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**A PRODUCTIVE USES OF ELECTRIC ENERGY  
PROGRAM WITHIN A  
CONSUMER SERVICES DEPARTMENT  
OF  
AN ELECTRIC UTILITY ORGANIZATION:  
A MODEL**

Developed by:

International Programs Division  
National Rural Electric Cooperative Association  
1800 Massachusetts Avenue, N.W.  
Washington, D.C. 20036

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## PRODUCTIVE USES OF ELECTRICITY -- A MODEL PROGRAM

### INTRODUCTORY STATEMENT

Economic growth, whether urban or rural, whether in the developing or developed countries of the world, is largely dependent on the availability of steadily increasing supplies of energy in one form or another. In many parts of the rural areas of the developing world, newer forms of energy supply systems are just beginning to be developed. However, in terms of available scarce resources, the investment required to bring these systems into areas where there were none before can be substantial. It is important, therefore, that every effort be made to ensure that maximum overall benefit be derived from these newly-available energy supply systems.

While electric energy by itself may bring some elementary social and economic benefits to a given rural area, to justify the investment in developing the delivery systems it, too, must be consciously channeled into those kinds of economic and social activities that will bring the biggest gains to the people it is serving. The process of developing the type of programs that will bring this about will not be an easy one.

A productive uses program for electric energy systems will depend to a large extent on the availability of certain other "tools" of development -- skilled labor, credit, raw materials, markets, supporting infrastructure, etc. But it will also depend on the ability of the responsible institutions of either government or the private sector to effectively develop and implement action programs that will encourage and assist with the use of electricity in the most economically and socially productive ways possible. The development of a program to actively promote the productive uses of electricity, therefore, requires first of all the formulation of a course of action. The model which follows is such a plan which must, of necessity, be modified and adapted to coincide with

a country's stage of development at the time such a plan is introduced to further its overall development strategy.

The model as presented assumes that a productive uses program will be an integral part of a utility's comprehensive consumer services program and, once instituted, will be a permanent, ongoing part of that electric system.

### OBJECTIVES

Each electric system shall have a Consumer Services Department which will conduct a productive uses of energy program as an essential part of carrying out its objectives relating to consumer services, power use, public relations and safety. The objectives of the program are to:

- A. Achieve broad-based local, regional and national support of the program and the application of all available human and financial resources to this segment of the coordinated and integrated rural development effort.
- B. Ensure rational development and use of available energy.
- C. Enhance the financial stability of the electric system through the promotion of new and appropriate productive uses of energy.
- D. Ensure community and consumer understanding and support of the productive uses program.
- E. Ensure continuity of the productive use of electricity program in the rural electrification program itself.
- F. Furnish all possible services to consumers in the safe and practical uses of electricity on the farm, in rural industry, in cottage industry, in commerce and in the home.

### Specific Activities

The Consumer Services Department will undertake the following activities to promote the productive uses of electricity in the economic development of newly-electrified areas:

- A. Work to achieve broad-based local, regional and national support of the program and the application of all available human and financial resources to this segment of the rural development effort through:
- Information and education programs directed toward all appropriate ministries and government agencies, national banks and other public or private funding agencies and development organizations at the national level.
  - Coordination and joint planning efforts with appropriate agencies to assure the most efficient use of limited resources.
  - Involvement of government agencies, funding agencies, marketing institutions, universities and other appropriate groups in the careful analysis of the uses of electricity in the service areas for the purpose of economic development.
- B. Work to ensure rational development and use of available energy by:
- Review of socio-economic factors in the areas which are electrified or to be electrified which may affect productive uses of energy.
  - Production and marketing surveys of the areas to be electrified to ascertain development potential for appropriate agro-industry, commerce and cottage industry.
  - Formation of a plan promoting the productive uses of energy to attract to or develop appropriate industry in the newly electrified areas.
- C. Enhance the financial stability of the electric system through the:
- Addition of new consumers within the guidelines established by the Board of Directors and/or management of the electric system.

- Promotion of new and appropriate productive uses of energy to increase power sales and improve load factors.
  - Promotion, based on findings from production and marketing surveys, of the economic development of the area by providing leadership and by cooperating with local, state, national and private organizations in establishing new industry and community facilities.
  - Establishment of a mechanism for importation and promotion of the sale of approved electrical equipment through local merchants or directly by the electric utility, particularly that to be used in productive uses of energy.
- D. Seek to assure community and consumer understanding and support of the program's and organization's ideals, objectives and activities through:
- Information and education programs conducted through existing organizations and media.
  - Training, education and continuing information programs for all employees so they can respond correctly and effectively to questions and complaints.
  - Education and information programs for local and national leaders and others to assure their understanding, cooperation and support of the organization's goals and objectives.
  - Establishment, in writing, of the organization's operating practices, policies and procedures concerning consumer services to maximize understanding of them and thus minimize any possible negative reaction among consumers and the public.
- E. Work to assure continuity of the productive uses program in the rural electrification program itself by working toward the necessary expansion of service areas and expansion of the system into new areas by:

- Investigating possible sources of funding for the establishment of a revolving fund in the electric utility or at the national level. (Such a fund could be based on the REA model, which allows loans that are repaid to go into this fund so that they can be reloaned to the rural electric systems.)
  - Establishing policies, practices and procedures for the lending and control of funds which are made available for this purpose.
- F. Furnish all possible service to consumers by providing useful information, assistance and training in the safe and practical uses of electricity on the farm, in rural industry, in cottage industries, in commerce, and in the home. This includes:
- Extensions of new services as quickly as time and finances permit.
  - Safe and adequate wiring in farms, businesses, homes and other places where electricity is used.
  - Directions and guidance for safe and adequate wiring installations.
  - Adult/youth group/school classes on the safe use and installation of home wiring and on minor repairs to small appliances.
  - Convenient methods for consumers to pay for initial installation and/or connection charges, bills and the purchase of electric appliances and equipment.

#### CONSTRAINTS ON POWER USE AND PRODUCTIVE USES OF ENERGY

Nearly all rural electrification programs carried to the completion of an established system have as one of their primary purposes the development of rural areas. Historically, though, only lip service has been paid to the planning for the

implementation of a well-thought-out, well-supported and well-financed power use/productive uses program which is the key ingredient in the use of electric energy as a tool for integrated rural development. The following are some of the constraints which have limited or completely restricted the implementation of such a program:

- Consideration of the program as a social good only, focusing primarily on household and public service uses of electricity.
- Lack of capital or credit by both the utility and the potential user.
- Unwillingness (or inability) to take risks.
- Absence of entrepreneurial ability in the service area.
- Lack of understanding of electricity and its applications.
- Lack of experience in carrying out such activities.
- Unreliability of the power source.
- High cost of energy (power).
- Lack of technical assistance in proper and productive uses of energy.
- Inappropriateness of uses (i.e., no demand for final goods).
- Absence of market access (i.e., no roads, no transportation).
- Lack of availability of electrical materials and supplies.
- Restrictions on supply.

This model is designed to overcome these and other limitations and restrictions.

#### GENERAL OBSERVATIONS AND RECOMMENDED PROCEDURES

This model assumes a new rural electrification program or a major expansion of an existing program, but the same plan may be applied, with appropriate modifications, to an existing system.

A. Any rural electrification power use/productive use of energy program should

be considered as an ongoing service of the system rather than a discrete activity which terminates on completion of the construction period of the planned rural grid.

- B. The Consumer Services Department of the system should adopt the staffing pattern and the activity schedules described in this model. The Department should be responsible for developing plans and conducting activities and programs relating to rural consumer services, market analysis, power use, productive uses of electricity and consumer and public relations. Specific examples of activities to be undertaken can be found in the chronograph of activities starting on page 13 and in the position descriptions of individual staff members in the attached Appendix. In essence, the plan calls for three central staff members in the headquarters city to develop the consumer services program in more depth, carrying out a production and marketing analysis of the areas to be electrified, and preparing information releases and announcements as well as brochures, wiring diagrams, cost information and "how to" information on various productive and safe uses of electricity. In addition, they will be responsible for developing training programs for Rural Electrification Advisors, Productive Uses Advisors, village leaders and key leaders in the country. It is proposed that the Rural Electrification and Productive Uses Advisors begin activities before the rural system construction and energization is completed. Once in the field, these staff members will receive constant support, guidance and direction from the central office.
- C. The Department should develop a broad-based program of local, regional and national support to focus all feasible human and financial resources on coordinated and integrated rural development efforts. A plan for establishing close cooperation between the system and the various government agencies,

funding institutions, marketing institutions, universities, research and development groups, and local consumer action groups must be drawn up and then carried out. It is incumbent on the electric utility to inform, educate, and train, if necessary, these groups in the productive uses of electricity and to elicit their assistance and cooperation.

- D. Uniform and aggressive procedures need to be developed for signing up new rural consumers. The procedures should be developed by a committee composed of key staff members from the administrative and operational sections of the utility. The committee should agree on an application form for a new service which could be filled out by prospective consumers during communal meetings, or house-to-house contact, which should take place in all project areas in anticipation of system energization. The application form should provide space for indicating the anticipated uses of electric energy, including productive uses, since this information will assist the Rural Electrification and Productive Uses Advisors in their future informational, educational and developmental activities.
- E. A scheme must be developed to undertake socio-economic studies as well as a thorough market analysis of the areas to be electrified to assure that factual data on development potential appropriate to the area is available. Such analysis will include projections on potential markets or outlets for products, goods and services produced.
- F. A plan should be formulated to attract appropriate industry to the newly electrified areas. It is recommended that at least two field positions be established in selected regional offices entitled "Productive Uses Advisor." Since these positions will require a high degree of consumer contact as well as

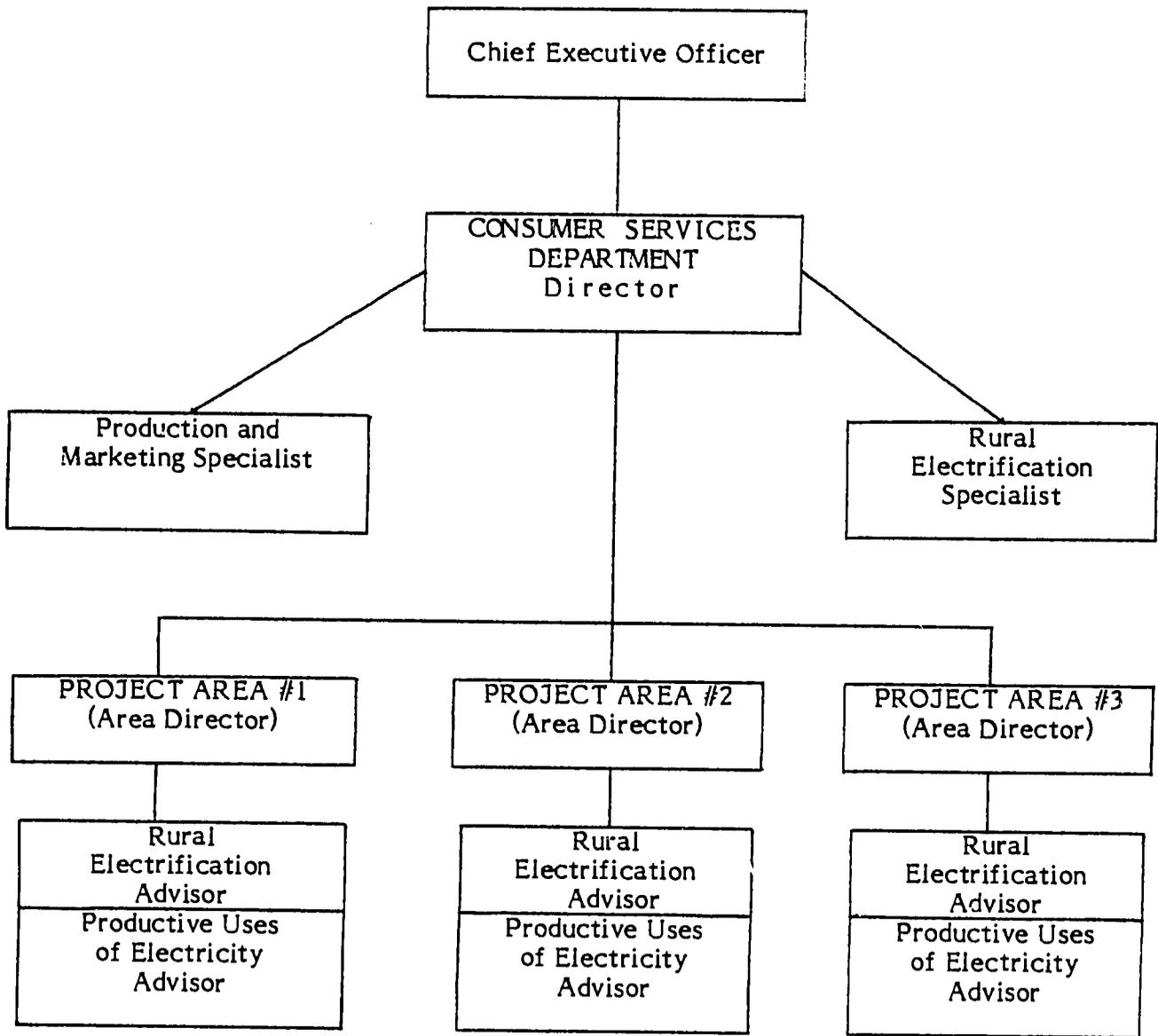
familiarity with the local areas and leaders, in addition to a high level of local support, it is necessary that they be field positions and that they be closely related to area (district and regional) management and operations.

- G. Energy substitution should be made a part of any rural electrification program. This is normally apparent from a comparison of the benefits stream calculations for such energy uses as kerosene lighting and refrigeration and diesel and gasoline engines. At the same time, these represent the bulk of potential uses of electricity. In view of this, the Rural Electrification and Productive Uses Advisors must be armed with mechanisms and analytical tools to aid them in convincing rural consumers of the economic benefits of converting to electrical power. Such "tools" might include detailed cost comparisons, audio-visual materials documenting the benefits achieved by others who have converted, and/or demonstration sites. Experience gained in successfully convincing consumers to make the energy substitutions will greatly facilitate the introduction of new and productive uses.
  
- H. Specific lines of communication between the Consumer Services Department and the operating and administrative departments of the utility is required. The head of the Consumer Services Department must be a key member of the staff and report directly to the chief executive of the organization. All staff must be made aware of the importance of the power use/productive uses program, receive appropriate training when necessary, and become advocates in the use of electric energy as a tool for rural development.
  
- I. One or more utility-operated financial plans should be established which will permit middle- and low-income consumers to purchase small electric tools and

devices through the utility and make long-term, low-interest payments through their monthly electric bills. The optimum funding required by the utility should be determined and plans included for the control and use of such funds.

- J. Training, educational and informational programs for all employees, consumers, and local, regional and national leaders should be provided to assure understanding, cooperation and support of the electric system's goals and objectives.
- K. The organization's policies, practices and procedures should be formulated and promulgated in writing to assure maximum understanding of them and to ensure maximum efficiency in achieving the goals and objectives of the organization and its consumer services program while minimizing possible misunderstandings and negative reactions among consumers and the public.
- L. Working with the national government, the national and international banks and other sources of financing, an adequate funding base should be developed for the utility to continue necessary expansion after initial funding and to perpetuate and further replicate the system. This should be done through the establishment of a revolving fund whereby some of the initial funding that is repaid can be recirculated.

SUGGESTED ORGANIZATIONAL PLAN (Professional Staff Only)



The above is a suggested staffing plan for a national rural electrification program. Modifications should be made for regional or local rural electrification schemes. As a general rule it is suggested that one Electrification Advisor and one Productive Uses Advisor be assigned to work with each 4000 to 5000 new consumers. It is recommended that during the construction stage of a rural electrification program the Consumer Services Department work as a unit, with field staff assigned geographic areas

of responsibility reporting directly to the head of the Department. After completion of construction, it is recommended that the field staff report to the local or area manager, but continue to receive functional direction and support from the central Consumer Services Department. As other rural electrification projects are planned and constructed, it is important that allowance be made for the addition of qualified staff.

### GENERAL COURSE OF ACTION

Creation of a Consumer Services Department is the first activity to be undertaken. Responsibility for this falls under the direct responsibility of top management of the utility but requires strong support and direct input from all operating and administrative divisions (departments), especially from the Public Relations Department in the elaboration of materials for dissemination.

The plan should proceed in three stages which will coincide with the construction and energization schedule of a five-year rural electrification program. The first stage is a preparatory one (in the case of a new rural electrification program) lasting approximately ten months. During this phase, the central office personnel for the Consumer Services Department are hired, receive the necessary training to perform their functions, and begin preparing detailed plans and materials for the second phase. During this phase the central staff will be reviewing the socio-economic factors of the areas which are or will be electrified and undertaking initial production and marketing surveys to determine the appropriate power and productive uses programs which should be designed. The central staff will also be acquainting itself with local, regional and national leaders and organizations connected to the energy field, production and marketing activities, development programs, funding institutions and other related activities, and will begin to coordinate their activities and seek support of these leaders and institutions. During the latter part of stage one, the field staff should be hired and given appropriate training.

The second stage involves the actual undertaking of field activities which will include signing up and educating new members and local and area community leaders. This will be accomplished by the field staff in each project area under the direction, support and supervision of the central office staff. During this period, the Productive Uses Advisors will review the socio-economic data collected by the central staff and refine the data gathered by the Production and Marketing Analyst and begin to design a program to attract appropriate industries, businesses and other productive activities to the service areas. This stage should begin approximately five months before line construction and a full year before construction of internal installations; it continues until construction is complete and beyond.

The third phase is merely the continuing recognition that consumer services, education and training activities, and continued focus on the productive uses of electricity should be an integral part of any electric utility. Over the long run, it is recommended that these activities be directed and supervised by local management personnel in each distribution area, with only those production and market analyses and activities that are best done on a regional or national level being handled by the central office staff.

A suggested timetable follows for the major activities to be carried out during the five-year period needed to accomplish the objectives listed above. More detailed information on program activities is included in the suggested position descriptions of key personnel.

#### SUGGESTED TIMETABLE FOR MAJOR ACTIVITIES

(The following is a model to be adapted to the time frame of a given rural electrification program and other national and local project conditions.)

PHASE I - (PREPARATION)

APPROXIMATE TIME: INITIAL CONSTRUCTION DATE MINUS TEN MONTHS (C-10) --

DURATION: TWO MONTHS

Hire Consumer Services Department Director and other central office staff.

Familiarize staff with electric utility and plans for rural electrification program.

Visit project areas and hold discussions with Area Directors.

Conduct specialized training in power use, productive uses of electricity and consumer services, as required.

Familiarize Production and Marketing Specialist with all related development plans of the country that do or could have a bearing on electrified areas.

APPROXIMATE TIME: C-8 -- Three Months (Constant Activity Afterwards)

Establish a reference library of books and articles on power use, productive uses of electricity geared toward the development of rural areas, socio-economic evaluations of rural project areas, maps, distribution design guidelines, equipment and supplies catalogues, etc.

Develop guidelines for conducting production and marketing surveys of the

proposed electrified areas.

Develop a plan to seek sources of funding for consumer connections and utility financing of appliances needed by consumers.

Develop information/educational materials to include:

- Potential products or activities in newly electrified areas
- Potential markets for products from the newly electrified areas
- Energy consumption cost comparison sheets
- Informational booklets on productive and other uses of electricity
- Comic-book-style educational pamphlets on safety and rational use of energy
- Radio announcements for eventual use in project areas
- Posters and devices for demonstration purposes
- Typical wiring diagrams for lighting, pumps, motors, shop and other equipment for agricultural and other rural enterprises
- Catalogues of supplies and equipment

Make initial contacts and begin education program for leaders in government agencies, marketing institutions, universities, banking and funding institutions and other appropriate local, regional and national groups to elicit support for goals and objectives of the power use/productive uses program.

APPROXIMATE TIME: C-5 -- (Three Months)

Develop a training program for organization staff to acquaint them with the goals, objectives, procedures, etc. of the Consumer Services Department.

Develop a training/educational/information program for national leaders of public agencies (Ministry of Agriculture, agricultural and rurally-related bodies, planning and development organizations, agricultural banks, etc.) and private organizations (agricultural and business, marketing groups, rurally-related cooperatives, etc.).

Develop a training/educational/information program for regional and local public and private leaders.

Develop a classroom plan for rural school teachers to deal especially with safety considerations in the use of electricity.

Become familiar with parallel rural development programs and obtain commitments of cooperation in disseminating information from the Ministry of Agriculture, agricultural development banks, national funding institutions, other rurally-involved ministries, etc. (This will be an ongoing constant activity.)

Enter into discussions with firms from the private sector for mutual promotional campaigns, including equipment discounts, information exchanges, lists of clients, etc. (Constant Activity)

Develop a plan for conducting and carrying out socio-economic studies and production and marketing surveys.

APPROXIMATE TIME : C-2 -- (Two Months)

Begin recruitment for and hire Rural Electrification and Productive Uses Advisors.

Develop a training program for the Rural Electrification Advisors and Productive Uses Advisors to include complete familiarization with the utility, the five-year plan, rate structure, power use, productive uses of electricity, reference materials, technical topics necessary, reporting responsibilities, etc.

Begin undertaking production and market surveys of project areas and complete data on the socio-economic backgrounds of consumers.

PHASE II - SIGN-UP, EDUCATIONAL DRIVES, MARKETING SURVEYS, PROGRAM EXECUTION (From start up of construction until end of construction)

APPROXIMATE TIME: C+1 -- (One Month)

Train Rural Electrification and Productive Uses Advisors and locate in project area offices.

APPROXIMATE TIME: C+2 -- (Continual on an as-appropriate basis)

Hold meetings with local personnel of Ministry of Agriculture, national banks for development, rural development agencies, etc., on appropriate means of coordination and communication.

Develop master schedule and plan for community and individual meetings, striving to reach as large a number of potential consumers as possible with each encounter.

Production and Marketing Specialist with assistance from field staff completes

initial production and marketing surveys. Also completes data on socio-economic background characteristics of service areas. Completes within three months.

(Continual)

Begin broadcasting radio announcements of informational nature in project areas in accordance with construction schedule. Broadcasts should announce towns to be electrified, dates and locations of community meetings, etc.

Arrange community meetings with local representatives and conduct them. Advance sign-up forms should be distributed and commitments obtained.

Discuss energy use with prospective consumers, farmers, industrial and commercial users.

Schedule and conduct training program for local utility staff personnel.

Schedule training programs for local and area leaders and hold them.

APPROXIMATE TIME: C+6 -- (Three Months)

(Continual)

Conduct classes on uses of electric energy and on safety.

(Continual)

Promote productive uses of energy.

APPROXIMATE TIME : C+9 and Onward

Productive Uses Advisors, using marketing data gathered by Specialist, begin resource assessments, establishing contacts, writing and publishing brochures to attract industry to areas, answering industry inquiries or complaints, helping consumers solve technical problems, etc.

(Continual)

Conduct sign-up drives through individual contact with potential consumers in project areas.

(Continual)

Implement plan(s) for providing financing schemes for electrical appliances and continue to look for new sources of finance to promote the productive uses of electricity.

(Time to time)

Solicit support of local electrical equipment and appliance dealers to run short promotional campaigns and sales of selected items.

(Continual)

Seek import waivers on those materials and equipment needed for productive uses of electricity, when such equipment is not available locally or in country.

(Continual)

Prepare activity reports and interim reports on a bi-monthly basis.

(Continual)

Meet with organizations such as agricultural groups, production and consumers cooperatives and other businesses to help them solve electrical problems and to

use electric energy more efficiently and productively.

(Continual)

Production and Marketing Specialist begins to seek markets for locally-produced products and continually feeds the information to local field staff.

APPROXIMATE TIME: ANNUALLY -- FROM C+10 to +12

Consumer Services Department, working with local field staff and others in the utility, prepares one-year and five-year work plans. This should be done annually and revised according to experience gained, progress of development and resources available.

APPROXIMATE TIME: C+12 (And continue for life of program)

Present plan for marketing of products produced at the local level through the productive uses of electricity. Work with appropriate national and international marketing channels.

Evaluate progress of consumer services program and make necessary adjustments to improve viability of program and improve viability of rural electrification system.

Develop audio-visual materials for continuing dissemination of information on and promotion of appropriate productive uses of energy in service areas.

In conjunction with the annual evaluation of progress, determine present and future personnel requirements.

### PHASE III - AFTER COMPLETION OF CONSTRUCTION (Continual)

Continue all area and central office activities. By this time the field staff should be an integral part of the local management team receiving day-to-day supervision and direction from the Area Director, but continuing to receive technical assistance, support and materials from the central office's Consumer Services Department.

As stated in the beginning of the chronological narrative, it is of extreme importance to continue the functions of the Consumer Services Department as an integral part of central office and area operations. If the number of consumers warrants it, each area office should have a consumer services department which will continue to give service, guidance and technical assistance to consumers as outlined above.

Continue to schedule and conduct training programs for new regional staff as required by grid extensions.

Continue socio-economic evaluations of new areas as they are added to the system.

Continue market studies and implementation of market plans as areas are added.

Continue the program to attract new industries to already electrified areas and new areas as they are developed.

Continue to have informational/educational/training programs for village and area leaders, as well as those on a national level.

Continue to promote productive uses of energy.

Continue to promote efficient, safe and rational use of energy.

## APPENDIX

Although the following exhibits provide detailed job descriptions and suggested qualifications, it is important to note that the single most important trait of the individuals involved in this program will be an ability to identify and work with rural people. The success of this program hinges on the credibility of the field workers with the rural people. If they are not accepted as individuals, neither will their service be accepted. From this standpoint, personal qualifications will be more important than education or professional experience. Indeed, intelligent, trainable rural individuals would be preferred over well-qualified urban dwellers.

POSITION DESCRIPTION:

Director of Rural Electrification Consumer Services Department

I. OBJECTIVE

Promote the economic development of rural areas through the productive uses of electricity while carrying out the Consumer Services Department's responsibilities relating to consumer services, information and training in safety and power use, and public relations.

II. REPORTING RELATIONSHIPS

A. Reports to: Chief Executive Officer of Utility

B. Directs:  
Rural Electrification Specialist  
Production and Marketing Specialist  
Rural Electrification Advisors  
Productive Uses of Electricity Advisors

III. RESPONSIBILITIES

Within the limits of established policies, budgets and authority delegated by the Chief Executive Officer of the organization, the Director of the Consumer Services Department, in carrying out his responsibility to plan, develop and supervise programs and activities relating to consumer services, power use and

productive uses of electricity for rural consumers, will personally:

- A. Learn the organization's system plans, programs, policies, objectives and viewpoints dealing with rural electrification projects.
- B. Staff the Department by filling the positions of the Rural Electrification Specialist, the Production and Marketing Specialist, the Rural Electrification Advisors, and the Productive Uses of Electricity Advisors. Ensure adequate training and equipping of the staff.
- C. Enhance the financial stability of the utility through the:
  - 1. Promotion of new and additional uses of electricity by rural consumers to increase power sales and improve the load factor.
  - 2. Investigation of possible sources of funding for the establishment of a revolving fund in the utility to recirculate program funds and perpetuate the program.
- D. Promote the economic development of the area by providing leadership and by cooperating with other department, provincial, national and local and private organizations to establish new industry and community facilities.
  - 1. Formulate a plan to attract appropriate industry to newly electrified areas.
  - 2. Approve plans and policies under which the Production and Marketing Specialist is to carry out socio-economic evaluations and production and marketing studies of project areas.

3. Approve plans and broad policies drawn up by the Production and Marketing Specialist for assistance in farm-to-market, rural industry-to-market and cottage industry-to-market activities and determination of markets for products and services created through the productive uses of energy.
  4. Establish relations with personnel of the Ministry of Agriculture, Ministry of Industry, government planning and development agencies, development banks, etc., at the national level and in each community to assist them in their programs and seek their support and assistance in promoting rural electrification projects.
- E. Explain and encourage acceptance by employees of the organization's system plans, programs, policies, objectives and viewpoints dealing with rural electrification projects.
1. Organize, or assist in organizing, employee training programs and seminars to make them more effective in responding to consumer questions and complaints. Design and execute specific staff training programs as needed.
  2. Advise department heads of programs, events, and activities that are creating (or may create) a bad public image for the utility.
- F. Seek rural consumer and community understanding and support for the organization's objectives and programs.
1. Conduct information and education programs for all levels of the populace through all existing organizations and media.

2. Supply promotional information and pictures of rural consumers to rurally-oriented organizations for use in their publications.
  3. Establish and maintain friendly relations with all school officials in the area of rural electrification projects and arrange to conduct talks and demonstrations in appropriate classes on the safe and proper use of electricity and electric appliances.
  4. Actively seek and respond to all invitations to speak and give demonstrations before area groups and organizations about electricity uses and electric service to rural consumers.
  5. Keep informed on all the activities and problems of rural electrification projects and respond promptly and honestly to inquiries from the area news media and answer questions and complaints from rural consumers as necessary.
- G. Provide maximum service to all rural consumers by providing reliable information, guidance, assistance and instruction in the safe, practical and productive use of electricity in the home, in commerce and on the farm.
1. Establish, publish, and maintain a current list of electrical equipment (showing initial cost and estimated monthly operating cost) having practical and productive use in the homes, farms, and businesses of the area, and promote the purchase and use of this equipment among consumers. Arrange with the farm supply cooperatives and appliance dealers in each town to stock and sell the electric appliances on the promotional list.
  2. Stress safe and adequate wiring installations in all places where electricity is used, and establish and publish interior wiring standards to

be used in the project area.

3. Plan convenient methods for paying bills, purchasing light bulbs and appliances and extending circuits when desired.
4. Establish and publish forms and procedures for signing up new rural consumers, and provide training, pamphlets, and other promotional material for Rural Electrification Advisors to use in visits to each rural home to explain the details of electric service and encourage acceptance and to sign up new rural consumers as quickly as possible after electric lines are built.
5. Establish a mechanism for importation and promotion of the sale of approved electrical tools, equipment and devices through local merchants or directly by the utility, particularly those used in productive processes.
6. Attend meetings, read publications, and establish reference files to keep informed on new techniques and product developments that might be effectively used by the organization and its consumers.

H. Perform certain administrative functions.

1. Submit written monthly progress reports to the Chief Executive Officer.
2. Prepare an annual work plan and budget for the Consumer Services Department for submission to the Chief Executive Officer.
3. Authorize and recommend the purchase of equipment and material used by the Consumer Services Department.

I. Perform such other activities as may be assigned by the Chief Executive Officer.

#### IV. RELATIONSHIPS

The Director of the Consumer Services Department establishes and maintains the following contacts and relationships:

##### A. Internal

1. Chief Executive Officer -- Confer on matters concerning consumer service, productive uses programs, and public relations to keep him informed on programs, plans, progress and special problems involving the Consumer Services Department, and seek advice, information and assistance and recommend procedures for the Department.
2. Other CSD Staff Members -- Train, advise, assist and inform them on matters pertaining to consumer services, productive uses programs and public relations and seek advice, assistance, and information as necessary; participate in planning and accomplishment of work programs that further the services of the organization.
3. Other Employees -- Enlist the support and assistance of other employees, particularly in area offices, in promoting the productive use of electricity and the services of the organization.

##### B. External

1. Consumers and Prospective Consumers -- Create and initiate action on ways of providing individual and group assistance relating to the uses of electricity and the activities of the organization.
2. Educational, Agricultural, Development and Related Agencies -- Seek and stimulate cooperation and participation in programs of mutual benefit and coordinate planned programs and activities.
3. Newspapers and Radio -- Provide information and advertising.

V. QUALIFICATIONS

A. Bachelor's Degree in:

Public Relations  
Agricultural Economics  
Communications  
Sociology  
or similar fields

B. Training or expertise in as many as possible of the following:

Electricity	Photography
Agriculture	Salesmanship
Community Development	Public Speaking
Administration	Teaching
Marketing	Drafting
Wiring	Commercial Art
Electric Equipment	Layout and Design
News Story Writing	Audio-Visual Equipment
Advertising	

C. Personal Characteristics:

A pleasing personality and meets people well.

An interest in improving the life of rural people.

Sufficient intelligence and desire to learn new concepts and skills.

Willing to work in rural areas and do limited manual work when necessary to get the job done.

Strong leadership characteristics.

POSITION DESCRIPTION:

Rural Electrification Specialist

I. OBJECTIVE

Under the supervision of the Director of the Department, formulate and oversee implementation of an effective consumer services program emphasizing power use and the productive uses of electricity.

II. REPORTING RELATIONSHIPS

- A. Reports to: Director, Consumer Services Department
- B. Directs: None

III. RESPONSIBILITIES

Within the limits of established policies, budgets and authority delegated by the Director of the Consumer Services Department, the Rural Electrification Specialist will personally:

- A. Learn the plans, programs, policies, objectives and viewpoints of the organization and explain and encourage acceptance of them by other staff and among rural consumers. Provide power use, productive uses and public relations information to other central office and field office employees so the staff outside the Consumer Services Department can provide assistance with the development work of the organization.

- B. Keep informed on new methods and product developments relating to the use of electricity and provide this information to the Rural Electrification Advisors and other Consumer Services Department and organization staff through:
  - 1. Personal contacts with professional, educational or other organizations and groups with similar or related programs and objectives.
  - 2. Attendance at seminars, demonstrations, exhibits and other training meetings.
  - 3. Newspapers, magazines, manufacturers' literature and other publications.
  - 4. Maintenance of reference files of catalogues and technical information.
  
- C. Assist in the training and guidance of the Rural Electrification Advisors in the achievement of their objectives to provide maximum assistance to the rural consumer, and provide continuous support in the development of an effective consumer services program at the local level.
  - 1. Learn interior wiring standards as necessary in order to train the Rural Electrification Advisors to assist consumers and employees in the proper installation of wiring.
  - 2. Prepare drawings and instructions for use by Rural Electrification Advisors and others in the installation and use of wiring, including the various options available for switches, outlets and other hardware.
  - 3. Study operation, maintenance, initial purchase cost, monthly operating cost and repair facilities for electric appliances and equipment.
  - 4. Prepare guidelines for and give assistance with the development of demonstrations of appropriate electric appliances and equipment by the Rural Electrification Advisors and Productive Uses Advisors.
  - 5. Prepare illustrated information sheets that can be freely distributed on

electric appliances and on different lighting fixtures, lamps and controls that may have practical use on the farm, in business and industry and in homes in rural areas.

- D. Contact national and regional educational leaders to prepare the way for local staff to schedule demonstrations in technical, vocational, home economics and other appropriate classes, and prepare guidelines under which local staff should contact leaders in community adult or youth organizations to schedule demonstrations of electric equipment available for power use and productive uses on the farm, in business and industry, and in the home.
- E. Work with Rural Electrification Advisors to organize and conduct community sign-up meetings when electric service is being extended to new towns and rural areas.
- F. Promote economic development in the project areas through individual leadership, by working closely with the Production and Marketing Specialist and the field staff and through cooperation with national, regional, local and private organizations in establishing new industries and community facilities. Counsel, on the national and regional levels, agricultural leaders, technicians, university agricultural and agri-business teachers and other farm and industry specialists on the development of practical and productive uses of electricity by individuals, and on programs of training and instruction to assure their proper installation and use, to improve their production, processing, storage and marketing operations. These might include but are not limited to:
  - Electrified equipment in business and industry to improve efficiency and

increase productivity.

- Air conditioning and/or heating to provide a more comfortable work environment for employees and thus increase efficiency and productivity.
  - Electric water pumps in wells for better farm and home water supply and in wells or streams for pump irrigation.
  - Electrified fences to protect crops from livestock or contain livestock in pens.
  - Artificial hatching and brooding of large numbers of chickens.
  - Lighting to extend the apparent length of the day so that chickens will eat more and grow faster and so that laying hens will skip fewer days.
  - Water heaters for sanitation and processing purposes.
  - Electric grind wheels for sharpening of knives and tools.
  - Electric milking machines to increase by many times the number of cows which can be milked by one farmer.
  - Refrigeration equipment to cool milk quickly, improving its quality and greatly extending the length of time it can be stored without spoiling.
  - Refrigeration or freezing equipment to improve the quality and lengthen the storage time of meat and fruits.
  - The grinding and mixing of feed grains and supplements.
  - Better lighting for better sorting and grading of farm produce.
- G. Counsel agricultural leaders and businessmen on the use of electric energy as an alternative to scarce fossil fuels, such as gas, oil and kerosene, and as an alternative to wood as a fuel so as to conserve these finite and rapidly diminishing resources.

- H. Encourage farm supply cooperatives, business and industry supply houses and other appliance and equipment dealers at the national and regional levels, to stock and promote the sale of items which are being promoted for effective, efficient and productive uses of electricity at the local level.
- I. Assist the Rural Electrification Advisors and the Productive Uses Advisors to work closely with any area development committee(s) in order to remain alert to possible community improvement projects and industrial plants which may be built in the rural areas and assist them to compete for the establishment of such a project in the system's service area.
- J. Maintain contact with agricultural agencies, industrial development and assistance agencies, farm and other development banks, etc., to solicit their cooperation and assistance in fomenting the productive uses of electricity by rural consumers.
- K. Undertake certain public relations responsibilities:
  - 1. Recommend to the Director of the Consumer Services Department the purchase of suitable audio-visual equipment and learn how to operate it well and train others to operate it well.
  - 2. Locate national and regional sources of films and determine how to rent, borrow, or purchase films dealing with electricity, electric appliances and productive uses of electricity; screen these before organizations and other interested parties at the national and regional levels and make them available to the Electrification and Productive Uses Advisors at the local level.

3. Work with the Production and Marketing Specialist to develop presentations about the region's potential, the organization, and other items of interest which can be illustrated with color slides. Take the necessary pictures and be prepared to present these to national and regional audiences and make them available to local staff for wide viewing by groups and classes throughout the local project areas.
  4. Prepare news articles and photographs for national and regional radio stations and newspaper offices as appropriate and assist field staff in also doing so for local areas on those events which have bona fide news value.
  5. Design newspaper advertisements that effectively carry messages which the organization wishes to communicate to the rural public. The messages may deal with the promotion of electric service or use or with the organization as a responsible, effective, efficient institution in the community.
  6. Prepare radio, and, if appropriate, TV advertising scripts.
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- L. Submit written weekly activities reports to the Director of the Consumer Services Department.
  - M. Prepare and submit necessary data on an annual basis for inclusion in the annual report and for preparation of annual and updated five-year work plans.
  - N. Perform such other activities as may be assigned by the Director of the Consumer Services Department.

#### IV. RELATIONSHIPS

The Specialist establishes and maintains the following contacts and relationships:

##### A. Internal

1. Director of the Consumer Services Department -- Receive information and instruction on job responsibilities; advise, assist and inform on matters pertaining to the planning, scheduling and performance of assigned tasks as necessary.
2. Production and Marketing Specialist -- Coordinate, advise, assist and inform on matters pertaining to production and marketing studies, and marketing plans for the Department; seek advice, assistance and information necessary to jointly and effectively participate in the planning and accomplishment of the marketing objectives of the organization.
3. Rural Electrification Advisors -- Assist in the initial training of these staff members. Advise, assist, and inform on matters pertaining to planning, scheduling and performance of assigned work in the field; seek advice, assistance and information when necessary; jointly participate in planning and accomplishment of programs of the rural electrification project, particularly in their assigned areas, under the supervision of the Director of the Department.
4. Productive Uses Advisor -- Advise, assist and inform on matters pertaining to the efforts to increase the productive uses of energy in the project area; seek advice, assistance and information necessary to render assistance and guidance to the Advisor in providing effective and efficient service to rural consumers.

5. Other Employees -- Enlist their understanding, support and assistance in promoting the productive uses of electricity and the services of the organization.

B. External

1. National and Regional Institutions, Including Governmental, Banking, Developmental, Educational, and Private Sector Groups -- Stimulate cooperation, coordinate planned programs, and encourage participation in activities.
2. Equipment and Appliance Dealers -- Provide guidance and information that will elicit support of these dealers to stock the necessary items and will support the dealers' efforts to increase sales of electric appliances. Provide guidance and information for improvements in selection of items offered.
3. Newspapers, Radio and TV Stations -- Inform and advise on news releases, advertising and electric promotion programs.
4. Consumers and Prospective Consumers -- In coordination with field staff, seek out and advise on the advantages and productive and other uses of electricity and assist in the sign-up for electric service.

V. QUALIFICATIONS

A. Bachelor's Degree in:

Electrical Engineering  
Agricultural Engineering  
Agricultural Economics  
Sociology  
Public Relations  
or similar fields of study

B. Training or experience in as many as possible of the following areas:

Electricity	Drafting
Wiring	Commercial Art (Layout and Design)
Electric Equipment	Audio-Visual Equipment
News Story Writing	Community Development
Public Speaking	Agriculture
Teaching/Training	Salesmanship
Photography	

C. Personal Characteristics

Preferably reared in rural area.

An interest in improving the life of rural people.

Willingness to work extensively in rural areas and with farmers.

Sufficient intelligence and willingness to learn new concepts and skills.

A pleasing personality and meet people well; a motivating person.

Mechanical aptitude.

POSITION DESCRIPTION:

Production and Marketing Specialist

I. OBJECTIVE

Promote economic development through the productive uses of electricity in areas to be electrified by providing leadership to and cooperating with local, state, national and international governmental and private organizations in the establishment of new industries, businesses, farm enterprises and community facilities.

II. REPORTING RELATIONSHIPS

A. Reports to: Director, Consumer Services Department

B. Directs: None

III. RESPONSIBILITIES

Within the limits of established policies, budgets and authority delegated by the Director of the Consumer Services Department, the Production and Marketing Specialist will personally:

- A. Establish detailed plans and policies for carrying out socio-economic studies of the regions being electrified which will be utilized in the development of a productive uses program for each region.

- B. Undertake production and marketing surveys of the areas to be electrified to ascertain the development potential for appropriate agro-industry, commerce, cottage industry and agricultural activities.
- C. Develop and foster implementation of a production and marketing program that will attract industry and stimulate the production of appropriate goods and services in the region being newly electrified making productive use of energy and assure, through the formulation of detailed plans and programs, that there are available markets for them, whether such markets are local or more remote. Coordinate such a plan with all private marketing agencies and groups and governmental bodies having related oversight responsibilities.
- D. Establish and maintain relations with government personnel of the Ministries of Agriculture and Industry, and government planning and development agencies, as well as public and private marketing agencies, etc., at all levels to seek their support and assistance in establishing industry and promoting markets for the products and services of the newly electrified rural areas.
- E. Represent the utility before national, regional and local groups, making presentations about the organization's current power picture and future projections, and promoting interest in the productive uses of electricity and its relationship to the marketplace.
- F. Assist in the preparation of information bulletins on the uses of electric energy in production, and in food, grain and product processing, preservation and storage.
- G. Work with electric equipment suppliers to develop plans for the sale and financing of appropriate electric equipment through local merchants or directly through the utility, particularly equipment for productive uses of electric energy.

- H. Perform such other duties as may be assigned by the Director of the Consumer Services Department.

#### IV. RELATIONSHIPS

The Production and Marketing Specialist establishes and maintains the following contacts and relationships:

##### A. Internal

1. Director of the Consumer Services Department - Receive information and instruction on job responsibilities; advise, assist and inform on matters pertaining to the planning, scheduling and performance of tasks assigned to the Department; seek advice, assistance and information as necessary.
2. Rural Electrification Specialist - Coordinate, advise, assist and inform on matters pertaining to planning, scheduling and performance of work assigned to the Department; seek advice, assistance and information as necessary; jointly participate in planning and accomplishment of activities of the Department under the supervision of the Director.
3. Rural Electrification Advisors - Assist in the initial training of these staff members. Advise, assist, and inform on matters pertaining to planning, scheduling and performance of assigned work in the field; seek advice, assistance and information necessary to jointly participate in the planning and accomplishment of programs of the rural electrification project, particularly in their assigned areas, under the supervision of the Director of the Department.

4. Productive Uses Advisors - Advise, assist and inform on matters pertaining to the efforts to increase the productive uses of energy in the project area; seek advice, assistance and information necessary to render assistance and guidance to the Advisor in providing effective and efficient service to rural consumers.
5. Other Employees - Enlist their understanding, support and assistance in promoting the productive uses of electricity and the services of the organization.

B. External

1. National and Regional Institutions, Including Governmental, Banking, Developmental, Educational and Private Sector Groups - Stimulate cooperation, coordinate planned programs and encourage participation in activities.
2. Production and Marketing Agencies and Groups - Develop joint planning and execution of schemes with a bearing on market development. Stimulate cooperation among these groups and consumers and potential consumers in electrified or soon to be electrified areas.
3. Local Industrial, Agro-Industrial, Business and Agri-Business Groups, Financial and Banking Institutions and Related Groups and Agencies - Create and initiate ways of providing individual and group assistance in the promotion of appropriate new agro-industrial/business ventures and/or expanding existing operations. Seek out and stimulate cooperation and participation in programming effective use of electric energy for the mutual benefit of all.

## V. QUALIFICATIONS

### A. Bachelor's Degree in:

Business Administration  
Business Management  
Marketing  
Industrial Relations  
Economics  
or related fields

### B. Training and experience in:

Production and Marketing Surveys  
Utility Management  
Business Management  
Analytical research and analysis and/or related training and experience

### C. Personal Characteristics:

A highly motivated self-starter  
An interest in rural development  
Preferably a rural background  
A desire to learn new concepts and skills  
Strong leadership characteristics

POSITION DESCRIPTION:

Rural Electrification Advisor

I. OBJECTIVE

Promote the economic development of the system's service area through good public relations and individual leadership and through cooperation with national, provincial, local, and private organizations in establishing new industry and community facilities making productive use of electric energy.

II. REPORTING RELATIONSHIPS

A. Reports to: Director, Consumer Services Department

B. Directs: None

III. RESPONSIBILITIES

Within the limits of established policies, budgets and authority delegated by the Director of the Consumer Services Department, the Rural Electrification Advisor will personally:

A. Learn plans, programs, policies, objectives and viewpoints of the organization and explain and encourage acceptance of them among rural consumers and employees.

- B. Keep informed on methods and product development relating to the use of electricity through information received from the Rural Electrification Specialist as well as through:
  - 1. Personal contacts with professional, educational or other organizations and groups with similar or related programs and objectives.
  - 2. Attendance at seminars, demonstrations, exhibits and other training meetings.
  - 3. Newspapers, magazines, manufacturers' literature and other publications.
  - 4. Maintenance of reference files of catalogues and technical information.
  
- C. Provide power use information and instruction to other employees so they can provide assistance in the promotion and development work of the organization.
  
- D. Provide maximum assistance to consumers.
  - 1. Learn interior wiring standards as necessary, with assistance from the Rural Electrification Specialist, so as to advise consumers and employees in the proper installation of wiring.
  - 2. Prepare drawings and instructions, based on those received from the Rural Electrification Specialist, for use by employees and rural consumers in the installation and use of wiring, including the various options available for switches, outlets and other hardware.
  - 3. Study operation, maintenance, initial purchase cost, monthly operating cost and repair facilities for electric appliances and equipment.
  - 4. Prepare, with the assistance of the Rural Electrification Specialist, demonstrations of electric appliances and equipment which have been

selected for promotion. The demonstration would include the actual equipment, and it will be made to perform one or more of its normal functions. The demonstration would cover all costs associated with the appliance and include the proper use of the equipment for best performance. Demonstration aids might include charts, pamphlets, motion pictures and slides in addition to the equipment.

5. Prepare illustrated information sheets to be freely distributed to consumers on all electric appliances and on different lighting fixtures, lamps and controls that may have practical use in homes in rural areas.
  6. Locate sources of money which may be borrowed for the purchase of appliances, and publicize the terms and procedures.
  7. Answer questions and complaints from rural consumers as necessary.
- E. Contact individual school principals and teachers to schedule demonstrations in home economics, vocational, and other appropriate classes, and contact leaders in community adult and youth organizations to schedule demonstrations of electric equipment available for use in the home and on the farm.
- F. Organize and conduct community sign-up meetings, working through the advisors when electric service is being extended to new towns.
- G. Counsel local agriculturalists and businessmen on the use of electric energy as an alternative to scarce fossil fuels, such as gas, oil and kerosene, and as an alternative to wood as a fuel so as to conserve these finite and rapidly diminishing resources.

- H. Encourage farm supply cooperatives and other appliance dealers to stock and promote the sale of appliances which are being promoted.
  
- I. Work closely with the Rural Electrification Specialist and Productive Uses Advisor and any area development committees(s) in order to remain alert to possible community improvement projects and industrial plants which may be built in the rural areas and assist them to compete for the establishment of such a project in the system's service area.
  
- J. Undertake certain public relations activities:
  - 1. Recommend to the Rural Electrification Specialist and the Director of the Consumer Services Department the purchase of suitable audio-visual equipment and learn how to operate it well.
  - 2. Locate a source of movie films and determine how to rent, borrow, or purchase films dealing with electricity and electric appliances and screen them before organizations and classes in the area (check agricultural agencies, university library).
  - 3. Work with the Marketing Specialist to develop presentations about the region's potential, electricity in general and particular appliances which can be illustrated with color slides. Take the necessary pictures, rehearse the presentations and show them widely to groups and classes throughout the area.
  - 4. Prepare news articles and photographs for newspapers and radio stations in the area on those events that have bona fide news value.
  - 5. Design newspaper advertisements that effectively carry messages which the organization wishes to communicate to the rural public. The messages may deal with the promotion of electric service or use or with

the organization as a responsible, effective, efficient institution in the community.

6. Prepare radio advertising scripts.
  7. Maintain personal contacts at the local radio stations and newspaper offices, know their rates and deadlines, and deliver news and advertising material as required.
- K. Submit written weekly activities reports to the Director of the Consumer Services Department.
- L. Drive and maintain assigned vehicle.
- M. Perform such other activities as may be assigned by the Director of the Consumer Services Department.

#### IV. RELATIONSHIPS

The Rural Electrification Advisor establishes and maintains the following contacts and relationships:

- A. Internal
1. Director of the Consumer Services Department - Receive information and instruction on job responsibilities; advise, assist and inform on matters pertaining to the planning, scheduling and performance of assigned duties; seek advice, assistance and information as necessary.
  2. Rural Electrification Specialist - Receive guidance, information and support in carrying out job responsibilities; advise, assist and inform on

matters pertaining to planning, scheduling and performance of assigned duties; seek guidance, advice and assistance as necessary.

3. Production and Marketing Specialist - Coordinate, advise, assist and inform on matters pertaining to production and marketing studies and marketing plans for the Department; seek advice, assistance and information necessary to jointly and effectively participate in the planning and accomplishment of the marketing objectives of the organization.
4. Productive Uses Advisor - Advise, assist and inform on matters pertaining to the efforts to increase the productive uses of energy in the project area; seek advice, assistance and information necessary to render assistance and guidance to the Advisor in providing effective and efficient service to rural consumers.
5. Other Employees - Enlist their understanding, support and assistance in promoting the productive uses of electricity and the services of the organization.

B. External

1. Consumers and Prospective Consumers - Seek out, sell to and advise on the advantages and uses of electricity and sign up for electric service.
2. Agricultural Institutions, Financial Institutions, Teachers and Community Leaders - Stimulate cooperation, coordinate planned programs, and encourage participation in activities.
3. Appliance Dealers - Provide guidance and information that will support the dealers' efforts to increase sales of electric appliances and suggest improvements.

4. Newspaper and Radio Stations - Provide copy for and advise on news releases, advertising, and electric promotion plans.

V. QUALIFICATIONS

A. Bachelor's Degree in:

Agricultural Engineering  
Electrical Engineering  
Agricultural Economics  
Sociology  
Public Relations  
or similar fields of study

B. Training or experience in as many as possible of the following areas:

Electricity	Drafting
Wiring	Commercial Art (Layout and Design)
Electric Equipment	Audio-Visual Equipment
News Story Writing	Community Development
Public Speaking	Agriculture
Teaching/Training	Salesmanship
Photography	

C. Personal Characteristics:

Preferably reared in a rural area.  
An interest in improving the life of rural people.  
Willing to work extensively in rural areas and with farmers.  
Sufficient intelligence and willingness to learn new concepts and skills.  
A pleasing personality and meet people well; a motivating person.  
Mechanical aptitude.

POSITION DESCRIPTION:

Productive Uses of Electricity Advisor

I. OBJECTIVES

- A. Foster the more effective use of electric energy for increased agricultural production, the development of cottage industries and other rural industries and businesses, and the promotion of other rurally-oriented economic activities.
- B. Maximize the benefits to be derived from electric energy once it is introduced into a rural area.

II. REPORTING RELATIONSHIPS

- A. Reports to: Director, Consumer Services Department
- B. Directs: None

III. RESPONSIBILITIES

Within the limits of established policies, budgets and authority delegated by the Director of the Consumer Services Department, the Productive Uses Advisor will personally:

- A. Supervise project area surveys along with the Production and Marketing Specialist to determine the nature of new economic enterprises that would be most suitable for development. These would include:
  - 1. Socio-economic surveys
  - 2. Production surveys
  - 3. Marketing surveys
  
- B. Analyze adequacy of project area infrastructure essential to the development of business and industry such as roads, water, electric power availability, with particular reference to the movement of raw materials and finished products.
  
- C. Provide individual services to those local business entrepreneurs, industrialists and farmers who may want to develop new enterprises based on electric energy. This would include:
  - 1. Making available appropriate survey information.
  - 2. Assisting in obtaining financial resources.
  - 3. Assisting in obtaining other resources -- technical and managerial.
  - 4. Advising on the type of electrical machinery and equipment most suitable for the purpose of the enterprise.
  - 5. Maintaining continuing contact with the consumer after the start up of the new activity.
  
- D. Conduct periodic programs designed to inform the general public of potential productive uses of electricity in the project area. This would include:
  - 1. Organizing demonstration activities.
  - 2. Conducting and participating in seminars and discussion groups.

3. Organizing and carrying out training programs.
  4. Assisting in the preparation of bulletins, news articles and radio and TV programs.
- E. Maintain contact with local college and university officials, with appropriate area, regional and national agencies, trade and marketing groups, suppliers and representatives of industry in order to mobilize and utilize professional support for new enterprises.
- F. Counsel agricultural leaders, technicians, university agricultural teachers, and other farm, business and industry specialists on the development of productive uses of electricity by individuals, and on programs of training and instruction to assure their proper installation and use, to improve their production, processing, storage and marketing operations. These might include but not be limited to:
- Electrified equipment in business and industry to improve efficiency and increase productivity.
  - Air conditioning and/or heating to provide a more comfortable working environment for employees and thus increase efficiency and productivity.
  - Electric water pumps in wells for better farm and home water supply and in wells or streams for pump irrigation.
  - Electrified fences to protect crops from livestock or contain livestock in pens.
  - Artificial hatching and brooding of large numbers of chickens.
  - Lighting to extend the apparent length of the day so that chickens will eat more and grow faster and so that laying hens will skip fewer days.

- Water heaters for sanitation and processing purposes.
  - Electric grind wheels for sharpening of knives and tools.
  - Electric milking machines to increase by many times the number of cows which can be milked by one farmer.
  - Refrigeration or freezing equipment to cool milk quickly, improving its quality and greatly extending the length of time it can be stored without spoiling.
  - Refrigeration or freezing equipment to improve the quality and lengthen the storage time of meat and fruit.
  - The grinding and mixing of feed grains and supplements.
  - Better lighting for better sorting and grading of farm produce.
- G. Provide information and assist in the preparation of informative bulletins, news articles, and radio and TV spots with reference to the productive uses of electricity on the farm, in business, in agro-industry, industry and in the home.
- H. Prepare monthly reports of work accomplished for the Director of the Consumer Services Department.
- I. Prepare input for annual work plans when and as requested.
- J. Perform other duties as assigned by the Director of the Consumer Services Department.

#### IV. RELATIONSHIPS

The Productive Uses of Electricity Advisor maintains the following contacts and relationships:

##### A. Internal

1. Director of the Consumer Services Department - Receive information and instruction on job responsibilities; advise, assist and inform on matters pertaining to the planning, scheduling and performance of duties assigned to the Department; seek advice, assistance and information as necessary.
2. Rural Electrification Specialist - Receive guidance, information and support in carrying out job responsibilities; advise, assist and inform on matters pertaining to planning, scheduling and performance of duties assigned to the Department; seek guidance, advice and assistance as necessary.
3. Production and Marketing Specialist - Coordinate, advise, assist and inform on matters pertaining to production and marketing studies, and marketing plans for the Department; seek advice, assistance and information necessary to jointly and effectively participate in planning and accomplishment of the marketing objectives of the organization.
4. Rural Electrification Advisor - Advise, assist and inform on matters pertaining to the planning, scheduling and performance of work assigned in the area; seek advice, assistance and information as necessary; jointly participate in the planning and accomplishment of tasks of the Consumer Services Department under the supervision of the Director.

5. Other Employees - Advise on the advantages and potential of the productive uses of electricity; enlist their understanding, support and assistance in the promotion of the productive uses of electricity and other services of the organization.

B. External

1. Actual and Prospective Consumers - Seek out, sell to and advise on the advantages of productive uses of electricity and, in cooperation with the Rural Electrification Advisor, sign up for electric service.
2. Agricultural, Business, Industrial, Financial and Government Institutions, and Educational and Community Leaders - Stimulate cooperation, coordinate planned programs and encourage participation.
3. Appliance and Electric Equipment and Supplies Dealers - Provide guidance and information that will encourage the availability of the appropriate electric appliances, equipment and supplies and support the dealers' efforts to increase sales of equipment to be used for productive purposes. Suggest improvements in these items to improve their efficiency.
4. Newspaper, Radio and TV Stations and Other Local Media - Provide copy for and advise on news releases, advertising, and promotion plans for the productive uses of electricity.

V. QUALIFICATIONS

A. Bachelor's Degree in:

Agricultural Engineering  
Business Management  
Economics  
Engineering

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Agriculture  
Public Relations  
or similar field of study.

B. Training or experience in as many as possible of the following areas:

Electricity  
Electric Utility Operations  
Wiring & Electric Equipment  
Teaching/Training  
Agriculture  
Salesmanship

Audio-Visual Equipment  
Public Speaking  
Photography  
Community Development  
News Story Writing

C. Personal Characteristics:

Preferably reared in a rural area.  
An interest in improving the life of rural people.  
Willing to live and work in rural areas and with rural people.  
Mechanical aptitude.  
Able to motivate people.