Benton Rural Electric Association who “eliminated meter readers and asked all customers to read their own meter and report by postcard.” We learned that farmers were responsible for reading their own electric meters on their farm, and this was done on an honor system.

“Two New Federal Banks Proposed.” *Banking*, Vol. 59, Issue 2, Aug. 1966, p52. Master File Premier. [www.ebsco.com](http://www.ebsco.com). Accessed 7 Jan. 2020.

Secretary of Agriculture Orville Freeman submitted a bill to Congress. The proposal was to establish two new federal banks under Freeman’s supervision. One bank would be for the rural electric systems and one would be for the rural telephone systems. The article stated how the REA loaned out \$3.5 billion in the last 15 years, but will need \$8 billion in the next 15 years. Mr. Freeman stated, “The character of the job first outlined for REA in 1936 had changed, but the job is not done.” This source helped us learn more about what was occurring 30 years after the Rural Electrification Act was passed.

“What They Will Buy.” *Wallaces’ Farmer*, Illinois Digital Newspaper Collection, 1 July 1944.

[www.idnc.library.illinois.edu/?a=d&d=WAF19440701&e=-07-1944----194-en-20-WAF-1-byDA-img-txIN-Wallaces+Farmer----1944](http://www.idnc.library.illinois.edu/?a=d&d=WAF19440701&e=-07-1944----194-en-20-WAF-1-byDA-img-txIN-Wallaces+Farmer----1944). Accessed 7 Apr. 2020.

Farmers and their wives were asked what farm equipment and appliances would be their first priority when they acquired electricity. Farmers wanted lights for when they did chores, pumping water, and milking machines. Women usually wanted a refrigerator, a washing machine, an electric iron, and a toaster. This article helped us realize all of the different tools and appliances that were available to help the farmers.

“Wiring Farms for Electricity.” *Wallaces’ Farmer*, Illinois Digital Newspaper Collection, 16 Jan. 1937. [www.idnc.library.illinois.edu/?a=d&d=WAF19370116.2.4&e=-----en-20-WAF-61-byDA-img-txIN-rural+electrification](http://www.idnc.library.illinois.edu/?a=d&d=WAF19370116.2.4&e=-----en-20-WAF-61-byDA-img-txIN-rural+electrification). Accessed 24 Mar. 2020.

This source focused on wiring farms in Iowa. In 1923, 11,000 farms in Iowa had electric service. It was estimated by 1940, that number would increase to 60,000 farms. This was due to the REA and cooperatives helping to bring electricity to rural America. The source talked about the barriers of private utilities not wanting to extend service to the country, saying “farmers were looked upon as skim milk, and the towns were the cream.” We also learned in 1937 there were 22 cooperatives in Iowa. This source helped us learn how rural electrification impacted our home state of Iowa.

## Newspapers

“Application is Filed for Rural Electric Lines.” *Le Mars Semi Weekly Sentinel* (Le Mars, IA), 8 Feb. 1938. [www.newspaperarchive.com/lemars-semi-weekly-sentinel-feb-08-1938-p-1/](http://www.newspaperarchive.com/lemars-semi-weekly-sentinel-feb-08-1938-p-1/).

Accessed 19 Jan. 2020.

Reading this source we learned an agent from Plymouth County, Iowa, sent an application for rural electrification to Washington D.C. The application proposed for 298 miles of electric lines, and included signatures from 670 people who would use the service. The plan would cover 11 townships and partially cover 2 more providing electricity to 1,000 farms. We learned how Plymouth County acquired electricity and how the application system worked.

“Can Farmers Afford to Use Electric Current.” *The Lake Park News* (Lake Park, IA), 2 July 1936. [www.newspapers.com/clip/43412000/the\\_lake\\_park\\_news/](http://www.newspapers.com/clip/43412000/the_lake_park_news/).

Accessed 20 Nov. 2019.

While reading this article, we learned advisors for the rural electrification administration listed different questions the farmers should ask themselves as to whether or not they could afford electricity. Farmers had to pay an immediate bill for building the lines and wiring their house, but after that all other costs were paid monthly with the light bill. After 20 years of paying the bills, the lines would become the farmers’ property. This source helped us learn important information about the different uses farmers had for electricity and how they paid for it.

“Cheap Electricity Planned for Farm.” *The New York Times*, 14 May 1935.

[www.timesmachine.nytimes.com/timesmachine/1935/05/14/95076437.pdf](http://www.timesmachine.nytimes.com/timesmachine/1935/05/14/95076437.pdf).

Accessed 3 Jan. 2020.

Morris L. Cooke, Director of the Rural Electrification Administration (REA), discussed his hopes to bring electricity to 5 million rural farms with the \$1 million appropriations given by the Emergency Relief Act of 1935. Cooke believed the private power companies would be willing to help the farmers and do what was necessary to meet the need for electricity in rural areas. Cooke also wanted to provide low and reasonable rates to the farmers and had a specific plan for how the REA would be most effective. This newspaper gave us an insight of Cooke’s ideas for the REA appropriations.

“Cooke Outlines Benefits of REA” *The Evening Star, Washington D.C*, 22 Oct. 1935.  
*Library of Congress.*

[www.chroniclingamerica.loc.gov/data/batches/dlc\\_1guston\\_ver01/data/sn83045462/00280602590/1935102201/0016.pdf](http://www.chroniclingamerica.loc.gov/data/batches/dlc_1guston_ver01/data/sn83045462/00280602590/1935102201/0016.pdf). Accessed 3 Jan. 2020.

During a National Radio Forum, Morris L. Cooke, Director of the REA, projected that in 1936 “rural line electrification will exceed even the most prosperous years of the industry.” Cooke explained in 1935, around 60% of farmers had automobiles and  $\frac{1}{3}$  had telephone lines. However, less than 10% of farms in the United States had electricity, yet the power industries had been in existence for 50 years. The article described the cooperative movement among farmers to play a large role in the REA program, organizing farmers who wanted electricity and submitting loan applications. This article was very helpful in understanding the benefits of the REA and we used this information to help us write our script.

“Electricity Sent to 223,000 Farms.” *The New York Times*, 2 Sept 1952.

[www.timesmachine.nytimes.com/timesmachine/1952/09/02/84352107.pdf](http://www.timesmachine.nytimes.com/timesmachine/1952/09/02/84352107.pdf).  
Accessed 14 Jan. 2020.

On September 1, 1952, the REA announced 223,000 farm households would receive their first electric service and another 55,000 would receive their first telecommunication lines under \$165,426,000 of loans supplied by the REA from July 1951 to June 1952. Since the program started in 1935, over \$2.5 billion of loans had been given by the REA. This helped show how much money had been distributed under REA loans and how demands changed for the REA

“Electrification of Farm to be Studied.” *Le Mars Semi Weekly Sentinel* (Le Mars, IA), 6 Nov. 1923. [www.newspaperarchive.com/le-mars-semi-weekly-sentinel-nov-06-1923-p-2/](http://www.newspaperarchive.com/le-mars-semi-weekly-sentinel-nov-06-1923-p-2/).

Accessed 18 Jan. 2020.

From reading this article, we learned that in 1929, 400,000 farms had electricity, which was less than 7% of the farms in the nation. A meeting was held in September, 1929 at the American Farm Bureau Federation in Chicago. At this meeting a committee was formed to survey the “relation of electricity to agriculture.” This committee marked the first time in American history where farmers took active participation in solving the problem of getting power to farms. Overall, this source was helpful for us to realize how farmers came together to work on getting electricity to their farms.

“Farm Electricity for Those Who Act.” *The Greene Recorder* (Greene, IA), 2 Sept. 1936. [www.newspapers.com/clip/39033046/the\\_greene\\_recorder/](http://www.newspapers.com/clip/39033046/the_greene_recorder/). Accessed 14 Nov. 2019.

Harold Beaty, Iowa State College extension agricultural engineer, noted Iowa was 12th among states in number of farms, but ranked 8th in the number of farms that had electricity. Only 14.8% of farms in 1935 had electricity in Iowa. We learned that 30 Iowa groups had requested loans from the REA for 8,000 miles of electric lines to serve 22,000 customers. The Rural Electrification Act provided \$50 million of loans during the fiscal year for electric service and house wiring. Of the \$50 million, half of that was distributed to states based on their percentage of unelectrified farms. The remaining half was allotted by the REA Administrator to states and areas where electricity would prove most effective. This article helped us learn more about how many farmers in Iowa had electricity and also how REA loans were distributed.

“Farm Electricity Gains.” *The New York Times*, 11 Nov. 1952.

[www.timesmachine.nytimes.com/timesmachine/1952/11/11/84365749.pdf](http://www.timesmachine.nytimes.com/timesmachine/1952/11/11/84365749.pdf)  
Accessed 20 Jan. 2020.

From 1932 to 1952, there was a 78% increase in the amount of farms with access to electricity. This was reported at the 26th annual National Electrical Manufacturers Association conference. We learned that 80% of the electricity used on farms went to power home appliances compared to 20% which was used for farm production. Farmers were using electricity for their field work, but not much in their chore work. New products and equipment were being developed to increase farmers using electricity for their chore work. This article helped us learn how many farms were receiving electricity in 1952, and where the electricity was being used.

“FDR is Proud of Rural Co-ops.” *Sioux City Journal* (Sioux City, IA), 20 Jan. 1943. [www.newspapers.com/clip/46157853/sioux-city-journal/](http://www.newspapers.com/clip/46157853/sioux-city-journal/). Accessed 26 Feb. 2020. President Roosevelt gave a special message at the first annual convention of the National Rural Electric Cooperative Association. President Roosevelt was quoted saying the REA was “one of the lasting achievements of my administration.” Roosevelt also stated during his speech, “Thus the extension of electric service to 1 million farms was an important step in preparedness for ultimate victory. It represents an extension of what is perhaps the most democratic form of business enterprise, one in which the individual finds his greatest gain through cooperation with his neighbors.” This source helped us realize how much President Roosevelt cared about rural electrification.

“FDR Signed Order That Electrified Rural America.” *Hampton Chronicle* (Hampton, IA), 5 May 1960. [www.newspapers.com/clip/45437014/hampton\\_chronicle/](http://www.newspapers.com/clip/45437014/hampton_chronicle/). Accessed 13 Nov. 2019. The idea of rural electrification came to Franklin D. Roosevelt while on his first visit to his cottage in Warm Springs, Georgia, in 1924. Roosevelt questioned why his electric bill was four times the amount of his Hyde Park house in New York. Roosevelt wanted rural America to have the same electricity at low costs as cities. This source helped our project by giving us information on what encouraged Franklin D. Roosevelt to support the Rural Electrification Act.

Forsberg, A. M. “REA: Rural Electrification Modernizing Plymouth County Farm Homes.” *Le Mars Semi-Weekly Sentinel* (Le Mars, IA), 19 Jan. 1940. [www.newspaperarchive.com/lemars-semi-weekly-sentinel-jan-19-1940-p-16/](http://www.newspaperarchive.com/lemars-semi-weekly-sentinel-jan-19-1940-p-16/). Accessed 7 Feb. 2020. The Plymouth County Electric Cooperative Association was incorporated in September 1938, and received its first allotment for electric lines on March 1, 1939. Throughout the county they placed 150 miles of lines, reached 225 patrons, and continued to connect 30 more customers with the existing lines. REA helped bring electricity to many new places. This source helped us learn more about when the county we live in received rural electricity.

“Good Attendance at REA Meeting.” *The Akron Register-Tribune* (Akron, IA), 4 March 1937. [www.newspaperarchive.com/akron-register-tribune-mar-04-1937-p-1/](http://www.newspaperarchive.com/akron-register-tribune-mar-04-1937-p-1/) Accessed 13 Jan. 2020.

About 200 farmers heard Claude H. Van Vlack, an extension agricultural engineer, at a rural electrification meeting in Le Mars, IA. To get an idea of the demands for electricity in rural areas, committee members were furnished survey sheets. It was reported chairmen had appointed township committees and started to inspect their territory. The plan was to construct 200 miles of lines in Plymouth County. This source gave us information about the township committees and the meetings they held.

“Group Interested in Rural Electrification.” *The Hood County Tablet* (Granbury, TX), 10 Nov. 1938. [www.newspapers.com/clip/43428897/the\\_hood\\_county\\_tablet/](http://www.newspapers.com/clip/43428897/the_hood_county_tablet/). Accessed 10 Nov. 2019.

A group of farmers interested in rural electrification met in Hood County, which is located in Texas. To become a member of a cooperative you needed to 1) pay the \$5 membership fee; 2) wire your own house for electricity; 3) pay the minimum bill each month. We learned easements needed to be secured and power lines were installed in consideration of where the farmers need to farm. Overall, this source helped us learn more about cooperatives, securing easements, and how they were cautious of where to install the lines.

Hadley, Ed. “\$784,750 Allotted Iowa by REA First Year; \$2,500,00 More Available if Desired.” *The Gazette* (Cedar Rapids, IA), 19 June 1936.

[www.newspapers.com/clip/43963018/the\\_gazette/](http://www.newspapers.com/clip/43963018/the_gazette/). Accessed 19 Jan. 2020.

In Iowa, farmers were able to ask for a certain amount of electric wire and the more you received, the less expensive it would be. The average cost to construct power lines was \$1,000 per mile. The city of Hawarden, Iowa, was given \$127,500 to make 130 miles of power lines, which served 300 people in Sioux County. Reading this article gave us information on the average cost per mile of electric line, and the immediate effects the REA had in Iowa.

“Helps Paralysis Victim.” *The New York Times*, 22 July 1944.

[www.timesmachine.nytimes.com/timesmachine/1944/07/22/86874292.pdf](http://www.timesmachine.nytimes.com/timesmachine/1944/07/22/86874292.pdf)  
Accessed 20 Jan. 2020.

Electricity was brought to a farm in Milford, Iowa, to help run an electric-therapeutic machine to treat a baby with infantile paralysis. The parents had moved from a town with electricity to a farm without electricity. Without electricity, the parents would not be able to give their baby the treatment it needed. The parents wrote a letter to President Roosevelt asking for electricity on their farm to help their baby. The REA granted immediate construction of electric lines to the family’s farm. This source showed us that there were many different uses for electricity for the farmer and their families.

“Humboldt County Granted \$245,000 for Power Lines.” *Sioux City Journal* (Sioux City, IA), 22 Nov. 1936. [www.newspapers.com/clip/43430404/sioux\\_city\\_journal/](http://www.newspapers.com/clip/43430404/sioux_city_journal/).  
Accessed 22 Nov. 2019.

After reading this article, we learned five counties in Iowa (Humboldt, Franklin, Cerro Gordo, Kossuth, and Hampton) were given \$696,000 for three projects to build 702 miles of power lines. Those three projects would bring electricity to 2,162 farms. This source was helpful to learn about when different counties in Iowa received loans for rural electrification.

“Initiative Shown Will Determine Appropriation.” *The Morning Chronicle* (Manhattan, KS), 29, Aug. 1936.

[www.newspapers.com/clip/43433058/the\\_morning\\_chronicle/](http://www.newspapers.com/clip/43433058/the_morning_chronicle/)  
Accessed 13 Nov. 2019.

The Rural Electrification Act set aside \$50,000,000 for loans this year to build electric lines and wires for farmers to receive electricity. Half of the money was split proportionally and the other half was given to wherever it was proven needed. With this source, we learned how much money was given to build the REA and how it was decided what state got what amount.



“Iowa Has \$7,616,812 in REA Projects Under Construction And Many More to Come Soon.” *Carroll Daily Herald* (Carroll, IA), 2 Aug. 1938.

[www.newspapers.com/clip/41983896/carroll\\_daily\\_herald/](http://www.newspapers.com/clip/41983896/carroll_daily_herald/)

Accessed 9 Jan. 2020.

In August 1938, Iowa had the fourth largest percentage of farms with electricity. REA officials stated that rural Iowa lines needed to have at least two and a half customers for every mile of line. This newspaper helped us by showing the working projects in Iowa and the amount of money loaned, the miles of lines used, and the number of customers served for each project.

“Iowa in Lead.” *Le Mars Globe-Post* (Le Mars, IA), 6 June 1929.

[www.newspaperarchive.com/lemars-le-mars-globe-post-jun-06-1929-p-3/](http://www.newspaperarchive.com/lemars-le-mars-globe-post-jun-06-1929-p-3/)

Accessed 22 Jan. 2020.

This source told us that Iowa was in the lead for the most electrified number of cities and towns before the creation of the REA. Only 2.6% of towns in Iowa (24 out of 922) did not have electricity in their homes. However, that did not include the rural area, who had no electricity at all. Overall, this source was helpful in learning how many towns and cities in Iowa had electricity, while rural areas did not.

“Juice Turned On June 30th.” *The Independent* (Hawarden, IA), 6 July 1939.

[www.newspapers.com/clip/41608294/the\\_independent/](http://www.newspapers.com/clip/41608294/the_independent/). Accessed 3 Jan. 2020.

On June 30, 1939, the Sioux Electric Cooperative Association energized their power lines. As a result, 15 farmhouses in Sioux County, Iowa, received electricity for the first time. The Rural Electrification Administration wanted every home to be carefully constructed and used many safety measures. They inspected the lines, wires, switches, and breakers before the residents could use electricity. This newspaper helped our group because we learned when power lines were installed in our area and the steps taken to ensure they were installed safely.

*Le Mars Semi-Weekly Sentinel* (Le Mars, IA), 29 Dec. 1939.

[www.newspaperarchive.com/lemars-semi-weekly-sentinel-dec-29-1939-p-2/](http://www.newspaperarchive.com/lemars-semi-weekly-sentinel-dec-29-1939-p-2/).  
Accessed 31 Jan. 2020.

After farmhouses received electricity, it was exciting to see Christmas lights on in rural areas. This brief article talked about, due to rural electrification, farmers decorated their evergreen trees outside their homes with lights for the holidays. This helped us learn that rural areas could begin to decorate for Christmas just like cities had for many years.

“More Farms Get Power.” *The New York Times*, 2 Oct. 1954.

[www.timesmachine.nytimes.com/timesmachine/1954/10/02/85662341.pdf](http://www.timesmachine.nytimes.com/timesmachine/1954/10/02/85662341.pdf)  
Accessed 14 Jan. 2020.

As of Oct. 1, 1954, 92.3% of farms in the nation had electricity. Out of 5,382,134 farms, 416,172 still needed electricity. The biggest gain with electricity on farms was South Dakota followed by Kentucky, Colorado, Tennessee, and Florida. The state with the highest percentage of electricity on farms was Connecticut with 99.9% of farms having electricity. This source was helpful in providing information on how the REA brought electricity to farms throughout the United States.

“Our Part in Rural Electrification.” *Le Mars Semi-Weekly Sentinel* (Le Mars, IA), 14 Aug. 1936. [www.newspaperarchive.com/lemars-semi-weekly-sentinel-aug-14-1936-p-2/](http://www.newspaperarchive.com/lemars-semi-weekly-sentinel-aug-14-1936-p-2/). Accessed 18 Jan. 2020.

The Iowa Public Service was an electric company which served 215 cities and towns in 26 counties in Iowa. They placed an advertisement in the local newspaper saying they also provided rural electricity, and served 4,457 farms. Farms that had electricity were less than two per mile on average. It also discussed “propaganda” on private utilities, and how they did little or nothing to develop rural electrification. This source was helpful in seeing the other perspectives of electric companies that were not cooperatives.

“Place Electricity on Farms.” *The Akron Register-Tribune* (Akron, IA), 29 Apr. 1937.  
[www.newspaperarchive.com/akron-register-tribune-apr-29-1937-p-5/](http://www.newspaperarchive.com/akron-register-tribune-apr-29-1937-p-5/)  
Accessed 8 Jan. 2020.

From reading this source we learned the State Agriculture College in Ames, Iowa, provided a three-day course on safe and proper wiring in rural homes. More than 2,000 farms in Iowa received electricity for the first time that spring. K. R. Brown, field representative of the Farm Bureau Federation, said that while electricity increased the standard of living for rural American citizens it also was “opening a new field of development.” There were more sales of washing machines, radios, electric stoves, milkers, hayloaders, and other electric appliances. This source was helpful in learning additional benefits of electricity.

“Plymouth County REA Program to be Discussed Soon.” *The Akron Register Tribune* (Akron, IA), 21 Jan. 1937. [www.newspaperarchive.com/akron-register-tribune-jan-21-1937-p-1/](http://www.newspaperarchive.com/akron-register-tribune-jan-21-1937-p-1/) Accessed 15 Jan. 2020.

This article talked about a county wide meeting for rural residents from Plymouth County, Iowa, to discuss rural electrification. Local cooperatives have been formed throughout the state, providing low rates to farmers. All reviews from the farmers in Iowa counties about the REA program were very positive. This newspaper article encouraged people from Plymouth County to attend this meeting and to form a local cooperative for their community. The rapid growth of the REA led to the formation of many local cooperatives. This helped us learn how cooperatives were formed and the success of the REA program.

“Power Co-ops Get Truman's Support.” *The New York Times*, 5 Mar. 1946.  
[www.timesmachine.nytimes.com/timesmachine/1946/03/05/88337233.pdf](http://www.timesmachine.nytimes.com/timesmachine/1946/03/05/88337233.pdf)  
Accessed 6 Jan. 2020.

Harry Truman became President after Franklin D. Roosevelt's death. During the National Rural Electric Cooperative Association's convention, President Truman pledged to continue support to REA. Truman was quoted as saying, “The part which cooperatives and power districts have played in the progress of rural electrification in America during the past decade warrants a feeling of real pride. Your record of accomplishments has confounded your critics and exceeded the most optimistic predictions made on your behalf in the early days before you had proved yourselves.” This source was helpful in learning how the REA program continued even after Franklin D. Roosevelt died and Truman became President of the United States.

“Proposed REA Electric Rates on New Lines.” *Le Mars Semi-Weekly Sentinel* (Le Mars, IA), 2 May 1939.

[www.newspaperarchive.com/lemars-semi-weekly-sentinel-may-02-1939-p-1/](http://www.newspaperarchive.com/lemars-semi-weekly-sentinel-may-02-1939-p-1/). Accessed 18 Jan. 2020.

From this source we learned the REA sent a bulletin to the 324 members of the Plymouth County (Iowa) Electric Cooperative. Plymouth County was allotted \$145,000 by the REA to build 144 miles of power lines. Rural farmers had to pay for the first 40 kilowatt hours (kwh) of electricity per month, whether they used all of them or not. The cost for the first 40 kwh was \$3.75/month, approximately 9.3 cents/kwh. The next additional 40 kwh would cost 5.5 cent/kwh, the next 120 kwh would cost 3 cents/kwh, and over 200 kwh a month would cost 1.75 cents/kwh. We also learned more about our county and how they received word they were allotted money to build power lines.

“REA to Provide Electricity for Over 300 County Farms.” *Le Mars Semi-Weekly Sentinel* (Le Mars, IA), 14 Mar. 1939.

[www.newspaperarchive.com/lemars-semi-weekly-sentinel-may-14-1939-p-1/](http://www.newspaperarchive.com/lemars-semi-weekly-sentinel-may-14-1939-p-1/). Accessed 18 Jan. 2020.

This article explained the approval of the allotment for construction of electric lines in Plymouth County, Iowa. They were going to start construction soon, allowing 300 farmers to get electricity. There would be 146 miles of lines that would be installed. They were hoping there would be another allotment in the near future. The high-line cost was about \$1,000 per mile. This source gave us helpful information about Plymouth County’s first allotment of money from the REA for electric lines.

“Rep. Dayton Phillips will Press for Rural Telephones.” *Elizabethton Star* (Elizabethton, TN), 5 July 1949. [www.newspapers.com/clip/43955039/elizabethton\\_star/](http://www.newspapers.com/clip/43955039/elizabethton_star/).

Rep. Dayton Phillips of Tennessee wanted to provide legislation that would amend the Rural Electrification Act to provide for rural telephones. He wanted farmers to be able to afford adequate telephone services. This helped our group learn more about different types of services farmers needed to improve farm life.

“Roosevelt Urges Power for Farms.” *The New York Times*, 23 Sept. 1944.

[www.timesmachine.nytimes.com/timesmachine/1944/09/23/87470730.pdf](http://www.timesmachine.nytimes.com/timesmachine/1944/09/23/87470730.pdf).

Accessed 30 Dec. 2019.

In September 1944, President Roosevelt asked to bring electricity to 7,000,000 farms that had not yet received electricity. He asked Congress to make funds available immediately. Roosevelt knew it would increase employment throughout the country and also provide farmers with the electricity they needed. In 1936, only one out of 10 farms had electricity and in 1944, 43% of farms in the U.S. had electricity. Rural electrification then slowed due to World War II. This helped us understand more about Roosevelt’s thoughts, beliefs and goals to get electricity to every farm in America.

“Rural Electricity Makes Jobs and Business Boom.” *Hampton Chronicle* (Hampton, IA), 5 May 1960. [www.newspapers.com/clip/46158970/hampton-chronicle/](http://www.newspapers.com/clip/46158970/hampton-chronicle/).

Accessed 26 Feb. 2020.

Reading this article, we learned how rural electrification was good not only for the farmers but many other Americans as well. Millions of jobs were created to build the lines and wiring of homes and farms. Appliance stores and farm equipment stores thrived. In 1960, it was estimated that rural electric customers would buy over \$1 billion worth of appliances. The REA not only impacted the lives of farmers but also “miners, factory workers, office personnel, stockholders, salesmen, small businessmen, corporations, banks, and tax divisions of local, state, and federal government.” Reading this source helped us learn how rural electrification created jobs and benefited more than just the farmer.

“Rural Electrification Plans.” *Le Mars Semi-Weekly Sentinel* (Le Mars, IA),

29 Jan. 1937. [www.newspaperarchive.com/lemars-semi-weekly-sentinel-jan-29-1937-p-2/](http://www.newspaperarchive.com/lemars-semi-weekly-sentinel-jan-29-1937-p-2/). Accessed 26 Jan. 2020.

A representative of the federal Rural Electrification Administration explained to 150 farmers in Plymouth County, Iowa, how the national government would help secure electricity on their farms. The REA would loan farmers money to get electricity to their farms, and they would repay the loan in monthly payments at 3% interest over many years. Reading this article gave us information about how the REA helped inform rural farmers about getting electricity.

“Rural Electrification Project is Revived in Plymouth County.” *Le Mars Semi-Weekly Sentinel* (Le Mars, IA), 5 Aug. 1938.

[www.newspaperarchive.com/lemars-semi-weekly-sentinel-aug-05-1938-p-1/](http://www.newspaperarchive.com/lemars-semi-weekly-sentinel-aug-05-1938-p-1/)  
Accessed 31 Jan. 2020.

In 1938, rural electrification plans in Plymouth County had been at a standstill, but federal aid would be available soon. Easements needed to be secured where the lines crossed private property. We learned on average, the REA required 2.5 customers per 1 mile of line. This source was helpful in learning the delays of a local REC and more about easements, which we discussed in our script.

“Rural Hilines Meeting Called.” *Le Mars Globe-Post* (Le Mars, IA), 29 Aug. 1938.

[www.newspaperarchive.com/lemars-globe-post-aug-29-1938-p-1/](http://www.newspaperarchive.com/lemars-globe-post-aug-29-1938-p-1/)  
Accessed 15 Jan. 2020.

Farmers from Plymouth County, Iowa, interested in rural electrification could attend a meeting at the courthouse in Le Mars. Funding from the REA was available for construction of power lines. At the meeting, officers and directors of the co-ops were elected and plans were made for organizing the survey. To join a cooperative, farmers needed to pay a membership fee and grant an easement right of way. This article helped us learn how cooperatives were formed and the steps needed to join a cooperative.

“Rural Power Plans Pushed.” *The Vernon Daily Record* (Vernon, TX), 12 July 1937.

[www.newspapers.com/clip/43960051/the\\_vernon\\_daily\\_record/](http://www.newspapers.com/clip/43960051/the_vernon_daily_record/)  
Accessed 12 Nov. 2019.

From this source, we learned \$4.5 million was put aside specifically for the installation of rural electrification. Also, \$410 million was the maximum amount of money that could be loaned in the 10 year program. Around 200,000 customers had electricity after the first year of the REA. Overall, this source gave us a lot of information on how much money was put aside for the project, and how many rural homes had already gotten electricity.

“Seek Electricity for Rural Areas: Electrification Project Plymouth County Farms Has Been Drafted.” *The Akron Register-Tribune* (Akron, IA), 10 Feb. 1938. [www.newspaperarchive.com/akron-register-tribune-feb-10-1938-p-1/](http://www.newspaperarchive.com/akron-register-tribune-feb-10-1938-p-1/). Accessed 2 Feb. 2020.

In 1938, H. H. Jones, Plymouth County Agent, sent an application to the REA offices in Washington. The application proposed 298 miles of transmission lines, and 670 people agreed to use the service. The transmission lines would partially cover the two townships and fully cover eleven throughout Plymouth County. If the idea was approved by the REA, 1,000 farms in Plymouth County would receive electricity. The article also noted it would be several months before the project would receive final approval. This source helped our project by showing the plans and process for electrifying Plymouth County in northwest Iowa.

“Send Letter on Granting Franchises.” *Iowa City Press-Citizen* (Iowa City, IA), 12 Dec. 1936. [www.newspapers.com/clip/44964859/iowa\\_city\\_presscitizen/](http://www.newspapers.com/clip/44964859/iowa_city_presscitizen/). Accessed 4 Feb. 2020.

Farmers that lived in rural Iowa City were concerned about a recent request by the Iowa City Light and Power Company to provide electricity to franchises on the highway leading into town, giving electricity to 15-20 farms. This would disrupt plans the Johnson County Rural Electric Cooperative had to provide electricity to 600-700 farmers because they would not be able to reach city limits to install a switchboard where they would receive electricity from the municipally-owned power plant. Reading this source helped us learn the obstacles cooperatives sometimes had to go through to get farmers electricity.

“48 Iowa Counties Show Interest in Rural Electricity.” *Sioux City Journal* (Sioux City, IA), 15 Mar. 1936. [www.newspapers.com/clip/43962611/sioux\\_city\\_journal/](http://www.newspapers.com/clip/43962611/sioux_city_journal/). Accessed 22 Nov. 2019.

In March 1936, there were 48 counties in Iowa that showed interest in rural electrification. If all the REA projects in the 48 counties were approved, it would total 2,000 miles of power lines and supply electricity to 6,500 farms. It would bring the total amount to 38,500 farms, which was about 18% of all farms in Iowa. Reading this newspaper helped us learn about a lot of REA projects that happened in Iowa.

“\$5,000 To be Lent to REA Farmers.” *Le Mars Globe-Post* (Le Mars, IA), 6 Nov. 1939. [www.newspaperarchive.com/lemars-globe-post-nov-06-1939-p-1/](http://www.newspaperarchive.com/lemars-globe-post-nov-06-1939-p-1/). Accessed 15 Jan. 2020.

The Plymouth County Electric Cooperative Association was awarded \$5,000 from the REA for farmers to install wiring and plumbing in their homes and farms. The REA required the individual installation could not finance more than 80% of the cost of the installation. Also, the money must be repaid in no more than five years and at least 2 payments have to be paid a year. This source gave us information about the money allotted by the REA to local cooperatives for farmers to have their farms and homes wired for electricity and plumbed for running water.

## Oral Histories

“Electrifying Rural America in the 1930’s with Earl Heyler.” *Tri-County Rural Electric*, 5 Apr. 2013. [www.youtube.com/watch?v=3Xp9e9QP\\_Fo](http://www.youtube.com/watch?v=3Xp9e9QP_Fo). Accessed 7 Apr. 2020. Mr. Earl Heyler worked for the REA in 1938 when they built electric lines for farmers in his rural community in Pennsylvania. He was just out of high school when he started work delivering poles and digging holes for the poles for the REA. The holes for the poles had to be 4-5 feet deep and they were all dug by hand with spades and shovels. Mr. Heyler worked 10 hour days and received \$0.40/hour. He also explained how they raised the poles into the holes and described the assembly line approach that we explained in our documentary. This source helped us by explaining electrification from the point of view of a person that worked for the REA.

Helmke, Hilda. Oral History, 1981. *Boone Valley Electric Cooperative*. Accessed 6 Apr. 2020.

Hilda Helmke and her husband William were the first family in Iowa to receive electricity through the REA. They lived near Renwick, Iowa. Mrs. Helmke said, “I guess I didn’t realize at the time how much work it would save.” She had a big family so the electric iron definitely saved time. Mrs. Helmke did not feel famous for living in the country and having electricity. Instead, she was very grateful for it. This source helped us learn more about the first family in Iowa who received electricity through the REA.



Helmke Rininger, Gretchen. Oral History, 15 Mar. 1981. *Boone Valley Electric Cooperative*. Accessed 6 Apr. 2020.

Gretchen Helmke Rininger was a daughter of William and Hilda Helmke, the first family in Iowa to receive electricity through the REA. In her letter, she recalled how the light bulb produced much more light compared to the kerosene lamp. Before electricity Gretchen's chores were to refill the oil in the kerosene lamps and keep them clean which was done once or twice a week. She remembered how nice it was to have a vacuum cleaner and an electric mixer. This source helped our project by giving us an insight on how getting electricity affected this family's life.

Nolte, Edward. "Edward Nolte Interview, 1980" (1980). *Rural Electrification Oral History Project*. 2. [www.scholarworks.umt.edu/ruralelectrification\\_oralhistory/2/](http://www.scholarworks.umt.edu/ruralelectrification_oralhistory/2/). Accessed 22 Mar. 2020.

This interview with Edward Nolte helped our project by showing us what it was like getting electricity in rural Montana. Mr. Nolte's farm got electricity on New Year's Day in 1938. The first appliances they purchased were a refrigerator and an electric mixer. In Montana, the private companies started off helping the REA but soon after started to compete with the REA. Mr. Nolte also talked about how farmers organized themselves to form cooperatives.

Pike, Eugene. "Eugene Pike Interview, circa November 1979" (1979). *Rural Electrification Oral History Project*. 3. [www.scholarworks.umt.edu/ruralelectrification\\_oralhistory/3/](http://www.scholarworks.umt.edu/ruralelectrification_oralhistory/3/). Accessed 31 Mar. 2020.

Eugene Pike was part of the Missoula County water board and then was offered a job as the manager of the Missoula Electric cooperative in Montana. The electric cooperative came to the water board and asked if their whole engineering department could come work for them. Mr. Pike was picked to go to Missoula as part of that to work with the cooperative. As he worked with the cooperative World War II started and things slowed down. He moved eleven times for the cooperative during the war. This oral history helped us get to know what it was like to live during the REA and how it affected them.

Woods, Grace. "Grace Woods Interview, circa November 1979" (1979). *Rural Electrification Oral History Project*. 1.

[www.scholarworks.umt.edu/ruralelectrification\\_oralhistory/1](http://www.scholarworks.umt.edu/ruralelectrification_oralhistory/1).

Accessed 22 Mar. 2020.

Grace Woods talked about why it took so long for her ranch in Montana to get electricity even though she was only three miles out. It took so long because there were only three houses in three miles instead of the required three houses to one mile. Once they got electricity, irrigation was one of the biggest advantages for her ranch and other ranches around her because they could water more area at once. This source helped us learn another advantage to electricity was irrigation systems.

## **Publications**

"Electricity Will Give You More Profits, Greater Convenience." *Le Mars Globe-Post* (Le Mars, Iowa), 7 Nov. 1940.

[www.newspaperarchive.com/lemars-globe-post-nov-07-1940-p-7/](http://www.newspaperarchive.com/lemars-globe-post-nov-07-1940-p-7/).

Accessed 15 Jan. 2020.

This source was an advertisement by the Plymouth County Cooperative Association about making your farm more modern by getting electricity. It encouraged farmers to get electricity to cut costs and make life more pleasant. In all, this source showed us an example of what advertisements looked like to entice rural citizens to get electricity.

"More Power To The Farmer." *Louisan E. Mamer Rural Electrification Administration Papers, National Museum of American History, 1940*.

[www.americanhistory.si.edu/sites/default/files/file-](http://www.americanhistory.si.edu/sites/default/files/file-uploader/Rural_ElectrificationPublication_AC0862-0000012-02_enlarge.jpg)

[uploader/Rural\\_ElectrificationPublication\\_AC0862-0000012-02\\_enlarge.jpg](http://www.americanhistory.si.edu/sites/default/files/file-uploader/Rural_ElectrificationPublication_AC0862-0000012-02_enlarge.jpg)

Accessed 22 Nov. 2019.

This was a brochure published by the REA, informing farmers about how much easier farm life would be if you had electricity. It showed how much work it was to not have electricity on the farm, and showed how electricity saves labor and makes money. It also stated that the more electricity is used, the cheaper it would get. Overall, this source told me about the equipment farmers had available to them if they had electricity.

“More Power to Your Dairying.” *Smithsonian Institution Online Virtual Archives*.  
[www.sova.si.edu/details/NMAH.AC.0862?s=0&n=10&t=C&q=#ref178](http://www.sova.si.edu/details/NMAH.AC.0862?s=0&n=10&t=C&q=#ref178)  
Accessed 25 Nov. 2019.

This source told us about how much better electricity was than a farm hand, specifically in terms of dairy farming. The article stated that “electric power can’t be topped as a dairy hand.” Overall, this source showed us an example of a way that electricity helped farmers.

“REA.” *Louisan E. Mamer Rural Electrification Administration Papers, National Museum of American History*, 1940.

[www.americanhistory.si.edu/sites/default/files/file-uploader/AC0862-0000012-03\\_enlarge.jpg](http://www.americanhistory.si.edu/sites/default/files/file-uploader/AC0862-0000012-03_enlarge.jpg). Accessed 14 Nov. 2019.

The REA had many publications to promote rural electrification. This publication told us how REA had equipment tours to demonstrate how efficient electricity was. There were already 200 ways to use electricity on the farm in 1940. Lastly, researchers in colleges were looking for new methods to use electricity on the farm. Overall, this source made us see how many different ways electricity helped farmers, specifically through machinery.

“Reddy Kilowatt Salutes All Who Have Aided in the Electrification of Iowa’s Farm.” *Le Mars Semi Weekly Sentinel* (Le Mars, IA), 24 Aug. 1951.

[www.newspaperarchive.com/lemars-semi-weekly-sentinel-aug-24-1951-p-2/](http://www.newspaperarchive.com/lemars-semi-weekly-sentinel-aug-24-1951-p-2/).  
Accessed 2 Feb. 2020.

Iowa Public Service sponsored an ad in the newspaper for Farm Electrification Week. The ad saluted the pioneers of rural electrification, who had a vision for “better farming and better living with the wonderful help of electric power.” It also recognized the rural electric coops financed by the REA. This source helped us by showing some of the people and institutions that helped establish electricity in rural areas.

“Union County, S.D. Folks---Attention!” *The Akron Register Tribune* (Akron, Iowa), 29 Sept. 1938. [www.newspaperarchive.com/akron-register-tribune-sep-29-1938-p-3/](http://www.newspaperarchive.com/akron-register-tribune-sep-29-1938-p-3/). Accessed 26 Jan. 2020.

Union County, South Dakota, had recently established a rural electrification project. This source was an advertisement from Dirks Hardware, promoting electrical items such as Zenith radios and washing machines. The ad mentioned how rural people could use and appreciate electricity the same as town people. In this article we learned about the excitement electricity brought to rural folks, and the ways the local hardware store promoted purchasing electrical appliances.

## Secondary Sources

### Books

Pence, Richard and Patrick Dahl. *The Next Greatest Thing*. Colortone Press, 1984.

Reading this book gave us reliable and helpful information. It told us about the life farmers lived before electricity, how the REA formed, and the assembly of power lines in the country. The book gave us many details about the cost of rural electrification, and how rural electrification worked. In all, this book helped our project and gave us more points of views on how rural America got electricity. We also used pictures from this book, both scanned and digital images.

### Documentaries

“America’s Electric Cooperatives: Energy is Us.” *Electriccoops, National Rural Electric Cooperative Association*, 24 Jan. 2019.

[www.youtube.com/watch?v=vMZ5-EGDOhM](https://www.youtube.com/watch?v=vMZ5-EGDOhM). Accessed 24 Feb. 2020.

Watching this video, we learned how cooperatives are focused not only on their members, but bettering the communities they serve through economic development. In addition to farms, cooperatives today serve businesses, schools, churches, and towns. Farms were electrified over 80 years ago, and today cooperatives are constantly working to improve technology for their customers. We used some of the more modern video clips in this documentary in our documentary.

“Co-op Growth Over Time.” *Electriccoops, National Rural Electric Cooperative Association*, 28 June 2016. [www.youtube.com/watch?time\\_continue=4&v=\\_VzT-StxGB8&feature=emb\\_logo](http://www.youtube.com/watch?time_continue=4&v=_VzT-StxGB8&feature=emb_logo)  
Accessed 12 Nov. 2019.

This source was a video from the National Rural Electric Cooperative Association (NRECA) that we used in our documentary. It showed us how the Rural Electric Cooperatives spread throughout the country over time, as well as when and where the coops were established.

“The Electric Cooperative Story.” *Electriccoops, National Rural Electric Cooperative Association*, 12 June 2013.

[www.youtube.com/watch?v=vETdVpo8bGE](http://www.youtube.com/watch?v=vETdVpo8bGE). Accessed 9 Apr. 2020.

Reading this source we learned the idea of cooperatives originated from England. We also learned that cooperatives help build a community. All cooperatives have an open membership which means anyone can join. Today there are over 900 rural electric cooperatives in the United States. This source helped our project by explaining the history and purpose of rural electric cooperatives.

“The History of Electric Cooperatives.” *Moelectriccoops, Missouri Electric Cooperative*, 26 June 2013. [www.youtube.com/watch?v=p0lez3g7lyU](http://www.youtube.com/watch?v=p0lez3g7lyU).

Accessed 5 Nov. 2019.

After watching this documentary, we decided rural electrification would be our topic for NHD. It provided a good history of rural electrification and also the legacy of how cooperatives are still strong today. We used some clips of this video in our documentary.

## **Interviews**

Bormann, Patrick. Telephone Interview. 24 Feb. 2020.

Mr. Bormann is a General Field Representative of Electric Programs, under the Rural Development program of the United States Department of Agriculture. Our phone interview with Mr. Bormann taught us a lot about the Rural Electrification Administration as a government program and how it was supported by Democrats, Republicans, conservatives, and liberals alike. Rural electrification is also said to have been “the most successful government program ever.”

Mr. Bormann explained the program cost the government very little because all of the loans paid to local cooperatives were paid back in full. He also taught us

about the legacy of the REA, why the cooperatives were so successful in rural areas, other programs that deal with electricity, and how it benefited all of America and not just the rural areas. He told us about barriers broken by the REA, including reducing the costs for installing electric lines, improved productivity for farmers, and the concerns farmers had about signing up for the programs. He talked about how farmers' needs have changed over the years.

Brand, Tom. Telephone Interview. 21 Feb. 2020.

We had the opportunity to have an interview with Tom Brand, Chief Executive Officer of the National Association of Farm Broadcasters. He talked to us about why radio was so important in rural areas to connect farmers with the world. Radio brought news into people's homes without them having to go out and get it. Farmers were able to get current news and market prices from the radio instead of only knowing prices at their local sale barn or days later from newspapers. Radio also informed farmers about prices of farm supplies. Farm radio taught about living on the farm, better crop production methods, weather information, when to plant, and how to feed livestock. Eventually radio grew to be in vehicles, barns, and shops. He also explained how radio has evolved over the years and is still important in rural America.

Corver, Lyle. Personal Interview. 19 Dec. 2019.

This interview was a great help to our project. Mr. Korver is the Chief Executive Officer of the Northwest REC located in Orange City, Iowa. Mr. Korver talked to us about how rural electricity works, and what the business side of things was like to get electricity back in the 1930s. He also talked about where our energy comes from today. We learned the \$5 fee to become a member doesn't exist now, and it's free to be a member. However, you do need to pay for part of the cost of new lines if needed. There are 32 RECs in Iowa today. One of the advancements that started in the 1970s was underground lines. In the counties that NW REC serves, about 80% of the lines are above ground and 20% are underground. Underground lines are safer but more expensive to install. Mr. Korver also talked to us about economic development initiatives the REC contributes towards. This interview helped us understand how electricity works in our area, and we included what we learned about economic development in our script.

## Journals

Jones, LuAnn. "Electricity's Impact on Rural Life." *TarHeel Junior Historian*, Spring 1985. [www.ncpedia.org/agriculture/electricity](http://www.ncpedia.org/agriculture/electricity). Accessed 13 Nov. 2019.

Our group learned most of the money used to build power lines was borrowed by non-profit cooperatives. We also learned that when rural citizens acquired electricity they were very thankful. One woman stated, "It was like coming out of the dark ages." Electricity helped people store food and water in their homes easily. However, not everyone received electricity right away. Due to rationing materials during World War II, many farms didn't get electricity until the 1940s and 50s. This information helped us because we saw how thankful everyone was for rural electricity.

## Magazines

Campbell, Dan. "When the Lights Came On." *Rural Cooperatives*, July/August 2000. [www.rd.usda.gov/files/CoopMag-aug00.pdf](http://www.rd.usda.gov/files/CoopMag-aug00.pdf). Accessed 8 Jan. 2000.

Reading this article we learned the day the lights came on in rural homes was very exciting. One farmwife noted she finally saw a chance for her family to break the bonds of poverty. Glenn English, CEO of National Rural Electrification Cooperative Association, described the REA as "a partnership between government and ordinary people who have used cooperatives as a business device to own the utilities that mean so much to them." This article helped us learn how breaking the barriers of bringing electricity to rural areas was so important.

"Even Rural Cooperatives May Compete Unfairly." *Air Conditioning, Heating & Refrigeration News*. 6 Feb. 1989, p 20. *Gale General OneFile*, [www.link.gale.com/apps/doc/A7039898/GPS?u=0063akrms&sid=GPS&xid=eef8cbeb](http://www.link.gale.com/apps/doc/A7039898/GPS?u=0063akrms&sid=GPS&xid=eef8cbeb). Accessed 12 Nov. 2019.

This article helped us learn more about Rural Electric Cooperatives (REC). RECs were created by the Rural Electrification Act (REA). The REA provides funding to local RECs for "construction and operation of generation, transmission, and distribution facilities." They make direct loans to cooperatives. In most states, RECs are not subject to state regulation. Learning about RECs helped us to understand who actually got the loans to build the power lines.

“Iowa’s First REC Members.” *Iowa REC News. Boone Valley Electric Cooperative*. Accessed 7 Apr. 2020.

We learned the Helmkes, who lived in Renwick, Iowa, helped create the Boone Valley Electric Coop, which was the first cooperative in Iowa. When the Helmkes acquired electricity on December 2, 1936, about 20 people gathered to watch and see the lights come on. Some of the first appliances they purchased were an iron, refrigerator, hot water heater, and stove. The Helmkes noted in the article the luxuries they felt when they first got electricity have since become necessities. This source helped our project by learning more about the first rural electric cooperative in Iowa.

Padalino, John. “Co-Ops Understand and Enhance Power of Community.” *Rural Cooperatives*, vol. 80, no. 2, Mar. 2013, pp. 2–42. Master File Premier. [www.ebsco.com](http://www.ebsco.com). Accessed 8 Apr. 2020.

While reading this article we learned rural electric cooperatives know the meaning of hard work, leadership, and understand the power of community. We learned about the importance and the benefits of rural electric cooperatives that still are occurring today. The article discussed cooperatives and their drive to make the nation improve by focusing on their customers and increased energy efficiency by using renewable energy. Overall, this source helped us learn about the determination of the cooperatives to make rural America a better, more efficient, and innovative place to live.

Queck-Matzie, Terri. “How the Prairie was Lit.” *The Iowan*, 31 Oct. 2013. [www.issuu.com/the\\_iowan/docs/v62-2\\_theiowannovdec2013e/46](http://www.issuu.com/the_iowan/docs/v62-2_theiowannovdec2013e/46). Accessed 1 Apr. 2020.

Elvin Tannatt and his wife, Shirley, were born in the mid 1920’s, so they were just starting high school when they received electricity. In this article they talked about getting electric motors and lights in their barn, and a bathroom in their house. Shirley recalled how long it took to finally buy everything because they couldn’t afford it all at once. In the mid-2000s, their farm received 5 MidAmerican Energy windmills which powers electricity to their cooperative. Reading this source helped us understand how long it took to purchase different electric items and appliances, and how the Tannatts’ farm went from having no electricity to harvesting electricity on their farm today.



“USDA Awards \$677 Million to Rural Electric Cooperatives.” *Rural Electric Cooperatives*, vol. 75, no. 5, Sept. 2008, p. 37. Master File Premier. [www.ebsco.com](http://www.ebsco.com). Accessed 25 Mar. 2020.

This article talked about 20 cooperatives receiving \$677 million in loans to repair and construct rural electric lines. This would benefit 19 states and loans would go out to almost 40,000 rural electric cooperative consumers. The loans were distributed through the USDA Rural Development’s Utilities program. This article, written in 2008, helped us learn, even 72 years after President Roosevelt signed the Rural Electrification Act, cooperatives are still receiving funds to bring electricity and improvements to rural citizens.

## Newspapers

Ford, George. “High Costs Cause Some Customers to Drop Service.” *The Gazette* (Cedar Rapids, IA), 14 Feb. 2016. [www.newspapers.com/clip/51105600/the-gazette/](http://www.newspapers.com/clip/51105600/the-gazette/). Accessed 16 May 2020.

In August 2015, the Allamakee-Clayton Electric Cooperative in Postville, Iowa, was awarded \$1.45 million from the Connect America Fund to build a broadband internet infrastructure for underserved areas of Fayette County. They receive \$145,000 a year for 10 years. This would be done either through a fixed wireless network or fibers. The article mentioned economic development, and maintaining a quality of life for rural residents that’s on an “equal footing” with urban areas. This source helped us see how rural electric cooperatives are expanding their services to provide broadband internet, which in most areas has moved from being a luxury to a necessity.

Lowary, Jake. “House Passes Governor’s Rural Broadband Program.” *The Tennessean* (Nashville, TN), 11 Apr. 2017. [www.newspapers.com/clip/51102921/the-tennessean/](http://www.newspapers.com/clip/51102921/the-tennessean/). Accessed 15 May 2020.

A bill was passed in Tennessee which provided \$30 million in grants over three years to rural electric cooperatives, enabling them to provide broadband internet service to their customers. One-third of Tennessee does not have access to broadband internet, ranking them 29<sup>th</sup> in the United States. Reading this article helped us learn how rural electric cooperatives are still essential today in providing services to their customers.

Kang, Cecilia. "How to Give Rural America Broadband? Look to the Early 1900s." *The New York Times*, 7 Aug. 2016.  
[www.nytimes.com/2016/08/08/technology/how-to-give-rural-america-broadband-look-to-the-early-1900s.html?searchResultPosition=1](http://www.nytimes.com/2016/08/08/technology/how-to-give-rural-america-broadband-look-to-the-early-1900s.html?searchResultPosition=1). Accessed 13 Nov. 2019.  
This source explained how rural towns and areas have started to use laws from the Rural Electrification Act to obtain funds for broadband, or high-speed internet. Fiber optic lines are being hung on electric lines to bring high speed internet to areas that often have intermittent access because of satellite or dial-up. Also, we learned that broadband is very similar to rural electrification in terms of getting it installed in rural homes. Overall, this source told us about the laws from the REA, and how they are still being used today to broadband to rural homes or towns.

Kendall, Don. "Role of Electricity in Rural Development Questioned." *The Courier* (Waterloo, IA), 14 Nov. 1982. [www.newspapers.com/clip/45419903/the\\_courier/](http://www.newspapers.com/clip/45419903/the_courier/). Accessed 13 Nov. 2019.  
Rural electrification in the United States was very successful, but would the same type of program work in impoverished countries? Many critics in the article said while rural electricity was very successful, it wouldn't have been possible without advancement in agricultural technologies. The article also stated impoverished countries had lower levels of household income. This source helped our project by giving us information about rural electrification in other parts of the world.

"Oklahoma Lineman Help in Guatemala." *The Daily Oklahoman* (Oklahoma City, OK), 21 Sept. 2018. [www.newspapers.com/clip/51380514/the-daily-oklahoman/](http://www.newspapers.com/clip/51380514/the-daily-oklahoman/). Accessed 14 May 2020.  
Fifteen lineman from Colorado and Oklahoma went to remote villages in Guatemala to provide electricity to residents there for the first time. The lineman built 8.2 miles of power lines which provided electricity to 100 families, two health centers, two elementary schools, and five churches. This article helped us learn about rural electric cooperatives commitment to help others.

Sanderson, Veryl. "Electric Era' for Iowa Farmers Began Just 38 Years Ago." *The Des Moines Register* (Des Moines, IA), 8 Sept. 1974.

[www.newspapers.com/clip/48250417/the-des-moines-register/](http://www.newspapers.com/clip/48250417/the-des-moines-register/).

Accessed 8 Apr. 2020.

Reading this source we learned the first residents in Iowa, and one of the first in the nation to receive electricity through the REA, were Mr. and Mrs. Helmke, who lived near Renwick, Iowa. They received electricity on their farm on December 2, 1936. Mr. Helmke was the founder of the Boone Valley Electric Cooperative which is still in existence today. He recalled going from farm to farm to get farmers signed up. There needed to be three homes to a mile to qualify. This source helped our project by showing us how rural electricity, with the help of the REA and cooperatives, was started in Iowa.

"WKRECC Donates to Graves County Schools Backpack Program." *The Paducah Sun* (Paducah, KY), 11 Jan. 2018. [www.newspapers.com/clip/51377129/the-paducah-sun/](http://www.newspapers.com/clip/51377129/the-paducah-sun/). Accessed 14 May 2020.

From reading this article we learned the WKRECC (West Kentucky Rural Electric Cooperative Corporation) donated \$2,500 to the Graves County Schools backpack program. The backpack program sends home meals with children on the weekends to those you are in need. David Smart, President and CEO of the WKRECC stated, "One of the cooperative's seven core principles is concern for community. So, we take great pride in working with others here to better the community as well." This source gave us an example of economic development and how cooperatives care about their community.

## Papers

Kitchens, Carl, and Fishback, Price. "Flip the Switch: The Spatial Impact of the Rural Electrification Administration 1935-1940." *The National Bureau of Economic Research*, 19 Dec. 2013. [www.nber.org/papers/w19743.pdf](http://www.nber.org/papers/w19743.pdf). Accessed 15 Nov. 2019.

This source taught us the Rural Electric Cooperatives loaned out money to farmers wishing to purchase electricity. The loans were low interest. This made the number of electrified rural homes double in five years. This made little effect on the taxpayers because nearly all of the loans were repaid. This source helped us learn how rural electrification worked and benefited the farmers.

Lewis, Joshua, and Edson Severnini. *The Value of Rural Electricity: Evidence from the Rollout of the U.S. Power Grid*, 2015.

[www.pdfsemanticscholar.org/8202/a72b497eee7b74d2a7a82022412381d870da.pdf](http://www.pdfsemanticscholar.org/8202/a72b497eee7b74d2a7a82022412381d870da.pdf). Accessed 23 Mar. 2020.

Reading this paper helped us with statistics we included in our documentary. For example, when a farm was electrified, its productivity increased by 35%. Electric washing machines saved nine hours of work each week, and running water saved one mile of walking each day. In the city there were 50-200 houses in a mile, but in the country there were only three houses per mile. From 1935-1955 there was a sharp increase in electrification rates and the proportion of farms with electric services increased to 95%. It also went very in depth about informing us about the economics of rural electrification.

## Websites

“America’s Electric Cooperatives.” *Cass County Electric Cooperative*.

[www.casscountyelectric.com/americas-electric-cooperatives](http://www.casscountyelectric.com/americas-electric-cooperatives)

Accessed 16 Dec. 2019.

Reading this source gave us statistics on America’s electric cooperatives. One statistic we found very interesting is that cooperatives provide electric power to 56% of America today. We also learned in 2017, cooperatives provided 611,600 American jobs, such as contractors, suppliers, cooperatives, and consumer spending. Finally, we used a map from this source in our documentary.

“Celebrating the 80th Anniversary of the Rural Electrification Administration.”

*U.S. Department of Agriculture*. 21 Feb. 2017.

[www.usda.gov/media/blog/2016/05/20/celebrating-80th-anniversary-rural-electrification-administration](http://www.usda.gov/media/blog/2016/05/20/celebrating-80th-anniversary-rural-electrification-administration). Accessed 18 Nov. 2019.

The 80th anniversary of the Rural Electrification Act was on May 20, 2016. By the 1950’s the REA was able to get electricity to 80% of rural households. Rural electric cooperatives today provide electricity to 5.5 million people. The USDA continues to work on projects to build up rural electric systems, as well as renewable energy and technology advances such as smart grids. When we read this website we learned more about the long term legacy of the REA which helped us with our script writing for our documentary.

“COVID-19 Update: Board Approves \$1.6 Million Patronage Retirement.” *North West REC*. 1 Apr. 2020. [www.nwrec.coop/covid-19-updates](http://www.nwrec.coop/covid-19-updates). Accessed 3 Apr. 2020. North West REC is still doing everything they can to keep their employees working and getting paid by allowing them to work from home or come to work in shifts that practice good social distancing. This year they will have an early patronage retirement due to many people being out of work. The total distribution amount will be \$1,638,000. It will be distributed May 20, 2020 and will be based on a “Last In, First Out” system as opposed to their typical “First in, First Out” system. This source helped us see the relevance of member-owned cooperatives yet today.

Drake, Kerry. “Rural Electrification Changed Farm Life Forever in Wyoming.” *WyoHistory.org, Wyoming State Historical Society*. 12 Nov. 2014. [www.wyohistory.org/encyclopedia/rural-electrification-changed-farm-life-forever-wyoming](http://www.wyohistory.org/encyclopedia/rural-electrification-changed-farm-life-forever-wyoming). Accessed 9 Apr. 2020.

Reading this article we learned about the creation of rural electric cooperatives in Wyoming. Electricians were paid \$75 a month to wire farms and attend to any outages that occurred. On a weekly average, prior to electricity, a farmer spent 10 hours carrying water for their family, animals, and crops. One interesting note the article made was before farms had electricity, it was like there were two America’s, dividing city and country. This source helped our project by understanding the impact electricity gave to farmers in Wyoming and how it helped them improve their day to day lives.

“Dust Bowl.” *History.com, A&E Television Networks*. 14 Mar. 2019. [www.history.com/topics/great-depression/dust-bowl](http://www.history.com/topics/great-depression/dust-bowl). Accessed 4 Dec. 2019. We learned the Dust Bowl started in the 1930’s and brought severe drought and dust storms from Texas to Nebraska. It was caused by several agricultural and economic factors. The Homestead Act of 1862 provided settlers 160 acres of land. The Kinkaid Act and the Enlarged Homestead Act followed. This source helped us by giving us information on the background of our project, and made us aware of what else was going on in the country at the time of rural electrification.

“Electricity.” *Iowa PBS*. [www.iowapbs.org/iowapathways/mypath/electricity](http://www.iowapbs.org/iowapathways/mypath/electricity). Accessed 6 April 2020.

Most of the children growing up in cities and towns after World War I never lived without electricity. However, that was not the case with rural families. With help from the government, rural citizens were finally receiving electricity. The REA loaned money to farmers to form electric cooperatives. The cooperatives were owned by the farmers and were not formed to make money. One family recalled their mother crying when they finally got electricity on their farm. Though, it wasn't because it would make her life easier, it was because her daughter “could choose to live on the farm and not have to live in a second-class home.” This source helped us realize how electricity helped close the gap to the differences between homes in town and in the country.

“Electricity and Plumbing Change Rural Farm Life in the Early 20th Century.” *Iowa PBS*, 28 Apr. 2015.

[www.iowapbs.org/iowapathways/artifact/electricity-and-plumbing-change-rural-farm-life-early-20th-century](http://www.iowapbs.org/iowapathways/artifact/electricity-and-plumbing-change-rural-farm-life-early-20th-century). Accessed 8 Apr. 2020.

Before indoor plumbing, people had to go outside to go to the bathroom. One woman said that she felt like the “wealthiest person in the world” when she first received indoor plumbing. A man that was at his friend's house went outside to find the outhouse. He didn't find it so he went inside. Then he realized they had an indoor toilet. It was the first flush toilet he had seen. This source helped our project by remembering that electric water pumps and plumbing in houses created running water for items such as toilets, sinks, and bathtubs.

“Great Depression History.” *History.com*, A&E Television Networks. 29 Oct. 2009.

[www.history.com/topics/great-depression/great-depression-history](http://www.history.com/topics/great-depression/great-depression-history). Accessed 4 Dec. 2019.

We learned the Great Depression began after the stock market crash in October of 1929. It was the worst economic downturn in the history of the industrialized world. We also learned in 1933 there were 15 million Americans without jobs and almost half of the U.S. banks had failed. In 1932, Franklin D. Roosevelt won the Presidential election. He took immediate action to address the country's economic problems. This source helped us understand how life was in the 1930's.

Issacs, Gerald W. "Rural Electrification: Bringing Light to Country Living." *Resource: Engineering & Technology for a Sustainable World*, 1 Oct. 2007. *Gale General OneFile*,

[www.link.gale.com/apps/doc/A170373007//GPS?u=0063akrms&sid=GPS&xid=a6f60524](http://www.link.gale.com/apps/doc/A170373007//GPS?u=0063akrms&sid=GPS&xid=a6f60524). Accessed 12 Nov. 2019.

Before most farmers had electricity they had to cook food with coal and pump water from a well by hand. They also canned most of their food and had to refrigerate it in an icebox. Reading this source gave us information on what farmers had to do before they had electricity. It also helped us to see all the benefits and effects of bringing electricity to rural areas.

Malone, Laurence J. "Rural Electrification Administration." *Economic History Association*, [www.eh.net/?s=rural+electrification+administration](http://www.eh.net/?s=rural+electrification+administration).

Accessed 14 Nov. 2019.

From reading this article, we learned electricity providers ignored the rural areas because of its high construction cost and low immediate profit. After two years of the Rural Electrification Act, 350 projects in 45 states had given electricity to 1.5 million farms. By the 1950's almost all American farms had electricity through the REA or by other means. Reading this source helped us get a start on some basic information about the REA allowing us to dig deeper into our topic.

Neebe, Charity and Sarah Boden. "It's Electric! Rural Electrification in Iowa." *Iowa Public Radio*.

[www.iowapublicradio.org/post/it-s-electric-rural-electrification-iowa#stream/0](http://www.iowapublicradio.org/post/it-s-electric-rural-electrification-iowa#stream/0).

Accessed 26 Mar. 2020.

We learned towns in Iowa started getting electricity in the 1880's, 50 years before Iowa farms acquired theirs. Once farmers knew they could get electricity they eagerly dug holes for electrical poles and cleared trees. Some rural electric cooperatives today are bringing electricity to their members with renewable energy, such as wind or solar power. For example, the Farmers Electric Cooperative in southeast Iowa, utilizes solar power to about 20% of its customers, which will save them money in the long-term. This source helped us learn about renewable energies available today.

“New Deal.” *History.com*, A&E Television Networks. 27 Nov. 2019.

[www.history.com/topics/great-depression/new-deal](http://www.history.com/topics/great-depression/new-deal). Accessed 4 Dec. 2019.

The New Deal was President Franklin D. Roosevelt’s idea to restore the country from the Great Depression through a series of projects and programs. During the first 100 days of office, Roosevelt delivered a series of ideas to stabilize the economy and provide jobs. One act he signed into law was the Tennessee Valley Authority Act, which is regarded as a forerunner of rural electrification. This source helped us find information and historical context for our project.

“Our History.” *Southwest Iowa Rural Electric Cooperative*.

[www.swiarec.coop/content/our-history](http://www.swiarec.coop/content/our-history). Accessed 25 Nov. 2019.

In the early 1930’s, 90% of rural America was nearly in total darkness. On May 11, 1935, Congress created the Rural Electrification Administration to stop the “Dark Ages.” We learned the REA is now under the Rural Utilities Service of the U.S. Department of Agriculture. This source gave us information about one of the cooperatives in Iowa.

“President Franklin Delano Roosevelt and the New Deal, 1933-1945.” *Library of Congress*. [www.americanhistory.si.edu/blog/rural-electrification](http://www.americanhistory.si.edu/blog/rural-electrification).

Accessed 15 Jan. 2020.

When Franklin D. Roosevelt was nominated as a presidential candidate, he talked about the issue of the Great Depression in his acceptance speech. He also stated, “I pledge you, I pledge myself, to a new deal for the American people.” As soon as he was inaugurated into office he introduced the New Deal. In 1939, creating new laws as part of the New Deal had come to an end. This source helped us by showing an overview of Roosevelt’s time in office.

“REA.” *National Museum of American History*.

[www.americanhistory.si.edu/american-enterprise-exhibition/corporate-era/new-deal](http://www.americanhistory.si.edu/american-enterprise-exhibition/corporate-era/new-deal). Accessed 22 November 2019.

In 1935, only 11% of American farms had electricity before the Rural Electrification Administration was created. Local cooperatives rapidly expanded services, and by 1942 half of America’s farms had electricity, which greatly improved productivity on the farm. This source gave us more information on the Rural Electrification Administration and helped us by providing statistics and progress of rural electrification.



Reinhardt, Claudia, and Bill Ganzel. "Building the REA Lines." *The Ganzel Group*, 2003. [www.livinghistoryfarm.org/farminginthethe30s/life\\_10.html](http://www.livinghistoryfarm.org/farminginthethe30s/life_10.html). Accessed 13 Nov. 2019.

Bringing electricity to rural farms was a challenge. We learned the REA paid farmers 25 cents a hole to dig holes for the poles that they dropped off. The first house wired in York County, Nebraska, occurred in 1941 and cost \$224.50. This article helped us learn how much work it was to dig holes for the poles, and how long farmers had to wait to have electricity compared to town people.

Reinhardt, Claudia, and Bill Ganzel. "REA Changes Rural Homes." *The Ganzel Group*, 2003. [www.livinghistoryfarm.org/farminginthethe30s/life\\_11.html](http://www.livinghistoryfarm.org/farminginthethe30s/life_11.html). Accessed 15 Nov. 2019.

Electricity was one of the biggest differences between the town and the country. This literally changed their entire lives from the moment they woke up to when they went to bed in the evening. Chores took much longer without electricity, and preparing meals and washing clothes were time consuming. This source helped us learn how different towns and farms were because of electricity.

Reinhardt, Claudia, and Bill Ganzel. "The Impact of the REA" *The Ganzel Group*, 2003. [www.livinghistoryfarm.org/farminginthethe30s/life\\_09.html](http://www.livinghistoryfarm.org/farminginthethe30s/life_09.html). Accessed 15 Nov. 2019.

In 1930, 58% of farms had cars, 34% had telephones, but just 13% had electricity. The following from the source helped us as we wrote our script. "During the Great Depression, daily life was a struggle for farm families. But at the end of this dark and difficult decade, there came – quite literally – light. There was no bigger change in farm life than the coming of electricity, which started in the 1930s. Electricity dramatically changed daily life in farmhouses, chores in the barn, and work in the fields." This source helped us with our script writing and taught us more about the impact of the REA.

“Rural Electrification Act.” National Park Service, 20 Sept. 2019.

[www.nps.gov/home/learn/historyculture/ruralelect.htm](http://www.nps.gov/home/learn/historyculture/ruralelect.htm). Accessed 12 Nov. 2019.

We learned that on May 20, 1936, the United States Congress passed the Rural Electrification Act. The Rural Electrification Act was an important part of Franklin D. Roosevelt’s New Deal. The article also talked about U.S. Senator George Norris of Nebraska and his concern that people in rural America were not given a “fair chance” by not having electricity. This website helped our group because it told us why Franklin D. Roosevelt and Senator Norris wanted electricity for rural America.

“Rural Electrification Act.” *Ohio History Central*.

[www.ohiohistorycentral.org/w/Rural\\_Electrification\\_Act](http://www.ohiohistorycentral.org/w/Rural_Electrification_Act)

Accessed 14 Nov. 2019.

From reading this source we learned one reason Franklin D. Roosevelt created the Rural Electrification Act was to help electricians during the Great Depression. He also thought that access to electricity would encourage economic growth in those rural areas because it encouraged businesses to enter those areas. Having this source helped us get a different perspective into what Franklin Roosevelt was thinking when he suggested this act.

“Rural Electrification Act (1936).” *The Living New Deal*.

[www.livingnewdeal.org/glossary/rural-electrification-act-1936/](http://www.livingnewdeal.org/glossary/rural-electrification-act-1936/)

Accessed 14 Nov. 2019.

One of the reasons for the Rural Electrification Act was because private companies were unwilling or unable to produce electricity in rural America because of the cost. Because of the Rural Electrification Act, nearly all rural areas were electrified. The act provided loans for generating plants, electric transmission, and distribution lines, and were distributed by non-profit cooperatives. This website helped our group by giving us information on why loans were needed to electrify rural America.

“Rural Electrification Administration.” *Roosevelt Institute*, 25 Feb. 2011.

[www.rooseveltinstitute.org/rural-electrification-administration/](http://www.rooseveltinstitute.org/rural-electrification-administration/).

Accessed 13 Nov. 2019.

Our group learned that most private companies did not want to build electricity lines in the countryside and thought farmers would not be able to afford electricity. We also learned that in 1945, 90% of farms had electricity. This source helped us because it showed us how many people had electricity nine years after the REA.

“The Rural Electrification Act (REA) Turns 80 this Year.” *Missouri’s Electric*

*Cooperatives*. [www.moelectriccoops.com/the-rural-electrification-act](http://www.moelectriccoops.com/the-rural-electrification-act).

Accessed 14 Oct. 2019.

Our group learned in Missouri, before the REA was established, about 90% of people in urban areas had electricity. However, in rural areas about 10% of people had electricity. Another piece of information we learned is the REA brought in electricians to install light switches, light fixtures and wall outlets. This source helped us because it showed us how the REA helped the local economies in Missouri.

“These Women Taught Depression-Era Americans to Use Electricity.” *History.com*.

A&E Television Networks. 29 Mar. 2018. [www.history.com/news/new-deal-great-depression-rural-electrification](http://www.history.com/news/new-deal-great-depression-rural-electrification). Accessed 1 Apr. 2020.

We learned women recruited by the REA traveled the country in "electric circuses" to teach farm women how to use electric appliances and why they needed it. Louisa Mamer was one of the women in the electric circus. She held cooking contests and showed women how to use new appliances. Farm families weren't familiar with electricity and didn't think they needed it so the women in the electric circus had to convince them. The electric circuses worked and increased the number of farms that received electricity. This source helped our project and we included the REA "circus" in our script.

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[www.americanhistory.si.edu/blog/rural-electrification](http://www.americanhistory.si.edu/blog/rural-electrification). Accessed 13 Nov. 2019.

From this source, we learned that in 1932, only 10% of rural America had electricity. Also, we learned the REA made loans to electric cooperatives instead of installing it themselves, then the cooperatives would repay them through loans

over the next 30 years. The REA hired advisors to teach rural people how to use the electricity and created what was known as the “electric circus.” Overall, this source told us a lot of information about President Franklin D. Roosevelt and his beliefs on rural electrification. We used the information about the REA “electric circus” in our script for our documentary.

Wheeler, Jamie. “What is the Rural Electrification Act (1936), and What Did it Accomplish?” *eNotes Editorial*, 30 Jan. 2014. [www.enotes.com/homework-help/what-rural-electrification-act-1936-what-did-466311](http://www.enotes.com/homework-help/what-rural-electrification-act-1936-what-did-466311). Accessed 25 Nov. 2019.

Our group learned the REA was designed to promote “Relief, Recovery, and Reform” in the U.S. A large number of rural citizens experienced poor sanitation, low heating and lacked running water. When the REA started, the low-cost loans helped push the electrification forward. It helped the farmers afford generators and machines. In 1950, 90% of rural Americans had electrical power. Later on, in 1994, the REA was renamed the Rural Utilities Services Act. This helped our group because it showed what happened before and after the Rural Electrification Act.

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In 1935, Woodbury County, Iowa, had between 2,000 and 3,000 farms without service. Woodbury REC received their first loan from the REA in 1938. In 1956, power was available on a wholesale basis from the Bureau of Reclamation and power was brought near Hinton. We learned Woodbury REC worked together with 10 other rural electric cooperatives in the area and formed the Northwest Iowa Power Cooperative (NIPCO). Through NIPCO, cooperatives were able to reduce wholesale power costs. This source gave our group information on how the Woodbury REC gave Northwest Iowa electricity.

## Images

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