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ABSTRACT

Outreach programs were conducted in four communities over a period of nine months. Focus was on disseminating information to the public on how to use energy more efficiently in the home. The basic format for disseminating information involved the following activities: public meetings to provide general information on home energy consumption and available energy-conserving techniques, how-to clinics to demonstrate energy-efficient techniques, and clearinghouse services to offer follow-up to the meetings and clinics. An assessment of the programs indicated that the pilot projects were successful in developing and increasing citizen awareness of the importance of home energy conservation. Based on personal contact with community residents and participant surveys, several generalizations were made regarding public attitudes, including the following: (1) a majority of participants felt that an energy shortage exists in this country, (2) most people were convinced that there is a need for energy conservation, and (3) people felt that they could make an impact on reducing energy consumption as individuals but seemed willing only to undertake easy-to-do conservation methods. (This report includes summaries of the four pilot projects. Participant survey results and survey questionnaire forms are appended.) (EM)

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Energy-Conservation Technology Education Program—Final Report

January 1979

Prepared by:
League of Women Voters Education Fund
Washington, D.C.

Prepared for:
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Assistant Secretary for Conservation
and Solar Applications
Division of Buildings and Community Systems
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EXECUTIVE SUMMARY

Introduction

The need to curb our energy appetite became all to clear at the time of the Arab oil embargo. But when the embargo and the ensuing fuel shortages proved to be only temporary most citizens seemed all too ready to forget new-found wisdom about energy conservation and to return to pre-embargo behavior.

The long-term changes in lifestyle patterns and personal attitudes that must take place in response to the fundamental changes in our energy resources will come only when citizens are convinced that energy conservation is necessary. So far, Americans have been skeptical about the benefits of changing their living habits and--even when willing to change--confused about what steps to take to conserve energy.

In May 1977, the League of Women Voters Education Fund (LWVEF) contracted with the Division of Buildings and Community Systems of the Department of Energy (DOE) to conduct pilot projects in four communities to "demonstrate to the public how to use energy more efficiently in the home". The contract covered a one-year period: three months for local project planning leading to LWVEF pilot grant awards and selection of resource materials by LWVEF for use by the pilot projects; and nine months for the projects

to carry out their individual programs. It stipulated that the LWVEF would submit three reports to the contractor: (1) a detailed work plan that would outline the overall program scope and schedule (September 1977); (2) a mid-term report summarizing project activities to date that would be utilized as an information transfer mechanism among the projects, DOE and other interested parties (January 1978); and (3) a final report that would summarize the overall activities and evaluate the effectiveness of the pilot program in terms of meeting objectives (July 1978).

Briefly, these objectives were: (1) to inform people of how energy is used in the home; (2) to offer residents simple, practical information and demonstrations on energy-efficient appliances, materials and household practices that would result in net maximum dollar savings; (3) to motivate the public to adopt lifestyle changes leading to greater energy efficiency; (4) to identify attitudinal and institutional obstacles to the use of energy-saving technology; (5) to test the efficacy of pilot projects in convincing individuals to invest in energy-efficient technology for use in their homes; (6) to assess the usefulness of materials utilized by the projects; and (7) to enlighten DOE and other government agencies regarding citizen attitudes and needs at the local level.

Highlights of Findings and Achievements

Based on personal contact and on information collected in participant surveys which were conducted by each pilot project, the following statements can be made regarding public attitudes toward energy conservation.

- Most people felt that an energy shortage exists and that there *is* a need for conservation of energy.

- Furthermore, people felt that they, as individuals, could make an impact on reducing energy consumption, but only seemed willing, at this point, to undertake *easy-to-do* conservation methods. There was a strong emphasis on "do-it-yourself".

- Skepticism continues to pervade citizen reaction to government; that is, there is a continuing and increased distrust of politicians and government in general, utilities and energy companies. *Credibility* is a serious and critical factor in trying to reach equitable solutions to energy problems.

- Coupled with public skepticism and cynicism towards government and business is the rip-off syndrome. Many people felt victimized by high utility bills, insulation companies, etc.

While it is often difficult to determine whether a citizen has really been taken advantage of, the point is that many people *believe* they are being ripped off, and that is the problem that needs to be dealt with.

Through the efforts of the four pilot projects, the LWVEF Energy Conservation Technology Education Pilot Project succeeded to a considerable degree in meeting the ambitious objectives set forth in the contract. A total of 18,051 people were directly reached through project activities. There have been numerous benefits resulting from this program--tangible and intangible--but the findings of the report point to three salient achievements:

- The development and increase of citizen awareness of the importance of home energy conservation in these communities, evidenced by the number of residents who adopted energy-saving practices and invested in energy-efficient home improvements.
- The addition to the communities of a cadre of well-informed local energy leaders who will continue to share their knowledge of and training in energy conservation methods with other community residents and area neighbors long after this program has ended.
- The strengthening of coordination among community organizations, local government and the media that will enable these communities to deal with their energy problems more willingly and assuredly and perhaps to set examples for nearby areas to follow.

The Method

Receiving individual grants of $7,120.00, the pilot programs were to conduct a series of outreach programs tailored to the diversities of each locality for a nine-month period. Activities for disseminating information would be guided by a basic format:

Public Meetings designed to reach community leaders and a cross-section of the residential population with general information on home energy consumption and available energy-conserving techniques;

How-To Clinics providing demonstrations on installing insulation, weatherstripping, storm windows and other energy efficient techniques available for heating and cooling homes and apartments; and

Clearinghouse Services offering a variety of services and information as a follow-up to the meeting and clinics.

To test the efficacy of the pilot program, the Leagues selected were to represent a mix of climates, types of communities and socio-economic groups. Based on their interest and involvement in energy conservation activities, nineteen Leagues were invited to submit grant proposals. They were the LWVs of West Hartford, CT; Central Bershire, MA; Wilmington, DE; Wake County, NC; Charlottesville-Albermarle County,

VA; Atlanta-Fulton County, GA; LaGrange Area, IL; Indianapolis, IN; Central St. Louis County, MO; Tulsa, OK; Loveland, CO; Durango, CO; Bozeman, MT; Laramie, WY; Boise, ID; Tucson, AZ; Los Alamos, NM; Northfield, MN and Seattle, WA.

Selection would be based on criteria set forth in the DOE contract. These included a variety of geographic locations and demographic characteristics, areas with energy supply problems, opportunity for cooperation with federal, state, regional or local energy conservation programs already underway or planned, and proven organizational capability and projected effectiveness of local League programs. Although all of the proposals were well organized, containing many creative and worthwhile ideas, the following four best met the criteria and objectives of the contract and, therefore, were chosen for the pilot program: Tucson, AZ; West Hartford, CT; Northfield, MN and Wake County, NC. The selection of these projects would provide optimum geographic representation and mix of metropolitan and rural areas.

Directed by project managers, who were local League members, the pilot projects were to be responsible for planning and implementing their own activities. This would involve coordination with local government and other community organizations, selection of speakers, publicity arrangements, and education of and coordination with the local media. The managers were also requested to submit trimonthly

reports to LWVEF, outlining their progress and upcoming plans.

The LWVEF was to furnish technical and administrative assistance to the projects throughout the twelve-month period. This would include supplying publications and materials for use by the projects, advice on activities to effect greater community participation and on handling problems, on-site visits, liaison among projects to facilitate the sharing of experiences, and grant management oversight.

Mechanisms for evaluating community response both to project activities and to the general energy problem were to be built into the projects' programs. In meeting this requirement, the projects amassed information on a variety of subjects: public attitudes toward the energy problem, the need for conservation and information disseminated by government and business; energy use habits and changes in those habits; and investments made in energy-saving technologies.

All projects conducted some type of evaluation at each function that enabled them to determine what information participants considered useful, inadequate, or not helpful. Suggestions for improvement were incorporated into subsequent programs while worthwhile items were retained. This review afforded the projects the continuous feedback necessary to ensure that activities would be best suited to the needs and desires of their individual communities.

In addition, three of the projects conducted follow-up surveys after completing their activities by contacting a percentage of participants to ascertain what investments or lifestyle changes had been made as a result of the project's efforts. (See Appendices III-VI).

Resource Materials

The contract specified that the LWVEF would provide the pilot projects with publications and other materials on energy conservation. These were divided into four catergories: (1) reference materials for the pilot Leagues and local libraries; (2) clearinghouse materials; (3) citizen energy kits; and (4) how-to materials. A thorough review of existing publications and audio-visual materials appropriate for public dissemination was conducted. This resulted in a bibliography of selected materials which were used by the projects (Appendix I). The bibliography was also shared with state League projects under the DOE Energy Education Outreach grant and made available to all Leagues and the public upon request. With the exception of the how-to category, all materials were ordered by LWVEF and sent to each project in installment shipments from the national office.

The projects themselves developed additional resource materials that ranged the full media spectrum--printed brochures and handouts, slide shows, videotapes and handbuilt demonstration models. All

these were reviewed by LWVEF before use. They also utilized the resources available from their state agencies, distributing state publications and borrowing films and even personnel to train volunteers to conduct home energy audits. The printed and audio-visual materials used by the individual projects are listed in Appendix II.

Contents of Report

The main body of the report is in three parts. Part ONE consists of four individual summaries of the activties and findings of the pilot projects. Each contains a brief community orientation, program summary, outreach statistics, assessments by project of participant attitudes and motivation incentives, subsequent actions taken by participants and in some cases, the community as a whole, and finally, obstacles encountered by the pilot project during its operation.

Part TWO consists of an assessment of LWVEF program management. The Findings and Recommendations are contained in Part THREE. In this section, the overall pilot program is evaluated in terms of outreach potential, activities which seemed most effective, and public attitude feedback. Demographic variables and obstacles impacting the projects are discussed.

Appendix I contains the bibliography compiled by the LWVEF. Additional resource materials used by each project are listed in Appendix II. Appendices III-VI contain supporting documents.

Contacts

For the purposes of this report, activities of the pilot projects are summarized only. For additional information on specific activities conducted by the projects, contact the local League managers. For further information on the pilot program, contact the DOE or LWVEF program manager.

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PART ONE

Summaries of Pilot Projects

Tucson, Arizona

West Hartford, Connecticut

Northfield, Minnesota

Wake County, North Carolina

Tucson, Arizona
Southwest region; population: 437,000
LWV membership: 383

Community Orientation

Tucson is a typical, spreading metropolitan city which continues to grow rapidly. Located in a desert environment, where reliance on underground and imported water is essential to its existence, it has provided an interesting case study for conservation. As the Tucson LWV stated in its grant application: "Tucson is at an interesting crossroads in conservation awareness and is probably ripe for creative approaches to conservation education". Recently, Tucsonans have been facing increasingly higher water bills and have become aware of conservation as a way of lowering their bills. Through residents' efforts, water use declined 20% in 1976 despite an approximate 4% increase in population. During this time, however, *utility* bills soared, even beyond the highest water bills. In this climate of opinion, the Tucson LWV was interested in seeing if the lessons learned in *water* conservation could be carried over to *energy* conservation.

Program Summary

Attempting to effectively reach a large, diversified and widely distributed metropolitan audience is a difficult task. To tackle these demographic problems, the Tucson LWV chose a *personalized* approach,

aimed at reaching a large number of people throughout the city through small-group presentations. Rather than try to get people interested in energy and invite them to meetings, the project offered its services to established groups, presenting programs flexibly designed to serve the specific needs of each group.

A brochure describing its program and offering its services was sent to 750 local organizations in the fall. Surprisingly, the requests from this initial mailing were so numerous, totalling 97, that the project spent from January through May filling them, with no further advertisement needed. Approximately 20 requests were turned down because of scheduling conflicts. It is worth noting that the project continues to receive requests and hopes to fill them this summer if possible.

Each discussion was different, therefore, but all shared a common theme of practical, inexpensive, and "easy-to-do" ways to save energy and money. Presentations employed a set of portable displays, specifically designed and built for the project, on weatherstripping, windowshading, roofing/insulation, cooking, refrigeration, water conservation and energy-efficient appliances. These provided an excellent mechanism for demonstrating various energy-efficient techniques and for illustrating how easily the participants could implement these techniques themselves. In fact, rather than tell people they <u>should</u> save energy, the project stressed <u>how</u> people who wished to save energy

could do so. The project demonstrators, totalling 8 League members, did not pose as experts, but rather emphasized that they were homemakers who had tried various ways to save energy themselves and were sharing what they had learned through experience and research. An open discussion format led, at times, to a lively exchange among participants and project leaders. When people mentioned things they had tried that didn't work, an effort was made by the project to learn why and then add this knowledge to its repertoire of information.

Capitalizing on the heightened community awareness of conservation, the project stressed water conservation in all its talks by pointing out that saving hot water saves the energy needed to heat the water, and that saving water conserves the energy needed to pump it up. This subject often led naturally into hot water heaters and how energy could be saved by turning gown thermostats, draining accumulated sediment once a month, etc. Specific emphasis was placed on weatherstripping and caulking. In general, the more expensive energy-saving measures, such as insulation, were downplayed, but not discouraged. Items discussed throughout the program were:

Water conservation

energy-efficient care of appliances

weatherstripping and caulking

keeping cool in the summer (e.g. window-shielding, reflective coatings)

solar energy

efficient use of fireplaces

insulation (including consumer cautions)

general household energy analysis

One of the most popular demonstrations was a "do-it-yourself" solar cooker, built with standard home tools for $30. The cooker was used both as a vehicle to stimulate discussion on other types of solar energy--an already proven source in the Southwest--and to bake cookies and cakes for refreshments at the meeting.

Groups addressed during the project were categorized as follows: 15 homemaker clubs, 12 senior citizen groups, 9 social groups, 10 service groups, 6 church groups, 16 school groups (ranging from fourth grade to junior college), 2 garden clubs, 6 professional organizations, 1 environmental group (Southern Arizona Environmental Council), 12 public meetings and 4 exhibits. (This listing exceeds the 97 total because of cross-categorization).

In addition to the community-wide presentations, the project produced three videotapes on water conservation, care of appliances and weather-stripping. Copies of the tapes were made for Tucson's public libraries, where video machines are available for public use. Local TV stations are also being approached for using the tapes on programs such as hints for the housewife and morning talk shows.

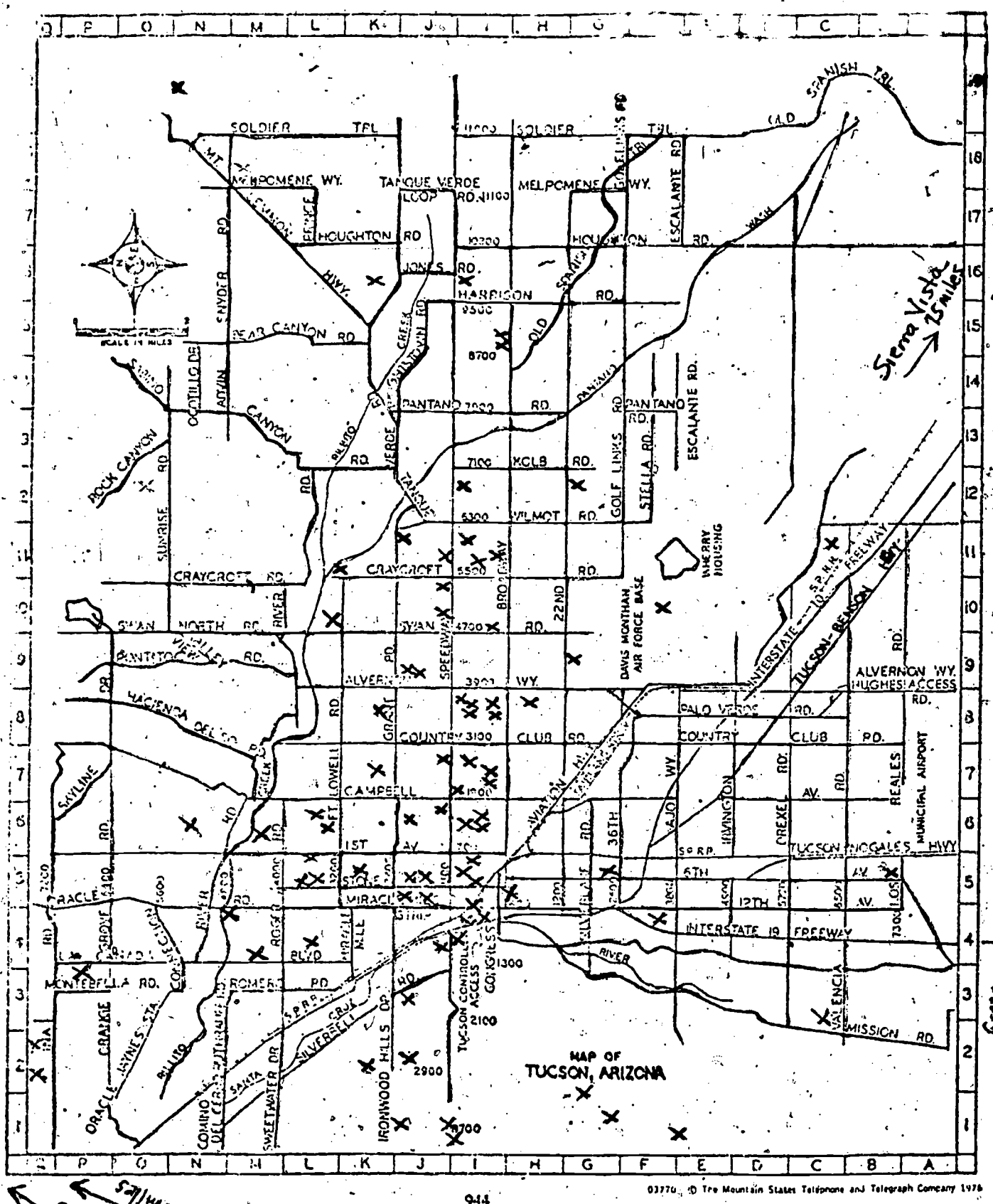
Outreach Statistics and Conservation Actions

Approximately 2,300 people attended the 97 group meetings. An additional 500-700 people visited the projects' exhibits at the El Con Shopping Center (part of a Sun Day event), the University of Arizona and the Arizona State Home Economics Convention in Tucson, and its exhibit at an event sponsored by the Arizona Energy Department in Phoenix.

As illustrated by the map on the following page, the project achieved maximum geographic coverage of the metropolitan area. Generally, the north and east sides include higher income people, while the west and south tend to represent lower income populations. The central area is mixed. Several out-of-town trips were made: Green Valley, to the south, is a retirement community; Sahuarita, nearby, contains retirees and many mine employees; Sierra Vista is primarily supported by Fort Huachuca Army Base; Marana is largely a farming community; and Catalina contains retirees and mine employees. Phoenix, of course, is the state capital.

A total of 650 follow-up surveys were mailed, representing approximately 25% of the meeting participants. Selection of the people contacted was relatively random, but necessarily biased toward those with legible handwriting. (A guest book was circulated at each meeting to provide a record of participants). The project received 220 responses--a return rate of 35%.

LOCATION OF TALKS



Of these, 22% were male and 78% female, a ratio corresponding to the group audiences. *Income statistics:* 25% under $10,000; 32% from $10,000-$20,000; 25% from $20,000-$50,000; and one percent over $50,000. *Age categories:* 3% under 21 years of age; 16% from 21-35; 40% from 35-65; 31% over 65. *Location:* 9% were from outside Tucson, and the remainder were fairly distributed throughout the city.

Only 6% of the respondents indicated that they had done nothing to save energy. Of the measures listed on the survey, the average respondent had carried out 4.2 and planned to do another 1.8; 50% had done 1-8 things; 25% indicated doing 9-13 things; and 6% had implemented more than 13 measures. In sum, 919 measures were implemented and 397 were planned. The following were the most popular of the measures undertaken:

45% - change of cooking habits
43% - change of setting on heater or cooler
42% - turn down hot water heater
34% - clean refrigerator condenser
30% - shield windows
30% - low-water landscaping
29% - adjust flame or pilot lights
26% - toilet water saver
25% - reflective roof
24% - drain hot water heater
flow-restrictor shower head
caulking, weatherstripping

Action with regard to solar devices was as follows: 24% indicated they had either made or bought or planned to make or buy a solar cooker or other solar device. Since many of the same people checked both categories, a figure of 10% was derived to indicated those who had already gone to or planned to go to some form of solar energy.

Participant Attitudes and Motivation Incentives

The survey respondents seemed to have a very positive attitude toward energy conservation and were willing to do something about it. People were asked to check statements that most nearly agreed with their viewpoints:

80% consider conservation worthwhile because of dwindling resources.

65% consider conservation worthwhile because we import too much oil.

23% believe conservation won't lower their bills--rates will go up anyway,

20% find conservation worthwhile because of high bills.

15% aren't sure what to believe because of distrust of leaders.

4% don't foresee an energy shortage.

Several problems or reasons for negative attitudes surfaced in the many group discussions that the project feels must be honestly faced and dealt with. These were:

1. What's the use of conserving, they'll just raise the rates to get the same amount of revenue.

2. What I use is so little, compared to what the government uses, and look how they waste energy. If the government is funding this program to get me to cut back, why don't they spend money on cutting back on their own operations?

3. The utilities and energy companies make too much profit. They should be satisfied with less. (After one talk where this was a big point, the local newspaper had a headline about 19% return to stockholders in the local utility this year). My savings just feed their profits.

4. Why turn off heater pilots in the summer? We pay a minimum gas charge anyway and that's our only gas use.

5. Why can't houses be better designed for energy efficiency ? (One example-a ranch style house with bathrooms at both ends and a water heater in the middle. The owner asked for two heaters, one near each bathroom but the architect refused. Result: loss of heating through uninsulated pipes.)

6. Why doesn't the government do more about getting us cheap solar energy? They have cheap hot-water heaters in Japan and Israel. Why does it cost more than $1000 here? The government just works to help the utilities sell more energy (e.g. nuclear).

7. I don't trust what anyone says about energy--they all have vested interests. U.S. energy policy is directed by the energy companies. Bureaucrats keep finding ways to raise my taxes. I don't believe there is an energy shortage; it was just made up by the oil companies to raise the price of oil.

Response to the presentations was, for the most part, very favorable. 75% indicated they were helpful, while 61% stated the talks inspired them to take at least one conservation step. 7% checked one of the negative responses.

The 15 homemaker clubs were among the most responsive groups addressed. It seemed that members of these clubs were accustomed to doing things for themselves and to having programs on such topics as cooking

so that conservation fitted well within their format. The 10 service clubs were generally responsive, although the time allotted for the presentations was usually too short to allow in-depth discussion. An amusing aside is that the project demonstrators--all female--found no negative reaction to a women's group giving this kind of advice to men.

Response from the 12 senior citizen groups was more diverse: about one-third seemed quite apathetic (these tended to be organized for nutritional and socialization purposes) and the other two-thirds ranged from very interested to militant (about issues such as nationalization of utilities which they suggested and favored). Energy costs appeared to be a significant problem for many of the elderly on fixed incomes whose health would permit very little change in indoor temperature settings.

The 9 social groups were among the least successful with some outstanding exceptions. There were a few individuals who resented being educated during a social event. The public meetings yielded the lowest attendance. At the meetings scheduled by the Citizens Participation Council--organized by city ward to involve the public in city decision-making--the least interested proved to be audiences located in the lower-income sections of the city. Another group, however, which was located in an islated low-income community, seemed hungry for <u>any</u> kind of information.

Obstacles

The negative attitudes outlined above can be interpreted as behavioral obstacles to saving energy. These did not appear to affect the project, the most likely reason being that the demonstrators were members of volunteer, nonpartisan community organizations and not government employees.

The project had planned to establish an energy information clearinghouse with a public telephone line. The State Energy Office had previously told the project that it had no funds to set up one. During the fall, however, funds became available and a WATS line was established by the state. Rather than duplicate the service, the project publicized the state number.

Also planning to work with schools to provide materials on conservation, the project found the local school district uninterested. In cases where presentations were made in classrooms, arrangements were made through teachers who had heard about the project from sources other than school administration.

The most apparent obstacle associated with the Tucson project seemed to be time. The overwhelming response from community organizations for presentations left the project with little time to implement other activities it had outlined in its proposal. Preparation and production of the videotapes required more time and effort than previously

planned. They were completed only shortly before the project ended. While capable of probably reaching more people, their effectiveness as opposed to the small group presentations, remains unknown.

WEST HARTFORD, CONNECTICUT
Northeast region; population: 70,000
LWV membership: 320

Community Orientation

The town of West Hartford leads many other cities in its recognition of and action regarding energy conservation. There is a permanent municipal Energy Committee that recommends energy-conserving measures to be adopted by the town government. One of these, the modification of the heating/air conditioning/ventilation systems of 14 municipal buildings, has already been implemented. This type of visual government action coupled with the high cost of energy in the New England area would seem to engender a general awareness and concern regarding energy on the part of community residents. There have been no organized residential energy conservation programs, however, and the pilot project enabled the West Hartford LWV to fill this important gap.

Program Summary

Variety seems to most accurately describe the programs and events sponsored by the West Hartford project. Emphasis was also placed on reaching children as well as adults. A student art contest resulted in an energy conservation logo that was used on all advertisements and materials associated with the project. Three workshops focused on the "basics" of home weatherization, offering participants instructions on how to calculate the heat loss for

their homes. A "Junior Energy Savers" program was instituted in all the public elementary schools in West Hartford to make children aware of the need for energy conservation and to develop an alternative approach to dispensing energy information. As a spin-off of this effort, the project manager was invited to a meeting of the "Science Vertical Team", a group representing each of the city's 18 public schools, to discuss the junior program and to gain the support of teachers for school energy conservation programs.

The project also capitalized on regional institutions and interests. For instance, it kicked off its activities with a New England style Energy Town Meeting and sponsored a program on wood burning stoves, wood being a viable fuel source in New England. To promote the city's recycling program and the idea that reuse of products and materials results in substantial energy savings, the project constucted an exhibit on recycling opportunities in West Hartford and published a recycling handout. The exhibit is regularly circulated throughout area banks, municipal buildings and shopping centers.

Projects

Energy Logo Contest

Energy Town Meeting

3 Home Insulation Workshops

Wood Burning Stove Program

Preliminary Landlord-Tenant Program

Junior Energy Savers Program

Solar Energy Fair

Clearinghouse Service

Recycling Exhibit and Handout

Miscellaneous Outreach Activities

Science Vertical Team Meetings

Distribution of Energy Audit Questionnaires for the Connecticut State Energy Extension Service

Outreach Statistics and Conservation Actions*

Energy Town Meetings. 71 of the 131 participants who completed initial evaluations were reached by telephone survey. More than 50% of these people indicated that they had taken some measure to conserve energy since the meeting. Twelve respondents attended subsequent project programs; 19 read the energy saving tips printed daily in the local newspaper that were provided by the project (Appendix).

Insulation Workshops. 40 of the 54 participants were contacted by phone (about 74%). Almost 70% of these indicated that at least one specific energy conservation measure had been taken as a direct result of attending the workshops. The following indicates what measures were taken and by what percentage of those questioned:

31% weatherstripping

26% storm windows/doors

28% insulation

* Refer to chart on page 32 for summary tabulation.

18% flow-restrictor shower head

38% caulking

28% recycling papers

5% general replacements or repairs

Most of the measures undertaken were "do-it-yourself", 33% of those who did not take any action cited lack of money as an obstacle.

Woodburning Stove Program. 42 of the 56 participants were surveyed by phone (about 77%). About 45% indicated that the program had led to adoption of a conservation measure including weatherstripping, insulation, caulking and purchase of stove.

Junior Energy Savers Program. This program was evaluated by questionnaires sent to elementary school teachers and local League members. 44 of a possible 170 teachers responded. Below is an excerpt from the results:

1. Have you distibuted the materials (Junior Energy Savers booklet, sticker, "Tips for Energy Savers") to the children?

   Yes 43 No 1[a]

If Yes, which of the following describes your method of distibution?

26%[b] Distributed materials with minimal discussion.

67% Distributed materials after thorough discussion.

42%[c] Distributed "Junior Energy Savers" booklet to be completed and returned. Stickers distributed after return of booklet.

[a] Teacher plans to distribute at end of a conservation unit.

[b] More than one half also checked "Discussed other..."

[c] Teachers were not instructed to do so.

- Made a "draftometer" with children. (one teacher)

7% Did a lesson centering around meter reading. (three teachers).

74% Discussed other aspects of energy and energy conservation.

33% Other: _____

2. Asking for a show of hands, how many children in your class actually checked through their house with a parent?

17% indicated 80-100% of class "checked through..."

19% indicated 50-80% " "

31% indicated 20-50% " "

Only 28% out of approximately 320 League members who were requested to complete questionnaires responded. Twenty two of those conducted the home energy check suggested in the program materials. Ten stated that the materials led the household to take conservation measures.

Solar Energy Fair. An estimated 500 people viewed projects and/or picked up educational materials. An exhibit of student or class projects from area schools was an integral part of the event. Five area schools including one elementary school, one junior high school and three high schools particpated, involving a total of twenty students. The project consisted of: four solar ovens, a passive collector, two solar collectors, a parabolic reflector, a greenhouse, a photovoltaic cell, a windmill, and four model houses.

Clearinghouse Service. A total of 163 calls were logged on the project's Energy Info Line. The listing on the next page provides a breakdown on information requested:

132 registration for project's programs

17 inquiries on fuel assistance program

1 hot water heater

2 home insulation

1 efficient use of clothes dryer appliance

1 solar energy information

3 project's Solar Energy Exhibit

1 information on firm offering free energy audit

5 requesting written energy conservation materials

In addition to answering phone requests, the project mailed information to participants who had indicated questions on their follow-up evaluation sheets. A variety of materials was also distributed through the public library.

Resource Materials. Approximately 500 citizen energy kits were distributed to the public through the various activities conducted by the project. Most participants felt the materials in the kits were very helpful, particularly "Tips for Energy Savers", of which an additional 5,000 copies were distributed. The manual, In the Bank . . .Or Up the Chimney, was also offered for sale at each project function. Five thousand "Junior Energy Savers" booklets, published by the West Hartford LWV with funds provided under the project, were distributed to elementary school children. Teachers and parents who were surveyed indicated that the children related well to this material and that these were a useful motivational tool.

Participant Attitudes and Motivation Incentives

A survey of those attending the Energy Town Meeting indicated that most of them believed there is an energy shortage and that most Americans are energy "wasters". An overwhelming number believed that they as individuals could make an impact on energy consumption and that it was their responsibility to conserve energy voluntarily. In fact, 128 out 131 respondents indicated that they practiced energy conservation in their homes. There was mixed response to questions asking if technology would "bail us out" of the energy shortage, and if Americans would conserve if government controls were imposed.

The major incentive listed for conserving energy was saving money. Most people attended the programs to learn what things they could do that would lead to energy, and therefore financial, savings. Many of the measures adopted were through "do-it-yourself" efforts.

Both initial and follow-up evaluations indicated that participants felt the project's programs were very worthwhile and informative. The focus on simple, practical, "how to" information was greatly desired and many requested more materials/programs on such subjects as insulation R-values, techniques and materials and contract arrangements with insulation companies.

Newspaper coverage devoted to the project was outstanding. Of course, this was primarily due to the project's efforts at supplying the press

with well presented, timely news items and general information. Once the media's attention was captured, it began producing numerous articles on conservation subjects, independent of project requests for coverage.

Obstacles

By sponsoring a landlord/tenant workshop, the project had hoped to target rental property owners to interest them in conservation measures. This was an ambitious objective since neither the federal government nor the states had done much work with this group. A combination of lack of interest on the part of landlords and high consultant costs for managing the workshop, however, prevented the project from fully implementing the program.

A telephone survey of thirty apartment owners/managers showed eleven interested in participating in such a program. The West Hartford LWV also addressed a meeting of about fifteen apartment owners/managers sponsored by the Chamber of Commerce. Participants were given a copy of an energy savings table taken from "Energy Cost Reductions for Apartment Owners and Managers" prepared by the Institute of Real Estate Management and the League survey to complete; only two surveys were returned to the project manager. The Energy Cost Reduction publication was sent to those owners surveyed, with copies made available through the newly-formed West Hartford Property Owner's Association.

SUMMARY TABULATION - WEST HARTFORD PROJECT

Event	Attendance	# of initial survey respondents	# of follow-up survey respondents	% of survey respondents adopting conservation means
1. Energy Town Meeting 10/13/77	180	131	71	50
2. Home Insulation Workshop 10/20/77*	16 registered 13 attended	10	8	
3. Home Insulation Workshop 10/26/77*	33 registered 26 attended	17	20	70
4. Home Insulation Workshop 12/8/77*	21 registered 15 attended	13	11	
5. Woodburning Stove Program 1/25/78	90 registered 56 attended	47	42	45
6. Junior Energy Savers Program 2/78	5,000	N/A	44/170 (teachers)	17% indicated 80-100% of class 19% " 50-80% " 31% " 20-50% "
7. Solar Energy Fair 5/3/78	500	N/A	N/A	N/A
TOTAL	5,790	218	196	

* attendance at workshops limited to 30 people.

SUMMARY TABULATION - WEST HARTFORD PROJECT (CONTINUED)

Type of Conservation Measure	# of Recipients
1. weatherstripping	22
2. storm windows/doors	17
3. insulation-walls/attic/basement	31
4. caulking	30
5. general replacement or repairs	2
6. recylcing papers	11
7. flow restrictor-shower head	20
8. woodburning stove	10
9. other	25
TOTAL	168**

**For Projects 1-5 only; 168 out of 290 participants.

Two proposals for managing the workshop were received, but estimated costs exceeded the project's available funds for this activity ($600 and $1,000+ cost estimates received; total project budget: $7,120). Copies of the proposals were sent to the state energy department. The project manager felt that, to be cost effective, such a program should be implemented statewide. Should the state decide to attempt a program in this area, the League would offer its assistance.

Another obstacle encountered was public skepticism vis-a-vis the quality of insulation and of companies installing insulation--a skepticism reinforced by several rip-off stories that appeared in area newspapers. Therefore, people wanted to know exactly what kind and how much insulation was needed for their particular house. This kind of in-depth analysis was difficult to offer in a broad community-education program, such as the pilot project, which had limited funding.

In some instances, the cold New England winter presented a formidable obstacle. A winter storm occurred the night of the woodburning stove program. Nevertheless, 56 out of 90 pre-registered people did attend.

NORTHFIELD, MINNESOTA
North Central region; population: 12,000
LWV membership: 30

Community Orientation

Northfield is located in an agricultural area made up primarily of family farms; yet it is only 40 miles south of the Minneapolis/St. Paul metropolitan area. The city also enjoys the resources of two colleges, Carleton and St. Olaf.

Many of the Northfield homes built before 1945 are poorly insulated. To make matters worse, a number of those living in these pre-1945 homes are on low and fixed incomes. For them, the rising cost of heating "leaking" houses creates a severe economic hardship. Because Northfield is experiencing growth at a much faster rate than the state as a whole, there is also a boom in housing construction. On both scores, the time seemed ripe in Northfield for instruction on energy conservation techniques.

Program Summary

The heart of the Northfield project was the *neighborhood* energy meeting. Volunteers throughout the community opened up their homes to their neighbors for an on-site energy audit and discussion of home energy-saving practices. Hosts hand-delivered invitations along with the project's citizen energy kits to their neighbors. In preparation for these neighborhood sessions, the project arranged for the Minnesota Energy

Agency to train fifteen volunteer residents in home energy auditing and to give trainees the "basics" about types of insulation, caulking compounds and weatherstripping. The trained volunteers then conducted audits and led discussions at the "open house" neighborhood meetings.

Another major undertaking of the project was the organization, coordination, and production of "Energy Conservation Week In Northfield". By enlisting the support of other community organizations, the City of Northfield, the public and private schools and the public library, the project was able to offer a variety of activities including a radio show on conservation and urban expansion, store displays on energy conservation by local merchants, and a one-day Energy Fair of exhibits, demonstrations and continuous "how to" workshops.

The project also organized a tour of energy-efficient homes, located in the community, in conjunction with its other Sun Day events. The homes demonstrated both active and passive solar systems and how an older home could be retrofitted and heated exclusively with wood.

Projects

3 public meetings ("Energy and the Environment", "Solar Energy-Ready When You Are", "Energy Roundup-Overview of the Energy Situation")
Energy Conservation Week
Energy Fair
Sun Week
Tour of Energy-Efficient Homes

40 Neighborhood Energy Meetings

2 Radio Shows ("Energy Conservation as a Total Lifestyle", "Urban Expansion and Energy Conservation").

Letters to Landlords in Northfield Area

Outreach Statistics and Conservation Actions

Neighborhood Energy Meetings. The project set 75 meetings as its goal to blanket the community with "how to" information. A total of 40 meetings were actually held throughout the city and surrounding area. Approximately 900 people were invited and received information packets. Of these, 340 attended meetings and 174 completed surveys (Appendix). Fifteen community residents were trained in conservation techniques and how to conduct home energy audits. Resulting conservation measures often listed were: Lowering thermostats (most to 65°), adding insulation in attics, caulking around windows, installing storm windows and doors, adding glass doors and chimney caps to fireplaces, using small wattage bulbs in lamps, conserving water through shower flow-restrictors, recycling cans and glass, using car pools, and monitoring energy use of appliances.

Energy Fair. 18 exhibits set up by various businesses and community organzations. Approximately 750 people attended within a 30 mile radius of Northfield. This was an impressive turnout considering it was held in January in the middle of the Minnesota winter.

Energy Efficient Home Tour. Four homes were included in the tour. 135 people participated in the tour during a four-hour period. The most pop-

ular homes were the new active solar home and the retrofitted older home heated with wood. The project noted that people were full of questions on how to do things themselves. The project distributed 2,000 packets of conservation materials during its operation. Publications considered most useful by the participants were the five published by the Minnesota Energy Office (listed in Appendix II). Attendance at other project activities was as follows:

45 "Energy and the Environment" public meeting, 10/18/77

70 "Solar Energy" public meetings, 11/16/77

22 "Energy Roundup" public meeting, 12/6/77

35 Solar Energy Forum, 5/3/78

The establishment of the Mayor's Task Force on Energy was an important conservation action instituted by the whole community through its local government. The Northfield LWV stated in its grant proposal that it would work with the city to set up an ongoing body to oversee energy policy and enactment. To this end, it developed a list of tasks which needed to be done, regularly conferring with the Mayor and City Administrator. These tasks are to be accomplished by various city agencies with oversight provided by the task force. Susan Gove, the pilot project manager, has been appointed to serve on the task force, as well as Margit Johnson and Karl Hella, two of the volunteer trainees and Dave Robinson, owner of the active solar home which was on the project's home tour.

Public Attitudes and Motivation Incentives

The chart on the following page summarizes the attitudes of two groups. The first set of columns list responses of 174 people who attended the

ATTITUDE SUMMARY OF NORTHFIELD RESIDENTS

Statement	Respondents from Neighborhood Meetings					4H Respondents				
	Agree Strongly	Agree Somewhat	Disagree Somewhat	Disagree Strongly	Don't Know	Agree Strongly	Agree Somewhat	Disagree Somewhat	Disagree Strongly	Don't Know
1. The public has been given a realistic picture of the energy situation facing the United States.	27	77	41	22	7	5	6	3		1
2. There is a definite energy shortage.	93	62	12	3	4	12	2		1	
3. Technology will "bail us out of the energy shortage.	20	45	63	31	15		4	7	3	1
4. Americans will conserve energy only when government controls are imposed.	34	76	46	15	3		7	4	2	2
5. As an individual, I can make an impact on energy consumption.	66	85	13	1	1	5	9			1
6. Anything I have done (or will do) to conserve energy was primarily to save money rather than energy.	23	61	56	17	2	1	5	4	4	2
7. The topics of this meeting were those that I expected to be covered.	87	69	2	1	1	2	7	2		1
8. I learned a great deal from the information presented at this meeting.	66	87	5	1	1	6	7	2		
9. I consider myself well informed on these topics before the meeting.	19	87	43	9	2	2	10	1	2	

neighborhood energy meetings and received "how to" information. The second set of columns list responses of 15 4H students who received instructions on energy-saving techniques, but did not have the benefit of the home energy audit tour. It is interesting to note the correlation among answers of the two groups, with the exception of statement "7".

Several consensus statements regarding the energy situation and related actions can be derived after studying the chart. Respondents generally feel that the public has been given a realistic picture of the nation's energy situation, although some seem slightly uneasy about the information disseminated. Most agree that there is an energy shortage, although the consensus is that technology will not "bail us out". And, while the majority believes that individual efforts can affect consumption, the consensus is that government controls will still be necessary to achieve sufficient conservation. Finally, saving money is a major incentive for conserving energy, although other important factors contribute substantially, and perhaps equally as much, to public motivation.

Respondents indicated that they were satisfied with the information provided by the project program and indeed learned more about home energy conservation even though they considered themselves relatively well-informed before attending the meetings.

In summary, the pilot project was well received by the community. The

project itself received additional impetus when the Northfield LWV was nominated for an American Motors Conservation Award in the fall of 1977. Newspaper coverage was excellent and, as in other projects, articles on conservation exceeded those specifically connected with project activities. The project also seemed to stimulate and strengthen coordination among the various community agencies and groups, particularly on large events such as Energy Week and Sun Day activities.

Obstacles

Motivation, according to the project manager, remains the major obstacle in convincing Northfield residents of the need to conserve energy. "There are a lot of people who are trying to conserve energy but the education process is far from won". This undoubtedly can be attributed to the fact that energy continues to be relatively cheap and plentiful in this area (most homes are heated with natural gas imported from Canada). Although many people realize that the situation might change in the future, it is difficult to motivate them to act before it actually happens. This situation seems somewhat ironic considering that the Minnesota climate obviously requires high consumption of energy.

WAKE COUNTY, NORTH CAROLINA
Southeast region; population: 261,000
LWV membership: 175

Community Orientation

High public consciousness of the need to conserve already existed in metropolitan Raleigh due, no doubt, to its location in the Research Triangle Park area. Although several organizations, such as the North Carolina Agricultural Extension at N.C. State University and the Wake County Agricultural Extension Office, were already actively promoting energy conservation programs, no comprehensive nor coordinated effort had been made to reach all residential or income groups. Thus, the Wake County LWV geared all of its efforts in this direction.

Program Summary

Because of these ongoing conservation programs, the Wake County project felt that there was need for coordination among groups and dissemination of information. It decided to utilize the eighteen Community Task Forces (CTFs)--geographically-based citizen groups formed to participate in housing and community development activities--which blanket the Raleigh area to achieve its objective. Using three task forces, representing a demographic mix of community residents, the project tested various conservation program formats to determine what information was most appropriate and useful. Project funds

enabled the Wake County LWV to refine and reproduce an energy conservation slide show used to introduce its programs. The project then held workshops for community organizational leaders in hopes that they would carry the conservation message back to their own groups. The project, in effect, attempted to create a *ripple effect* in the community that would lead to greater conservation awareness and action.

To further encourage this ripple effect, the project ran a contest among all eighteen CTFs to determine the number of energy-saving measures practiced or invested in by residents. Using the homes of families chosen from the CTFs to project real-life situations, it produced a TV show on conservation that featured walk-through home energy audits. Fifty calls regarding additional information were received after the show was aired. A shopping mall show, consisting of 23 exhibits from local businesses, government and service organizations, was also organized.

In addition, the project established an active clearinghouse service that was mainly to distribute citizen energy kits and other conservation materials to interested citizens and other groups. Publications considered most useful were "Tips for Energy Savers" and In the Bank...Or Up the Chimney.

Projects

6 Community Task Force meetings

2 Conservation Workshops for Organizational Leaders

Meeting with Garden Clubs in Durham, N.C. and with Wake County Con. Officer

"Living Lightly" Contest for CTFs

Mall Show

TV Show

Radio Show

Conservation Slide Show

Sun Day Activities

Clearinghouse Service

Outreach Statistics And Conservation Actions

The following list gives the number and kinds of people reached directly through the project's activities and the potential outreach from those participants.

ACTIVITY	NUMBER OF PEOPLE ATTENDING	KIND	POTENTIAL OUTREACH
Five points CTF meeting	15	cross-section agewise homeowners	Information re meeting sent by neighborhood to over 200 people
North Central CTF meeting	45	few renters, mostly homeowners cross-section age	Newsleter mailed or delivered to 500 people write up of meeting included
Southeast CTF meeting	20	young adults homeowners	Vice Chair kept publication packets (50) to distribute at later meetings
East Raleigh CTF meeting	25	middle age homeowners	Newsletter re meeting distributed to 500 homes

ACTIVITY	NUMBER OF PEOPLE ATTENDING	KIND	POTENTIAL OUTREACH
Central CTF meeting	15	young and elderly, some renters-low to mod. income, some homeowners.	50 energy packets passed out to be distributed and contest checklists.
South Central CTF meeting	14	middle age & elderly homeowners	100 energy packets passed out and contest checklist.
Garden Club (Durham, N.C.)	15	young homeowners	
"Living Lightly" Contest		all 18 CTFs	2000 contest checklists distributed
Mall Show		cross-section of community-some people from region	5000
TV Show		Audience-Raleigh & Wake Co.; Durham; Chapel Hill; Willow Springs; Goldsboro; Dunn; Fayetteville; Carthage; Clayton; Youngsville.	50 follow-up phone calls for specific information
Workshops	N.C. Energy Div.; Dept. of Commerce FHA; Rep. from Garden Club; Ag. Ext. NCSU; Community Task Forces; church classes; Gov. Office Citizen Affairs; Wake Co. Oppor. Inc. (CAP).		
Radio Show	Afternoon Music Program; Talked between records 1 hour.		WPTF (oldest and largest listening audience in area)
Co-op w/ Wake Forest Cons. Officer	2 Town Meetings; talk w/ students		200 information packets
Co-op with Ag. Ext.	Synergy Workshop		All 100 counties in N.C. represented at workshop
Co-op with N.C. Historical Soc.	State meeting		150 participants 150 information packets
Clearinghouse Phone	Calls for materials and information		100 calls 4500 packets disseminated

ACTIVITY	NUMBER OF PEOPLE ATTENDING	KIND	POTENTIAL OUTREACH
SUN DAY		Programs-6 elem. schools Slide-Tape use at secondary schools Booth on mall	600
State Council LWV	18 Leagues		75

The "Living Lightly" contest checklist, distributed to about 2000 homes, illustrates energy-saving measures undertaken by Raleigh residents:

INSULATION:	attic	204	
	exterior walls	130	
	floors	87	
DRAFT-PROOF:	storm windows	161	
	storm doors	175	
	plastic on windows and doors	60	
	caulking	145	
	weatherstripping	162	
HEATING:	close off unoccupied rooms	193	
	keep fireplace damper closed	167	(unless fire is going)
	electric heat pump system	31	
	heat with wood	47	
	clock thermostat	75	
	lowered thermostat setting	207	(65° day; 55° night)
	furnace serviced (once a year)	178	
	clean and replace filters	200	
COOLING:	ducts properly insulated	120	
	whole house ventilating fan	74	
	set thermostat 78°	115	(whole house air-conditioned)
	open windows on cooler days	210	
HOT WATER:	repair leaky faucets	230	
	insulate hot water storage tanks	92	
	insulate hot water pipes	74	
	lower temperature on water heater	163	(to 110° -120°)
	flush sediment from bottom of tank	45	(per month-several buckets)
KITCHEN:	use cold water to operate food disposal	91	
	install aerator at kitchen sink	49	
	use pressure cooker or slow cooker	103	
	microwave ovens	17	
	small ovens for small jobs	136	

	use dishwasher only when full	136	
	let dishes air dry	129	
	schedule energy-intensive appliance use only during off-peak periods	91	(dishwasher, dryer, clothes washer, oven)
	refrigerator temperature (38°-40°)	159	
	freezer temperature (5°)	111	
	defrost manually	98	
	refrigerator door seals are air-tight	232	
	cook whole meals in oven	135	
LAUNDRY:	wash clothes in warm or cold water	244	
	separate drying loads into heavy and light items	210	
	use clothes line	148	
BATHROOM:	take showers rather than baths	174	
	install flow restrictor at pipe in showerhead	31	
LIGHTING:	light-zone your house or apartment	283	(Task lighting-reading, sewing, etc.)
	reduce overall lighting (remove one bulb out of three in fixture)	116	
	install solid state dimmers		
	use fluorescent lighting	87	
	use outdoor lights only when needed	196	
APPLIANCE USE HABITS:	turn off appliances when not in use	266	
	keep in good working order	214	
	use appliances that take least amount of energy	137	
	don't use instant on features of TV set	111	
TRANSPORTATION:	use public transportation	63	
	motorcycle	6	
	moped	1	
	bicycle	16	
	walk	97	
	share your ride	80	(carpool or van)
	go shopping w/ neighbor	57	(occasionally)
	eliminate unecessary trips	192	

Public Attitudes and Motivation Incentives

A brief "Energy Attitude Survey" was distributed to all participants at the meeting. The results: 836 participants believe an energy

problem exists; 865 believe conservation is necessary. The project reported that people expressed an overall concern that government and business "have failed to be honest with the general public regarding oil, coal and emission controls on autos which cut down on mpg of gasoline". Moreover, most people are concerned that when the public is asked to conserve energy, it should be able to see the benefit from financial savings as well as from conservation of national natural resources.

Many of the business exhibitors participating in the Mall Show were very enthusiastic and encouraged by the number and types of questions asked by the viewers. They felt that most viewers displayed a fair knowledge of the subject and of products exhibited: the project felt that two years of "hard" winters have caused people in the area, and the South in general, to become more aware of energy problems.

Reasons for attending the meetings were as follows:

366 - general interest in energy conservation.

366 - concern about higher heating/cooling costs.

281 - need for specific information on what can be done to save energy and money.

198 - learn methods for installing energy-saving materials.

Obstacles

Consideri t or community conservation education had been conducted

and that the project's activities were widely publicized, turnout at the CTF meetings and workshops appeared quite low. Perhaps the attitudes expressed in the surveys about the need to conserve were directed toward the "other guy". Perhaps, also, people didn't want to make the effort to attend "another" meeting. The "sharing of information" workshops generated few requests for project materials for other group meetings. However, word of the project circulated well throughout, as well as outside of, the Raleigh area; the project supplied over 500 information packets to meetings held in Durham, Wake Forest, Asheville and Wilmington. This might be attributed to the TV show which received prime time coverage, good publicity and newspaper coverage, and the project's diligent efforts at coordinating with state and local government agencies and civic organizations.

PART TWO

ASSESSMENT OF LWVEF GRANT MANAGEMENT

LWVEF PROGRAM MANAGEMENT,

The LWVEF was responsible for selecting the pilot League projects and providing them with technical and administrative assistance throughout the program.

Nineteen Leagues, already involved in citizen education activities on energy conservation, were invited to submit grant proposals. A copy of the contract narrative, which included criteria for choosing the pilot projects, was sent to all applicants to assist them in developing their proposals. Selection of only four Leagues out of many capable applicants was difficult. A screening committee composed of members from the LWV National Energy Committee (representative of different national regions) and the LWVEF staff, with input from the DOE project manager, was formed to evaluate the incoming proposals. This review mechanism, together with prior formulation of the criteria, greatly facilitated the selection decision and ensured fair treatment of all applicants.

The contract specified that the LWVEF would provide the pilot projects with publications and other materials on energy conservation. The LWVEF elected not to publish any new materials since an extensive search revealed an abundance of existing literature and audio-visuals in the subject area. A bibliography was compiled of resources most appropriate for public dissemination (Appendix I). With the exception

of the "how to" category, supplies of all materials were ordered by LWVEF and sent to each project in installment shipments from the national office. Since materials for the citizen energy kits numbered ter to twenty thousand copies, this method of supply/distribution proved both inefficient and expensive.

The projects themselves voiced a preference for choosing their own materials that could address local energy issues and problems and, thus, could be more relevant to their audiences. In fact, the projects drew on state resources and develped their own materials to fit specific activities. The bibliography and reference materials provided by LWVEF were considered very useful by the projects, however. These materials, it appears, alone would have been sufficient for the projects' resource needs.

The LWVEF program manager visited all four projects: West Hartford, October 13-14; Northfield, December 6-7; Wake County, January 19-20; and Tucson, Febuary 13-14. Site visits were extremely useful because they provided the local project manager, other League members and the LWVEF program manager with an opportunity to talk about their successes, problems and future plans. These conversations helped establish a close working relationship between the national and local components of the program. Suggestions on how the national office could improve the support it was providing to local project activities were also solicited.

In retrospect, it would have been more helpful to visit all project sites earlier in their programs, as in the case of West Hartford. The program manager would have then been better able to provide guidance on and suggest ideas for project activities and programs before they were actually underway. Early site visits would have also improved management oversight, allowing the program manager to clear up any questions on grant instructions and to see that project start-ups proceeded smoothly and expeditiously.

The program manager served as a liaison among the local projects, facilitating the sharing of experiences through correspondence, reports and conversations. Copies of the four original proposals, the mid-term report, and samples of activities undertaken by each project were exchanged among the Leagues via the national office. Each project was thus able to gain ideas from the other League's activities and adapt them for their own community. The program manager feels that more attention could have been given to this function. A more formalized exchange process, such as a "swap shop" bulletin, recapitulating the projects' activities to date, could have been developed to keep the projects better informed and up-to-date on each other's progress and experiences.

PART THREE

FINDINGS AND RECOMMENDATIONS

FINDINGS AND RECOMMENDATIONS

Outreach and Program Assessment

The Summaries of the activities and community outreach of the four pilot projects in PART ONE indicate that these projects were highly successful in developing and increasing citizen awareness of the importance of home energy conservation. *Direct* community participation in project activities is listed below.

LWV Project	Total Persons Reached
Tucson	3,000
West Hartford	5,790
Northfield	1,397
Wake County	7,864
Total	18,051

Moreover, as the project statistics show, a significant number of participants surveyed from all projects indicated that they had adopted energy-saving practices and/or had invested in energy efficient home improvements in direct response to the pilot project programs.

Why were the projects, on the whole, successful in educating and motivating community residents in energy conservation? And, in particular, which activities seemed more effective than others in

generating community interest and involvement, and why? There seem to be three major factors pointing to the success of the LWVFF Energy Conservation Technology Education Pilot Program.

One, the pilot projects were carried out by *local volunteer citizen groups* already well established in the communities. These LWV groups have a long track record in citizen education activities and enjoy a reputation in their communities for being impartial and well informed. These groups, composed of volunteer members, with no vested interest in the information they disseminate, possess a higher credibility with the public. For this reason, the information they dispense is received more readily than that which is generated by the government, particularly at the federal level, and by business.

In addition, the LWVs know their communities in terms of government structure, political organization, community orientation and attitudes and local resources. The pilot projects were thus in a position to utilize this knowledge and devise resources and techniques particularly appropriate to local needs and situations. For instance, the Tucson small-group presentations proved extremely useful in reaching a large and widely distributed metropolitan audience.

Furthermore, the local LWVs are adept at bringing together diverse groups and agencies within communities to discuss current topics and issues and to work on community projects and special events. The pilot projects were ideally equipped then, to convince various local groups to

join them in organizing and sponsoring energy conservation programs, etc. They were also experienced in coordinating with and incorporating energy conservation programs, already underway into their project activities. The Sun Day activities, in which they motivated a wide variety of groups and agencies to participate, are an outstanding illustration of this ability.

A second factor contributing to their succuss is that the projects were organized and led by citizens who did not present themselves as energy *experts*. Rather, they emphasized the sharing of objective information or information learned through personal experience. As the Tucson pilot project manager put it: "The project demonstrators did not pose as experts, but rather, emphasized that they were homeowners who had tried various ways to save energy themselves and were sharing what they had learned through experience and research".

This low-key approach seemed to alleviate or dispel citizen's distrust of "expert" or "official" information. (See discussion on public attitudes). Further, the "open dialogue" formats employed in their various meetings and programs, encouraged exchanges of information and ideas among participants and demonstrators/discussion leaders. These techniques seemed to result in a more receptive attitude on the part of participants to learn and then take action on those energy-saving measures they considered affordable and best suited to their individual situations.

The third major factor related to the dissemination of simple, practical information. The projects focused on basic energy-saving measures which people could undertake themselves. The Tucson demonstration models, the Wake County slide show and TV program, the West Hartford "junior energy saver" booklet and insulation workshops, and the Northfield "walk-through" energy audits were highly useful tools for illustrating "how to" conservation techniques. The projects found that most people are confused about what steps to take to conserve energy and have heard conflicting advice from energy experts and officials and that there is a need, therefore, for basic, practical information. This need applied to all projects regardless of the differing climates and energy supply situations represented by the four pilot projects--factors which supposedly affect public awareness. The majority of participants seemed eager to learn about the "easy-to-do" energy savers, but showed little interest in measures which required large financial investments.

While these basic success ingredients were common to all pilot programs, certain techniques and activities were apparently more effective than others in stimulating community interest and involvement. The mobile and informal presentations developed by the Tucson project resulted in a great deal of direct participant involvement and interaction. Keys to its success: it met other organized citizen groups on their own territory (e.g. at the groups' own meeting place and time),

its portable presentation fit well into other program formats, and the open exchange among demonstrators and participants served to reinforce initial group interest. Not spending time and effort on setting up its own meetings allowed the project to concentrate on the content and thrust of its presentations.

Similar in theory to the Tucson technique were the neighborhood energy meetings conducted by the Northfield project. These were also mobile presentations that relied on "on-the-spot" demonstrations via home energy audits and utilized volunteer citizens as discussion leaders. However, the Northfield neighborhood meetings did not have the built-in benefit of an already organized group meeting guaranteeing attendance as did Tucson. Slightly over one third of those invited to any neighborhood meeting actually attended. Nevertheless, citizen education and involvement on such a personal and localized level are rarely attempted, and efforts for doing so should continue. The fact remains that the techniques used by both projects proved to be highly successful for demonstrating home energy conservation.

To illustrate further that the transfer of successful techniques does not always meet with similar results elsewhere, the Wake County project shared its expertise developed through the CTF test programs with leaders of other organizations. The project received few requests for its program materials, indicating that very few follow-up programs were conducted by these leaders. The fact that these people were not actually

part of a volunteer corps trained specifically to carry out project activities made a difference in their commitment to conservation education in the community.

Programs which addressed local or regional interests and concerns also proved to be very effective. Offering a variety of activities, the West Hartford project's wood-burning stove program evoked the most favorable community response undoubtedly because wood is an abundant resource in New England as well as a viable means for heating homes. Sun Day events were well attended in all four projects areas, indicative of the high level of public interest in solar energy.

At the other end of the spectrum from small-group gatherings were the large scale events that generated substantial community interest. The Wake County Mall Show, the Northfield Energy Fair and Energy-Efficient Home Tour attracted large crowds which also displayed a high level of interest in energy conservation. These events captured the public's attention with a variety of exhibits, speakers and activities. They also provided a medium for community social interaction.

The clearinghouse service encountered mixed community response. Of the four projects, West Hartford and Wake County services were the most utilized. Tucson did not even find it necessary to set up an energy information telephone line. And, while Northfield promoted such

a service throughout its project, it received only 7 calls. Overall, the clearinghouse service was not worth the money and effort invested in it. Therefore, it should not be a requirement of future community education programs, but rather an optional communication channel for projects to utilize if they so choose.

Northfield, Wake County, and West Hartford projects ran highly successful publicity campaigns. They captured the attention of the local press both on their projects and on energy conservation issues by supplying it with well-presented, timely news items and general information. Consequently, numerous articles were printed which focused on energy conservation that were quite independent of project activities. Because Tucson received such an overwhelming response from its initial mailing to local organizations announcing its presentation service, the project manager decided that no further promotion was needed. It still was able, however, to generate spin-off articles in the local press.

Use of the other media was also valuable in gaining public interest. A prime-time TV airing of the home energy audit program prepared by the Wake County project drew responses from a 100-mile radius. Through its radio talk shows, Northfield was able to attract a larger audience to its day-long Energy Fair. Moreover, the projects' use of public announcement spots on radio and TV helped promote attendance at their programs and meetings.

Public Attitudinal Assessment

Based on personal contact and interaction with community residents and participant surveys which were conducted by each project, the following generalizations can be made about public attitudes concerning energy conservation. Despite the regional differences, participants' attitudes were, for the most part, similar.

1. A majority of participants felt that an energy shortage exists in this country.
2. Most people were convinced there is a need for energy conservation. While the reasons for this viewpoint varied, those most often cited were dwindling natural resources, high energy prices, and dependence on foreign imports.
3. An overwhelming number of people felt that they, as individuals, could make an impact on reducing energy consumption. This response, however, seems to conflict with the level of willingness to adopt and undertake meaningful conservation practices and investments. Participants' strong interest in learning ways to save energy extended only to "easy-to-do" measures that involved minimal effort and money but that produced visible savings. Nonetheless, their willingness to make even some simple and easy investments indicates

progress in the citizen education process--a step beyond the initial stage of general recognition of the existance of an energy problem.

Other attitudes commonly held by participants that surfaced in discussions and the surveys pertain to government and energy-related businesses.

4. Skepticism and cynicism continue to pervade citizen reaction to government. Distrust of politicians and government in general and of utilities and energy companies continues to increase. Credibility is a serious and critical factor in trying to reach equitable solutions to energy problems.

5. Coupled with public skepticism toward government and business is the ripoff syndrome. Many people feel they are victimized by high utility bills, insulation companies, etc. While it is often very difficult to determine whether this is true, the point is that many people <u>believe</u> they are being ripped off, and that is the problem that needs to be dealt with.

6. Similarly, many participants expressed feelings of frustration and helplessness in the face of conflicting advice from experts. A common reaction was "What's the point of conserving? My bill will go up anyway!" The technical jargon that often accompanies energy issues only adds to this confusion and clouds citizen judgement about solutions.

7. The public tends to look for a villain who can be blamed for the energy problem, such as the oil companies during the Arab oil embargo--a view that remains. Utilities are a current target due to skyrocketing water, gas and electricity bills. Yet the real villain has been the voracious energy appetite of the American lifestyle. The positive results from this pilot program indicate, though, that a growing number of people are becoming more cognizant of wasteful energy habits, but this education process is both slow and long-term.

Recommendations

1. Participation of citizen groups in developing and operating public energy conservation education programs should be increased. Furthermore, all levels of government should significantly contribute to the financial support and endorsement of citizen group efforts in such public education programs. The pilot program verifies the high degree of effectiveness of citizen groups to educate their fellow community members. Barriers that exist between the public and government institutions are minimized and, in most cases, eliminated. Full attention can be directed toward the true purpose of education and lead to more positive and prolific accomplishments.

2. Public energy conservation education programs should emphasize and promote local or community level interest. Attitudes and behavior regarding energy use are extremely personal and subjective; change

must occur in *individual* perception and habits. These can be influenced, to a certain extent, by group actions if the size of the group remains small. Local or community-level education efforts can scale down to the group level without sacrificing outreach effectiveness. Since home energy conservation begins with the consumer/homeowner/renter, it makes since to use the level that is most efficient in reaching the target.

Locally-oriented programs help decentralize the education process. They also encourage the utilization of local resources (including people) that are often most appropriate and best equipped to meet local needs. Moreover, local programs can take advantage of existing community education programs and promote coordination among a wide variety of local and state agencies and citizen groups working on conservation awareness. The state energy extension services should particularly utilize effective local groups and promote local level involvement.

3. Emphasis should be placed on public energy conservation information that is simple, practical and "easy-to-do". The projects reported that individual citizens feel that they can reduce energy comsumption. They are willing to take actions that are easy and practical but are confused by conflicting advice offered by experts. The two most popular publications of the program--Tips for Energy Savers and In the Bank...Up the Chimney are straightforward and packed with practical advice and instructions. More often than not, energy

publications are replete with technical language and jargon that make them inappropriate for the average citizen.

4. Greater attention should be paid to the particular conservation problems associated with rental properties. There is a dearth of existing energy conservation materials addressed to renters and rental property owners. Furthermore, current citizen education programs are not reaching these groups. Information specifically designed to address the unique problems and needs (including incentives to conserve) of both renters and landlords should receive high priority.

Concluding Remarks

An undertaking such of the scope and brief duration as this pilot program does not really end when the contract period terminates. Educational activities initiated by the local projects will, most likely, be continued in some fashion by the local League, other community groups, the local government, interested citizens and/or some combination of the above. Community residents who have educated themselves about home energy conservation will be repeatedly called upon for presentations and interviews by interested groups and the media. Three of the project managers have already been selected to serve on local and state advisory committees--two on municipal energy committees and one on a state advisory committee on citizen affairs. In addition, energy conservation publications and films that were donated by all four projects to their public libraries will become part

of permanent collections and displays and will be circulated throughout the library systems.

The information included in this report on the number of persons involved, the extent of media coverage, the number of inquiries for information, etc., is but one indicator of how effective the pilot projects were. Citizen awareness and participation cannot always be precisely linked to specific events or numbers. There is no precise way to measure the projects' true impact on community residents vis-a-vis energy conservation, but one can assume that these people are much more aware of energy problems and solutions as a result of this pilot program.

Citizen education in subject areas that require changes in personal attitudes and lifestyle patterns is a *gradual process*, involving long-term effort and commitment. This *process* does not provide immediate or visible results that can be easily quantified or that fit into a precise format or schedule. Rather, it first plants a seed or a new idea and fertilizes that seed with continued and well-balanced information, until the roots take hold and the idea matures into more responsive and responsible public attitudes and lifestyles.

Bibliography for

ERDA ENERGY CONSERVATION TECHNOLOGY EDUCATION PROGRAM

I. Reference Materials for Pilot Leagues and Local Libraries

Publications:

Energy Options, LWVEF Pub. #628, 55 pp., Single copies $1.00, discounts for larger orders.

Energy Dilemmas, LWVEF Pub. #688, 39 pp., Single copies $1.00, discounts for larger orders.

Energy Briefs, set of 22, LWVEF Pub. #522, Single copies $1.00, discounts for larger orders.

Energy:The Case for Conservation, Worldwatch Paper 4, Denis Hayes, January 1976, 77 pp., Worldwatch Institute, 1776 Massachusetts Ave., N.W., Washington, D.C. 20036, $2.00, discounts for larger orders.

Energy:The Solar Prospect, Worldwatch Paper 11, Denis Hayes, March 1977, 77 pp., Worldwatch Institute, 1776 Massachusetts Ave., N.W., Washington, D.C. 20036, $2.00, discounts for larger orders.

In the Bank... Or Up the Chimney?-A Dollars and Cents Guide to Energy-Saving Home Improvements, HUD, April 1975, 69 pp., #023-000-00297-3, $1.70.

Tips for Energy Savers, FEA, 73 pp., Office of Energy Conservation and Environment, Washington, D.C. 20406;.FEA/D-76/513, (Order #0-566-806)FREE

Family Energy Watch Calendar, 1976 and 1977, State of Oregon, Department of Energy, Salem, Oregon 97310, $1.50. (Funding not yet secured to publish 1978 calendar)

Buying Solar, FEA and Office of Consumer Affairs, March 1977, 71 pp., #041-018-00120-4, $1.85

House Mortgage Lending & Solar Energy, HUD & ERDA, Feburary 1977, 31 pp., #023-000-00387-2, $1.40.

Films/Slide Shows:

Up the Power Curve: shows the practicality of energy conservation and the important role it plays in helping solve some of America's energy problems. The film covers a wide range of energy-saving ideas and the dollar savings to be achieved if practiced. FEA, Order from National Audiovisual Center, GSA, Order Section, Washington, D.C. 20409, Catalog No. 008920, $45.50.

Solar Energy: Ready When You Are: a 35mm color slide show with sound track that takes an up-to-date look at the potential of solar energy in contemporary residential and commercial buildings. FEA, Order from National Audiovisual Center, GSA, Order Section, Washington, D.C. 20409. Catalog No. 008901, $280.00

II. Clearinghouse Materials

NSTA Factsheet #7: Solar Heating and Cooling, John M. Fowler, Order from ERDA Technical Information Center, P.O. Box 62, Oak Ridge, TN 37830. FREE

NSTA Factsheet #9: Energy Conservation-Homes and Buildings, John M. Fowler, Order from ERDA Technical Information Center, P.O. Box 62, Oak Ridge, TN 37830, FREE.

ERDA Factsheet: Insulation, 8 pp., Order from ERDA Technical Information Center, P.O. Box 62, Oak Ridge, TN 37830, FREE.

ERDA Factsheet: Heat Pumps, 6 pp., Order from ERDA Technical Information Center, P.O. Box 62, Oak Ridge, TN 37830, FREE.

Understanding Your Utility Bill, FEA, 11 pp., Washington, D.C. 20461, FEA/A-75-422 (currently being revised)

Home Energy Savers' Quiz, FEA, Office of Conservation and Environment, Washington, D.C. 20461, FEA/D-76/422, FREE.

New Energy Saving Light Bulb, ERDA, Office of Conservation, Order from ERDA Technical Information Center, P.O. Box 62, Oak Ridge, TN 37830, FREE.

Gas Heat Pumps: More Heat from Natural Gas, ERDA, Office of Conservation, Order from ERDA Technical Information Center, P.O. Box 62, Oak Ridge, TN 37830. FREE.

Insulate Your Water Heater and Save Fuel, ERDA Office of Conservation, Order from ERDA Technical Information Center, P.O. Box 62, Oak Ridge, TN 37830

Energy Savings Through Automatic Thermostat Controls, ERDA Office of Conservation, Order from ERDA Technical Information Center, P.O. Box 62, Oak Ridge, TN 37830, FREE.

Family Tips for Saving Energy (chart), Boy Scouts of America, National Office, North Brunswick, N.J. 08902

Solar Energy and Your Home, HUD, April 1977, 20 pp., Order from National Solar Heating and Cooling Information Center, P.O. Box 1607, Rockville, MD 20850.

III. Citizen Energy Kits

"The Politics of Energy", the national VOTER, League of Women Voters of the United States, Vol. XXVII No. 2 Summer 1977, Pub. No. 350 ISSN #0028-0372

Home Energy Savers' Quiz, see above reference.

Family Tips for Saving Energy (chart), see above reference

Tips for Energy Savers, see above reference.

Solar Energy and Your Home, HUD, April 1977, 20 pp., Order from National Solar Heating and Cooling Information Center, P.O. Box 1607, Rockville, MD 20850.

Understanding Your Utility Bill, see above reference.

NSTA Factsheet #7: Solar Heating and Cooling, see above reference.

NSTA Factsheet #9: Energy Conservation-Homes and Buildings, see above reference

ERDA Factsheet #7: Solar Heating and Cooling, see above reference.

ERDA Factsheet: Heat Pumps, see above reference.

IV. Possible Selections for "How To Clinics"

Workbooks:

* Home Energy Savers' Workbook, FEA, Easy-to read workbook that outlines steps to reduce home energy costs and provides guidance for the homeowner in evaluating home energy consumption efficiency. #041-018-00116-8, 50¢. Also available from FEA regional offices and state energy offices.

In the Bank..or Up the Chimney, see above reference.

* Project Retrotech Kit on Home Weatherization, FEA Conservation Paper #28, A through D FEA/D-75-456-457-458-459-R, GPO #1976-0-207-917.

Slides/Films:

The Energy Game (FEA): How-to-retrofit film (16min.) designed for homeowners. Visual supplement to the FEA Home Energy Savers' Workbook. Available from FEA Regional office
available for purchase from Eagle Film Labs, 4971 N. Elston St., Chicago, ILL 60630 Price $50.00.

The Insulation Story (National Mineral Wool Insulation Association): presents practical information and advice on insulation, storm windows and doors, weatherstripping and caulking. Approx. 24 min., 80 color slides with script. $25.00 prepaid with 20% discount to educational institutions. Available from: National Mineral Wool Insulation Association, 382 Springfield Ave., Summit, NJ 07901.

The Home Energy Check (Owens-Corning Fiberglass Corp): Slide presentation outlining steps to cut energy waste in the home. Contact local Owens-Corning Fiberglass Corp. representative or Peter G. Mathon, Energy Communications, Owens-Corning Fiberglass Corp., Fiberglass Tower, Toledo, Ohio 43659 for more information.

* Order from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402

Additional Resource Materials

Conservation Guide 1: Home Energy Audit, Minnesota Energy Agency, 720 American Center Building, 160 East Kellog Blvd., St. Paul, MN., 55101, 15 pp.

Conservation Guide 2: Ceiling Reinsulation, Minnesota Energy Agency, 11 pp.

Conservation Guide 4: Windows and Doors, Minnesota Energy Agency, 15 pp.

Conservation Guide 5: Weatherstripping and Caulking, Minnesota Energy Agency, 12 pp.

Solar Energy in Connecticut, Connecticut Energy Office.

West Hartford Recycling Guide, LWV of West Hartford, Ct., Box 191, West Hartford, Connecticut 06107, 2 pp.

Junior Energy Saver, LWV of West Hartford, Ct., 4 pp.

Home Energy Savers Workbook, Federal Energy Administration, U.S. Government Printing Office, Washington, D.C. 20422, 1976, 29 pp.

ENERGY SURVEY RESULTS TABULATED

ENERGY SURVEY

Appendix III

1. Please check each of the energy conservation measures you have either done or plan to do:

	have done	plan to do
A. Install shower flow restrictor	48	39
B. Install toilet water saver	58	36
C. Turn down hot water heater	87	19
D. Drain hot water heater	49	32
E. Insulate hot water heater	17	23
F. Adjust gas flames or pilot lights	61	13
G. Change heater or cooler temp. setting	92	7
H. Clean refrigerator condensor	76	30
I. Change some cooking habits	100	6
J. Make or buy solar cooker	7	23
K. Make or buy other solar device	4	19
L. Shield windows	67	25
M. Paint roof white or reflective	51	14
O. Caulk windows or cracks	50	24
P. Adapt fireplace	14	5
Q. Change to low-water landscaping	66	11
R. Other (Please list)	18	
	919	397

2. Please check the statements that most nearly agree with your opinions:
   - 35 A. I don't know what to think about energy - I have little confidence in what the leaders say.
   - 189 B. I consider energy conservation worthwhile, because our resources are dwindling.
   - 11 C. I don't think there is an energy shortage, either now or in the foreseeable future.
   - 150 D. Energy conservation is important because we import too much foreign oil.
   - 15 E. We don't need to conserve energy if we concentrate on finding new supplies of fossil fuels or develop new technologies.
   - 52 F. Energy conservation is worthwhile because my bill is too high.
   - 14 G. I want to save energy but need more information.
   - 28 H. I want to save energy but need financial or technical help.
   - 5 I. I wanted to try one of your ideas, but couldn't buy what I needed. (Please tell what you tried to get.)
   - 57 J. Energy conservation won't lower my bill - they'll just raise the rates anyhow.
   - 1 K. I not interested in energy.
   - 3 L. Other (Please write out on other side or elsewhere.)

3. Please tell us your reaction to the talk we gave your group.
   It was: 167 helpful, 158 interesting, 2 dull, 8 nothing new,
   4 too short 2 too long, 1 couldn't understand,
   134 inspired me to try at least one conservation idea,
   2 can't remember. 2 couldn't hear

4. Please tell us a little about yourself:
   - A. 52 Male 173 Female
   - B. Age: 8 under 21, 43 21-35, 96 36-65, 73 over 65
   - C. How many people are in your home? 15 1 81 2, 73 3, 24 4-5, 3 6, 0 over 6.
   - D. Income level: 67 under $10,000 a year, 76 $10,000-$20,000 a year, 63 $20,000-$50,000 a year, 3 over $50,000.
   - E. Type of group where you heard our talk:
     47 homemaker 40 senior citizen club 22 school 16 church
     23 professional 21 service club 5 can't remember 44 other

ENERGY SURVEY

As a participant in the "Energy Town Meeting", your views are an essential part of the League of Woman Voters Energy Conservation Education Pilot Project. Please complete this survey before leaving tonight. Your answers will be held in strict confidence and used only for this project.

1. Do you believe there is an energy shortage? _yes _no _don't know
2. Do you feel technology will "bail us out" of the energy shortage? _yes _no _don't know
3. Do you believe you as an individual can make an impact on energy consumption? _yes _no _don't know
4. Do you believe most Americans are energy "wasters"? _yes _no _don't know
5. Do you believe it is the responsibility of every U.S. citizen to conserve energy voluntarily? _yes _no _don't know
6. Do you believe Americans will conserve energy only when government controls are imposed? _yes _no _don't know
7. Would you conserve energy to save money? _yes _no _don't know
8. Are you a homeowner? _yes _no
   If yes, single-family? _, two-family? _, three-family? _
9. Are you a renter? _yes _no. If yes, single-family? _, other _____
   Do you pay heat? _yes _no. Hot water? _yes _no. Electricity? _yes _no
10. Do you practice energy conservation in your home? _yes _no
    If yes, check the following measures you follow
    __ turn down thermostat to 68° or less during the day, 60° or less at night
    __ pulling shades and/or closing drapes at night in the winter
    __ adjusting water heater to 140° or less
    __ opening dishwasher to let dishes air dry
11. Do you have adequate insulation? _yes _no. Storm windows? _yes _no.
    Air conditioning? _yes _no
12. How did you learn about the "Energy Town Meeting? Newspaper _, Newsletter _, radio _, flyer _, poster _, school _, other (explain) _____
13. Why did you attend?

14. Did the speakers provide useful information? _yes _no
    Comments:

15. Were the exhibits interesting and helpful? _yes _no
    Comments:

16. Overall was the meeting worthwhile? _yes _no
    Comments:
17. Do you plan to attend one of the Home Insulation Workshops? _yes _no
18. Do you represent a local organization? _yes _no _____organization

Name_____
Address_____
Phone_____

THANK YOU

ENERGY TOWN MEETING

Questionnaire

(131 Responses)

	Yes	No	Don't Know	Yes-Cheap Energy
1.	119	4	5	3
				No Answer
2.	50	44	34	3
3.	107	13	10	1
4.	124	4	2	1
5.	128	2	1	
6.	75	37	17	2
7.	122	3	3	3
8.	111	18		2 (students)
	3 (2-family houses)			
9.	18 (5 single family houses)			
	7 yes all 3			
	1 no-heat	yes, water and electricity		
	8 none			
	2 n.a.			
10.	128	3		
	109 68° or less			
	107 drapes			
	52 water heater			
	53 dishwasher			

11.	68 yes	60 no adequate insulation	3 N.A.
	120 yes	8 no storms	3 N.A.
	111 yes	17 no air	3 N.A.

12. 2 radio
1 poster
26 flyers
49 newspaper
18 newsletter
9 school
4 friends
9 school
3 Energy Comm.
4 N.A.

13. Most - to learn
to conserve
50 save $
One student reporter
Several girl scouts working on badges
One - my energy bill is $2,000

Yes	No	No Answer
110	17	4
114	10	7
114	13	4

Comments:

Unfavorable	Favorable
Lousy speakers (but knowledgeable)	Showed what can be done
More specific (more depth)	Overall helpful
Not enough for knowledgeable people	Good literature
Too commercial	Excellent
Too long	Super
Too repetitive	Selection of speakers & topics excellent
	Video - good
	Well run

Telephoner:

Name: _____ Telephone: _____

I. Did the Energy Town Meeting lead you to take any measures to conserve Energy? (e.g. install flow restrictor shower head, insulation, buy pilotless gas appliances, other energy conservation measures)?

Yes_____ No_____ If yes, what did you do? If no, what prevented you from taking such measures?

II. Have you attended any of the League's other Energy programs? (E.G. Home Insulation Workshop or Woodburning Clinic?)

Yes_____ No_____ If yes, which ones?

III. Have you seen the League's energy tips in The Herald?

Yes_____ No_____

IV. Have you any questions concerning energy conservation that were left unanswered?

Yes_____ No_____ What is the question?

(After question, say, "We will try to get back to you with some information on that.")

V. The League is setting up an energy clearinghouse. After February 15th you can call the Energy Info Line at 233-7669 for additional information on energy conservation.

Thank you for your cooperation.

FOLLOW-UP

71 Responses

I. 34 Yes 29 No

Installed:		
	storm doors	2
	water-saving shower head	13
	woodburning stove	2
	pilotless appliances	2
	storm windows	4
	insulation	12
	caulked	10
	weatherstripped	5
	turned down thermostat	13
	turned off appliances not in use	3
	signed up for infrared picture	1

Reasons they didn't:

felt they had done everything suggested	11
couldn't find insulation	3
lack of money but planning in the future	11

II. 12 Yes 59 No

Nuclear Energy Program	2
Home Insulation Workshops	9
Woodburning Clinic	1

III. Yes 19 No 52

IV. Yes 7

Questions: More solar information
Why rates keep going up when people conserve
Why town doesn't recycle metal
Most efficient use of appliances, i.e. toaster oven vs. oven
Name of water-saver shower head
Applied to Community Winterization Project last March and it was never done.

HOME INSULATION WORKSHOP SURVEY

Please take a few minutes to complete this survey before leaving.
Your views are an essential part of the League of Women Voters Energy Conservation Education Pilot Project.

1. How did you learn of the workshop? (Explain briefly) Newspaper __, Newsletter __, Radio __, Flyer __, School __, other _____.

2. Which of the following best describes what you learned about home energy savings:
Nothing new __, A little bit more __, A great deal more __.

3. What part of the workshop was
(a) most worthwhile _____.
(b) least worthwhile _____.

4. If the workshop were to be given again, what aspects would you want expanded or dealt with more fully? (check one or more)
___ the annual savings calculations
___ materials and insulation techniques
___ dealing with a contractor and getting help generally
___ other aspect(s) Explain briefly _____
_____

5. Do you feel the workshop will stimulate you to specific energy conservation measures in your home? yes ___ no ___.

6. Other comments:

THANK YOU!

THE LEAGUE OF WOMEN VOTERS, WEST HARTFORD, CONNECTICUT
BOX 191 - 06107

WORKSHOP 1 SURVEY - OCTOBER 20, 1977

(10 Responses)

1.
- 3 Newspaper
- 2 Newsletter
- 3 Flyer
- 1 School
- 1 Friend
- 2 LMV

Some indicated more than one source

2.
- 4 A little bit more
- 6 A great deal more

3.
- 5 All of it — most worthwhile
- 5 Calculations
- 1 Some technical details on slide — least worthwhile
- 9 No Answer

4.
- 7 Materials
- 4 Dealing with contractors

5. 9 Yes 1 No Answer

6. Excellent
Thank you

WORKSHOP II SURVEY - OCTOBER 26, 1977

(17 responses)

1.
- 7 Newspaper
- 5 Flyer
- 1 School
- 2 Energy Town Meeting
- 3 League
- 1 Newsletter

Some indicated more than one source

2.
- 9 A great deal more
- 8 A little bit more

Most Worthwhile:

3.
- 9 Calculations
- 1 Definitions in Worksheet
- 3 All
- 4 No Answer

Least Worthwhile:
- 2 Film
- 1 Open of Session II
- 14 No Answer

4.
- 4 Annual savings
- 13 Materials
- 5 Dealing with contractor
- 1 Other - use of wood

5. 14 - Yes 2 - No 1 - A little

6. Comments:

Educational
Very well done
Thank you
My house not typical
People - knowledgeable
Excellent

HOME INSULATION WORKSHOP SURVEY

1. How did you learn of the workshop? Newspaper 6 Newsletter 4 Flyer 3 School 1

2. Which of the following best describes what you learned about home energy savings: nothing new 1 a little bit more 2 a great deal more 10

3. What part of this owrkshop was (a) most worthwhile: meeting Cathy Golas, discussion of insulation thickness and use, the computing of heat loss and fuel usage, all parts, fine program, explanations and help from instructor (b) least worthwhile: all the numbers-I wanted practical "how to" information, maybe a few more examples of materials, materials discussion, nothing

4. If the workshop were to be given again, what aspects would you want expanded or dealt with more fully?

4 the annual savings calculations
8 materials and insulation techniques
3 dealing with a contractor and getting help generally
1 other aspect(s) Explain briefly : When do we get it, how do we put it in, how do we pay for it, danger when working with old homes

5. Do you feel the workshop will stimulate you to specific energy conservation measures in your home? yes 12 no 1

6. Other comments: excellent presentation, workshop on heating systems would be appreciated, well worth it, very worthwhile, thank you very much, dull dulll dullll I wonder how all these numbers go over in a town without accountants and engineers

HOME INSULATION WORKSHOPS EVALUATION

(Please make calls by next Board meeting. Return completed forms to Betty Gallo at the meeting or before to 37 Ware Avenue)

Suggested introduction:

"Hello, I am (name). I am calling for the League of Women Voters Energy Project. We are calling all participants at our Home Insulation Workshops. Would you be willing to answer a few follow-up questions?

1. Identify specific energy conservation actions taken this year as a result of your attending insulation workshops:

	Do-It-Yourself	Contractor	$ Spent
____a) weatherstripping	_____	_____	_____
____b) storm windows/doors	_____	_____	_____
____c) insulation walls/attic/basement/ floors (identify by circling)	_____	_____	_____
____d) flow-restrictor shower head	_____	_____	_____
____e) caulking	_____	_____	_____
____f) recycling papers (Town Recycling Program)	_____	_____	_____
____g) general replacement/repairs	_____	_____	_____
____h) other _____	_____	_____	_____

2. If no action, what obstacle prevented you from doing something to conserve energy?

3. Were the materials in your Energy Kit helpful? _____Yes _____No
   Which publication did you find most helpful? _____
   Which publication did you find least helpful? _____

4. Have you any yet unanswered questions concerning energy conservation?

5. Announce Clearinghouse Energy Info Line 233-7669 4pm - 6pm Mon-Fri.

Interviewer _____ Date _____

FOLLOW-UP

Home Insulation Workshop 10/20

13 people attended

8 responses

1. Identify specific energy conservation action taken this year as a direct result of your attending insulation workshops:

		Do It Yourself	Contractor	$ Spent
4	a) weatherstripping	4		
1	b) storm windows/doors		1	$300
3	c) insulation walls/attic/basement	2	1	390
1	d) flow-restrictor shower head	1		
4	e) caulking	4		
3	f) recycling papers (Town Recycling Program)	3		
1	g) general replacement/repairs	1		
3	h) other--insulated drapes	1		
	wrapped hot air runs	1		
	leaking faucet	1		$25

2 None

2. If no action, what obstacle prevented you from doing something to conserve energy?

2 money

1 had already done everything

3. Were the materials in your Energy Kit helpful?

7 yes 0 No 1 No Answer

Which publication did you find most helpful?

3 R-Values 1 Energy Costs 1 Calculation Booklet

4. Have you any yet unanswered questions concerning energy conservation?

More information about thermal camera

Dangers of foam insulation

FOLLOW-UP

Home Insulation Workshop 10/26

26 people attended

20 responses

1. Identify specific energy conservation action taken this year as a direct result of your attending insulation workshops:

		Do It Yourself	Contractor	$ Spent
6	a) weatherstripping	5	1	
5	b) storm windows/doors	4	1	$400-few hundred
5	c) insulation walls/attic/basement/ floors (identify by circling)	5		$150-$200
4	d) flow-restrictor shower head	4		
8	e) caulking	8		
4	f) recycling papers (Town Recycling Program)	4		
	h) Others--insulated siding turned down heat sealed cellar windows		1	$5,000
6	None			

2. If no action, what obstacle prevented you from doing something to conserve energy?

2	money	5	done everything
1	just sold house	1	can't get insulation

3. Were the materials in your Energy Kit helpful?

14	Yes	4	No	2	No Answer

Which publication did you find most helpful?

2	degree days	2	calculations
1	Energy Savers	1	211

4. Have you any yet unanswered questions concerning energy conservation?

What wall insulation is best?

Hard to correlate degree days with savings

Dangers of Foam Insulation

FOLLOW-UP

Home Insulation Workshop 12/8

15 people attended

11 responses

1. Identify specific energy conservation action taken this year as a direct result of your attending insulation workshops:

		Do It Yourself	Contractor	$ Spent
2	a) weatherstripping	2		$10 approx.
4	b) storm windows/doors	3	1	up to $300
3	c) insulation walls/attic/basement/ floors (identify by circling)	3		
2	d) flow-restrictor shower head	2		
3	e) caulking	3		
4	f) recycling papers (Town Recycling Program)	4		
1	g) general replacement/repairs	1		
1	h) other new oil fired boiler		1	$1500
4	None			

2. If no action, what obstacle prevented you from doing something to conserve energy?

2 Already done — 2 Will do

1 Lack of time — 1 Couldn't find insulation

3. Were the materials in your Energy Kit helpful?

8 Yes 1 No 2 No Answer

Which publication did you find most helpful?

R-Values

Estimating Losses

On Foundations

Which publication did you find least helpful? No Answer

4. Have you any yet unanswered questions concerning energy conservation?

Would like workshop on cleaning and adjusting furnaces.

Roof area needed for solar water heater.

WOODBURNING STOVE PROGRAM

1. How did you learn of the program? Newspaper advertisement 17 Newspaper news article 2 Flyer 9 Newsletter 7 Poster 2 Other 12 .

2. Do you own a woodburning stove? 17 yes 29 no

3. If yes, why did you purchase it? Save fuel, heat vacation home, replace oil system, supplement heat, save money, emergency heat, heat an unheated family room, good price.
Do you also burn coal? 0 yes 17 no

4. Do you have access to wood? 33 yes 10 no

5. Have you applied for a state permit to cut on state land? 5 yes 41 no

6. Do you practice energy conservation in your home? 47 yes 0 no

If yes, check the following measures you follow
47 turn down thermostat to 68 or less during the day, 60 or less at night
42 pulling shades and/or closing drapes at night in the winter
25 adjusting water heater to 140 or less
23 opening dishwasher to let dishes air dry
31 participating in the town's paper recycling program

7. Do you have adequate insulation? 25 yes 20 no. Storm windows? 41 yes 4 no

8. Which of the following best describes what you learned tonight about woodburning stoves: nothing new 1 , a little bit more 15 , a great deal more 29.

9. What part of the program was (a) most worthwhile: whole program, questions and answers, creosote problems, safety information, visual presentation, problem-solving, comparisons of different stoves, chimney discussions, slides, information on buying and installation, getting a more realistic view, etc. (b.) least worthwhile: no comments on brand names, some questions redundant, most graphics-inadequate size

10. Other comments: Excellent, very informative, interesting, enjoyable, useful, need specific information on brand names from individuals not associated with the specific products, program is woth tax dollars, more workshops like this one, not as anxious to get wood stove now, advertise these workshops more widely, congratulations to the organizers of LWV

WOODBURNING STOVE PROGRAM -- (Follow-up)

Thank you for agreeing to make calls for the Energy Project. Please make the calls by April 14 and return forms to: Betty Gall, 37 Ware Ave. W. Hartford, CT 06119. If you have any questions please call 233-7955 or 232-0257. A few of these calls may be short long-distance calls. Please submit a bill to the League when you return the forms. Thank you.

Suggested Introduction: Hello. My name is _____. I am calling for the League of Women Voters Energy Project. We are doing a follow-up to the Wooodburning Clinic you attended. Would you mind answering a few questions?

1. Did the Woodburning Stove Program lead you to take any measures to conserve energy (e.g. adding insulation, purchase stove, caulking, and/or weatherstripping)?

   Yes _____ No_____ If yes, what did you do?

   If no, what prevented you from taking measures?

2. Were any of the energy materials given to you at this program especially helpful and did they lead you to take any measures to conserve energy?

   Yes _____ No_____

3. For energy-related information call the Energy Info Line 233-7669 between 4 pm and 6 pm Monday - Friday. Thank you for your cooperation.

FOLLOW-UP

Woodburning Stove Program

(56 attending)

42 responses

1. Did the Woodburning Stove Program lead you to take any measures to conserve energy (e.g. adding insulation, purchase stove, caulking and/or weather-stripping)?

19 Yes

If yes, what did you do?

- 8 bought stove
- 5 weatherstripping
- 8 insulation
- 5 caulking
- 1 storms

23 No

If no, what prevented you from taking measures?

- 5 intend to buy stove
- 6 had stove
- 1 lack of money
- 3 already had done everything
- 4 don't own house
- 1 just bought house
- 1 info wanted for future building
- 4 just wanted information

2. Were any of the energy materials given to you at this program especially helpful and did they lead you to take any measures to conserve energy?

29 Yes 12 No 1 No Answer

RESULTS 44 of a possible 170 responses IV-I

QUESTIONNAIRE: League of Women Voters RE: ENERGY SAVERS

1. Have you distributed the materials ("Junior Energy Savers" booklet, sticker, "Tips for Energy Savers") to the children?

Yes 43 No 1* * Teacher will as a culmination of a conservation unit.

If Yes, which of the following describes your method of distribution:

26% Distributed materials with minimal discussion. * More than one half also checked "Discussed other ..."

67% Distributed materials after thorough discussion.

42% Distributed "Junior Energy Savers" booklet to be completed and returned. Stickers distributed after return of booklet. *Teachers were not instructed to do so.

- *Made "draftometer" with children. * Only one teacher

7%* Did a lesson centering around meter reading. * Three teachers

74% Discussed other aspects of energy and energy conservation.

33% Other: _____

2. Asking for a show of hands, how many children in your class actually checked through their house with a parent?

17% indicated 80-100% of class "checked through .."
_____ Number out of class 19% indicated 50- 80% "
31% indicated 20- 50% "

3. Has this program led you to a greater awareness of energy conservation?

Yes 29 No 14

If Yes, what specifically has this program accomplished. Some of the comments:

"The program helped to develop a greater awareness of the energy problem and the need for conserving energy."
"The youngsters were able to feel they were able to do something positive to save energy."
"Booklet 'Tips for Energy Savers' was excellent."

4. Comments: "Excellent resource and reference. Contributed greatly to awareness through involvement. Youngsters related well to resource materials. Good motivational technique."

"Very helpful, interesting, well organized."

5. Grade Level: _____

Thank you for your cooperation. Return questionnaire to: (Prior to May 30) Your Vertical Science Team Member

Attention: Vertical Science Team Members. Please send to: Art Woznicki, Education Center

LEAGUE'S LATEST

THE LEAGUE OF WOMEN VOTERS • WEST HARTFORD, CONNECTICUT

PRESIDENT: Brita Tate 521-1864 EDITOR: Ki Miller 236-0731
MEMBERSHIP: Mary Meyer 521-1431 April 1978

TO: PARENTS OF ELEMENTARY SCHOOL AGED CHILDREN

FROM: KATHY GOLAS, ENERGY PROJECT MANAGER

Please help us evaluate the "Junior Energy Savers Program" by taking time now to complete the following questions and return to:

Kathy Golas
145 Ballard Drive, 06119

These are needed for our final report to National this month. PLEASE HELP and PLEASE HURRY! Thanks.

(1) Did your child/children bring home
"Junior Energy Savers Booklet" YES 26 NO 2
"Tips for Energy Savers" YES 22 NO 6

(2) Did you (or your spouse) check through your home and answer the questions posed?
YES 22 NO 6

(3) Did these materials lead you to take any measures to conserve energy?
YES 10 NO 18

If YES, what did you do:
27% lower thermostat
12% install shower head
12% recycle paper
[illegible]% recycle glass
15% install caulking and/or weatherstripping
[illegible]% other (please specify) turn out lights, furnace adjustment

(4) Do you think your children have become more aware of energy conservation?
YES 24 NO 4

(5) How would you rate your household concerning energy conservation awareness? Please circle one number.

Energy Savers _____ Energy Wasters

10	9	8	7	6	5	4	3	2	1	0
4	21	2	14	14	1	0	0	0	0	0

(6) Age of child/children:
School:

(7) Comments: "Had already taken measures in question 3."
"My child loved the booklets."

THANK YOU FOR YOUR COOPERATION

174 People Answering Questionnaire at Neighborhood Energy Meetings

EVALUATION SHEET

League of Women Voters Energy Education Grant Program

Name _____ Phone No. _____

Address _____

1. Please check the extent to which you agree with the following statements.

		Agree Strongly	Agree Somewhat	Disagree Somewhat	Disagree Strongly	Don't Know
a.	The public has been given a realistic picture of the energy situation facing the United States.	27	77	41	22	7
b.	There is a definite energy shortage.	93	62	12	3	4
c.	Technology will "bail us out" of the energy shortage.	20	45	63	31	15
d.	Americans will conserve energy only when government controls are imposed.	34	76	46	15	3
e.	As an individual, I can make an impact on energy consumption.	66	85	13	1	1
f.	Anything I have done (or will do) to conserve energy was primarily to save money rather than to save energy.	23	61	56	17	2
g.	The topics of this meeting were those that I expected to be covered.	87	69	2	1	1
h.	I learned a great deal from the information presented at this meeting.	66	87	5	1	1
i.	I considered myself well informed on these topics before the meeting.	19	87	43	9	2

2. Please indicate the areas in which you would like more information.

3. Please list those specific things which you <u>have done</u> to save energy.

4. Please list those specific things which you <u>plan to do</u> to save energy.

5. Other comments about this meeting or the League Energy Program in general. (Please use back of sheet)

15 - 4H Students Ages 9-16

EVALUATION SHEET

League of Women Voters Energy Education Grant Program

Name _____ Phone No. _____

Address _____

1. Please check the extent to which you agree with the following statements.

	Agree Strongly	Agree Somewhat	Disagree Somewhat	Disagree Strongly	Don Kno
a. The public has been given a realistic picture of the energy situation facing the United States.	5	6	3		1
b. There is a definite energy shortage.	12	2		1	
c. Technology will "bail us out" of the energy shortage.		4	7	3	1
d. Americans will conserve energy only when government controls are imposed.		7	4	2	2
e. As an individual, I can make impact on energy consumption.	5	9			1
f. Anything I have done (or will do) to conserve energy was primarily to save money rather than to save energy.	1	5	4	4	2
g. The topics of this meeting were those that I expected to be covered.	2	7	2		1
h. I learned a great deal from the information presented at this meeting.	6	7	2		
i. I considered myself well informed on these topics before the meeting.	2	10	1	2	

2. Pleas. indicate the areas in which you would like more information.

3. Please list those specific things which you have done to save energy.

4. Please list those specific things which you plan to do to save energy.

5. Other comments about this meeting or the League Energy Program in general. (Please use back of sheet)

Appendix VI

LEAGUE OF WOMEN VOTERS
Of Wake County - ENERGY CONSERVATION PROJECT

SUMMARY 3/9/78

ENERGY ATTITUDE SURVEY

Yes 687 1) Do you believe there is an energy problem? No - 30 - Not Sure]
Maybe]

Yes 715 2) Do you believe there is a need to conserve energy? No - 5

___ 3) My greatest energy concern is:
- 298 a) higher heating/cooling costs.
- 218 b) a need for specific information on what can be done to save energy and money.
- 141 c) a need to learn methods for installing energy-saving materials.
- 294 d) a general interest in energy conservation.

Produced by the League of Women Voters of Wake County -
ENERGY PROJECT: financed entirely with federal funds
from the Dept. of Energy under contract EC-77-C-01-2165.

JANUARY - MAR - APR - M[illegible] (M[illegible] & Sun Day)

LEAGUE OF WOMEN VOTERS
Of Wake County - Energy Project

VI-A

3825 Barrett Drive
Raleigh, NC 27609
781-5736

ENERGY ATTITUDE SURVEY (Fall) #_____

149 1. Do you **believe** there is an energy problem?

150 2. Do you **believe** there is a need to conserve energy?

_____ 3. Your **reason** for attending this meeting:

(68) A. Concern about higher heating/cooling costs

(63) B. Need for specific information on what can be done to **save** energy and money

(57) C. To learn methods for installing energy-saving materials

(72) D. General interest in energy conservation.

(8) E. Utilities Commission
- The use of nuclear power to replace dwindling fossil fuels
- more research
- dev. alternative energy savers that are cost competitive

NAME _____ ADDRESS _____

(Over)

- transportation
- home heating and cooling, and water heating
- for information

2 - CAC Mtg.

2 - High School Research

- Encourage use of peak time pricing

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