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NYIT

Energy Advisory Service

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IMPLEMENTATION PLAN

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Prepared for the

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August 26, 1976

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FOREWORD

The philosophic basis and proposed implementation of an energy outreach program were set forth in our original unsolicited proposal of December 5, 1975, and in our revised proposal and budget of March 22, 1976, submitted after consultation with ERDA officials. The objectives and scope of work for the initial ten-month period presently contracted, and for the balance of the proposed two-year program, are summarized in the ERDA document "Project: Outreach Program for Energy Information Dissemination in Adjacent Areas of New York, New Jersey, and Connecticut". A copy is included at the end of this report (see Appendix p. A30).

The implementation plan set forth here specifies the nature and the time schedule of the work to be accomplished throughout the ten-month and the two-year period, as far as this can be reasonably determined at the present time. The initial planning has now been completed, many of the initial outreach contacts and arrangements have been made, the Energy Information Center has now been established, and several of the outreach program designs have been completed. With the delivery and acceptance of this implementation plan we shall devote our entire attention to launching the information outreach program and achieving the large scale operation and the initial program evaluation scheduled for this calendar year.

Edwin F. Shelley
August 26, 1976

INTRODUCTION

Under contract with the United States Energy Research and Development Administration the Center for Energy Policy and Research is organizing an Energy Advisory Service for information dissemination on energy conservation technology to various target audiences in adjacent counties of New York, New Jersey and Connecticut.

From an overall point of view, the Energy Advisory Service has two sets of objectives -- one involving information outreach activities and the second involving program evaluation activities. The general information outreach objectives of the Service are:

1. To provide managers of small industrial and commercial enterprises with the knowledge and technical assistance required to adopt energy conserving programs and practices.
2. To provide homeowners and the general public with the knowledge and assistance needed to implement energy conserving measures.
3. To provide public officials and private sector decision makers with the information needed to plan and implement programs which will encourage and facilitate energy conservation throughout the community.

The program evaluation objectives of the Service are:

1. To evaluate the effectiveness of various channels of communication used to disseminate information to target audiences.
2. To evaluate the secondary impact of Energy Advisory Service activities.

To accomplish the information outreach objectives, the Energy Advisory Service will undertake a variety of information dissemination and technical assistance activities detailed later in this report. These activities will be operated and managed under three general program headings: (1) A Cooperative Industry Program, (2) A Public Awareness Program, and (3) An Energy Information Clearinghouse Program. These programs will differ from one another in the particular target audiences served and in the channels of communication through which energy-related information is transmitted. In addition, an Energy Advisory Council, representing all segments of the regional economy, will be established to assure the relevance and effectiveness of the Energy Advisory Service in the tri-state area.

To achieve the program evaluation objectives, we will develop hypotheses, research designs and operational measures of performance appropriate to the task of evaluating the various channels of communication and the secondary impact of the Energy Advisory Service.

In order to obtain early information on the effectiveness of various channels of communication, we will limit the initial operation of the Energy Advisory Service to a small number of priority audiences, channels of communication, energy conservation technologies and geographical areas within the tri-state region. We would expect that the early conclusions drawn from the experimental outreach program of the New York Institute of Technology Energy Advisory Service will be useful to ERDA in establishing guidelines for additional prototype Services.

This Implementation Plan will be organized along the lines suggested by ERDA in the May 17, 1976 paper, "Program Plan: Energy Outreach Demonstration Program." The following aspects of the NYIT Energy Advisory Service will be examined successively:

- I. Technical Services and Marketing
- II. Management
- III. Staffing and Training
- IV. Evaluation and Documentation

I. TECHNICAL SERVICES AND MARKETING

In order to organize the outreach activities of the Energy Advisory Service, we first defined and identified the total array of target audiences, channels of communication and energy technologies which will be of concern to the Service over a two-year period. Working from this global approach, we then sought an initial operating strategy which would enable us at once to have impact on the community and to supply ERDA with some preliminary information regarding the relative effectiveness of various channels of communication for the transfer of energy technology.

The strategy we adopted was to limit the scope of our initial operation by establishing (1) priority target audiences, (2) priority channels of communication, (3) priority energy technologies and (4) priority geographical areas within the tri-state region. This section will trace the evolution of our thinking on these four matters, and will set forth the reasons for selecting particular energy technologies and channels of communication for various audiences.

1. TARGET AUDIENCES

A target audience of the Energy Advisory Service is defined as any person who has need of energy-conservation-related information and assistance, but who does not belong to an organization significantly involved in the energy conservation field. Organizations of the latter type include public and private agencies, corporations, companies, or groups who possess energy related skills and facilities or who already provide energy information and assistance. Members of such groups are not considered by the Energy Advisory Service to be "target audiences" per se, but rather to be "allies" with whom liaison and coordination can be established (see p.15).

Over a two-year period, the categories of target audiences we will serve are:

- Category 1. Owners/Managers of small industrial and commercial enterprises.
- Category 2. Energy Influential Industries which, by their pricing and practices, determine the attractiveness of energy conserving equipment and techniques -- e.g., builders/contractors, real estate developers, architects, equipment manufacturers, and industrial engineers.
- Category 3. Owners/Managers of single family homes, multi-family buildings, public institutions (schools,

hospitals, libraries, etc.), and governmental buildings.

- Category 4. Participants in the Energy Policy-Making Process, broadly defined to include individuals with the authority to set energy policies (e.g., public executives, legislators, planning officials, and members of school boards, hospital boards, zoning boards, and public utility commissions), individuals with the authority to execute energy policy decisions (e.g., energy conservation officials and building inspectors), individuals in a position to provide expert assistance in public policy formulation (e.g., officials of financial institutions, trade and professional associations and unions), and individuals, who by their interest and activity, provide impetus for energy policy changes (e.g., media personnel and the general public).

These target audiences will be served through a variety of information dissemination and technical assistance programs detailed later in this report. For organizational and management purposes, the various Energy Advisory Service activities may be grouped under three program headings:

- (1) The Cooperative Industry Program will deal with the target audiences represented in Categories 1 and 2 above -- Owners/Managers of small industrial and commercial enterprises and Energy Influential Industries.
- (2) The Public Awareness Program will deal with the target audiences in Categories 3 and 4 -- Owners/Managers of single family homes...(etc.), and Participants in the Energy Policy-Making Process.
- (3) The Energy Information Clearinghouse Program will supply target audiences in all categories with background information, instructional opportunities and referrals to other public and private energy organizations.

The selection of specific priority target audiences was to a certain extent intuitive, but in general it reflected a need to effect and evaluate energy conservation changes on a community-wide level and to involve audiences which in the aggregate account for the consumption of major amounts of energy. Eleven priority target audiences were chosen.

Priority Target Audiences

1. Managers of small manufacturing and commercial plants	)	Category 1
2. Builders/Contractors	)	Category 2
3. Architects	)	
4. Owners of single family homes	)	Category 3
5. School Superintendents	)	
6. Hospital Administrators	)	
7. Planning Officials	)	Category 4
8. School Board Members	)	
9. Hospital Board Members	)	
10. Bankers	)	
11. Media Personnel	)	

It can be seen that priority has been attached to a few target audiences from each of the four major categories specified above, rather than to all the target audiences which comprise a single category. This is appropriate in light of our belief that the Energy Advisory Service can facilitate energy conservation among, for example, home owners (Category 3) only if favorable attitudes toward conservation are developed among local builders (Category 2) and bankers (Category 4). The assumption that all target audiences are interrelated in some fashion will require a multivariate research design to properly evaluate the effect of the Energy Advisory Service activities.

2. ENERGY TECHNOLOGY CHANNELS OF COMMUNICATION

In order to disseminate information to target audiences, we will utilize various energy technology channels of communication. Below are brief descriptions of each of the channels to be developed by the Energy Advisory Service over a two-year period. Following this presentation, criteria will be discussed for selecting which of these channels will be given priority attention during the initial months of our operation.

The Energy Information Center -- a source of basic and current materials about each of the energy technologies selected for dissemination. It will be prepared to directly answer individual requests for further information and/or research references on a wide variety of energy subjects (see our detailed report of August 16, 1976; "NYIT Energy Information Center: A First Report").

NYIT Energy Hot Line -- a channel which permits direct and immediate dissemination of energy-related information to the general public and other audiences. The Hot Line service and telephone number will be widely publicized throughout the region. The information a caller requests will be conveyed verbally or through the mail in the form of a fact sheet prepared by the Center for Energy Policy and Research or a publication of either a governmental or private issuing agency.

Metropolitan Regional Council - Television Seminars -- highly focused educational programs using a private television network in which telecasts originate from the World Trade Center and are transmitted to twelve studios in the New York, New Jersey and Connecticut area. MRC-TV is an interactive (two-way) system wherein a participant in one regional studio can have a dialogue with the instructor in the World Trade Center or with another participant in a different regional studio. This arrangement in effect permits the conduct of seminars and conferences involving as many as several hundred participants distributed over a wide area, yet with each participant having to travel only a few miles from his home or office to reach the seminar location. Lectures and discussions will be supplemented with photographs, motion pictures and pre-taped material, and the entire proceedings can be recorded on video tape. Using this channel of communication, seminars tailored to the specific energy information needs of an invited target audience will be conducted on such topics as (1) Energy Management Systems, (2) Solar Energy Systems, (3) Energy Legislation Status Report, (4) Architectural Design, and (5) Capital Cost and Availability for Investment in Energy Conserving Equipment.

Referral Service to "Allied" Public and Private Energy Organizations -- a channel which permits users of the Energy Advisory Service to learn about and avail themselves of the services provided by the other energy conservation organizations and by commercial firms in the tri-state area.

Technical Assistance Teams -- an interpersonal channel of communication in which teams of students and/or volunteers trained by the Center's staff will make on-site visits to interested target audiences. The technical assistance will include preliminary instruction in the preparation of energy audits and in the design of energy management systems, and referrals to private sector organizations offering services and products in these fields.

Press Releases -- used for the first time on June 25, 1976, when the New York Institute of Technology's Public Relations Department sent our press release and detailed background paper on the Energy Advisory Service to over 500 mass media outlets in the tri-state area. The Center for Energy Policy and Research also made a similar mailing to 704 public and private organizations involved in the energy conservation field and to a broad list of individuals in industry, commerce, education, and government known to the staff of the Center. A copy of the press release is included in the Appendix, p. A1.

A Question and Answer Column for Newspapers and House Organs --
Prepared for publication in local newspapers and house organs in the tri-state area, and providing the general public with answers to those questions on energy conservation which we find are frequently asked by callers to our Hot Line.

Traveling Displays -- developed by faculty and students of the New York Institute of Technology Communication Arts program, Architectural program and Engineering program. Displays of an interesting and informative nature will be devoted to energy problems, alternatives and policy. They will be prepared by using photographs, models, graphs, architectural renditions and audio-visual materials. They will be mounted in places where target audiences tend to assemble -- schools, libraries, banks, etc.

Contests -- to involve the youthful segments of the target audiences, energy conservation contests will be developed.

Television/Radio Spots -- prepared by a team of energy and communication specialists assembled from among the Center's staff associates and outside consultants (where required) and using a variety of message design technologies: graphics, still photographs, films, animation, narration, music, etc. The Center will utilize its own public information facilities as well as educational and outside television channels and major networks to provide for the distribution of the spots as a public service component of their programming.

Conferences -- a vehicle to bring certain target audiences together to receive energy-related information which is presented in an understandable and attractive form by guest speakers and Center personnel.

Volunteers -- an experimental information outreach program using the facilities of major voluntary organizations.

Center for Energy Policy and Research Periodical -- a review of energy-related developments mailed to individuals and organizations on the Center's mailing list and other appropriate audiences. Format, content and distribution have not yet been determined.

One basic objective of the Energy Advisory Service is to evaluate these various channels of communication. In view of the current budget limitations the achievement of this objective would suffer if we attempted to develop and operate all the channels of communication simultaneously. Therefore, criteria were established for imposing initial priorities among channels.

Priority has been assigned to those channels of communication which provide individualized contact to some degree. Because of funding

limitations, selected priority channels include only those which can be developed either through the efforts of the Center for Energy Policy and Research staff alone, or by making use of the free or minimal-expense resources (e.g., professional speakers, materials, student volunteers) available from the New York Institute of Technology, or from governmental agencies and private companies involved in the energy conservation business.

Based on these criteria, four priority channels of communication have been chosen:

Priority Channels of Communication

1. The Energy Information Center
2. The NYIT Energy Hot Line
3. MRC-TV Seminars
4. Referral Service to "Allied" Energy Conservation Organizations -- Public and Private

The Energy Information Center is an example of a channel of communication whose implementation can be accomplished by staff expertise alone. The contents of our expanding information center are described in the CEPR publication, "NYIT Energy Information Center: A First Report," August 16, 1976.

The NYIT Energy Hot Line is essentially a personal, individualized and immediate channel for information dissemination to the general public and other audiences. It will be operated on our premises by student volunteers, and it will provide materials prepared by the Center or procured from public and private sources. A detailed description of the Hot Line implementation plan is provided in the Appendix, p. A4.

MRC-TV Seminars make use of an advanced electronic medium -- the interactive television network -- to transmit information in a personal individualized manner. We believe that the interactive television seminar holds great potential for large-scale education of decision makers in the public and private sectors, at low cost and with minimum demands on the time and energies of busy participants. Initial working arrangements with the Metropolitan Regional Council have now been completed. Detailed plans for MRC-TV seminar programs on energy management and solar energy are provided in the Appendix, p. A18. Programs on other appropriate subjects are planned.

The Referral Service is also a channel which involves personal and individualized contact and which can be developed at minimal expense. To date we have identified most of the public and private groups involved in the energy conservation field. We have sent letters of inquiry to ascertain their specific activities, and we have received a substantial response (see p.15). This channel provides an interesting opportunity to assess the effectiveness of referrals made to various public and private energy conservation groups.

After these four priority channels are in operation, we will begin to plan and train technical assistance teams -- the channel of communication which on the one hand involves the greatest degree of personal contact but on the other hand requires extensive staff preparation and training.

3. ENERGY TECHNOLOGIES

A rule of thumb in the communication field is that even in the case of outstanding public issues, large groups in the population have little or no information. We will assume that the same holds true for the levels of knowledge which priority target audiences have about energy technology and conservation practices. Therefore, over a two-year period we propose to disseminate information on a wide variety of energy-related topics.

The topics include (1) opportunities for energy conservation through modified operational procedures, retrofitting, and new design, (2) solar, wind, biomass, geothermal, and solid waste energy conversion techniques, and local generation of electricity in total energy systems, (3) storage technologies for heat and electric energy, (4) the economic pay-off of energy conservation practices and energy conserving equipment, (5) the availability, sources, and cost of capital needed for the purchase and installation of energy conserving equipment, (6) the energy audit and its preparation, (7) the specifications, costs, and vendors of energy conserving equipment, (8) private companies involved in the design and installation of energy management systems, (9) energy conserving equipment test performance data, (10) case studies of economic savings through the installation of energy conserving equipment, (11) energy policy and trends on all governmental levels, (12) the social/environmental/economic impact of energy conservation, (13) the attitudinal barriers to energy conservation, (14) data on energy utilization by industry, by industrial process, by region of the country, etc., (15) energy conservation practices abroad.

However, in the short run, we will give priority to only five energy technologies:

Priority Energy Technologies

1. Energy Management Programs for small Commercial/Industrial Plants
2. Residential Building Insulation and Weatherization
3. Solar Hot Water Heating Systems
4. Solar Space Heating Systems
5. Heat Pumps

These priorities were determined by examining commercially available technologies which can produce sizeable energy savings if installed but which differ in terms of their potential return on investment and in the popularity of their present usage. For example, solar hot water heating, energy management programs, and building insulation currently provide a better return on investment than does solar space heating. Residential building insulation and weatherization are more widely utilized energy conservation technologies than is the heat pump. By disseminating information on technologies which differ in these respects, we will have some significant variations to explore in the empirical analysis of the effectiveness of Energy Advisory Service activities.

4. GEOGRAPHICAL AREAS TO BE COVERED

We thought it wise to also limit the scope of initial operations along geographical lines. We chose ten adjacent counties in the New York, New Jersey, Connecticut area upon which to focus our efforts initially. These counties present contrasts of urban versus rural, industrial versus commercial, and various income level concentrations. As shown in Illustration 1, the priority counties are:

Priority Counties

<u>New York</u>	<u>New Jersey</u>	<u>Connecticut</u>
Nassau	Bergen	Fairfield
Suffolk	Essex	
Queens	Hudson	
Westchester	Middlesex	
Rockland		

5. PROGRAM PROCEDURES

Thus far in this implementation plan we have described our efforts to limit the initial operation in terms of priority target audiences, channels of communication, energy technologies and geographical areas.

However, the basic operating principle of the Energy Advisory Service is that the information provided to a particular priority target audience must be sensitive to the needs and tastes of that group and it must be disseminated through channels of communication compatible with these needs and tastes. To give meaning to this principle, two additional determinations were made.

In the first place, the energy needs of a particular target audience were determined by analyzing reports and studies available in the Energy Information Center, and through discussions with representatives of the various target audiences. We have concluded that it would be appropriate

ILLUSTRATION 1. THE GEOGRAPHICAL AREA TO BE COVERED

to place primary emphasis on certain energy technologies with certain audiences (while still providing background information on all priority technologies):

<u>Priority Target Audiences</u>	<u>Priority Energy Technologies</u>				
	<u>Energy Management Programs</u>	<u>Building Insulation/Weatherization</u>	<u>Solar Hot Water Systems</u>	<u>Solar Space Heating Systems</u>	<u>Heat Pumps</u>
Managers of small manufacturing and commercial plants	X		X		
Builders/Contractors	X	X	X	X	X
Architects	X	X	X	X	X
Owners of single family homes		X	X		X
Planning Officials	X	X	X	X	X
School Boards and Superintendents	X	X	X		
Hospital Boards and Administrators	X	X	X		
Bankers	X	X	X	X	X
Media Personnel	X	X	X	X	X

In the second place, the channels of communication appropriate for reaching a particular target audience were determined by considering a channel's core property. For instance, since the Energy Information Center is essentially a library, it may appropriately be used by audiences with some analytical skills. The Hot Line, however, is an instrument through which relatively simple but nonetheless frequently asked questions can be immediately answered and, therefore, has applicability for the general public. The MRC television network, with its interactive elements, provides the opportunity for seriously interested parties to exchange information and ideas about common energy conservation concerns. And since there are other energy conservation organizations providing services relevant to various target audiences, the referral service is a channel which may be used by many target audiences.

Thus, energy technology information designated for a particular target audience will be transmitted primarily through the following channels of communication:

<u>Priority Target Audience</u>	<u>Priority Channels of Communication</u>			
	<u>The Energy Information Center</u>	<u>NYIT Energy Hot Line</u>	<u>MRC-TV Seminars</u>	<u>Referral Service</u>
Managers of small manufacturing and commercial plants		X	X	X
Builders/Contractors	X		X	
Architects	X		X	
Owners of single family homes		X		X
Planning Officials	X		X	X
School Boards and Superintendents	X	X	X	X
Hospital Boards and Administrators	X	X	X	X
Bankers	X		X	X
Media Personnel	X	X	X	X

SECTION II MANAGEMENT

This section will address the following aspects of the Energy Advisory Service Management: (1) The Energy Advisory Service Managerial Staff, (2) Working arrangements with allied energy conservation organizations, (3) The Center for Energy Policy and Research Advisory Council, (4) Operating Budget, (5) Schedule for twenty-four months including plans for phasing in the various elements of the project.

1. THE ENERGY ADVISORY SERVICE MANAGERIAL STAFF

The management group of the Energy Advisory Service is as follows:

Edwin F. Shelley, Director, Center for Energy Policy and Research

Gale B. Tenen, Deputy Director, Center for Energy Policy and Research, and Associate Director for Communications

Gloria Magat, Associate Director for Information Services, Center for Energy Policy and Research

Robert A. Horrigan, Associate Director for Technical Programs, Center for Energy Policy and Research

Gilbert L. Bardige, Associate Director for Student Liaison, Center for Energy Policy and Research

Carol Dassau, Executive Secretary, Center for Energy Policy and Research

Academic Liaison Committee

Theodore K. Steele, Senior Vice President for Academic Affairs and Dean of Faculty, New York Institute of Technology

Herbert Fox, Associate Dean, Division of Science and Technology, New York Institute of Technology

Adrienne O'Brien, Director of Communication Arts Graduate Studies, New York Institute of Technology

Olindo Grossi, Dean, Division of Architecture and Arts, New York Institute of Technology

(For academic qualifications and areas of expertise see STAFFING Section, pps. 24-25)

2. WORKING ARRANGEMENTS WITH ALLIED PUBLIC AND PRIVATE ENERGY CONSERVATION ORGANIZATIONS

Contact has been made with the following energy conservation organizations operating in the region and arrangements are in progress with a number of these organizations for energy information exchanges, referral procedures, and/or co-sponsorship of certain technical services and energy conferences:

Public and Private Energy - Related Organizations

American Council on Education
Energy Task Force
Washington, D.C.

Brookhaven National Laboratory
Energy Policy Analysis Division
Upton, New York

Citizens Energy Coalition of
New Jersey
Monmouth Beach, New Jersey

Citizens for Clean Air
New York, New York

Concern, Inc.
Washington, D.C.

Conference Board
Energy Group
New York, New York

Connecticut Department of
Community Affairs
Hartford, Connecticut

Connecticut Department of
Planning & Energy Policy
Hartford, Connecticut

Conservation Foundation
Washington, D.C.

Consumer Action Now
New York, New York

Consumer Federation of America
Energy Policy Task Force
Washington, D.C.

Environmental Law Institute
Energy Conservation Project
Washington, D.C.

Federal Energy Administration
New York, New York

League for Conservation Legisla-
tion
Trenton, New Jersey

Legislative Commission on Energy
Systems
Albany, New York

Long Island Association of Commerce
and Industry
Jericho, New York

Long Island Environmental Council, Inc.
Port Washington, New York

Metropolitan Regional Council
New York, New York

Nassau County Department of General
Services
Bureau of Energy Resources
Mineola, New York

Nassau-Suffolk Regional Planning
Board
Hauppauge, New York

National Urban League
New York, New York

New England Solar Energy Association
Townshead, Vermont

New Jersey State Energy Office
Newark, New Jersey

New York City Planning Commission
Energy Group
New York, New York

New York State Energy Office
Albany, New York

New York State Energy Research
and Development Authority
New York, New York

Northeastern Legislative Energy
Staff
Albany, New York

Pratt Institute Center for
Community and Environmental
Development
Brooklyn, New York

Princeton University
Center for Environmental Studies
Princeton, New Jersey

Public Interest Research Group
New York, New York

Regional Plan Association
New York, New York

Scientists Institute for Public
Information
New York, New York

Weatherization Programs
Westchester, Nassau and
Suffolk Counties

Energy Management Consultants
and Companies

AGA Corporation
I.R. Instruments
Secaucus, New Jersey

American Building Specialties
Glen Cove, New York

Barnard & Maybeck, Consulting
Engineers
Rochester, New York

Dubin-Bloome Associates
Consulting Engineers, Planners
and Energy Management Consultants
New York, New York

EMI Consultants, Inc.
Long Island City, New York

Fedders Corporation
Edison, New Jersey

Hamilton Standard
Windsor Locks, Connecticut

Honeywell
Huntington Station, New York

International Business Machines Corporation
Armonk, New York

Irving Kleinman & Associates, P.C.
Consulting Mechanical & Electrical Engineers
Massapequa, New York

Kinney Safety Systems
New York, New York

J & C Lamb Corporation
Long Island City, New York

Lockheed Electronics Co., Inc.
Plainfield, New Jersey

New York Inc. Consulting Engineers
New York, New York

North Country Engineers
Sandy Creek, New York

Roy F. Weston, Inc.
Roslyn, New York

3M Company
West Caldwell, New Jersey

Trauco Associates
Roslyn Heights, New York

3. CENTER FOR ENERGY POLICY AND RESEARCH ADVISORY COUNCIL

Criteria for the selection of the Center for Energy Policy and Research Advisory Council are now being developed. Council members will be influential representatives of the economic, political and social sectors of the tri-state area and will be chosen for their ability to enhance the programs of the Center in general and the out-reach programs in particular. Further report on the composition and organization of the Advisory Council will be made at a later date.

4. BUDGET

The budget for the New York Institute of Technology Energy Advisory Service Project is incorporated in the Contract #E(11-1)-2977 between New York Institute of Technology and United States Energy Research and Development Administration for the establishment of an Energy Advisory Service at the Center for Energy Policy and Research, June 8, 1976. It is reproduced in the Appendix, p. A17.

5. SCHEDULE FOR 24 MONTHS OF THE SERVICE

The Implementation Schedule for the Energy Advisory Service is presented on the following chart and table of Task Completion Milestones:

TABLE 2
TASK COMPLETION MILESTONES

	<u>Months After Contract Awarded</u>
<u>Preliminary Organization</u>	
① Contract awarded	0
② Staffing completed	1
③ Initial press release issued	1
④ Draft implementation plan submitted to ERDA	2
⑤ Revised implementation plan submitted to ERDA	3
⑥ Advisory Council criteria established and candidate interviews initiated	3
⑦ Advisory Council organization completed	4
<u>Energy Information Center</u>	
⑧ Energy Information Center organization completed	3
⑨ Content description completed	3
⑩ Evaluation techniques developed	3.5
⑪ User guide completed	4.5
⑫ Publicity initiated	5
⑬ Initial evaluation report completed	8
⑭ Final report of channel effectiveness completed	24

TABLE 2 cont'd.

Referral Service

(15) Contacts established with other energy related organizations both public and private	3
(16) Evaluation techniques developed	3.5
(17) Initial evaluation report completed	8
(18) Final report of channel effectiveness completed	24

Hot Line

(19) Hot Line plan and materials developed	3
(20) Evaluation techniques developed	3.5
(21) Student operators recruited and trained	4
(22) Publicity initiated	5
(23) Initial evaluation report completed	8
(24) Final report of channel effectiveness completed	24

MRC-TV Seminars

(25) Preliminary plans for MRC-TV seminar programs developed	3
(26) Evaluation techniques developed	3.5
(27) Initial MRC-TV seminar programs developed	4.5
(28) Target audience invitation list developed	4.5
(29) Initial evaluation report completed	8
(30) Final report of channel effectiveness completed	24

TABLE 2 cont'd.

<u>Secondary Impact Study</u>		
(31)	Techniques developed to evaluate Secondary Impact	8
(32)	Secondary Impact Study completed	22
(33)	Final report on Secondary Impact completed	24
<u>Technical Assistance Team Service</u>		
(34)	Technical Assistance Team Service organized	8
(35)	Evaluation techniques developed	8.5
(36)	Final report on channel effectiveness completed	24
<u>Comparative Channel Effectiveness Analysis</u>		
(37A)	Preliminary comparative evaluation report completed	8
(37)	Evaluation techniques developed and channel effectiveness analyzed.	11.5
(38)	Interim comparative evaluation report completed	12.5
(39)	Final comparative evaluation report completed	24
<u>Question and Answer Column</u>		
(40)	Energy Question and Answer Column for Newspapers and House Organs developed	12
(41)	Evaluation techniques developed	12.5
(42)	Final report on channel effectiveness completed	24

TABLE 2 cont'd.

<u>Traveling Displays and Contest Programs</u>		
(43)	Traveling Displays and Contest Programs developed	13
(44)	Evaluation techniques developed	13.5
(45)	Final report on channel effectiveness completed	24
<u>Television and Radio Spots</u>		
(46)	Television and Radio Spots developed	15
(47)	Evaluation techniques developed	15.5
(48)	Final report on channel effectiveness completed	24
<u>Conference Programs</u>		
(49)	Conference Programs developed	16
(50)	Evaluation techniques developed	16.5
(51)	Final report on channel effectiveness completed	24
<u>Volunteer Outreach Program</u>		
(52)	Volunteer Outreach Program developed and Volunteers recruited, organized, and trained	19
(53)	Evaluation techniques developed	19
(54)	Final report on channel effectiveness completed	24
<u>EAS Periodical</u>		
(55)	EAS Periodical planned	11
(56)	Evaluation techniques developed	11.5
(57)	Final report on channel effectiveness completed	24

TABLE 2 cont'd.

Quarterly Reports

(58) First Quarterly Report completed	3
(59) Second Quarterly Report completed	6
(60) Third Quarterly Report completed	9
(61) Fourth Quarterly Report completed	12
(62) Fifth Quarterly Report completed	15
(63) Sixth Quarterly Report completed	18
(64) Seventh Quarterly Report completed	21
(65) Final report completed	24

SECTION III
STAFFING AND TRAINING

This section will describe: (1) plans for staffing the project, including a summary of pertinent staff experience, (2) plans for hiring, and (3) plans for staff training.

1. THE ENERGY ADVISORY SERVICE STAFF

The staff of the Energy Advisory Service has now been assembled and includes personnel with the following educational credentials and areas of expertise:

DIRECTOR

Edwin F. Shelley (AB,BSEE): Engineering Systems,
Communications, Management
(See also biography,
Appendix p. A27.)

DEPUTY DIRECTOR AND ASSOCIATE DIRECTOR
FOR COMMUNICATIONS

Gale B. Tenen (Ph.D., Dec. 1976): Political Science,
Psychology and
Communications

ASSOCIATE DIRECTOR FOR INFORMATION SERVICES

Gloria Magat (M.L.S.): Library and Information Science

ASSOCIATE DIRECTOR FOR TECHNICAL PROGRAMS

Robert A. Horrigan (B.A./B.S.): Economics and Industrial
Engineering

ASSOCIATE DIRECTOR FOR STUDENT LIAISON

Gilbert L. Bardige (B.F.A.): Communication Arts

STAFF ASSOCIATES (Senior Faculty Members of N.Y.I.T.)

Theodore K. Steele (Eng.Sc.D.): Mechanical Engineering,
Management
(Licensed Professional Engineer)

Herbert Fox (Ph.D.): Aeronautical Engineering, Urban Technology

Adrienne O'Brien (Ph.D.): Communication Arts

Olindo Grossi (M.S., R.A.): Architecture

John Calicchia (Ph.D.): Psychology

Job Ebenezer (Ph.D.): Mechanical Engineering

Bernard Gleimer (N.M.E.): Industrial Engineering
(Licensed Professional Engineer)

Raymond Havelick (Ph.D.); Psychology

Heskia Heskiaoff (M.S.): Computer Science

Edward Kafrissen (Ph.D.): Electrical Engineering

Chung Lee (Ph.D.): Political Science

Molly Lee (Ph.D.): Economics

Eugene Mitacek (Ph.D.): Chemistry

Lee Morrison (Ph.D.): Communication Arts

D. Rao (Ph.D.): Industrial Engineering

Rifat Tabi (Sc.D.): Mechanical Engineering
(Licensed Professional Engineer)

Rajen Tibrewala (Eng.Sc.D.): Operations Research

EXECUTIVE SECRETARY

Carol Dassau

2. HIRING PLANS

At present, there are no plans to hire additional staff members, but extensive use will be made of New York Institute of Technology student volunteers who will be recruited at the beginning of the Fall semester.

3. STAFF TRAINING

The Center will use its own managerial personnel and staff associates for internal training, and will retain outside consultants where appropriate.

SECTION IV

EVALUATION AND DOCUMENTATION

The evaluation and documentation procedures to be followed by the Energy Advisory Service have not yet been established. Two separate evaluation studies will be conducted:

- (1) evaluation of various channels of communication for their absolute and comparative effectiveness for energy technology transfer, including their cost-effectiveness.
- (2) evaluation of the secondary impact of the Energy Advisory Service activities.

Each study will utilize an evaluation design including a statement of objectives, a specification of performance indicators, and a description of measurement techniques. Evaluation designs will be reported as they are developed.

In connection with the design to evaluate the comparative effectiveness of various channels of communication, one performance indicator which will be employed is that of relative cost-effectiveness. To determine cost-effectiveness, we plan to examine a possible empirical technique involving the measurement of monies returned to the Federal government in the form of additional taxes paid by commercial and industrial firms as a result of additional profits created by savings in energy cost. With the firm's agreement, we would maintain records on specific companies involved in the Cooperative Industry Program to determine what portion of the company's profit, and hence of the taxes paid, was a result of energy savings attributable to the activities of the Energy Advisory Service. The Energy Advisory Service could be viewed as cost-effective at that point where the cost to the Federal government of supporting the activities of the Service equals the amount of money returned to the government in the form of increased business taxes.

Another performance indicator which will be incorporated in the comparative evaluation design is that of behavioral change resulting from the utilization of various channels of communication. To the

maximum extent possible, we will disseminate standardized information over different channels and examine similar behavioral variables so that the effectiveness of each channel can be analyzed and compared. It should be appreciated, however, that the kinds of information which can be successfully disseminated in a news story, for instance, can be neither as exhaustive nor as detailed as the kinds of information on the same subject which can be disseminated through a seminar or through a one-to-one discussion in connection with a visit by a technical assistance team. Similarly, we can expect somewhat different behavioral changes to result from a mass media story and a technical assistance seminar.

In the early part of the program, we will field-test our evaluation designs and our a priori assumptions on channel usefulness to determine their relevance and value to the ultimate evaluation analysis. In general, it should be understood, that, unlike the usual experiment in the physical sciences, the evaluation procedures we develop may well be modified by our initial experiences with the operation of the outreach programs.

A P P E N D I X

CENTER FOR ENERGY POLICY AND RESEARCH

New York Institute of Technology, Old Westbury, New York 11568 (516) 686-7578

Contact:

EDWIN F. SHELLEY, Director

For Release:

Friday, June 25, 1976

A.M.

TRI-STATE ENERGY ADVISORY SERVICE

TO BE ESTABLISHED AT N.Y. INSTITUTE OF TECHNOLOGY

UNDER FEDERAL ENERGY PROGRAM

The first regional ENERGY ADVISORY SERVICE funded under the energy conservation program of the U.S. Energy Research and Development Administration will be established at the New York Institute of Technology it was announced today.

The service will be operated by the N.Y.I.T. Center for Energy Policy and Research in Old Westbury, Long Island, and will provide detailed information and technical assistance in the use of energy conserving techniques and equipment to industrial and commercial organizations, public officials, homeowners, and the general public throughout the New York, New Jersey and Connecticut area.

An Energy Hot Line will provide the public with free access to the most up-to-date information available on energy conservation techniques. An Energy Information Clearinghouse will make available to public and private agencies the services of an extensive, computerized data-bank at the Center for Energy Policy and Research.

The Center has received an initial award of \$150,000 from the U.S. Energy Research and Development Administration to plan and organize the new tri-state Energy Advisory Service. Those methods of technical assistance and information dissemination which prove most effective will be incorporated into the guidelines for a nation-wide network of energy advisory services presently under consideration by ERDA.

The new, non-profit energy advisory service will provide practical advice on the installation and use of solar energy equipment, improved building insulation, energy management systems and other energy conservation techniques, according to the announcement by Dr. Alexander Schure, President of the N.Y. Institute of Technology, and Edwin F. Shelley, Director of the Center for Energy Policy and Research.

The Energy Hot Line will permit the public to obtain practical information on energy-related matters by telephone. Energy conservation information and technical assistance will also be disseminated through publications, technical seminars, releases to the printed and electronic media, and team visits and consultations in a cooperative program with commerce and industry throughout the region. Information and technical assistance activities will be coordinated with the programs of Federal, State and local energy agencies in the tri-state area.

An Energy Information Clearinghouse will be established at the Center's headquarters on the Old Westbury campus of the New York Institute of Technology. The Clearinghouse will provide assistance and referrals to other

government and private energy agencies, and will make information available from the extensive energy data-bank already assembled at the Center for Energy Policy and Research. The data-bank includes both printed and computer-stored material on energy in general and on energy policy and legislation, renewable energy sources, and energy conservation systems and techniques in particular.

In outlining the program of the new Energy Advisory Service, Mr. Shelley noted that information services to homeowners and the general public will be provided free of charge. Some specialized technical services to public agencies and private organizations will be free, and others will be delivered at cost.

Expert consultation to facilitate the design of energy management programs will be made available to academic institutions, public agencies, and private companies participating in the Center's cooperative industry program. Energy management programs can reduce fuel and electricity consumption by 10% to 40%, and have been successfully installed in schools, hospitals, office buildings, department stores, industrial plants and other public and private buildings and building complexes.

Inquiries should be directed to the Center for Energy Policy and Research, New York Institute of Technology, Old Westbury, New York 11568.

NEW YORK TECH ENERGY HOT LINE

Implementation Plan

Introduction

The New York Tech Energy HOT LINE, located on the Old Westbury Campus of the New York Institute of Technology, is designed to serve as a channel for disseminating information to the residents of the New York, New Jersey, and Connecticut area.

The HOT LINE will operate from an acoustically insulated area in the Center for Energy Policy and Research. A definitive starting date for the operation of the HOT LINE has not yet been decided, however, October 1 is currently felt to be feasible. The HOT LINE will be in service Monday through Friday from 9:00 a.m. to 5:00 p.m.

Personnel

The HOT LINE will be operated by a Supervisor and at any one point in time a NYIT upperclass or graduate student (referred to hereafter as student associate).

The HOT LINE Supervisor is directly responsible for all aspects of operation. These include:

1. Planning and organizing
2. Recruiting and training of student associates
3. Liaison between CEPR staff and student associates
4. Guiding and supporting personnel
5. Collecting and updating materials for dissemination
6. Acting as replacement for absent personnel
7. Assisting in answering callers questions and in basic research
8. Approving initial mailings
9. Solving general operating problems
10. Organizing periodic evaluation meetings
11. Storing data accurately in files and computer
12. Answering selective written questions

Daily operation of the HOT LINE will be carried out by student associates. Each will work a two-hour shift (4 shifts per day), totaling 40 man-hours per week. Arrangements will be made for replacements during school holidays, and examination periods. Student associates

will be recruited with the help of the NYIT Dean of Students office, Student Services office, faculty and staff recommendations, and student club leaders (e.g., the NYIT Solar Energy Club). Advertisements also will be placed in the campus newspaper.

Incentives to student associates for their service include: college credit for HOT LINE experience, work-study stipend award, and public acknowledgment of contribution (plaques, certificates).

Personnel Training

The student associates will receive orientation and training, and will participate in a simulated question and answer period prior to beginning their HOT LINE duty. They will be made fully conversant with all the materials available for HOT LINE dissemination.

Types of Information Available:

The questions of HOT LINE callers will be answered orally and/or in written form. To prepare student associates to provide oral responses, a list of over 200 potential questions about energy-related matters has been prepared. To date, answers have been researched for approximately one half. When the HOT LINE begins operation, student associates will be provided with lists of prepared responses to questions about the following:

Energy Conservation

In the home -- At work

Fossil Fuels

Resources -- Reserves -- Supply -- Demand -- Production --
Consumption -- Prices -- Imports -- Exports -- Storage --
Energy use by fuels -- Embargo contingency plans -- Consuming
sectors -- Electricity -- Alaska

Nuclear Energy (fission)

Alternative Sources of Energy

Solar electric -- Wind -- Heat Pump -- Tidal -- Geothermal --
Solid waste -- Fusion -- Synthetic fuels -- Hydrogen -- Biomass --
Others

Solar Energy

Space heating -- Space cooling -- Hot water -- Heat pumps

Foreign Affairs and Energy

Economics and Energy

Environment and Energy

Agribusiness and Energy

Glossary of Energy Terminology

Federal Energy Agencies and their Function

State Energy Agencies and their Function

Elected and Appointed Energy Officials

National -- Local -- Tri-state

Current Energy Legislation

National -- State -- Local

Area Energy Consumer Groups

In addition to providing information verbally, student associates will mail more detailed pamphlets and fact sheets to callers. These materials will be obtained from government and various reputable sources, or they will be prepared by the CEPR. Table A.1, placed at the end of this report, lists the different publications which will be distributed, their issuing agency and their present availability.

The materials indicated in Table A.1 will be pre-assembled in packets on each major subject area of the sample Q & A lists. Packets will be sent out to answer "normal requests" (i.e., How can I save by insulating my home?). In cases of "special requests", these packets can be altered to accommodate the necessary materials. All mailings will have to be approved by the HOT LINE Supervisor to ensure consistency and accuracy.

Sources of Data on HOT LINE Operation

The HOT LINE will use three techniques to record and store necessary evaluative data.

1. Log Form

For each incoming call the Student associate will fill out a standardized log form consisting of:

- a) the name of the caller
- b) address
- c) phone number
- d) occupation of caller --(homemaker -- businessman, etc.)
- e) the date
- f) the time
- g) name of student associate
- h) the question(s) asked
- i) the response(s) given

- j) method of responding (oral with written follow-up preferred)
- k) referral if any
- l) research done if any
- m) how caller learned about the HOT LINE

These logs will be filed daily in both original print form and in the NYIT computer facility. The use of the computer will allow for analysis of internal operations, our audience needs, and the effectiveness of HOT LINE publicity. The written daily logs will be kept on file during the first year for ERDA use.

2. Business Reply Card

Included in each mailing will be a Business Reply Card in which questions designed to provide additional data on the HOT LINE will be asked.

3. Follow-up Questionnaire

A follow-up questionnaire will be developed in cooperation with CEPR staff associates to provide more detailed data concerning demographic characteristics of the audiences and their responses to us. Another purpose of the questionnaire would be as an aid in self-evaluation when reports are filed with ERDA. From analysis of the printouts, we will be able to adjust our policies, hours and publicity priorities.

HOT LINE Procedural Operations

Student Associates will be trained to follow a set procedure:

1. "Hello, New York Tech Energy HOT LINE, may I help you?"
2. Pull out log form and begin.
3. Receive question - record it.
4. Ask who the answer will be for -- (Homemaker -- Businessman, etc.)
5. Record response to No. 4
6. Look up answer -
 - a) Q & A sheets or lists
 - b) Fact sheets
 - c) Pamphlets
7. Give response to No. 3 -- record it
8. Give oral response -- written follow-up
9. Fill out log form
10. Thank him/her for calling -- invite a return call

Questions for which answers have not been Prepared

Should the student associate be unable to answer the question immediately with the materials at hand, he/she is to take the caller's phone number and ask permission to call back with the answer. The

student associate will then consult the HOT LINE Supervisor who will assist in the research process.

Controversial Questions

In this situation, the student associate will explain that the HOT LINE cannot take an official position on the question, but can provide the caller with a sampling of authoritative pro and con arguments on the question. Otherwise, the student associate should refer the caller to the Deputy Director.

Concerning the endorsement of private companies -- the student associate will state that any mention of a private company, either orally or written is not to be considered an endorsement or recommendation.

Publicity for the HOT LINE

A publicity campaign divided into two phases will be launched to make area residents aware of the HOT LINE and to encourage them to use its service.

PHASE I -- October 1 -- October 31

- A) Press Release - for release on the inaugural date of HOT LINE
- B) Radio and Television stations' community calendar announcements - these are free but require advance notification
- C) Posters - to be printed at NYIT and placed in public areas (i.e., shopping malls, banks, fairs)
- D) News Stories covering the opening of HOT LINE - either print or electronic media
- E) Guest Speakers
 - 1. A member of the CEPR staff can make a speaking tour of the area to promote the HOT LINE and explain the purpose of the Energy Advisory Service. Films and slides will be used in support of the speaker.
 - 2. An expert can be brought in to answer questions on radio Q & A shows. He/she can promote energy conservation and say, "For further specific information, call the New York Tech Energy HOT LINE." These can be done as part of a radio station's FCC requirements.

PHASE II -- November 1, and periodically thereafter.

F) Continuation of C and E.

G) Syndicated Energy Weekly Summary Column.

Will contain energy related events, such as (1) general energy news stories, (2) ERDA announcements, (3) new research discoveries, (4) current legislation, (5) book and article reviews, and (6) general announcements. At the conclusion of the article it will state "For more information, call the New York Tech Energy HOT LINE.

H) Poster Contest in area schools on energy conservation. The contest can be done by the schools as their first class project. The winning posters will be reproduced and distributed in the winners' home counties. The bottom of each poster will read "...for more information call the New York Tech Energy HOT LINE..." The CEPR will provide the necessary information for the posters and will arrange for the judging. Prizes will be awarded to the winners (i.e., certificates, circus tickets, etc.)

I) Broadcasting pre-recorded HOT LINE conversations or excerpts on local radio stations. Will inform area residents on the energy situation and publicize the HOT LINE while helping to fulfill stations FCC requirements.

J) Q & A Energy Column - As a printed extension of the HOT LINE, residents can write to area newspapers with their questions and the HOT LINE staff will answer them. Thus, those people who are reluctant to use the more personalized telephone channel of communication can be serviced.

K) Television - Public Service Announcements (PSAs) can be produced at NYIT using qualified communications students as writers, talent, and production crew. PSA's are broadcasted by commercial T.V. stations free of charge as part of their FCC license requirements. Area stations can broadcast our PSA's in the form of :10, :30 and :60 second video-tape or film spots. They can be:

- a) live action only
- b) animation only
- c) live action and animation

These spots will show the positive aspects of energy conservation and will end with the message "...for further information call..." They can be straight information spots or dramatic examples. Whenever possible we should attempt to use popular celebrities (e.g. the Redfords and their solar house) as our talent.

The commercial stations television channels of initial concern are channels 2,3,4,5,7,8,9,11.

Another source of broadcasting on television is the Public Broadcasting stations in the area (13,21,31). These stations can also make use of the :10, :30 and :60 second spots as described above. However, because of their more sophisticated audiences, they may also be interested in 2:00 minute video-tape or film PSA's. These PSA's can also be produced at NYIT using students, wherever possible, to hold down costs. The PSA's have the dual purpose of publicizing the HOT LINE and promoting energy conservation.

Radio

Public Service Announcements are also used by radio stations. These can be either :10 or :30 second spots done as part of the text in station's log, as announcements made by the disc jockey or as prerecorded tapes produced at NYIT containing the message. In the latter case - a celebrity as the "talent" should be used for the best possible identification between the sender -- the message -- the audience.

Evaluation Techniques

The following variables will be taken into consideration when effectiveness of the HOT LINE is assessed.

Responses from the business reply cards included in each HOT LINE mailing.

Number of calls to HOT LINE per day.

Number of questions to Energy Q & A column - types of questions asked -- the newspaper used -- address of questioner.

The public's response to NYIT-produced PSA's and publicity announcements.

Number of callers on radio Q & A - types of questions.

Number of requests for guest speakers to describe HOT LINE -- characteristics of organizations making requests.

Amount of written mail -- who and where it comes from, and on what topics.

Anecdotal experiences of HOT LINE operators.

These variables and their analysis will be discussed in a HOT LINE evaluation meeting to be held every 60 days. (Initially on November 1 -- then January 1, etc.). A written report will then be prepared, filed, and used for comparative purposes.

Prepared by Gilbert Bardige
Associate Director for
Student Liaison

TABLE A.1

New York Tech Energy HOT LINE Publications List*

Publications for General Use:

<u>Title</u>	<u>Source</u>	<u>Pages</u>	<u>Status</u>
<u>Oil and Gas</u> Fact Sheet- Project Independence, supply, supply-demand gap, drilling techniques.	FEA	8	bulk ordered 8/4
<u>Oil Shale</u> Fact Sheet- Location, how much is there, extraction, conversion, environment, govern. leasing.	FEA	3	bulk ordered 8/4- 55 copies on hand-
<u>Solar</u> Fact Sheet- Heating and cooling of buildings, solar thermal conversion, wind power, ocean thermal gradients, bio conversion, photovoltaic cells for electricity.	FEA	7	bulk ordered 8/4
<u>Coal</u> Fact Sheet- Resources, how formed, mining, burning, conversion.	FEA	3	bulk ordered 8/4
<u>Outer Continental Shelf</u> Fact Sheet- Why drill, where, why is it underdeveloped, leasing, environment.	FEA	6	bulk ordered 8/4
<u>Nuclear</u> Fact Sheet Why so few power plants, risks, what is a nuclear reactor, types, breeder, fuel reserves.	FEA	6	bulk ordered
<u>Consumer News June 1976-</u> Costs to run appliances, getting the most out of A/C, buy a/c energy wise, rescheduling home appliances.	Con. Ed.	4	received 100 7/9
<u>Energy Management: A Checklist for</u> USDA <u>the Home.</u>		7	bulk will be ordered or printed by CEPR.

* As of August 23, 1976.

Table A.1 continued

<u>Title</u>	<u>Source</u>	<u>Pages</u>	<u>Status</u>
<u>Take a Quick Look at Your Home-</u> Heating savings, whole house a/c, caulking and putty, savings factor, tools, safety, materials, installation.	HUD	7	bulk will be ordered or printed by CEPR.
<u>EER--A/C and You-</u> Fact Sheet- Choosing a room a/c, EER, estimating cooling capacity, cost of electricity, load chart.	Nassau Co.	3	received 100 7/21
<u>Your Guide to Meter Reading and</u> <u>Your LILCO Bill.</u> Meter readings- who, what, when, actual vs. estimated bills, diagram of sample bill.	LILCO	9	received 100 8/17
<u>How to Conserve Energy (and save</u> <u>money) in Your Home.</u> Conserving energy: heating, cooling, kitchen, hot water, lighting, around the house, recycling, average use chart.	LILCO	15	received 150 8/17
<u>Fusion</u> What is it, how it works, fuels, general overview.	ERDA	9	have 78 copies.
<u>Oil Shale</u> Green River formation, what is oil shale, resources, how processed, how mined.	ERDA	8	have 76 copies.
<u>Geothermal</u> Generating elec., hot water wells, dry hot rock, locating resources.	ERDA	11	have 71 copies.
<u>Energy Technology</u> Coal, oil, natural gas, fission, fusion, solar, geothermal, the environment.	ERDA	7	received 100 7/20
<u>Energy Storage</u> What is energy, what is elect., water storage, batteries, fly- wheel, compressed air, others...	ERDA	9	received 100 7/20

Table A.1 continued

<u>Title</u>	<u>Source</u>	<u>Pages</u>	<u>Status</u>
<u>Shipping of Nuclear Wastes</u> Who controls safety, alpha, beta, gamma rays, types of wastes, packages, where shipped, identification.	ERDA	9	75 copies
<u>Creating Energy Choices for the Future.</u> The plans, the problem, overview, near term, mid term, environment, role of Federal Government.	ERDA	12	received 75 7/20
<u>1975 Gas Mileage Guide</u> Fuel economy test results for autos and light duty trucks.	EPA	17	have 15 copies
<u>1976 Gas Mileage Guide</u> Fuel economy test results for autos and light duty trucks.	EPA	19	received 25
<u>The Catalyst and Clean Air</u> What does it cost, lead gas use,--EPA odor, hydrogen sulfide, MPG, failures, fire hazard, EPA requirements, sulfuric acid mist.		4	bulk not available will become CEPR Fact Sheet.
<u>Tips for the Motorist</u> List of tips for better MPG	FEA	9	received 75
<u>Connecticut Commuter Car Pool Tips</u> --Conn. DOT. List of carpooling tips, formation, and results.		4	received 100
<u>Tips on Saving Energy</u> Balancing energy budget, cold weather, hot weather, insulation, hot water, cooking laundry, swimming pools...	BBB	9	bulk to be ordered
<u>1977 Gas Mileage Guide</u>	EPA		not yet in print
<u>How to Save Money by Insulating Your Home.</u> Practical, detailed, illustrated instruction and advice.	FEA	22	ordered bulk 8/4
<u>Energy Saver 1- How to Insulate Your Home.</u> The why, how much, how to insulate your home...	Con Ed.	8	received 100 7/9.

Table A.1 continued

<u>Title</u>	<u>Source</u>	<u>Pages</u>	<u>Status</u>
<u>Energy Saver 2- How to Keep Your House Warm 44 Ways.</u> A list of 44 ways...	Con Ed.	8	received 100 7/9
<u>Energy Saver 3- How to Keep Cool and Save Money, too.</u> How to select window unit, EER, use and maintenance...	Con Ed.	8	received 100 7/9
<u>Energy Saver 4- How to Save Energy Around the Kitchen.</u> Refrigerators, freezers, ranges, dishwaters, laundry equipment savings possible.	Con. Ed.	8	received 100 7/9
<u>Energy Saver 6- How to Get the Most for Your Water Heating Dollar.</u>	Con. Ed.	4	received 100 8/4
<u>Gasoline: more miles to the gallon.</u> What is gasoline, how it works in the car, hints on saving, octane rating, compression ratio.	USDOT.	---	bulk not available- will become CEPR Fact Sheet.
<u>Making the Most of Your Energy \$ in Home Heating and Cooling.</u>	USDOC/NBS		will order bulk
<u>Saving School Bus Fuel-</u> How- the bus, operations, maintenance, the driver- whys.	USDOT/FEA	6	ordered 100 8/4
<u>Energy Conservation: Windows</u>	FEA/NBS	6	ordered 150 8/4
<u>Energy Conservation: Landscaping</u>	FEA/NBS	7	ordered 100 8/4
<u>Use Energy Wisely and Save Money</u>	N.J. PSE&G	11	will order bulk
<u>Conserve Energy</u>	Brooklyn Union Gas.	8	will order bulk
<u>Some Helpful Hints On How To Conserve Energy.</u>	Northeast Utilities	14	will order bulk
<u>Energy Saver 5- How to Achieve Good-- Lighting and Save Money, too.</u>	Con. Ed.	8	bulk ordered 8/23
<u>Energy Saver 7- Tips for the Young--</u>	Con. Ed.	-	bulk ordered 8/23
<u>Energy Saver 8- How to Save Gas and-- Money, too.</u>	Con. Ed.	8	bulk ordered 8/23

Table A.1 continued

Publications for Commercial Use:

<u>Title</u>	<u>Source</u>	<u>Pages</u>	<u>Status</u>
<u>How to Start an Energy Management Program.</u> What is it, why, how, organizing mgt. resources, conducting audit, setting goals, launching campaign.	USDOC	6	received 50 8/1.
<u>Industry's Vital Stake in Energy Management.</u> Root of the problem, domestic supply, US energy independence, vital stake, what business can do, time is critical.	USDOC	6	received 50 8/1.
<u>33 Money-Saving Ways to Conserve Energy in Your Business.</u> Why conserve, energy uses, the ways..., space conditioning, scheduling, heat recovery, equipment maintenance, industrial processes.	USDOC	6	received 50 8/1.
<u>Energy Management: Economic Sense for Retailers.</u> Organizing resources, audit-goals-campaign, checklist (heating, cooling, equipment, lighting, transportation).	USDOC	7	received 50 8/1.
<u>Energy Management in Health Care Institutions.</u> Starting a program, audit, conversion factors, checklist, professional resources list.	USDOC/HEW	9	received 50 8/1.
<u>Energy Management: Marketing Priorities and Energy.</u> Energy shortages, initiate action now.	USDOC	6	received 50 8/1.
<u>Energy Management: Trade Associations and Economics of Energy.</u> Energy costs, prices and supplies, role, example, survey format, suggested guidelines, professional resource list.	USDOC	16	received 50 8/1.

Table A.1 continued

<u>Title</u>	<u>Source</u>	<u>Pages</u>	<u>Status</u>
<u>Energy Conservation Handbook for</u> <u>Light Industries and</u> <u>Commercial Buildings.</u> Examples of fuel conservation, equipment adjustment, process control, suggested guidelines, professional resources list.	USDOC	17	received 50 8/1.
<u>How to Profit by Conserving</u> <u>Energy- A Do It Yourself Kit.</u> Set conservation goals, actual reduction, energy content use, yardstick to measure results, (charts and checklists).	USDOC	5	received 50 8/1.
<u>Trucker's Guide to Fuel Savings.</u> A complete guide for truckers.	FEA/DOT/EPA	20	bulk ordered 8/4.
<u>Total Energy Management</u> Provides practical approach for implementation for building owners and managers.	USDOC		bulk ordered 8/19.

MRC-TV ENERGY MANAGEMENT SEMINAR

PRELIMINARY OUTLINE

I. Introduction

The main objective of the MRC-TV Energy Management Seminar program will be to convince certain Energy Advisory Service priority target audiences in the commercial and industrial sectors to implement energy conserving procedures and, if justified, install energy conserving equipment.

The seminar will disseminate information on three subjects:

- A. The financial incentive to energy conservation.
- B. How to establish and maintain an Energy Management Program.
- C. How to evaluate energy conserving equipment on the basis of life cycle analyses.

The central theme of the seminar will be the economic payoff of energy conserving programs and equipment. It should be emphasized that this seminar will present only the background behind energy conservation in industrial and commercial buildings, and will exhibit case studies. However, because specific application and installation techniques are unique to each building, the seminar cannot replace the expert individual consultation required before any equipment is bought. We will provide seminar participants with referral lists of consulting engineers and companies with the appropriate expertise to provide this service. The audience will be adequately prepared to evaluate these experts' proposals after participation in the MRC-TV seminar.

II. Audience

We will identify seminar participants through local Chambers of Commerce, the Small Business Administration, service organizations, professional directories, and personal referrals. These persons will be contacted through letters inviting them to a nearby MRC-TV regional studio for our broadcast. This letter will explain the seminar's purpose, announce the dates and times of the seminar, and include the seminar's outline and energy conserving suggestions.

Separate seminars on energy management will be designed to fit the needs of the following Energy Advisory Service priority target audiences:

- A. Managers of small manufacturing and commercial plants
- B. School officials
- C. Hospital Administrators

III. Seminar Presentation

There are three important aspects to the presentation of a MRC-TV seminar program:

- A. Interactiveness. MRC-TV allows seminar participants to communicate directly with the instructor and with each other. Questions on all aspects of the seminar will be encouraged, and every attempt to stimulate active debate will be made.
- B. Guest Speakers. Expert guest speakers will be recruited from commerce and industry to speak on their specialty and to answer technical questions.
- C. Audio-Visual Materials. New York Institute of Technology has excellent equipment for producing audio-visual materials and these facilities will be made use of when appropriate. For example, film clips, slides, large graphs and other pictorial representations could be used. In addition, energy conserving equipment might be put on display.

IV. Seminar Content

- A. The Financial Incentive for Energy Conservation
This section of the seminar will discuss:
 - 1. The current and projected energy situation, the precarious position of non-renewable world energy supply and the probability of continued escalation of energy costs.
 - 2. Case histories of energy savings realized in companies and organizations of the same type as those in the seminar audience.
- B. How to Establish and Maintain an Energy Management Program
This section of the seminar will involve training the audience in methods to achieve the following three objectives:
 - 1. Increase employee awareness. The audience will be instructed in the importance of obtaining the commitment, cooperation, and participation of all company personnel in an energy management program. We will teach our audience that an effective energy management employee awareness program must define the problem, point out objectives, establish responsibilities and enlist employee participation, not only in carrying out directives on wise energy use, but just as importantly, in getting employees to offer their own conservation ideas. We will also present suggestions for informing personnel and gaining their acceptance.
 - 2. Define areas of waste. The audience will be instructed on how to conduct an energy audit of their facilities in order to identify areas of energy waste. We will teach the audience how to prepare an energy balance sheet

which measures direct energy use by equipment, modes of equipment operation, the efficiency of equipment, and its costs. The degree of detail and explicitness in explaining the procedures of an audit will be determined by the audience makeup.

3. Take corrective action. The audience will be shown that energy conservation can be accomplished by taking steps which involve any or all of the following:
 - a. Operation and maintenance strategies. We will teach the audience about simple energy conservation procedures which can reduce unnecessary energy use and/or waste immediately and at little or no cost.
 - b. Modification and retrofitting of existing structures and equipment. We will discuss energy efficient equipment, controls and structural changes which require capital expenditures and which involve thorough engineering analysis and design of buildings and processes.
 - c. New design of equipment and building components. For seminar participants considering additions to plants or entire new facilities, we will provide suggestions about energy conservation design in both structure and plant processes.

C. How to Evaluate Energy Conserving Equipment on the Basis of Life Cycle Analyses.

This section of the seminar will provide specific examples of cost/benefit analyses of sample equipment that could be applied to the audience's particular needs. It will be emphasized that these are only examples. We will instruct the audience in the use of a standard method for making their own cost/benefit evaluations of new equipment. This method involves the following decision process:

1. Determine the objectives; e.g. reduce compressed air volume.
2. Determine the number of alternatives to be studied; i.e., what equipment is on the market.
3. Decide on the basis of decision; e.g. return on investment, payback period.
4. Determine what needs to be known.
5. Determine what is known.
6. How do you handle the unknown?
7. Evaluate the risks; i.e., probability analysis.
8. Make the decision.

V. Evaluation and Feedback

Prior to conducting a seminar, we will seek the advice of outside experts to comment on the factual accuracy, clarity, and objectivity of the background materials and of the seminar's content, and to assess whether appropriate emphases have been placed on particular issues.

After a seminar has been run, we will contact participants and ask them to provide information on any action they have taken, on projected or realized savings, and on their reaction to the seminar itself. This information will be periodically analyzed. Feedback is essential to the success of the outreach program and will be incorporated through improvements in operating procedures when justified.

Prepared by Robert Horrigan
Associate Director for
Technical Programs

MRC-TV SOLAR ENERGY SYSTEMS SEMINAR

PRELIMINARY OUTLINE

I. Introduction

The main objective of the MRC-TV Solar Energy Systems Seminar program will be to awaken certain Energy Advisory Service priority target audiences in commercial, private and governmental establishments to the reality and availability of solar technology, and to convince them, where justified, to install solar equipment.

The seminar will disseminate information primarily on the following:

- A. The financial incentive to using solar energy.
- B. The mechanism of solar energy: How does it work? What has been developed? What are the problems?
- C. The socio-political consequences of solar usage.
- E. The mechanics of selecting and installing solar equipment.

The thrust of the seminar will be directed towards making the operation of solar equipment easily understood and instructing participants in how to appraise the financial incentives in using solar equipment, to evaluate various company's proposals, and to buy equipment suitable for their needs.

Experts in the solar energy field will consult and advise the Energy Advisory Service on seminar content. Once involved in this capacity, they will be invited to serve as guest speakers in the seminar.

II. Audience

The seminar invitation list will be established by consulting local Chambers of Commerce, the Small Business Administration, service organizations, professional directories, personal referral lists and contacts in local government. Seminar participants will be contacted through letters inviting them to a nearby regional MRC-TV studio for the seminar. The letter will explain the seminar's purpose, announce the dates and times of the program, and include a seminar outline, a motivational statement, and a response card. The audience will be invited in such a way that they will be homogeneously grouped for each seminar.

Separate seminars on solar energy systems will be designed for the following Energy Advisory Service priority target audiences:

- A. Managers of small commercial facilities such as laundromats, carwashes, restaurants, and others dependent on hot water.
- B. Managers of small manufacturing plants.
- C. Builders/contractors.
- D. Planning Officials.
- E. School Officials.

III. Seminar Presentation

There are several important aspects to the presentation of a seminar on the MRC-TV network:

- A. Interactiveness. MRC-TV allows seminar participants to communicate directly with the instructor and with each other. Questions on all aspects of the seminar will be encouraged, and every attempt will be made to stimulate active debate.
- B. Guest Speakers. Expert guest speakers will be recruited from the solar energy industry to speak on their specialty and answer technical questions.
- C. Audio-Visual Materials. New York Institute of Technology has the facilities to produce film clips, slides, large graphs and other pictorial representations for use during the seminar. In addition, solar equipment might be put on display.
- D. Technique. The seminar on solar energy systems is not aimed at the scientist. For this reason, the seminar will be conducted in a convincing manner, such that it be factually sound but easily understood.

IV. Seminar Content

The seminar will be divided into seven sections, with a question and answer period after each section.

The seminar will be tailored to the specific homogeneous audience of that day. For example, laundromat and carwash owners will learn more about solar hot water heating than solar space heating or up-and-coming technology. For planning officials, however, more time will be spent on examining solar energy's political, environmental, and economic impact and less time will be spent on explaining the workings of solar systems.

For most audiences, the seminar will be mainly concerned with discussing the financial incentive in using solar energy, identifying available equipment and explaining how it works.

- A. Section One--The Place of Solar Energy in the Energy Crisis
 - 1. The current and projected energy situation; the precarious position of non-renewable world energy supply and the probability of continued escalation of energy costs.
 - 2. Case histories of solar installations.
- B. Section Two--How Does Solar Energy Work? What Types of Parts and Systems have been developed?
 - 1. Storage--insulated water tank, rock tank (for air),

- chemical pellets.
- 2. Conversion--collectors (aluminum, copper, concentrating), collector covers (glass, tempered glass, plastics), collector efficiency.
- 3. Use--swimming pools, hot water, home heating, air conditioning.
- 4. Systems--combination of storage, conversion, use.
- 5. Guidelines on how to evaluate solar equipment.
- 6. Question and answer period.
- C. Section Three--Problems Particular to Solar Equipment and Systems and the Industry's response.
 - 1. Complete insulation of home is a prerequisite.
 - 2. For building new houses: design, orientation, etc.
 - 3. Question and answer period.
- D. Section Four--Why Use Solar Now?
 - 1. The need for American energy self-sufficiency.
 - 2. The impact of popular usage of solar on the economy and jobs.
 - 3. The question of economic feasibility and explanations of variables effecting payback period:
 - 4. Payback variables:
 - a. Fuel costs--as fuel costs rise, payback period is shortened.
 - b. Legislative decisions--if Congress enacts tax break, or removes price controls on natural gas, payback period changes.
 - c. Changing price of solar equipment--as industry enlarges, mass production should reduce prices.
 - d. Percent of solar energy to be used--is it only for water or for space heating too?
 - e. The type of solar system.
 - f. The type of backup system.
 - g. New house or retrofitting.
 - h. Financing method--is it to be added to mortgage?
 - i. Heating requirements--does company need hotter than normal water? Does it use more heat per square foot roof space than most companies?
 - 5. Question and answer period.
- E. Section Five--Barriers to Solar Energy Utilization.
 - 1. Concept of barriers.
 - 2. Past economic, technological, legal and psychological barriers.
 - 3. Question and answer period.
- F. Section Six--Up-and-Coming Technology
 - 1. Solar cells for electricity
 - 2. Solar heat pumps
 - 3. Large electricity schemes--solar fields or space ideas
 - 4. Economic possibilities and feasibilities of above.
- G. Section Seven--Conclusion
 - 1. Why this audience should lead society in acceptance of solar energy usage--the risks should be compared to the economic and social benefits.
 - 2. The mechanics of researching, buying, and installing solar

equipment.

- a. Use of seminar information
- b. Use of hard-material handouts, (see below V)

3. Question and answer period.

V. Hard-Material Handouts

- A. Outline of seminar (prior to seminar).
- B. Pictures and descriptions of installations of solar equipment.
- C. Bibliography of solar articles.
- D. List of companies in tri-state area dealing in solar energy (including architects, consulting engineers and manufacturers).
- E. List of services offered by the Center for Energy Policy and Research.
- F. Request for feedback on the seminar.
- G. Question and Answer pamphlets prepared for each target audience.
- H. Sample list of questions to ask solar companies when shopping for equipment.

VI. Evaluation and Feedback

Participants will be urged to provide constructive feedback on the seminar. From this feedback, the program will be changed so that the demands of particular future audiences will be better served. Moreover, the participants will be contacted later and asked to provide information on any action to "go solar" that they have taken, costs and savings, and subjective information. This information will be analyzed periodically.

Participants will also be urged to advertise the seminar to their colleagues in other companies, governmental units and associations, and will be asked to provide information on how these people might be reached. This cooperation hopefully will lead to a snowballing effect which is also a factor in the success of any outreach program.

Prepared by David Gordon
Student Intern

BUDGET
(24 Months)

	<u>Estimated Requirements</u>	
	<u>First 10 Months</u>	<u>Following 14 Months</u>
1. <u>Salaries and Wages</u>	\$71,559	\$111,382
Professional Personnel:		
N.Y.I.T. Contribution of Principal Investigator - E.F. Shelley, Director, Center for Energy Policy and Research - 50% of time for 10-month year.	-0-	-0-
G.B. Tenen, Assoc. Dir. for Communications - 100% of time @\$1,666/month.	\$16,660	\$23,324
G. Magat, Assoc. Dir. for Information Services - 75% of time \$1,666/month.	12,495	17,493
Assoc. Dir. for Technical Programs (to be selected) - 100% of time @\$2,083/month	20,830	29,162
T.K. Steele, Sr. V.P. & Dean of Faculty - 1 month per year @\$3,640/month	3,033	4,246
H. Fox, Dean, Science & Technology - 1 month per year @\$2,650/month	2,208	3,091
A. O'Brien, Dir., Graduate Program in Communication Arts - 1 month per year @\$2,200/month	1,833	2,566
O. Grossi, Dean, Architecture and Arts - 1 month per year @\$3,000/month	2,500	3,500
Other professional personnel - 3 person-months total @\$2,000/month (av.)	2,000	4,000
Support Personnel:		
Secretarial and student assistants - 8,500 hours total @\$4/hour (av.)	<u>10,000</u>	<u>24,000</u>
2. Travel and Subsistence	7,000	10,000
3. Other Direct Costs	16,126	42,520
Publications	4,000	12,000
Conference Materials & Expense	5,000	15,000
Audio/Video Materials & Expense	4,000	10,000
Computer, Communication and Miscellaneous Expense	<u>3,126</u>	<u>5,520</u>
4. Indirect charges 77.3% of Salaries and Wages	<u>55,315</u>	<u>86,098</u>
Total Project Costs Requested	<u>\$150,000</u>	<u>\$250,000</u>

Educated Columbia College, A.B. (1940), Mathematics and Psychology. Columbia University School of Engineering, B.S. in Electrical Engineering (1941). Harvard Business School, 31st Advanced Management Program (1957).

Senior Member of the Institute of Electrical and Electronics Engineers. Member of the American Institute of Aeronautics and Astronautics, the American Physical Society, the American Association for the Advancement of Science and the Newcomen Society in North America.

Previous public service:

Member of the American Assembly on Automation and Technological Change, Arden House. Guest lecturer, Seminar on Collective Bargaining, Littauer School of Public Administration, Harvard University. Invited contributor, Massachusetts Institute of Technology Seminar on Computer-Based Job Matching Systems. Member of the Advisory Committee, U.S. Office of Economic Opportunity, The White House. Member of the Planning Board, City of New Rochelle. Consultant to the Ford Foundation.

Speeches and articles:

"Automation -- Key to the Future," the Pacific Northwest Assembly on Automation, University of Oregon, 1963. "Automation and the Welfare of Society," the 90th Annual Forum of the National Conference on Social Welfare (published in the Social Welfare Forum, 1963, Columbia University Press). Contributor to "Plain Talk on Business and the Public Interest" (Columbia Business School Series, 1963). "A Positive Look at Automation," 13th Annual Meeting of the National Council on the Aging, February, 1964. "A National System of Earned Educational Leave," proceedings of the Select Subcommittee on Labor, U.S. House of Representatives, October 1965. "The Computer and Educational Television: Their Role in Education in the Next Decade," Mid-Hudson School Study Council, N.Y., 1966. Contributor to "Technology, Manpower and Retirement," World Publishing Company, Spring, 1967. "Toward an Individualized Education," address before the Annual Meeting of the Institute of Electrical and Electronics Engineers, New York, March 1968. "Economics of Aging: Toward a Full Share in Abundance," testimony before the Special Committee on Aging, U.S. Senate, 1969. "Some Analogies between Research and Development in Industry and Research and Development in Education" (for the Task Force on Development Capital, U.S. Office of Education), 1969. "The Case for a Massive Energy Program," N.Y. Times, March 14, 1975.

EDWIN F. SHELLEY

(Biography abstracted in American Men of Science, Who's Who in Engineering, Who's Who in Finance and Industry, Who's Who in the East.)

Consultant on energy programs. Director, Center for Energy Policy and Research, New York Institute of Technology, Old Westbury, N.Y.

Member of the Board of Directors, and Past President, the National Council on the Aging. Member of the Board of Directors, Center for Community Change, Washington, D.C. Member of the Board of Trustees, New York Institute of Technology (on leave). Member of the Board of Trustees, Nova University, Ft. Lauderdale, Florida.

Chairman of the Board, E. F. Shelley and Company, Inc., New York and Washington, consultants on the application of modern technology to the major areas of social organization including, among others, the fields of manpower, education, labor and health services (1965 - 1975). See page 3 for partial list of projects and clients.

Vice President for Corporate Development, Group Vice President, and earlier, Director of Advanced Programs, U.S. Industries, Inc. (1957-1964). Founded U.S. Industries Automation Division and developed U.S. Industries "TransfeRobot" industrial automation equipment (10 U.S. and foreign patents granted). Developed automatic mail sorting system (patented). Developed DigiFlex training equipment for automatic teaching of clerical skills -- postal sorting, typing, stenotype (patented). Established U.S. Industries Educational Science Division for manufacture and sale of teaching machines and programmed instructional materials. Established U.S. Industries Government Programs Division for research and development work on military systems.

Co-founder, Vice President and General Manager, Bulova Research and Development Laboratories (1950-1957), major American development laboratory for ordnance devices in artillery, aircraft and missile systems. Earlier, President and Chief Engineer, American Chronoscope Corporation (1948-1950). Patent granted on electronic high speed time measuring equipment. Prior to this, Experimental Flight Test Engineer, Curtiss-Wright Corporation (1941-1947). Patent granted on aircraft stress measuring systems for use in flight testing.

CE
PR

EDWIN F. SHELLEY

E. F. Shelley and Company, Inc. -- Typical projects and clients:

Some typical projects: Designed the computerized Job Bank system for the U.S. Employment Service, installed the system throughout the United States, and trained appropriate U.S.E.S. and other personnel in its operation. Built and organized the National Data Center for the AFL-CIO's Industrial Union Department. Designed and operated a national information service for the U.S. Office of Education in connection with its National Drug Abuse Education Program. Designed the Integrated Personnel Placement System for the Chase Manhattan Bank. Conducted the first computerized survey of voter registration systems throughout the United States for the U.S. General Accounting Office.

Typical clients include the following:

U.S. Department of Labor
U.S. Office of Education
U.S. Office of Economic Opportunity
Doubleday and Company
Martin E. Segal Company
AFL-CIO
New York City Department of Health
United Hospital Fund
The Ford Foundation
American Foundation on Automation and Employment
Common Cause
Washington Technical Institute
Catholic University of America

Mr. Shelley founded E. F. Shelley and Company, Inc. in November 1965 and directed its activities until he sold his interest in the company in March 1975.

Office:

Tower House, N.Y. Institute of Technology
Old Westbury, N.Y. 11568 - - - (516) 686-7578

Residence:

339 Oxford Road
New Rochelle, N.Y. 10804 - - - (914) 632-4945

PROJECT: OUTREACH PROGRAM FOR ENERGY
INFORMATION DISSEMINATION IN ADJACENT AREAS OF
NEW YORK, NEW JERSEY, AND CONNECTICUT

Contractor

New York Institute of Technology

Principal Investigator: Edwin F. Shelley
Director, Center for Energy
Policy and Research
Old Westbury, NY 11568
(516) 686-7578

Objectives

Within the climate and socioeconomic mix represented in the primarily urban, adjacent areas of New York, New Jersey and Connecticut, the objectives are:

1. To evaluate channels available for distributing energy conservation technologies developed by ERDA to end-users.
2. To test approaches to distribution of energy conservation information and services to small energy consumers.
3. To develop a system for measuring the secondary impacts of energy conservation outreach programs which could assist in evaluating other similar programs.

Tasks

New York Institute of Technology will manage and evaluate a program with the following major elements. The program will be operated so as to complement and support other direct outreach programs in the New York area.

1. Energy Technology Distribution Channels
The task will involve (a) the identification of which existing channels are appropriate for distributing energy conservation technologies to which user groups; (b) an assessment of how ERDA can best make use of those channels for its newly developed technologies, and (c) the development of new channels where the existing ones are considered inadequate. These channels will be tested with known technologies and possibly new ones being developed by ERDA.

2. Cooperative Industry Program

The Program will provide managers of small industrial and commercial enterprises the means for (a) identifying opportunities for energy conservation; (b) evaluating alternative technical products, equipment, systems, designs, retrofitting activities and operational procedures to reduce energy consumption; and (c) analyzing costs and benefits of implementing suggested solutions.

3. Public Awareness Program

This program will provide for the non-industrial and non-commercial clients opportunities to identify, evaluate and implement energy conserving measures. The primary audiences will be homeowners, managers of rental properties, operations personnel for public institutions and governmental agencies, and financial advisors. In addition, the program will involve a highly visible public information program which may include development of publications, films, media publicity announcements, and "demonstration" exhibits.

4. Energy Conservation Clearinghouse

Activities will include: (a) developing a library of publications on various energy conservation topics; (b) developing a strong referral and assistance program with all other Federal, State, and local governmental programs and private efforts being undertaken by such organizations as utilities, manufacturers, and developers; and (c) organizing and producing in-house training programs, seminars and conferences to assist in educating specific target groups and the general public on opportunities for conservation.

5. Secondary Impacts of an Energy Outreach Program

New York Institute of Technology will develop and test possible techniques for measuring the secondary impacts of the energy outreach program. The secondary impacts would include "word-of-mouth" spreading of energy information as a result of publicity campaigns and energy conservation actions taking place because those who were advised under the outreach program in turn encouraged or assisted others to take energy conservation measures.

Funding

NYIT: Director's salary and other staff services at estimated cost of \$100,000 over life of project.

ERDA:	<u>FY 1976</u>	<u>TQ (est)</u>	<u>FY 1977 (est)</u>	<u>Total</u>
	\$50,000	100,000	250,000	\$400,000