Proceedings of the

23rd Annual Conference

of

The Rural Electric Management Development Council

Bloomington, Minnesota
May 19 - 22, 1980

S C O P E

Page No.

COUNCIL PREAMBLE

In March 1969 the NRECA membership adopted viewpoints and objectives for rural electrification as prepared by the Long Range Study Committee. This action has significance only when member systems identify with, and develop programs in support of, these viewpoints and objectives. Success in the implementation of such action programs is dependent upon excellent leadership and the effective management of resources, especially human resources.

NRECA, through its Management Services Department, has carried on effective training and development programs for rural electric system managements, both elected and employed, and the results of these programs are obvious in the upgrading of the quality of management in recent years. However, NRECA has limited resources for the research, experimentation, and innovations in management practices that will be required to meet the demands of a rapidly changing social order. Moreover, REA continues to withdraw its advice and assistance to borrowers.

Thus, it is clear that some systems must assume a more active role in assuring competent, dynamic management for the future. There are people within the program who are qualified and willing to see that the necessary study and research are undertaken toward this end. Such people have formed the Rural Electric Management Development Council and the following statements express their viewpoints and objectives.

RURAL ELECTRIC
MANAGEMENT DEVELOPMENT COUNCIL

STATEMENT OF VIEWPOINTS

1. We believe that the objectives of the Rural Electric Program can best be achieved through dynamic management and leadership that is based on sound cooperative philosophy coupled with modern management principles and techniques.

2. We believe that cooperative philosophy and management principles and techniques must be under constant study and review and that research and development of new concepts and approaches must be undertaken if rural electric systems are to effectively fulfill the responsibilities inherent in the objectives of the Rural Electric Program.

3. We believe that there exists within the rural electric cooperatives, and their associated organizations, the knowledge, experience and point of view necessary to identify these needs and to determine required changes.

4. We believe that there exists among rural electric cooperatives, and their associated organizations, those who are willing to innovate, study and improve present cooperative and management principles and practices and to translate the results of such studies into meaningful programs.

5. We believe that rural electric system management will be enhanced where there has been a maximum exchange of ideas and experiences between those organizations that are innovating, studying and applying up-to-date principles and techniques.

6. We believe that all consumer-owned rural electric systems should have the opportunity to share in the results of such innovations in management practices and that this opportunity for sharing can best be provided through NRECA and other associated organizations.

RURAL ELECTRIC
MANAGEMENT DEVELOPMENT COUNCIL

STATEMENT OF OBJECTIVES

1. To bring together key rural electric management people who have demonstrated their application of up-to-date cooperative philosophy and management principles and techniques and who evidence an interest and willingness to participate in and contribute to study, research and innovation in the application of effective management concepts and techniques in rural electric system operations.

2. To contribute to the strengthening of overall rural electric system management by undertaking management research in areas of current concern and interest.

3. To develop new cooperative management concepts, approaches and techniques that will enable the management of rural electric systems to identify necessary resources and to provide the leadership required for meeting the needs of the people in an ever changing environment.

4. To develop the means whereby the beneficial results of the application of such management research and innovation can be interpreted and widely disseminated to rural electric systems and to encourage its effective application.

RURAL ELECTRIC
MANAGEMENT DEVELOPMENT COUNCIL

MEMBERSHIP REQUIREMENTS

The Rural Electric Management Development Council is established to provide a forum for those rural electric systems who have developed organizations built on the application of cooperative principles and modern management principles and techniques.

The Viewpoints and Objectives of the Council, attached hereto, identify more specifically the beliefs and purpose that all members of the Council subscribe to. The Council's primary purpose is one of research and innovation. Research and innovation within the parameters of the established Viewpoints and Objectives.

The Council does not intend to provide a forum for teaching basic cooperative philosophy and basic management principles and techniques. Adequate training opportunities for this are provided by NRECA and other organizations.

Thus, to assure that the limited time available for the conduct of research and the exchange and discussion of innovative ideas can be utilized to the maximum productive extent possible, it is necessary that those systems who wish to apply for membership in the Council, those who wish to sponsor systems for membership and those systems who are currently members of the Council be fully aware of the criteria for initial and continuing membership.

A. Initial Membership

Any rural electric system or association of rural electric systems may apply and be considered for membership in the Rural Electric Management Development Council.

The criteria for initial or continuing membership shall be adopted by the Council members at the Council's annual meeting. Any amendments or changes in this criteria shall be approved by the Council membership.

Representatives of NRECA, CFC, and REA and current members of the Council will be encouraged to nominate rural electric systems or other associations that are believed to meet all of the criteria for membership.

All applications for membership shall be subject to the review of the Nominating Committee. The Nominating Committee shall meet twice each year to review applicatio for membership and to recommend those applicants who meet the membership criteria for approval for Council membership.

Those applying for initial membership shall be requested to submit the following:

1. Evidence of having demonstrated their application of up-to-date cooperative philosophy and management principles and techniques. This evidence shall include the following:

   a. An Organization Profile - Documentation of the existence of an organization plan for the system. The documents required will be specified and should accompany the application.

   b. A System Profile - A recitation of the financial and operating characteristics of the system, including evidence of the existence of short and long range plans in specified areas.

c. A Corporate Profile - An identification of programs and activities designed to involve the members and the public. Evidence of a recognition and pursuit of goals designed to enhance the consumer ownership and public responsibility of the system.

d. A Growth and Development Profile - Evidence of specific programs and activities undertaken by the system to go beyond normal requirements for management, individual development and member involvement. This should include the identification of beneficial results therefrom.

2. A statement of a commitment to participate in and contribute to study, research and innovation in the application of management in rural electric system operations.

3. A statement of the system's willingness to pay the dues or other approved assessments of the Council, to attend and participate in Council meetings and to accept committee or program assignments.

4. An expression of willingness to share your individual management innovations with the Council for information and evaluation purposes.

B. Continuing Membership

All members of the Council shall be subject to continuing membership review at least every five years.

Those systems subject to continuing membership review shall be notified at the Council's annual meeting preceding the review.

Continuing membership applications shall include the following:

1. A refiling of the initial membership application.

2. A recap of Council meeting attendance.

3. A recap of participation in Council activities, including study and research and innovative programs locally undertaken, with reports and presentations on such activities at Council meetings. Also, evidence should be furnished of the acceptance of Committee assignments and participation in activities consistent with the objectives of the Council.

The nominating committee shall receive all applications for continuing membership by September 1 of each year and make their review and recommendation to the Chairman by January 1 of each year.

C. Honorary Membership

The following individuals, or their designated representative, are considered as continuing honorary members of the Management Development Council. The Council encourages their active participation in all Council projects and activities.

Director of Management Services - NRECA
Borrowers' Operations Office - CFC
Director-Electric Borrowers' Management Division - REA

D. Interim Membership

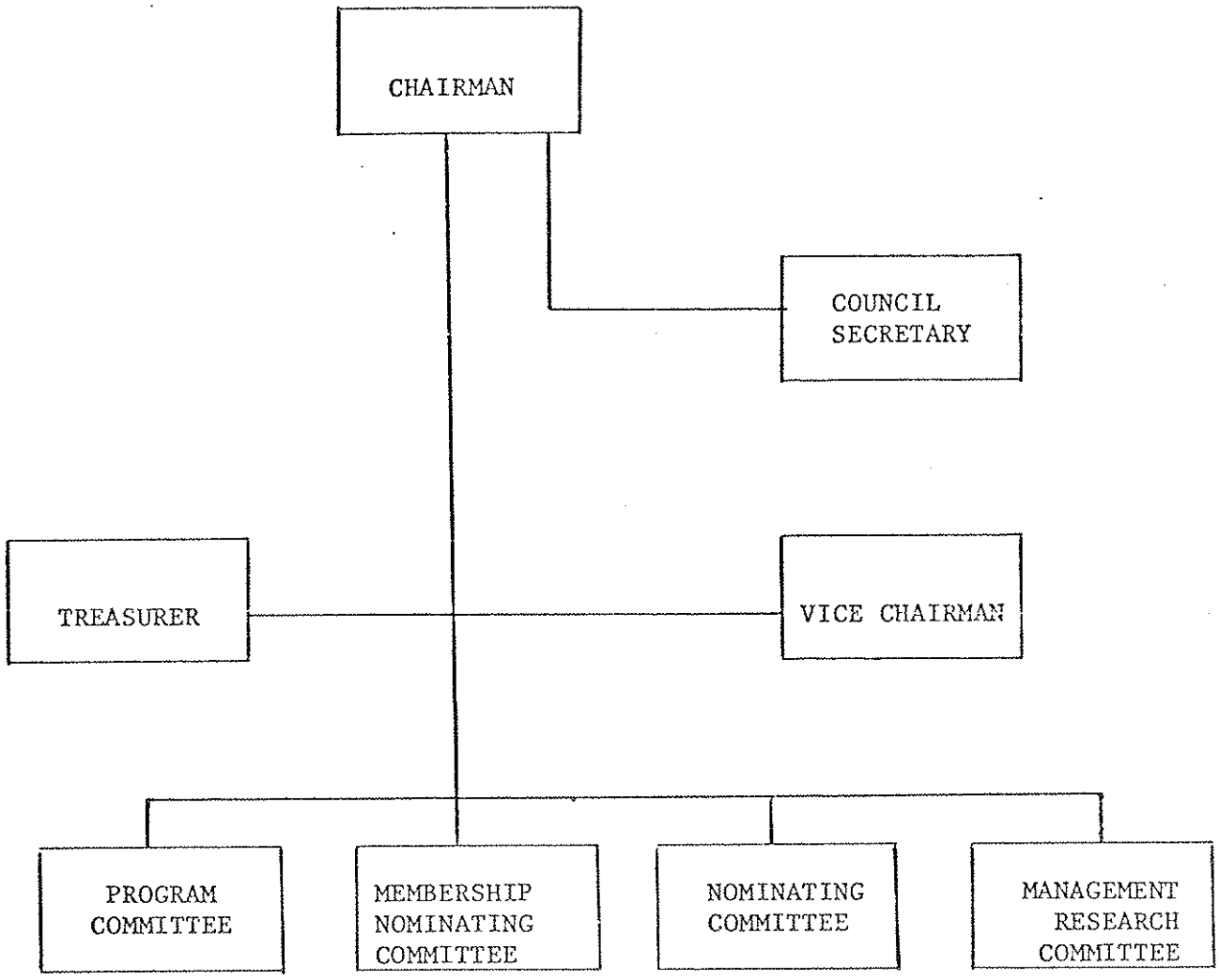
Organizations named in the first paragraph of Item A, Initial Membership, are eligible to become interim members for a period not to exceed two years by

D. Interim Membership (Continued)

notifying the Council of their desire to become a member, paying their dues and participating in Council meetings. At the end of two years such members must seek membership certification in order to retain membership in the Council.

Note: Council dues are $300 annually, payable prior to the REMDC annual meeting. Payment of dues permits a member system to have two persons in attendance at the REMDC meeting and the Advanced Management Conference at no additional fees.

RURAL ELECTRIC MANAGEMENT DEVELOPMENT COUNCIL



Note: A Coordinating Committee composed of the Chairmen of the standing committees and one member at large also functions to coordinate REMDC and Advanced Management Conference programs.

FUNCTIONS

CHAIRMAN — To act as general coordinator of the activities of the Development Council and preside at all business meetings. To issue notice of all regular meetings of the membership or special meetings of the cabinet. (The cabinet to be composed of the chairman, vice chairman, treasurer, and all committee chairmen.) To represent the Development Council in relation to other organizations. Term of office to be three (3) years.

VICE CHAIRMAN — To assume all duties of the Chairman in the absence of or inability of that officer. Term of office to be three (3) years.

TREASURER — To collect all monies due the Development Council including regular membership dues and special assessments. To pay all bills submitted in proper form. To prepare an annual financial statement and forward to the Secretary for inclusion in the annual conference summary. Term of office to be three (3) years.

SECRETARY — To be appointed annually by the Chairman. To keep a record of all proceedings, prepare, publish, and distribute annual conference summary. (May be assisted by Management Services Department of NRECA.)

COMMITTEES

All committees except the Advanced Management Conference Program Planning Committee, to be composed of a chairman and three (3) members. The chairman to be nominated by the Nominating Committee. All committee chairmen and committee members to serve staggered terms of three (3) years each.

PROGRAM COMMITTEE — To determine program content and format for the annual conference and secure appropriate participation from the membership. To provide for subject continuity in programming when desirable. The committee chairman shall preside at all program sessions and serve as ex-officio member of the Advanced Management Conference Planning Committee. To select the time and place for the annual council meeting in coordination with the Advanced Management Conference Planning Committee.

MEMBERSHIP NOMINATING COMMITTEE — Under the criteria established for admission to membership, select organizations each year who are actively engaged in management in the rural electrification field who will be nominated for membership in the Development Council. Evaluate compliance of member systems with criteri .

NOMINATING COMMITTEE — To nominate all officers and committee chairmen, as necessary for submission to the annual conference for election. All nominations shall be submitted in writing, certified by the chairman of the committee, and deposited with the conference secretary.

MANAGEMENT RESEARCH COMMITTEE — To identify research areas and initiate recommendations for projects to be carried out by the council. To work with NRECA in identifying management areas in the rural electric program which need additional research and/or development and training programs and determine how council can assist in meeting needs in cooperation and coordination with NRECA, making use of the Advanced Management Conference where possible.

OFFICERS AND COMMITTEES FOR 1980 DEVELOPMENT COUNCIL

Chairman.	Derl Hinson	Term expires in 1981
Vice Chairman	Bob Roberts	Term expires in 1982
Treasurer	Allen Ritchie	Term expires in 1980
Secretary	Barbara Deverick	

Standing Committees

Program

Chairman	Elmer Stocker	Term expires in 1980
	Roger Geckler	Term expires in 1981
	Bill Miller	Term expires in 1982
	Barbara Deverick	Term expires in 1981

Nominating

Chairman	Jack Hicks	Term expires in 1980
	James Kiley	Term expires in 1981
	Clyde Hukills	Term expires in 1981
	John Allensworth	Term expires in 1982

Membership

Chairman	Virgil Herriott	Term expires in 1980
	James Golden	Term expires in 1981
	Bill Beverage	Term expires in 1982
	Wayne Kump	Term expires in 1980

Management Research

Chairman	Everette Bristol	Term expires in 1980
	Dick Seger	Term expires in 1982
	Marvin Athey	Term expires in 1982
	Charles Overman	Term expires in 1981

Advanced Management Conference Planning and Coordination

Chairman	Everette Bristol
	Virgil Herriott
	Jack Hicks
	Elmer Stocker
	Jack Wood
	Derl Hinson, Ex-Officio

A. All committee members and officers elected for a 3-year term except as noted.

B. Chairman of each standing committee, except Advanced Management Conference Program Planning Committee, named by the Nominating Committee and serve for three years when elected.

RURAL ELECTRIC MANAGEMENT DEVELOPMENT COUNCIL
1980 ANNUAL CONFERENCE REGISTRATION

Adams Electric Cooperative, Inc.
P. O. Box 130
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Charles Overman, Gen. Mgr.
Joe Cole, Mgr., Financing & Mbr. Serv.
Lloyd Geer, Mgr., Engr. & Oprs.

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Wayne Keller, Gen. Mgr.
Barbara Deverick, Mgr., Org. Planning

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Lawrence Moderow, Asst. Gen. Mgr.

Clark County REMC
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William L. Smith, Gen. Mgr.

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Norman Hoge, General Manager
Alan Henning

Cotton Electric Cooperative
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Don Crabbe, Staff Assistant

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Jerome Haider, Manager
Marvin Athey, Asst. Manager

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Harold Smith, Gen. Mgr.

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Phyllis Barber, Staff Asst.

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Ronnie Hunt, Mgr., Office
& Staff Services
Joan Watson, Admin. Asst.

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Robert L. Roberts, Mgr.
W. W. Ward, Consultant

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Jim Kiley, Asst. Mgr.

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Craig DeBower, Manager

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Clifford Robertson, Area Mgr.

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Carl Sederlund, Asst. Mgr.
Galen Eberhart, Dir., Mbr. Rel.

Wright-Hennepin Cooperative Elec. Assn.
Maple Lake, Minnesota 55358
David P. Larson, Manager
Roger Geckler, Dist. Mgr.

Yampa Valley Electric Assn., Inc.
P. O. Box 1218
Steamboat Springs, Colorado 80477
Ev Bristol, Chief Engineer

Guest Registration - 1980

Jack Wood, Manager
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Don Smith
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Eddie Moran
Rural Electrification Administration
Washington, D. C. 20250

Dr. Fred Lamar and Steve Elliott
DePauw University
Greencastle, Indiana 46135

Joe Gekowski
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Mike Laughton
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Dell Thielen & Phil Martin
United Power Association

THE RURAL ELECTRIC MANAGEMENT DEVELOPMENT COUNCIL 1980 MEMBERS

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James Golden, General Manager
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*Attended 1980 meeting - 1980 dues not received prior to meeting.

23RD ANNUAL CONFERENCE
of
THE RURAL ELECTRIC
MANAGEMENT DEVELOPMENT COUNCIL

Marriott Inn, (Bloomington) Minneapolis, Minnesota

May 19, 20 and 22, 1980

Monday, May 19

1:00 p.m.	Registration
1:15 p.m.	Opening Remarks
1:30 p.m.	Presentation #1 - "Anti-Power Line Environment" - Panel Discussion, East Central, United Power Association and local cooperatives of Minnesota
3:00 p.m.	BREAK
3:15 p.m.	Presentation #2 - "Automation--Where Are We Today! The Future!" Jim Lane, Mid-Carolina Electric Cooperative
4:00 p.m.	Presentation #3 - "Average Monthly Payment Plan (AMP)" William Miller, Cotton Electric Cooperative
4:30 p.m.	Special Presentation - "Productivity Research Report" Mike Laughton, American Productivity Center
5:30 p.m.	ADJOURN

Tuesday, May 20

8:00 a.m.	Presentation #4 - "Performance Reviews and Development Counseling" Barbara Deverick, Blue Ridge Elec. Membership Corp.
8:30 a.m.	Presentation #5 - "Selective Usage of Marketing Research Techniques in a Distribution Cooperative" W. W. Ward, Pioneer Rural Electric Cooperative
9:30 a.m.	BREAK

Tuesday, May 20 (Continued)

9:45 a.m. Presentation #6 - "Irrigation Load Control Program"
Norm Hoge & Alan Henning, Cornhusker Public Power District

10:30 a.m. Presentation #7 - "Do Hand Held Computers Have Management Decision-Making Value"
Dr. Fred Lamar, DePauw University

11:15 a.m. Presentation #8 - "Evaluating New Programs -
A. The Top Management Experience for Co-op Directors
B. The Top Management Experience On-site at the Local Cooperative"
Joe Gekoski, The Madar Group

12:00 Noon LUNCH

1:00 p.m. to 2:30 or 3:00 p.m. Research Committee Report
"The Productivity Project: A Beginning"
By: E. J. Moran, L. Davis, Jr., and David J. Rabideau of REA
*** REMAINDER OF AFTERNOON OPEN ***

Wednesday, May 21

8:30 a.m. Registration for Advanced Management Conference
"Situation Achievement Management Systems"

Thursday, May 22

7:00 a.m. to 9:00 a.m. Management Development Council Breakfast and Business Session
(Breakfast hosted by East Central Elec. Assn. and Wright-Hennepin Cooperative Elec. Assn., both of Minnesota)

Business to be covered:

1. Recognition of Potential Members
2. Financial Report
3. Membership Certification
4. Expanding Membership
5. Dues Formula
6. Council and NRECA Joint Efforts
7. Research Projects
8. Program and Meeting Location for 1981
9. Nominating Committee
10. Election of Officers

9:00 a.m. Continue Advanced Management Conference

ANTI-POWER LINE ENVIRONMENT

Presentation of a film and a slide program and panel discussion. Participants on panel were representatives of East Central, United Power Association and local cooperatives of Minnesota. Marvin Athey of East Central Power Association served as moderator.

Notes taken from panel discussion:

Film and slide presentations related to the building of a 400 KV direct current line and the experiences in siting the line and actual construction and the protest and vandalism which occurred during the construction of the line and converter systems. It was pointed out that even after the construction of the line the vandalism continued with insulators being shot from the structures, towers toppling from outside legs of towers being sawn, etc. Eleven transmission towers had been toppled in the past year.

During the panel discussion it was stated that the vandalism and protest was somewhat localized; that the line passed through seven counties and the problems were mostly in two counties. It was also stated that the protest was started by local people, some of whom were co-op members. It was explained that the power cooperative began routing the line without a state law in Minnesota for routing transmission lines and that during the time the line was being sited a law was passed and United voluntarily went under the new state procedure even though it had been "grandfathered" out from under the law. It was reported that the battle cry of the protestors was "safety of high voltage line." In reply to the question, "do local co-op members worry about the safety of the line?" the answer was, "No," the local co-op members put little stock in what the protestors say.

In reply to the question, "Why was there little opposition in the other counties?", the answer was "Because there was involvement which the local co-ops had with the members before the construction. Involvement of the local co-ops (member systems of the G&T) is very important."

In reply to what things would the G&T have done differently should the project be done over, the following areas were emphasized:

- More involvement of the local cooperative personnel and members in the securing of rights of way, etc.
- Probably would not hire under cover security and investigative people to get the facts.
- Make sure the people employed to assist in such a project think as the management of the co-op does.
- Be more careful in attacking witnesses at hearing to prevent alienation of neighbors.
- Seek more positive group support from local cooperative members.
- Communicate with every group possible reason for constructing the line and give background information.
- Most important that the distribution co-ops be involved with the G&T in the siting of the transmission facilities so that they can work with their membership on a local basis to gain understanding and acceptance of the project.

AUTOMATION

WHERE ARE WE

TODAY

THE FUTURE

James Lane
Assistant General Manager
Mid-Carolina Electric Cooperative
Lexington, S. c.

WEBSTER DEFINES ABSTRACTION AS:

A. THE ACT OF SEPARATING OR WITHDRAWING

B. THE ACT OF CONSIDERING SEPARATELY WHAT IS UNITED IN A COMPLEX OBJECT

FOR PURPOSES OF AUTOMATION:

A. THE USERS LOGICAL VIEW

B. A MENTAL RELATIONAL MODEL

I. THE 60'S

A. HARDWARE

1. IBM 360
2. IBM 370
3. COST

B. SOFTWARE

1. FORTRAN & COBOL
2. LOW LEVEL OF ABSTRACTION
3. NO DATA BASE METHODS

C. PEOPLE

1. MYSTERIOUS & ESOTERIC
2. CLOSED SHOP
3. CONTROLLED DP (BATCH & CENTRALIZED)

I. THE 70'S

A. HARDWARE

1. CONTINUATION OF 360 TO 370 CONVERSIONS
2. SUPERCOMPUTERS (CRAY 1 - VECTOR PROCESSOR)
3. LSI TO MINI (LOW PRICE)
4. PLUG COMPATIBLE MAINFRAMES (AMDAHL)

B. SOFTWARE

1. STRUCTURED PROGRAMMING (MODULAR)
2. HIGH LEVEL OF ABSTRACTION
3. NETWORKING
4. DATA BASE CONCEPT
5. ON-LINE & REAL-TIME

C. PEOPLE

1. SOFTWARE ENGINEERING (A DISCIPLINE)
2. IMPROVED COMMUNICATION WITH ULTIMATE USERS
3. MANY END USERS

III. THE 80'S

A. HARDWARE

1. FURTHER DECENTRALIZATION
2. MINI - MAIN FRAME DIFFERENCES BLURRING
3. PORTABILITY
4. HARDWARE/SOFTWARE DIFFERENCES BLURRING

B. SOFTWARE

1. GREATER ABSTRACTION
2. HIGH COST
3. PACKAGING
4. INTERGRATION OF APPLICATIONS
5. NON-PROCEDURAL LANGUAGES
6. NETWORKING CONTINUED

C. PEOPLE

1. POWER TO THE PEOPLE (COMPUTER)
2. SOCIETY BEGINS TO SHIFT (TO INFORMATION)
3. PEOPLE AMPLIFIER APPLIANCES

IV. THE 90'S

A. HARDWARE

1. NO CONSTRAINT ON AVAILABLE POWER
2. COST IS VERY LOW (SOMETIMES FREE)
3. DISPOSABLE COMPUTER
4. HARDWARE BECOMES SOFTWARE/SOFTWARE BECOMES HARDWARE
5. SOLID STATE BULK STORAGE (NO MOVING PARTS)
6. HIGHLY PORTABLE (IN EVERY HOME)

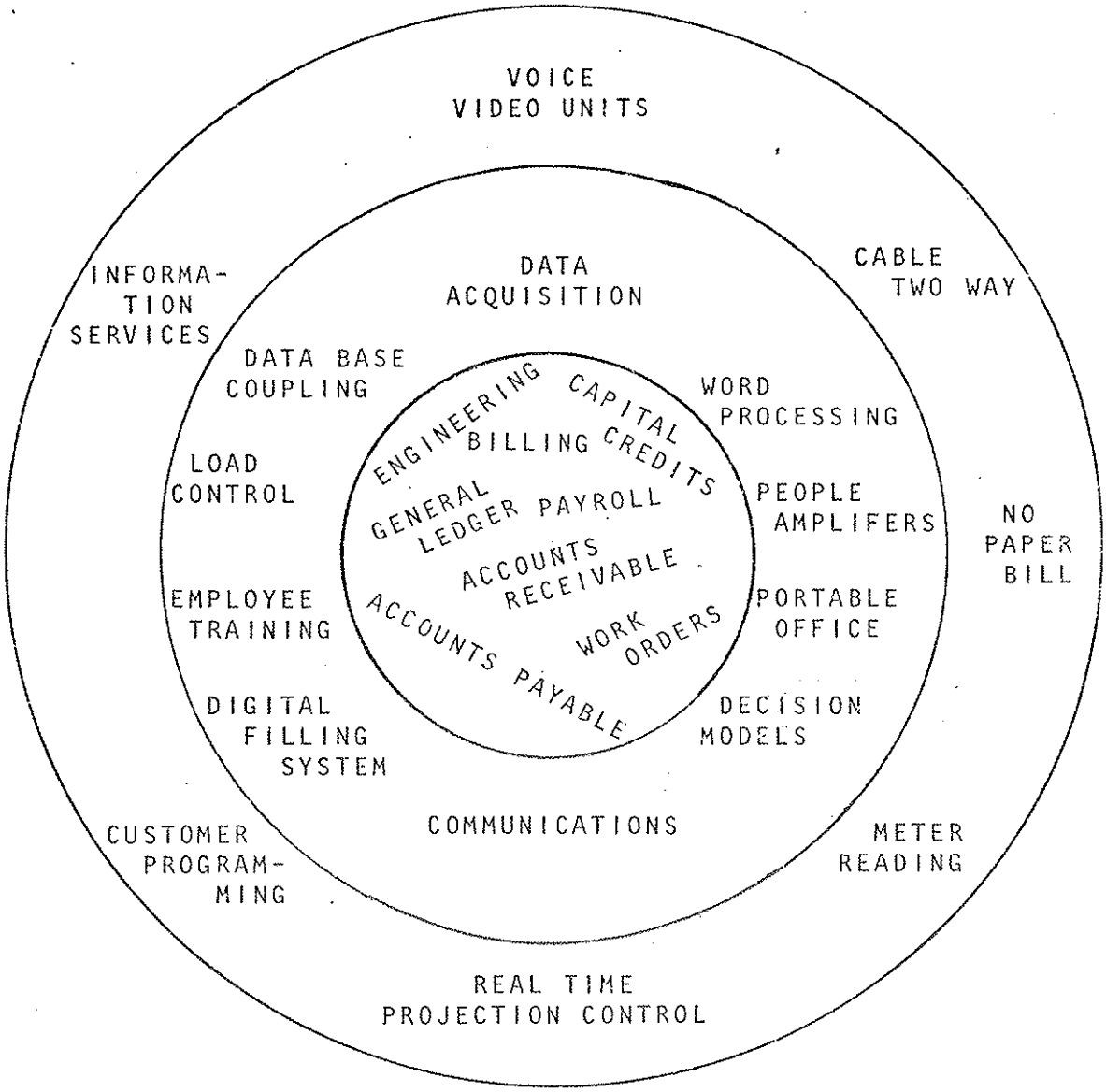
B. SOFTWARE

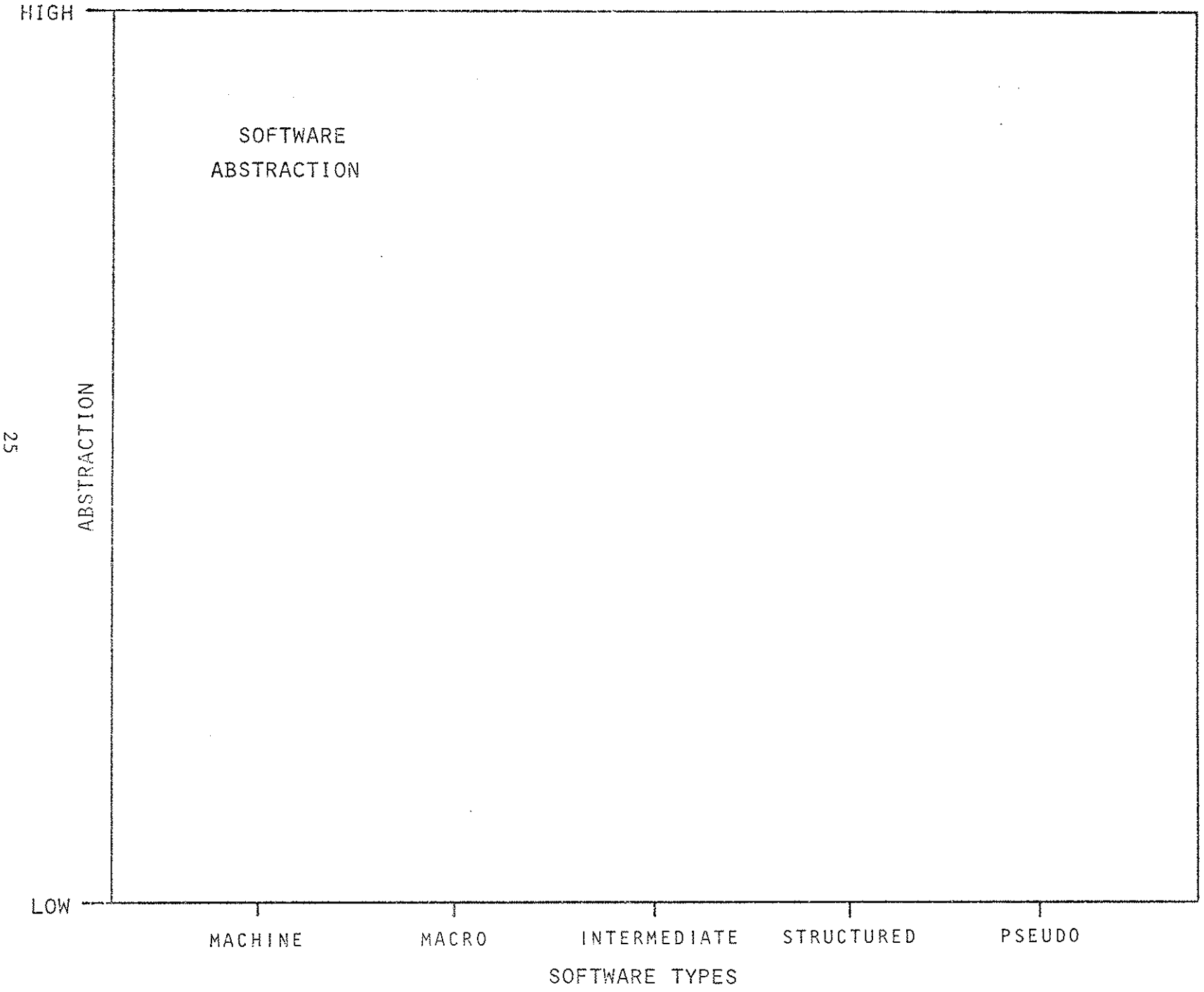
1. ABSTRACTION GREAT ENOUGH FOR MASS PSEUDO PROGRAMMING
2. APPLICATIONS ON A CHIP
3. SYSTEMS ON A WAFER

C. PEOPLE

1. INFORMATION BASED SOCIETY

AUTOMATION
THE NEXT 20 YEARS




HIGH
SOFTWARE
ABSTRACTION
ABSTRACTION
LOW
MACHINE
MACRO
INTERMEDIATE
STRUCTURED
PSEUDO
SOFTWARE TYPES

ADHOC QUERY PREPRO-CESSORS
PASCAL
COBOL FORTRAN
ASSEMBLER MACRO
COMMER-CIAL IN-STRUCTION SET

THE CHANGING MANAGER

SKILLS LIST

ORGANIZATION (RESPONSIBILITY AREAS)

COMMUNICATION - MAN/MACHINE

TELECOMMUNICATIONS

SOFTWARE ENGINEERING

SYSTEMS - HARDWARE/SOFTWARE/SOCIAL

PRINCIPALS OF ABSTRACTION

AVERAGE MONTHLY PAYMENT PLAN - AMP

Presented by: William Miller
General Manager
Cotton Electric Cooperative
Walters, Oklahoma

In discussing the Average Monthly Payment Plan which Cotton Electric Co-op have put into effect, it was stressed that this is not an equal pay plan.

- AMP was put into effect because the investor-owned utilities in Okhahoma has such a plan.

- The State Utilities Commission urged co-ops to come up with such a plan.

- Cotton Electric Co-op has an in-house computer and could therefore develop the necessary historic data for such a plan.

- Service is the only thing which co-ops have to provide and managers and directors have the responsibility not to wait until directed to do something, but to find programs to offer to the members which will help them.

- Cotton Electric Co-op has had no groundswell of demand for the AMP as yet. Presently have about 50 accounts on the plan.

- AMP gives the co-op something to offer to members when they have a high bill complaint.

- Started AMP plan in February (12 months January to January); didn't think it mattered much when it was made available.

- Need to have a computer program which will look back 12 months for estimation and high-low checks.

- If there is a rate increase it will take 12 months for a new rate to fold into the average under the AMP plan.

- AMP accounts will be serviced when they show up on the delinquent list, and the full amount will be collected.

COTTON ELECTRIC COOPERATIVE
Policy Bulletin No. 8-3

SUBJECT: Average Monthly Payment Plan (AMP)

OBJECTIVES:

A. To establish a procedure that would allow the member the convenience of paying their total annual electric costs over twelve (12) average monthly payments.

B. To minimize large seasonal variations in electric service billings by allowing the member to pay an average amount each month based upon the actual electrical usage over the past twelve (12) months.

C. To accommodate those members on fixed income or budgeted finances by providing them with a more consistent monthly payment schedule.

D. To reduce the cost of collection and credit activities due to high billings during summer and winter months.

POLICY: In order to effectively administer this policy and to fulfill the above objectives, the following provisions have been established.

1. The average payment amount shall be based on the current month's billing, plus the eleven (11) preceding months, divided by twelve (12).

   This average amount shall be the current month's payment under the Plan. At the next billing period, the oldest month's billing shall be dropped, the current month's billing shall be added, and the total again divided by twelve (12) to find a new average payment amount. The average shall be recalculated each month in this manner.

2. Monthly variations, upward and downward, may result from fluctuations in fuel costs, variations in usage, and rate increases, but the AMP Plan will serve to minimize large changes due to the averaging of billings over a twelve (12) month period.

3. At the time a member elects to participate in the Plan, they shall have an application approved by the Cooperative, twelve (12) months billing history for the member at that location should be available, and the account should be in current status. This means that the current billing should

not be past due, no unpaid balance should exist on the account, and that previous credit history has been good.

4. A member who has taken service at one location for less than twelve (12) months may be placed on the Plan if: (1) a satisfactory payment history has been demonstrated at a previous location; or (2) by paying an additional deposit. The total deposit shall not exceed in amount one/sixth (1/6th) of the estimated annual bill of the member. Once twelve (12) consecutive months of satisfactory payment history has been achieved, the additional deposit may be refunded. If sufficient billing history is not available, the AMP amount will be determined by using an estimated average.

5. Participation in the Plan will have no effect on the Company's approved rate schedules or other billing charges used to calculate the customers actual monthly billing.

6. Actual billing will continue to be based upon the applicable rate and meter readings obtained to determine consumption. However, the AMP amount will be identified as a separate item on the electric service bill so that the participating member will know the amount to pay. The actual billing will also be reflected on the bill as a separate item for the customer's information. The unpaid balance referred to as "Balance Forward" will appear on the bill. At such time as an AMP account becomes delinquent, the provisions of Cooperative Policy Bulletin No. 2-7, Subject: "Collection Policy" shall be applied.

7. Settlement occurs only when participation in the Plan is terminated. This happens if an account is final billed, if the member requests termination from the AMP Plan, or if terminated by the Cooperative as a result of past due amounts on an AMP account. The balance forward (debit or credit) is applied to the billing then due. If electric service is terminated by the Cooperative for past due amounts, the entire amount owed must be paid prior to restoration to service.

8. The AMP Plan will be available to qualifying residential customers upon approval of a formal application. Applications may be available to members at anytime upon request by the telephone, mail or in person at a Cooperative business office

during regular hours. A special effort will be made by the Cooperative to notify all residential customers in spring and fall of each year of the availability of the Plan.

RESPONSIBILITY:

This policy supersedes and cancels all other existing policies and instructions which may conflict with its provisions.

Date Adopted: December 18, 1979

Review Date: Annually

Attested:

JACK SKINNER, Secretary-Treasurer

SAMPLE Of AVERAGE MONTHLY PAYMENT BILL....

As Always... THIS LINE Indicates KWH USAGE And Computed Cost For The Billing Period

BALANCE FORWARD Indicates Difference Between ACTUAL And AVERAGE Monthly Billing In Previous Period

Member Should PAY THIS AMOUNT Which Is Average Of This Period And The Past 11 Billing Periods

Cotton Electric Cooperative, Inc.
226 N BROADWAY, WALTERS OKLAHOMA 73572
RETURN POSTAGE GUARANTEED

FROM READING	TO READING	KWH MULTIPLIER	KWH USED	AMOUNT	C R	
855	1027	20	3440	111 28		R
BALANCE FORWARD				64 87		
SECURITY LIGHT CHG.				2 75		
TOTAL AMOUNT DUE				178 90		

THIS STATEMENT IS FOR CONSUMPTION THROUGH: 02 29 80

DUE THE 1st DELINQUENT AFTER THE 10th

AVERAGE PAY PLAN	76 07	R

POWER COST ADJ FACTOR	METER NUMBER	ACCOUNT NUMBER
.0084	CT 08433	1148501

KEEP FOR YOUR RECORDS

LATE PAYMENTS MAY NOT BE REFLECTED ON THIS STATEMENT

FIRST CLASS MAIL
U S POSTAGE
1 07 PAID
PERMIT NO 1
WALTERS
OKLAHOMA 73572

SE 9 6S 8W

JOHN DOE
RT. 1
COMANCHE, OK. 73529

PREVIOUS METER READING	ENTER METER READING HERE
1027	

BILLING DATE MO	DAY	YR	ACCOUNT NUMBER	C L	B C	AMOUNT DUE	C R
03	28	80	1148501	1	R	76 07	

Don't Forget to Enter Meter Reading Here!

COTTON ELECTRIC COOPERATIVE, Inc.

Walters, Oklahoma 73572

APPLICATION

-For-

AVERAGE MONTHLY PAY PLAN

Date _____

Name _____ Acct. No. _____

Address _____ Phone No. _____

_____ Soc. Sec. No. _____

I hereby request that our monthly electric billing be placed on the Average Monthly Payment (AMP) Plan.

I have read and understand the terms and conditions required for participation in the AMP Plan, as set out in the Policy printed on the reverse side of this application.

Signature of Member _____

If you have any question, please call Cotton Electric. Walters 875-3351; Duncan, 255-5505; Lawton 353-5123. Ask for Extension 23.

Cotton Electric Cooperative, Inc.
Walters, Oklahoma

By: _____

Date of Action: _____

Date Placed On
AMP Billing Records _____

Comments: _____

_____

_____

COTTON ELECTRIC COOPERATIVE, Inc.

Walters, Oklahoma 73572

POLICY BULLETIN NO. 8-3

Average Monthly Payment (AMP) Plan

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Adopted by Board of Trustees of
COTTON ELECTRIC COOPERATIVE, Inc.
December 18, 1979

Approved by Oklahoma Corporation Commission
January 9, 1980

FEASIBILITY OF AN INTER-COOPERATIVE PRODUCTIVITY MEASUREMENT SYSTEM

STUDY REPORT

for the

Rural Electric Management
Development Council

May 1, 1980

American Productivity Center
123 North Post Oak Lane
Houston, Texas 77024

Acknowledgements

The APC would like to thank the Cooperatives which have assisted in this study.

Guadalupe Valley Electric Cooperative, Inc.
Gonzales, Texas

Union Rural Electric Association, Inc.
Brighton, Colorado

Shenandoah Valley Electric Cooperatives, Inc.
Harrisonburg, Virginia

Wharton County Electric Cooperative
El Campo, Texas

Belleville Rural Electric Cooperative
Belleville, Texas

123 NORTH POST OAK LANE HOUSTON TX 77024 (713) 681 4020

Executive Summary

As a technical possibility, there is little doubt that an Interfirm Comparison System can currently be set up. Similarly, there is reason for optimism in believing that useful measures for Construction productivity have been developed. Also, it can be stated that an Activities-based approach would yield further benefits in terms of information for productivity improvement.

Preliminary studies have indicated that a Total Productivity model:

$$\frac{\text{Output}}{\text{Labor + Capital + Materials + Energy}}$$

can be set up, and a reporting basis established with each subscribing cooperative. Over time, the system would be capable of expansion based on a modification of the way some accounts are kept.

Construction productivity is important to cooperatives, in that current costs of construction affect future operations and, more directly, the financing results of the cooperative. Two procedures for assessing the productivity of cooperatives in construction are suggested. The first is a base year cost per unit as a cooperative standard times actual units constructed, to enable historical construction trends to be understood. The second method is costs per unit constructed compared across cooperatives. Suitable subdividing into transmission line, overhead and underground will provide useful operational comparisons. The cost elements will be appropriately adjusted to remove the effects of inflation.

The general applicability of the concepts of Activities measurement has been investigated, and the IBM methodology adopted. IBM, in its analysis of staffing levels within plant indirect labor categories, provides an example of relevance to and possible use by the Management Development Council. For each job category, of which there are 160, IBM selects an indicator that corresponds as closely as possible to either the output of that job category's personnel or is at least a surrogate for the output of that category. For each of many independent plant operations a regression plot is made of the number of people involved in the job category on the one hand against the level of the indicator on the other. The regression line that results sets an informal standard against which each plant can compare its performance. The results are then aggregated by plant and by function for top managers.

The application to the Rural Electric Management Development Council is that, much like the study already done by the REA on costs by function vs. characteristics of

the operation, this technique would allow comparisons of numbers of people in various job categories against indicators of their performance. Since there are more than 900 rural coops, a significant body of observations is available to make the regression line even more significant than it was in the case of the IBM example.

Introduction

This report summarizes progress to date in a research study conducted by the American Productivity Center for the National Rural Electrical Cooperatives Association (NRECA). This study was commissioned by NRECA's, Management Development Committee in February 1980.

There are eight key elements in a productivity improvement program as defined by the APC. They are: necessity for top management support, recognition of the importance of employee participation, adoption of productivity as part of the objectives, strategies and tactics of the organization, development of performance measures, assignment of responsibility for productivity improvement, monitoring and feedback of progress, assurance that norms of job security will not be violated and finally, the development and application of monetary or non-monetary incentives matched to the job and the workforce.

Early and heavy emphasis needs to be given to the development of good productivity measurements. In order to describe and define a good measurement system, it is necessary to understand what productivity is and what productivity is not. Productivity is output divided by input, a very simple statement covering over a very complex subject. The most commonly used productivity ratio is output per manhour. This is only a "partial" productivity measure; the output used is total output, but the input used is only the labor factor. There are other factors, such as capital, energy and materials, that in many industries may be more significant than labor. Nevertheless, largely for historical reasons, U.S. government statistics for Industry are based on the labor partial measure.

To avoid distortions and problems associated with using one partial factor measure, the Center recommends the use of total productivity measures where possible. These are measures where the output is the total output of the process and the input is the sum of all factors: labor, materials, capital and energy. Though this is obviously a somewhat more complicated calculation to make, in many industries it is the only effective way that an analysis can be made of a productive process including the correct treatment of possible trade-offs from one factor to another. A major source of productivity improvement is the substitution of capital for labor. Concentration on a labor partial measure will show much greater progress than is actually the case, because increasing levels of capital are not recognized.

Productivity is <u>not</u> production. Production is the numerator of the fraction: output over input. An increase in production in itself says nothing about the input factors that went into making up that increase in production. Also

productivity does not equal profitability, although the two are related closely in the long run. Profitability includes the effects of inflation in both output and input, marketing and promotion expenditures which fluctuate violently, arbitrary accounting regulations, methods of valuing inventory, and extraneous effects from procurement of supplies. Though all these things have a direct bearing on the level of profitability, and they mean real money in your pockets, they do not have any direct effect on the efficiency with which the productive process is operated. It is that level of efficiency which is being monitored with proper productivity statistics.

There are two kinds of total productivity. The most common is output divided by the sum of all the inputs (labor, capital, energy and materials). An alternative, which was seen to be of value to your association, is total factor productivity which uses a value-added approach. In this, output minus materials and energy is divided by labor plus capital. Thus the output being studied is not gross sales, but rather the operating margin of the business.

Objectives of the Study

The APC was asked to assess for the Rural Electric Management Development Council the feasibility of an interfirm comparison of productivity performance of all Rural Electrification Co-ops. This program would gather operating data at the "plant" level using the association as an intermediary. Data would be gathered which would be developed by the Center into a measurement structure. This sort of measurement is seen as a supplement to existing financial comparisons and to the work already done by the REA. It was anticipated that such a comparison would provide analysis of comparative level and of internal and comparative trend of productivity.

These first comparisons would be productivity comparisons: output vs. input. The outputs used could be megawatt hours, either unweighted or weighted (to reflect different prices for residential vs. industrial or for peak vs. normal). Another output could be revenue adjusted to a constant dollar basis. Inputs could be energy, materials, labor, capital, and if appropriate, a weighted average of all. In addition, these ratios themselves could be compared with characteristics of each "plant". These characteristics are such things as: industrial vs. residential percentage, geographic area, customer density, miles of line, and age of equipment. These characteristics can in turn be compared with cross relationships of the input factors such as: maintenance as a percent of revenue, fuel as a percent of revenue and labor cost per hour.

The result of the comparisons would then demonstrate the performance of each "plant" in level and trend of productivity for each of the ratios, cross relations and characteristics involved. Where data permitted, the individual plant would not simply be compared against the industry average, but a quartile or decile analysis would be developed to more precisely indicate the relative performance of the entity.

Methodology

Initial visits were made to the Shenendoah Valley Electric Cooperative, Union Rural Electric Association, Inc., and the Guadalupe Valley Electric Cooperative, Inc.

This phase of the research established the potential for productivity measurement, and its practicality. However, the sample size was small and included no small cooperatives. This phase also pointed out the desirability of a separate though integrated treatment of Construction, as a major activity of Cooperatives. It also suggested an Activities-based measurement system as a source of even more operationally useful information.

Phase II of the study involved visits to Wharton County and Belleville Co-ops to check the assumptions derived from Phase I, and to establish the validity of certain approaches in smaller cooperatives, and extend the applicability of an Activities-based measurement system.

Findings

The results of the study are reported as follows:

a. Total Productivity
b. Construction Productivity
c. Activities Comparisons

For the major part of the study, the first question to be asked and answered was the question of "What are the outputs?" The suggestion is made that kilowatts is the basic measure. However, owing to the practice of pricing different categories of customers differently and the possibility of on-off peak variations, aggregating kilowatts by simple addition is not the best or only approach. The American Productivity Center proposes price weighting (utilizing base period prices for each customer category) as the weights.

Construction can be included in the total analysis, as well as broken out as a seperate issue.

Table 1* shows the completed formats for an Inter-Coop Comparison. As shown in the table, all elements of inputs (labor, capital, materials and energy) are accounted for, as are all elements of labor. Expansion of present accounting systems to allow tracing of different levels of labor skills, and different material and energy use, will allow more expansion of the system in the future.

A problem is present with respect to capital inputs, in that the plant and equipment of the Cooperatives are all carried in historic dollars. As all are aware, inflation has significantly altered the ability of a dollar today to purchase construction versus many years ago. To escalate values for old plant to current periods, it is planned to use the "Handy Whitman" Index[2] to obtain comparability. While not a completely accurate process, it is felt that it is far superior to historic costs in preventing understatement of the capital that utilities are actually employing.

Table 2 indicates the approach taken to the construction activity of the cooperatives. The index for construction productivity generated in this section need not, and probably will not, be the same as the index generated in the total measure. This is because in the total measure, only that component of the construction which is regarded as being consumed through distribution activities will be included and will be aggregated into total plant, and it is also measured against what members and consumers are interested in, namely kwh distributed at what price. Conversely, the construction measure answers the question "how much better have I become in construction (recognizing all costs now versus a previous year)?" Spreading construction costs over the life of the line would drastically reduce the sensitivity of the measure.

The procedure employed is an adaption of the method employed by General Foods Corporation in its food plants. Choosing first a base year, the costs/mile or costs/ unit are calculated, then total costs are assembled. All future periods are compared by reducing back by the price experience of the organization to base period costs. This allows the aggregation of line construction, underground and overhead, and main transmission line building.

Table 3 identifies the activities and indicators that have so far been developed by NRECA representatives. This

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* Table 1 and subsequent tables have been constructed showing no real data results, owing to the small sample size (5 cooperatives) which would have therefore disclosed information the subject cooperatives may have wished held confidential.

2 Published by: Whitman, Requardt & Associates. Baltimore, MD

list is capable of far greater expansion than shown; for example to include equipment as well as labor for each activity. Activities can also probably be broken down still further so that a far more exhaustive list can be developed if desired in the future. It is APC's belief that this extended system has great potential, but two notes of caution must be sounded. Firstly, none of this data is being assembled through REA at present (though in this extra information lies the biggest potential), and secondly, in no way should this information be considered useful for ranking utilities or regulatory purposes. Experience has shown, however, that this system would give a high payoff to management and operations.

Activities are defined as those task groups which have a distinct end result (a finished document, a hole in the ground, a maintained vehicle, etc.). Indicators are the output measure used. The level of activities are defined by the amount of labor or equipment used. Data is compiled for each of the activities and indicators to give a regression line. This "average" line allows the calculation of the "productivity" index by comparing the position of a given utility on an activity with the average of other utilities on this activity, and with its own past performance.

This system is an extension of a system initially developed by IBM and represents a great opportunity for the Rural Electric Management Development Council to develop this system to fit the needs of its members over time.

The Activities are those breakdowns of discrete or functional tasks which comprise the total activities of the organization. Each activity measured is in a sense an input, and the indicator is in a sense a measure of the output. For example, the Activity of hole digging, measured by manhours spent digging, would be the input for the desired output of holes dug, measured by the "hole feet" dug.

Conclusions

The primary finding is that multiplant comparison is both feasible and desirable. The prime advantage to cooperatives of the measurements will come in both managing for productivity improvements, and from its support use in rate cases.

A major finding concerning the cooperatives, which is entirely a by-product of the study, is that the most obvious explanatory variables of the differences between utilities is not geographic location, but simply size. This fortunate fact is helpful when consideration is given to the problem of data collection. That is, any questionnaire addressed to

cooperatives would require reasonable density of response among similar operations. The odds are highly in favor of limited responses coming mainly from the smaller cooperatives, rather than from an equally even number of small and large cooperatives.

It should always be held open to expand the system; through REA expansions of the uniform system of accounts to allow for certainty that certain subfactors are being gathered, through requests for extensions of the coverage of the Activities-based measures, and through the addition of Generator systems to the measurement program. (Generator systems in the NRECA probably have the greatest potential gain in the long run from a Total Productivity measurement system.)

An Activities based measurement system cannot be employed for the purpose of ranking utilities performance. The reasons for this are: firstly, that the system is constrained by the accuracy of the measures, secondly the attention is primarily labor, and thirdly, the trade-offs (being more efficient in one area, and less in another) are not made explicit in the way they interact.

It is suggested at this time that experience be developed as to which formulation (Total Factor Productivity or Total Productivity) should be employed as the total productivity measurement system for comparsions within NRECA. Since the choice is based as much on subjective as objective criteria, it is felt that Rural Electric Management Development Council input should now be solicited in the choice.

Table I
Interfirm Comparison for
National Rural Electrification Cooperatives Assn.

1. Characteristics

- Plant level
- Mail questionnaire
- Confidential
- Supplemental
- Level and trend

2. Productivity Ratios

Outputs	vs.	Inputs
- Megawatt hours		- Fuel
unweighted		- Materials
weighted		- Labor
- Revenue (constant $)		- Capital

3. Ratios vs. Characteristics

- Industrial %
- Geographic area
- Customer density
- Miles of line
- Age of equipment

4. Cross-Relationships vs. Characteristics

- Maintenance/revenue
- Fuel/revenue
- Labor cost/hour

5. Print-out

		1978 Level		
		Industry		
Relationship	Your Plant	Low	Medium	High
o	o	o	o	o
o	o	o	o	o
o	o	o	o	o

Relationship	Trend, 1977-78			
		Industry		
	Your Plant	Low	Medium	High
o	o	o	o	o
o	o	o	o	o
o	o	o	o	o

Table II

Output: Cost Value Added if Construction Operations Completed at base year efficiency

Input: Actual Resources used, in Base year Dollars:

Overhead Lines

Output (standard)	1978	1979	1980	Avg.	High	Low
Materials	42.9	40.1	35.8			
Labor	15.4	12.7	9.9			
Overhead	10.0	10.0	10.0			
	68.3	62.8	55.7			
Input (actual)						
Materials	42.9	38.3	34.5			
Labor	15.4	18.1	16.3			
Overhead	10.0	10.0	9.0			
	68.3	65.5	58.8			
Productivity Index (Output÷Input)						
Materials	1.59	1.64	1.61	1.01	1.25	1.05
Labor	4.44	3.47	3.42	3.02	3.02	2.89
Overhead	6.83	6.28	6.19	6.00	6.05	5.89
Total	1.00	.96	.95	.85	.93	.80

TABLE 3

Activities	Indicators
Engineering	
New Accounts Clerk	# New Apps.
Staking Engineers	# New Apps.
System Improvements (Staking Engineers)	# Staking Sheets
Rights of Way Agents	# Road Crossings
Drafting Clerks (Eng.)	# Drawing
Drafting Clerks (Maps)	# Drawing
Work Order Clerks	# Work Orders
Construction	
# Crew Members	# Rights of Way Clers
Warehousing: Material Layout	# Work Orders # Miles of line
Purchasing	$ Volume
Maintenance (Pole)	# Faulty Poles
Pole Inspectors	# Poles
Right of Way Maintenance	# Units (Right of Way)
Meter Maintenance	# Meters
Equipment Maintenance	# X formers
Vehicle Maintenance	# Vehicles
New Construction Crew	# Miles New Line
Hole Diggers	# Holes
Underground Crew	# Miles underground
Service Personnel	# Connects/Disconnects
Billing & Collecting	Bills/period
Meter Readers -- Equiv.	Meters -- % urban vs. rural
Purchasing	$ Bills/# Bills
Warehousing	Inventory turns ?
Plant Accounting	# Staking Sheets # Work Orders, % blank orders
General Accounting A	# Members -- Prefer Accounts
B	# Cash Flow -- Avg. Daily Bank Balance / Interest Income
C	Checks/payroll Accounts Payable Checks (exc. cap. credits)

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TABLE 3 (cont.)

Administrative Services	
Special Studies Financial Engineering	# Studies
Board Report Prep.	# Board Meeting
Off-Premises Professional & Association Meeting	# Mondays
Consultant Utilization	# Contacts
Employee Benefits	# Employees
Short Term Investment Management	$ Interest ? / Current Assets
Member Services	
Power Use & Assistance	# Contacts
Member & Public Relations	# Articles prepared # presentations
Merchandising	$ Volume/member
Transportation	
Maintenance ($ Expense or Manhours?)	# Miles Driven
Computer Operations	Computer Utilizations % Computer Payroll $ / Total Company Payroll
	# Consumers / Computer
Employee Training	# Days/Employee or Manhours
Credit Management	
Consumer Accounting Expenses	Average Days outstanding
Meter Cost (in office)	# Meters

123 NORTH POST OAK LANE HOUSTON TX 77024 (713) 681 4020

PERFORMANCE REVIEWS AND DEVELOPMENT COUNSELING

By: Wayne Keller, Executive Vice President
& Barbara Deverick, Manager, Organizational Planning & Personnel Services
Blue Ridge Electric Membership Corporation
Lenoir, North Carolina

Introduction - Wayne Keller

What and Why of BRE Program - Barbara Deverick

Why have a program of performance reviews and development counseling? It is a learning experience for both supervisor and employee.

1. Nothing counts more than people do in the work place.
2. It is vital that we help people contribute more on the job. (Improved productivity.)
3. Helping people to do a better job is what performance reviews and development counseling is all about.
4. Performance reviews and development counseling develop people who are steadily growing, enlarging their skills, and learning new and better ways to do things.
5. Effective reviews and counseling relating to job performance develop people to move forward, and forward-moving people make forward-moving organizations.
6. Helps managers to make better personnel decisions - promotions, transfers, demotions, terminations, salary.

What is performance?

1. It is results that people get on the job, and
2. It is whatever they do that affects those results.

PERFORMANCE IS THE EFFECTS THAT PEOPLE GET ON THE JOB, AND IT IS ALSO THE THINGS THEY DO THAT CAUSE THESE EFFECTS.

PERFORMANCE INVOLVES INPUTS (the actions people put into the job)
PERFORMANCE INVOLVES OUTPUTS (the consequences of those actions)

Performance is always tied to results - the on-the-job outcome of what people do.

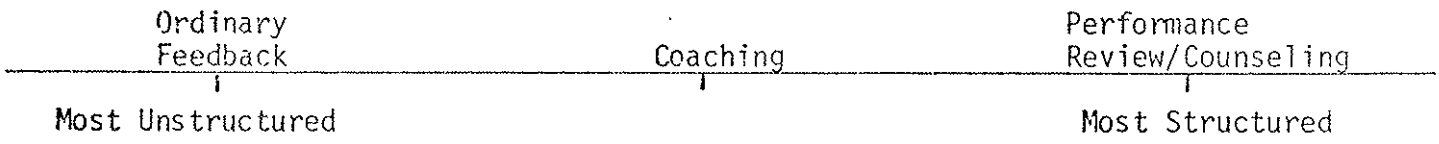
Performance is also tied to behavior - the things people do that produce results.

Behavior can be either active or passive - do-something or do-nothing. Either way it will affect job results.

Behavior discussed as a part of the performance review session must be behavior that matters. This is generally on-the-job behavior.

Performance reviews and development counseling is only one way to let subordinates know how they're doing on the job.

There are at least three ways in which managers/supervisors keep people posted on their progress. These could be shown on a continuum as follows:



1) Ordinary Feedback

Ranges from briefest comments to slightly more detailed evaluations. It is (a) developmental - most subordinates take these comments seriously and many base future action on them; (b) pretty casual; many of the comments are unplanned or spontaneous.

2) Coaching

A curbstone (or tailgate) conference - which is a systematic way of analyzing how a task was performed, so that similar tasks can be performed more effectively in the future - may last 5 to 15 minutes.

3) Performance Review and Development Counseling

Performance review and development counseling differs from ordinary feedback and coaching in five important ways:

(a) More preparation goes into performance review and development counseling.
(b) It covers a lot more ground; focusing on a subordinate's whole performance for a period of several months. (Ordinary feedback and coaching, on the other hand, zero in on one specific task.) It is more inclusive.
(c) It takes longer because it covers more ground.
(d) It takes place in the manager/supervisor's office (coaching and ordinary feedback usually take place wherever the manager/supervisor and subordinate happen to be.)
(e) It is the most structured of the three methods and follows a carefully organized format.

A pattern for Win-Win type of performance appraisal and development counseling is as follows:

1) Do a systematic pre-appraisal.
2) Start with firm, but not fixed ideas.
3) Get your subordinate to collaborate.
4) Take enough time.
5) Be supportive.
6) Expect problems.
7) Don't expect total agreement.
8) Aim at realistic growth.
9) Set goals that stretch the subordinate - this is a joint effort.
10) Review and summarize.

Benefits from an effective performance review and counseling session:

1) Puts subordinate face-to-face with reality - generates constructive tension.
2) Treats each subordinate as an individual.
3) Respects the integrity of each subordinate.
4) Is efficient - subordinates become more self-directed and less dependent on manager/supervisor.
5) Produces synergism - synergism means that by collaborating people get better results for a given amount of effort than they'll get if they expensed the same amount of effort but didn't collaborate - in synergism - collaboration makes a plus difference.
6) Improves the organizational climate - impresses upon subordinates that they count for something.
7) Enhances people's value - to themselves, to you, and to the organization.

Some tools we have used to carry out performance reviews and counseling sessions which we know from improved job performance have been successful:

* 1) Guidelines to assist supervisors in holding sessions
* 2) Think-Through Guide for Supervisor
* 3) Think-Through Guide for Employee
  4) Position Guide
  5) Work Standards for Position
  6) Performance Review Forms - goal setting forms*
  7) Goal Setting Guide for Employee
  8) Request for Revisions in Position Guide
* 9) Training and Development Request

* Attached to this statement

These work for us because the Executive Vice President provides positive leadership by holding counseling sessions with each member of his staff first, before any other supervisory personnel begin their reviews and counseling.

BLUE RIDGE ELECTRIC MEMBERSHIP CORPORATION

8/79

MEMORANDUM TO: Department Managers
FROM: Barbara Deverick
SUBJECT: Performance Reviews and Development Counseling Sessions for this year.

Blue Ridge Electric has been doing some form of performance review and development counseling since 1960 - almost twenty years. We have had a reasonable acceptance of the program and fair success. The key to the success of any program which is directed at the development of the individual in his current work environment is the supervisor, and the atmosphere which that supervisor creates with the people reporting to them within which they accomplish their work goals - an atmosphere of security - of openness - of positive support, and forthright communication. You can improve the atmosphere of security for your department through your counseling sessions with your key people.

You can also improve the effectiveness of our entire organization through your counseling sessions by giving emphasis to team effort and the achieving of system objectives and goals as they relate to department/section/unit goals.

The information attached to this memorandum is designed to assist you in holding counseling and review sessions which are meaningful to both persons involved in the session - you and the individual being counseled with.

You are asked to forward to the Director of Personnel the following things upon completion of your counseling sessions:

(1) Information concerning position guide update, job specifications, performance standards and work goals.

(2) Completed Performance Review Statement.

(3) Supervisor's comments and employee comments relating to the performance review and counseling session.

(4) Statement of Employee's performance goals and career development goals reviewed and agreed to by the supervisor and the employee.

It is our intent to retain this information in our confidential personnel files for a period of three years and then begin rotating this information out of the files, retaining only the three previous years. This documentation supports our system of fair and equitable treatment for all employees as it relates to evaluation of work performance and development counseling and will provide a clear record that all employees have, in fact, been counseled with about their work performance in a consistent manner.

It is your responsibility to make sure position guides accurately reflect the work assignment of the incumbent in the position. It is your responsibility to assure the incumbent is properly trained to carry out the responsibilities of the job. It is your responsibility to see that the individual has the information and the necessary resources to carry out the responsibilities of the position and secure the results the two of you have agreed upon. It is your responsibility to assure the incumbent in the position understands the performance standards for the position and knows how frequently the performance will be measured by you. If you need assistance in carrying out your responsibilities in these areas, contact the Director of Personnel or the Manager of Organizational Planning.

Memorandum to: Department Managers
Re: Performance Reviews and Counseling Sessions for 1979

The performance review and counseling session with each employee is an important opportunity for the supervisor to assist the employee in better understanding how the position held by the employee contributes to the success of the organization and give the employee an opportunity to share his/her ideas as it relates to their work responsibilities.

Please do everything you can to make the counseling sessions you hold with your key people meaningful for each of them and to you. Assist them to have a right frame of reference to performance review and counseling sessions when working with the employees reporting to them as applicable to their position.

It is not the intent that the performance appraisal form utilized for Management, Professional, Technical and Supervisory personnel be utilized for the other positions. We will provide a simplified appraisal form for use with other positions.

BHD:mes

BREMC
8-79

BLUE RIDGE ELECTRIC MEMBERSHIP CORPORATION

PREPARATION FOR PERFORMANCE REVIEW AND COUNSELING SESSIONS FOR SUPERVISORS - 1979

1. Set date for session with each employee reporting to you and ask them to be prepared to be involved in the session by completing the think-through form relating to their own work. Give ample time for preparation. Set date at least a week in advance of holding the session.

2. Review the position guide and make notations of changes which you feel must be made in the guide to accurately reflect the delegations to the person filling the position. Note changes which should be made in job specifications made necessary by the changes in the position guide.

3. Review the current work plan for the incumbent in the position and also for the department/section/unit and make notations relating to work goals which have been exceeded, met, or not met.

4. Complete the Performance Review Form. To complete the performance review you will need to contact other people to determine how well the individual is functioning as an integral part of the system work team and how effectively he is carrying out system policy, practices, and work directives. You may want to make use of the individual assessment questionnaire to help you determine how effectively the individual works with other people in carrying out the job responsibilities.

5. Think-Through. Make a few notes - those things you believe the individual should be counseled about during the development counseling session. You may want to suggest a few personal performance goals and career development goals for the individual to consider. Keep everything job related.

6. Try to do the first five things a few days before the counseling session so that you will have time to think about them before the session.

PERFORMANCE REVIEW AND COUNSELING SESSION GUIDE FOR SUPERVISOR

1. Try to make setting as informal and relaxed as possible while at the same time arranging for as few interruptions as possible. Be realistic about your time frame. If you know it will take two hours or three hours, don't schedule anything which would interfere with the session which would cause you to hurry through it.

2. Review Position Guide contents and any changes either of you feel should be made and get agreement, making sure both of you understand any changes made from the same frame of reference.

3. Make sure any changes made in the position guide which require additional knowledge, skills or special training for the person holding the position are addressed and plans developed for meeting these job requirements, and agreed to by both of yo in writing.

4. Discuss the performance review you have done relating to performance of the individual. If there is disagreement, this should be noted on the Comment Form. It would be hoped that disagreements could be resolved in the discussion, however, if they cannot, then they must be noted on the Comment Form.

5. Both you and the individual filling the position discussed will sign the performance review form to indicate that you have reviewed and discussed the contents and have agreed on them, except as noted on the comment sheet attached.

6. Review with the individual the performance goals and career development goals which they have developed for themselves and discuss what they mean to each of you as well as any commitments you as supervisor must make to help the individual carry out these goals. The performance goals should be related to annual system work plans. Your commitments should be noted on the comments sheet. Make any changes necessary to assure goals are attainable during the one year period and initial goals. Make sure the goals are meaningful.

7. During the counseling session relate the discussion to the total operations of Blue Ridge Eelctric, emphasizing how the position contributes to the over-all success of the organization and the team concept. Talk about the tools we have to help us be effective as an organization - policy - practices - work plans - working groups - staff support, etc. Help individual to realize that no one can succeed in thier work without good communication - coordination - and team effort.

8. Set follow-up review date with employee to look at progress being made and make revisions which might be needed in the performance goals and career development goals. Impress upon the individual that anytime the situation changes which makes achievement of these goals unlikely that the individual has the responsibility to advise you at once so that you can work with them on revised goals. You must follow up to assure work is going forward to achieve these goals. You are the supervisor. If you have no concern about the achievement of the goals, then the individual will have no concern. Meaningful goals will be achieved.

9. Talk about anything the individual feels is important to his work. Give the individual some insight on what the future holds as you are aware of it as it relates to the department and specifically to his area of responsibility.

10. Whatever commitment you make to the individual, make sure it is included in your written comments.

11. Following the interview, send to the Director of Personnel the four items - (1) Information on position guide update, etc., (2) Performance Review Statement; (3) Comments of Supervisor and Employee about review; (4) Employee's Performance goals and career developmentgoals.

12. A brief written evaluation of how you felt the session went and what can be done by staff department personnel to assist you in the future to hold more meaningful performance review and counseling sessions would be helpful to the Organizational Planning Department. This evaluation should be sent directly to the Manager of the Department.

MES

1979

GUIDE TO SUPERVISOR IN PREPARING FOR JOB RESULTS & CAREER DIRECTION COUNSELING SESSION

1. Briefly review system organization, system objectives, system goals, department function and goals, section function and goals and work goals for the individual you are going to counsel. Compare results with goals and note those areas where your section (department) has done particularly well or poorly; as well as how well the individual has performed.

2. Review the position description for the individual's particular position as well as agreed-upon standards (results statement) for the position. Note any areas of the position description which you feel may need revising to more nearly reflect the responsibilities of the position. Note any standards which may, in your opinion, need changing. Revisions in position description and standards will be discussed during your counseling session and agreed upon by both you and the person filling the position before you make the changes. Remember - the position description and statement of job standards are tools for understanding between you and the person filling the position of just what you expect of him in the way of job performance and what he is being held accountable for.

3. Review the employee's work performance for the past three months and look ahead for the next three to six months. Do this by:

   a. Using your memory.
   b. Checking any notes you may have on critical performance incidents, favorable and unfavorable ones.
   c. Past annotated accomplishment reports.
   d. Employee self-appraisal.
   e. Evaluations of other supervisors who are in position to evaluate work of individual.
   f. Personnel records.
   g. Job description and job standards and results reports.
   h. Work now in progress.
   i. Work already committed but not underway.
   j. System, department, section and project or program plans.
   k. Any special assignments - recent or near future.

4. Look at the situational factors that may affect the employee's ability to do his best work. Some of these may be:

   a. Organizational changes.
   b. Staffing changes.
   c. Budget changes.
   d. Facility bottlenecks.
   e. New programs instituted.
   f. Methods or systems changes.
   g. Schedule changes.
   h. Design changes.
   i. System emphasis changes.
   j. Member changes.
   k. Economic shifts in economy.
   l. Changes in laws or regulations.

5. Look at the job's requirements and how they may have changed. Examine work requirements in terms of:

   a. Specific short range results to be achieved.
   b. Specific long range results to be achieved.
   c. Specific problems at present.

(over)

5. cont'd

Examine personal requirements in terms of:

a. Technical knowledge and skill.
b. Product, tool, equipment or material knowledge.
c. Knowledge of BRE.
d. Member Knowledge.
e. Knowledge of work methods and procedures.
f. Managerial or supervisory skill (if required by position).
g. Skill in contacting and working with others.

6. Look at the situational requirements of job, including:

a. Time available to get the results desired.
b. Availability of resources, manpower, tools, materials, equipment, etc.
c. Priority of work.
d. Current status of work:
   Beginning, midway, or ending.
   Satisfactory or unsatisfactory.
   Improving or deteriorating.
   Expanding or contracting.
e. Limitations of authority.
f. Environmental constraints - social, economic, political (outside BRE).
g. Member situation.
h. Material or equipment situation (short supply, long delivery schedules, etc.)
i. Managing or supervising style of boss. (THAT'S YOU and your superior.)
j. Characteristics and qualifications of associates and members of work group.
k. Qualifications of reporting employees.

7. Look at potential for further career development of individual by:

a. Identifying future manpower needs in the organization - both supervisory and technical, and probable timing of meeting these needs.
b. Evaluating probable performance growth of current employees.
c. Considering known career goals of employees and extent of dedication to them.
d. Making judgemental decision regarding career potential within BRE for the employee.

8. Use the following outline for your "job results and career direction" counseling session to assist you in covering all areas relating to the position and the goals of the individual:

a. Set the stage for the discussion by stating what you hope to accomplish during the counseling session: (1) Look at the job (2) results being achieved (3) the direction the individual wants to go in his work with BRE and while doing this update the position description and statement of job standards to currently reflect the responsibilities of the position and the results expected and (4) make whatever commitments needed, by both the supervisor and the employee, to assure that agreed-upon results required by the employee will be achieved.
b. Begin by reviewing the position description and job standards with employee to gain understanding between the two of you on what the responsibilities of the position are and the results for which he is held accountable. Change both the job description and statement of standards (if there is one) to state clearly what you have agreed on is the job.
c. Employee and supervisor assesses employee's job results and career to date.
d. Supervisor supplements employee's information on job results assessment and they discuss any constraints to employee in carrying out his job and achieving the agreed-upon results.

8. Cont'd

e. The two agree on any actions each will take to remove the constraints discussed. This should be committed to writing for the benefit of both persons. (Use a plain sheet of paper for this, note what the supervisor will do and what the employee will do and each sign and date and each take a copy. There should be specific time schedule as a part of the commitment so that follow-up can be done. There should be the understanding that either person can re-negotiate the commitments if circumstances change during the time-span of the commitment.)

f. Employee and supervisor share information on career building. Employee expresses career interests and supervisor describes needs of BRE.
g. Supervisor summarizes career alternatives, training opportunities and implications.
h. They discuss additional questions and ideas about the present position and career opportunities within BRE.
i. Agree on any action plan for career development - make commitment and add statement of commitment to that developed under item (e).
j. Talk about anything else related to individual position and BRE and concerns he might have or comments he might wish to make.
k. Try to conclude session on positive note, thank employee for his input, commend him for any commitments made and re-emphasize any commitments you've made.

Remember, your session should be mutually beneficial. The employee should come from the session feeling better about his work and the things which he and you can do to make it even more satisfactory and productive (from the employee's standpoint) and having a better understanding of what his future can be at BRE. You should feel good about the session in that both you and the employee have committed to helping each other to work more effectively.

You should follow up immediately on any commitments he makes & assure that the employee sees some immediate results from the commitment(s) made by you to him.

You should also follow up as scheduled with the employee to see that he is living up to his commitments.

7/20/77

COUNSELING REVIEW SUMMARY FORM

(For supervisor to use in preparing for counseling session)

Ask yourself the following questions and answer them regarding the employee named here:

_____ _____

Employee Position Title

1. Does my review of the position guide and job standards for this position indicate they are current? If no, indicate necessary changes to make them current.

2. What areas of employee's work are going well?

3. What areas of employee's work need strengthening during the next 6 to 12 months?

4. What future events outside the employee's control may affect (positively or negatively) the employee's ability to accomplish planned results during the next 6 to 12 months?

5. What significant strengths has this employee demonstrated on this or previous jobs that should be fully used during the next 6 to 12 months?

6. What significant gaps in knowledge or experience, what skill development needs or behavior modifications appear desirable for the employee to improve his work during the next 6 to 12 months?

7. What are the possibilities for career development for this employee with BRE?

8. What can this employee do to prepare himself for meeting future job needs or for career advancement?

9. Based on consideration of the above items, summarize counseling decisions:
   a. Supervisor will do the following (indicate timing):

   b. Supervisor will recommend that the employee take the following actions (indicate timing):

   c. Date for supervisor to check progress or re-evaluate coaching needs: (This time should be reasonably short - from two to four weeks following counseling session, depending on the nature of the commitments made between the two people.)

SOME TYPICAL SUPERVISORY ACTIONS
TO HELP EMPLOYEE TO ACHIEVE BETTER JOB RESULTS AND AID IN CAREER DEVELOPMENT

With Employee:

1. Clarify work assignments.
2. Clarify results expected.
3. Clarify work standards, measurements.
4. Review likely obstacles and roadblocks, and ways around them.
5. Clarify role of and contribution to employee's work by supervisor.
6. Review alternative ways of getting results.
7. Review progress at suitable milestone points.
8. Contribute relevant personal knowledge and experience.
9. Coach employee to develop needed skills.

Supervisor can:

1. Provide additional resources (manpower, money, facilities, equipment, etc.)
2. Pave the way through personal contacts.
3. Provide added incentives for successful performance - recognition, praise, etc.
4. Identify sources of help; provide, as appropriate.
5. Make desirable changes or see that they are made in organizational areas (practices, policies, work assignments, etc.).
6. Make methods or systems changes.

FOR USE BY INDIVIDUAL EMPLOYEE IN
PREPARATION FOR THEIR PERFORMANCE REVIEW AND COUNSELING SESSION

Ask yourself the following questions about your position with BRE and your personal goals with regard to your career. Your answers will help you to discuss your work and your career direction with your supervisor.

1. Does my review of my position guide and job standards indicate they are current? Do they clearly tell me what my job responsibilities are and what results my supervisor holds me accountable for? If no, indicate areas where changes should be made to clarify and what changes you feel should be made.

2. What areas of my work are going well?

3. What areas of my work are not going so well, and need to be strengthened during the next 6 to 12 months?

4. What future events outside my control do I feel might affect my position and my job results (positively and negatively) during the next 6 to 12 months?

5. What two or three things do I do in my job that I like to do best?

6. What two or three things do I do in my job that I like to do least?

7. What directions would I like my career with BRE to take and how does this relate to my life goals?

8. What skills, knowledge, and areas of interests do I have that I feel are not being fully utilized in my work at present?

9. What skills, knowledge and information would I like to acquire in the future (which may or may not help me in my work at BRE, but which will be personally rewarding to me)?

10. What can I do to personally prepare myself for meeting future job needs or advance my career?

11. What can my supervisor do to help me achieve a higher degree of job satisfaction in my present position and provide opportunity for growth and development within my chosen career directions?

Personal Goals for_____

GOAL SETTING FORM
(This is part of the performance review and development counseling system)

Side 1: Work related goals, should coordinate with system/department/section/unit annual work goals. Goals set should be achievable in not more than one year.

Date of Review Session_____Approved by the Supervisor_____

PERFORMANCE GOALS (in order of importance)	ACTIONS TO BE TAKEN	TARGET DATES

Sometimes goals cannot be achieved because of barriers. If barriers are identified beforehand, some of them could be overcome. Other barriers are beyond your control and your supervisor's assistance may be helpful.

What things, if any, will prevent you from achieving these goals?

What things, if any, will help you achieve these goals?

Employee retains original copy, supervisor retains a copy and Forwards copy to Director of Personnel.

GOAL SETTING FORM

Side Two: Career Development Goals

CAREER DEVELOPMENT GOALS (In order of importance)	ACTIONS TO BE TAKEN	TARGET DATES

What things, if any, will prevent you from achieving these goals?

What things, if any, will help you achieve these goals?

REQUEST FOR REVISIONS IN POSITION GUIDE

(To be initiated by the supervisor at such time as there is need for updating the position guide because of changing conditions, addition of responsibility, deletion of responsibility, for emphasis on job performance, for understanding of working relationships and authorities, etc. To be reviewed annually prior to performance review.)

Position_____ Dept._____

Changes Requested by_____ Date_____
(Supervisor of Position)

Proposed changes reviewed with the individual holding the position ____Yes ____No

PROPOSED CHANGES:

Change in Statement of Purpose of Position

Change in Authorities Granted

Change in Relationships required by position

Change in Major Responsibilities (Tasks, the results of which the incumbent in the position is held accountable by the supervisor)

Change in job requirements (Education, experience, skills, etc.)

Incorporated into the Position by_____ Date_____
(Staff Assistant)

8/79

REVISION OF STANDARDS OF PERFORMANCE FOR POSITION

(This statement of results expected which will indicate that the incumbent is performing at a satisfactory level in the position is agreed to by both supervisor and holder of the position.) Position _____ Dept. _____

After reviewing with the holder of the position the statement of standards of performance for the position we have agreed to the following changes:

Changes in Statements of Standards

Supervisor _____ Date _____

Incorporated into the Position by _____ Date _____
(Staff Assistant)

BLUE RIDGE ELECTRIC MEMBERSHIP CORPORATION

TRAINING AND DEVELOPMENT INFORMATION
(for work planning)

(COMPLETE THIS FORM FOR EACH INDIVIDUAL NEEDING ON-THE-JOB TRAINING)

YEAR _____ NAME _____

DEPARTMENT _____

ON-THE-JOB TRAINING

TRAINING NEEDED _____

PURPOSE _____

TIME INVOLVED _____

PERSON WHO WILL COORDINATE TRAINING _____

_____
Supervisor

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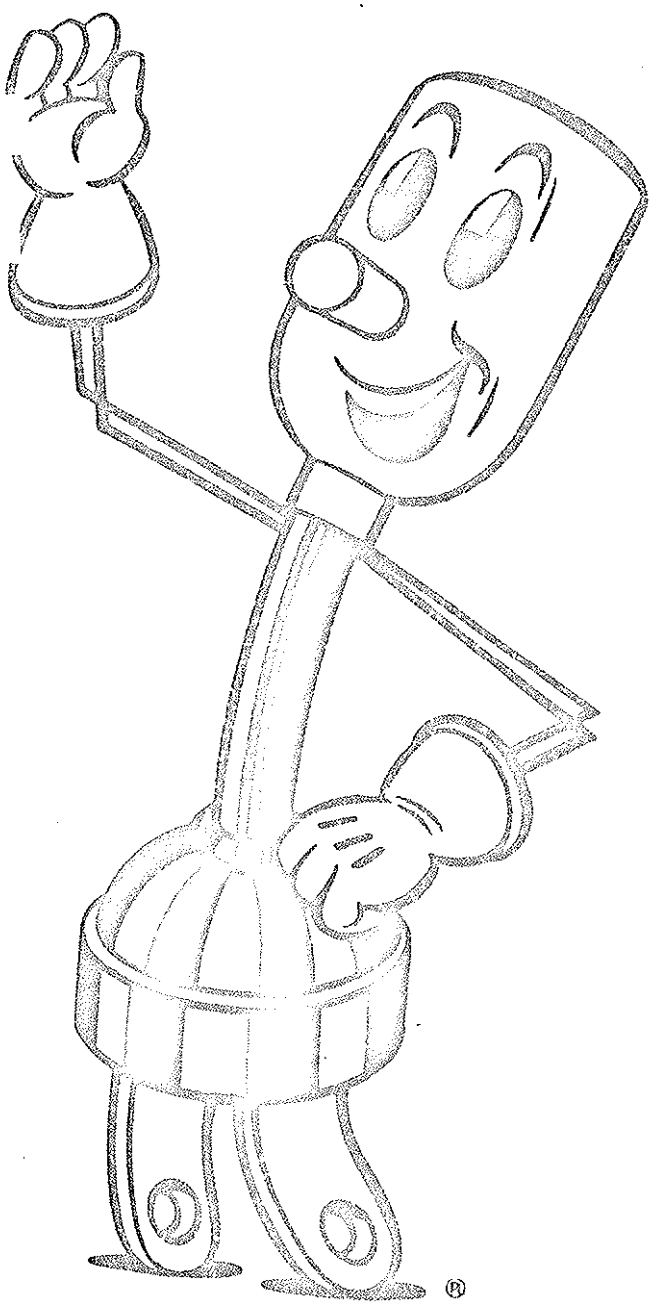
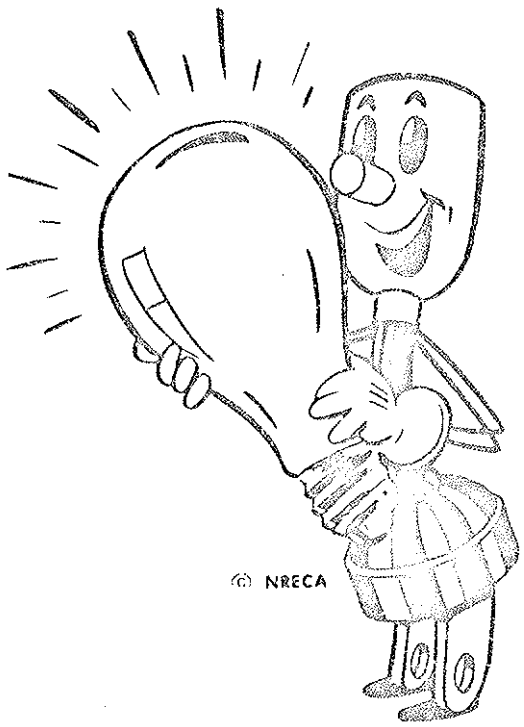
A Presentation to R. E. M. D. C. by W. W. Ward, Marketing Manager

Pioneer Rural Electric Cooperative Piqua, Ohio



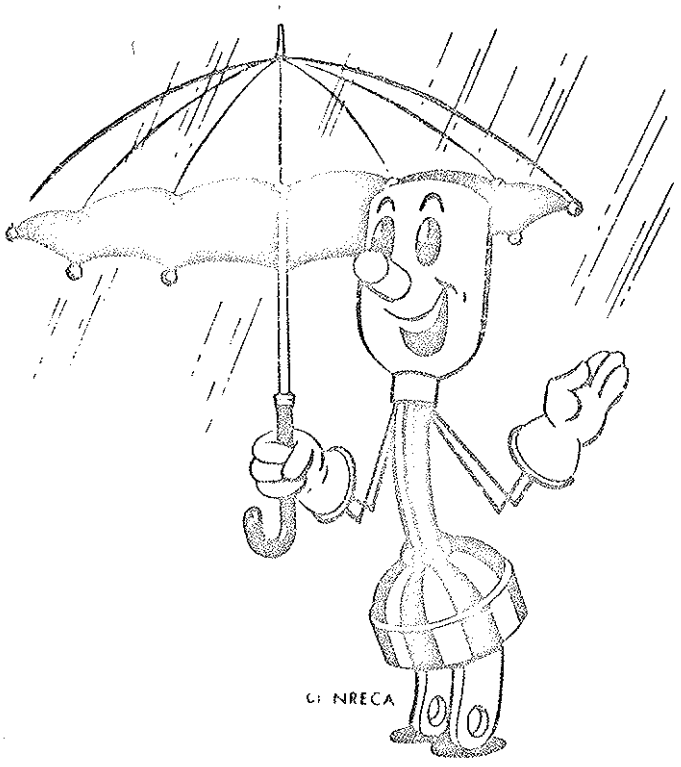
HI FOLKS!

I'M HERE TODAY FOR "MARKETING RESEARCH"



THE BRIGHT IDEA IS TO GET ORGANIZED FEEDBACK FROM OUR USERS

RESEARCH CAN OFFER SOME PROTECTION FROM:



. . . member unrest

. . . rate insufficiencies

. . . conservation fallout

. . . employee discontent

. . . unfavorable image

. . . unplanned events

YOU SHOULD

just mail it with the bills

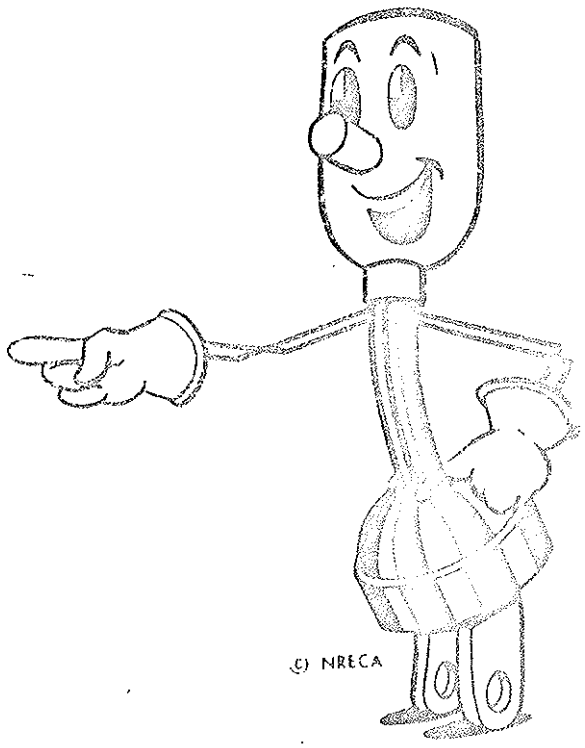
no real technique involved

our cashier can do it

QUITE SIMPLE

FOLLOW

A MIDDLE PATH



Q-test

multiple regression model

TOO COMPLEX

sigma bell curve

ON MARKETING RESEARCH

MARKETING RESEARCH CAN BE CONDUCTED ON:

MARKETS - COUNTRY, STATE, SMSA, COUNTY

PRODUCTS - CONSUMER GOODS, INDUSTRIAL GOODS, CONSUMER SERVICES, BUSINESS SERVICES

PROMOTION - ADVERTISING, MERCHANDISING, PACKAGING

DISTRIBUTION - EXISTING OR NEW CHANNELS

PRICING - LEADERSHIP, SPECIALS, COMBINATIONS

MARKETING RESEARCH IS USED BY:

MANUFACTURERS

WHOLESALERS, DISTRIBUTORS, & OTHER MIDDLEMEN

RETAILERS

CONSUMER SERVICES

MEDIA & BUSINESS SERVICES

NON-BUSINESS ORGANIZATIONS - EDUCATIONAL, GOVERNMENTAL, PHILANTHROPIC

MARKETING RESEARCH IS PERFORMED BY:

COMPANY DEPARTMENTS (IN-HOUSE)

SYNDICATED SERVICES - A.C. NEILSEN, SAMI

MARKETING RESEARCH FIRMS - GENERAL, SPECIALIZED

FIELD INTERVIEWING SERVICES

FOUNDATIONS, UNIVERSITIES, GOVERNMENT

ANY AND EVERY MARKETING RESEARCH PROJECT STARTS WITH:

1. SETTING THE OBJECTIVE AND DEVELOPING A WORKING HYPOTHESIS.

2. A THOROUGH SEARCH AND REVIEW OF THE EXISTING SECONDARY DATA. SOURCES FOR THIS DATA INCLUDE:

   GOVERNMENTS
   TRADE ASSOCIATIONS
   DIRECTORIES
   TRADE PUBLICATIONS
   LIBRARIES
   INSTITUTES
   SYNDICATED DATA

CENSUS OF BUSINESS 1977, CENSUS OF AGRICULTURE 1979,
CENSUS OF POPULATION AND HOUSING 1980

NATIONAL APPLIANCE SATURATION LEVELS

(79,398,569 wired homes)

Electric Bed Coverings	64.2%
Dishwashers	43.0
Food Waste Disposers	43.0
Clothes Dryers (electric & gas)	61.5
Freezers	44.7
Irons	99.9
Microwave Ovens	7.6
Electric Ranges	69.4
Refrigerators	99.8
Black & White Television	99.9
Color Television	89.8
Vacuum Cleaners	99.9
Washers	77.3

OF ALL MAJOR APPLIANCES SHIPPED IN 1979

Refrigerators	made	up	17.1%	For	Replacement	74%
Washers	"	"	13.7%	"	"	76%
Room Air Conditioners	"	"	10.3%	"	"	39%
Dryers	"	"	9.8%	"	"	68%
Dishwashers	"	"	9.6%	"	"	54%
Food Waste Disposers	"	"	9.2%	"	"	56%
			69.7%			

MOST POPULAR SIZES OF APPLIANCES

Freezers	20 cu. ft. & over non frost-free
Refrigerators	14-17 cu. ft. frost-free top mount
Electronic Air Cleaner	central/duct mounted
Room Air Conditioners	under 10,000 BTUs low EER (under 7.5) undesirable

SOURCE: Merchandising March 1980

HOW LIFE-CYCLE GROUPS WILL CHANGE

LIFE CYCLE		% OF TOTAL POPULATION 1970	1980	1990
0-5	Preschoolers	10.2%	8.6%	9.2%
6-12	Preteens	14.0	10.6	10.3
13-17	Adolescents	9.8	8.7	6.6
18-24	Young adults	12.1	13.3	10.4
25-34	Peak family formation	12.3	16.3	17.0
35-44	Family maturation	11.3	11.6	15.1
45-54	Peak earning power	11.4	10.2	10.5
55-64	Childless parents	9.1	9.5	8.6
65+	Retirement	9.8	11.2	12.3

Source: Merrill Lynch Economics, Inc.

TEN YEAR FORECAST FOR YOUR COUNTIES

COUNTY	Population 1980	Population 1990	% inc.	Aver. Household Income 1980	Aver. Household Income 1990	% inc.	Buying Power Index 1980	Buying Power Index 1990	% inc.
Adams, PA	65,400	74,400	13.8	25,055	44,877	79.1	.0271	.0265	- 2.2
Barton, KS	32,400	33,800	4.3	23,522	50,126	113.1	.0171	.0178	4.1
Caldwell, NC	62,000	65,900	6.3	20,549	43,896	113.6	.0261	.0286	9.6
Cass, ND	88,800	102,000	14.9	20,462	37,990	85.7	.0414	.0425	2.7
Cleveland, OK	112,600	137,600	22.2	22,895	47,461	107.3	.0495	.0597	20.6
Cotton, OK	7,000	7,600	8.6	20,956	47,568	127.0	.0028	.0031	10.7
Emmons, ND	6,200	6,000	- 3.2	22,761	45,344	99.2	.0022	.0017	-22.7
Isanti, MN	25,000	31,700	26.8	17,396	29,202	67.9	.0082	.0082	0
Kay, OK	52,600	57,900	10.1	17,620	33,106	87.9	.0234	.0242	3.4
Lexington, SC	138,800	183,700	32.3	20,964	42,340	102.0	.0538	.0691	28.4
Linn, IA	172,600	180,700	4.7	22,333	39,603	77.3	.0780	.0696	-10.8
McCracken, KY	63,200	65,600	3.8	20,581	43,396	110.9	.0321	.0327	1.9
Mecklenburg, VA	29,200	29,200	0	13,897	25,781	85.5	.0102	.0093	- 8.8
Moody, SD	7,400	8,000	8.1	12,762	20,356	59.5	.0018	.0018	0
Morgan, IN	50,600	55,700	10.1	21,641	40,064	85.1	.0193	.0181	- 6.2
Nottoway, VA	13,200	12,300	- 6.8	15,986	33,353	108.6	.0045	.0042	- 6.7
Pender, NC	23,500	30,800	31.1	12,228	20,940	71.2	.0065	.0077	18.5
Platte, NE	28,500	28,500	0	21,130	39,700	87.9	.0123	.0105	-14.6
Robeson, NC	100,300	118,300	17.9	16,337	35,069	114.7	.0341	.0418	22.6
Rockingham, VA	58,000	64,800	11.7	17,592	35,210	100.1	.0181	.0196	8.3
Routt, CO	12,800	18,200	42.2	15,249	25,833	69.4	.0053	.0068	28.3
Stark, ND	19,900	20,100	1.0	19,752	39,761	101.3	.0079	.0073	- 7.6
Taney, MO	19,600	22,900	16.8	13,210	23,738	79.7	.0085	.0085	0
Whitley, IN	24,300	23,400	- 3.7	22,285	43,344	94.5	.0095	.0084	-11.6
Wright, MN	54,300	70,700	30.2	14,839	21,364	44.0	.0183	.0179	- 2.2

SOURCE: S & MM Data Service

THE MAIL SURVEY METHOD

ADV. MAY BE DONE LESS EXPENSIVELY BECAUSE NO FIELD COSTS

NO INTERVIEWER TRAINING IS INVOLVED

CERTAIN GROUPS CAN BE REACHED ONLY IN THIS WAY

RESPONDENT CAN CONSIDER HIS ANSWERS AT LEISURE

DISADV. RESPONDENTS ARE SELF-SELECTED GROUP AND THUS NOT REPRESENTATIVE OF THE TOTAL GROUP

REFUSAL RATE IS INVARIABLY MUCH HIGHER

RESPONDENTS MAY MISINTERPRET THE QUESTIONS

AMOUNT OF INFORMATION WHICH CAN BE OBTAINED IS LIMITED

LAST RETURNS TEND TO COME IN SLOWLY

PERSONAL QUESTIONS MAY ALIENATE THE RESPONDENTS

ANSWERS GIVEN MAY NOT BE THOSE OF RESPONDENT HIMSELF

THE TELEPHONE SURVEY METHOD

ADV. IT IS A QUICK METHOD OF COLLECTING DATA

THE INTERVIEWERS CAN BE EASILY SUPERVISED

THE COST PER INTERVIEW IS RELATIVELY LOW

RESPONDENTS WHO MIGHT OTHERWISE BE INACCESIBLE
CAN BE INTERVIEWED, BY APPOINTMENT IF NECESSARY

DISADV. ONLY A RELATIVELY SHORT QUESTIONNAIRE CAN BE USED

OBSERVATION OF RESPONDENTS IS NOT POSSIBLE

THE CALLING TIMES DURING THE DAY ARE LIMITED

BUSY OR NON-ANSWERING NUMBERS MUST BE RECALLED

THERE ARE AN INCREASING NUMBER OF UNLISTED TELEPHONES

THE PERSONAL INTERVIEW SURVEY METHOD

ADV. YIELDS THE HIGHEST PERCENTAGE OF ACCEPTABLE RETURNS

THE INFORMATION CAN BE MADE VERY PRECISE BECAUSE CONTRADICTIONS AND MISUNDERSTANDINGS CAN BE CLEARED UP ON TH SPOT

THROUGH OBSERVATION ADDITIONAL INFORMATION CAN BE GAINED

QUESTIONNAIRE CAN BE LONGER THAN FOR OTHER METHODS

BOTH HEADS OF HOUSEHOLD CAN BE INTERVIEWED AT SAME TIME

DISADV. THE HIGH COST PER INTERVIEW

IT IS COSTLY TO TRAIN AND SUPERVISE INTERVIEWERS

THE NUMBER OF INTERVIEWS PER DAY IS RESTRICTED

OFTEN NECESSARY TO CONDUCT INTERVIEWS IN THE EVENING OR ON WEEKENDS

TRANSPORTATION COST HAS BECOME VERY COSTLY

HOW TO GO ABOUT GETTING IN TOUCH OR COLLECTING DATA

MAIL SURVEYS

INCLUDE A COVER LETTER OF EXPLANATION WITH REQUEST FOR COOPERATION.
INCLUDE A STAMPED OR BUSINESS REPLY ENVELOPE FOR EASY RETURN.
A TELEPHONE CALL FOR COOPERATION MAY BE USED BEFORE ACTUAL MAILING.
ANOTHER MAIL OR TELEPHONE FOLLOW-UP MADE AFTER 3 WEEKS MAY HELP.
WITH COMPLEX QUESTIONNAIRES, YOU MAY WANT TO INCLUDE AN INCENTIVE.

TELEPHONE SURVEYS

DO NOT USE YOUR REGULAR EMPLOYEES FOR THIS WORK.
CAN BE DONE FROM A CENTRAL LOCATION OR FROM INDIVIDUAL HOUSES.
HOLD AN INTENSIVE BRIEFING SESSION FOR ALL CONCERNED.
PRESERVE INDEPENDENT CONTRACTOR STATUS FOR ALL INTERVIEWERS.
COMPENSATE THEM BY THE HOUR OR BY THE COMPLETED QUESTIONNAIRE.
MAKE AVAILABLE NAMES TO THE 150% LEVEL OF SAMPLE SIZE DESIRED.
SET UP A SYSTEM FOR REDIALING THE "NO ANSWERS" AND "BUSIES".
DECIDE WHAT SPLIT YOU WANT FOR MALE/FEMALE RESPONDENTS.
DECIDE IF YOU WILL ACCEPT TEENAGERS OR OTHER ADULTS IN HOUSEHOLD.
CHECK THE "COMPLETES" THREE OR FOUR TIMES DURING THE SURVEY.
MAKE VALIDATION CALLS YOURSELF TO 5% OF THE RESPONDENTS.

PERSONAL INTERVIEW SURVEYS

APPOINTMENTS MAY BE SET UP BY TELEPHONE TO SAVE TIME AND COST.
SATURDAYS ARE PROBABLY BEST FOLLOWED BY EVENINGS (DURING DAYLIGHT).
PUT DEMOGRAPHIC QUESTIONS ON LARGE CARD TO HAND TO RESPONDENT.
OBTAIN THE TELEPHONE NUMBER FOR POSSIBLE FOLLOW-UP OR VALIDATION.
PARTIAL INTERVIEWS MAY HAVE TO BE DISCARDED IF IT MEANS RE-ROUTING.
IF UNANNOUNCED, EXPECT REFUSALS AND SUSPICIONS.

QUESTIONNAIRE CONSTRUCTION

REQUEST FOR COOPERATION AT BEGINNING AND THANKS AT END.

SHOULD BE A PROPER SEQUENCE THAT FLOWS WELL.

SHOULD PROVIDE FOR CONDITIONAL ANSWERS.

SHOULD USE DEFINITIONS TO HELP UNDERSTANDING.

ILLUSTRATIONS MAY BE HELPFUL.

EXAMPLES WILL OFTEN LESSEN CONFUSION.

AVOID BIASED QUESTIONS "DO YOU STILL BEAT YOUR WIFE?"

PROVIDE ROOM FOR REASON TO BE GIVEN IF IT MAY BE IMPORTANT.

PUT CLASSIFICATION OR DEMOGRAPHIC QUESTIONS AT END.

ASK QUESTIONS ABOUT SPECIFIC PAST ACTIONS RATHER THAN ABOUT GENERAL ATTITUDES.

ALLOW FOR SKIPPING IF RESPONDENT IS NOT FULLY QUALIFIED.

DO NOT TRY TO COVER TOO MANY SUBJECTS.

WATCH OUT FOR INTERVIEWEE FATIGUE.

CONSIDER YOUR TABULATING PROCEDURES AT THIS STAGE.

ALLOW SUFFICIENT SPACE FOR IN-DEPTH OR OPEN-END QUESTIONS.

ALWAYS PRE-TEST EVERY QUESTIONNAIRE.

SAMPLING FROM A UNIVERSE (POPULATION)

THE ADVANTAGES OF SAMPLING ARE REDUCED COSTS, GREATER SPEED, GREATER ACCURACY, AND GREATER DEPTH OF INFORMATION.

IF DATA COLLECTION ERRORS OCCUR, IT WILL GENERALLY BE DUE TO NON-RESPONSE, NON-COVERAGE, MEASUREMENT, OR CHEATING.

PROBABILITY SAMPLES

SIMPLY MEANS THAT THE RESPONDENTS ARE SELECTED OBJECTIVELY.

1. SIMPLE RANDOM - E.G. FROM A TABLE
2. SYSTEMATIC - EVERY NTH NAME OR HOUSE
3. STRATIFIED - CAN BE PROPORTIONATE OR DISPROPORTIONATE
4. CLUSTER

NON-PROBABILITY SAMPLES

1. JUDGMENT
2. CONVENIENCE - E.G. MALL INTERCEPT
3. QUOTA - SELECTED HAPHAZARDLY

SAMPLING MAY BE DONE SEARCHING FOR RESPONDENTS QUALIFYING ON THE BASIS OF VARIABLES OR OF ATTRIBUTES.

NATURALLY TIME, COST, AND PRECISION NEEDED ENTER INTO THE TYPE AND SIZE OF SAMPLE CHOSEN.

SEGMENTATION is a research technique which enables a company to identify, quantify, and analyze sub-groups within an entire customer grouping.

For distribution cooperatives, one such segmentation might be: the "pro-nuclears", the "anti-nuclears", and the "don't cares". The size of each sub-group and their media exposure habits could enable you to evaluate their strength and shape your communications program to reach them with the appropriate information and messages.

Another possible segmentation might be farm-oriented members and non-farm-oriented members. A further breakdown of the farm group might be: those active in farm organizations (e.g. Grange, NFO, etc); those who are independent in thought and action; and those who are young second generation farmers on your lines.

THE IDEA IS THAT EACH SUB-GROUP WILL HAVE ITS OWN CHARACTERISTICS AND VALUES. BY STUDYING THESE YOU CAN BETTER SHAPE THE FUTURE PLANS FOR YOUR COOPERATIVE.

TRENDS

Toward an Increasing Focus on Self Trends, reflecting the focus on self (as opposed to larger social units such as the family, the community, the country, etc.) and directed towards goals such as personal enhancement, personal fulfillment and self-realization.	Personalization Physical Self-Enhancement Physical Fitness and Well-Being Social/Cultural Self-Expression Conspicuous Cultivation Personal Creativity Meaningful Work Introspection Liberal Sex Attitudes Female Careerism Concern About Privacy
Toward an Enriched/Enhanced Personal Environment Trends, reflecting a drive to enhance and enrich the quality of the individual's personal life by adding excitement, pleasure, mystery and variety.	Mysticism Sensuousness New Romanticism Novelty and Change Return to Nature Concern About Environment Search for Community
Toward an Easier/Less Threatening Personal Environment Trends, reflecting a desire to make the personal environment in which the individual functions easier to cope with and less threatening.	Simplification Anti-Bigness Anti-Hypocrisy The New Cynicism Concern About Personal Safety
Toward a Less Structured Life Styles Trends, reflecting the drive towards looser, more flexible "rules" in the society and in the way one lives one's personal life.	Anti-Materialism Away From Possessions Living for Today Away From Self-Improvement Blurring of the Sexes Acceptance of Drugs Rejection of Authority Tolerance for Chaos and Disorder Away From Familism New Forms of Patriotism Acceptance of Purposelessness

CURRENT IN THE U.S.

QUALITATIVE SURVEY
GROUP OR FOCUS PANEL INTERVIEW SESSIONS

SETTING SHOULD HAVE CONFERENCE=TYPE TABLE AND CHAIRS.

INVITE ENOUGH TO GET 6-10 RESPONDENTS PRESENT.

PROVIDE AN INCENTIVE TO ATTEND-NOT NECESSARILY MONEY.

GET AN OUTSIDE MODERATOR AND BRIEF HIM/HER YOURSELF.

COMPENSATE THE MODERATOR ADEQUATELY.

HAVE THE MODERATOR WORK FROM AN OUTLINE TO COVER ALL POINTS

SCHEDULE SESSIONS FOR 80-90 MINUTES EACH.

THE MODERATOR SHOULD GUIDE THE FREE-WHEELING DISCUSSION.

TAPE RECORD ALL SESSIONS TO FACILITATE WRITING A REPORT.

DO NOT ALLOW ONE OR TWO INDIVIDUALS TO DOMINATE.

ROLE PLAYING MAY HELP INITIATE DISCUSSION.

REFRESHMENTS MAY BE PROVIDED BUT ARE NOT NECESSARY.

ALLOW NO MORE THAN TWO OBSERVERS TO ATTEND.

A SHORT CHECK-OFF QUESTIONNAIRE BEFORE BEGINNING CAN GIVE YOU SOME DEMOGRAPHICS AND SOME IDEA OF "MIND-SET".

DO NOT THINK OF THESE SESSIONS IN QUANTITATIVE TERMS!!

THESE SESSIONS WILL GENERATE IDEAS, SCREEN OR EVALUATE CONCEPTS, AND REVEAL APPARENT AND HIDDEN MOTIVATIONS BEHIND ACTIONS AND ATTITUDES. THEY HAVE GREAT FLEXIBILITY. THEY CAN AID IN EVOLVING QUESTIONS FOR QUANTITATIVE SURVEYS.

AFTER THE DATA IS COLLECTED

1. EDITING — Try to to take out fictitious answers, contradictory answers, illegible answers, and incomplete answers. Mark with DK & NA.

2. CODING — Primarily to get ready for machine tabulation. May be needed if hand tabbers are inexperienced.

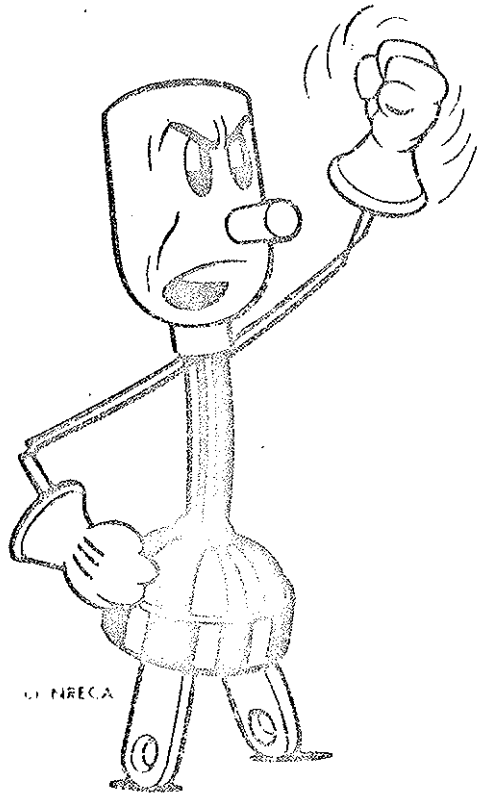
3. TABULATION — The straight and cross varieties.

4. ANALYSIS AND INTERPRETATION

   This leads to the conclusions and recommendations
   Look for relationships if any.
   Use deductive and inductive reasoning.
   If statistical tests are needed, get competent assistance. The most common of these are: differences by chi square
   association by linear or multiple correlation.

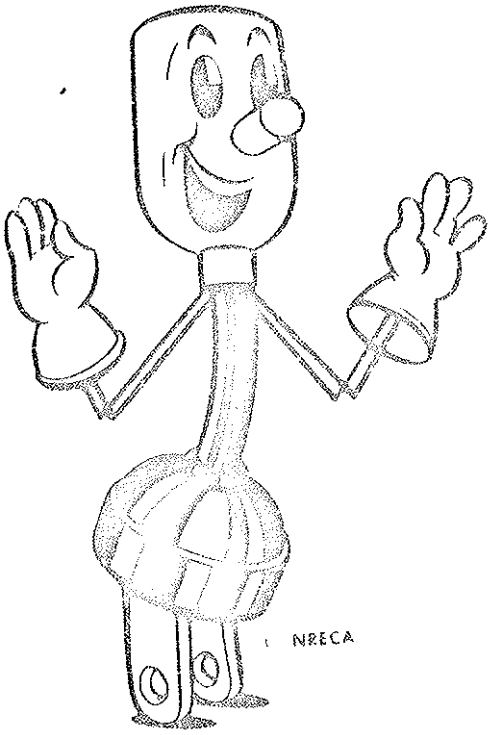
5. REPORT — Written - may have a technical and popular one.
   Oral - to cover highlights, include an offer to provide the full report if requested

RESEARCH RESULTS



May make you
MAD

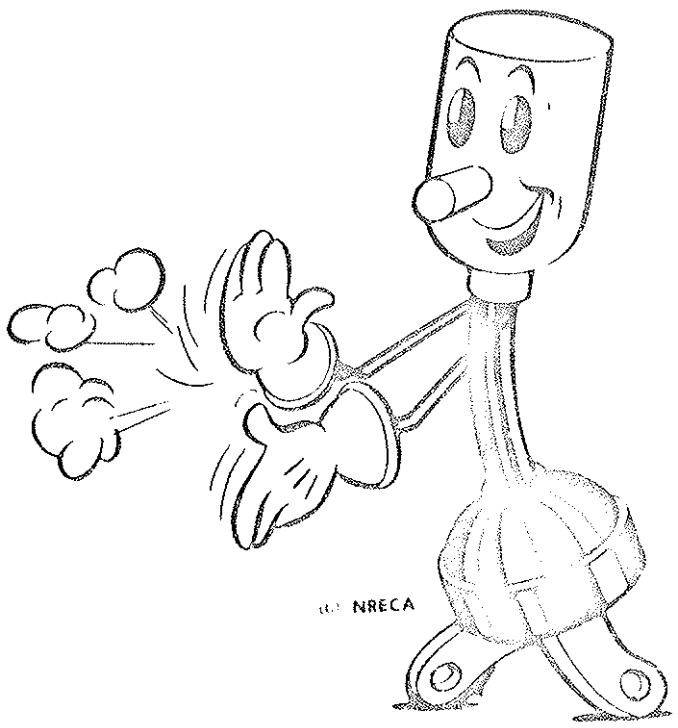
or



May make you
GLAD

They are often unpredictable.

ONCE YOU HAVE FINISHED A PROJECT



DON'T PUT IT ON THE SHELF

AVOID BIAS

insofar as possible

... in design

... in sampling

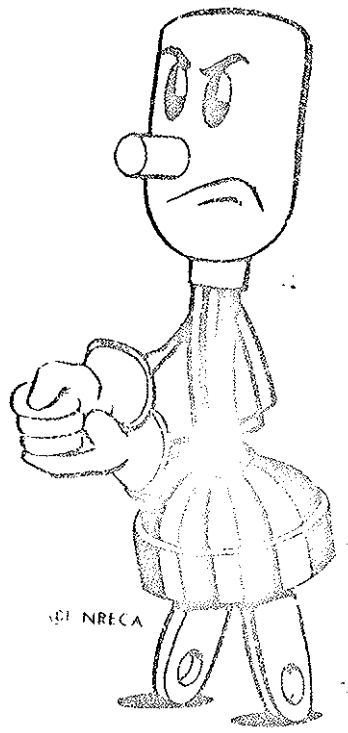
... in questions

... in interviewers

... in tabulating

... in interpretation

... in presentation



KICK OFF

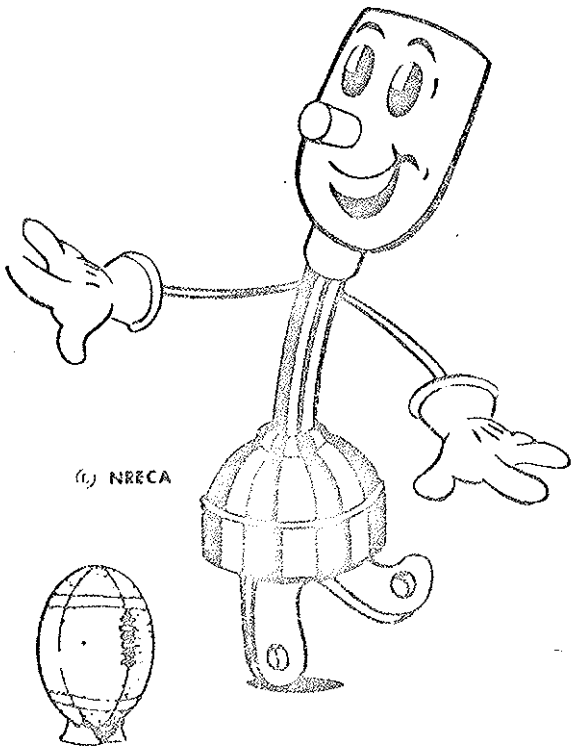
YOUR

RESEARCH

PROGRAM

ONE PROJECT

AT A TIME...



AND EVALUATE

EACH ONE!

MARKETING MYOPIA Theodore Leavitt

Harvard Business Review July 1960

"Less than 75 years ago American railroads enjoyed a fierce loyalty among astute Wall Streeters. No other form of transportation could compete with the railroads in speed, flexibility, durability, economy, and growth potential. The railroad tycoons remained imperturbably self confident. Yet today, for example, the idea of 100 ton tubes of metal moving smoothly through the air 20,000 feet above the earth loaded with 100 sane and solid citizens casually drinking martinis has helped deal cruel blows to the railroads.

The failure is at the top. The view that an industry is a customer-satisfying process, not a goods-producing process, is vital for all businessmen to understand. An industry begins with the customer and his needs; not with a patent, a raw material, or a selling skill. The organization must learn to think of itself as doing the things that will make people want to do business with it.

The railroads let others take customers away from them because they assumed themselves to be in the railroad business rather than in the transportation business."

To this I would only echo: Are we in the electric business or do we believe and continually remind ourselves that we are in the energy business?

FOR CLARIFICATION AND AMPLIFICATION OF MATERIAL CONTAINED IN THIS REPORT AS WELL AS SPECIFIC OR GENERAL CONSULTATIVE HELP IN ESTABLISHING A MARKETING RESEARCH PROGRAM, PLEASE FEEL FREE TO CONTACT:

W. W. "Bill" Ward

P. O. Box 255 or P. O. Box 604

Troy, Ohio 45373 Piqua, Ohio 45356

513-335-6341

CORNHUSKER PUBLIC POWER DISTRICT

TELEPHONE (402) 564-2821 P.O. BOX 9 COLUMBUS, NEBRASKA 68601

23RD ANNUAL CONFERENCE

OF

THE RURAL ELECTRIC

MANAGEMENT DEVELOPMENT COUNCIL

Marriott Inn, Bloomington, Minnesota
May 19-22, 1980

PRESENTATION

"IRRIGATION LOAD CONTROL PROGRAM"

By

Norm Hoge, General Manager
Alan Henning, Operations Manager

CORNHUSKER PUBLIC POWER DISTRICT

TELEPHONE (402) 564-2821 P.O. BOX 9 COLUMBUS, NEBR. 68601

NEWS RELEASE FOR IMMEDIATE RELEASE . . . . . .

GENERAL NEWS STORY (Farm News)

Cornhusker Public Power District has initiated an Irrigation Load Control Program for the 1978 irrigation season. This program is designed to reduce the peak demand for electrical energy during the hot summer months, thus saving Cornhusker and its customers money on its wholesale power bill.

Irrigators in the six-county area served by Cornhusker had until May 1, 1978, to sign up for this program. Participating farmers agreed to shut off their irrigation motors one day a week between the hours of 10 A.M. and 10 P.M. Those participating will receive a rate reduction in their 1978 irrigation power bill.

All participants in the program were mailed a schedule that tells them the day of the week that their individual well is to be shut off. Through special load monitoring equipment installed at the Cornhusker office, it may be possible, however, for Cornhusker to allow some participants (on a county-wide basis) to irrigate on their "Off Day." Cornhusker has arranged with this Radio Station to broadcast this information Monday through Saturday at 10 A.M., June 15 through September 15. All participants must plan to have their wells OFF on their "Off Day" unless they are advised by Cornhuskerthat they may operate on that day.

Not only should this program save electrical energy, but it should also help farmers in developing a water conservation program of their own.

FOR: Rural Electric Nebraskan

FROM: Cornhusker Public Power District (January)

IRRIGATION LOAD CONTROL PROGRAM SUCCESSFUL IN 1979

Cornhusker Public Power District would again like to thank all those irrigation customers who are participating in our Irrigation Load Control Program. We feel that the program was again successful and helped Cornhusker keep its peak KW Demand for electricity as low as possible for the 1979 Irrigation Season.

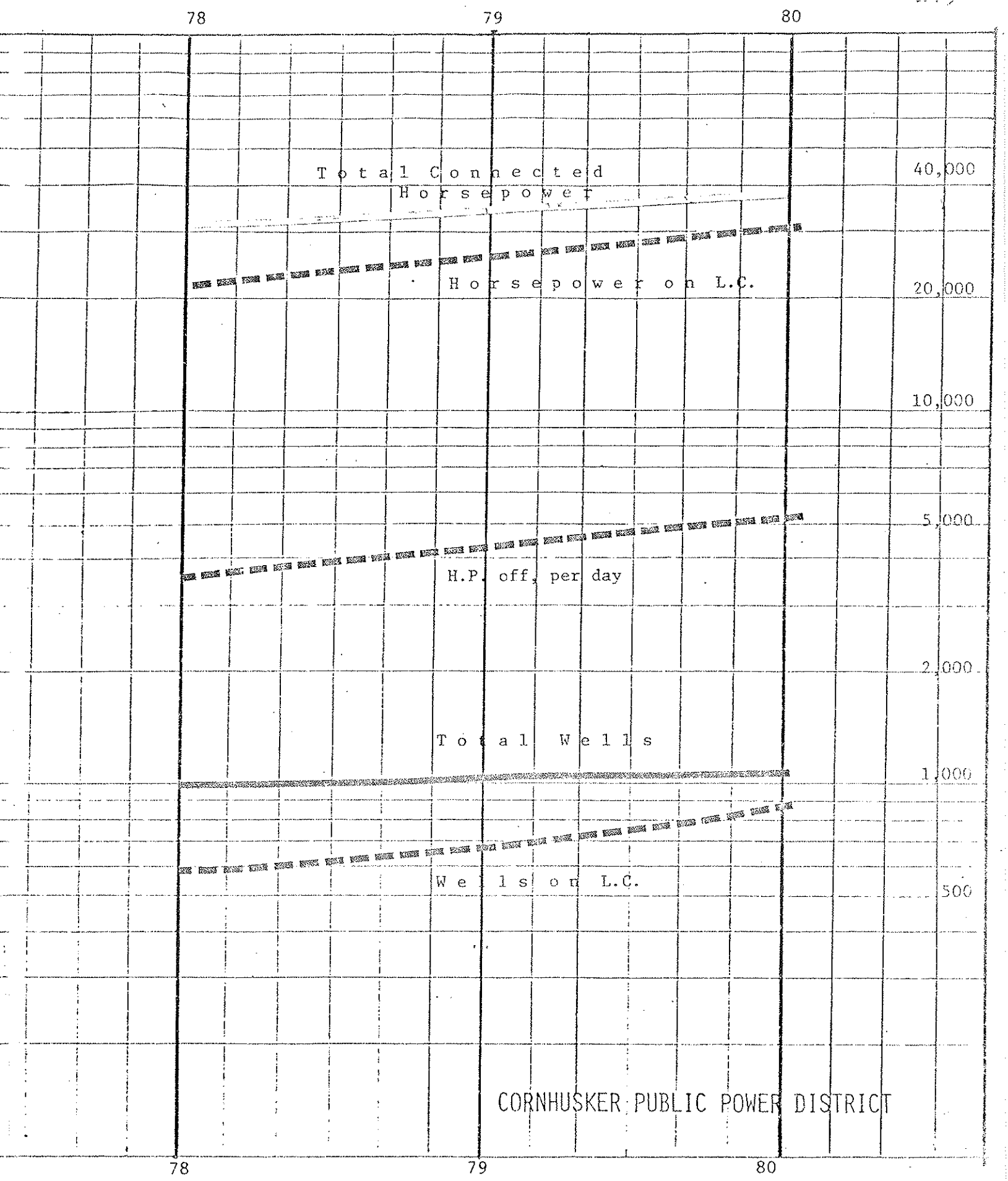
Cornhusker had 673 irrigation services participating in the program out of a possible 1,012. This amounted to 25,922 hp out of a total of 34,123 irrigation hp on our system. A small calculation will show us that due to the fact that one sixth of our wells under control were off each control day, we could reduce our peak demand by approximately 3,600 KW on the very driest days of the summer. (This is a simple approach of having 1 hp equal to about .8 KW Demand.)

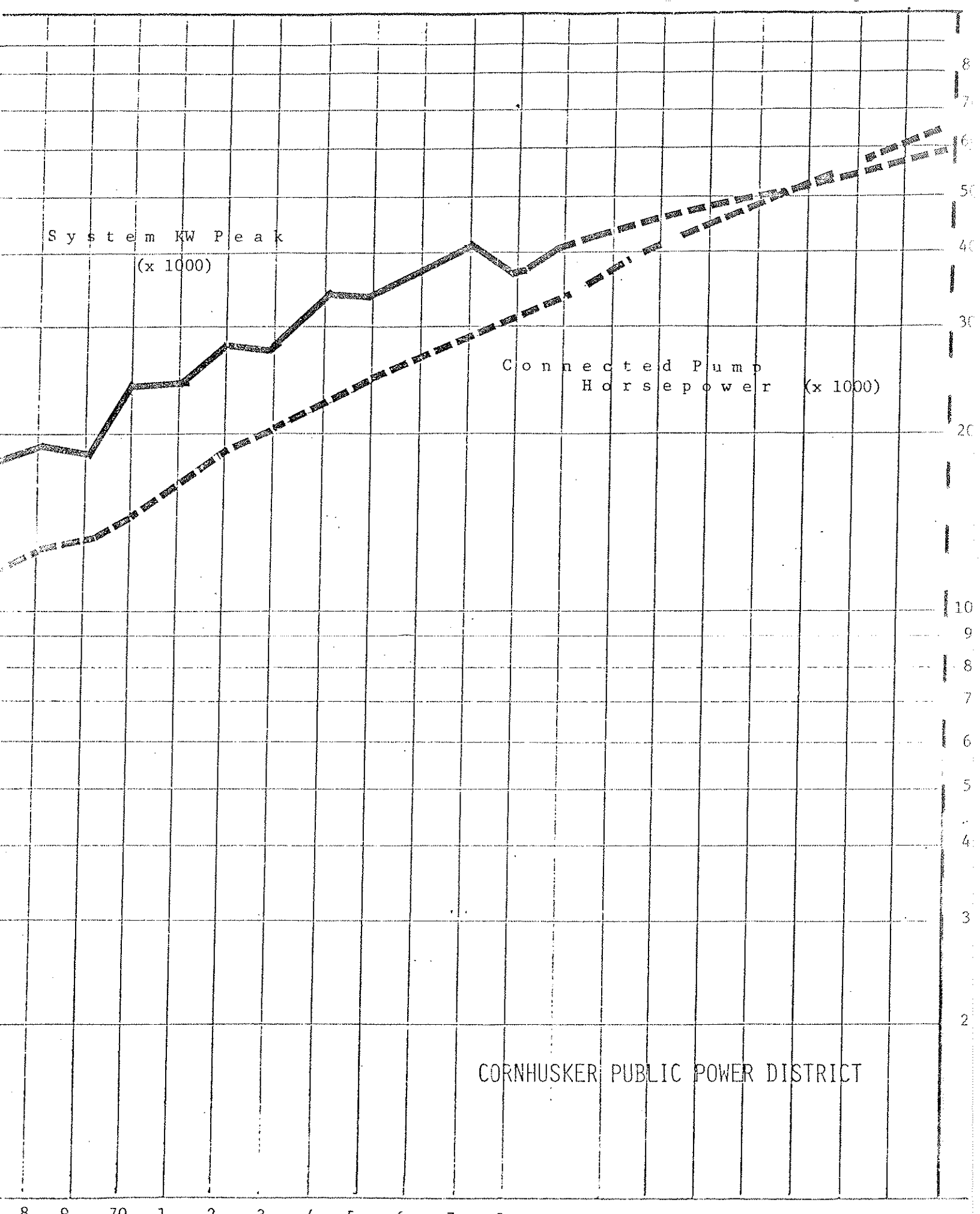
Our telemetering equipment kept us informed of our load on an hour-by-hour basis and we were again able to make use of our radio announcements to keep the number of control days to a minimum. Out of the possible 69 control days, our load was such that we actually had to control only 6 of those days.

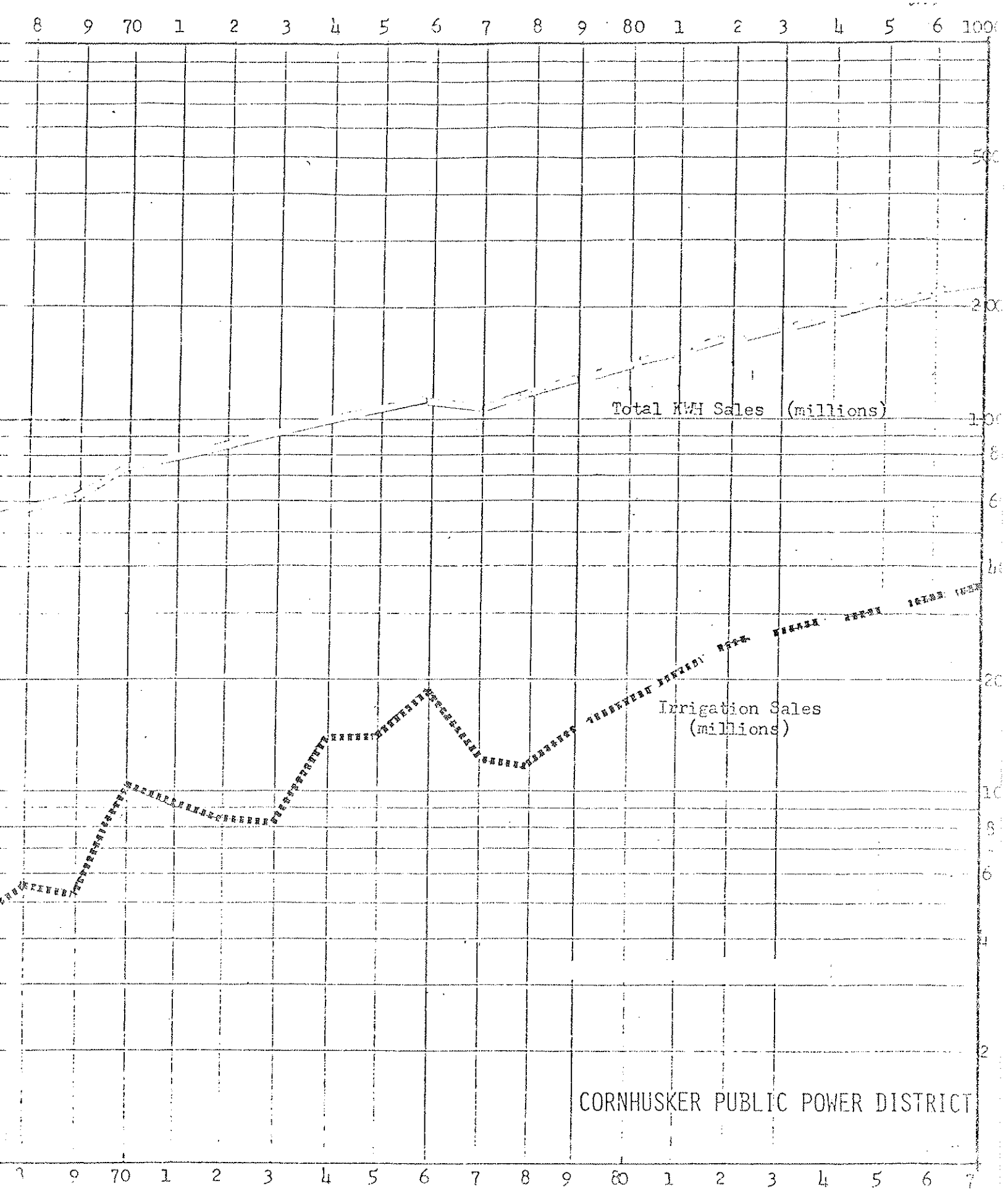
The peak summer demand for 1979 was 42,398 KW. This is more than the 38,052 KW for 1978, and a little more than the 40,738 KW for 1977. When you consider the fact that we have added approximately 4,500 additional hp of irrigation service since December 1977, we feel this is quite good. The summer peak KW Demand affects our cost of power for the following 12 months. By holding it at a reasonable level we can all participate in keeping our cost of power as low as possible.

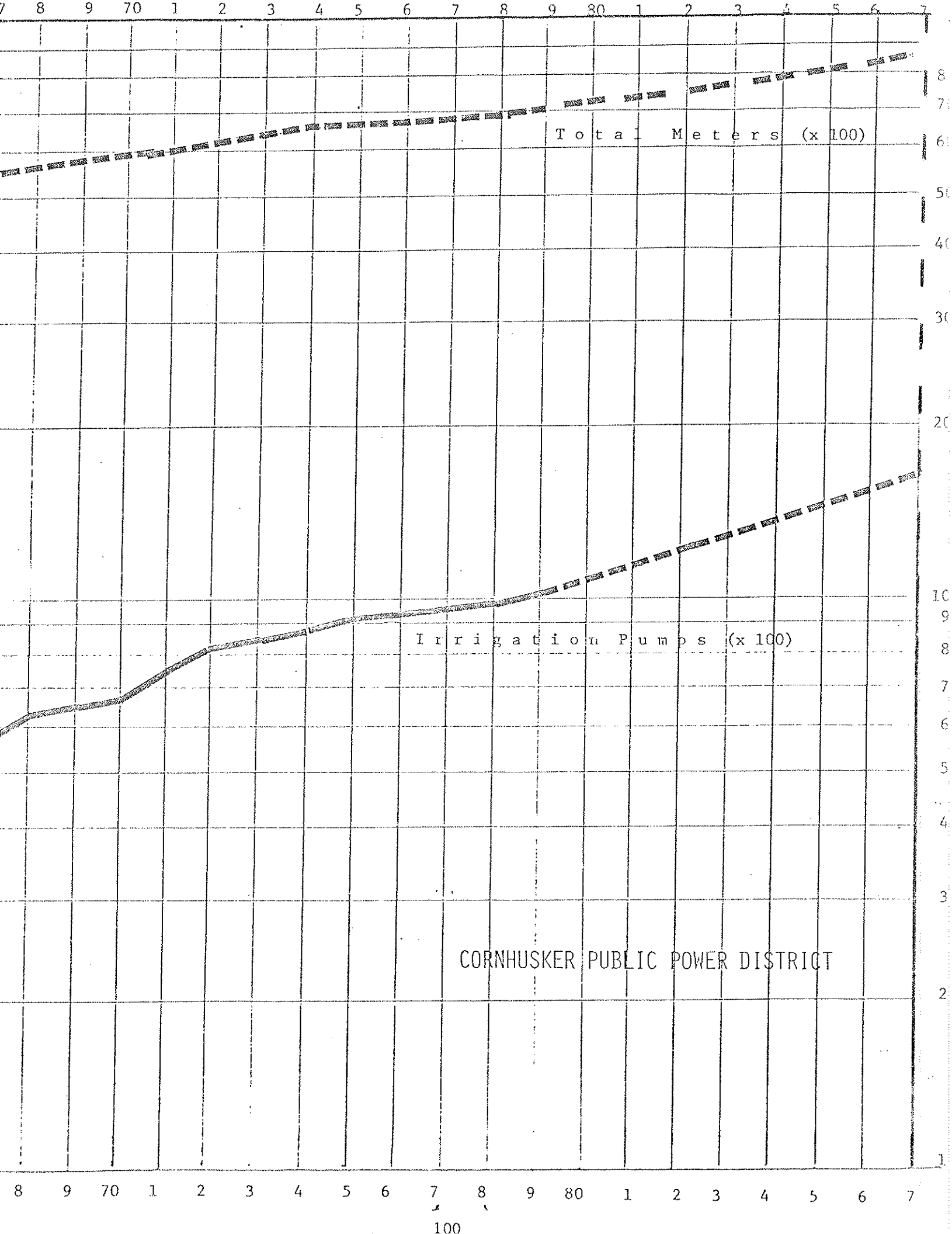
Our voluntary program is working --- thanks to the dedication of the irrigators in our service area. Our program will operate the same in 1980 and we hope for another good year.

Again, MANY THANKS!


78
79
80
Total Connected Horsepower
40,000
Horsepower on L.C.
20,000
10,000
5,000
H.P. off per day
2,000
Total Wells
1,000
Wells on L.C.
500
CORNHUSKER PUBLIC POWER DISTRICT
78
79
80


System KW Peak
(x 1000)
Connected Pump
Horsepower (x 1000)
CORNHUSKER PUBLIC POWER DISTRICT
8 9 70 1 2 3 4 5 6 7 8 9 80 1 2 3 4 5 6 7


8 9 70 1 2 3 4 5 6 7 8 9 80 1 2 3 4 5 6
Total KWH Sales (millions)
Irrigation Sales
(millions)
CORNHUSKER PUBLIC POWER DISTRICT
9 70 1 2 3 4 5 6 7 8 9 80 1 2 3 4 5 6 7


7 8 9 70 1 2 3 4 5 6 7 8 9 80 1 2 3 4 5 6 7
Total Meters (x 100)
Irrigation Pumps (x 100)
CORNHUSKER PUBLIC POWER DISTRICT
8 9 70 1 2 3 4 5 6 7 8 9 80 1 2 3 4 5 6 7

CORNHUSKER PUBLIC POWER DISTRICT

TELEPHONE (402) 564-2821 P.O. BOX 9 COLUMBUS, NEBR. 68601

Notice To Irrigators

March 3, 1978

Cornhusker Power will be holding Irrigation Seminars at six different locations in its service area on March 14 through March 21st.

The purpose of these seminars is to discuss load management with our Irrigation customers and to present our "Off-Peak Irrigation Rate." Ample time will be allowed for questions and answers.

Please plan to attend one of the seminars - - - dates, location and time are as follows so you can arrange your schedule.

Date	Town	Place	Time
3-14-78	Humphrey	Klub 81	2:00 P.M.
3-15-78	Albion	Country Club (basement)	2:00 P.M.
3-16-78	Schuyler	Sandpit	2:00 P.M.
3-17-78	Columbus	Legion Club (basement)	2:00 P.M.
3-20-78	Spalding	Community Building	2:00 P.M.
3-21-78	Fullerton	Sportsman Club	2:00 P.M.

Enclosed with this mailing is an Irrigation Well Load Control Contract form with an attached label that includes your name, address, and irrigation well meter number. (Some irrigators will receive several forms if they operate multiple wells.)

Please review this form carefully. If you decide to operate your well on the "Off-Peak Rate" you will need to complete the form and bring it with you to one of the seminars, or forward it to our office in Columbus.

CORNHUSKER PUBLIC POWER DISTRICT

CORNHUSKER PUBLIC POWER DISTRICT

Phone (402) 564-2321 P. O. Box 9 Columbus, Nebraska 68601

IRRIGATION WELL LOAD CONTROL CONTRACT

Name _____ Meter No. _____

Address _____ Telephone No.:

_____ ( ) _____
area code

1. PUMP LOCATION & EQUIPMENT DATA: _____ Quarter of Section _____,
Township _____ N, Range _____ E/W, of _____ County.

Type of System: (Check One) _____ Gravity, _____ Sprinkler

Total Connected Irrigation Equipment on this Service: _____ Horsepower

2. APPLICANT AGREES: to participate in Cornhusker's "VOLUNTARY OFF-PEAK" availability of electric service and rates. The Off-Peak Rate limits hours of operation during irrigation season by permitting the District to schedule Control Days, Monday through Saturday, between the hours of 10:00 A.M. to 10:00 P.M. Sundays will not be a Control Day. Once elected, the Off-Peak service and rate would remain in effect during the entire irrigation billing season. This Off-Peak service and rate will continue thereafter until application is made to revert back to the Standard Rate and accepted by the District, subject to its capability to serve additional peak load Standard service.

3. PENALTY: If any Irrigator has agreed to participate in the Off-Peak Program and is found irrigating on a Control Day, he will be billed at the higher "Standard Rate" for that entire irrigation season.

4. CONTROL DAY SCHEDULING: Control Days on which the District will allow no pumping under the "Off-Peak Program" will be between the hours of 10:00 A.M. to 10:00PM. (You would only need to shut off this pump during the twelve hours on the days scheduled for this meter location, unless you are officially advised no control is necessary and authorization recorded.)

5. SCHEDULING INFORMATION: (Indicate your choice by numbering, 1st, 2nd, 3rd, etc. for preference of Scheduled Days) --- _____ Monday, _____ Tuesday, _____ Wednesday, _____ Thursday, _____ Friday, _____ Saturday, _____ Any Day. Scheduled Control Days will be determined by the District. All participating Irrigators will be notified of their Control Days for each pump meter location.

6. CORNHUSKER DISTRICT will endeavor to give adequate and dependable service. However, it shall not be responsible for damages in any failure to supply electricity or for interruptions of service when such is without wilful default or negligence on its part. The energy furnished by the District shall belong to the Applicant for his own use only, after it passes through the meter; the District shall not be liable for damages resulting beyond that point.

Date: _____ _____
Signature of Applicant (s)

Accepted and Approved: CORNHUSKER PUBLIC POWER DISTRICT

Date: _____ By: _____

Cornhusker Public Power District
Columbus, Nebraska

Rate Schedule I-1
Effective January 1, 1980

IRRIGATION SERVICE STANDARD

Availablity:

To irrigation pumps only. Pumps connected to a farmstead service will be billed separately under Schedule A or B. However, an irrigation service may be used for crop drying and other incidential loads, if no equipment changes are required from the District. Service can be provided within a feasible distance from District lines, subject to established policies and regulations.

Type of Service:

Single or three-phase, 60 Hertz. Maximum single-phase, 15 hp. Motors of 30 hp and under served at 240 volts; larger motors, 480 volts.

Seasonal Provisions:

The irrigation season is generally nine months, between March 1 and November 30. The District may disconnect the transformers during the winter to reduce power loss.

Annual Rate:

$13.50 per hp connected annual fixed investment charge

plus an energy charge of

First 100 kWH per connected hp	@	$0.10 per kWH
Next 100 kWH per connected hp	@	$0.08 per kWH
All additional use	@	$0.03 per kWH

Minimum Charges:

The minimum bill for the season is the highest one of the following amounts:

1. The fixed investment charge, plus the first rate block.

2. The amount specified in the service contract.

(If Service is disconnected during the entire year, and the contract term has expired, the standby charge is $8 per hp.)

Power Factor Adjustment:

Capacitors must be installed on all irrigation motors 10 hp or larger. Irrigation customers not complying with this rule will be billed 25% of the annual minimum extra.

Connection Charge:

Every new customer will pay a one-time charge of $10.00 per nameplate horsepower. Existing services which are upgraded will pay the $10.00 charge on the difference between the existing horsepower and the new horsepower.

Payments:

An advance payment of $10 per hp is billed on April 1 of each year. The balance of the minimum, and the cost of extra kWH, is billed on December 1.

Tax Clause:

This rate may be increased by the amount of any new or increased governmental tax imposed and levied on transmission, distribution, production or sale of electricity.

Production Cost Adder:

This rate and bills for service rendered thereunder may be adjusted from month to month to reflect changes from base costs of "Power Production Cost Adjustment" charged to Cornhusker Public Power District by the Nebraska Public Power District under the terms of its contract to furnish electricity to the Cornhusker Public Power District.

Terms of Payment:

Bills for electric irrigation service are due and payable on receipt. Bills that remain unpaid after the original billing date are subject to a finance charge of 1 1/2%, which is applied monthly.

Disconnection:

Bills not paid in accordance with the above terms may be subject to the District's termination of service policy.

Cornhusker Public Power District
Columbus, Nebraska

Rate Schedule I-2
Effective January 1, 1980

OFF-PEAK IRRIGATION SERVICE

Availability:

To irrigation pumps equipped with time clocks or to those agreeing to participate in voluntary or automatic service interruption for control of demand peaks, as the alternative, lower rate. Service can be provided within a feasible distance from District lines, subject to established policies and regulations.

Type of Service:

Single or three-phase, 60 Hertz, Maximum single-phase 15 hp. Motors of 30 hp and under at 240 volts; larger motors, 480 volts.

Seasonal Provisions:

The irrigation season is nine months, March 1 to November 30. The District may disconnect the transformers during the winter to reduce power loss.

Annual Rate:

$6.50 per hp connected annual fixed investment charge

plus an energy charge of

First 100 kWH per connected hp	@	$0.07 per kWH
Next 100 kWH per connected hp	@	$0.05 per kWH
All additional use	@	$0.03 per kWH

Minimum Charges:

The highest of the following:

1. Annual fixed investment charge, plus the first rate block
2. The amount specified in the service contract

(If the original contract term has ended, the annual standby charge for idle pumps is $8 per hp.)

Connection Charge:

Every new customer will pay a one-time charge of $10.00 per nameplate horsepower. Existing services which are upgraded will pay the $10.00 charge on the difference between the existing horse-power and the new horsepower.

Payments:

An advance payment of $10 per hp is due on April 1. The balance is due on December 1.

Power Factor Adjustment:

Capacitors must be installed on all irrigation motors, 10 hp or larger. Irrigation customers not complying with this rule will be billed 25% of the annual minimum extra.

Tax Clause:

This rate may be increased by the amount of any new or increased governmental tax imposed and levied on transmission, distribution, production or sale of electricity.

Production Cost Adder:

This rate and bills for service rendered thereunder may be adjusted from month to month to reflect changes from base costs of "Power Production Cost Adjustment" charged to Cornhusker Public Power District by the Nebraska Public Power District under the terms of its contract to furnish electricity to Cornhusker Public Power District.

Terms of Payment:

Bills for electric irrigation service are due and payable upon receipt. Bills that remain unpaid after the original billing date are subject to a finance charge of 1 1/2%, which is applied monthly.

Disconnection:

Bills not paid in accordance with the above terms may be subject to the District's termination of service policy.

CORNHUSKER PUBLIC POWER DISTRICT

TELEPHONE (402) 564-2821 P.O. BOX 9 COLUMBUS, NEBRASKA 68601

IRRIGATION COST ESTIMATE CHART

Revised 1980

(Includes PCA)

	KWH USE	EST. COST	ANNUAL HRS./USE		COST/HR.	COST/KWH	STANDARD RATE
10 HP (approx. 8 kwh per hour)							
Block 1	1,000 kwh	$ 237	125 hrs.	@	$1.90	24¢	
Block 1+2	2,000 kwh	$ 320	250 hrs.	@	1.28	16¢	
	4,000 kwh	$ 384	500 hrs.	@	.77	9.6¢	
	6,000 kwh	$ 449	750 hrs.	@	.60	7.5¢	
	8,000 kwh	$ 514	1,000 hrs.	@	.51	6.4¢	
	12,000 kwh	$ 643	1,500 hrs.	@	.43	5.4¢	
15 HP (approx. 12 kwh per hour)							
Block 1	1,500 kwh	$ 356	125 hrs.	@	$2.85	24¢	
Block 1+2	3,000 kwh	$ 480	250 hrs.	@	1.92	16¢	
	6,000 kwh	$ 577	500 hrs.	@	1.15	9.6¢	
	9,000 kwh	$ 674	750 hrs.	@	.90	7.5¢	
	12,000 kwh	$ 771	1,000 hrs.	@	.77	6.4¢	
	18,000 kwh	$ 965	1,500 hrs.	@	.64	5.4¢	
20 HP (approx. 16 kwh per hour)							
Block 1	2,000 kwh	$ 475	125 hrs.	@	$3.80	24¢	
Block 1+2	4,000 kwh	$ 639	250 hrs.	@	2.56	16¢	
	8,000 kwh	$ 769	500 hrs.	@	1.54	9.6¢	
	12,000 kwh	$ 898	750 hrs.	@	1.20	7.5¢	
	16,000 kwh	$1,027	1,000 hrs.	@	1.03	6.4¢	
	24,000 kwh	$1,286	1,500 hrs.	@	.86	5.4¢	
25 HP (approx. 20 kwh per hour)							
Block 1	2,500 kwh	$ 593	125 hrs.	@	$4.75	24¢	
Block 1+2	5,000 kwh	$ 799	250 hrs.	@	3.20	16¢	
	10,000 kwh	$ 961	500 hrs.	@	1.92	9.6¢	
	15,000 kwh	$1,123	750 hrs.	@	1.50	7.5¢	
	20,000 kwh	$1,284	1,000 hrs.	@	1.28	6.4¢	
	30,000 kwh	$1,608	1,500 hrs.	@	1.07	5.4¢	

STANDARD RATE

	KWH USE		EST. COST	ANNUAL HRS./USE		COST/HR.	COST/KWH
			30 HP (approx. 24 kwh per hour)				
Block 1	3,000	kwh	$ 712	125 hrs.	@	$5.70	24¢
Blocks 1+2	6,000	kwh	$ 959	250 hrs.	@	3.84	16¢
	12,000	kwh	$1,153	500 hrs.	@	2.31	9.6¢
	18,000	kwh	$1,347	750 hrs.	@	1.80	7.5¢
	24,000	kwh	$1,541	1,000 hrs.	@	1.54	6.4¢
	36,000	kwh	$1,929	1,500 hrs.	@	1.29	5.4¢
	48,000	kwh	$2,317	2,000 hrs.	@	1.16	4.8¢
			40 HP (approx. 32 kwh per hour)				
Block 1	4,000	kwh	$ 949	125 hrs.	@	$7.59	24¢
Blocks 1+2	8,000	kwh	$1,279	250 hrs.	@	5.11	16¢
	16,000	kwh	$1,537	500 hrs.	@	3.07	9.6¢
	24,000	kwh	$1,796	750 hrs.	@	2.39	7.5¢
	32,000	kwh	$2,055	1,000 hrs.	@	2.05	6.4¢
	48,000	kwh	$2,572	1,500 hrs.	@	1.71	5.4¢
	64,000	kwh	$3,090	2,000 hrs.	@	1.54	4.8¢
			50 HP (approx. 40 kwh per hour)				
Block 1	5,000	kwh	$1,187	125 hrs.	@	$9.49	24¢
Blocks 1+2	10,000	kwh	$1,598	250 hrs.	@	6.39	16¢
	20,000	kwh	$1,922	500 hrs.	@	3.84	9.6¢
	30,000	kwh	$2,245	750 hrs.	@	2.99	7.5¢
	40,000	kwh	$2,569	1,000 hrs.	@	2.57	6.4¢
	60,000	kwh	$3,215	1,500 hrs.	@	2.14	5.4¢
	80,000	kwh	$3,862	2,000 hrs.	@	1.93	4.8¢
			60 HP (approx. 48 kwh per hour)				
Block 1	6,000	kwh	$1,424	125 hrs.	@	$11.39	24¢
Blocks 1+2	12,000	kwh	$1,918	250 hrs.	@	7.67	16¢
	24,000	kwh	$2,306	500 hrs.	@	4.61	9.6¢
	36,000	kwh	$2,694	750 hrs.	@	3.59	7.5¢
	48,000	kwh	$3,082	1,000 hrs.	@	3.08	6.4¢
	72,000	kwh	$3,858	1,500 hrs.	@	2.57	5.4¢
	96,000	kwh	$4,635	2,000 hrs.	@	2.32	4.8¢
			75 HP (approx. 60 kwh per hour)				
Block 1	7,500	kwh	$1,780	125 hrs.	@	$14.24	24¢
Blocks 1+2	15,000	kwh	$2,398	250 hrs.	@	9.59	16¢
	30,000	kwh	$2,883	500 hrs.	@	5.77	9.6¢
	45,000	kwh	$3,368	750 hrs.	@	4.49	7.5¢
	60,000	kwh	$3,853	1,000 hrs.	@	3.85	6.4¢
	90,000	kwh	$4,823	1,500 hrs.	@	3.22	5.4¢
	120,000	kwh	$5,793	2,000 hrs.	@	2.90	4.8¢

	KWH USE	EST. COST	ANNUAL HRS./USE		COST/HR.	STANDARD RATE COST/KWH
		100 HP (approx. 80 kwh per hour)				
Block 1	10,000 kwh	$2,373	125 hrs.	@	$18.99	24¢
Block 1+2	20,000 kwh	$3,197	250 hrs.	@	12.79	16¢
	40,000 kwh	$3,844	500 hrs.	@	7.69	9.6¢
	60,000 kwh	$4,490	750 hrs.	@	5.99	7.5¢
	80,000 kwh	$5,137	1,000 hrs.	@	5.14	6.4¢
	120,000 kwh	$6,431	1,500 hrs.	@	4.29	5.4¢
	160,000 kwh	$7,724	2,000 hrs.	@	3.86	4.8¢
		110 HP (approx. 88 kwh per hour)				
Block 1	11,000 kwh	$2,611	125 hrs.	@	$20.89	24¢
Block 1+2	22,000 kwh	$3,516	250 hrs.	@	14.07	16¢
	44,000 kwh	$4,228	500 hrs.	@	8.46	9.6¢
	66,000 kwh	$4,939	750 hrs.	@	6.59	7.5¢
	88,000 kwh	$5,651	1,000 hrs.	@	5.65	6.4¢
	132,000 kwh	$7,074	1,500 hrs.	@	4.72	5.4¢
	176,000 kwh	$8,497	2,000 hrs.	@	4.25	4.8¢
		125 HP (approx. 100 kwh per hour)				
Block 1	12,500 kwh	$2,967	125 hrs.	@	$23.73	24¢
Block 1+2	25,000 kwh	$3,996	250 hrs.	@	15.98	16¢
	50,000 kwh	$4,805	500 hrs.	@	9.61	9.6¢
	75,000 kwh	$5,613	750 hrs.	@	7.48	7.5¢
	100,000 kwh	$6,422	1,000 hrs.	@	6.42	6.4¢
	150,000 kwh	$8,039	1,500 hrs.	@	5.36	5.4¢
	200,000 kwh	$9,656	2,000 hrs.	@	4.83	4.8¢
		135 HP (approx. 108 kwh per hour)				
Block 1	13,500 kwh	$3,204	125 hrs.	@	$25.63	24¢
Block 1+2	27,000 kwh	$4,316	250 hrs.	@	17.26	16¢
	54,000 kwh	$5,189	500 hrs.	@	10.38	9.6¢
	81,000 kwh	$6,062	750 hrs.	@	8.08	7.5¢
	108,000 kwh	$6,935	1,000 hrs.	@	6.94	6.4¢
	162,000 kwh	$8,682	1,500 hrs.	@	5.79	5.4¢
	216,000 kwh	$10,428	2,000 hrs.	@	5.21	4.8¢

CORNHUSKER PUBLIC POWER DISTRICT

TELEPHONE (402) 564-2821 P.O. BOX 9 COLUMBUS, NEBRASKA 68601

IRRIGATION COST ESTIMATE CHART

Revised 1980

(Includes PCA)

	KWH USE	EST. COST	ANNUAL HRS./USE		COST/HR.	COST/KWH	OFF-PEAK RATE
10 HP (approx. 8 kwh per hour)							
Block 1	1,000 kwh	$ 137	125 hrs.	@	$1.10	14¢	
Block 1+2	2,000 kwh	$ 190	250 hrs.	@	.76	9.5¢	
	4,000 kwh	$ 254	500 hrs.	@	.51	6.4¢	
	6,000 kwh	$ 319	750 hrs.	@	.43	5.3¢	
	8,000 kwh	$ 384	1,000 hrs.	@	.38	4.8¢	
	12,000 kwh	$ 513	1,500 hrs.	@	.34	4.3¢	
15 HP (approx. 12 kwh per hour)							
Block 1	1,500 kwh	$ 206	125 hrs.	@	$1.65	14¢	
Block 1+2	3,000 kwh	$ 285	250 hrs.	@	1.14	9.5¢	
	6,000 kwh	$ 382	500 hrs.	@	.76	6.4¢	
	9,000 kwh	$ 479	750 hrs.	@	.64	5.3¢	
	12,000 kwh	$ 576	1,000 hrs.	@	.58	4.8¢	
	18,000 kwh	$ 770	1,500 hrs.	@	.51	4.3¢	
20 HP (approx. 16 kwh per hour)							
Block 1	2,000 kwh	$ 275	125 hrs.	@	$2.20	14¢	
Block 1+2	4,000 kwh	$ 379	250 hrs.	@	1.52	9.5¢	
	8,000 kwh	$ 509	500 hrs.	@	1.02	6.4¢	
	12,000 kwh	$ 638	750 hrs.	@	.85	5.3¢	
	16,000 kwh	$ 767	1,000 hrs.	@	.77	4.8¢	
	24,000 kwh	$1,026	1,500 hrs.	@	.68	4.3¢	
25 HP (approx. 20 kwh per hour)							
Block 1	2,500 kwh	$ 343	125 hrs.	@	$2.75	14¢	
Block 1+2	5,000 kwh	$ 474	250 hrs.	@	1.90	9.5¢	
	10,000 kwh	$ 636	500 hrs.	@	1.27	6.4¢	
	15,000 kwh	$ 798	750 hrs.	@	1.06	5.3¢	
	20,000 kwh	$ 959	1,000 hrs.	@	.96	4.8¢	
	30,000 kwh	$1,283	1,500 hrs.	@	.86	4.3¢	

	KWH USE		EST. COST	ANNUAL HRS./USE		COST/HR.	OFF-PEAK RATE COST/KWH
			30 HP (approx. 24 kwh per hour)				
Block 1	3,000	kwh	$ 412	125 hrs.	@	$3.30	14¢
Block 1+2	6,000	kwh	$ 569	250 hrs.	@	2.28	9.5¢
	12,000	kwh	$ 763	500 hrs.	@	1.53	6.4¢
	18,000	kwh	$ 957	750 hrs.	@	1.28	5.3¢
	24,000	kwh	$1,151	1,000 hrs.	@	1.15	4.8¢
	36,000	kwh	$1,539	1,500 hrs.	@	1.03	4.3¢
	48,000	kwh	$1,927	2,000 hrs.	@	.96	4¢
			40 HP (approx. 32 kwh per hour)				
Block 1	4,000	kwh	$ 549	125 hrs.	@	$4.39	14¢
Block 1+2	8,000	kwh	$ 759	250 hrs.	@	3.03	9.5¢
	16,000	kwh	$1,017	500 hrs.	@	2.03	6.4¢
	24,000	kwh	$1,276	750 hrs.	@	1.70	5.3¢
	32,000	kwh	$1,535	1,000 hrs.	@	1.53	4.8¢
	48,000	kwh	$2,052	1,500 hrs.	@	1.37	4.3¢
	64,000	kwh	$2,570	2,000 hrs.	@	1.28	4¢
			50 HP (approx. 40 kwh per hour)				
Block 1	5,000	kwh	$ 687	125 hrs.	@	$5.49	14¢
Block 1+2	10,000	kwh	$ 948	250 hrs.	@	3.79	9.5¢
	20,000	kwh	$1,272	500 hrs.	@	2.54	6.4¢
	30,000	kwh	$1,595	750 hrs.	@	2.13	5.3¢
	40,000	kwh	$1,919	1,000 hrs.	@	1.92	4.8¢
	60,000	kwh	$2,565	1,500 hrs.	@	1.71	4.3¢
	80,000	kwh	$3,212	2,000 hrs.	@	1.61	4¢
			60 HP (approx. 48 kwh per hour)				
Block 1	6,000	kwh	$ 824	125 hrs.	@	$6.59	14¢
Block 1+2	12,000	kwh	$1,138	250 hrs.	@	4.55	9.5¢
	24,000	kwh	$1,526	500 hrs.	@	3.05	6.4¢
	36,000	kwh	$1,914	750 hrs.	@	2.55	5.3¢
	48,000	kwh	$2,302	1,000 hrs.	@	2.30	4.8¢
	72,000	kwh	$3,078	1,500 hrs.	@	2.05	4.3¢
	96,000	kwh	$3,855	2,000 hrs.	@	1.93	4¢
			75 HP (approx. 60 kwh per hour)				
Block 1	7,500	kwh	$1,030	125 hrs.	@	$8.24	14¢
Block 1+2	15,000	kwh	$1,423	250 hrs.	@	5.69	9.5¢
	30,000	kwh	$1,908	500 hrs.	@	3.82	6.4¢
	45,000	kwh	$2,393	750 hrs.	@	3.19	5.3¢
	60,000	kwh	$2,878	1,000 hrs.	@	2.88	4.8¢
	90,000	kwh	$3,848	1,500 hrs.	@	2.57	4.3¢
	120,000	kwh	$4,818	2,000 hrs.	@	2.41	4¢

OFF-PEAK RATE

	KWH USE	EST. COST	ANNUAL HRS./USE		COST/HR.	COST/KWH
		100 HP (approx. 80 kwh per hour)				
Block 1	10,000 kwh	$1,373	125 hrs.	@	$10.99	14¢
Block 1+2	20,000 kwh	$1,897	250 hrs.	@	7.59	9.5¢
	40,000 kwh	$2,544	500 hrs.	@	5.09	6.4¢
	60,000 kwh	$3,190	750 hrs.	@	4.25	5.3¢
	80,000 kwh	$3,837	1,000 hrs.	@	3.84	4.8¢
	120,000 kwh	$5,131	1,500 hrs.	@	3.42	4.3¢
	160,000 kwh	$6,424	2,000 hrs.	@	3.21	4¢
		110 HP (approx. 88 kwh per hour)				
Block 1	11,000 kwh	$1,511	125 hrs.	@	$12.09	14¢
Block 1+2	22,000 kwh	$2,086	250 hrs.	@	8.35	9.5¢
	44,000 kwh	$2,798	500 hrs.	@	5.60	6.4¢
	66,000 kwh	$3,509	750 hrs.	@	4.68	5.3¢
	88,000 kwh	$4,221	1,000 hrs.	@	4.22	4.8¢
	132,000 kwh	$5,644	1,500 hrs.	@	3.76	4.3¢
	176,000 kwh	$7,067	2,000 hrs.	@	3.53	4¢
		125 HP (approx. 100 kwh per hour)				
Block 1	12,500 kwh	$1,717	125 hrs.	@	$13.73	14¢
Block 1+2	25,000 kwh	$2,371	250 hrs.	@	9.48	9.5¢
	50,000 kwh	$3,180	500 hrs.	@	6.36	6.4¢
	75,000 kwh	$3,988	750 hrs.	@	5.32	5.3¢
	100,000 kwh	$4,797	1,000 hrs.	@	4.80	4.8¢
	150,000 kwh	$6,414	1,500 hrs.	@	4.28	4.3¢
	200,000 kwh	$8,031	2,000 hrs.	@	4.02	4¢
		135 HP (approx. 108 kwh per hour)				
Block 1	13,500 kwh	$1,854	125 hrs.	@	$14.83	14¢
Block 1+2	27,000 kwh	$2,561	250 hrs.	@	10.24	9.5¢
	54,000 kwh	$3,434	500 hrs.	@	6.87	6.4¢
	81,000 kwh	$4,307	750 hrs.	@	5.74	5.3¢
	108,000 kwh	$5,180	1,000 hrs.	@	5.18	4.8¢
	162,000 kwh	$6,927	1,500 hrs.	@	4.62	4.3¢
	216,000 kwh	$8,673	2,000 hrs.	@	4.34	4¢

STATISTICS FOR IRRIGATION LOAD CONTROL

	1978	1979	1980
Total Number of Wells	985	1,012	1,056 Est.
Total Amount of Hp	31,512	34,077	36,748 Est.
Number of Wells on Load Control	590	673	795
Total Hp on Load Control	21,096	25,946	30,864
Average Hp Off Per Day	3,516	4,324	5.144

WWB

STATISTICS FOR IRRIGATION LOAD CONTROL

	1978	1979
Total Days Load Control Program in Effect	93	93
Total Number Half-Days Wells Had to be Off	7	6
Maximum Hours Any One Well Had to be Off	24	24
Total Hours Available During Load Control Season	2,232	2,232
% of Total Time Any One Well Had to be Off	1%	1%

LWVS

1978

JUNE

				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

JULY

						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

AUGUST

		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

SEPTEMBER

					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

1979

JUNE

					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

JULY

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

AUGUST

			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

SEPTEMBER

						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

Load Control Days

1973

CORNHUSKER PUBLIC POWER DISTRICT

DATE: 08/07/79 TIME: 13:01:21

METERING POINT		KW	KQ	PF
0	SYSTEM TOTAL	41272	32840	+0.950
1	COLUMBUS 3304	5600	5200	+0.900
2	COLUMBUS 3305	6240	5840	+0.894
3	COLUMBUS 3307	2568	2016	+0.954
4	ALBION-N	2616	1848	+0.976
5	ALBION-SE	4448	3360	+0.962
6	MONROE	4464	3840	+0.926
7	WOODVILLE	728	376	+1.000
8	CEDAR RAPIDS	1896	1536	+0.944
9	FULLERTON	2480	1888	+0.962
10	HUMPHREY	1328	1016	+0.962
11	SPALDING	2280	1728	+0.962
12	DUNCAN	2512	1888	+0.966
13	SCHUYLER	1728	768	-1.000
14	CRESTON	1424	864	+0.996
15	OCONEE	960	672	+0.980

RATCHET CHARGE CALCULATIONS

1977 Actual		1978 Actual		1978 Without Load Control	
KW	$ Charge	KW	$ Charge	KW	$ Charge
1245	$ 5,303	4991	$26,053	4991	$26,053
3309	14,096	6569	34,290	6569	34,290
6959	29,645			320	1,670
5051	21,517				
2788	11,876				
19,352	$82,437	11,560	$60,343	11,880	$62,013

1979 Actual		1979 Without Load Control	
KW	$ Charge	KW	$ Charge
1159	$ 6,049	3424	$17,873
4133	21,514	6398	33,397
		1664	8,686
5292	$27,623	11,486	$59,956

1980 Actual		1980 Without Load Control	
KW	$ Charge	KW	$ Charge
0	0	892	$ 5,155
		1345	7,774
0	0	2237	$12,929

CORNHUSKER PUBLIC POWER DISTRICT, P.O.Box 9, Columbus, Nebraska 68601
Telephone (402) 564-2821

1980 IRRIGATION LOAD CONTROL SCHEDULE - Nance & Merrick Counties

This schedule tells you the day of the week that you have agreed to SHUT YOUR IRRIGATION WELL OFF between the hours of 10:00 AM and 10:00 PM. The Off-Peak schedule will be effective from June 15 through September 15. If our load indicates that we may allow you to operate on your off-day, we will broadcast the information BY COUNTY on Radio Stations KTTT-AM (1510) & KTTT-FM (93.5) Columbus, and WJAG-AM (780) Norfolk at 10:00 AM, Monday through Saturday.

Sub #	Name	Address	Tel. #	Meter #	Legal	Hp
	Off-Day - MONDAY					
3	Collins & Collins c/o Lawrence Collins	St. Edward	678-2545	8569	SW22-18-5W	50
7	Crouse, Ed	Fullerton	536-3204	6225	NW31-17-6W	30
7	" "	"	"	7686	SW30-17-6W	30
7	Cuba, August & David #3	"	536-2355	8285	SW22-16-6W	17.5
7	" " "	"	"	5700	NW22-16-6W	15
7	" " " #2	"	"	5989	NW22-16-6W	7.5
7	Cunningham, Chester #1	Fullerton		8884	NE26-16-7W	15
7	" #2	"		6932	SE23-16-7W	15
2	Czarnick, Steve	Genoa		5797	SW6-16-3W	10
2	" "	"		5587	SW6-16-3W	10
7	Forbes, John	Palmer	894-6513	N	SW11-15-8W	30
7	Forbes, Robert Operator - Larry Forbes	"	894-6845	7206	SE3-15-8W	40
7	Schlitt, Ron	Fullerton	536-2707	10826	NW24-17-6W	75
3	Schumacher, Carl J. c/o Mahoney, Inc.	Platte Center	246-4115	N	NE26-18-5W	110
	Off-Day - TUESDAY					
7	Cunningham, Larry	Fullerton	536-2898	10145	SE30-16-6W	70
7	" " #1	"	"	8454	SE30-16-6W	10
7	" " #2	"	"	9654	SE21-16-6W	20
7	" " #3	"	"	8271	SE21-16-6W	15
7	" " #4	"	"	6909	SE30-16-6W	7.5
7	Forbes, John	Palmer	894-6513	9283	SW6-15-7W	40
7	Lamberson, Guy Operator-Ronald Dubas	"	894-2324 536-2082	9015	NE10-15-8W	40
7	Rolf, Wm. #2	Fullerton	536-2976	8888	SE20-16-6W	20
7	" "	"	"	6224	SE20-16-6W	20
7	Ruge-Campbell c/o Wayne Moeller	Palmer	894-2327	9668	SE10-15-8W	15
3	Schumacher, Carl J.	Platte Center	246-4115	N	SE28-18-5W	110
7	Shotkoski, David #1	Fullerton	536-2974	10882	SE26-16-6W	12.5
7	" " #2	"	"	9051	SE26-16-6W	7.5
3	Small, Allan & Bob	"	536-2743	5890	SW28-17-5W	30
7	Tarnick, Ray	"	536-2691	N	SW21-16-3W	65

N=New Well

NANCE & MERRICK COUNTIES

Sub #	Name	Address	Tel. #	Meter #	Legal	Hp
		Off-Day - WEDNESDAY				
7	Borowiak, Paul D.	Silver Creek	993-7704	11085	SE5-16-4W	100
3	Keehn, Vernon	St. Edward		10629	NE3-17-5W	110
7	Moeller, Wayne	Palmer	894-2327	8979	NW11-15-8W	40
7	Russell, A. L.	) Fullerton		5702	NW23-16-6W	40
7	Russell Bros.	)Richard Russell		7164	NE22-16-6W	7½
7	" " #2	) Operator		6004	NE22-16-6W	7½
7	Russell, Dorothy Davis	)		5535	SE34-17-6W	15
3	Schumacher, Carl J.	Platte Center	246-4115	N	NW26-18-5W	110
3	Stetz, Francis	St. Edward	678-2838	7791	SE26-18-5W	40
		Off-Day - THURSDAY				
3	Keehn, Delmar	St. Edward	678-2806	10628	SE34-18-5W	110
7	Nelson, John E.	Fullerton	536-3294	5775	NW4-16-6W	30
3	Schumacher, Carl	Pl. Center	246-4115	9665	NE32-18-5W	85
3	" "	"	"	10836	SW26-18-5W	110
7	Shotkoski, Edwin	Silver Creek	773-2142	685	NE25-16-5W	10
7	" "	"	"	10512	NE25-16-5W	5
7	Shotkoski, Ronald	Fullerton	536-2818	10442	SE17-16-5W	57
7	Sysio, Tom #1	"		8444	NE30-16-5W	15
7	" " #2	"		6176	NE30-16-5W	15
7	" " #3	"		6444	NE30-16-5W	10
7	Tarnick, Edmund	Fullerton	536-2355	7049	NE21-16-5W	7.5
7	Tarnick, Raymond	"	536-2891	5404	SE16-15-5W	15
7	" "	"	"	6003	SE16-15-5W	15
7	Yrkoski, Steve	"	536-2759	8819	SW22-16-5W	7.5
7	" "	"	"	5730	SW34-16-5W	10
7	" "	"	"	1165	SW34-16-5W	10
7	Zelazny, Frances #1	Silver Creek	428-2668	6793	SW32-16-4W	5
7	" " #2	"	"	8794	SW32-16-4W	5

N = New Well

NANCE & MERRICK COUNTIES

Sub #	Name	Address	Tel. #	Meter #	Legal	Hp
		Off-Day - FRIDAY				
7	Borowiak, Paul	Silver Creek	993-7704	9061	SW9-16-4W	20
7	" "	"	"	11082	NW9-16-4W	30
7	Micek, Ted A. #1	Fullerton	536-2026	9745	NW34-16-5W	7½
7	" " #2	"	"	9336	NW34-16-5W	7½
7	Prososki, Theodore	Silver Creek		10846	SW6-16-4W	135
7	" " #2	"		10161	SW20-16-5W	75
3	Small, John & Joe	Fullerton	536-2953	9347	SE18-17-5W	60
7	Syslo, Charles & Tom	"	536-2028	6195	SE19-16-5W	10
7	" " "	"	"	8463	SE19-16-5W	20
7	" " "	"	"	9002	SE19-16-5W	7½
		Off-Day - SATURDAY				
7	Davis, Kenneth	Fullerton	536-2181	10654	SE33-17-6W	15
7	Dubas, Emil #1	Palmer	536-2747	5477	NE6-15-7W	15
7	" " #2	"	"	8449	NE6-15-7W	30
7	Forbes, Jim	Palmer	894-6851	N	SW10-15-8W	17½
7	Forbes, Robert	"	894-6845	11099	NE11-15-8W	40
7	Kilday, Donald	"	894-6322	5546	SW1-15-8W	20
7	McLean, Jim	Benedict	732-3358	10144	NE11-16-7W	50
7	Moeller, Wayne	Palmer	894-2327	6676	NW11-15-8W	25
3	Schmidt, Wilma L.	Papillion	339-3730	7890	SE29-17-5W	20
	Operator - John Small	Fullerton	536-2752			
3	Schumacher, Carl	Platte Center	246-4115	N	NE27-18-5W	110
7	Shotkoski, Dennis	Fullerton	536-2014	10411	NW14-16-5W	60
7	Shotkoski, Ronald	"	536-2818	10895	NE33-16-5W	22½
7	Urkoski, Allan	Silver Creek	548-2545	11028	SE31-16-4W	10
7	Yrkoski, Martin #1	"	773-2366	0983	NE32-16-4W	5
7	" " #2	"	"	8601	NE32-16-4W	3
7	Zelazny, Phillp #1	"	548-2273	8561	NE1-15-5W	5
7	" " #2	"	"	5893	NE1-15-5W	5

WWS

HARDWARE COST FOR LOAD CONTROL MONITORING EQUIPMENT

Betatronics Control Station	$22,543.33
Motorola Radio Control Including 15 Off-Premises Reporting Units	32,853.13
C R T	1,175.00
Printer	1,850.00
Interface Adapter	1,950.00
Labor & Misc. Material for Installation of Antennas and Equipment at Delivery Points	12,693.76
TOTAL:	$73,065.22

DO HAND HELD COMPUTERS HAVE MANAGEMENT DECISION-MAKING VALUE?

Dr. Fred Lamar & Dr. Stephen Elliott
DePauw University

Demonstrated use of hand held TI-59 hand-held programmable computer. Computer is card programmable - card cost 40¢ each - each card has 480 possible options with 100 memories.

There is a master library on chips of 25 basic programs. Some examples of the type of subjects covered by the library were given.

It was pointed out that a plotter printer could be obtained for the computer which would fit into a brief case. It was mentioned the alpha-numeric printer was slow - comparison was made between a similar Hewlitt Packard computer and the TI-59 and it was pointed out the TI-59 was simpler to operate.

The TI-59 was demonstrated using a program developed by Dr. Elliott to do financial forecasting for cooperatives. It was pointed out that if a secretary can copy numbers from REA Form 7, that using the financial matrix a "quick and dirty" rate study could be done.

Program was offered to REMDC for $3,000 with a manual which Dr. Elliott would prepare which would sell for $10 each.

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the top MANAGEMENT experience

THE MADER GROUP, INC.

- SPECIALISTS IN EXECUTIVE EDUCATION
- CREATORS OF "THE TOP MANAGEMENT EXPERIENCE"

TWO NEW SEMINARS

- LOCAL MANAGERS PROGRAM
- DIRECTORS PROGRAM

the top MANAGEMENT experience

COURSE 408.3 "THE TOP MANAGEMENT EXPERIENCE"

OBJECTIVE

- Learn to Apply Effective Management Skills in Every Phase of a Rural Electric System Operation.

SCOPE

- Three Day Course.
- Simulates a Rural Electric Cooperative For Eight Years.
- Decisions Affecting:
  - Forecasting and Planning
  - Rate Management
  - Personnel and Wage and Salary Management
  - Financial Management
- Utilizes "The Top Management Experience" 1500-Equation Computer Simulation Model

KEY TOPICS

- Workshops - Operating the Simulated Cooperative
- Lectures and Discussions:
  - Setting Goals and Strategy
  - Situation Diagnosis
  - Analysis of Operating Statements

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STRATEGIC DECISION MAKING FOR
RURAL ELECTRIC COOPERATIVES

****	R A T E M A N A G E M E N T ****	
1	RESIDENTIAL RATE	MILLS/KWH
2	COMMERCIAL RATE	MILLS/KWH
3	ENERGY USE & CONSERVATION	$1000
4	RESIDENTIAL RATE REQUEST	MILLS/KWH
5	COMMERCIAL RATE REQUEST	MILLS/KWH
****	P E R S O N N E L ****	
6	SALARIED MGR & STAFF	PERSONS
7	AVERAGE SALARY	$/WEEK
8	FRINGE BENEFITS	PERCENT
9	HOURLY WORKERS	PERSONS
10	HOURLY WAGE RATE	¢/HOUR
****	O P E R A T I O N S ****	
11	CONTRACT LABOR	PERSONS
12	PLANT INVESTMENT	$1000
13	INSURANCE COVERAGE	$1000
14	DISTRIBUTION OPER & MAINT	$1000
15	MATERIALS & SUPPLIES	$1000
****	F I N A N C E ****	
16	REA LOAN	$1000
17	CFC LOAN	$1000
18	SHORT TERM LOAN REQUEST	$1000
19	SHORT TERM INVESTMENT	$1000
20	CAPITAL CREDIT RETIREMENT	$1000
****	P L A N N I N G ****	
21	RESIDENTIAL USAGE IN MWH	THOU
22	COMMERCIAL USAGE IN MWH	THOU
23	REVENUES (1X21 + 2X22)	$1000
24	NET MARGINS	$1000
25	TIER	PERCENT

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LOCAL MANAGERS PROGRAM

OBJECTIVE

- Learn to Apply Effective Management Skills in Every Phase of a Rural Electric System Operation.

SCOPE

- One Day Course Followed by a "Manage-By-Mail" Program.
- Simulates a Rural Electric Cooperative for 6 years.
- Decision Set and Model-Same as 408.3.

KEY TOPICS

- Setting Goals and Strategies.
- Situation Diagnosis
- Form 7 Analysis

TEAM SIZE: 3 - 5 People

GROUP SIZE: Maximum 30 People

The Local Manager's Role

"MANAGE-BY-MAIL"

- Decisions to be Called in to The Mader Group Weekly by Noon Wednesday.
- Program to be Run Thursday.
- Results to be Available by Monday.
- Consultation Available on Mondays.

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THE LOCAL MANAGER'S ROLE
A ONE-DAY SIMINAR

9:00	BRIEFING "THE TOP MANAGEMENT EXPERIENCE"
10:30	BREAK
10:45	DECISIONS FOR 1980 OMIT PLANNING ESTIMATES
12:00	LUNCH
1:00	LECTURE: GOALS AND STRATEGIES REVIEW 1980 RESULTS
2:15	DECISIONS FOR 1981 DEVELOP GOALS AND STRATEGIES
3:15	BREAK
3:30	DECISIONS FOR 1981 CONTINUED
4:00	"MANAGE-BY-MAIL"
4:30	QUESTIONS

the top MANAGEMENT experience

DIRECTORS' PROGRAM

OBJECTIVE

- To Provide an Overview of Every Phase of a Rural Electric Cooperative Including Financial Statements.

SCOPE

- Two Day Course.
- Simulates a Rural Electric Cooperative for Two Years.
- Decision Set and Model Modified Version of 408.3.
- Lectures concentrate on understanding Financial and Operating Statements.

KEY TOPICS

- Setting Goals and Strategies.
- Operating Statements.
- Balance Sheet.
- Form 7.
- Richardson REC Case.

GROUP SIZE: Maximum 30 People

INPUT DECISIONS (TENTATIVE)

- Residential Rate	Mills/KWH
- Commercial Rate	Mills/KWH
- Salaried Mgrs. and Staff	Persons
- Average Salary	$/Week
- Fringe Benefits	Percent
- Hourly Wage Rate	Cents/HR
- Plant Investment	$1000
- REA Loan	$1000
- CFC Loan	$1000
- Capital Credit Retirement	$1000

OUTPUT REPORT

- Form 7 Income Statement
- Balance Sheet
- Member Relations
- Personnel Relations
- Operating Statistics
- External Economy

THE DIRECTOR'S ROLE

A TWO-DAY SEMINAR

	DAY 1
9:00	REC Goals & Objectives
9:30	Understanding Financial Statements
10:30	BREAK
10:45	Operating Statement Balance Sheet Form 7
11:30	LUNCH
12:30	Introduction to the No-Name REC Case - Member Relations/ Conservation - Operations and Maintenance - Wage & Salary Admin.
1:00	Decisions for No-Name REC for 1980
3:00	BREAK
3:15 5:00	REC By-laws and Directors Responsibilities

	DAY 2
8:15	Analysis of No-Name REC Performance in 1980
9:15	Decisions for No-Name REC for 1981
10:30	BREAK
10:45	Richardson REC Case (NRECA Staff)
12:30	
1:00	1981 Results Review Trends & Forecasts

THE PRODUCTIVITY PROJECT: A BEGINNING

by
Edward J. Moran, Lennard Davis, Jr.
and David J. Rabideau

(This is a speech given by Edward J. Moran at the Rural Electric Management Development Council's Annual Meeting in Minneapolis, Minnesota on May 19, 1980.)

In August of last year, members of the Research Committee of the Rural Electric Management Development Council (REMDC), met with people from REA, CFC, and NRECA for the purpose of outlining an approach to productivity measurement in the rural electric systems. We were all very new in the field of productivity. Indeed, we could find no evidence of any previous attempt in the rural electric program at measuring productivity on a systematic basis. The meeting did produce a basic agreement on two approaches to the problem. One method, which we call the "macro" approach emphasizes the total or overall - productivity of a system. This approach would lend itself to looking at past and present productivity levels of a given electric system. This methodology could also be used to make intersystem comparisons and changes in productivity from year to year. The second method, which we call the "micro" approach, deals with individual segments of a system. For example, the emphasis of this approach is to measure separately the productivity of construction, operations and maintenance, finances, member services, etc.

Both methods offer benefits and potential pitfalls. The macro approach offers the possibility of developing productivity indicators identifying how a system was performing and where corrective action should be taken to increase productivity. This could be used in policy and planning decisions. The micro approach gives management and the work force feedback as to their daily performance. Both methods could be used in testing the impact of alternative management decisions on productivity. Some potential problems, however, should be pointed out. The fact that the rural electric systems operate in such diverse environments poses a real obstacle. Other problems include how to incorporate differences in management philosophies into a productivity measurement, what are the most meaningful productivity measures and what are proper input/output data.

Mr. Lawton, of APC, will talk about their efforts with respect to the macro approach. We at REA agreed to work on developing methodology for measuring productivity in construction. We hope our findings could be used in the other functional areas of maintenance, financial, member services, etc. As I said before, we are all beginners in this field. One objective in developing our productivity measures as outlined above is to meld the micro and macro approaches.

To get started on our projects we decided to visit some co-ops which were already involved in work measurement of some sort. Members of the Council, NRECA, CFC, APC and REA visited Shenandoah Valley Electric Cooperative (Virginia 11) in late January. In February, Guadalupe Valley Electric Cooperative (Texas 94) - REA did not participate in this visit - and Union Rural Electric Association (Colorado 22) were visited. Finally in March, REA and CFC went to Four County Electric Membership Corporation (North Carolina 21). We wish to thank each of these cooperatives, their managers and staff for their cooperation in our efforts.

As the project progressed, we identified the following as its overall goals and objectives:

- o The development of a (or several) methodology for measuring the productivity of a system, or a department, division or crew within a system.

- o Comparisons from year to year of the growth or decline of the productivity for a system or any part of that system.

- o Intersystem comparisons of productivity.

For REA's part of the project, we looked at construction, financing and management. Our goals were as follows:

- o Construction

  A. Developing a methodology for work measurement and/or measuring labor productivity via work standards.

  B. Developing measurements of productivity for construction as a whole; including inventory, equipment, overhead, related labor, etc.

  C. Outlining the uses for management such as cost control, budgeting, work scheduling, management decision making, etc.

  D. The possibility of applying these tools to other areas such as operations and maintenance, member services, etc.

- o Financing

  A. Developing a productivity measurement.

  B. Developing intersystem comparisons.

  C. Preparing tools and methods for increasing cash productivity.

o Management

A. Testing the applicability of the Lickert Scale.

B. Showing the effect of management style on productivity.

C. Developing interborrower comparisons.

Our efforts began with certain basic hypothesis and assumptions in regard to productivity. These are all classic productivity equations and assumptions. First, we define productivity as the ratio of output to input.

$$P = \frac{O}{I}$$

It is possible to measure partial productivity. That is one or more outputs in relation to the inputs of labor, capital and materials.

$$Pi = \frac{Oi}{Li + Ci + Mi}$$

The performance of any input (labor, material or capital) can be measured in relation to the outputs. For example,

$$LP = \frac{O}{\text{Manhours}}$$

Furthermore, for an electric system the total productivity is the sum of the productivity for all of the functional areas within the system, i.e., construction, finance, operations and maintenance, member services, etc.

$$Pt = Pc + Pf + Po+m + Pms + \ldots.$$

We also feel that productivity can be defined as a function of management. Specifically the management of human, financial and physical resources. Put into equation form we have,

$$P = F(M) = MH + MF + MPh$$

Our visits to the cooperatives were to develop the proper output/input data. We also wanted to see how each was measuring its work force performance especially with regard to construction. Before getting into the specifics of our visits our findings, let me tell you a little about the three cooperatives we visited. Shenandoah Valley Electric Cooperative (SVEC) has about 20,000 residential customers with annual sales of 250,000 MWhs. It

operates from three districts offices. SVEC has facilities in Virginia and West Virginia and is under commission jurisdiction in both states. It operates about 3,400 miles of line in both the valley and the surrounding mountains and hills.

Union Rural Electric Association (Union) serves about 9,500 residential consumers with total annual sales of 220,000 MWh. Only half of Union's sales come from residential sales. Union operates in three districts, two of which are largely on flat lands and one district is mainly in the mountains.

Four County Electric Membership Corporation's (FCEMC) load of about 200,000 MWh's is largely residential with 16,000-plus residential customers. FCEMC has three districts and about 3,200 miles of line.

Each system had a computer on premise, and each had or planned to acquire in the near future on-line capability with CRT's. They all were developing work measurement systems in connection with their plant accounts and/or work order procedure. The emphasis and impetus for each system was different. For example, one cooperative wanted better inventory control, another needed better estimates for billing and construction deposit purposes, and the third wanted a method for measuring each districts performance and for budgeting.

Since both SVEC and Union had developed similar systems for determining standard costs for each construction assembly unit (CA), we will look at those systems as one. Major differences will be highlighted. The standard cost figures for each CA can be broken down into labor, materials and overheads. Labor cost was based on the average time needed to complete a particular CA. The average time included an "average travel time," and average conditions such as weather and terrain were also assumed. SVEC had each of its crews come up with the time estimate. The high and low times were thrown out and the other times were averaged. Union had its engineer estimate a labor cost, which is based on an average time. Union also has different labor costs for its districts since the terrain differs so radically.

REA Forms 803 and 804 are computerized. When the CA's from a staking sheet are entered on a computer, a materials list is generated for that job showing material costs by item or CA. Material costs are based on the average inventory cost, plus warehousing and handling costs. The overhead costs were determined by the engineering departments. An average overhead cost per CA was estimated based on the labor shown for that unit. Since equipment costs represent such a large portion of the overheads, they can be treated separately. An average mile or hour used in completing a CA would be determined for each CA and the standard costs would be directly related to this figure. Since equipment is identified on the work order and the work order number is shown on the equipment logs, it is very easy to check these estimates.

Total standard costs are the sum of each of the labor, material and overhead standards. These standards can be calculated, by component part and total, for a work order, crew, division or the entire system. Actual costs can be determined for a work order, crew, etc., and compared to the standard to give a performance measure. This information can be used in several ways. Since costs were accumulated by component, it is relatively easy to determine where cost overruns occur. More importantly, supervisors and crews can get feedback on their performance. We feel that these standard costs will be useful in budgeting since a standard cost for the average mile, consumer connect, etc., is easy to determine.

It should be noted that standards of this type do have some negative effects upon those being measured. The crews should understand that these are not being developed to make them work harder or faster. In fact, management and its decisions has more impact on productivity than how quickly the crews perform their functions. Improvements in work scheduling and job preparation (having the proper tools and material for the job) are primary considerations and will show up through improved performance measures. Management can easily see the cost/benefit of certain changes such as a 10-hour work day. When the performance measures (i.e., actual costs divided by the standard) are compared from year to year, a trend in productivity is shown. Management at every level can and should question the trend. If necessary, corrective action would be planned in those areas showing the worst trend.

The work measurement system at FCEMC is quite different from those at SVEC and Union. To understand the system, one must start with "functional accounting." This is a break down of the uniform system of accounts and the cooperatives own accounts, on a functional basis. There are nine functional areas. The first seven (Administrative, Management, Finance, Member Service, Plant, Public Relations, and General Administrative) handle all payroll items, materials, and overheads related to construction and the overall operation and maintenance of the system. The last two functional areas represent the income, expense and clearing accounts. The purpose was to help people allot their time and expenses on a more practical or work related basis. FCEMC felt that it would be especially helpful to those who are unfamiliar with paperwork or who generally dislike the paperwork aspects of the job, such as the line crews. The system offered several benefits. First costs can be tracked to both the person incurring the cost and to the reason for that cost. Secondly, people learn quickly where to allocate their time. Thirdly, the computer handles all contra entries.

With the idea of the functional accounting system in mind, we can look at the work measurement system employed by FCEMC. The basic unit measured by the cooperative is called an increment. An increment can be defined as the average amount of labor required to set one meter. It includes travel time and a portion of the

training, safety and loading times that the crews normally spend. All other work carried on at FCEMC is or will be defined in terms of increments. (At this time, only construction, operation and maintenance is defined.) This established the relative amount of labor required for each work unit. For example, if setting a meter equals one increment, then setting a pole equals seven increments, removing a pole equals three increments, etc.

All work in connection with the plant (the 500 Accounts under the functional accounting system) has been defined in terms of increments. The crews were involved in their development. The plant function uses six types of plant work orders in performing its construction, operation and maintenance activities. The six types are: 1. Distribution Line/Overhead Construction; 2. Underground Line Construction; 3. Security Light Construction; 4. Transmission Line/Overhead Construction; 5. Transmission and Distribution Substation Construction and Maintenance; and, 6. Plant Maintenance. On the back of each work order is a list of the work units, i.e., types of work, that can be done in connection with that work order. For example, a Type 1 Work Order will show the addition, removal or replacement of poles, guys anchors, etc., while a Type 6 Work Order will show tightening hardware, ground-line treatment for poles, repulling or repairing guys, etc. Each of these work units has been defined in terms of increments.

Each job done in connection with plant must be accompanied by one of the six work orders shown above. The time sheets and equipment logs are also identified by work order number. Other charges such as gas, oil, material, etc., must be accompanied by an invoice sheet which shows the function and work order, if applicable. In this manner, all costs associated with a particular job can be accumulated. The total work units performed on a work order are converted into increments based on FCEMC standards. Manhour and overhead costs are accumulated for each job. Materials are done through the invoice system, and material costs are captured in that manner. FCEMC then accumulates for each job order, by type of order (1-6) and major type of work performed (new services, etc.), all manhours, labor, materials and overhead costs. The cooperative then determines manhour per increment and cost per increment figures. These figures are then determined by type of work performed by district. The trend in manhours per increment is the sign of an increase or decrease in labor productivity. The trend in the cost per increments can be used in the same way if the figures are discounted for inflation.

The system established at FCEMC has several benefits. Since all costs are accumulated by function, the costs shown in the dollar per increment figures accurately reflect the total expense in performing that function. Manhours and costs are accumulated by district or department and management can look at manhours or costs per increment to determine where and why differences exist. This points out the areas with the most promise for improvement. The measures of productivity, i.e., manhours per increment or costs per increment, are easily understood by the superintendents,

crews, etc. Since the basic measure of performance is an increment per unit, not an hours per unit measure, FCEMC does not have to be concerned that each work unit was assigned its proper time. As long as the relationship between work units is reasonably accurate, and the cooperative has tested this, the increment will be a valid productivity measure. The cooperative has basically defined all its construction, operations and maintenance work in the 30 or so items shown on the back of each work order.

Using this method, the trend from period to period of the manhours or cost per increment will measure the productivity gain or loss. This can be done for the entire system, a department or even a crew. FCEMC plans to incorporate the increment concept into its budgeting process. This would allow the cooperative to budget its work and based on past performance, the number of increments required could be computed and priced out. Although at present only construction, operations and maintenance are described in terms of increments, FCEMC is expanding this concept to all other functional areas.

There are problems with this approach. First, the superimposition of a new accounting system is burdensome. Second, this type of system requires computer capability. Finally, it is very sophisticated and requires good personnel with an intimate knowledge of the work measurement system and the cooperative to interpret the results. The benefits it offers, as pointed out above, can be substantial.

REA is also developing a computer model which will define productivity as a function of the management of financial, physical and human resources. The model uses several alternate measures of productivity such as plant investment per kWh, plant investment per dollar of revenue, expenses per kWh sold, etc. Each of these ratios serves as outputs for the model. We have developed over 60 inputs in the form of ratios and single variable data. The model will perform a regression and multivariant discriminant analyses which ranks each input in terms of its relative ability to explain changes in productivity. This is done for each productivity, or output ratio. For our input ratios we are currently using only quantitative or statistical data from the Forms 7 and 7a. Data for the years 1971 through 1978 has been used in determining productivity trends and significance.

Ultimately, we hope to include qualitative as well as quantitative data in our analyses. Information pertaining to management style is an example of qualitative data. The use of the Lickert Scale and other devices can develop qualitative data in a statistical format suitable for entry into and analysis by a computer. We also feel there is a possibility to add factors which will individualize this type of model to a particular system. These factors would be whether terrain, average wage rates, per capital income or other factors such as those used in the expense comparison study. Virtually all of the statistical data is available for this type of analysis. Personal interviews or questionnaires may be developed to obtain the qualitative factors on a uniform basis.

Once the model is run, the inputs can be grouped into one of three functional areas: management of human resources, management of physical resources and management of financial resources. This is the descriptive aspect of the program; that is, the program has the ability to say what is causing the input ratios to trend the way they do. Although this program is still in its initial phase of development, we feel it offers great promise in helping a borrower measure and increase its productivity. It will indicate which areas of a system's operation should be emphasized for the greatest potential improvements in productivity. The program may also have further predictive capabilities for showing what types of actions are most likely to be successful in increasing productivity.

We do not yet have the final answer. The program has been run for the nation as a whole but not for each individual borrower. Presently we are refining our analyses. In the near future, we hope to show the trends in productivity, as defined by the program, for select individual systems. It will also be possible to make intersystem comparisons. Each of these activities will, of course, help us in refining our methodology.

For our part in the productivity project, we will be writing case studies for each of the systems we visited. A methodology for work measurement, developing and using standards will be forthcoming. We plan to have this included in an addendum to our budgeting bulletin. We will also continue our work on the model as outlined above.

MINUTES
1980 RURAL ELECTRIC MANAGEMENT DEVELOPMENT COUNCIL MEETING

OPENING AND PROGRAM

The 1980 Rural Electric Management Development Council was held at the Marriott Hotel, Bloomington, Minnesota near Minneapolis, May 19 - 22, 1980. Derl Hinson, Council Chairman, opened the meeting at 1:15 p.m. on May 19, and requested Bob Roberts to give the invocation. Chairman Hinson then welcomed the members and, in the absence of the Program Chairman Elmer Stocker, reviewed the program for the council meeting and noted changes. The chairman appointed Barbara Deverick to serve as secretary for the 1980 council meeting. For the next one and one-half days, the program proceeded as outlined with presentations by council members and invited guests.

NRECA ADVANCED MANAGEMENT CONFERENCE

On Wednesday, May 21, Jack Wood introduced the NRECA Advanced Management Conference for 1980 which was entitled "Rural Electric Achievement Management Systems: Results in the 80's". The Conference was led by Ray McCain, president of Situation Dynamics, Inc., Baltimore, Maryland, who was assisted by Charles Overman, General Manager, Adams Electric Cooperative, Gettysburg, Pennsylvania and members of his staff. The program dealt with a system of Achievement Management which had been implemented at Adams Electric by Mr. McCain and the results which were being achieved.

BUSINESS SESSION

On Thursday, May 22, 1980, the REMDC members met for breakfast and the business session. Chairman Hinson chaired the meeting. He opened the meeting and thanked the program committee for their very excellent work. The chairman recognized the work Barbara Deverick and the staff at Blue Ridge Electric Membership Corporation had done in preparation of the 1979 council proceedings and thanked Barbara and Blue Ridge Co-op for this work.

MEMBERSHIP COMMITTEE REPORT

Chairman Hinson recognized Virgil Herriott, Chairman of the Membership Committee, to report on member certifications and new members. Herriott gave a brief history of the member certification program stating that the council had decided on the certification program for members in 1977 and that in 1978 ten cooperatives were certified; in 1979 four cooperatives were certified; and in 1980 there were six cooperatives which were receiving their REMDC membership certification. Copies of the information submitted by the six cooperatives with their request for certification were available for review by the council members. Herriott then recognized the six cooperatives and their managers who received the system certification as follows:

MEMBERS CERTIFIED

Lumbee River Electric Membership Corporation
Derl Hinson, General Manager
Red Springs, North Carolina

East Central Electric Association
Jerome Haider, Manager
Braham, Minnesota

Southeast Iowa Co-op Electric Association
Craig DeBower, Manager
Mt. Pleasant, Iowa

Cornhusker Public Power District
Norman Hoge, General Manager
Columbus, Nebraska

Flint Electric Membership Corp.
Harold Smith, General Manager
Reynolds, Georgia

MEMBERS CERTIFIED (Continued)

White River Valley Electric Cooperative, Inc.
Clifford Robertson, Area Manager
Branson, Missouri

MEMBERS WITHDRAW

Membership Chairman Herriott noted that Central Kansas Electric Cooperative, Inc., Gread Bend, Kansas; and Mecklenburg Electric Cooperative, Chase City, Virginia, had withdrawn as members of the council.

Herriott commented on the acceptance of the data presented by the cooperatives which had been certified in 1980. He stated that the information submitted by these systems had been very good and the committee did not feel it should make judgement on contents as it relates to a management program in the cooperative. He invited all council members to review the information which was on display.

Herriott stated that he felt that three years was too frequently to ask REMDC members to submit to re-certification; that perhaps five years was a more realistic time frame. He stated that Southeast Iowa and Flint EMC had both submitted formal applications with their initial request for membership.

G & T SYSTEMS

There was some discussion on whether G & T Co-ops would submit similar information for certification should they desire to become members of the council. No conclusion was reached; this matter was left to the membership committee.

There was some discussion on the type of information which should be submitted for re-certification. It was felt that possibly an update of the initial information submitted for certification would be what should be required. This matter was also left to the membership committee.

RE-CERTIFICATION

The council chairman requested that the membership committee consider both the time frame for re-certification, as well as the contents of the re-certification information and formulate a recommendation. If a bylaw change is needed to accomplish re-certification under the proposed recommendation, the membership committee should get the proposed change to the secretary.

MOTION ON MEMBERS

There was a motion and a second that the certification of six systems be accepted and that the two new systems--Southeast Iowa and Flint EMC--be accepted as new members.

PURPOSE OF COUNCIL

Chairman Hinson thanked Virgil Herriott and the committee for the fine work done in certifying the six cooperatives and seeking new members for the council. Chairman Hinson pointed out that membership is not limited--any cooperative coming into the council must be interested in Management Improvement; this is a basic requirement. He stated that this was one of the reasons for having the idea exchange at council meetings, to enable each system that is a member of the council to share with all council members their successes and failures in management efforts--so that all can gain from these experiences.

SEEK NEW MEMBERS

Chairman Hinson urged each member system to notify the membership chairman of cooperatives which are eligible for membership in the council and a special invitation will be sent to the manager. He urged council members to seek out those systems doing innovative things in management and invite them to participate in the council.

SPONSORING NRECA ADVANCED MGT. CONF.

There was discussion concerning the sponsorship of the NRECA Advanced Management Conference as an adjunct to the REMDC annual meeting. It was pointed out that the Council was committed to co-sponsor the advanced management conference with NRECA in 1981 and that the council had agreed to contribute $6,000 to the advanced management conference for 1981.

Bill Miller suggested that the REMDC dues be broken down into "Dues", "Research Project", and "Registration for Advanced Management Conference". Chairman Hinson stated that he would ask the joint planning and coordination committee to consider Bill's suggestion for 1981.

RESEARCH COMMITTEE REPORT

Chairman Hinson recognized Everette Bristol, Chairman of the Research Committee, for his report. Bristol recognized the members of the committee and commented on the assistance which the committee had received from REA, NRECA and CFC on the project, as well as the assistance which Chairman Hinson had personally given the committee. Bristol stated that last year the Council authorized the research project on productivity and funded it at the level of $6,000. He said that the committee undertook two major programs: (1) The American Productivity Center Project for $3,000 which undertook the macro approach for a cooperative to measure productivity and a comparison between cooperatives. This project brought an outside objective view to examination of a rural electric cooperative's productivity. Bristol stated that it was the concensus of the committee that we not fund the project further. He stated that the committee would deal with this in a positive manner.

APC PROJECT

REA PROJECT

Bristol commented on the second research project with REA. He stated that Eddie Moran's presentation during the Council Meeting had discussed the work done by REA in measuring productivity in construction carried out by a rural electric cooperative. He stated that REA would continue and expand the project and will look at the overall productivity measurements in other areas. He stated that REA is looking at management style. Bristol said that the committee would follow up with REA. He reported that a number of cooperatives had spent considerable time working with REA on this productivity measurement project--these included Union, Shenandoah Valley, Four County, Guadalupe Valley and Bellville.

COMMITTEE RECOMMEN-DATIONS

Chairman Bristol then presented the recommendations from the Research Committee which were: (1) Completion of the two projects with American Productivity Center and REA, (2) Continue collaboration with NRECA, looking with NRECA at innovations in their training programs. Bristol said that in exploring assistance for research from CFC, the governor of CFC said to him that there were two things which concerned him: (1) The Council is not well known, and (2) The Council must do something about the G & T co-ops. Bristol stated that the Committee did not know whether the G & T's are as concerned about productivity as the distribution systems are. It was observed that perhaps distribution systems are closer to the members of their cooperative. The question remained as to how to get the G & T's involved in the study of productivity.

LAMAR PROPOSAL

There was discussion concerning the work done by Fred Lamar and his associate in hand-held computer programming. The question was raised as to whether or not the Council should endorse the system developed and purchase it for marketing to electric cooperatives for "quick and dirty" financial forecasting and rate studies.

MANAGEMENT EVALUATION GUIDE

There was a recommendation that the Council update the Management Evaluation Guide by adding an appendix to the guide on productivity.

CONTRIBUTIONS FROM CFC & NRECA

There was a comment from Marvin Athey that perhaps the Research Committee should not get involved in too many projects. Bristol commented that CFC and NRECA had contributed $2,000 to the research project and that the committee had a balance remaining in its budget of $2,000.

COMMENTS FROM JACK WOOD OF NRECA

It was commented that the Council should keep the Management Evaluation Guide updated and assure that NRECA is making use of this guide in its work with member systems. Jack Wood of NRECA staff extended an invitation to Jim Kiley to meet with the NRECA Management Services staff and discuss use of manual and the updating of the manual. Wood further commented that he would urge the Council to stick with research projects, especially in the areas of productivity and that the REMDC members should pitch in wherever they can to explore productivity in their own systems. He commented that he felt that REA is on to something in their productivity research and recommended that this project be continued. Wood commented that the Council may not yet be ready for the American Productivity Center's cooperative comparison approach.

MOTION ON RESEARCH PROJECTS

A motion was made and seconded and adopted that the Research Committee should follow up on the preliminary report of the American Productivity Center, but not continue the project further at this time and to pursue the productivity research program with REA and have a full report at the Council meeting in 1981.

REMDC SPONSORING ADVANCED MANAGEMENT CONFERENCE

Chairman Hinson then asked for comments on the joint REMDC and Advanced Management Conference meetings with 1½ days devoted to Council program and 1½ days to Advanced Management Program. Roger Geckler stated that it didn't seem fair to co-ops not participating in REMDC to pay transportati and the regular fee for the NRECA Advanced Management Conference. He stated that the REMDC program was very good and may be the two programs should be separated. Charles Overman stated that the NRECA Advanced Management Program was about dead before the Council became involved. Roger Lentz stated that he felt the REMDC's objectives were good and that his cooperative would be applying for membership. Marvin Athey supported Geckler's position regarding the joint meetings. Virgil Herriott stated that the 1½ day issue should be addressed and that he had made an issue that 7 days was too long for a meeting away from the cooperative. The question was raised of why not invite participants of the NRECA Advanced Management Conference to the REMDC program. The question was posed "was it the time element or the quality" and the comment was made the REMDC 1½ day program was the better program of the two. Chairman Hinston stated that this question placed the emphasis on what the REMDC group was all about--the sharing of ideas and experiences in co-op management. The comment was made that the Advanced Management Program was stimulating, but that the Council members can identify with the Council presentations in a more realistic manner than the Advanced Management Program.

Jim Kiley posed the question, "Would it be helpful to invite the Advanced Management Conference enrollees to the whole program--REMDC and Advanced Management Conference?" Ev Bristol stated that it is a problem to have the General Manager and Key Staff persons away for a whole week at the same time. Jack Wood stated that the attendance at the Advanced Management Conferences before the joint participation was running 8 to 10 people and that last year there had been 60 persons for the Advanced Management Conference; the year before with the Mader program, there had been 40 in attendance; and that this year, there were 51 participants, with 37 of these being Council members. Jack stated that without Council support, there would be no Advanced Management Conference; that NRECA cannot, with its other programs, fund the Advanced Management Conference without the Council support.

REMDC SPONSORING ADVANCED MANAGEMENT CONFERENCE (continued)

Terry O'Horo wondered if there should be an Advanced Management Program - that maybe four days of REMDC projects reports is what is needed. Harold Smith stated that maybe a smorgasbord is what is needed; that the Council and NRECA could advertise and have the Advanced Management Conference participants for $50 more attend the REMDC meeting. Dick Segars stated that with the REMDC and NRECA Advanced Managmeent Conference planners working together, it gives a sounding board for NRECA for new programs and permits a good critique of new programs. He said that we don't always bat 1000 on program planning. Dick stated that the answer may be the REMDC meeting and Advanced Management Conference open to everyone with $50 additional charge for those persons who are not REMDC members. Charlie Overman indicated that he liked this idea; that perhaps we could open up the REMDC/Advanced Management Conference with a charge for attendance.

MOTION ON SPONSORING ADVANCED MANAGEMENT CONFERENCE

A motion was made and seconded and adopted that the following actions be confirmed for 1980 and 1981 relating to the Advanced Management Conference and REMDC meeting: (1) That there be in 1980 and 1981 "mini" advanced management conferences with the Council's contributions to NRECA being in 1980 - $4,500; and in 1981, $6,000 for partial sponsorship of the Advanced Management Conference, and (2) The Coordinating Committee be directed to invite Advanced Management Conference participants to the REMDC meeting for a reasonable charge.

LAMAR'S PROPOSAL

Motion by Virgil Herriott that the REMDC purchase the computer programs for the TI-59 computer from Dr. Fred Lamar and his associate for $3,000, distribute to each member of the Council with dues paid and increase dues from $300 to $400 to pay for the purchase and license NRECA to sell the program with royalties to the Council. The motion was seconded. Jim Lane questioned the overall usefulness of the computer program to cooperatives which are presently utilizing other types of computer programs for this purpose. He suggested that the Research Committee study this particular computer program and make a recommendation at some future time. The motion made by Mr. Herriott was lost.

MOTION TO REFER

Motion was made, seconded and adopted that this matter be referred to the Research Committee.

EVALUATES MODIFICATION OF MADER PROGRAM

Chairman Hinson stated that the Top Management Experience by the Mader group was being modified into a one-day program for management people and a two-day program for directors with the cost of the one-day program being $1,500, and the two-day program would run $3,500 to $4,000. He asked what the group thought of this type of program modification. Jim Kiley stated that perhaps the Program Coordinating Committee can take the responsibility for evaluating this since they are already working with NRECA.

1981 REMDC MEETING

Chairman Hinson stated that the floor was open to discuss the time and place of the 1981 REMDC meeting and called for suggestions. Hinson stated that the second week in May is the NRECA Legislative Rally and since several Council members had expressed a desire to go back to Myrtle Beach, he had secured tentative hotel space at the Hilton Hotel in Myrtle Beach, S. C. for the third week in May. A motion was made, seconded and adopted that the REMDC meeting in 1981 be held at the Hilton Hotel in Myrtle Beach, S. C. the third week in May which is the week of May 17.

NOMINATING COMMITTEE

Chairman Hinson called for the report of the Nominating Committee. Chairman Jack Hicks recognized the members of the Committee and gave the report of the Committee as follows:

Nominations for:

Treasurer - Allen Ritchie

Standing Committees:

Program - Jim Lane
Nominating - Allen Ritchie
Membership - Elmer Stocker
- Everette Bristol
Management Research - Virgil Herriott

Standing Committee Chairmen:

Program Chairman - Roger Geckler
Nominating Chairman - James Kiley
Membership Chairman - James Golden
Management Research - Charles Overman

ELECTION

Motion was made, seconded and adopted to accept the report of the Nominating Committee. Motion was made, seconded and adopted that a unanimous vote be cast to elect the slate presented by the Nominating Committee. Chairman Hinson declared the slate duly elected.

The Chairman called for further business of the Council. There was none and the meeting adjourned.

Barbara Deverick

Barbara Deverick, Secretary

THE RURAL ELECTRIC MANAGEMENT
DEVELOPMENT COUNCIL

OPERATING STATEMENT

May 16, 1979 to May 15, 1980

Income:	
1979 Dues (Schedule A)	$ 900.00
1979 Interim Dues (Schedule B)	300.00
1980 Dues (Schedule C)	5,400.00
1980 Interim Dues (Schedule D)	2,400.00
Interest from Investments	405.38
Research Project Contribution - CFC	1,000.00
Research Project Contribution - NRECA	1,000.00
Total	$ 11,405.38
Expenses:	
Council	
1979 Meeting	
NRECA - Portion on Advance Mgt. Conf.	$ 9,000.00
NRECA - Coffee, Refreshments, Audio-Visual	201.08
APC - Expenses of Carl Thor	296.53
Blue Ridge EMC - 1979 REMDC Proceedings	353.22
1980 Meeting	
East Central - Marv Athey's Expenses	238.12
Sub-Total	$ 10,088.95
Research Committee	
Yampa Valley - EV Bristol's Expenses	$ 2,091.59
Morgan County - Dick Seger's Expenses	332.38
East Central EC - Marv Athey's Expenses	376.02
Sub-Total	$ 2,799.99
Total Expenditures	$ 12,888.94
Net Income	($ 1,483.56)

THE RURAL ELECTRIC MANAGEMENT
DEVELOPMENT COUNCIL

BALANCE SHEET

May 15, 1980

ASSETS

	5-15-80	5-15-79
Current:		
Cash in Checking Account	$ 1,241.79	$ 7,030.73
Investments - Savings Account	14,124.88	9,819.50
Total	$15,366.67	$16,850.23

MEMBERS' EQUITY

Retained Earnings	$16,850.23	$18,040.24
Net Gain (Loss)	(1,483.56)	(1,190.01)
Total	$15,366.67	$16,850.23

RESEARCH COMMITTEE

Resources	
REMDC Allocation - "Productivity"	$ 6,000.00
NRECA - CFC Contributions	2,000.00
Total	$ 8,000.00
Expenditures (from Council Operating Statement)	-2,799.99
Remaining Budget Amount	$ 5,200.01

Respectfully submitted,

Allen R. Ritchie

THE RURAL ELECTRIC MANAGEMENT
DEVELOPMENT COUNCIL

SCHEDULE A

1979 Dues Paid After May 15, 1979

Jackson Purchase	5/18/79	$ 300.00
Chugach Electric Assn.	5/29/79	300.00
Mecklenburg Electric Coop.	6/12/79	300.00
Total		$ 900.00

SCHEDULE B

1979 Interim Membership Paid After May 15, 1979

Flint EMC	6/04/79	$ 300.00
Total		$ 300.00

SCHEDULE C

1980 Dues Paid as of May 15, 1980

Pioneer REC	4/14/80	$ 300.00
Shenandoah Valley EC	4/14/80	300.00
Linn County REC	4/14/80	300.00
Whitley County REMC	4/14/80	300.00
Adams EC	4/17/80	300.00
Wright-Hennepin EC	4/17/80	300.00
Four County EMC	4/17/80	300.00
Blue Ridge EMC	4/17/80	300.00
Lumbee River EMC	4/17/80	300.00
Yampa Valley EA	4/17/80	300.00
Cotton EC	4/21/80	300.00
Sioux Valley Empire EA	4/21/80	300.00
Oklahoma EC	4/28/80	300.00
Cornhusker PPD	4/28/80	300.00
Morgan County (Ind.)	4/28/80	300.00
White River Valley EC	5/02/80	300.00
East Central EA	5/02/80	300.00
Kay EC	5/12/80	300.00
Central Kansas	12/31/79	Withdrew
Mecklenburg EC	5/06/80	Withdrew
Chugach EA	--	Unpaid
Jackson Purchase	--	Unpaid
KEM EC	--	Unpaid
Cass County	--	Unpaid
Total		$5,400.00

SCHEDULE D

1980 Interim Memberships Paid as of May 15, 1980

Volunteer EC	4/14/80	$ 300.00
Flint EMC	4/14/80	300.00
Southeastern Illinois	3/10/80	300.00
Hancock-Wood EC	4/28/80	300.00
Clark County REMC	4/21/80	300.00
Southside EC	5/02/80	300.00
Union Rural EA	5/02/80	300.00
S. E. Iowa Coop EA	5/13/80	300.00
Mid Carolina EC	--	Unpaid
Total		$2,400.00

THE RURAL ELECTRIC MANAGEMENT
DEVELOPMENT COUNCIL

PROJECTED (5/15/80 to 5/15/81) CASH STATEMENT

Funds Available (5/15/80)	$15,367.00	
Income		
1980 Dues Received After 5/15/80	600.00	(Est)
Total	$15,967.00	
Disbursements		
Research Project	5,200.00	(Est)
1980 Meeting		
NRECA	4,500.00	
Coffee, Audio-visual, etc.	400.00	(Est)
1980 Proceedings	450.00	(Est)
Other Related Expenses	600.00	(Est)
Total	$11,150.00	
Estimated Balance Remaining Available for other Expenses	$ 4,817.00	
1980 Balance (Low Point) 2/20/80	$ 6,974.80	

THE RURAL ELECTRIC MANAGEMENT DEVELOPMENT COUNCIL

ATTENDANCE RECORD

Cooperative	Years											
	'71	'72	'73	'74	'75	'76	'77	'78	'79	'80	'81	'82
Adams Electric Cooperative	0	X	X	X	X	X	X*	X	X	X		
Blue Ridge EMC	X	X	X	X	X	X	X	X	X	X		
Carroll Electric Cooperative Corp.			X	X	X	X	X	X	-	-		
Cass County Electric Coop.	X	X	X	X	X	0	X	X	0	*		
Chugach Electric Assn., Inc.				0	0	0	0	0	-	-		
Clark County REMC										X		
Cornhusker PPD	X	X	0	0	0	0		0	X	X		
Cotton Electric Cooperative				X	0	X	0	X	X	X		
East Central Electric Association			X	X	0	0	-	0	X	X		
Flint EMC										X		
Four County EMC	0	0	X	X	X	0	X	0	X	0		
Jackson Purchase REC	0	X	0	X	0	0	-	0	0	-		
Kay Electric Coop.	0	X	X	X	X	X	0	X	0	0		
KEM Electric Coop.	X	0	X	X	0	0	X	X	X	-		
Linn County REC					X	X	X	X	X	X		
Lumbee River EMC					0	0	0	X	X	X		
Manquoketa Valley REC.										*		
Morgan County REMC (Indiana)	0	0	X	X	0	X	X	X	X	X		
Oklahama Elec. Coop.					X	0	0	0	X	0		
Pioneer REC						X	X	X	X	X		
Shenandoah Valley Electric Coop.	0	0	X	X	X	X	X	X	X	X		
Sioux Valley Empire Electric Assn.	X	X	X	X	X	X	X	X	X	X		
Southeastern Illinois EC										X		
Southeast Iowa Co-op EA										X		
Southside EC									X	X		
West Plains Electric Coop.	X	X	X	X	X	X	X	X	X	-		
White River Valley Electric Coop.	X	X	X	X	X	X	X	X	X	X		
Whitley County REMC					X	0	X	X	X	X		
Wright-Hennepin Elec.						X	X	X	0	X		
Yampa Valley Electric Assn.	X	X	X	X	X	X	X	X	X	X		
Mid-Carolina EC									X	*		
Union Rural EA										0		
Volunteer EC										0		
Hancock-Wood EC										X		

Code: X - Paid - Attended
0 - Paid - Did not attend
* - Attended - Dues not paid

OFFICERS AND COMMITTEES FOR 1981 DEVELOPMENT COUNCIL

Chairman	Derl Hinson	Term expires in 1981
Vice Chairman	Bob Roberts	Term expires in 1982
Treasurer	Allen Ritchie	Term expires in 1983
Secretary		Appointed annually by Chairman

Standing Committees

Program

Chairman	Roger Geckler	Term expires in 1981
	Bill Miller	Term expires in 1982
	Barbara Deverick	Term expires in 1981
	Jim Lane	Term expires in 1983

Nominating

Chairman	James Kiley	Term expires in 1981
	Clyde Hukills	Term expires in 1981
	John Allensworth	Term expires in 1982
	Allen Ritchie	Term expires in 1983

Membership

Chairman	James Golden	Term expires in 1981
	Bill Beverage	Term expires in 1982
	Everette Bristol	Term expires in 1983
	Elmer Stocker	Term expires in 1983

Management Research

Chairman	Charles Overman	Term expires in 1981
	Dick Seger	Term expires in 1982
	Marvin Athey	Term expires in 1982
	Virgil Herriott	Term expires in 1983

Advanced Management Conference Planning and Coordination

Chairman	James Kiley
	Roger Geckler
	James Golden
	Charles Overman
	Jack Wood
	Derl Hinson, Ex-Officio

A. All committee members and officers elected for a 3-year term except as noted.

B. Chairman of each standing committee, except Advanced Management Conference Program Planning Committee, named by the Nominating Committee and serve for three years when elected.