CHAPTER 14

RURAL ELECTRIFICATION ADMINISTRATION
“WHITE GOLD”

A Gift Of God. Electricity is a natural phenomenon that is the rightful heritage of all. Nature has blessed America with an abundance of natural power sources, waterfalls, and coal, oil and gas deposits, waiting to be harnessed by the various communities and to be gainfully employed for economic purposes of both farming and industry. The local, state and national governments of our country, however, have failed largely in embracing this heritage. Instead, these governments have granted private enterprise the right to build dams on these waterways for purposes of generating electrical energy, instead of doing it themselves for the benefit of all. These private utilities have exploited the consumers of electrical energy, a God-given servant, in the interest of private gain, rather than that of public service.

Rural Electrification. Until 1935, only 10 per cent of the farms in the United States were receiving electricity from high lines. Within four years after the government sponsored rural electrification, this number had doubled. The end is not yet in sight. New cooperatives are constantly being formed to take advantage of this great servant. Heretofore, when farmers wanted electricity, they often would be forced to build their own lines from the local power plant to their farms, and then give the line to the power company for the privilege of buying their energy from them. All this has been changed now, since the advent of the R.E.A. Farmers can now organize a cooperative and deal directly for their electrical energy through the medium of the local R.E.A.

The R.E.A. In 1935, the government established an emergency agency to provide rural electric lines for farmers. As a result of this initial experiment, the Norris-Rayburn rural electrification bill was passed in 1936, which established a permanent set-up, called the Rural Electrification Administration (R.E.A.). This is a ten-year program, allotting $50,000,000 for the fiscal year ending June 30th, 1937, and further providing $40,000,000 annually, for the next nine succeeding years, with an interest charge of 3 per cent. This money is not given to the cooperatives, as some people seem to think, but merely loaned to them for a period of 20 years. The
government, through the R.E.A., takes a mortgage on the line for security, so that farmers who join these electric cooperatives are not running any financial risks. In return, the farmer agrees to pay a certain monthly fee after he commences to use the electricity, most of which goes to pay for the expense of building the line. This monthly charge is maintained over a period of twenty years, when the line is finally paid for. Naturally, once the line has been paid for, the rates for electrical energy will be considerably lower than when part of the payment goes to pay for line costs.

Organizing R.E.A. Cooperatives. How can a farmer take advantage of the benefits offered by the R.E.A. program? This is only a natural question by those who do not yet enjoy rural electrification. The R.E.A. cooperatives are usually formed on the basis of county units. Farmers interested may confer with their county agricultural agent, or some other local agency interested in this plan. Farmers have the opportunity of signing up for membership in their local cooperative for this purpose. They have to agree to use the electricity when such is available, and a fixed charge must be paid monthly to cover both line costs and energy used. Before a farmer can use the electricity he must have his buildings wired. Each farmer who signs as a member is morally obligated to equip his buildings for the use of electricity just as soon as it is available to him, because his cooperative has to meet fixed line payments every year on the loan borrowed from the government for a period of twenty years, and these payments have to be made if the project is going to succeed.

R.E.A. Maintenance Costs. Most farmers want to know how much their electricity is going to cost them before they sign for membership in their local cooperative. The financial set-up for rural electrical cooperatives is much the same all over the country, and the following figures, taken from one cooperative in actual operation, will serve as a fair criterion. The average R.E.A. line costs about $900 per mile to construct. There are about three farms on the average to every mile. This makes an average line investment on each farm of about $300. Therefore, the payments are usually based on the following items: The principal and interest payments on each $300 will call for about 6.7 per cent per year. Taxes on the line will average about 2 per cent. Maintenance of the line will call for another 2 per cent, while depreciation can be figured at about 1½ per cent. Adding these various percentage charges, we have roughly 12 per cent overhead charges on the $300 line costs to each farmer. Twelve per cent of $300 is $36, which is a fair average of the annual overhead charges made by the R.E.A. electrical cooperatives.
Cost Of RE.A. Energy. Most cooperatives have been successful in purchasing or manufacturing their own electricity at a cost not exceeding one cent per kilowatt-hour. True, some cooperatives have had to pay more, but relatively few. The minimum amount of energy paid for by the consumer is usually about 40 kilowat-hours per month. This means that in one year, the farmer would pay for at least 480 kilowatt-hours. But there is usually a line leakage of about 20 per cent on the wires, so that, in reality, the cooperative would have to send out about 600 kilowatt-hours to provide the farmer with 480 kilowatt-hours. Therefore, the farmer's annual bill for electricity would be, if the cooperative charged one cent for each kilowatt-hour, the combined maintenance and energy costs, $36 plus $6, or $42 per year. This amount would be divided into twelve monthly payments of $3.50. When a farmer uses energy in excess of the 40 kilowatt-hour minimum, then he is charged for the extra amount each month. The above example is a fair average estimate of the plans used by the R.E.A. cooperatives in most parts of the country.

Legal Status Of The R.E.A. The R.E.A. is a national program. Because of its wide scope, many states have had to change their laws in order that the operations of this organization be legal. However, most states were quick to make the necessary legal changes on their respective state statutes in order that this program would not be hindered. Some states, however, still have laws upon their statute books which act as barriers to the progress of the R.E.A. Such states are opposed to consumer-owned lines. No less than 15 legal attacks have been made against the R.E.A. by privately owned utilities, but all of these attacks have failed to stop its progress. Each state R.E.A. organization maintains the services of a legal department to protect the various cooperatives within its borders from unjust treatment from private agencies.

Governmental Help For R.E.A. When a group of farmers first become interested in rural electrification, the R.E.A. headquarters at Washington affords this group the services of experts in putting the local cooperative on a sound basis. The R.E.A. first sends an experienced man into the locality to assure itself that the loan to the cooperative will be justified. It also helps the cooperative to locate good engineers, contractors, and sources of power. It advises the local directors of the cooperative regarding problems of management and operation, which aids them in avoiding the pitfalls so commonly experienced by beginners. It also assists the local cooperative in auditing its books, and is always ready to give sound advice regarding
the financial problems of the young cooperative. Besides this the R.E.A. engineers are constantly striving to cut down line costs per mile, without sacrificing quality. For example, before the R.E.A. entered the field of rural electrification, line costs averaged between $1,500 and $2,000 per mile. The R.E.A. has been able, by means of extensive research work, to cut this line cost to an average of $900 per mile, and it is still working on plans that will probably cut even this average to a new low in the near future. Despite this remarkable slash in line costs, the quality of the lines has been improved rather than lowered.

Wiring The Farmstead. The problem of wiring the farm buildings with safety, but still at a reasonable cost, usually confronts the farmer who has joined his local R.E.A. cooperative. Here again the local headquarters of his R.E.A. cooperative may be of service. When a farmer is unable to pay cash for his wiring, the R.E.A. will loan him the money over a period of five years for either financing the cost of wiring, or purchasing electrical appliances. Many farmers who wanted the electricity, but who could not, at the moment, pay for the wiring, have adopted this plan. In some sections of the country, the following plan has been used successfully: The R.E.A. fieldman will group neighboring farms in lots of 10 or more. Near-by electrical contractors will be asked to make sealed bids on these group farms, for wiring. Later the bids are opened, and the successful bidder will then deliver the necessary wiring material to each farm and collect 20 per cent of the price of his bid for each job. The contractor also obtains a signed note and payment contract for the balance of the cost of wiring the farm from the farmer. When the job is finished, the contractor first has to obtain a certificate of inspection and approval from an authorized inspector, and also a statement from the farmer that he is satisfied with the job. After obtaining these credentials the contractor then presents them to the project manager, who pays him in full. The customer then pays the remaining cost for wiring in monthly installments over a five-year period.

R.E.A. Uses Modern Methods. Farmers need have no fear that the R.E.A. lines are poorly constructed. The corp of R.E.A. engineers have performed an engineering masterpiece in working out line construction for the farmer. There is a very rigid standard of design and materials to be used in the R.E.A. construction that is second to none. For example, after the engineers have sanctioned and laid out a project, the lines are first staked, holes dug, poles distributed, hardware, such as brackets, bolts, insulators, etc., are attached to poles before they are raised. The poles are then set,
and the wires strung. The transformers are next installed, then service drops, and finally the wires carrying the current from the high lines to the buildings are installed. A good sized crew is now able to construct three miles of line a day when this method of construction is followed.

**Electricity Is A Farm Necessity.** Electricity on the farm is regarded by many people as a necessity, rather than a luxury. A farm that has access to electricity possesses more value than one which is denied this advantage. Electricity is the means of making the farm home more attractive in many different ways. It increases the convenience for doing farm chores as well as performing many other jobs on the farm, such as pumping water, turning the cream separator, grinding feed, and countless other jobs. Farm women greatly appreciate the many little things that electricity can help them do in their every-day work in the home. The electric washing machine is just one such device for making life easier for farm women. The time, as well as the costs of operation, saved by the farm family in this comparatively recent form of cooperative activity seems to be a factor that can hardly be ignored.

**GUIDE QUESTIONS FOR CHAPTER 14**

1. Compare the use of our natural resources in America with those of other countries, in regard to the rights of the people.
2. Does a citizen of this country have any inherent rights regarding our natural resources? Explain.
3. What percentage of the farmers in this country were receiving electrical energy from high lines before the advent of the R.E.A.?
4. Explain the government plan of financing the general set-up of the R.E.A.
5. What becomes the obligation of the farmer who has signed as a member of the R.E.A., after the high line reaches his farm?
6. Explain how the R.E.A. determines the amount owed them each month by their patrons.
7. Enumerate some of the overhead costs of the R.E.A.
8. Have all states cooperated in helping to legalize the R.E.A.? Why?
9. What are some forms of assistance offered the local R.E.A. cooperatives by the government?
10. Explain the plan of group wiring of farm buildings which is sponsored by the government.
11. Can the R.E.A. crews install a high line as efficiently as the private utilities? Explain.
12. Do you regard electricity on the farm as a necessity or a luxury? State reasons for your answer.